Rillsoft Project Help

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This new help system explains Rillsoft Project from the perspective of tasks, decisions, and typical work situations.

The structure follows the German reference help with Quick Start, task-oriented help, role-based help, expert knowledge, and a reference system.

CHAPTER

ONE

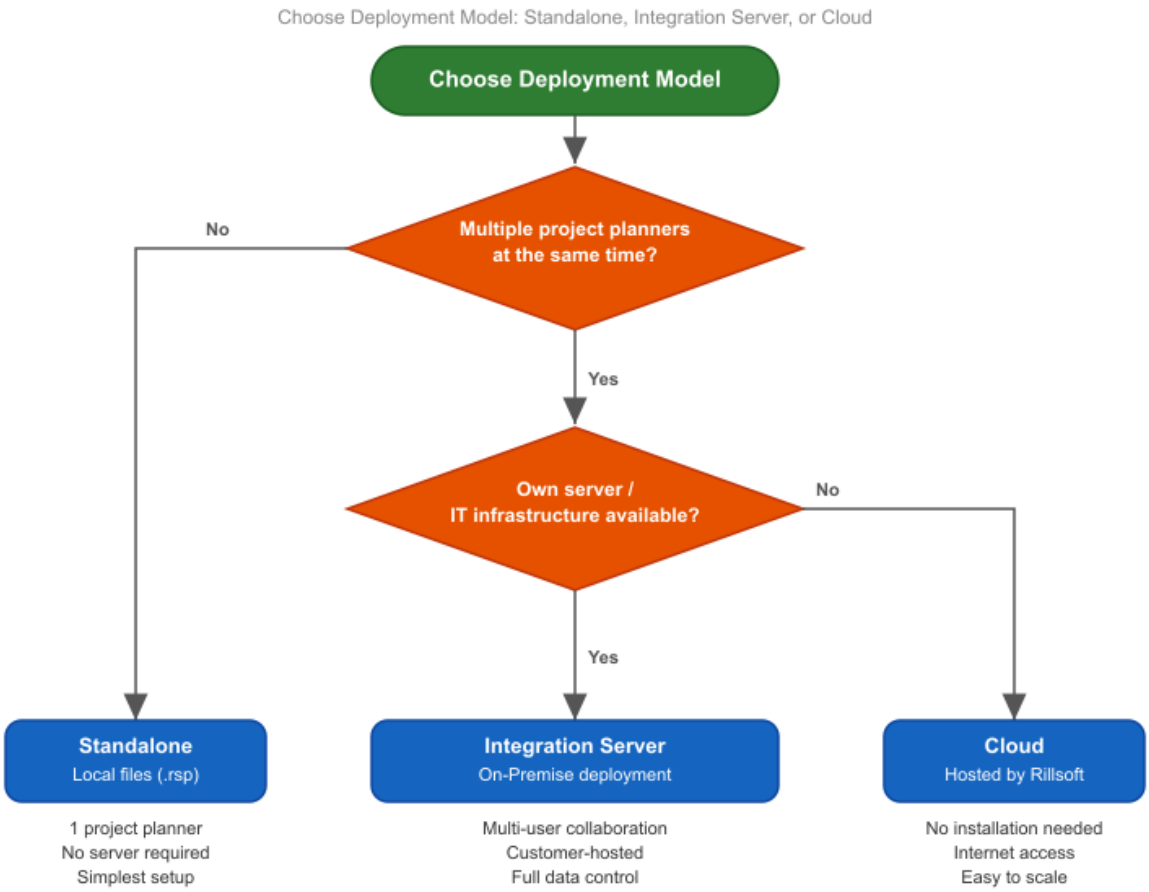
FIRST STEPS WITH RILLSOFT PROJECT

1.1 Choose an Operating Model

Rillsoft Project can be used in three operating models: as a standalone desktop application, together with Rillsoft Integration Server, or as Rillsoft Cloud. The operating model determines where data is stored, how users collaborate, and which server-based functions are available.

1.1.1 Operating Models at a Glance

Criterion	Standalone	Integration Server	Cloud
Project planners	One person	Several users	Several users
Data storage	Local project files or network drive	Central database on your server	Central database hosted by Rillsoft
Rights and user management	Not available	Users, roles, and folders	Users, roles, and folders
Portfolio and multiproject planning	Limited to local files	Full support, including cross-project links	Full support
Time entry and vacation planning	Not available	Available	Available
IT effort	Desktop installation only	Server installation and maintenance	No own server required
Best suited for	Individual planners and simple projects	Companies with several planners and their own IT operation	Companies that want server functions without operating a server



1.1.2 Standalone: Local File-Based Planning

In standalone operation, Rillsoft Project works locally. Projects are saved as local project files. The resource pool can be kept as a separate file.

Use standalone operation when:

- one person plans the projects,
- central rights or approval workflows are not required,
- shared resource management across several project managers is not required.

Limits:

- several project managers cannot work at the same time with the same central resource data,
- portfolio analysis is based on manually combined files,
- time entry and vacation planning through the web interface are not available.

1.1.3 Integration Server: Central Operation

Rillsoft Integration Server is the platform for companies that coordinate several project planners, manage shared resources, and store projects centrally.

Use Integration Server when:

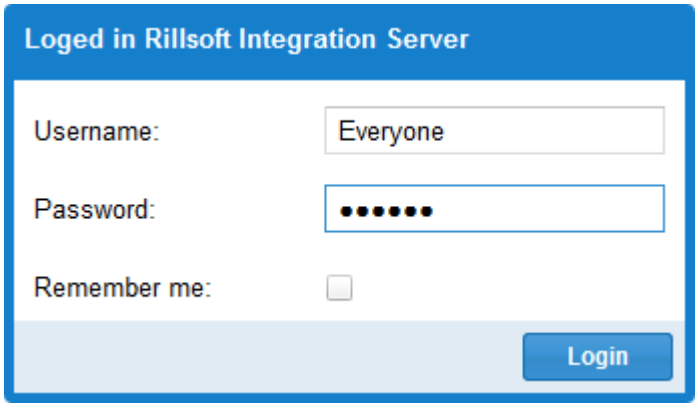
- several project managers work with the same projects, resources, or portfolios,
- access rights for projects, portfolios, or documents must be managed,
- time entry, vacation planning, DMS, iCalendar, LDAP, or email notifications are required,
- several organizational units need separate administration.

Prerequisites:

- a server environment operated by your company with a central database,
- installation and maintenance covered by a software service contract,
- a separate license for Rillsoft Integration Server and the server connection of Rillsoft Project,
- administrator setup: clients, users, roles, and folders,
- Rillsoft Project Desktop as the client on all workstations.

Typical setup:

1. An administrator creates clients, folders, users, roles, and access rights.
2. The project manager connects Rillsoft Project Desktop to the server.
3. Projects and the resource pool are stored on the server.
4. Users access data according to their role.



How several project managers work at the same time: *Planning as a Team: Multi-User Work and Summary Projects*.

1.1.4 Cloud: Hosted Operation

Rillsoft Cloud provides the server-based operating model without an own server. It is useful when you want central data and collaboration, but do not want to operate the Integration Server infrastructure yourself.

Use cloud operation when:

- server functions are required,
- a fast start without server installation is important,
- hosted data storage is acceptable for your organization.

Prerequisites:

- a Rillsoft Cloud subscription,
- Rillsoft Project Desktop as the client,
- an internet connection for synchronization.

Multi-user work and summary projects are available in Rillsoft Cloud just as with Integration Server, see *Planning as a Team: Multi-User Work and Summary Projects*.

Before choosing cloud operation, clarify data protection, user access, and licensing with your Rillsoft contact.

1.1.5 Changing the Operating Model

Moving from standalone operation to Integration Server or Cloud is possible, but it is not just a technical switch:

1. Projects and the resource pool must be transferred to the central system.
2. User accounts, roles, and folders must be set up.
3. Existing planning data must be checked after migration.
4. Users need login data and a defined workflow for saving and opening projects.

1.1.6 Related Topics

- *First Steps with Rillsoft Project*
- *Integration Server*
- *Setting Up and Operating Integration Server*
- *IT and Administration*
- *Practical Examples*
- *Planning as a Team: Multi-User Work and Summary Projects*

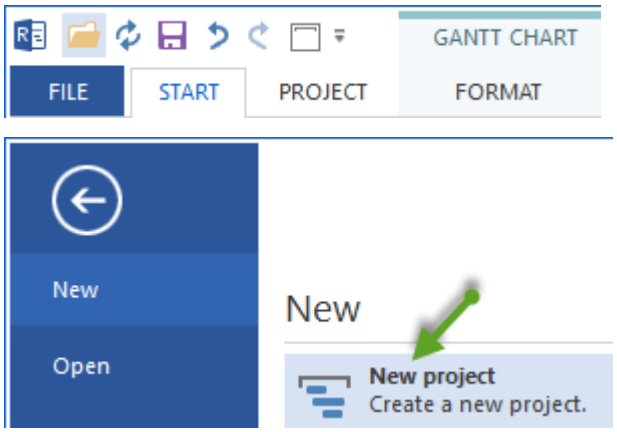
operating model, standalone, integration server, cloud, central database, multi-user, ris, time entry, vacation planning, it and administration, executive management, project manager

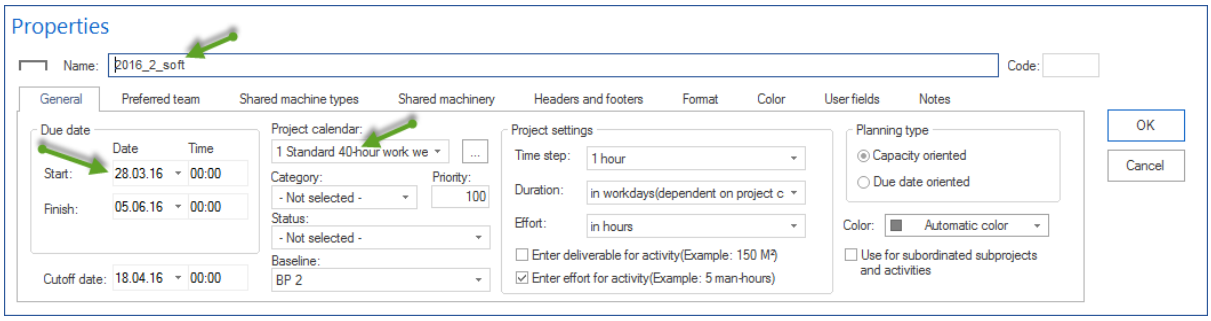
This section is for new users who open Rillsoft Project for the first time. It walks you through the basic workflow: create a project, check the calendar, add tasks, link them, add resources, assign resources, and save your work.

1.2 Create Your First Project

Goal: A new empty project is ready for planning.

1. Start Rillsoft Project.
2. Select **File > New > New Project**. The Gantt chart opens with an empty project.
3. Select **Start > Properties > Project**. The *Project properties* dialog opens.
4. Enter a meaningful project name in **Name**.
5. On the **General** tab, set the **Start date** and **Finish date**.
6. Select the appropriate **Project calendar**.
7. Click **OK**.





Result: The project is created and ready for planning.

> **Note**
>
> To base the project on an existing template, use **File > New > New Project from File Template** instead.

1.3 Check the Project Calendar and Working Days

Goal: The project calendar reflects the real working days and working time.

Rillsoft Project calculates task durations and resource utilization from the stored calendars. An incorrect calendar leads to unrealistic dates and capacity values.

1. Open the resource pool via **Start > Properties > Resources**.
2. Go to the **Calendar** tab.
3. Check working days, working hours per day, public holidays, and non-working days.
4. Adjust the calendar where needed.
5. Create a project-specific calendar if this project uses different working time.

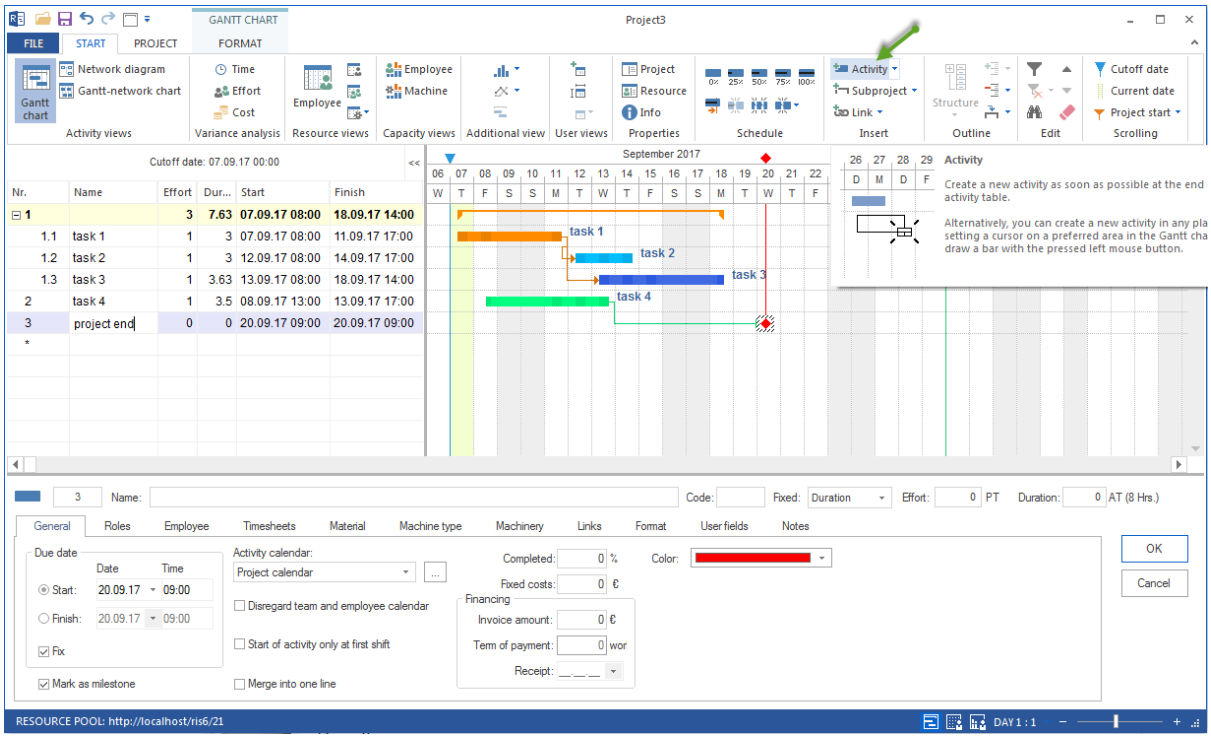
Result: The calendar matches the real working conditions for your team.

1.4 Add and Structure Tasks

Goal: The work units of the project are entered as tasks and structured in the Gantt chart.

To insert a task at the end of the list:

1. Select **Start > Activity**. A new row appears in the task table.
2. Enter the task name in the new row.



You can also draw a task with the mouse in the Gantt area or add a task from the context menu with **New activity**.

For larger projects, structure tasks with subprojects:

1. Create the tasks on the top level first.
2. Select the tasks that should form a subproject.
3. Use **Start > Insert > Subproject**. The selected activities are combined into a new subproject; their start and finish dates are taken as the start and finish of the subproject.
4. Enter a name for the subproject.

Result: The project structure is readable and ready for scheduling.

> **Note**
>
> **Start > Insert > Subproject** creates a new subproject from the selected activities. To move activities into an existing subproject instead, use **Start > Outline > into subproject > Move into subproject**.

> **Note**
>
> Do not confuse subprojects with summary projects. Subprojects structure tasks inside one project. A summary project combines several independent project files.

1.5 Link Tasks

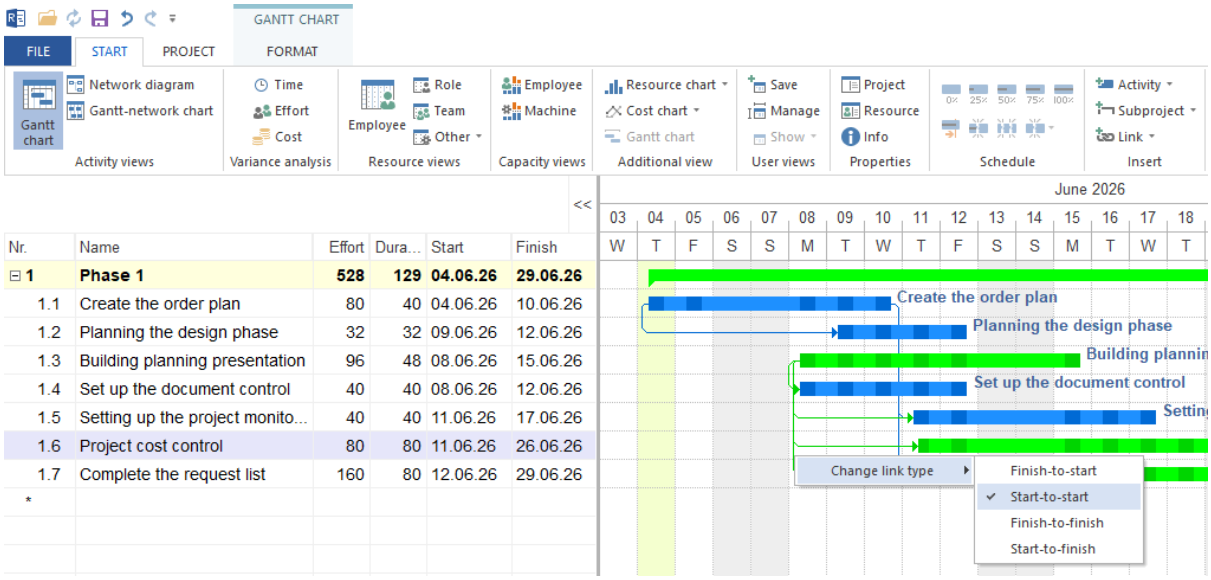
Goal: Rillsoft Project calculates the schedule from dependencies between tasks.

Without links, tasks can be planned in parallel from the project start. Links create a realistic sequence and make the critical path visible.

1. In the Gantt chart, click the task that must finish first.
2. Drag from the end of this bar to the beginning of the dependent task.
3. Rillsoft Project creates a **Finish-Start** link.

To change the link type:

1. Double-click the link line between two tasks.
2. In **Link type**, choose one of the available types:
   - **Finish-Start**: the successor starts after the predecessor is finished.
   - **Start-Start**: the successor cannot start before the predecessor starts.
   - **Finish-Finish**: the successor cannot finish before the predecessor is finished.
   - **Start-Finish**: the successor cannot finish before the predecessor starts.
3. Enter a delay if needed.
4. Click **OK**.



Result: The schedule is calculated. Tasks on the critical path are highlighted in the standard view.

1.6 Create or Reuse Resources

Goal: Employees, roles, calendars, and optionally machines or material are available in the resource pool.

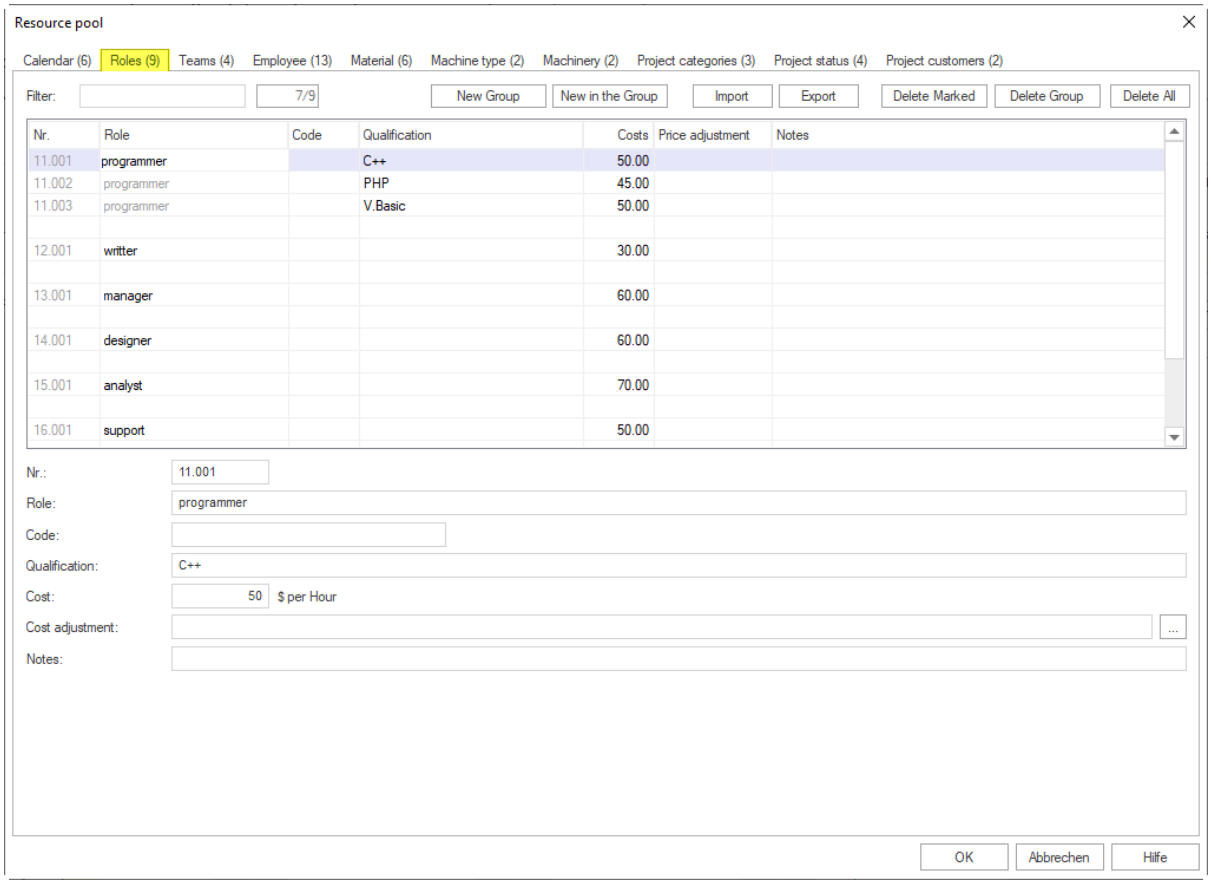
Rillsoft Project distinguishes between **resource demand** and **resource supply**. Demand describes which roles or qualifications a project needs. Supply describes which employees with matching qualifications and availability exist.

Open the resource pool:

1. Select **Start > Properties > Resources**.

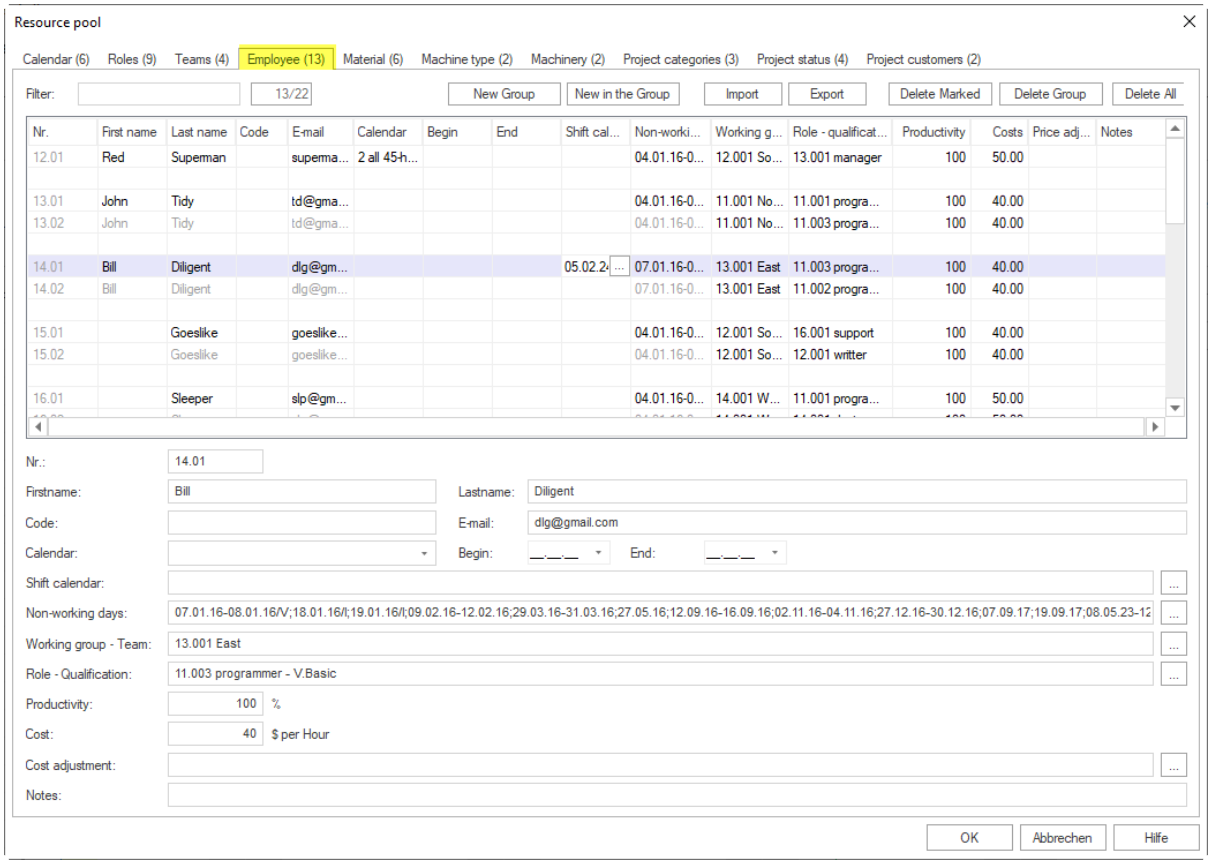
Create a role or qualification:

1. Go to the **Roles** tab.
2. Enter a role name in the row marked with an asterisk, for example “Engineer” or “Project Manager”.
3. Add cost rates or further data where needed.
4. Click **OK**.



Create an employee:

1. Go to the **Employees** tab.
2. Enter first name and last name in the row marked with an asterisk.
3. Select the calendar and maintain working time data.
4. Assign the employee’s roles or qualifications.
5. Click **OK**.



To reuse an existing resource pool, close all projects and select **File > Resource pool > File > Select**. Then select the resource pool file.

When working with Rillsoft Integration Server or Rillsoft Cloud, the resource pool is not stored in a file but belongs to a client on the server. It is selected via **File > Resource pool > Rillsoft Integration Server > Select**, see *Create and Select a Resource Pool with Rillsoft Integration Server*.

1.7 Assign Resources

Goal: Tasks have the required roles or concrete employees assigned, so Rillsoft Project can calculate utilization and capacity.

Recommended for new users:

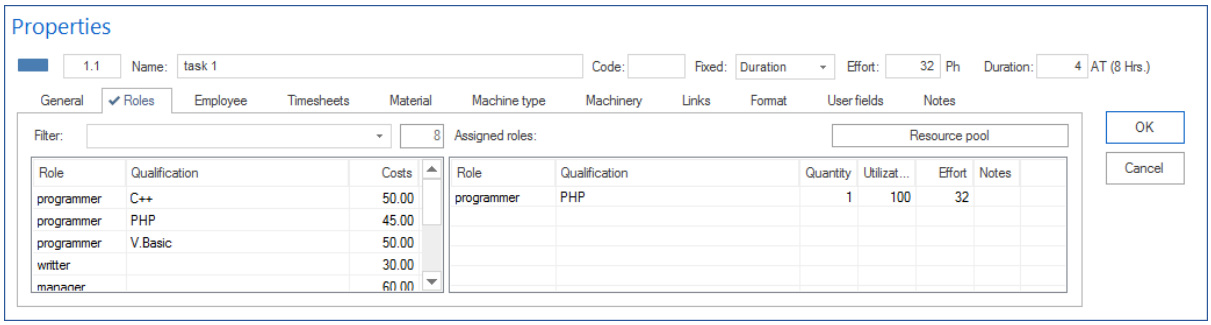
1. Assign roles or qualifications to tasks first.
2. Use capacity balancing to check whether available employees cover the demand.
3. Assign concrete employees after this check.

For a small project with a stable team, direct employee assignment can be enough.

Assign a role to a task:

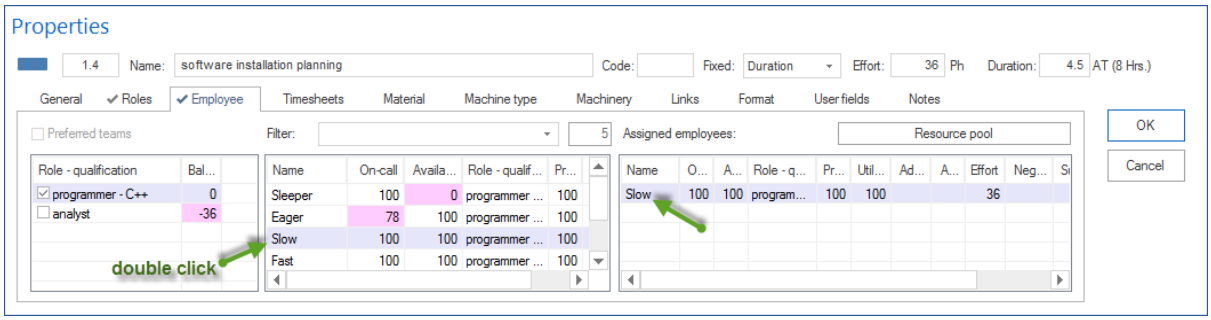
1. Double-click a task to open **Activity properties**.
2. Go to the **Roles** tab.
3. Double-click an entry in the left table to assign the role to the task.

4. Adjust **Quantity**, **Utilization**, **Effort**, and **Notes** as needed.
5. Click **OK**.



Assign an employee directly:

1. Double-click a task.
2. Go to the **Employees** tab.
3. Double-click an entry in the middle table to assign the employee to the task.
4. Adjust **Utilization** and **Effort** as needed.
5. Click **OK**.



1.8 Save and Reopen the Project

Goal: Your work is saved and can be continued later.

1. Select **File > Save** or press **Ctrl + S**.
2. When saving for the first time, choose a location and file name.
3. To reopen the project later, select **File > Open > File > Project** and choose the project file.

To use the current project as a template for future projects, select **File > Save as Template** and give the template a name. It is then available under **File > New > New Project from File Template**.

If your company uses Rillsoft Integration Server or Rillsoft Cloud, projects are stored centrally instead of as local files. In that case, save with **File > Save as > Rillsoft Integration Server > Project** and ask your administrator for the required login data.

1.9 Next Steps

- *Choose an Operating Model*
- *Tutorials*
- *Project Planning*
- *Resources and Capacities*
- *Resource Assignment*

first steps, create project, add tasks, link tasks, save project, schedule, gantt, bar chart, timeline, critical path, dependency, project manager

CHAPTER

TWO

TUTORIALS

Each tutorial guides you through one complete task in about 10 minutes. You only need Rillsoft Project and, depending on the tutorial, an open project with a few tasks.

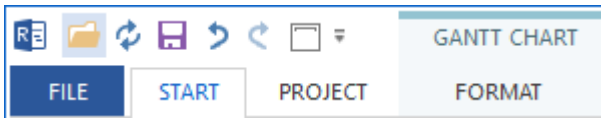
2.1 Create a First Schedule in 10 Minutes

Goal: You create a schedule with linked tasks, a calculated project finish date, and a visible critical path.

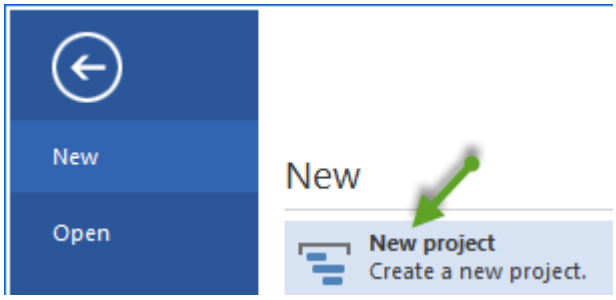
Prerequisites: Rillsoft Project is started.

2.1.1 Step 1: Create a New Project

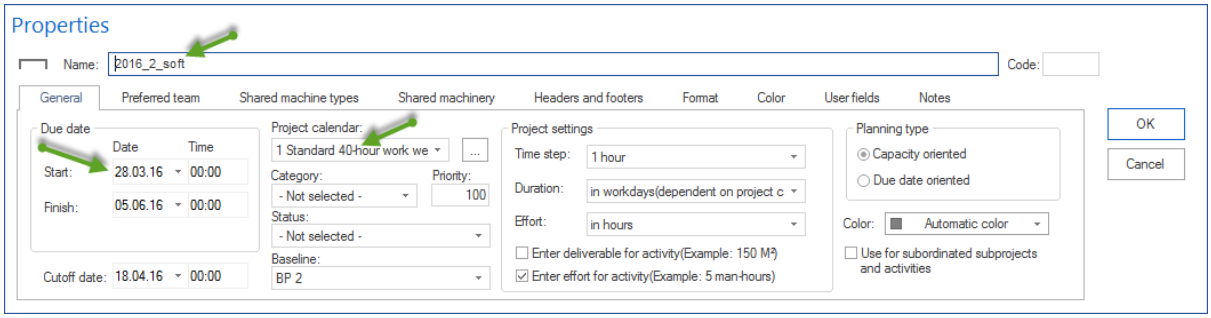
1. Select **File > New > New Project**.



2. Select **Start > Properties > Project**.

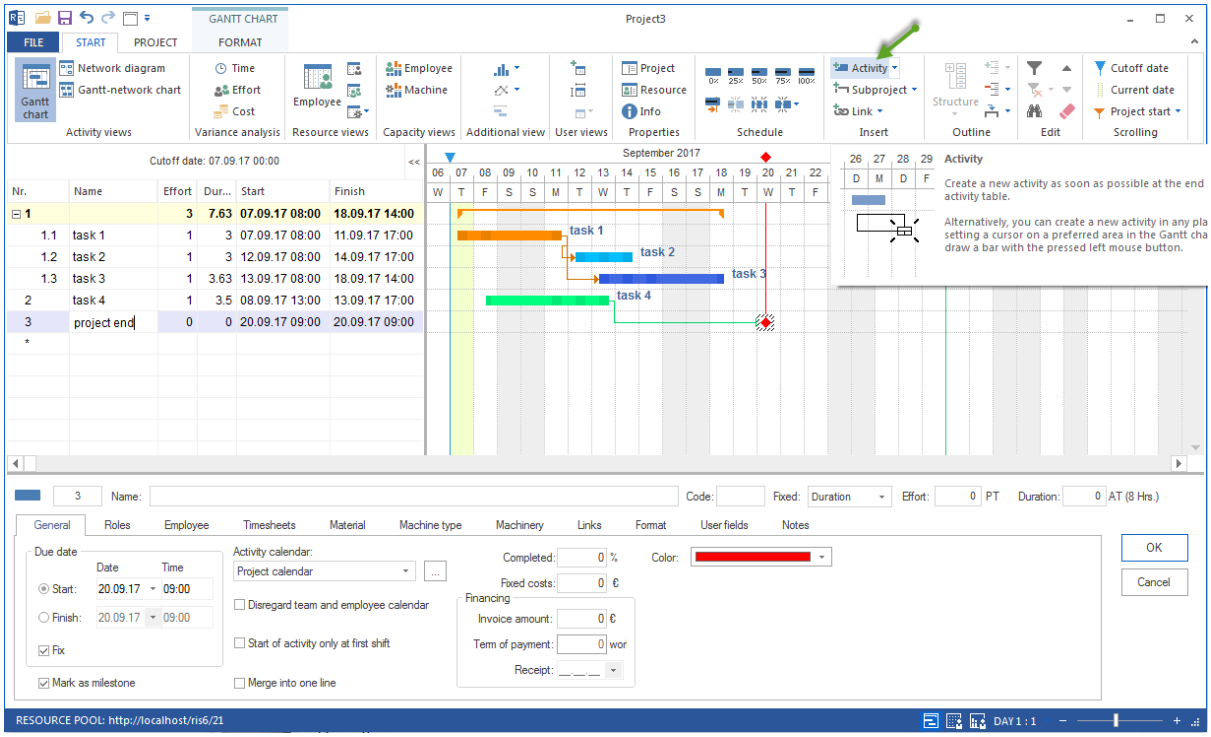


3. Enter a project name, set start and finish date, and select the project calendar.
4. Click **OK**.

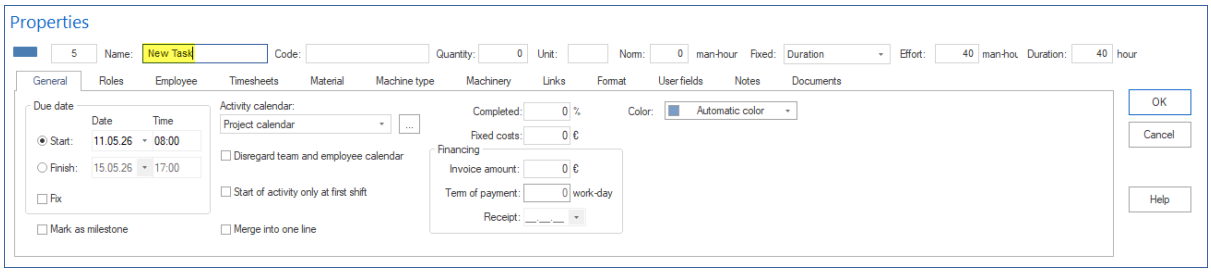


2.1.2 Step 2: Add Tasks

1. Select **Start > Activity**. A new row appears in the task table.



2. Double-click a task and enter the task name and press **Enter**.



3. Repeat this for all tasks. For a first schedule, 5 to 10 tasks are enough.
4. Double-click a task and enter its duration on the **General** tab.

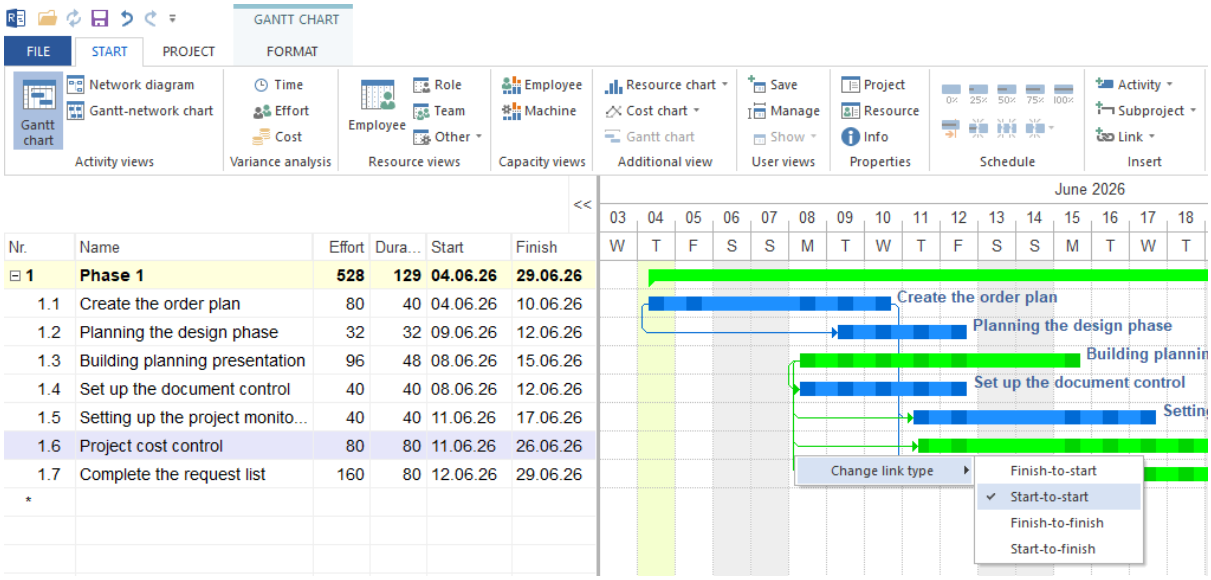
Tip

You can also enter the duration directly in the **Duration** column if the column

is visible.

2.1.3 Step 3: Link Tasks

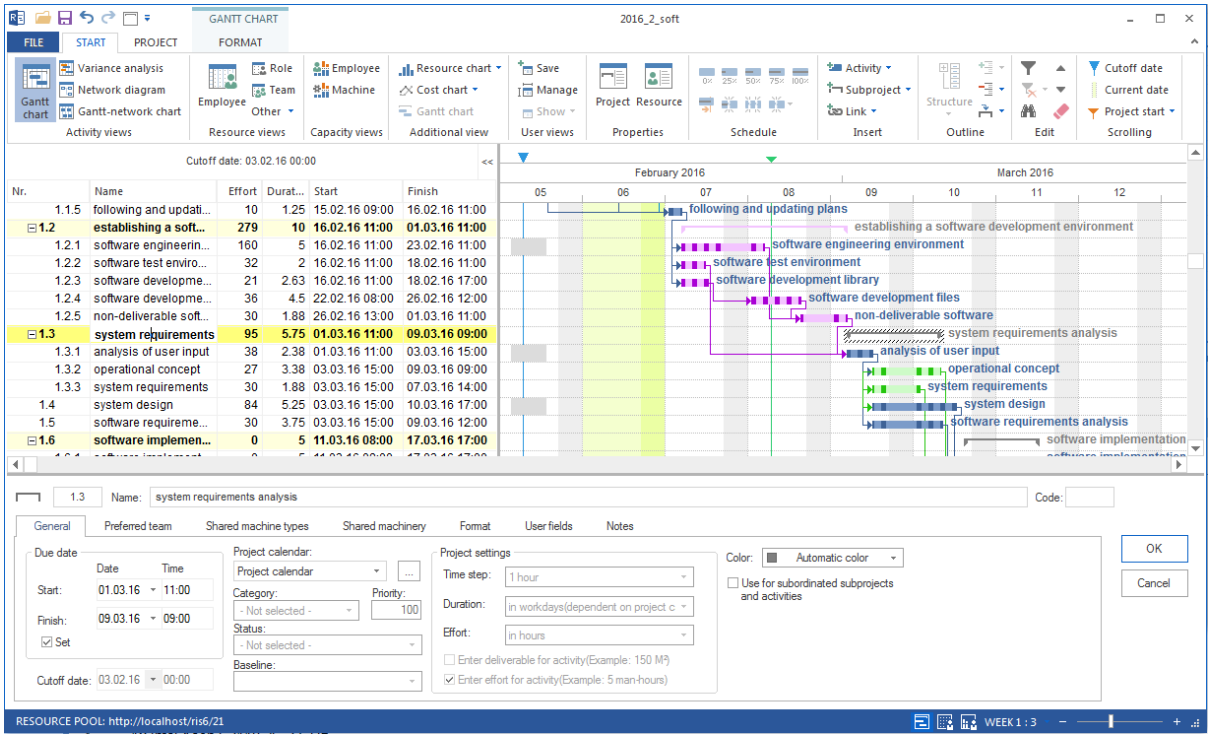
1. Make sure the **Gantt chart** view is active.
2. Use **Start > Insert > Link** to choose the link type. For a first schedule, use **Finish-Start**.



3. Drag from the end of the first task bar to the beginning of the next task.
4. Link all tasks in their logical order.

2.1.4 Step 4: Check the Result

1. Check the calculated project finish date in the Gantt chart.



2. Tasks on the **critical path** are highlighted. A delay in these tasks moves the project finish date.
3. Open **Start > Properties > Info > Late activities** and check whether there are late activities.
4. Save the project with **Ctrl + S**.

2.1.5 Result

You have a complete first schedule with calculated dates, dependencies, and a critical path.

2.1.6 Related Topics

- *Project Planning*
- *Resources and Capacities*

create schedule, gantt chart, add tasks, link tasks, critical path, schedule, gantt, bar chart, timeline, dependency, project manager

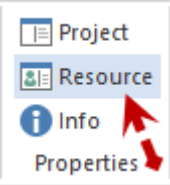
2.2 Assign Resources in 10 Minutes

Goal: Tasks are linked to roles or employees. Rillsoft Project can calculate utilization and capacity.

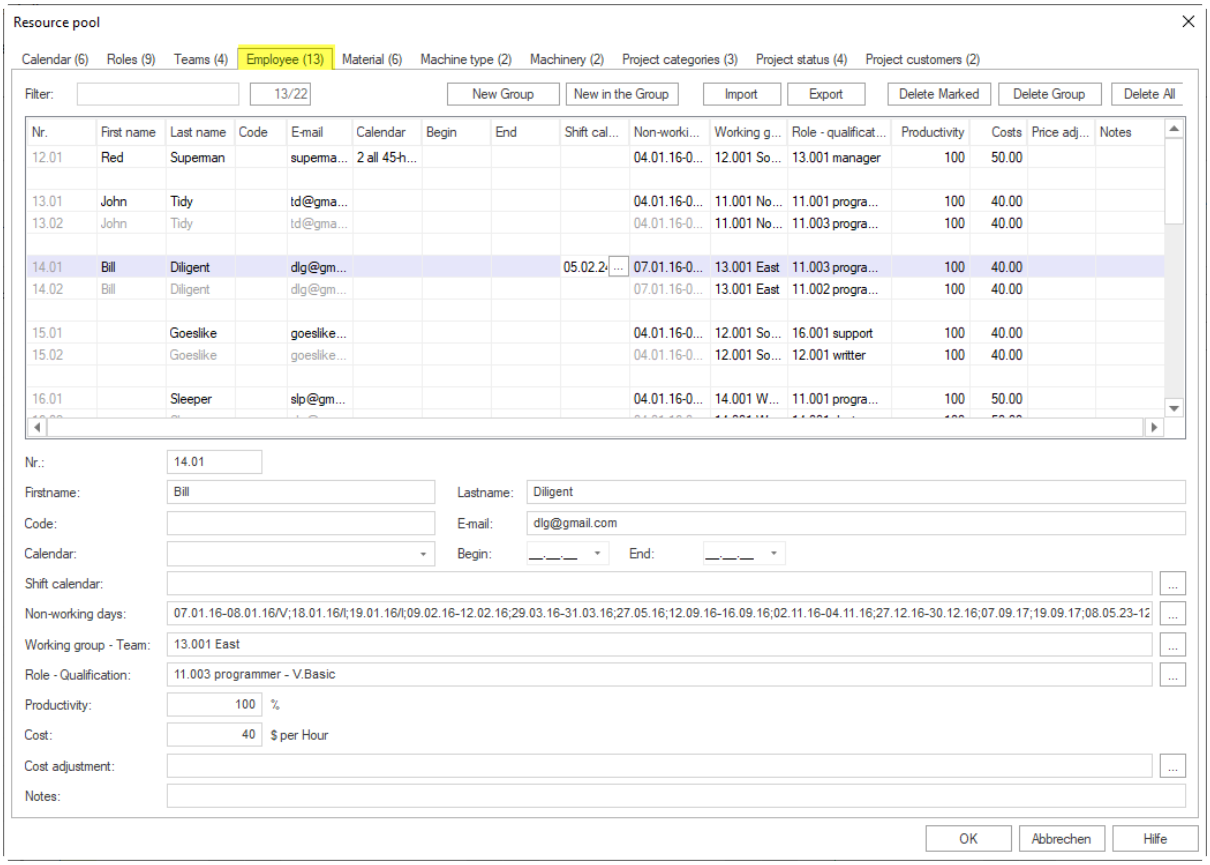
Prerequisites: A project with tasks is open. A resource pool with at least one role or employee exists, or you create it now.

2.2.1 Step 1: Check or Create the Resource Pool

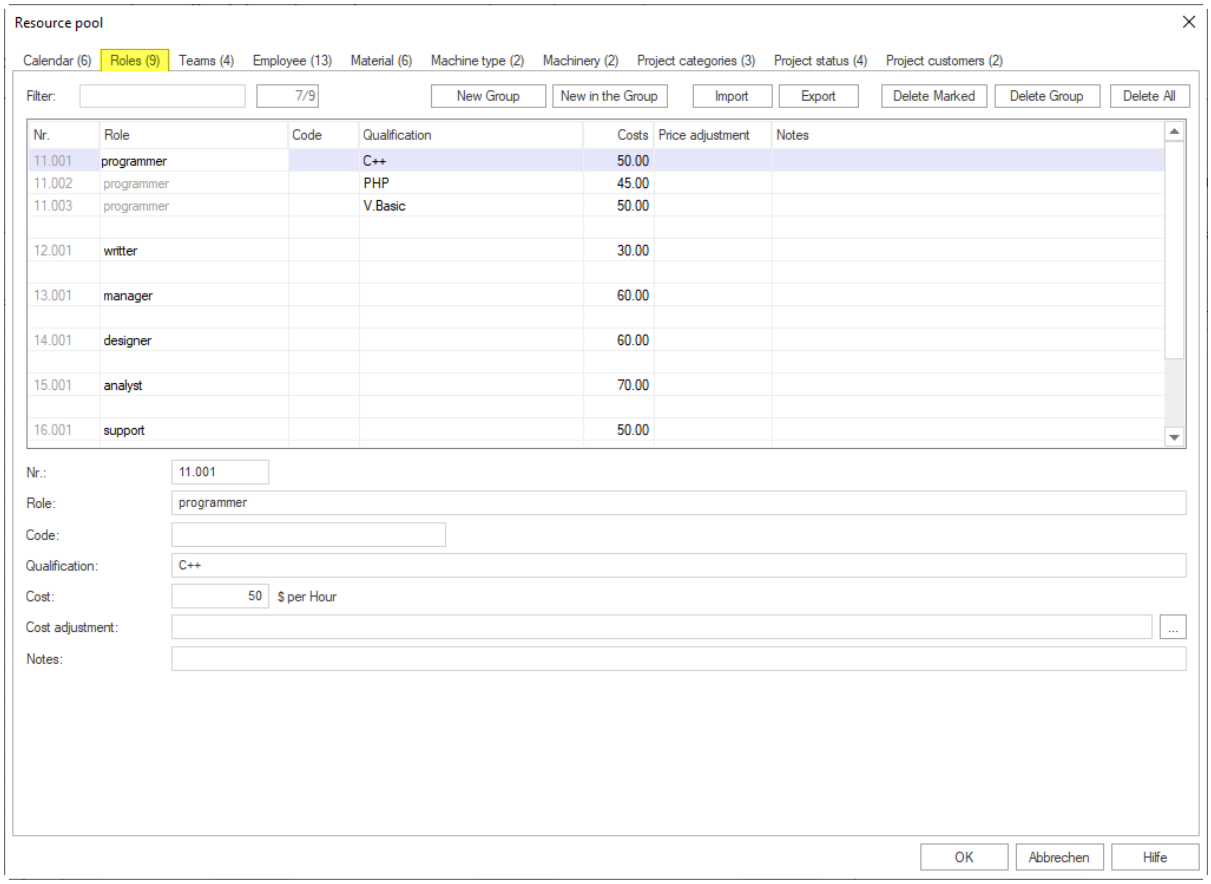
1. Select **Start > Properties > Resources**. The *Resource pool* dialog opens.



2. On the **Employees** tab, check whether employees already exist.



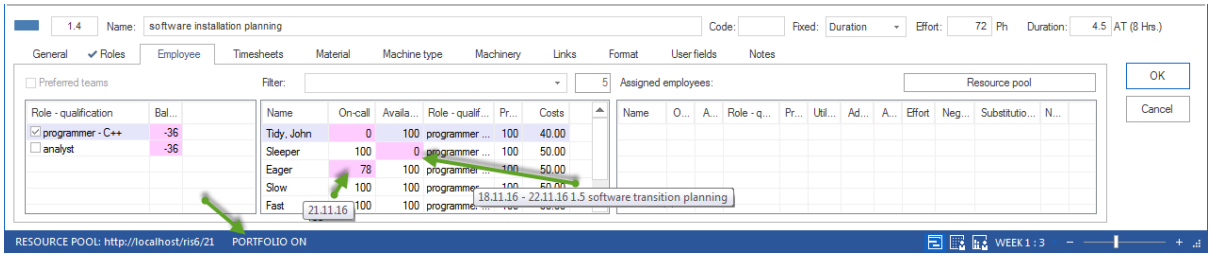
3. If no employee exists, enter name and working time in the row marked with an asterisk.
4. If needed, create roles on the **Roles** tab, for example “Engineer”.



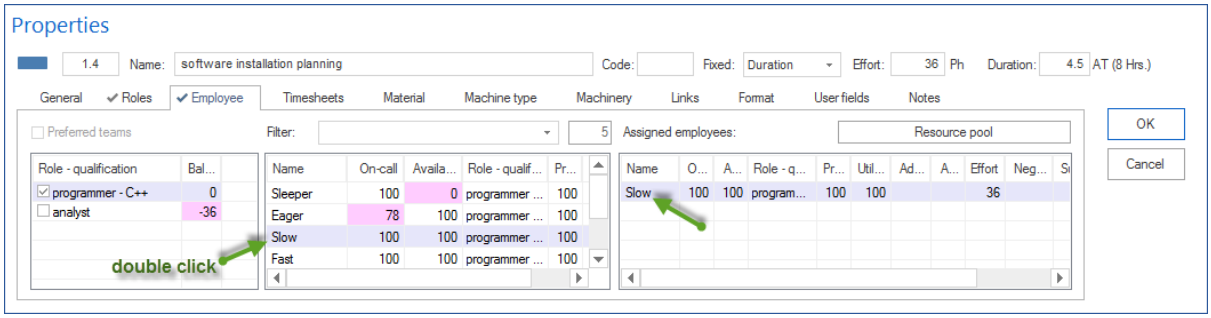
2.2.2 Step 2: Assign Resources to Tasks

Variant A: Assign an Employee Directly

1. Double-click a task.
2. Go to the **Employees** tab in **Activity properties**.



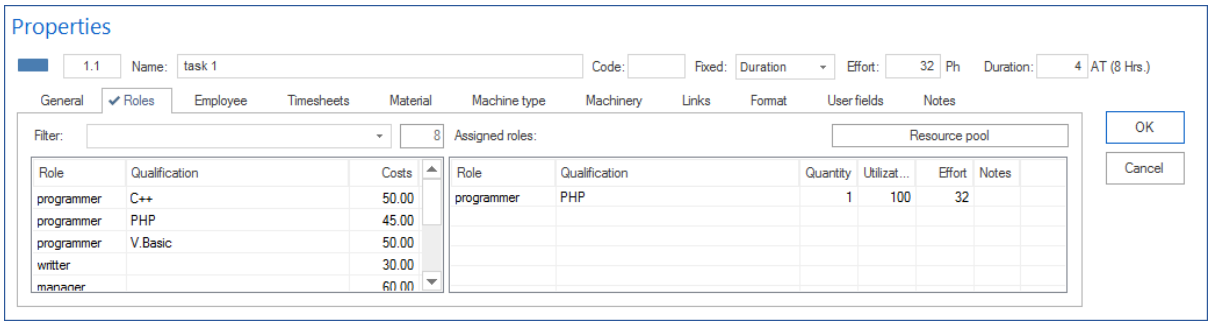
3. Double-click an entry in the middle table to assign the employee.
4. Adjust **Utilization** and **Effort**, for example 16 hours or 2 person-days.
5. Click **OK**.



Variant B: Assign a Role

Use this variant when you want to plan by required qualification before assigning named employees.

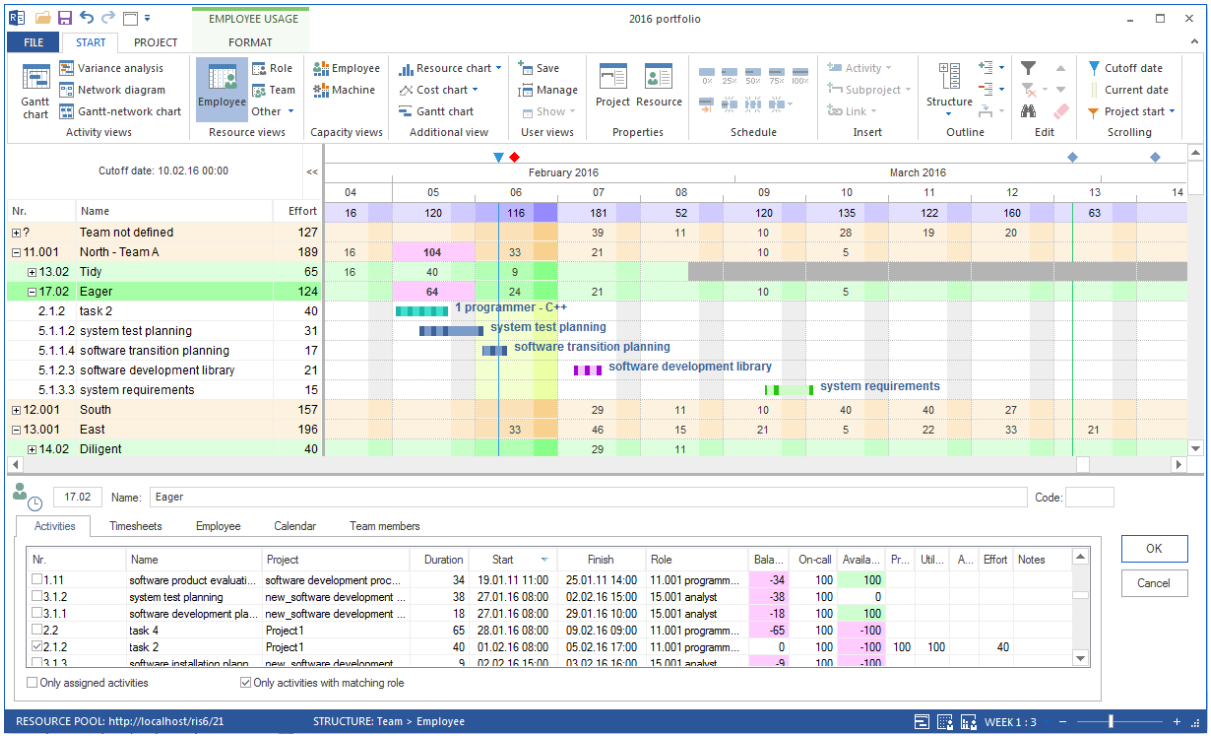
1. Double-click a task.
2. Go to the **Roles** tab.



3. Double-click an entry in the left table to assign the role.
4. Adjust **Quantity**, **Utilization**, and **Effort**.
5. Click **OK**.

2.2.3 Step 3: Check the Assignment

1. Switch to the **Employees** view.
2. Check the utilization columns. Red periods indicate overload.



3. Save the project.

2.2.4 Result

Resources are assigned to tasks. Rillsoft Project calculates utilization and capacity.

2.2.5 Related Topics

- *Resources and Capacities*
- *Resource Assignment*

assign resources, assign employees, assign roles, activity properties, resource pool, resource planning, resource assignment, resource demand, resource supply, project manager, resource manager

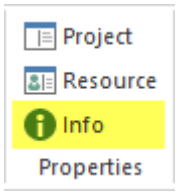
2.3 Identify Resource Overloads in 10 Minutes

Goal: You know which employees are overloaded, where role demand is not covered, and which tasks cause the problem.

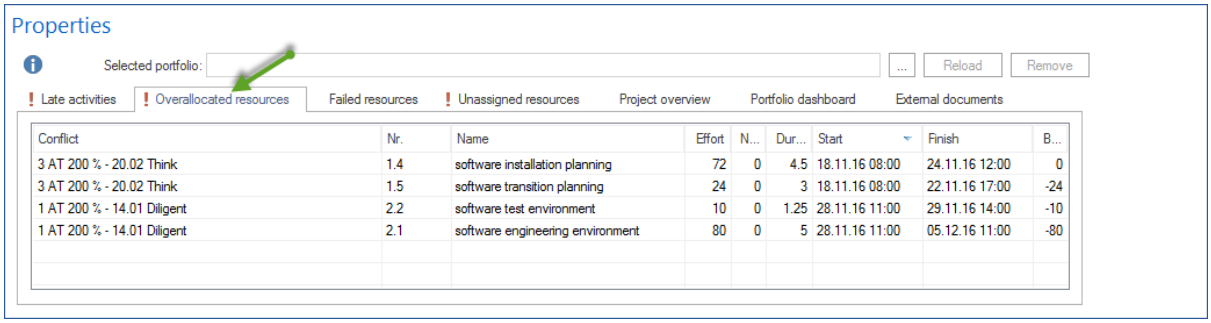
Prerequisites: A project with tasks and assigned resources is open.

2.3.1 Step 1: Check Project Information

1. Select **Start > Properties > Info** and open the **Overallocated resources** tab. The list shows affected resources. For employees, this is an overload. For roles, check uncovered demand in capacity balancing.

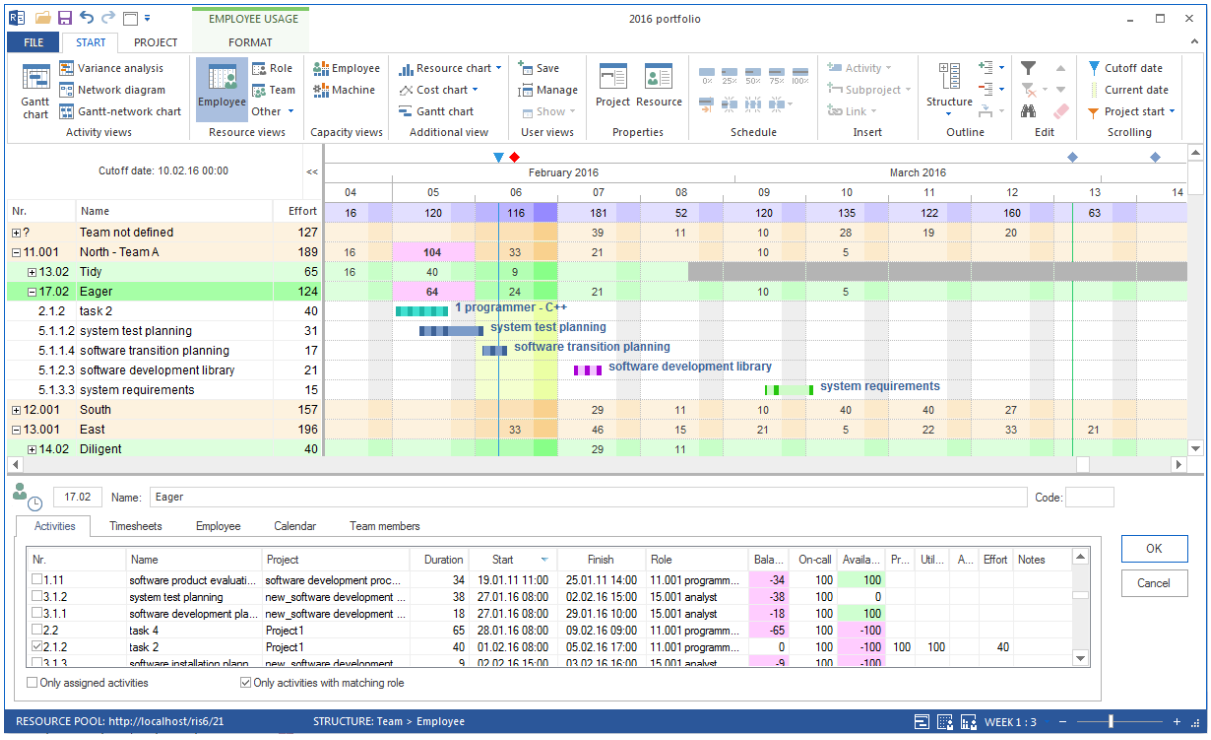


2. Select a resource to see the affected time periods.

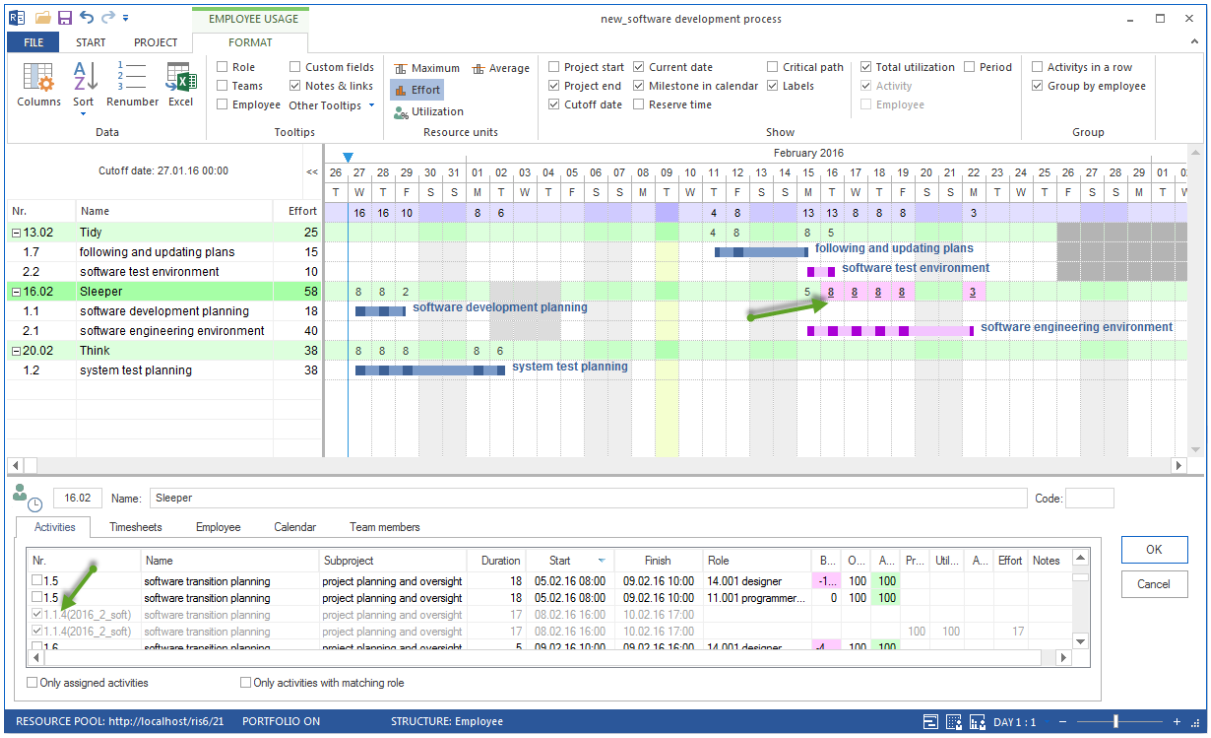


2.3.2 Step 2: Analyze Overload in a Resource View

1. Switch to the **Employees** view.
2. Look for red periods in the utilization display. Red means the planned load exceeds the available capacity.

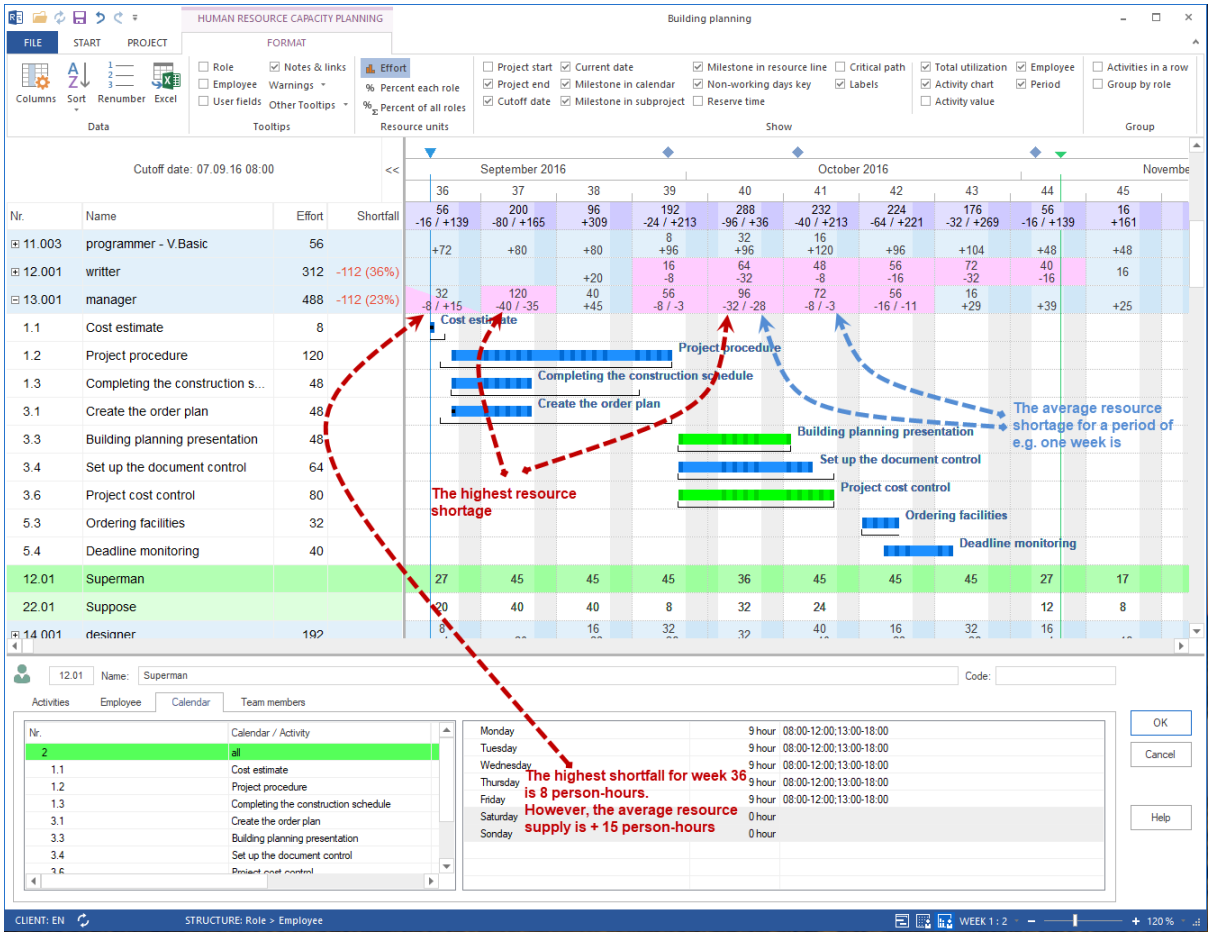


3. Select the overloaded resource to see the related tasks.



2.3.3 Step 3: Use Capacity Balancing

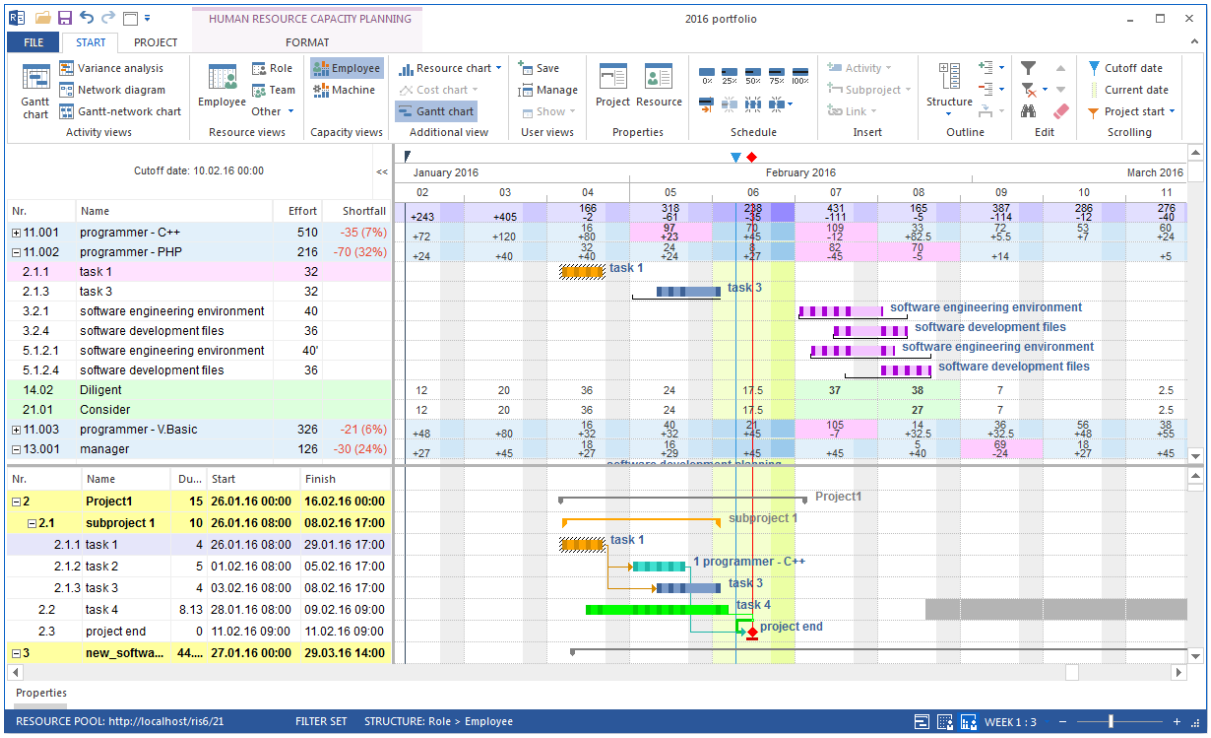
1. Select **Start > Capacity views > Employee**.
2. The capacity balancing view compares demand, available capacity, uncovered demand, and free capacity.



3. Identify critical periods and the tasks causing the demand.
4. Decide what to change: move tasks, change resources, distribute effort, or review working time.

Tip

If you use **Capacity balancing employees with Gantt chart**, you see demand and schedule at the same time.



2.3.4 Result

You know the overloads or uncovered demand, their time periods, and the causing tasks.

2.3.5 Related Topics

- *Perform Capacity Balancing*
- *Check Employee Assignments*

overload, overloaded employees, resource utilization, uncovered demand, capacity bottleneck, capacity planning, capacity balancing, utilization, bottleneck, project manager, resource manager

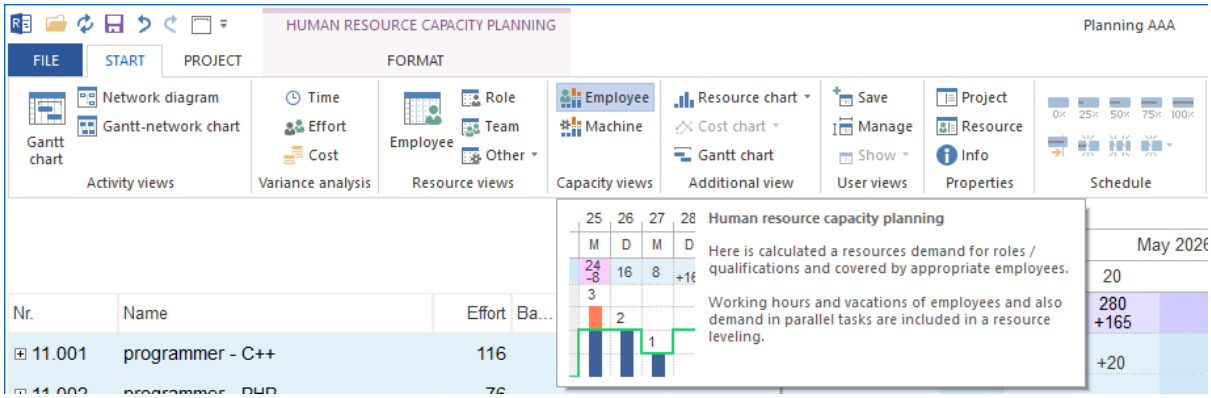
2.4 Perform Capacity Balancing in 10 Minutes

Goal: You check whether planned resource demand is covered by available employees with matching roles, identify shortages, and prepare employee assignment.

Prerequisites: A project with tasks is open. Roles are assigned to tasks. The resource pool contains employees with matching roles and working time data.

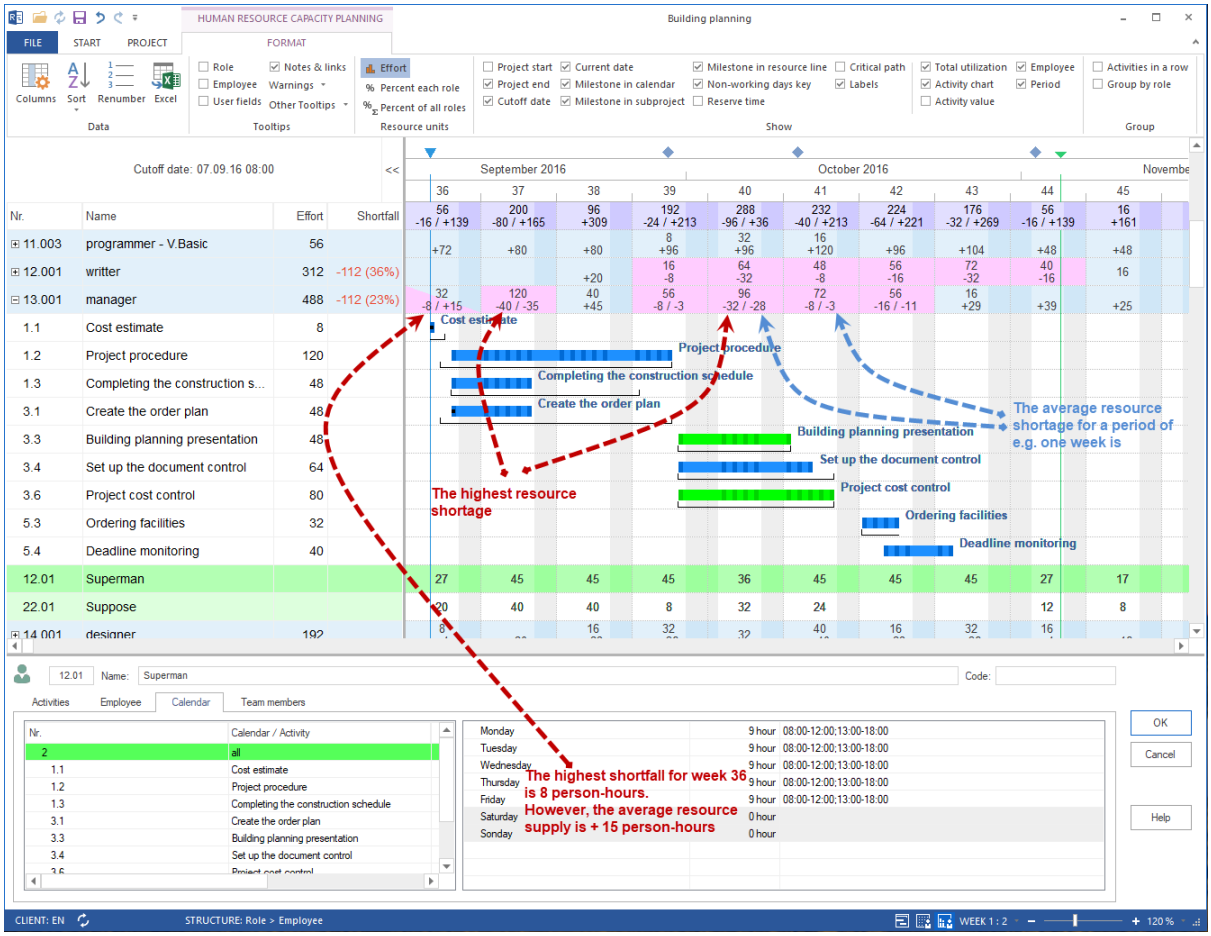
2.4.1 Step 1: Open Demand and Supply

1. Select **Start > Capacity views > Employee**.



2. Check whether the required roles or employees appear in the table.

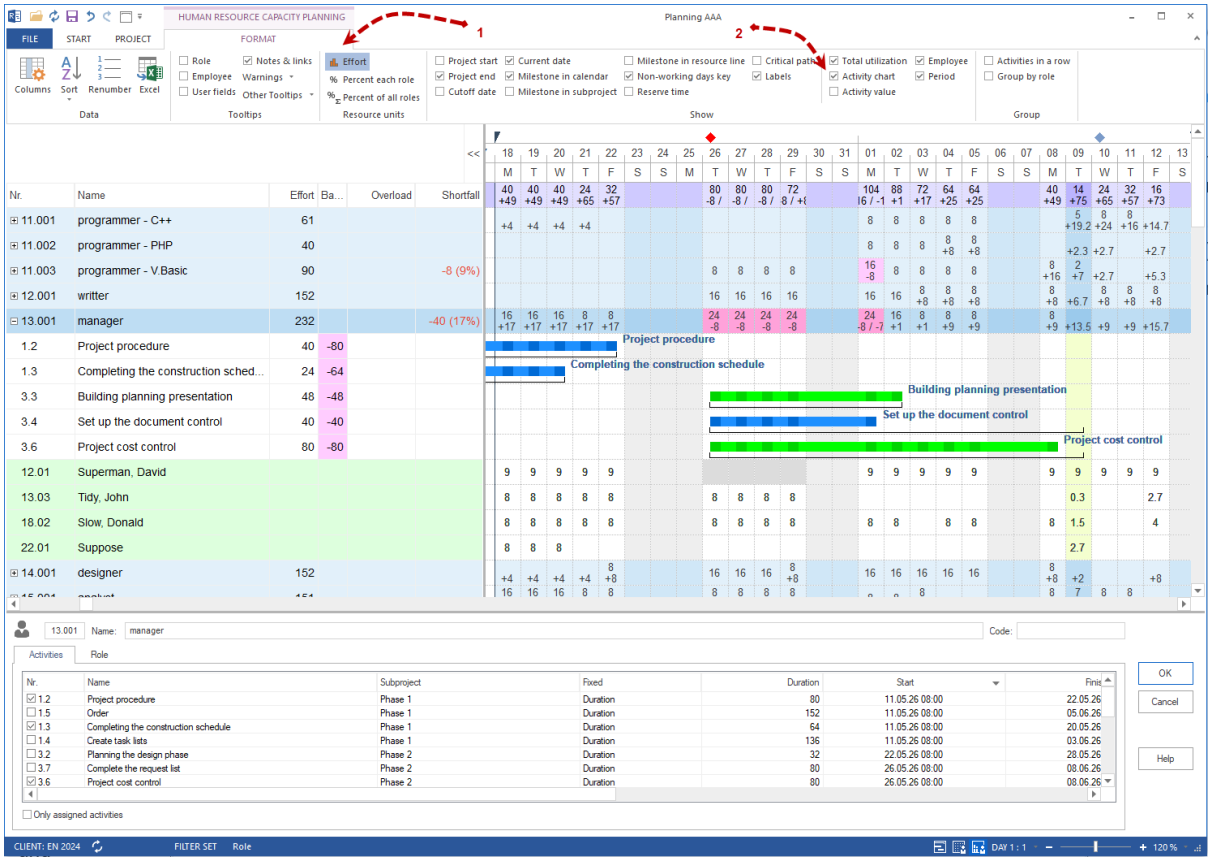
If no roles or employees are shown, first check resource demand and the resource pool.



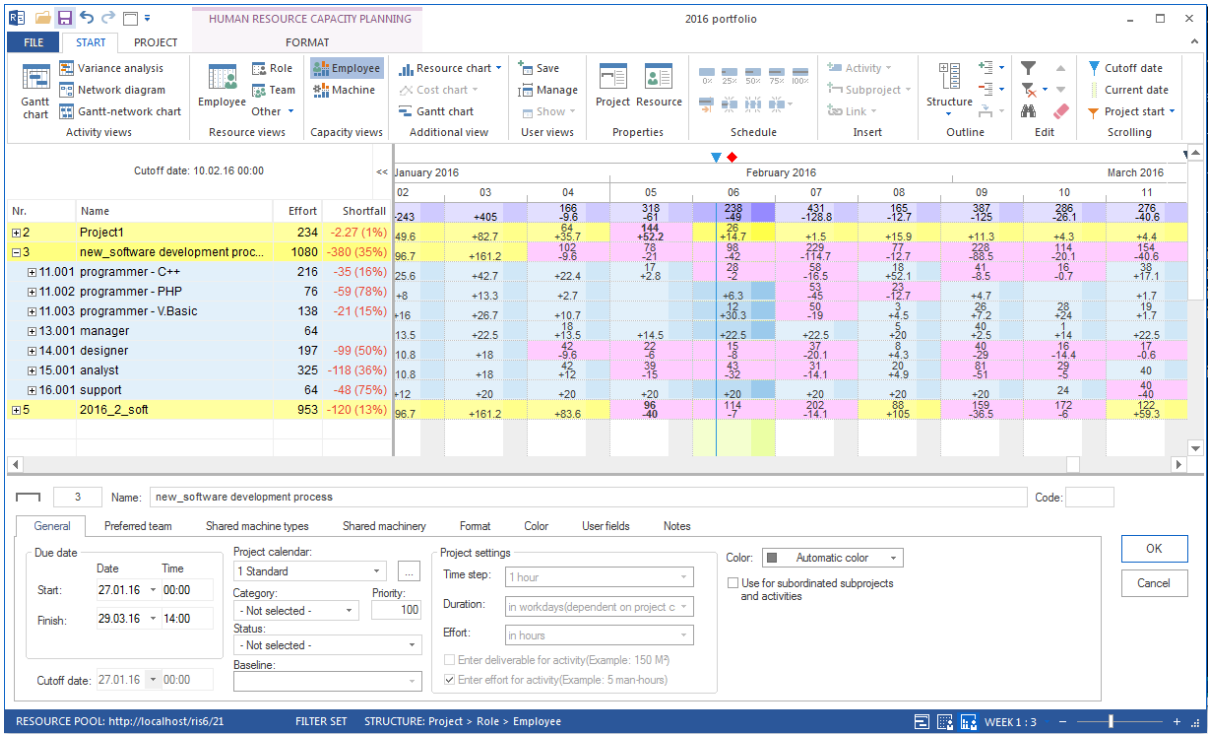
Red values or red cells indicate uncovered demand. Green or grey areas indicate available capacity or no shortage.

2.4.2 Step 2: Identify Shortage and Cause

1. Look for red or conspicuous values in role or employee rows.
2. Check the affected time period.
3. Show details to identify the tasks causing the demand.



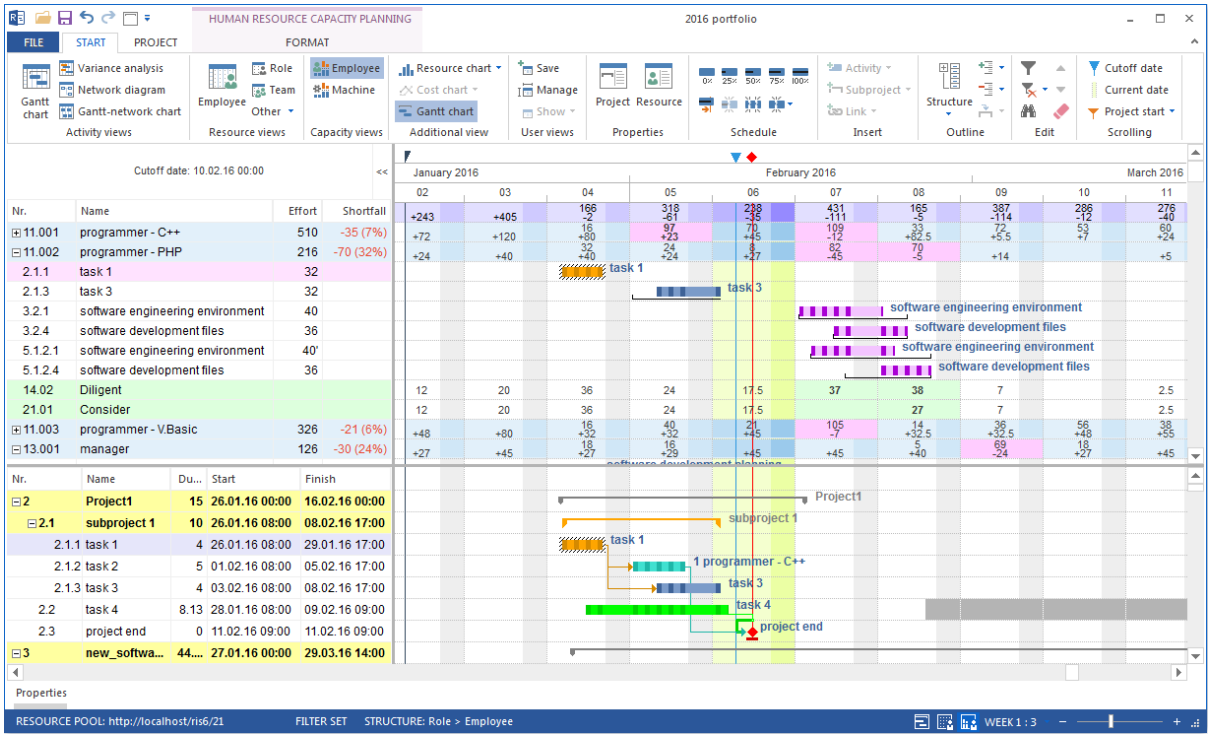
4. If several projects or subprojects are involved, use the project-related grouping.



Ask:

- Is the shortage permanent or limited to a peak period?
- Which tasks cause the demand?
- Is the required role available in the resource pool?
- Are working time, vacation, or other non-working days the cause?
- Can a task be moved without affecting the critical path?

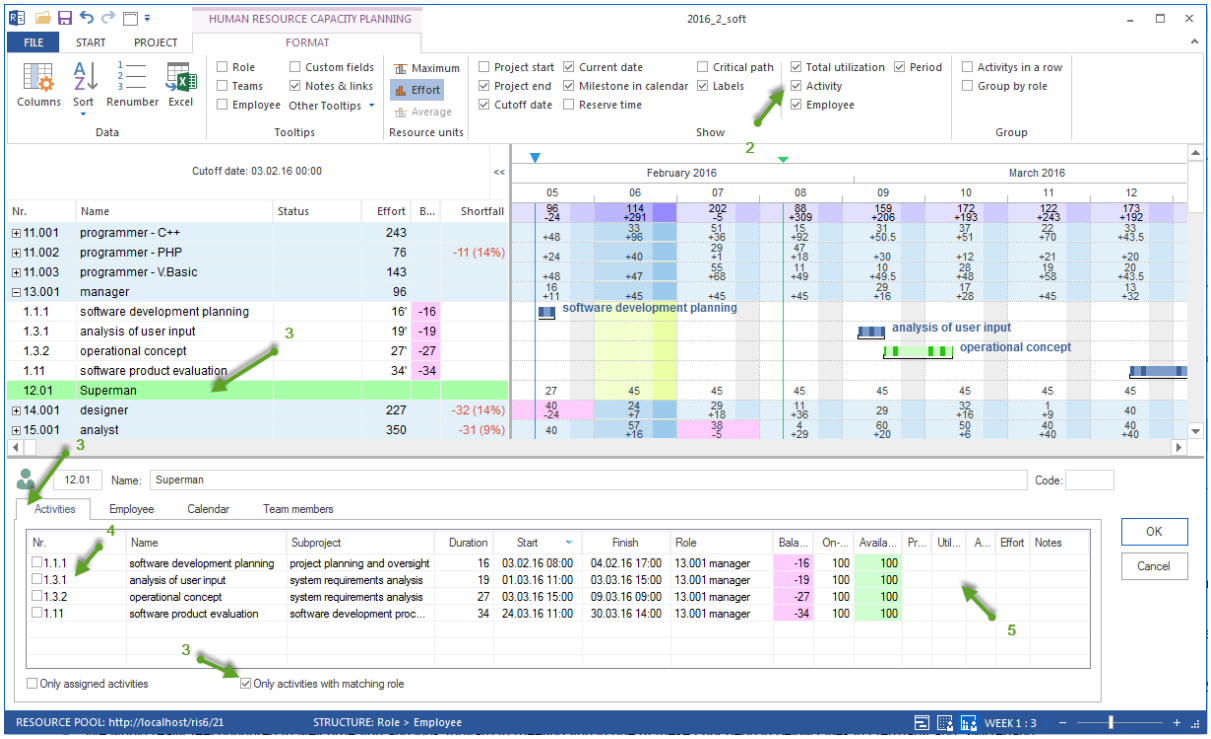
If you want to view both the shortfall and the schedule at the same time, use the additional view with the Gantt chart.



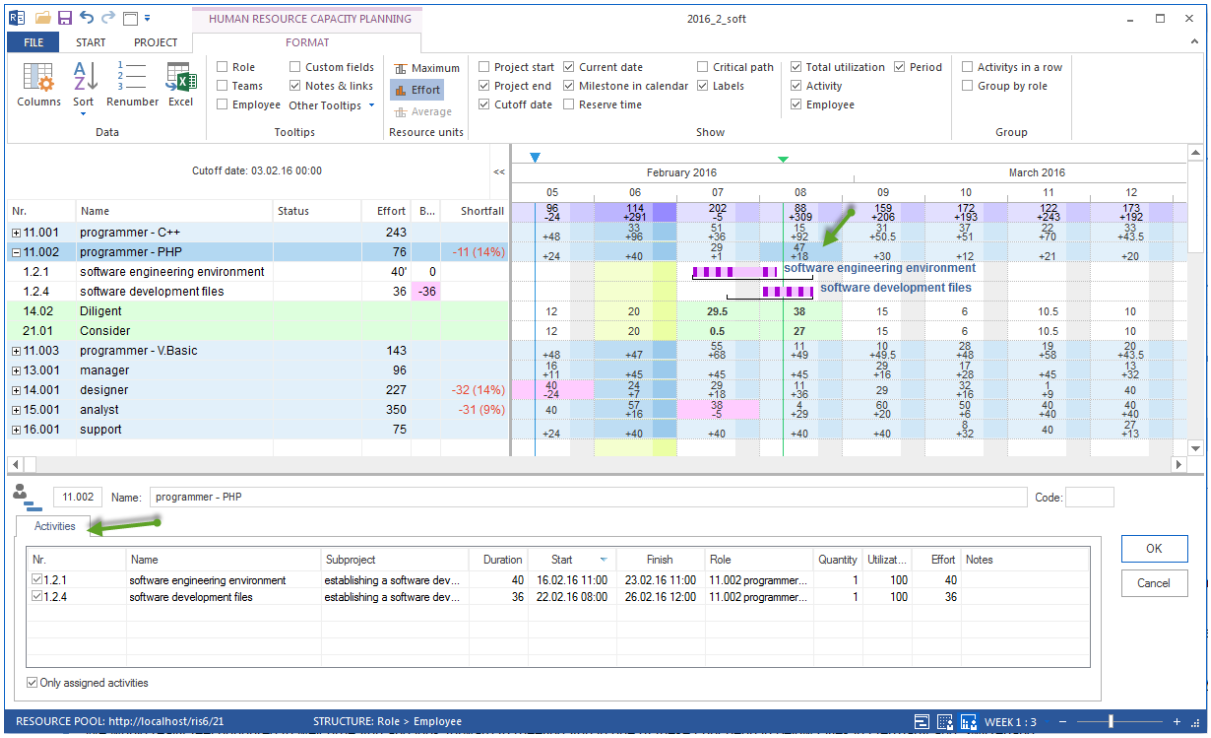
2.4.3 Step 3: Assign Employees after Capacity Balancing

When capacity and period fit, assign named employees.

1. Select the suitable employee in the capacity view.
2. Check the related tasks in the lower area.
3. Limit the display to the matching role if needed.
4. Assign the employee to the task and check effort and utilization.



For partial availability, check date and utilization carefully.



2.4.4 Step 4: Evaluate the Result

1. Refresh the capacity view.
2. Check whether the shortage disappeared or became smaller.
3. Check whether the finish date or critical path changed.
4. If bottlenecks remain, choose the next action.

Situation	Action
Capacity is sufficient	Assign employees and check utilization.
Capacity is sufficient, but not in the required period	Move tasks, clarify priorities, or check working time.
Role is missing	Check resource pool, role demand, or external capacity.
Peak demand causes shortage	Distribute work or review schedule logic.
Automatic optimization should help	Use **Project > Schedule > Other functions > Optimize resource utilization** and manually check the result.

2.4.5 Result

You compared demand and supply, classified bottlenecks, and assigned employees after the capacity check.

2.4.6 Related Topics

- *Perform Capacity Balancing*
- *Assign Employees After Capacity Balancing*
- *Capacity View Variants*

capacity balancing, demand and supply, resource shortage, bottleneck, assign employees after capacity check, capacity planning, utilization, overload, resource manager, project manager

2.5 Prepare a Target/Actual Comparison in 10 Minutes

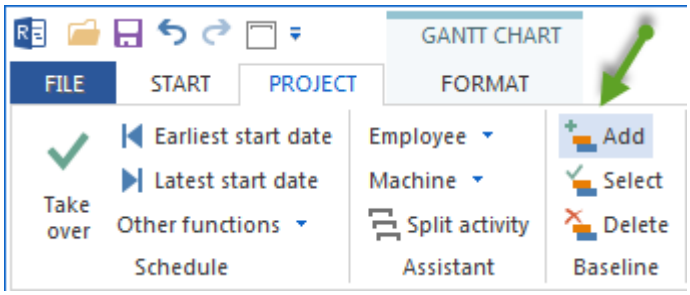
Goal: A baseline is saved and the project is ready for target/actual comparison when execution starts.

What is a baseline? A baseline is a frozen copy of the current schedule at the time of release. It is the reference for comparing planned progress with actual progress later.

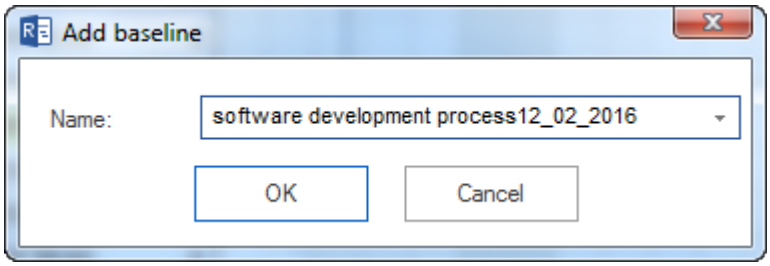
Prerequisites: The project is scheduled, resources are assigned, and the plan has been released.

2.5.1 Step 1: Save a Baseline

1. Select **Project > Baseline > Add**. The **Add baseline** dialog opens.



2. Enter a meaningful name, for example “Baseline project start 2026-05-19”, or accept the proposed name.



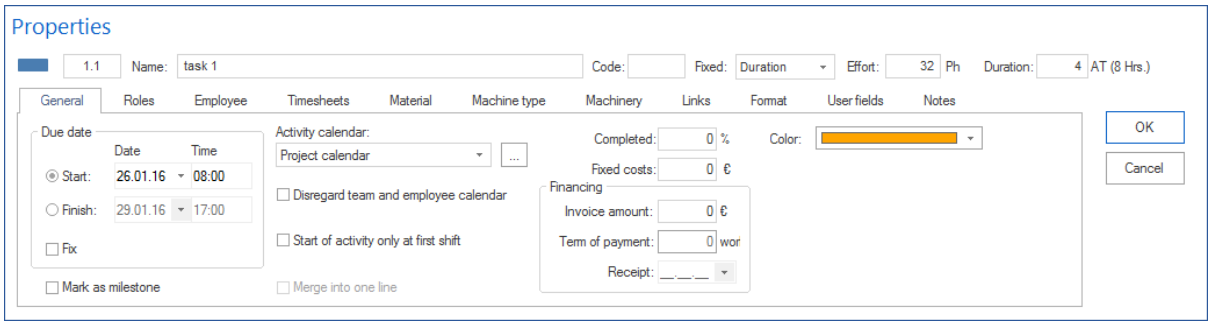
3. Click **OK**.

> **Note**
>
> You can save several baselines, for example after an approved plan change. This documents the project development over several phases.

2.5.2 Step 2: Enter Actual Data

When tasks have started or are completed:

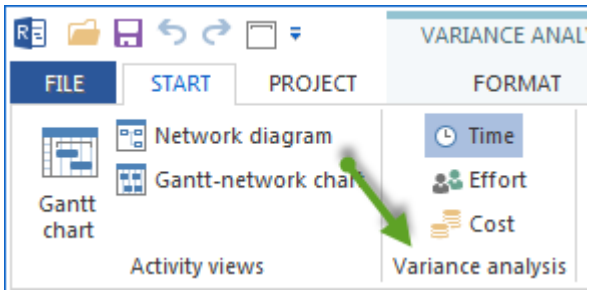
1. Double-click a started or completed task.
2. Go to the **General** tab.



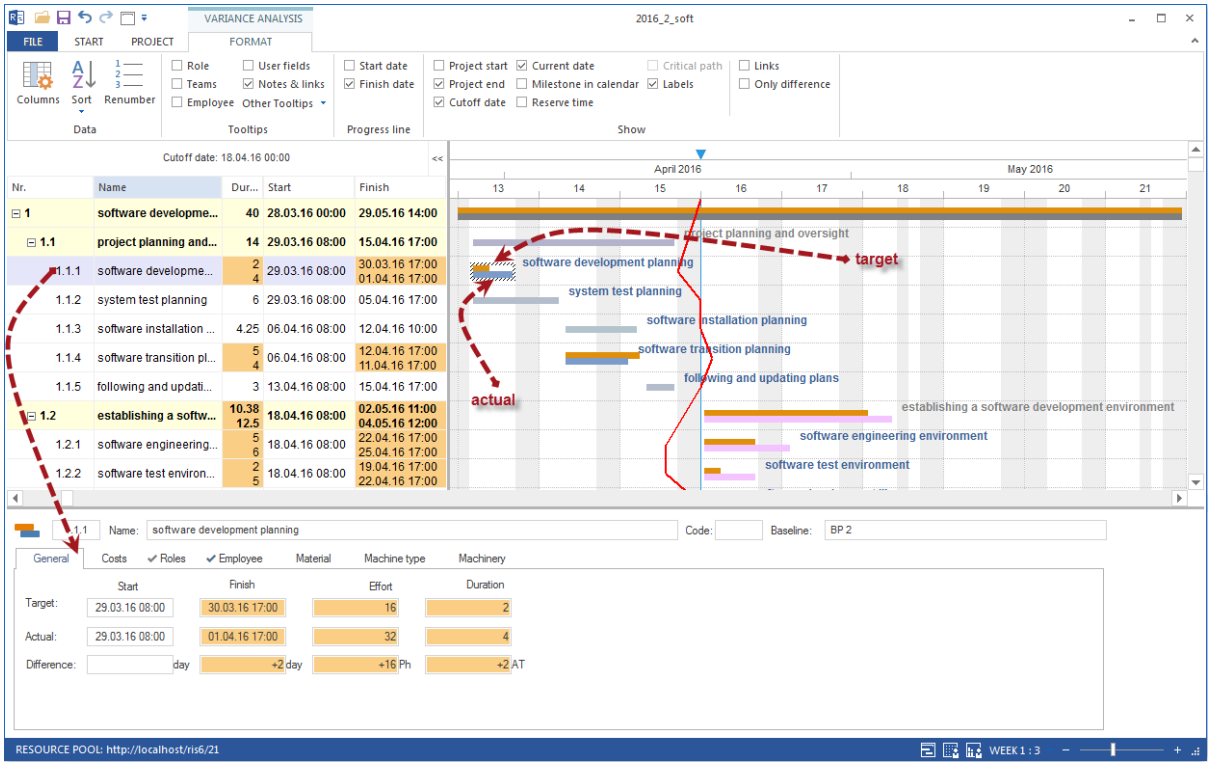
3. Enter the completion percentage, for example 50 percent for a half-finished task or 100 percent for a completed task.
4. Enter the actual start date if it differs from the plan.
5. Click **OK**.

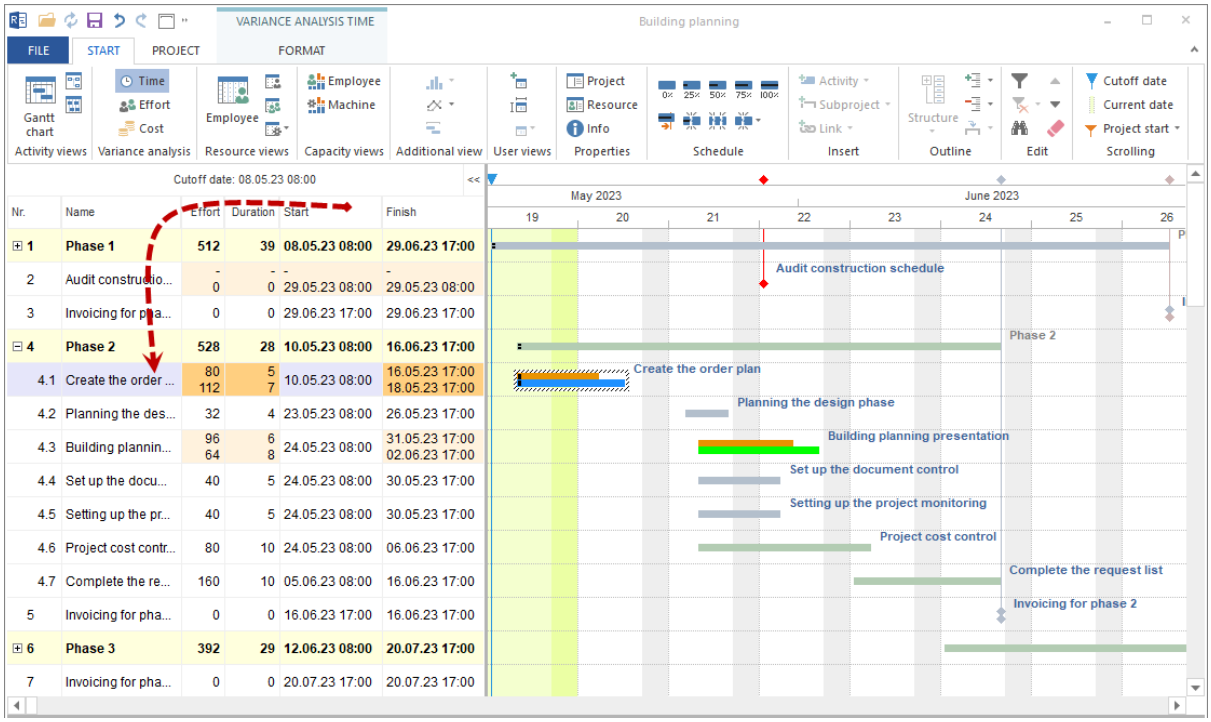
2.5.3 Step 3: Open the Target/Actual View

1. Switch to the **Variance analysis** or target/actual comparison view from **Start**.



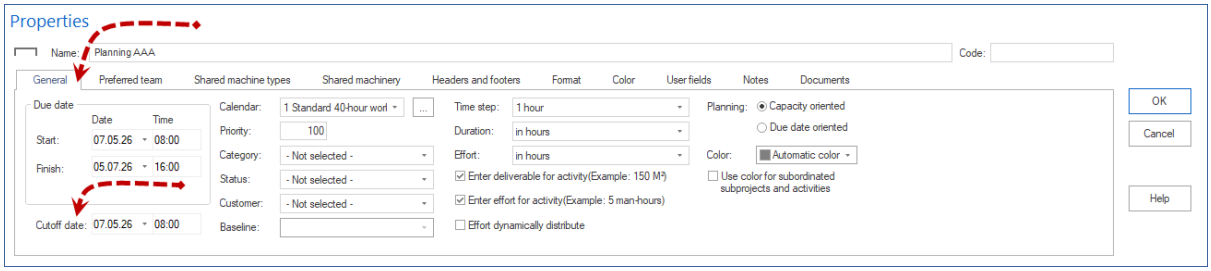
2. In the table, compare planned and actual values for each task.
3. Highlighted values show deviations from the baseline.





2.5.4 Step 4: Set the Cutoff Date

1. Open **Start > Properties > Project**.
2. On the **General** tab, enter the date in the **Cutoff date** field.
3. Alternatively, set the cutoff date marker (the small triangle) in the upper part of the time scale.



2.5.5 Result

The baseline is saved, actual data can be entered, and deviations become visible in the target/actual comparison.

2.5.6 Related Topics

- *Target/Actual Comparison and Project Control*
- *Save Baseline and Enter Progress*

target actual comparison, baseline, add baseline, variance analysis, actual progress, progress, reporting date, deviation, project manager

2.6 Open a Project Portfolio in 10 Minutes

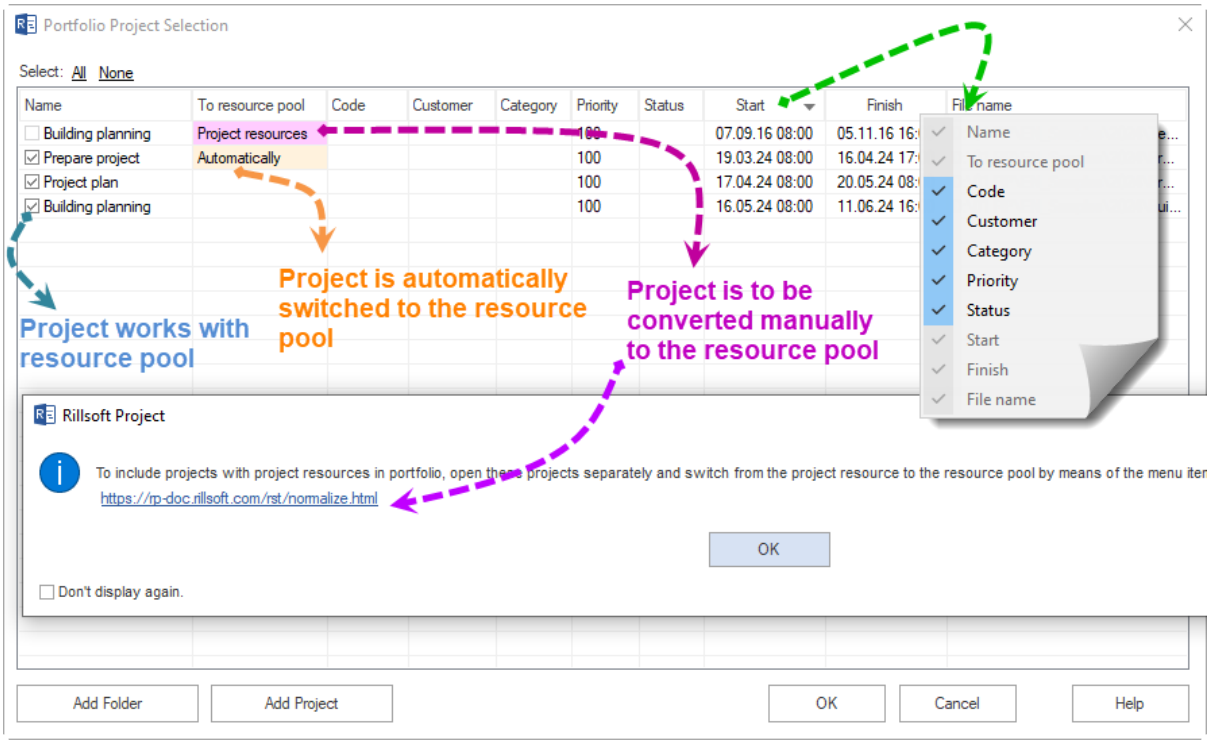
Goal: Several projects are opened together in a portfolio view. You get an overview of all projects and their resource utilization.

What is a project portfolio? A project portfolio combines several projects that use the same resource pool. It supports cross-project resource planning and capacity analysis.

Prerequisites: At least two saved project files are available and use the same resource pool.

2.6.1 Step 1: Create a New Project Portfolio

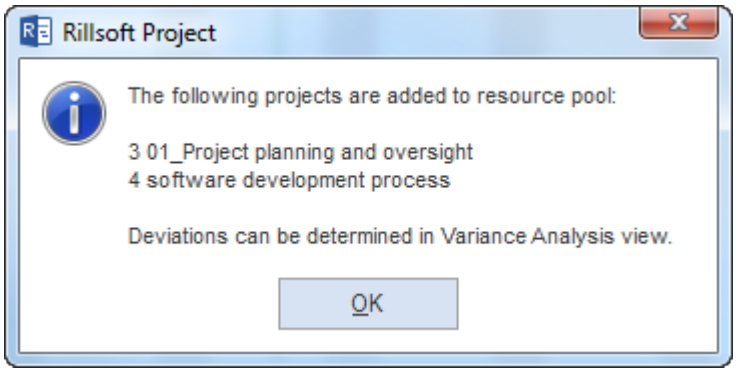
1. Select **File > Open new project portfolio**. The **Portfolio Project selection** dialog appears.

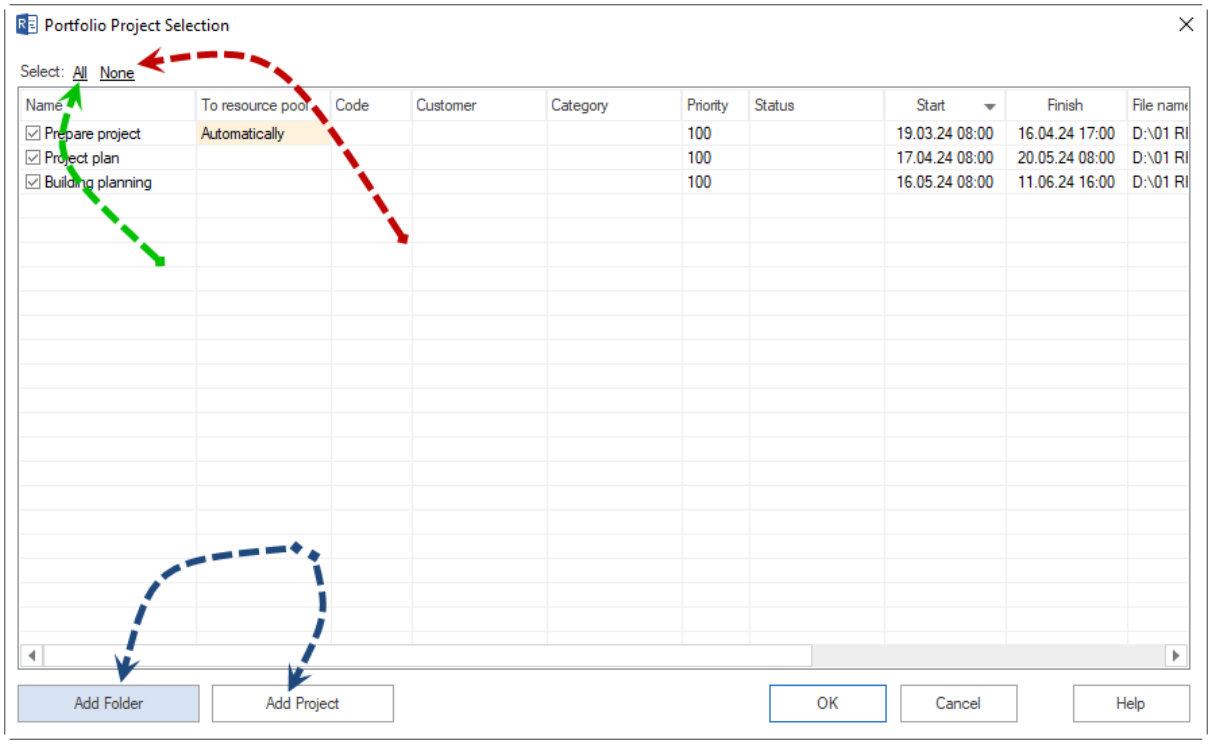


2. Click **Add Folder**.
3. Select the folder containing your project files and click **OK**.
4. Select the projects that should be included in the portfolio.

Note

Only projects that share a common resource pool can be analyzed together in a portfolio. Projects with different resource pools are marked in the selection dialog.



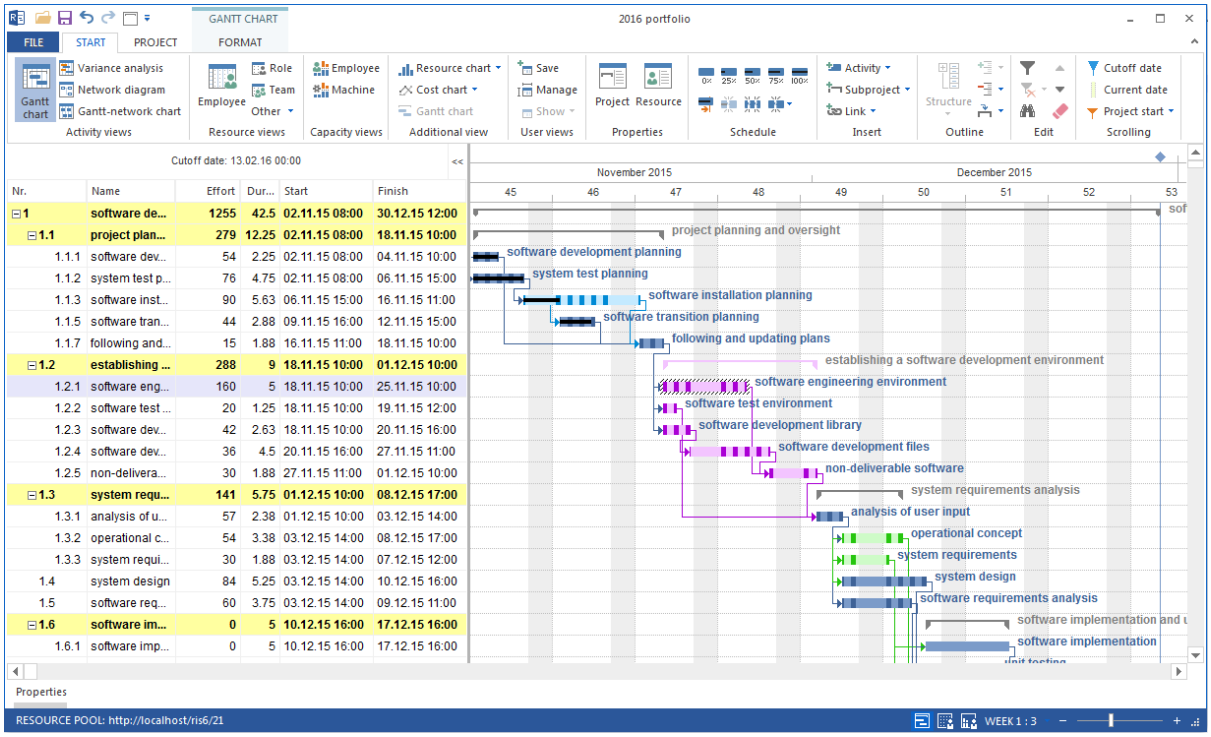


5. Click **OK**.

2.6.2 Step 2: Use Portfolio Views

In an open portfolio, many views are available in the same way as in an individual project.

1. Use the **Gantt chart** to see tasks from all included projects on the time axis.
2. Use **Capacity balancing employees** to check employee utilization across projects.
3. Use the **Roles** view to evaluate qualification-based demand across projects.



2.6.3 Step 3: Save the Portfolio

1. Select **File > Save**.
2. Choose a location and file name for the portfolio file.
3. Click **Save**.

The portfolio is saved as its own file and can be reopened later.

2.6.4 Result

The projects are combined in one portfolio. You can see cross-project resource utilization and identify bottlenecks before they become critical.

2.6.5 Related Topics

- *Project Portfolio and Multiproject Management*
- *Resources and Capacities*

project portfolio, open portfolio, portfolio project selection, add folder, common resource pool, multiproject planning, multiple projects, portfolio, master project, pmo, project manager, executive management

2.7 Recommended Order

1. *Create a First Schedule in 10 Minutes*
2. *Assign Resources in 10 Minutes*
3. *Identify Resource Overloads in 10 Minutes*

4. *Perform Capacity Balancing in 10 Minutes*
5. *Prepare a Target/Actual Comparison in 10 Minutes*
6. *Open a Project Portfolio in 10 Minutes*

2.8 Next Steps

- *Orientation for New Users*
- *Project Planning*
- *Resources and Capacities*

tutorials, quick start, first schedule, resource assignment, overload, baseline, portfolio, schedule, gantt, bar chart, timeline, critical path, dependency, project manager

CHAPTER

THREE

ORIENTATION FOR NEW USERS

This page answers basic questions that new users often have before they start planning. The answers help you choose the right workflow from the beginning.

3.1 Which View Should I Use?

Rillsoft Project provides different views. You switch between views from the **Start** ribbon.

3.1.1 Task Views for Schedule Planning

View	Use it for
Gantt chart	Planning tasks, durations, dependencies, dates, and the critical path on a timeline.
Network diagram	Checking the logical dependencies between tasks.
Bar network diagram	Combining network logic and timeline information.

3.1.2 Resource Views for Utilization and Assignment

View	Use it for
Roles	Checking demand by qualification before assigning named employees.
Employees	Checking individual utilization and assigning tasks to employees.
Teams	Reviewing utilization by teams.

3.1.3 Capacity Views for Demand and Supply

View	Use it for
Capacity balancing employees	Comparing resource demand and available employee capacity.
Capacity balancing employees with Gantt chart	Reviewing capacity and schedule at the same time.

3.1.4 Target/Actual Views for Project Control

View	Use it for
Variance analysis	Comparing planned and actual values in a table.
Target/actual comparison for dates	Visualizing date deviations from the baseline.
Target/actual comparison for effort	Identifying effort deviations from the plan.

Tip

If a view is not visible, check **File > Settings > Views and properties**.

3.2 Which Master Data Do I Need Before Planning?

For a realistic project plan, maintain the following data in the resource pool:

Calendars
: Define working days, working hours, holidays, and non-working days.

Roles or qualifications
: Describe what skills the tasks need, for example engineer, project manager, or electrician. Roles allow qualification-based planning before named employees are assigned.

Employees
: Represent people who can be assigned to tasks. Each employee needs working time data, a calendar, and assigned roles or qualifications.

Recommended, but not always required at the beginning:

Teams
: Useful when you plan by departments or project teams.

Material, devices, and machines
: Useful when non-personnel resources are relevant for planning or control.

Project categories, status, customers, and priorities
: Useful for portfolio analysis and reporting.

3.3 Tasks, Subprojects, Summary Projects, or Portfolio?

Use the structure level that matches the planning problem:

Situation	Recommended structure
Small project with up to about 30 tasks	Flat task list
Medium project with clear phases	Tasks and subprojects
Several projects with shared resources	Summary project or portfolio
Many parallel projects and strategic steering	Project portfolio

Tasks are the basic work units. Anything that has duration, effort, resources, and dependencies should be a task.

Subprojects structure one project into phases or logical sections. They are part of the same project and use the same resource pool.

Summary projects combine several separate project files in one view.

Project portfolios provide the broadest cross-project view. Use them when you need strategic overview, resource conflicts, and priorities across many projects.

3.4 When Do I Need the Resource Pool?

You need the resource pool whenever you want to:

- plan which roles or employees are required,
- detect overloads before dates become binding,
- control shared employees across several projects,
- perform capacity balancing,
- include working time, vacation, illness, or other non-working days in the schedule.

You can start without a resource pool only for a rough schedule where resources and capacity are not yet relevant.

3.5 Required Steps for a Reliable Plan

No.	Step	Without it you miss
1	Create a resource pool with calendars, roles, and employees	A realistic capacity basis
2	Enter project structure and tasks	Completeness of the plan
3	Define durations and effort	Realistic resource demand
4	Link tasks	Schedule logic and critical path
5	Assign roles or employees	Visible resource planning
6	Perform capacity balancing	Feasibility check
7	Save a baseline	Basis for target/actual comparison

3.6 Next Steps

- *Tutorials*
- *Project Planning*
- *Resources and Capacities*
- *Resource Assignment*

orientation, views, master data, resource pool, subproject, master project, project portfolio, resource planning, resource assignment, resource demand, resource supply, project manager, resource manager

CHAPTER

FOUR

PROJECT PLANNING

4.1 Build a Project Structure

A good project structure is the basis for every reliable schedule. Before durations, dates, or resources are entered, it must be clear how the project is organized.

Rillsoft Project structures projects with **subprojects**, **tasks**, and **milestones**. Subprojects combine tasks that belong together professionally. Milestones mark important decision points or delivery dates.

4.1.1 Clarify Before Building

Before creating subprojects and tasks, clarify the professional structure:

- **By which principle is the project structured?** By phases, trades, deliverables, locations, or departments — choose one principle that fits your project and apply it consistently.
- **How deep should the structure be?** Two to three levels (project — subproject — task) are sufficient for most projects. Deeper structures make control and evaluation harder.
- **Who reads the structure?** Project managers, resource managers, and management should understand the structure without explanation. Internal code names do not belong in task names.

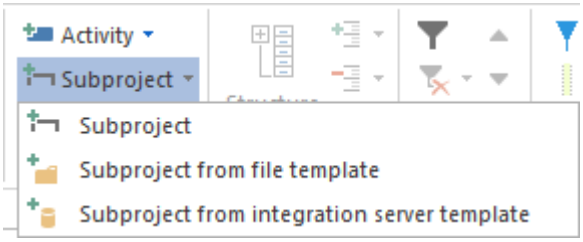
4.1.2 Typical Structuring Principles

Principle	Suitable for	Example subproject names
Phases	Projects with clear phases and milestone reviews	Concept, Planning, Realization, Test, Rollout
Trades	Construction projects, technical installations	Shell, Roof, Heating, Electrical, Interior
Deliverables	Product development, IT projects	Frontend, Backend, Database, Documentation
Departments	Organizational projects, cross-location initiatives	Sales, Production, HR, IT
Locations	Multi-site projects, international initiatives	Plant North, Plant South, Headquarters

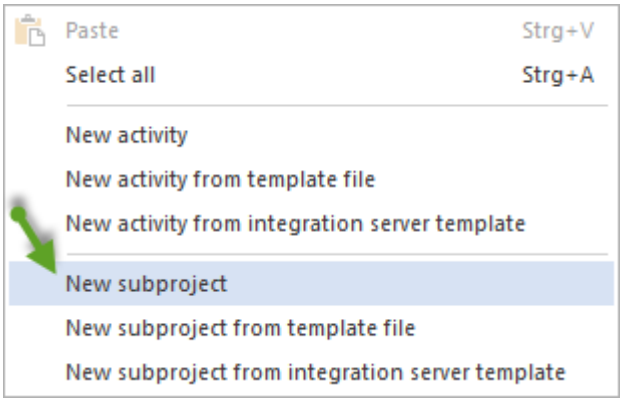
4.1.3 Create a Subproject

New empty subproject:

1. Click the required position in the task list.
2. Choose **Start > Insert > Subproject** or the context menu command **New Subproject**.
3. Enter the name.
4. Define the subproject start and finish if required.

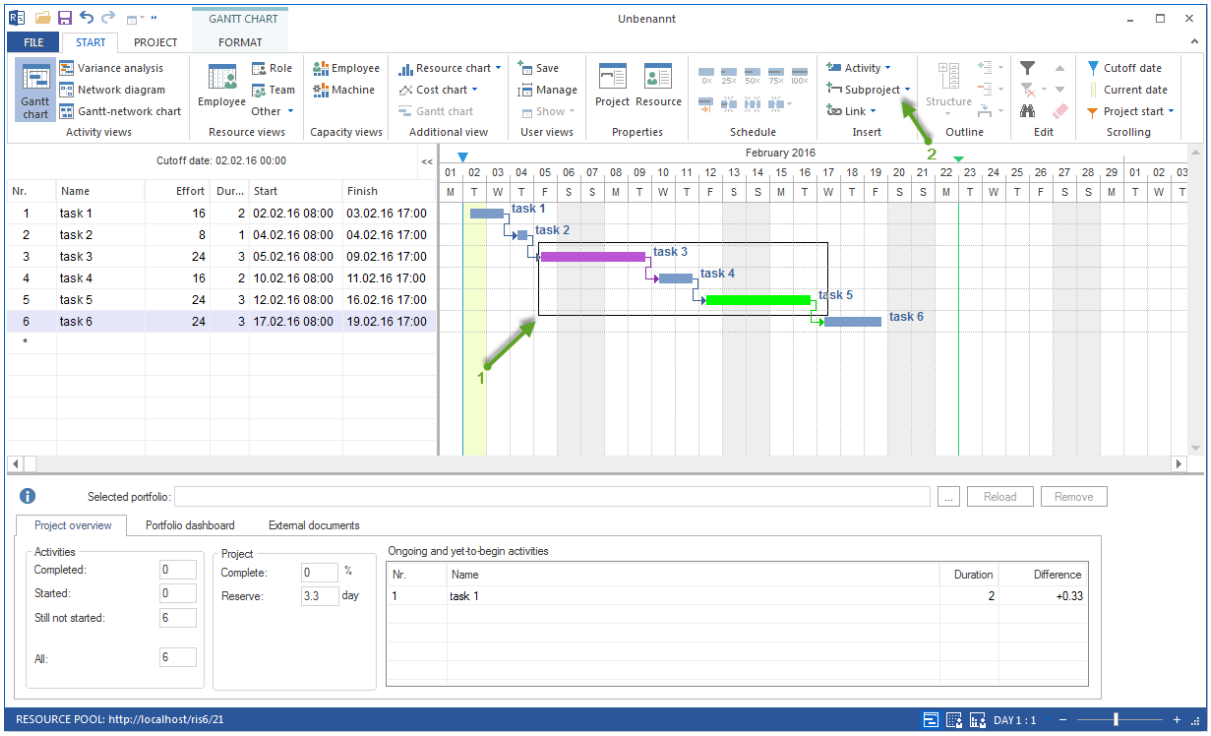


You can also create a subproject directly in the Gantt chart by opening the context menu in the chart area and choosing **New Subproject**.

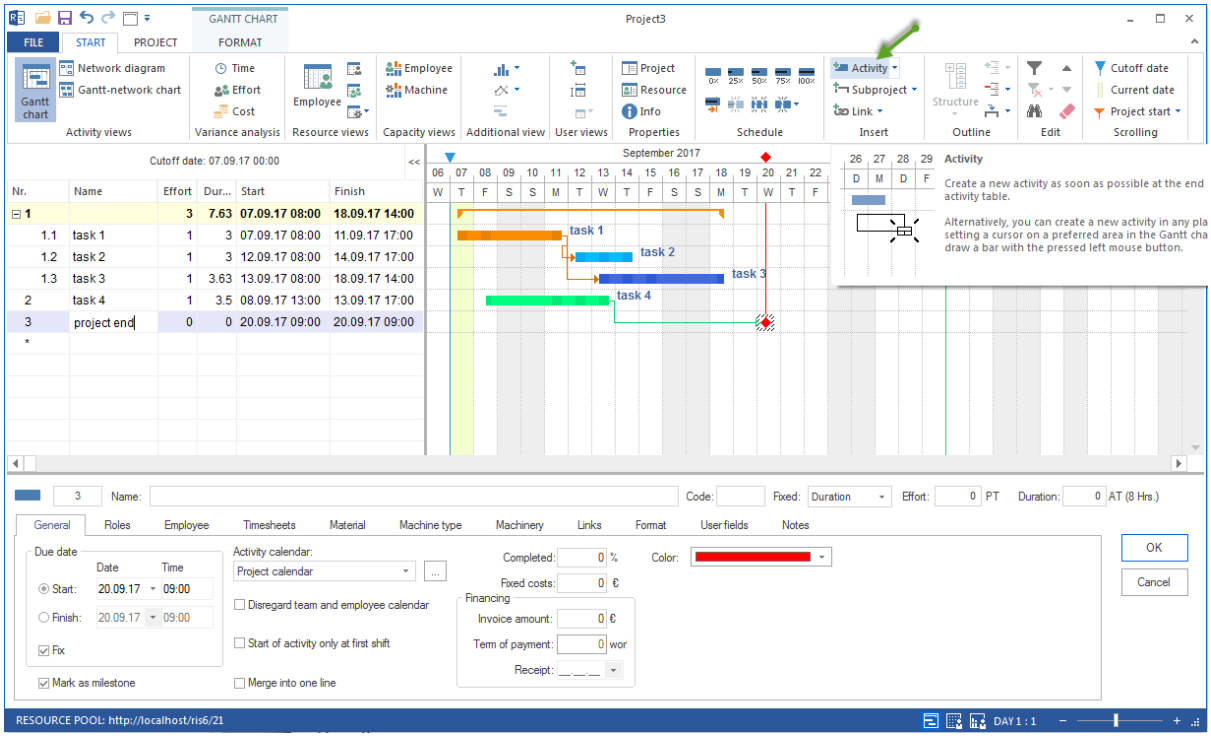


Combine tasks into a subproject:

1. Select the tasks that belong together.
2. Choose **Start > Insert > Subproject**. The selected tasks are moved into the new subproject; its start and finish are calculated from them.
3. Give the subproject a meaningful name.



Rillsoft Project shows subprojects as condensed bars in the Gantt chart. The subproject start and finish are calculated from the contained tasks.



More about subproject management (opening, editing, deleting): *Manage Subprojects*

4.1.4 Set Milestones

Milestones are tasks with zero duration. They mark decision points or delivery dates.

Create a milestone:

1. Choose **Start > Milestone** or drag a point onto a date column in the Gantt chart.
2. Enter a clear name.
3. Set the date.

Use milestones deliberately:

- approvals (design approval, budget approval, acceptance)
- delivery dates towards the customer
- phase transitions
- contract dates

Too many milestones make the plan hard to read. As a guideline: one milestone per subproject or deliverable.

4.1.5 Check the Structure Quality

Before entering durations and dependencies, check the structure:

- Is every subproject professionally separated and independently nameable?
- Does every task have a clear end (a result or state, not just an activity)?
- Are there tasks that actually describe several steps? (split them)
- Are there tasks so small that they cannot be controlled? (combine or drop them)
- Are milestones placed at professionally meaningful points?

Typical structure mistakes: *Best Practices*

4.1.6 Connection to Resource Planning

The project structure determines how resource demand can be assigned. The more clearly tasks are separated professionally, the more precisely the required professional qualification can be described.

- Tasks that are too coarse (for example “Realization”, 6 months) make qualification-based planning imprecise.
- Tasks that are too fine (individual jobs of a few hours) make capacity balancing harder.

Recommendation: task durations between 1 and 20 working days keep the plan controllable.

4.1.7 Related Topics

- *Plan Tasks*
- *Link Tasks*
- *Manage Subprojects*
- *Best Practices*
- *Activity*
- *Subprojekt*

project structure, subproject, work package, milestone, task hierarchy, schedule, gantt, bar chart, timeline, critical path, dependency, project manager

4.2 Plan Tasks

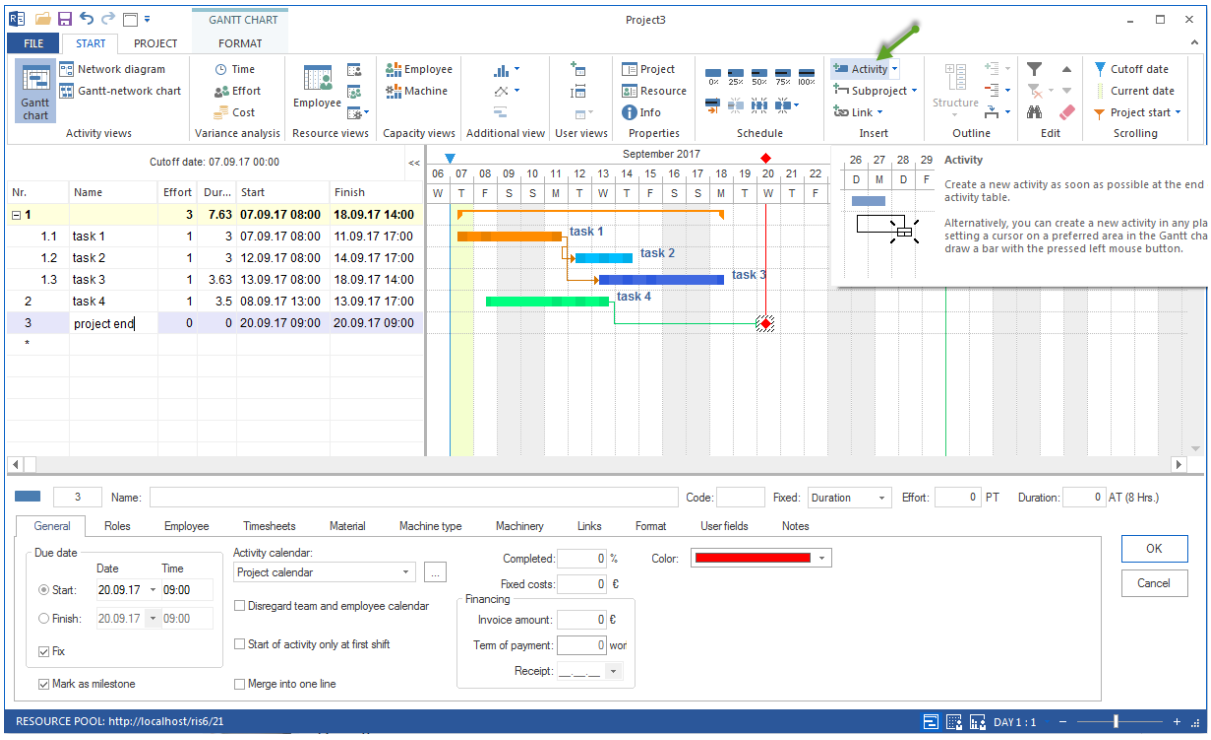
Tasks are the schedulable work units in the project. They contain duration, dates, effort, dependencies, and resource demand. This article describes how tasks are created, named, changed, and filled with content. Some dialogs may still use Activity labels; this help uses task for the planning object.

4.2.1 Create a Task

Rillsoft Project offers three ways to create a task:

From the ribbon:

1. Click the required position in the task list.
2. Choose **Start > Activity**.
3. Enter the name.

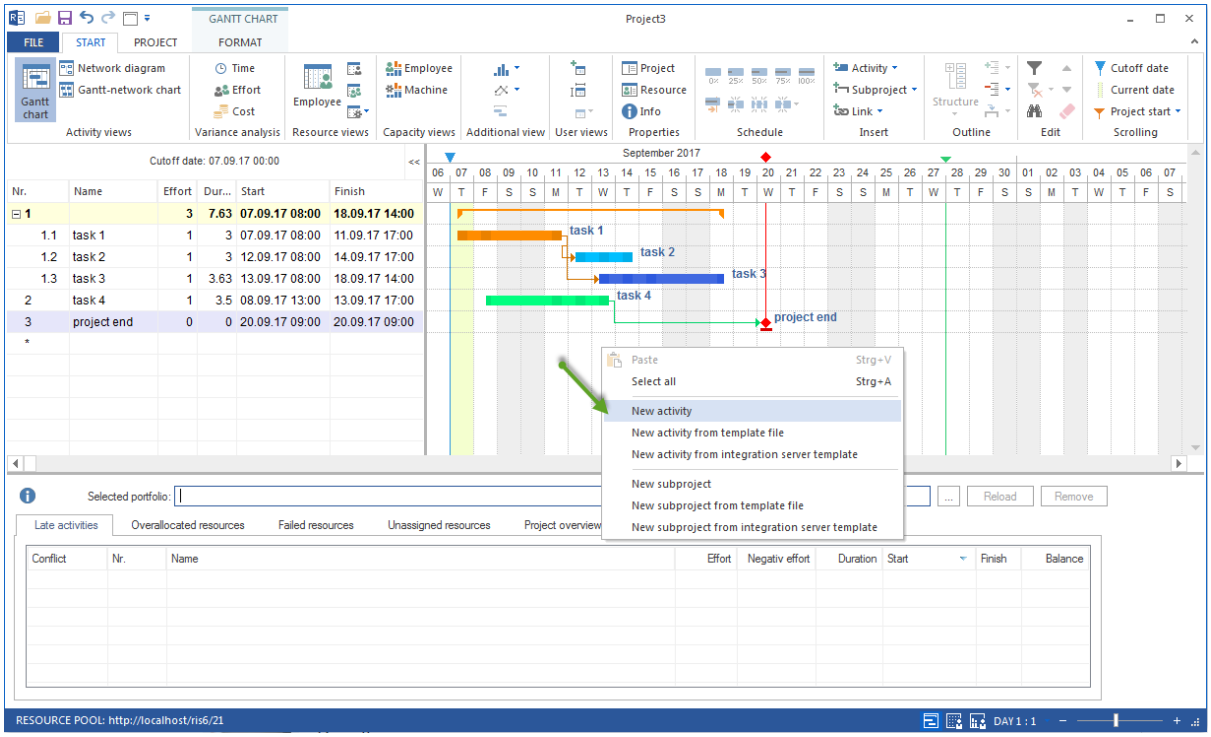


By drawing in the Gantt chart:

1. Hold the left mouse button in the chart area.
2. Drag a bar over the required period.
3. Release the mouse button. The task is created with start and finish from the drawn period.

From the context menu:

1. Right-click in the task list or the Gantt chart.
2. Choose **New activity**.

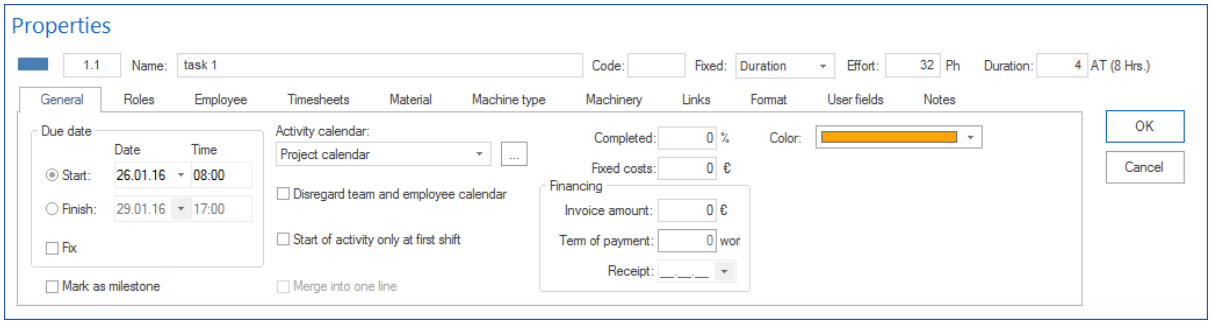


Milestones are created the same way: **Start > Milestone** or by clicking a date column without dragging.

4.2.2 Define Task Properties

After creating a task, open its properties by double-clicking the task or with **Start > Properties**.

General tab — the most important planning fields:



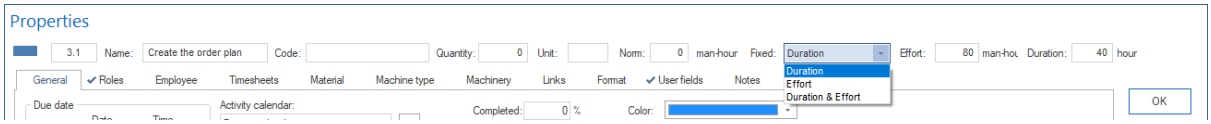
Field	Meaning
Name	Clear, result-oriented task name.
Duration	Planned duration in working days, hours, or weeks.
Start / Finish	Calculated or manually set dates.
Effort	Planned work in person-hours or person-days.
Completed (%)	Progress for target/actual comparison.
Fix	When enabled, this task is not moved by optimization runs.
Priority	Controls the order for automatic resource assignment.
Notes	Free-text field for professional explanations.

Durations and dates:

Rillsoft Project can calculate durations and dates in different ways:

- **Set the duration** — dates are calculated.
- **Set start and finish** — the duration is calculated.
- **Set only the start** — the finish results from duration and dependencies.

Avoid unnecessarily many manually set dates. Every fixed date reduces planning flexibility and makes the plan less responsive to changes.



4.2.3 Change a Task

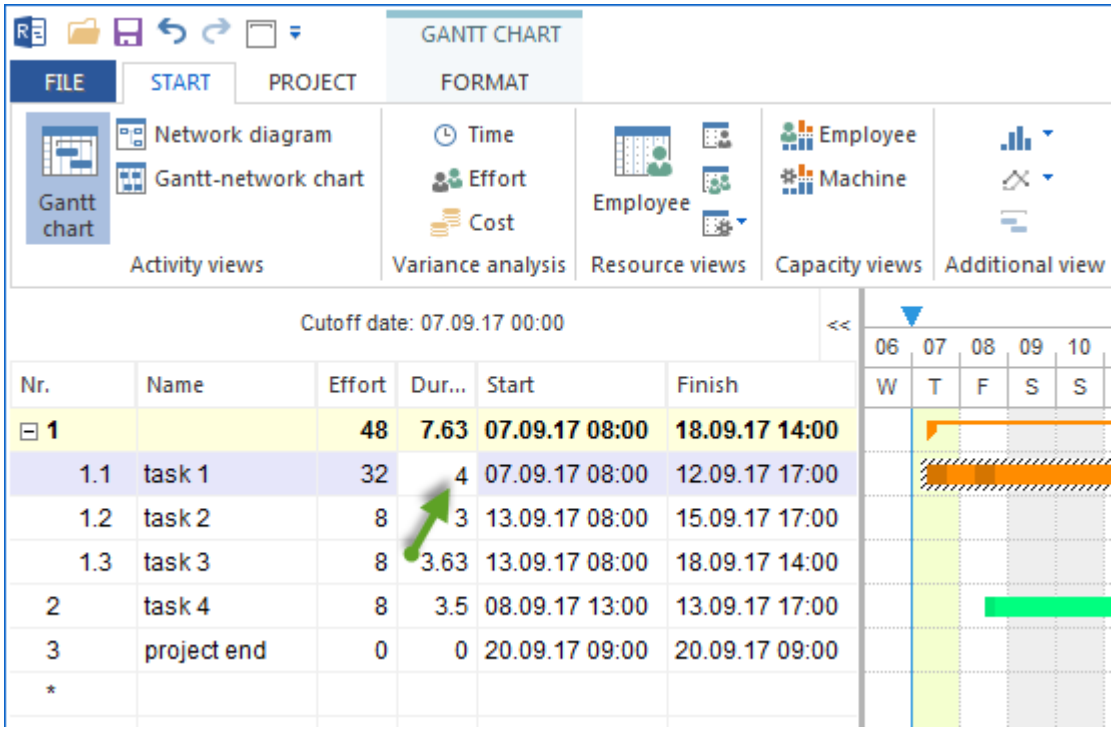
You can change task parameters in several ways. Choose the way depending on whether you edit individual table values, several detail fields, or the time bar.

In the properties window:

1. Click the task in the chart or table.
2. Open the properties window, for example by double-clicking or with **Start > Properties**.
3. Open the required tab.
4. Make the changes and confirm with **OK**.

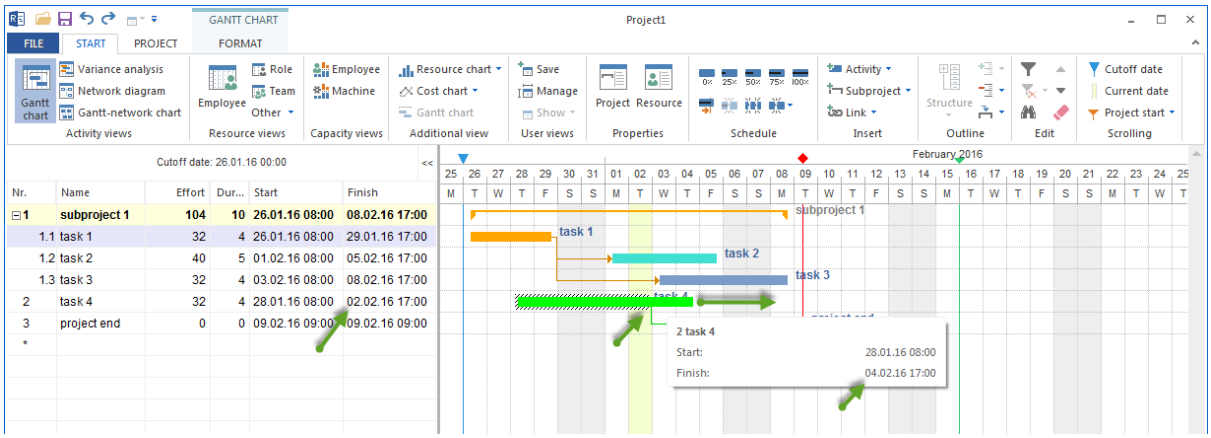
In the task table:

Many important task parameters can be edited directly in the Gantt table. This is the fastest way for names, duration, dates, effort, progress, and visible column values.



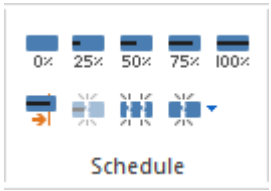
In the chart area:

With the mouse, you can move a task in time or change its duration in the chart. Afterwards, check dependencies, resource demand, and the effect on successors.



Schedule commands:

In **Start > Schedule**, you can quickly enter a completion percentage or split a task by suitable criteria.



4.2.4 Name Tasks Well

The task name determines whether the plan is readable for everyone involved.

Good names describe a completed result or state:

- Design approved
- Foundation poured and cured
- Acceptance performed
- Test report submitted

Poor names describe an activity without a recognizable end:

- Work on design
- Concrete
- Tests
- Meeting

Practical rule: If a task can end with “done”, for example “Design approved”, it is named well.

4.2.5 Effort Types and Effort Calculation

Rillsoft Project distinguishes effort types for calculating duration, resource demand, and costs:

Effort type	Effect
Fixed	Effort stays the same regardless of resource count or duration.
Proportional	Effort scales with the number of resources. More people can shorten the duration at the same effort.
Free	Effort is set manually and not recalculated.

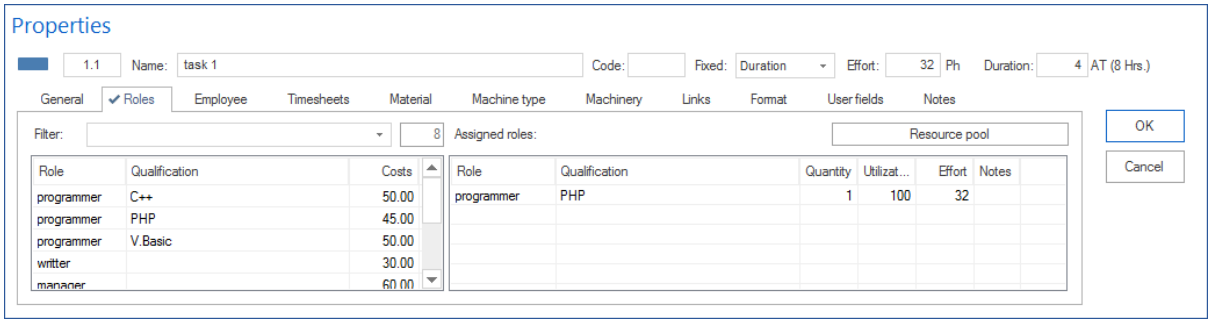
For most tasks, **Proportional** is the right choice when several people can work together. **Fixed** is right for idle times, waiting times, or tasks where more people do not save time.

4.2.6 Plan Resource Demand on the Task

As soon as the task structure is stable, assign roles (professional qualifications). This is the first step of resource planning, before named employee assignment.

Roles tab in the task properties:

1. Click **Add role**.
2. Select the professional qualification from the resource pool.
3. Define **Quantity** (how many people) and **Utilization** (percent).
4. Confirm.



More: *Plan Resource Demand by Qualifications*

4.2.7 Typical Planning Mistakes

- **Tasks too large:** A task covers several months or a whole subproject. It cannot be controlled and makes capacity balancing imprecise.
- **Too many small tasks:** Jobs of a few hours create planning overhead without control value.
- **No clear end:** The task is an activity without a measurable result.
- **Manually set dates for every task:** The plan can no longer be calculated, and every change must be maintained manually everywhere.

4.2.8 Related Topics

- *Build a Project Structure*
- *Task and Subproject Tables*
- *Link Tasks*
- *Manage Tasks*
- *Plan Resource Demand by Qualifications*
- *Dialogs*

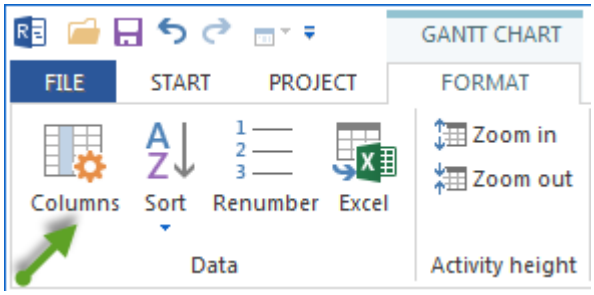
task, activity, new activity, gantt chart, duration, fixed date, task properties, schedule, gantt, bar chart, timeline, critical path, dependency, project manager

4.3 Use Task and Subproject Tables

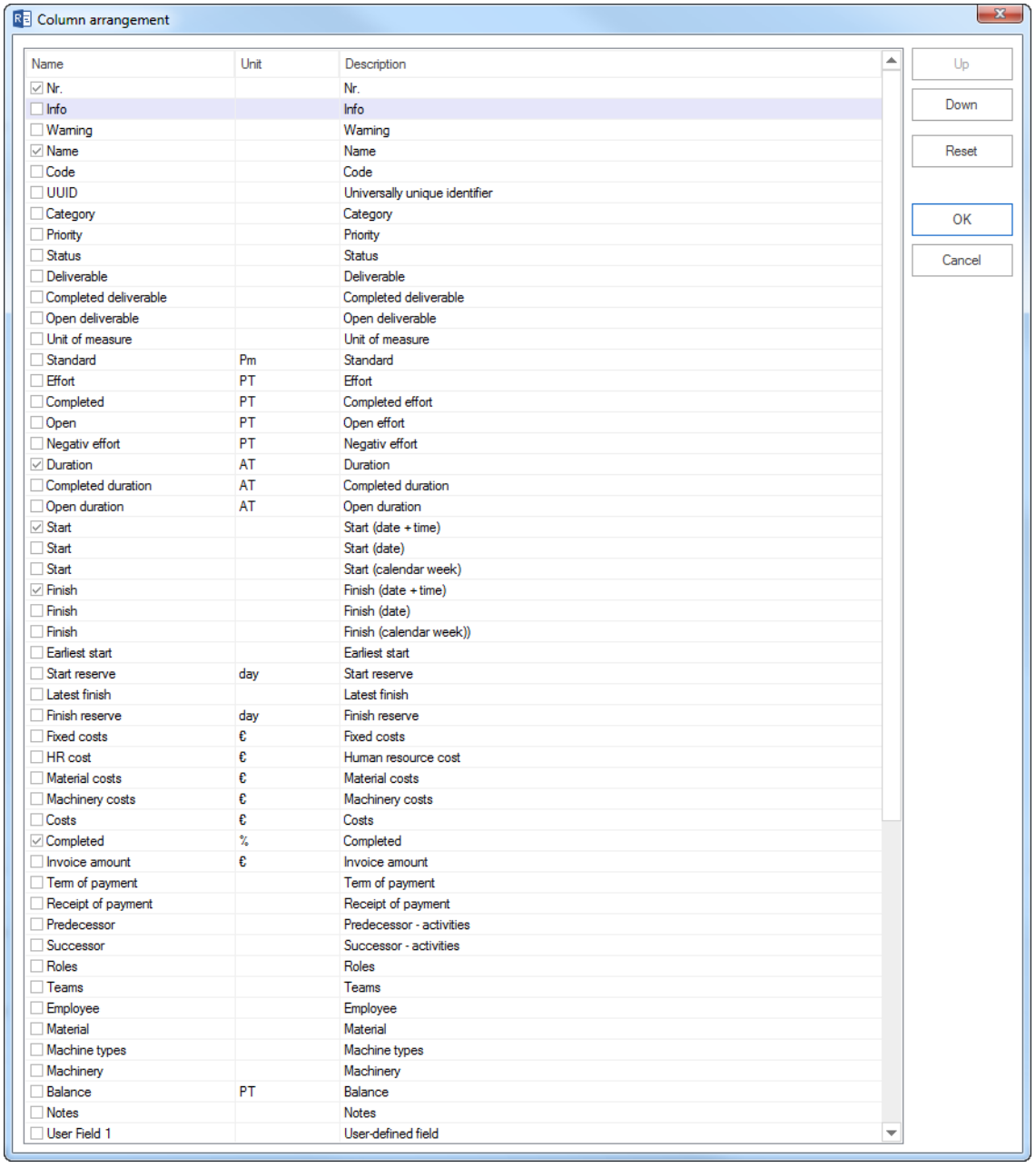
Task and subproject tables show the most important parameters of the project plan. You can adapt content, column order, and width to your way of working.

4.3.1 Adjust the Table Content

1. Open **Format > Columns** in a view.

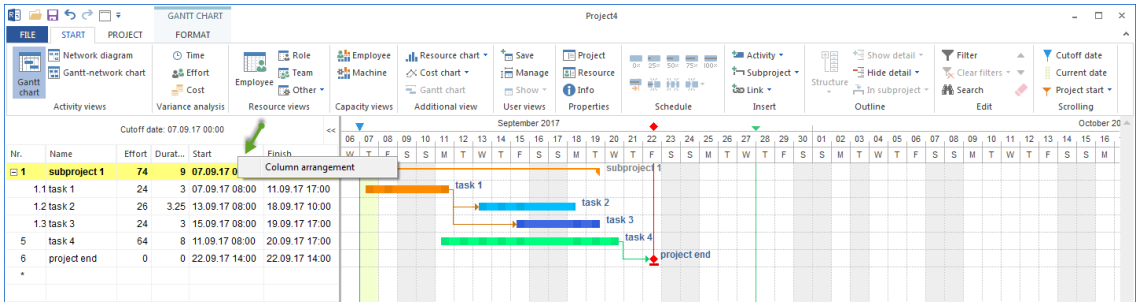


2. Alternatively, right-click the column header area and choose **Properties** from the context menu.



3. In the dialog, define which columns are shown. This includes user-defined fields.

4. Change the column order if required.



4.3.2 Adjust the Table Width

- Drag a column border to change its width.
- Temporarily expand or collapse the table when you need more room for the chart or for table data.

4.3.3 Navigate in Tables

- Use **Arrow up** and **Arrow down** to move between task and subproject rows.
- Use **Tab** to jump to the next column.
- Use **Shift+Tab** to jump to the previous column.

4.3.4 Units of Measure

Duration and effort units are defined in the project settings, for example hours, working days, or working weeks. Check the setting under **Project properties > General > Project settings** before entering larger table values.

4.3.5 Important Table Fields

Field group	Typical fields
Structure	No., Name, Code, Category, Status, Priority
Dates	Duration, Start, Finish, earliest start, latest finish, start reserve, finish reserve
Effort and progress	Effort, completed, open, negative effort, deliverable, unit of measure, norm
Costs	Fixed costs, salary, material costs, machine costs, costs
Dependencies	Predecessor, successor
Resources	Roles, teams, employees, material, machine types, machinery
Balance	Employee balance, machine balance
Additional information	Info, warning, notes, external links, user-defined fields (1 - 20)

4.3.6 Related Topics

- *Plan Tasks*
- *Manage Tasks*
- *Manage Subprojects*

4.4 Link Tasks

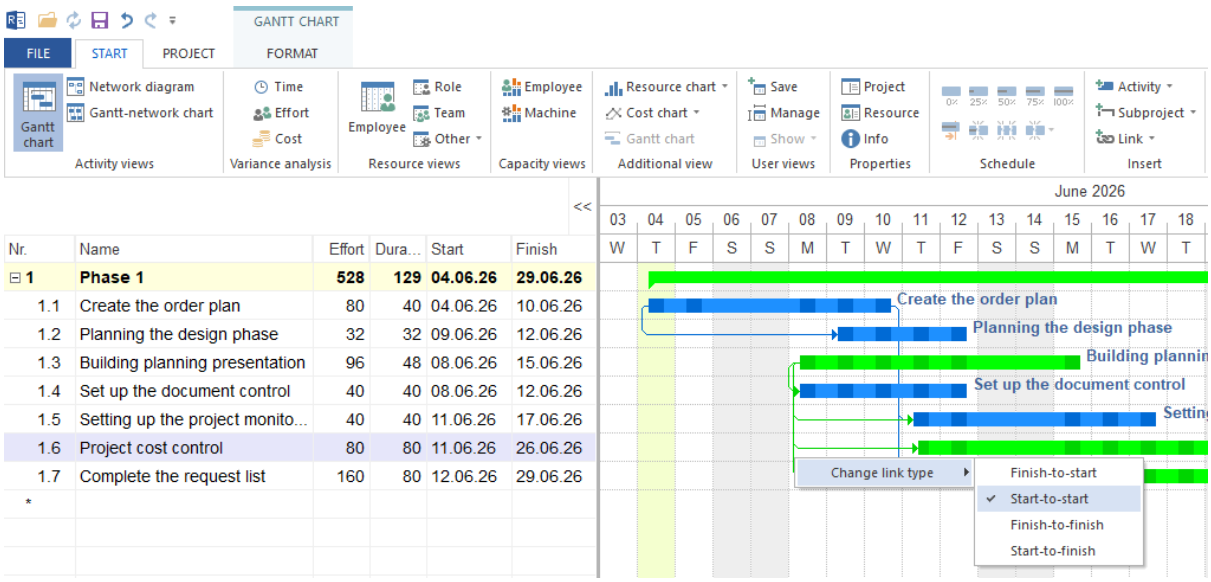
Dependencies describe logical relationships between tasks. They turn a list of tasks into a calculable schedule. Without dependencies, dates cannot be updated automatically when something changes.

4.4.1 Dependency Types

Rillsoft Project supports four dependency types and one special form:

Dependency type	Logic	Typical use
Finish-Start (FS)	The successor starts when the predecessor finishes.	Standard case in almost every schedule.
Start-Start (SS)	The successor does not start earlier than the predecessor.	Parallel work that should start together.
Finish-Finish (FF)	The successor does not finish before the predecessor.	Parallel work that should be completed together.
Start-Finish (SF)	The successor does not finish before the predecessor starts.	Rarely used; for example just-in-time scenarios.
Incompatible activity group	The linked tasks must not run at the same time.	Resources that can be used only once (a machine, a room).

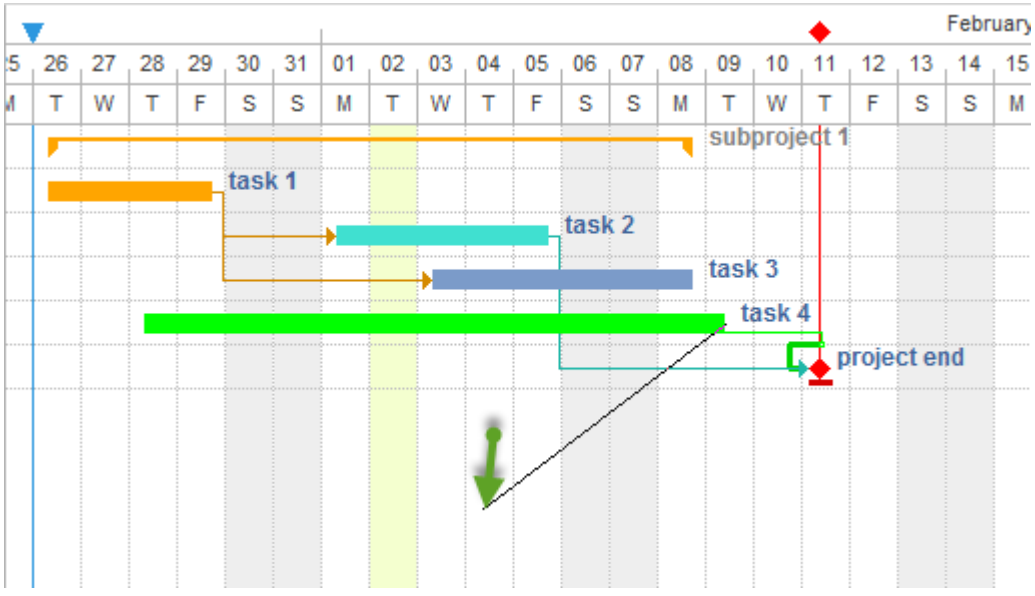
Finish-Start covers most project dependencies. Use other types only when the professional logic requires them.



4.4.2 Create a Dependency

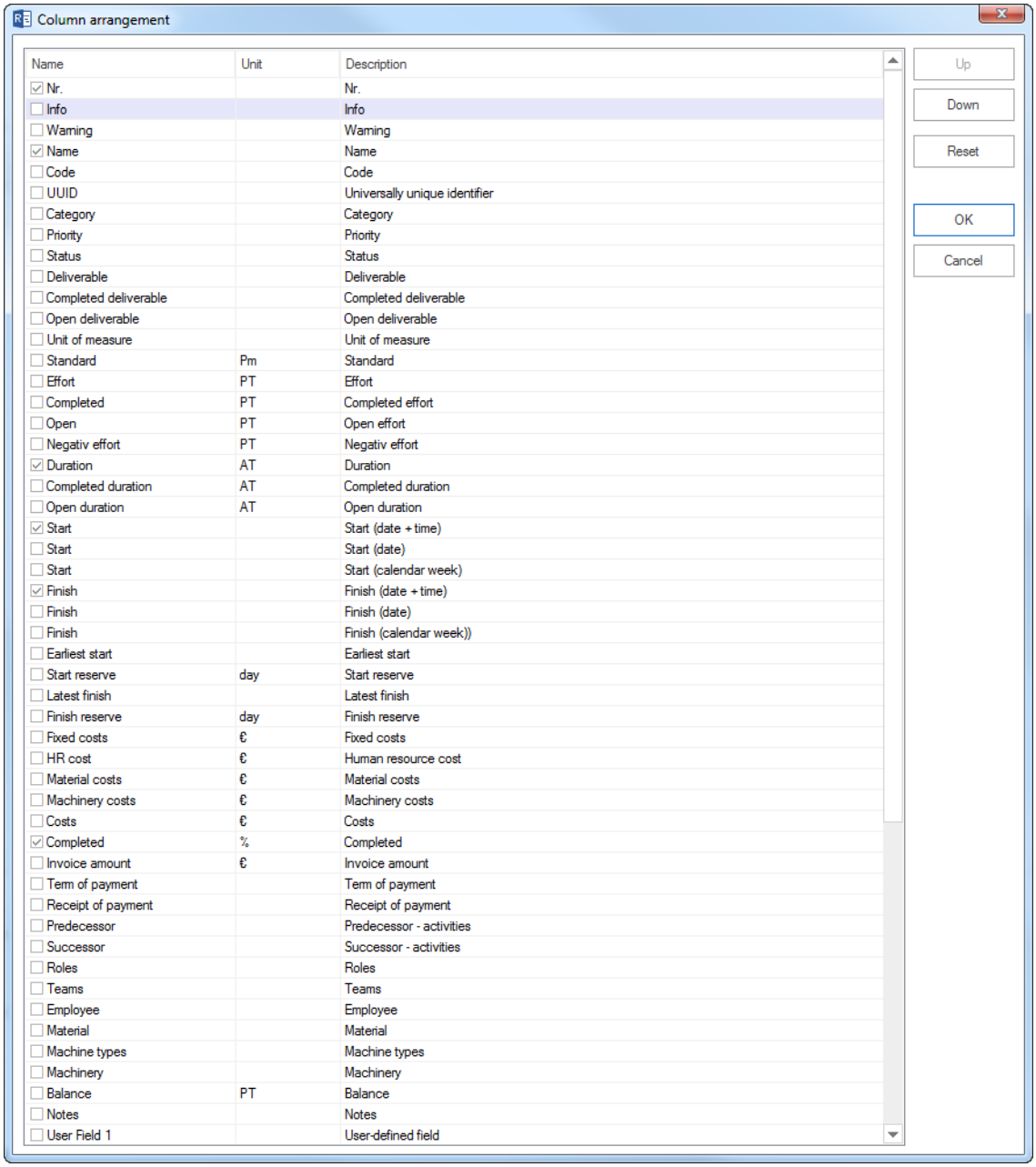
In the Gantt chart:

1. Choose the dependency type with **Start > Insert > Link**.
2. Move the mouse pointer over the end of the predecessor bar until an arrow symbol appears.
3. Drag the arrow onto the start of the successor bar.
4. Release — the dependency is created.



In the task and subproject table:

1. Right-click the column header area of the table and choose the column layout from the context menu.



2. Enable the columns **Predecessor** and **Successor** and confirm with **OK**.
3. Enter the task number of the predecessor or successor in the **Predecessor** or **Successor** column.

4.4.3 Intervals

Every dependency can carry a time interval:

- **Positive interval:** waiting time between predecessor and successor. Example: let concrete cure — 3 days after the end of the task “Pour concrete”.
- **Negative interval:** overlap — the successor starts before the predecessor finishes. Example: documentation starts 5 days before development is completed.

Intervals can be entered in working days, calendar days, or as a percentage of the predecessor duration.

Beware of too many intervals: Every interval is an additional manual assumption. The more intervals a plan contains, the harder it is to read and check. Use intervals only for real waiting times or overlaps.

4.4.4 Edit and Delete Dependencies

Edit:

- Double-click the dependency line in the Gantt chart to open the dependency properties window.
- Alternatively, use the **Links** tab in the task properties.

Delete:

- Click the dependency line and press **Del**.
- Or select the entry on the **Links** tab and choose **Delete**.

4.4.5 Check Dependencies

Check dependencies regularly, especially when:

- dates move unexpectedly
- the critical path behaves inexplicably
- new tasks have been added
- a task was removed or merged

Typical check questions:

- Is the dependency type professionally correct? (Should it be FS instead of SS?)

- Are there unnecessary dependencies that reduce flexibility?
- Are there missing dependencies that make the project risky?
- Are there cycles (A -> B -> C -> A)?

Cycles in the dependency logic make the plan incalculable. Rillsoft Project marks cyclic dependencies as errors.

4.4.6 Cross-Project Dependencies

Dependencies between tasks from different projects are possible with Rillsoft Integration Server. They model date dependencies across project boundaries.

More: *Multiproject Planning*

4.4.7 Related Topics

- *Build a Project Structure*
- *Analyze the Critical Path*
- *Link*
- *Dialogs*

dependency, predecessor, successor, lead, lag, finish start, start start, finish finish, incompatible activity group, schedule, gantt, bar chart, timeline, critical path, project manager

4.5 Manage Tasks

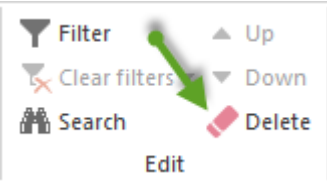
This article describes maintenance operations on tasks in the project plan: deleting and splitting. Cutoff date and baseline belong to project control and are described there.

4.5.1 Delete a Task

Delete a task only when it is professionally no longer needed. If a task should only be moved, renamed, or corrected, edit it instead.

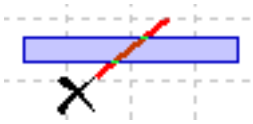
Delete from the ribbon:

1. Click the task you want to delete.
2. Choose **Start > Edit > Delete**.
3. Confirm the prompt.



Alternative in the chart:

You can delete a task quickly by holding the right mouse button on a free area in the chart and striking through the task.



What happens when deleting:

- Dependencies to this task are deleted as well.
- Successors without another predecessor become free-standing tasks. Check the dependency structure afterwards.
- Assigned resources are removed from this task but not deleted from the resource pool.
- Deleting can only be undone as long as the change has not been saved permanently.

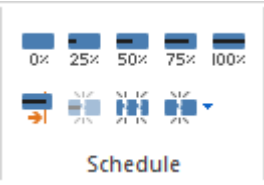
Note for summary projects and subprojects: When you delete a summary project or a subproject, the contained tasks are deleted as well. Make sure those tasks are really no longer needed.

4.5.2 Split a Task

Splitting divides a task by professional or time criteria. This is useful when work packages must be planned separately, when completed parts should be separated, or when Rillsoft Project should resolve an overload caused by multiple concurrent assignments.

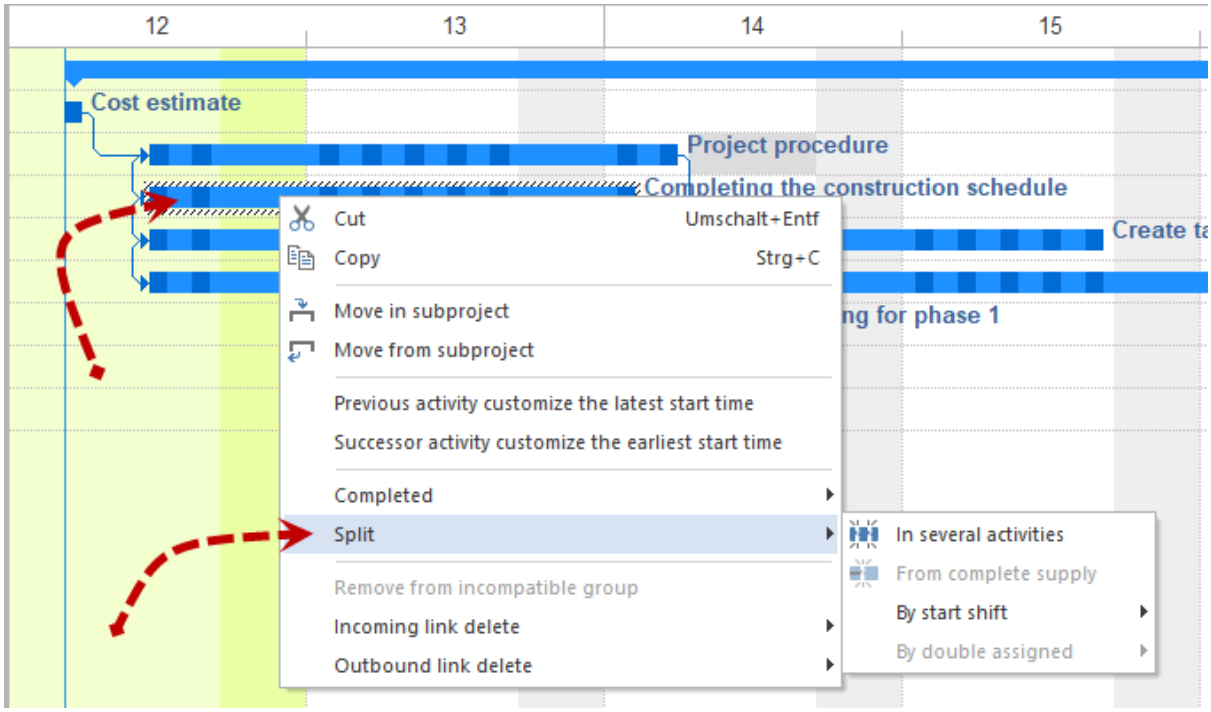
Open the split functions:

1. Select the task.
2. Open **Start > Schedule**.
3. Choose the suitable split function.



Alternative from the context menu:

Right-click the task in the chart area. Choose **Split** in the context menu and then the required function.

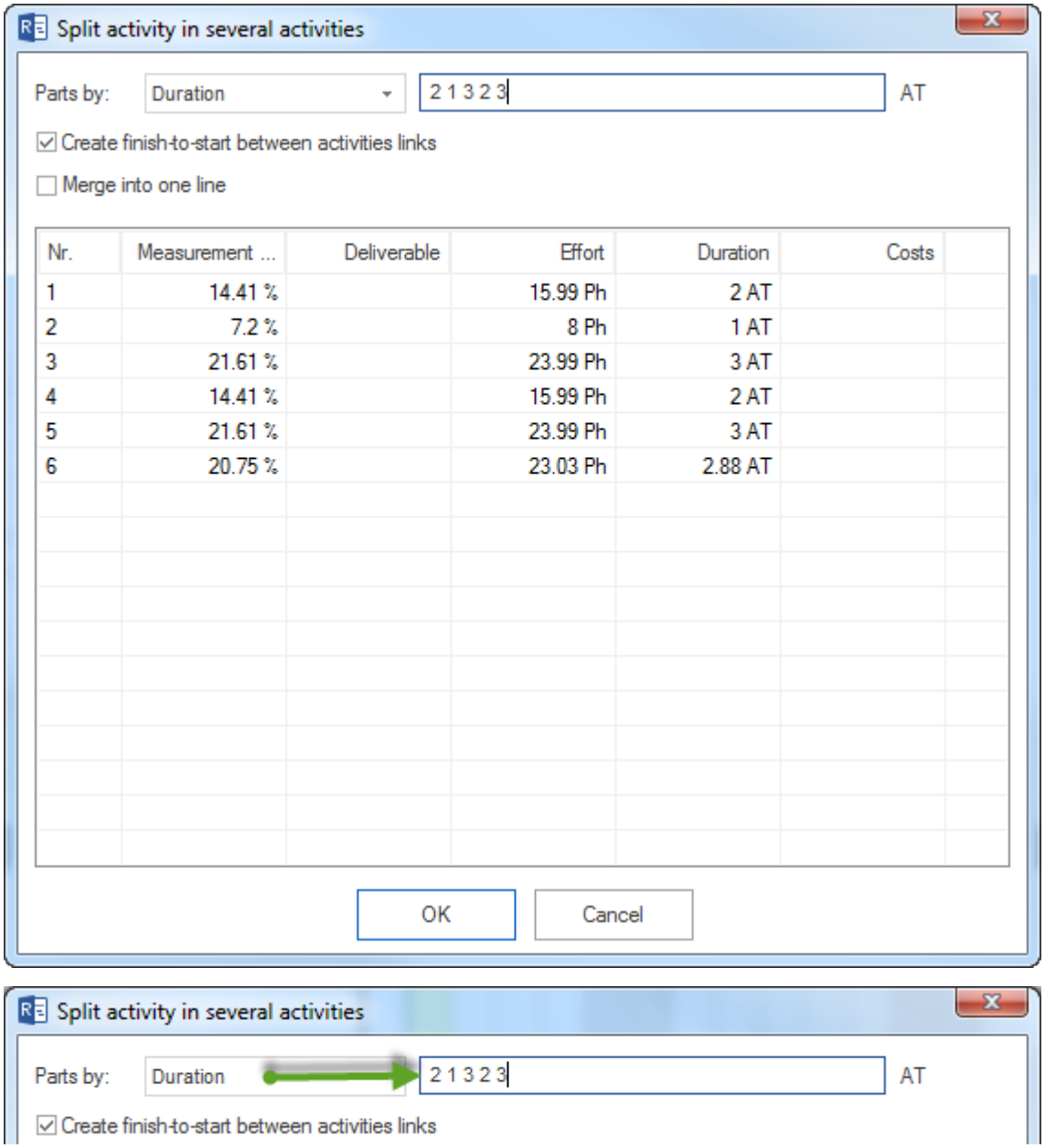


Available split functions:

- **Into several tasks** — splits a task by percentage, deliverable, effort, duration, or costs.
- **From the completed part** — separates the already completed part; the first part is set to 100% complete.
- **At the start shift** — splits the task at a selectable shift start.
- **On multiple assignment** — splits a task when several tasks run at the same time and occupy the same resource more than once.

4.5.3 Split Into Several Tasks

1. Choose **Split > Into several tasks**.
2. Define the task parameter in **Split by**.
3. Enter the split values. Several values are separated by spaces.
4. Enable **Create finish-start links between tasks** if required.
5. Enable **Show in one row** if the split tasks should be shown in one shared row.



You can split by these parameters:

- percentage
- deliverable
- effort
- duration
- costs

If you create finish-start links, the new tasks remain logically connected in sequence. Without those links, you must check the successor structure yourself.

4.5.4 Split From the Completed Part

This function is active when a task is partially complete. Rillsoft Project separates the completed part from the open part:

- The first part is set to 100% complete.
- The second part remains open.
- The split date is suggested by Rillsoft Project based on progress.

Use this function when an already started task continues professionally, but the completed part should be visible separately for evaluation or control.

4.5.5 Split at the Start Shift

In shift-based planning, you can split a task at the start of a shift. Rillsoft Project offers possible dates that mark the start of the next shifts.

This function helps when work should not continue within a running shift, or when the open part must be placed cleanly on a later shift.

4.5.6 Split on Multiple Assignment

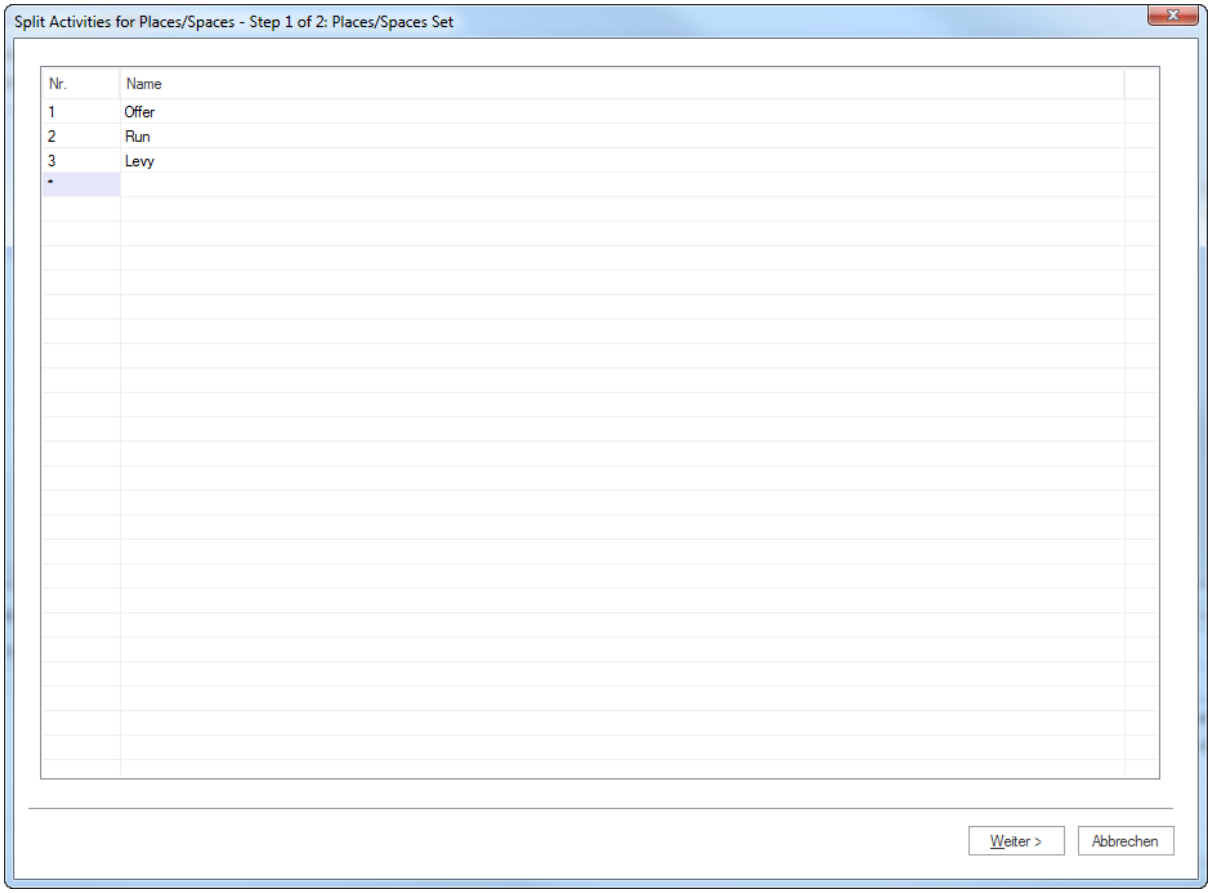
This function is active when two or more tasks run at the same time and the same resource is assigned to several of them. Rillsoft Project offers possible dates to avoid the simultaneous multiple assignment.

Use this function when a resource bottleneck should not be solved by additional employees, machines, or date moves, but by splitting a task in time.

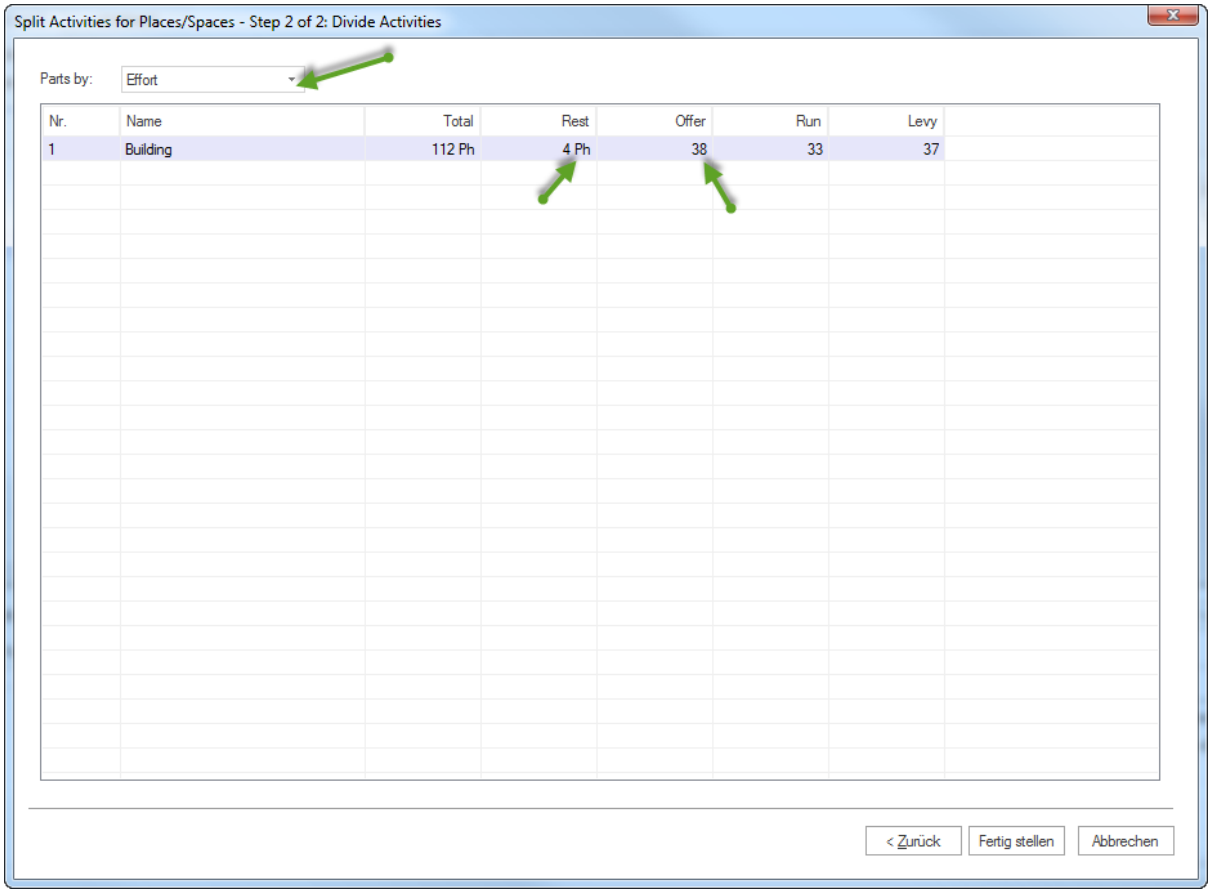
4.5.7 Split Tasks by Locations or Rooms

With the assistant, you can split tasks by locations or rooms. The locations or rooms are then shown as subprojects.

1. Choose **Project > Assistant > Split tasks by locations/rooms**.
2. Enter the locations or rooms that should later be shown as subprojects.



3. Choose the task parameter in the **Split by** list.

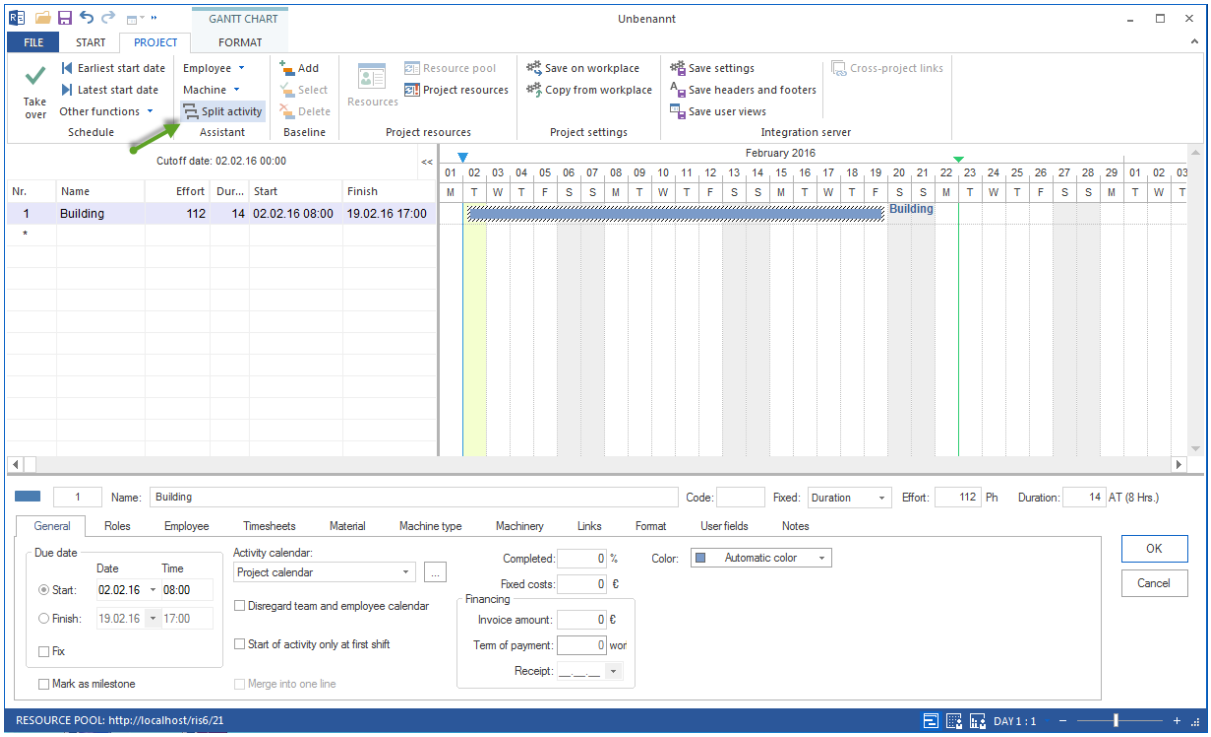


You can choose between these parameters:

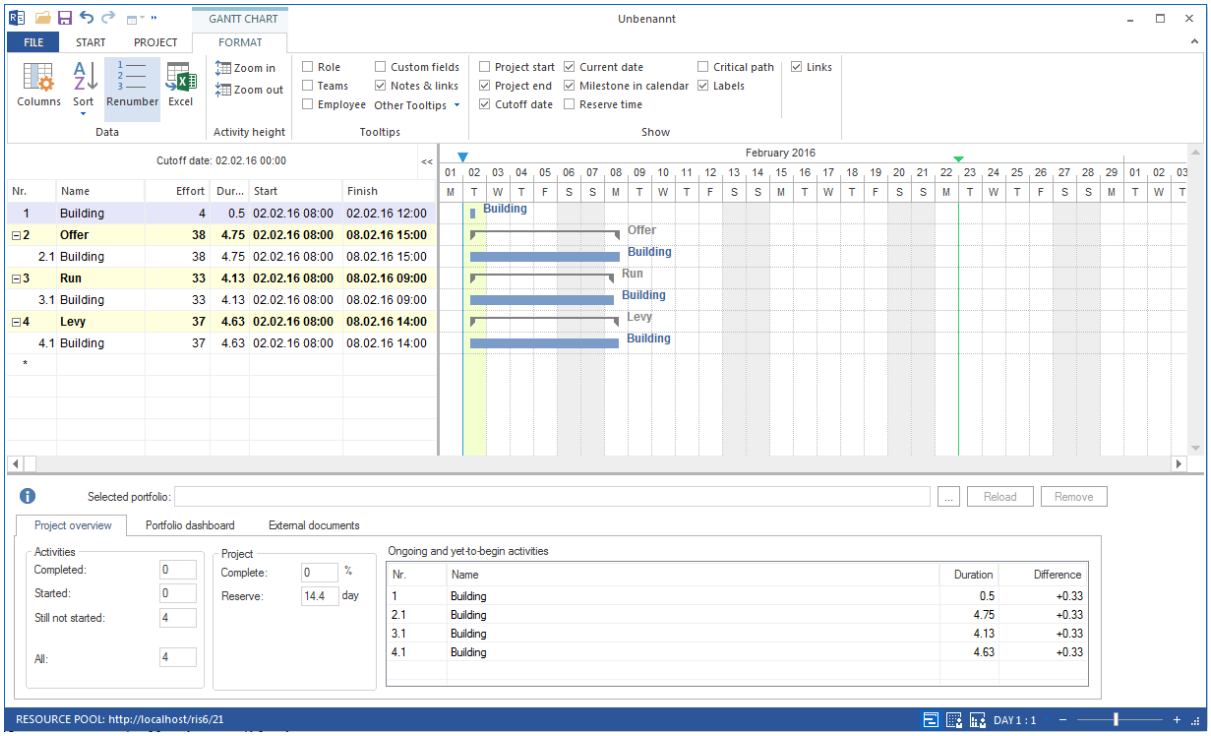
- percentage
- deliverable
- effort
- duration
- costs

The following task list shows all tasks whose distribution to the locations or rooms can be entered.

Display before splitting:



Display after splitting:



4.5.8 Related Topics

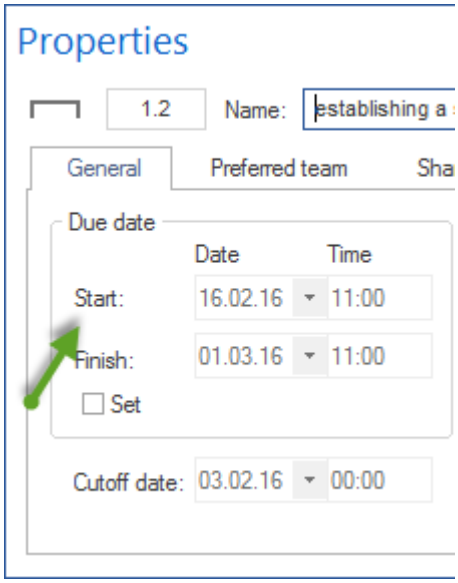
- *Plan Tasks*
- *Link Tasks*
- *Project Control*
- *Baseline and Progress*
- *Activity*

4.6 Transfer Project Dates From Tasks

You define the start and finish dates of a project when you create the project. When tasks move during planning, the project frame no longer matches the first and last task automatically. With this function, you recalculate the project start and project finish from the contained tasks.

4.6.1 Starting Point

When a project is created, Rillsoft Project sets the project duration to two weeks by default. Start and finish dates can be defined in the project properties.

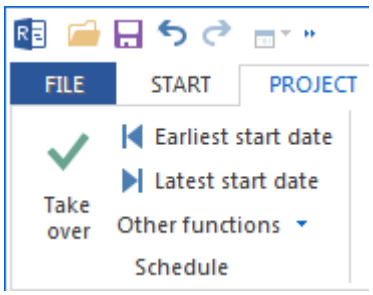


4.6.2 Recalculate Project Dates

To make the project frame match the period of the tasks exactly:

1. Open the project in the Gantt chart.
2. Choose **Project > Schedule > Take over**.

Rillsoft Project then sets the project start to the start date of the first task and the project finish to the finish date of the last task.



4.6.3 Distinction

Do not confuse this function with the context command of the same name on sub-project level. The command **Take over start and finish dates of activities** in the context menu of a **subproject** sets only the start and finish of that subproject. The function **Project > Schedule > Take over** described here applies to the **whole project**.

More: *Views*

4.6.4 Related Topics

- *Plan Tasks*
- *Manage Subprojects*
- *Stabilize the Schedule*

- *Project*

4.7 Improve the Project Display

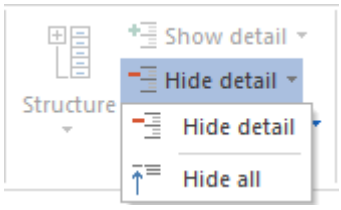
To make a project plan easier to read, you can adjust the display deliberately. This article describes how to control detail level, numbering, order, timescale, and zoom. Filters and user-defined views are described in the function reference (*Customize Views*).

To improve readability, you can:

1. show or hide detail
2. renumber tasks and subprojects
3. change the order in the Gantt chart
4. adjust the timescale and calendar pane
5. scale the display up or down

4.7.1 Show or Hide Detail

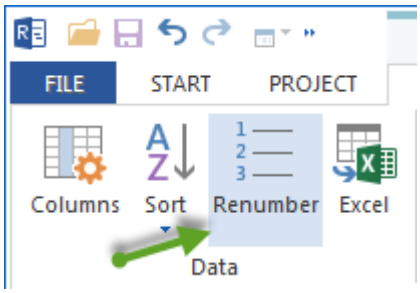
You can show and hide all project levels. Choose **Start > Outline > Show/Hide detail**.



4.7.2 Renumber Tasks and Subprojects

Each task automatically receives a number when it is created. After linking or correcting the plan, the numbering may no longer match the time sequence.

To rearrange the numbers, choose **Gantt chart Format > Data > Renumber**. The tasks are then renumbered automatically without gaps.

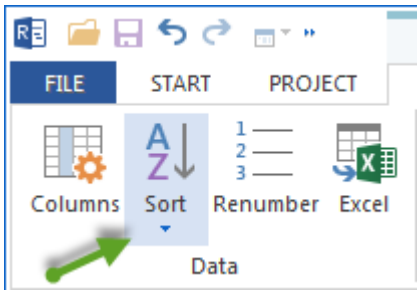


4.7.3 Change the Order in the Gantt Chart

Sort automatically

To sort all tasks and subprojects automatically, choose **Gantt chart Format > Data > Sort** and then one of the menu items:

- by links
- by start time
- by code
- by name

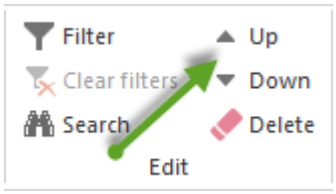


Note: The available menu items can differ between views.

Reorder manually

To change the position of a single selected task or subproject manually, choose **Start > Edit** and then:

- up
- down

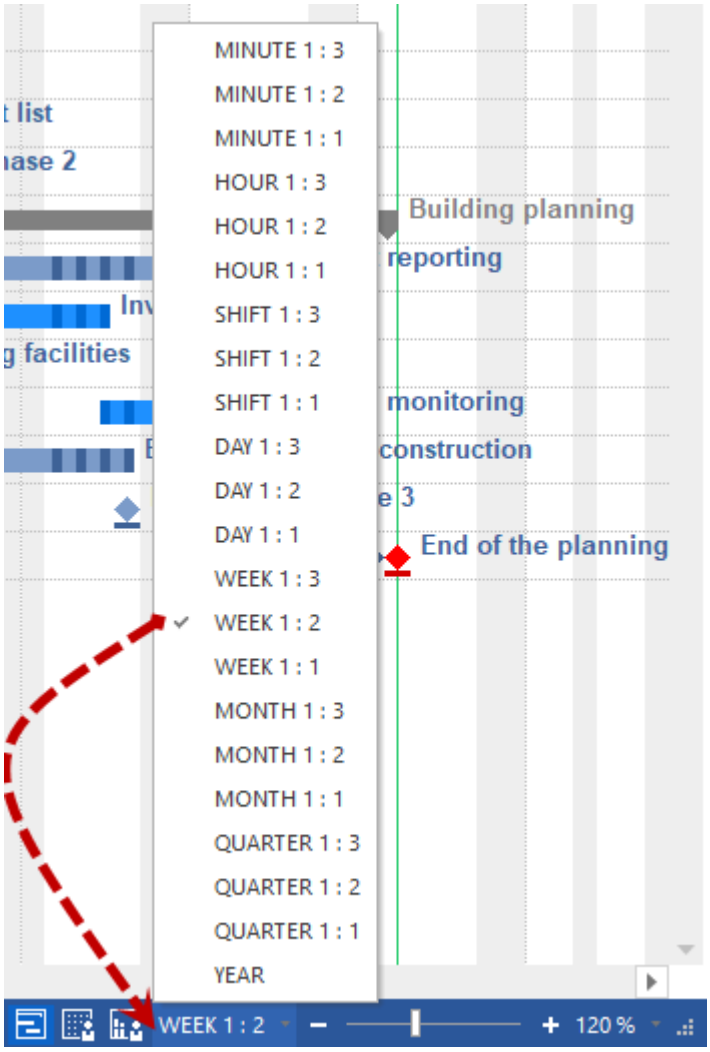


4.7.4 Adjust the Timescale and Calendar Pane

For the time display of the project, you can choose between minutes and quarters. There are two ways:

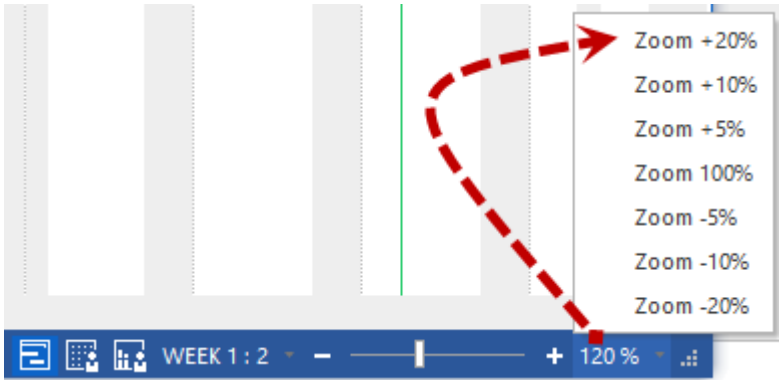
1. Click the slider in the right part of the status bar and move it to the required time-zoom setting.

2. Click the current time display in the right part of the status bar, for example **Day 1:1**, and select another display from the list.



4.7.5 Scale the Display Up or Down

You can enlarge or reduce the project view. Click the current scale display in the right part of the status bar, for example **120 %**, and select another value from the list.



4.7.6 Related Topics

- *Manage Subprojects*
- *Task and Subproject Tables*
- *Customize Views*
- *Views*

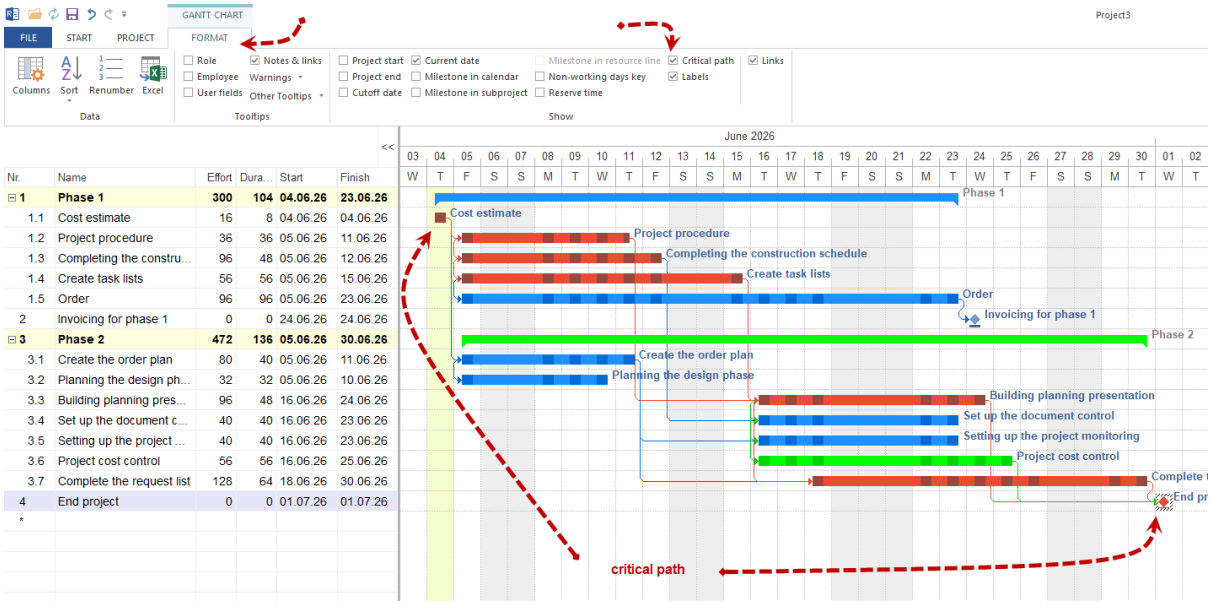
4.8 Analyze the Critical Path

The critical path is the longest chain of activities that determines the project finish date. Each activity on the critical path has no free float: if one of these activities is delayed, the project finish date moves directly.

4.8.1 Show the Critical Path

In the Gantt chart:

1. Open the Gantt chart.
2. In the view-specific **Gantt Chart Format** tab, activate **Critical path**.
3. Activities on the critical path are highlighted, usually in red.
4. The critical links between these activities are highlighted as well.



In the network diagram:

Use the network diagram when you need to understand the logical sequence of the critical chain. In the view-specific **Network Diagram Format** tab, activate **Critical path**. The critical path is shown as a highlighted chain of nodes.

Note

The critical path can only be calculated correctly when the schedule is linked completely. Unlinked activities are never shown as critical, even if they are critical from a business point of view.

4.8.2 Free Float

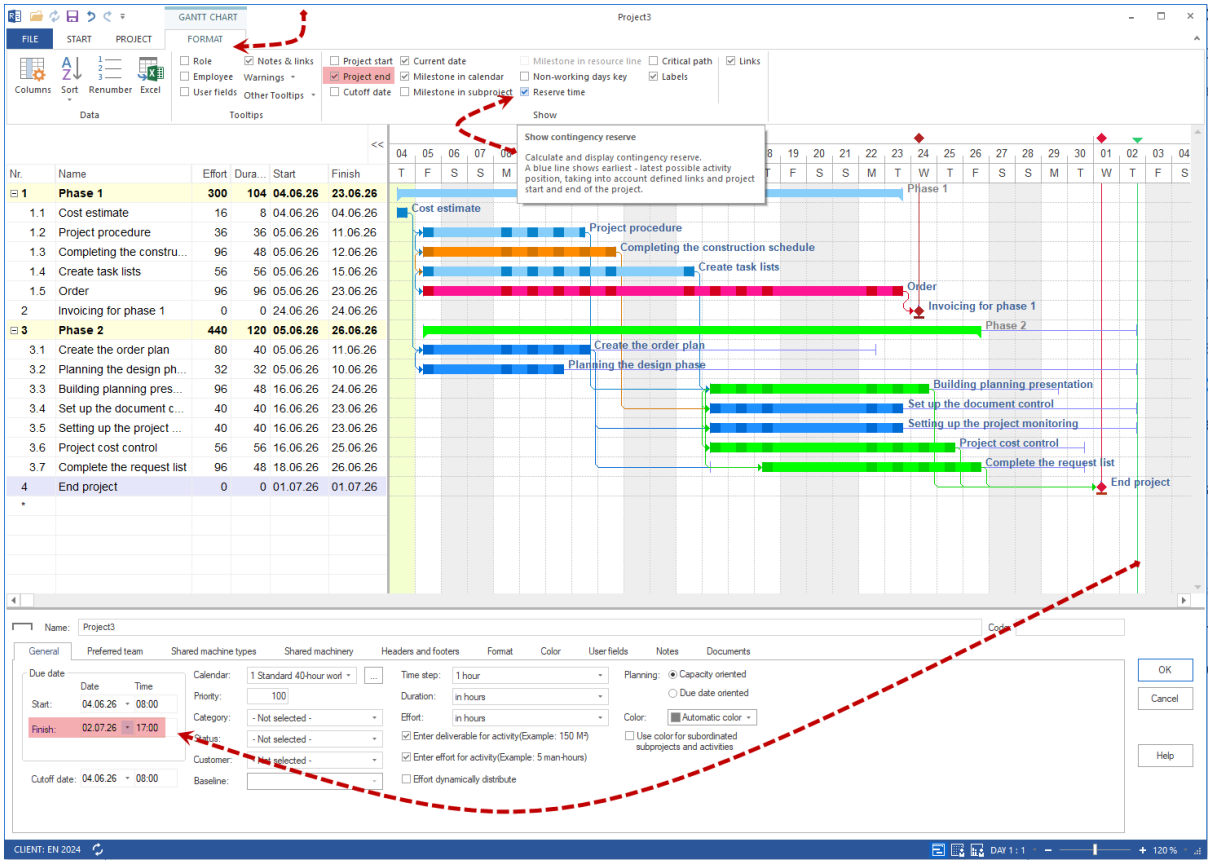
Rillsoft Project calculates two reserve values for each activity:

Field	Meaning	When it matters
Start reserve	How far can the activity move earlier before it violates the next fixed frame?	Evaluating how much earlier an activity could start
Finish reserve	How far can the activity move later before it violates the next fixed frame?	Basis for decisions about date shifts

The calculation runs against the **next fixed frame** in the schedule (a fixed subproject or the main project) and no earlier than the **cutoff date** — not against the next successor. An activity can move earlier by the start reserve **or** later by the finish reserve, not by the sum of both.

Activities on the critical path have start reserve = 0 and finish reserve = 0.

The reserve values can be shown as columns in the activity table (right-click a column header and configure the visible columns) or as a line in the Gantt chart via **Start > Gantt Chart Format > Free Float**. On subproject rows, the line shows the envelope of the contained activities, not a buffer of its own.



4.8.3 Near-Critical Activities

Activities with very little reserve (for example one to three days) are not yet critical, but can become critical quickly. Monitor them when:

- a small resource delay could consume the remaining reserve
- a reserve of two days is small compared with a 30-day activity duration
- a changed dependency could reduce the reserve to zero

Define a practical threshold for monitoring near-critical activities, for example start or finish reserve below five working days.

4.8.4 Use The Critical Path For Decisions

Use the critical path for concrete planning decisions.

Evaluate schedule risk

- Which critical activity has the most uncertain duration estimate?
- Where do external suppliers, approvals, or dependencies create risk?
- Are bottleneck resources assigned to critical activities?

Prioritise resources

- Bottleneck resources should be assigned first to critical activities.
- If a critical activity is delayed, check whether additional capacity can reduce its duration.

Prepare optimisation

- If the calculated finish date is too late, first check activities on the critical path for reducible duration or possible parallel alternatives.
- Non-critical activities may be moved to free resources for critical work.

Evaluate progress

- Check regularly whether the critical path has changed.
- If the critical path changes frequently, the schedule logic may be unstable. Check dependencies and buffer values.

4.8.5 Typical Causes Of An Unclear Critical Path

Symptom	Likely cause
The critical path changes unexpectedly after small edits.	Many activities have almost the same buffer; the schedule logic is too tight.
The critical path does not end at project completion.	Not all activities are linked to the final milestone or finish chain.
No activity is critical.	Dependencies are missing or too many finish dates were set manually.
Almost all activities are critical.	Too many finish-finish links or too little planned buffer.

4.8.6 Related Articles

- *Link Tasks*
- *Stabilize the Schedule*
- *Activity*
- *Best Practices*

critical path, buffer, free float, slack, reserve time, finish date, schedule risk, schedule, gantt, bar chart, timeline, dependency, project manager, pmo

4.9 Stabilize the Schedule

A schedule is reliable only after it has been checked and stabilized deliberately. This article describes how to check a completed plan systematically, clean up mistakes, and release it for resource planning.

4.9.1 When to Stabilize

Stabilize the schedule before you:

- assign resources and capacities
- align the plan with the customer
- save a baseline

- transfer the plan to Rillsoft Integration Server

An unstable plan (open cycles, manual dates everywhere, missing dependencies) makes resource planning and capacity balancing unreliable.

4.9.2 Check List

Go through the plan systematically:

Structure:

- [ ] All subprojects professionally separated and meaningfully named?
- [ ] No subprojects that contain only a single task?
- [ ] All tasks with result-oriented names?
- [ ] Task durations between 1 and 20 working days (guideline)?

Dependencies:

- [ ] All tasks linked with at least one predecessor or successor (except start and finish milestones)?
- [ ] No cycles (Rillsoft Project marks them as errors)?
- [ ] No unnecessary intervals that only serve date cosmetics?
- [ ] Dependency type professionally correct (FS is the standard case)?

Dates and durations:

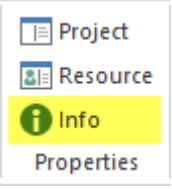
- [ ] As few manually set dates as possible — only where professionally required?
- [ ] No unrealistic durations (0 days for normal tasks, 200 days for detail tasks)?
- [ ] Start and finish milestones exist?

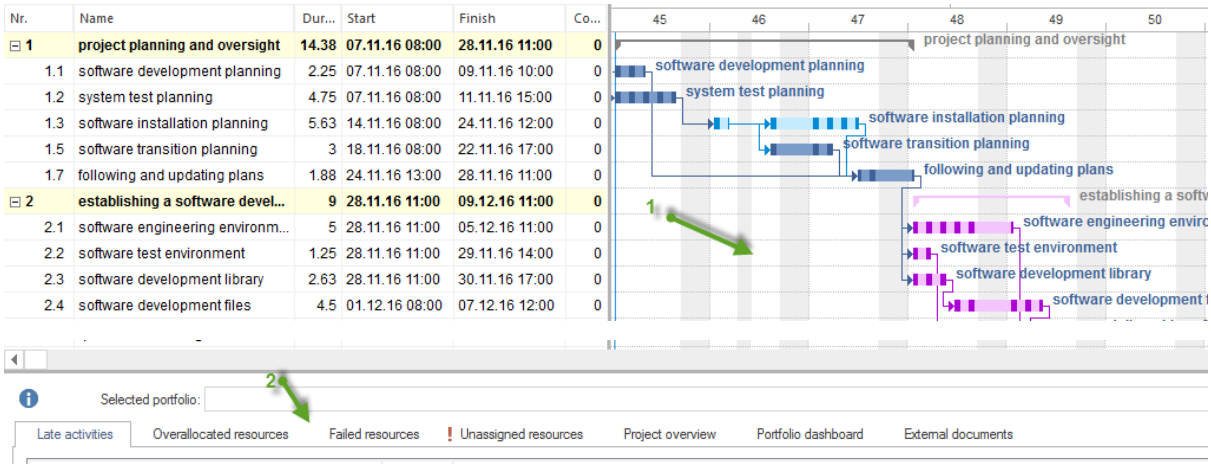
Critical path:

- [ ] The critical path ends at the project completion milestone?
- [ ] The critical path is professionally plausible?
- [ ] Free float for non-critical tasks exists and is understandable?

Consistency:

- [ ] No consistency warnings in the information panel?
- [ ] No orphaned milestones without dependencies?





4.9.3 Common Mistakes and Their Solutions

Mistake	Effect	Solution
Tasks without dependencies	Dates are not updated when other tasks move	Identify predecessors and successors and connect them
Too many manually set dates	The plan does not react to changes; manual rework after every move	Remove manual dates; fix only the project start date
Cyclic dependency	The plan cannot be calculated; Rillsoft Project shows an error	Locate the cycle in the network diagram and remove one dependency
Critical path does not end at completion	The finish date calculation is wrong	Link all final tasks to the completion milestone
Tasks with duration 0 (except milestones)	Planning intent unclear; can distort calculations	Set an estimated duration or recreate the task as a milestone
Intervals as buffer replacement	Buffer reserves become invisible; decisions rest on a wrong basis	Use intervals for real waiting times; let buffers arise from structure

4.9.4 Optimize the Schedule

If the calculated finish date does not match the target date, proceed in this order — not the other way around:

1. **Check dependencies** — are there unnecessary sequential dependencies that can be parallelized?
2. **Check durations** — are estimates conservative? Are there critical-path tasks that can realistically be shorter?
3. **Check resources** — can more capacity be concentrated on critical tasks?

4. **Discuss the scope** — if the date cannot be reached, this belongs in project communication, not in plan cosmetics.

What you should not do:

- Manually “fit” individual dates without knowing the cause.
- Shorten intervals to create buffer that does not exist.
- Save the baseline before the plan has been checked.

4.9.5 Save a Baseline

A baseline freezes the current state and later enables target/actual comparison. Save it only when:

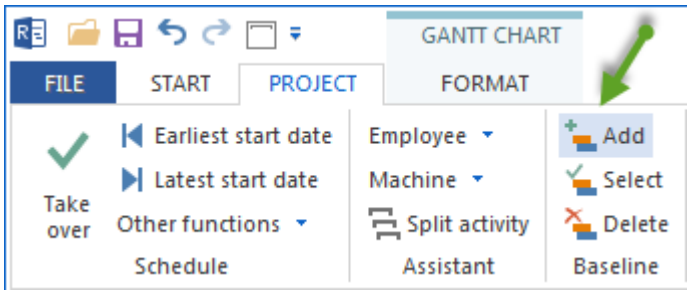
- the project structure is final
- all important tasks are linked
- the schedule is aligned with the customer
- resources are assigned (or resource planning should start from this basis)

Saved too early: The baseline contains unfinished estimates — the target/actual comparison is wrong from the start.

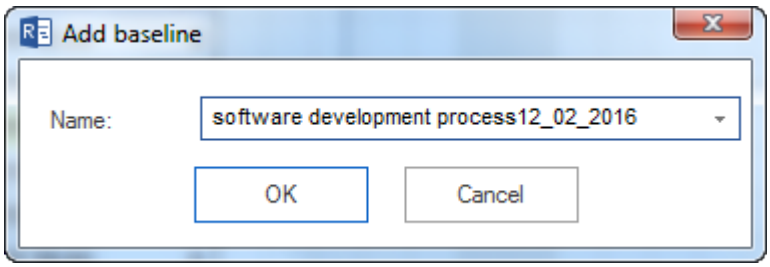
Saved too late: The project is already running; no unchanged starting point exists any more.

Save a baseline:

1. Choose **Project > Baseline > Add**.



2. Give the baseline a clear name, for example `Approval 2026-05`.
3. Confirm with **OK**.



Rillsoft Project allows several baselines. Use this when the project frame changes officially (change order, scope extension).

More: *Best Practices*

4.9.6 Related Topics

- *Analyze the Critical Path*
- *Link Tasks*
- *Build a Project Structure*
- *Project Information Panel*
- *Best Practices*

4.10 Reload a Project

When several people work with the same project data at the same time, the currently open project state can become outdated. Changes made by other project managers or editors become visible only after reloading.

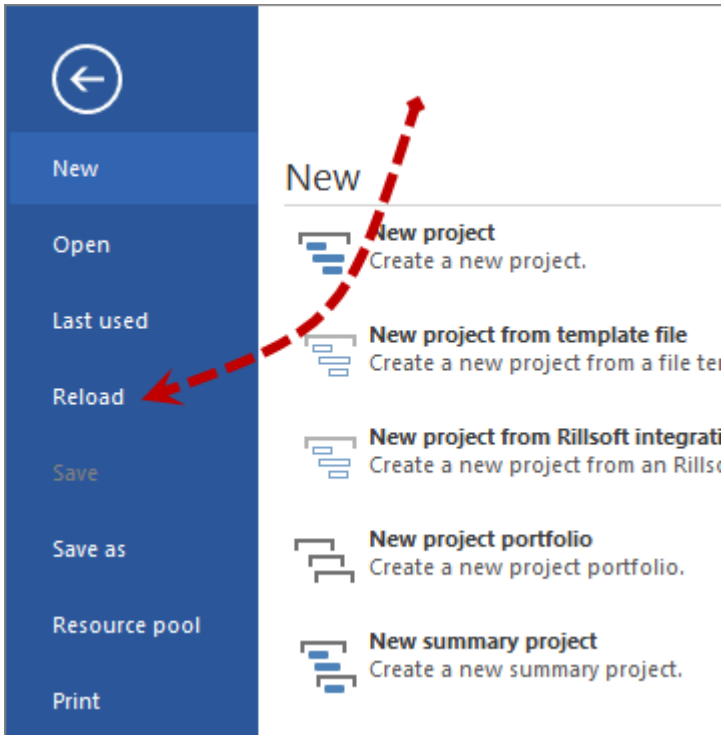
This is especially important when:

- other project managers or editors have saved changes
- a subproject was edited and saved separately
- you want to check current project data in a portfolio or summary project
- you want to make sure you see the current state before checking the schedule

4.10.1 Reload From the File Menu

To reload the current project:

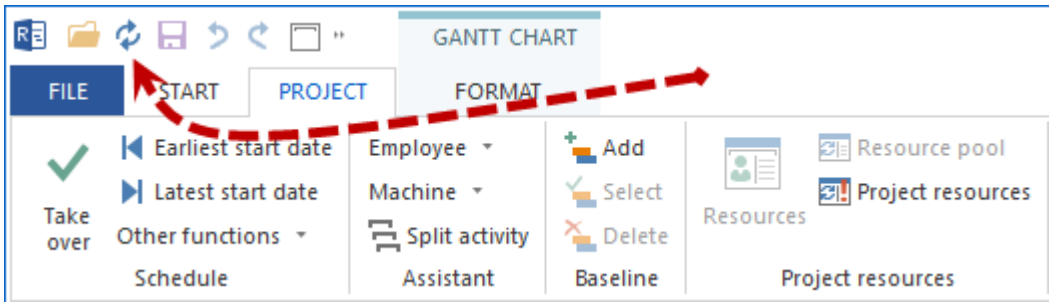
1. Choose **File > Reload Project**.
2. Then check whether dates, dependencies, subprojects, or resource information have changed.
3. Repeat the schedule check if the project state has changed.

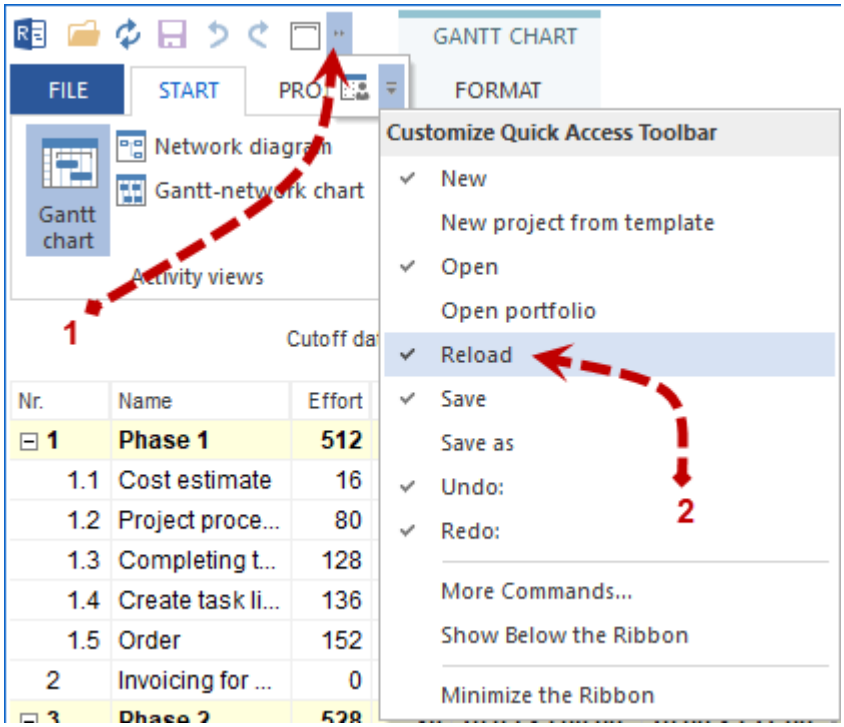


4.10.2 Reload From the Quick Access Toolbar

Alternatively, use the Quick Access Toolbar:

1. Click **Reload** in the **Quick Access Toolbar**.
2. If the icon is not visible, open **Customize Quick Access Toolbar**.
3. Add the **Reload** command.





4.10.3 Check After Reloading

Reloading does not replace a professional check. It only makes sure that you work with the current saved project state.

Afterwards, still check:

- dependencies
- durations
- subproject boundaries
- free float
- resource demand and capacities

4.10.4 Related Topics

- *Stabilize the Schedule*
- *Manage Subprojects*
- *Manage a Summary Project*
- *Work on Projects Simultaneously*

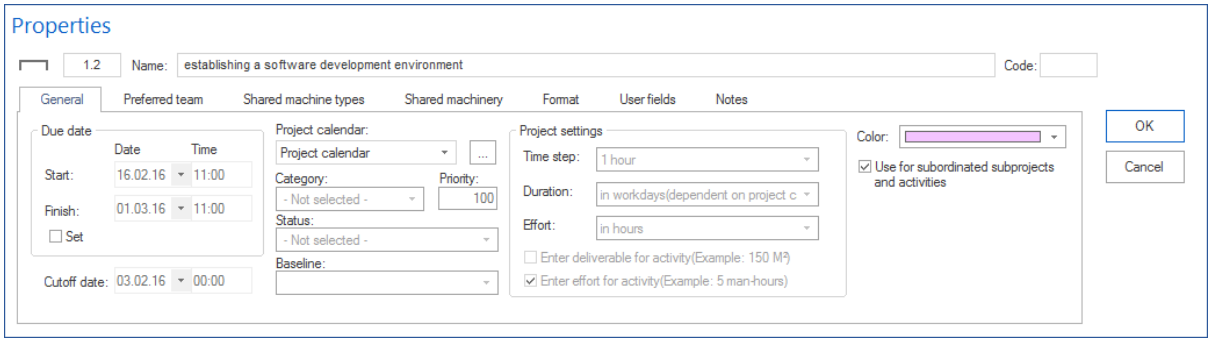
4.11 Manage Subprojects

Subprojects structure a project plan into manageable sections. This article describes how to edit existing subprojects, move tasks into a subproject, insert subprojects from templates, delete subprojects, and control their detail level. Creating new subprojects is described in *Build a Project Structure*.

4.11.1 Edit a Subproject

To change the properties of an existing subproject:

1. Click the subproject in the Gantt chart or the task table. The properties window opens.
2. Open the required tab and make the changes.
3. Click **OK**.



On the **General** tab, you define among other things:

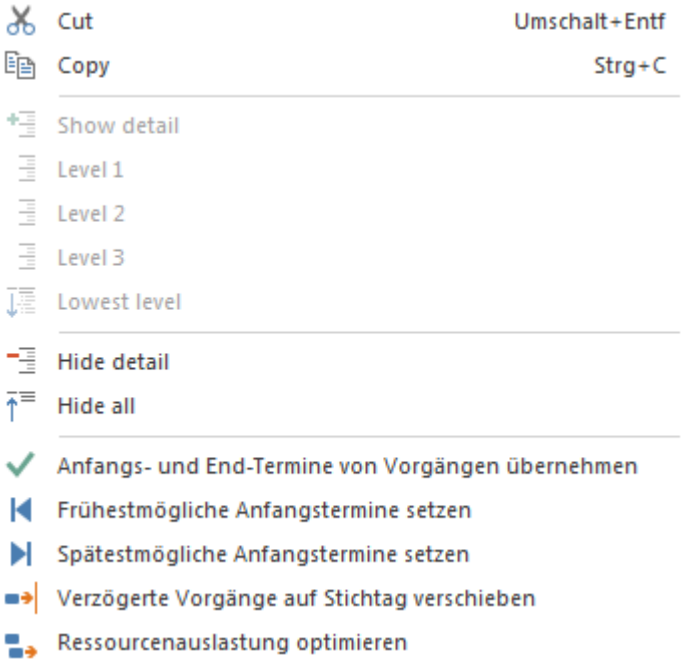
- **Name** and **Code** of the subproject
- the **Set** check box — enable it when start and finish should not be calculated automatically from the tasks but set manually
- **Start** / **Finish** — when **Set** is enabled
- the **project calendar** for the subproject

Note

The **Baseline** and **Time step** fields only display which baseline and which time interval are used. They are defined in the main project.

Alternatives:

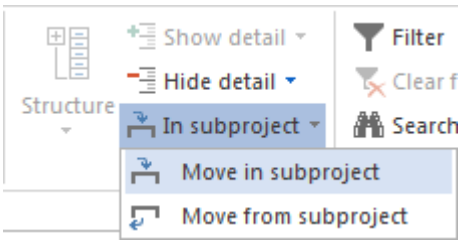
- Important subproject parameters can be changed directly in the Gantt table.
- With the mouse, you can move the subproject in time or change its duration in the chart (prerequisite: the subproject has set start and finish dates).
- The subproject context menu provides quick access to the most important changes.



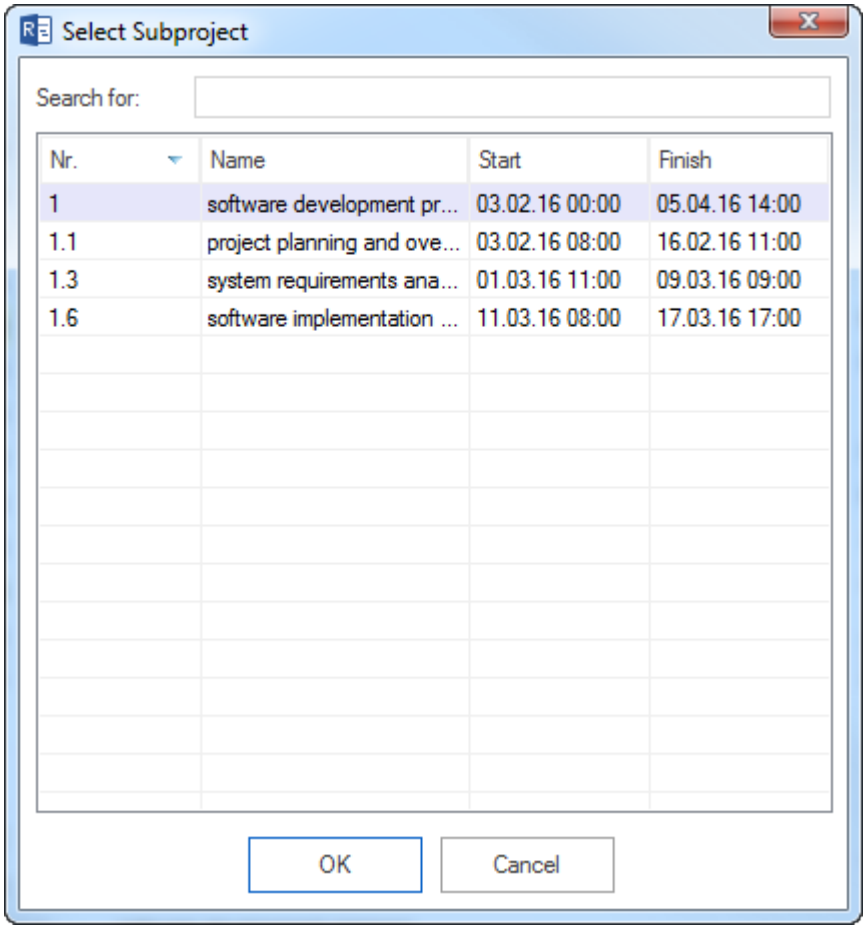
4.11.2 Move Tasks Into a Subproject

To combine existing tasks in a subproject:

1. Select the task bars you want to move into a subproject.
2. Choose **Start > Outline > into subproject > Move into subproject**.



3. In the **Select subproject** dialog, choose the target subproject.



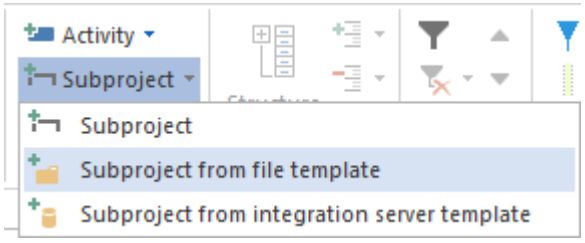
The tasks are moved into the subproject. With WBS codes enabled, the task numbering is subordinated to the subproject.

4.11.3 Insert a Subproject From a Template

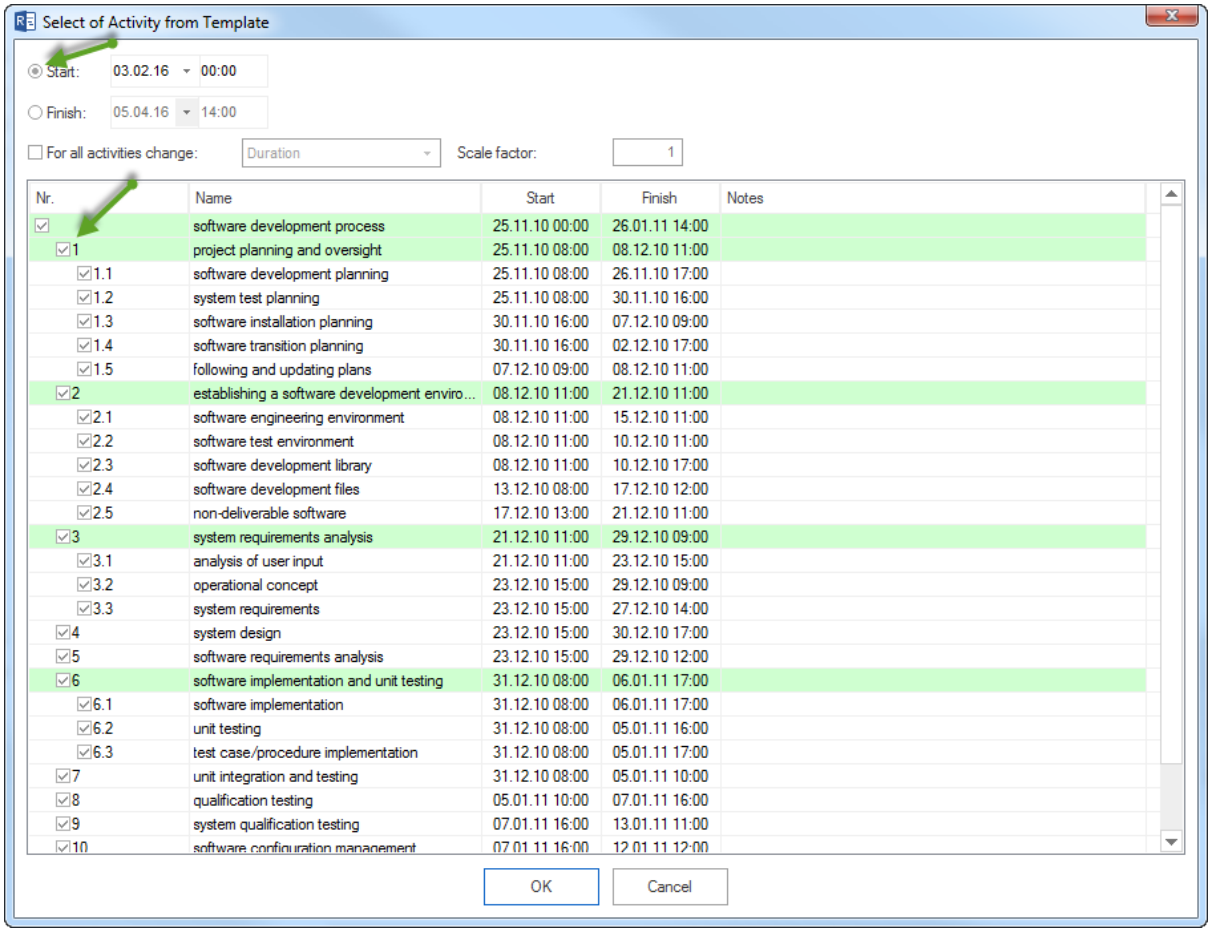
You can insert an already saved project as a subproject into the current project.

From a file template:

1. Choose **Start > Insert > Subproject from file template**.



2. Select the project to insert in the **Open** dialog.
3. Define the start or finish of the subproject.
4. Optional: instead of the whole project, take over only selected tasks by marking them.
5. Click **OK**.



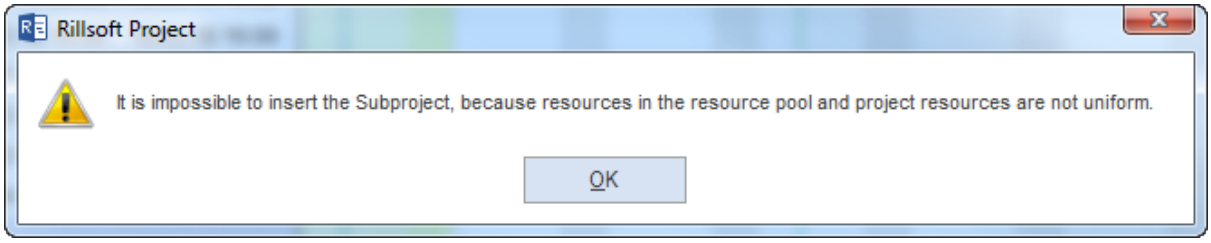
Alternatively, right-click in the chart area and choose **New subproject from file template**.

From an Integration Server template:

When working with Rillsoft Integration Server, choose **Start > Insert > Subproject from Integration Server template** and proceed the same way.

Note

The inserted project must use the same resource pool as the main project. If the resources differ, a message appears. Open the project separately first and align it with **Project > Project resources > To resource pool**. See *Synchronize Resources*.

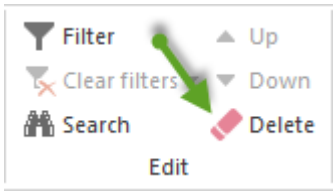


4.11.4 Delete a Subproject

Deleting removes the subproject from the parent project plan. The contained tasks are deleted as well.

Delete a subproject:

1. Select the subproject in the task table or the Gantt chart.
2. Choose **Start > Edit > Delete**.
3. Confirm the prompt.



Alternative: Hold the right mouse button on a free area in the chart and strike through the subproject.

Important: Before deleting, check whether the contained tasks are really no longer needed and whether dependencies from or to tasks in the subproject exist. If the subproject was inserted from an external file, that file is kept when it is deleted from the main plan.

4.11.5 Show and Hide Subproject Detail

In the Gantt chart, control the detail level of a subproject from its context menu:

- **Show detail** — shows the subproject detail down to the selected outline level.
- **Hide detail** — hides the subproject detail down to the selected outline level.

Right-click the subproject and choose the required option.

Alternatively, show or hide all project levels at once with **Start > Outline > Show/Hide detail**.

4.11.6 Subprojects and the Resource Pool

When a subproject uses the same resource pool as the main project, its resource assignments affect capacity balancing of the main project and the portfolio.

Make sure that:

- the resource pool is connected correctly with the subproject
- resources are synchronized after inserting or editing subprojects when differences occur

More: *Synchronize Resources*

4.11.7 Common Problems

Problem	Solution
A subproject from a template cannot be inserted	Check whether the project file is reachable or whether a connection to Integration Server exists.
Message about resource differences when inserting	Open the project separately and align it with **Project > Project resources > To resource pool**.
Subproject start/finish do not match the tasks	Disable the **Set** check box on the **General** tab so start and finish are calculated automatically from the tasks.
Resource assignments from the subproject are missing in capacity balancing	Check whether the subproject is synchronized with the resource pool.

4.11.8 Related Topics

- *Build a Project Structure*
- *Synchronize Resources*
- *Perform Target/Actual Comparison*
- *Subproject*

This section explains how to turn a project idea into a reliable schedule. The focus is on project structure, tasks, subprojects, dependencies, the critical path, free float, and schedule checks.

Resource assignment does not belong to project planning. It is covered in resource and capacity planning and in resource assignment.

4.12 Goal of Project Planning

At the end of project planning, the schedule should be understandable, logically linked, and easy to check.

A good schedule answers these questions:

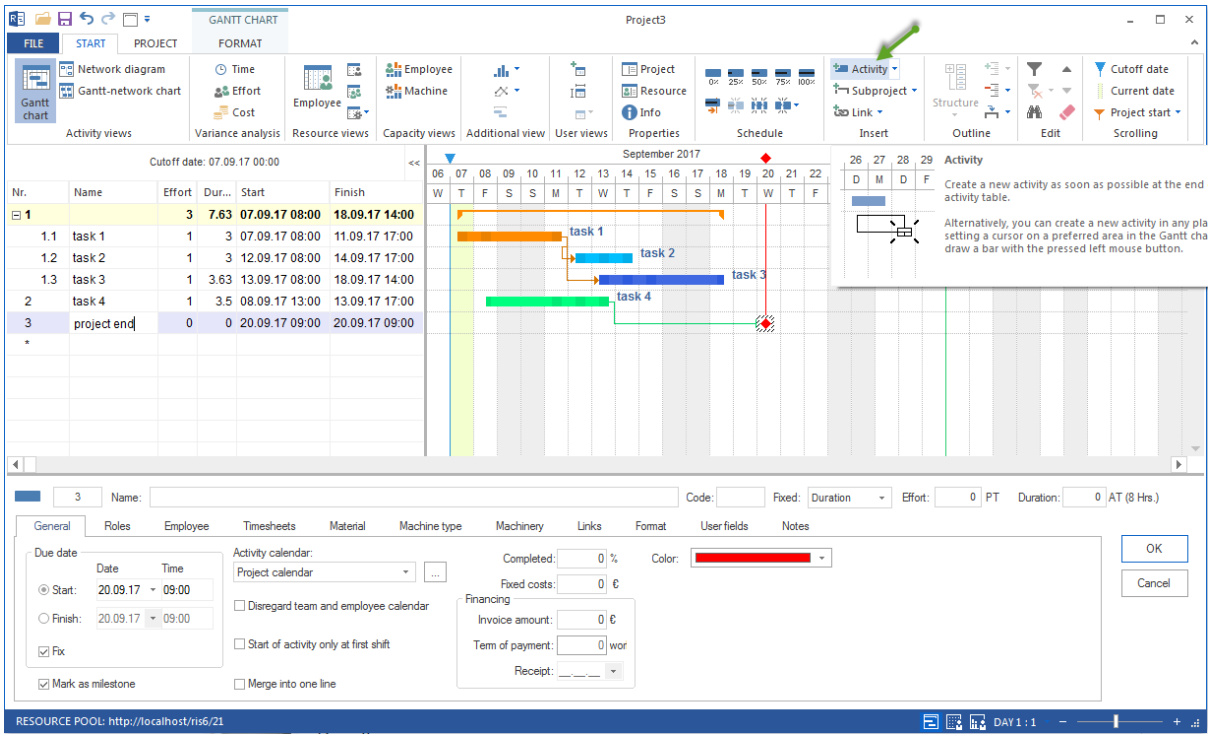
- Which work units must be completed?
- Which tasks belong together?
- Which tasks depend on each other?
- Which tasks determine the finish date?
- Where is free float available?
- Is the planned finish date realistic?

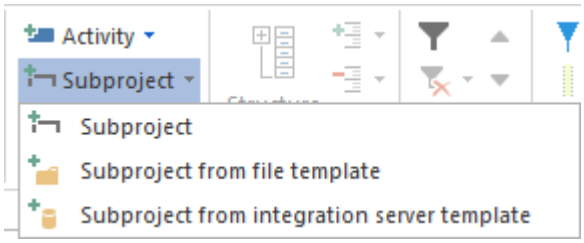
4.13 Build the Project Structure

Start with the professional structure of the project. Do not enter every detail immediately; clarify the structure first.

Typical structure:

- Project
- Subproject
- Task
- Milestone
- Dependency





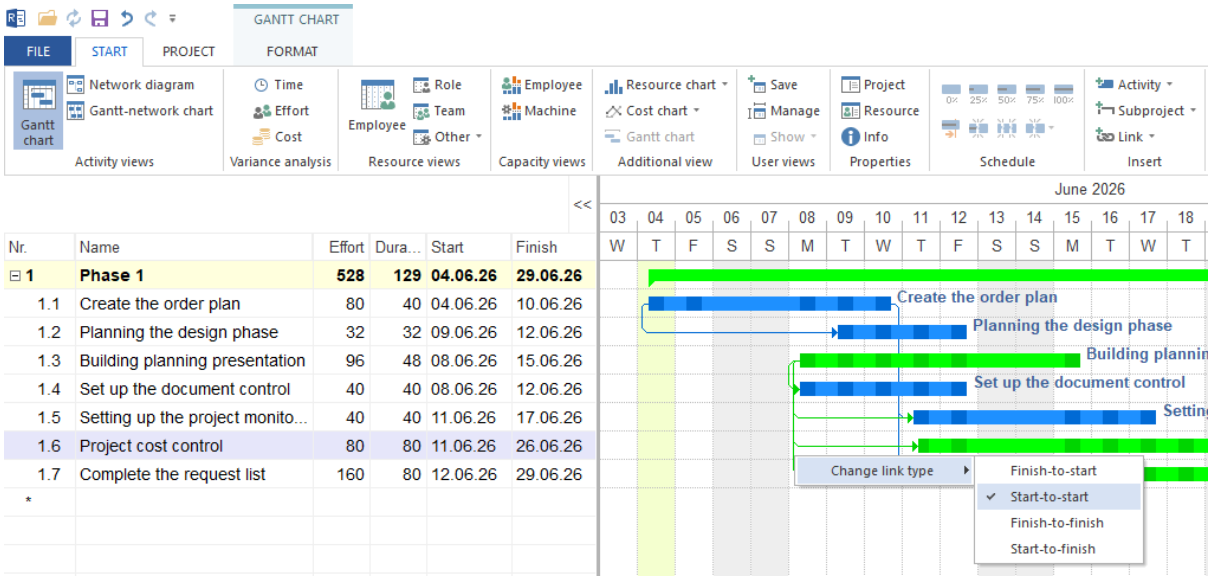
Use subprojects when several tasks belong together, for example by phase, role group, department, deliverable, or location.

4.14 Plan Tasks

Tasks are the schedulable work units in the project. They contain duration, dates, effort, dependencies, and later also resource demand.

You can create tasks in several ways:

- with **Start > Activity**
- by drawing a bar in the Gantt chart
- from the context menu in the chart area



Recommended workflow:

1. Enter the most important tasks first.
2. Use task names that are clear and result-oriented.
3. Define start, finish, or duration only as precisely as the planning situation requires.
4. Structure larger sections with subprojects.
5. Use milestones for important decision points or delivery dates.

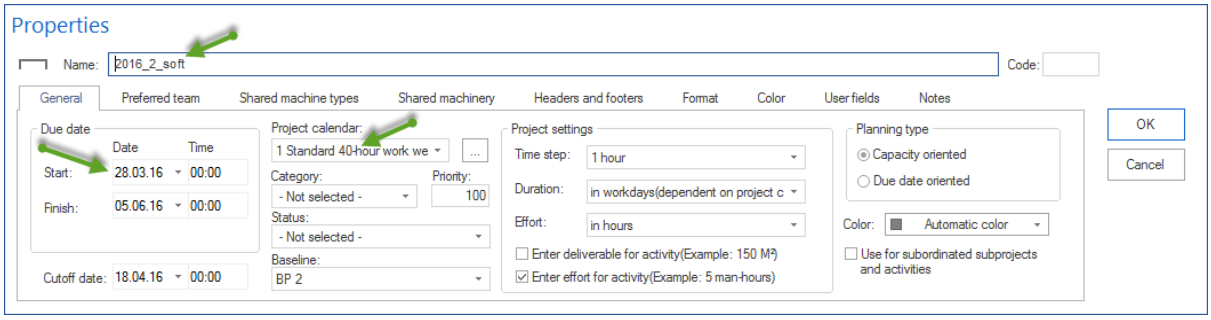
Good task names describe concrete work or a concrete result, for example:

- Approve design

- Order material
- Prepare assembly
- Perform acceptance

4.15 Use Subprojects

Subprojects help keep large schedules understandable. You can create an empty subproject or combine selected tasks into a new subproject.



Use subprojects when:

- a project contains many tasks
- several tasks belong together professionally
- a project should be structured by phases, areas, or locations
- individual sections should be planned, checked, or optimized separately

Typical workflow:

1. Enter the tasks at the top level.
2. Select the tasks that belong together.
3. Create a subproject from them.
4. Give the subproject a clear name.
5. Check whether the subproject start and finish match the included tasks.

4.16 Set Milestones

Milestones mark important dates without their own duration. They are suitable for approvals, delivery dates, checks, acceptances, or phase transitions.

Use milestones sparingly and deliberately. Too many milestones make the plan hard to read; too few make control more difficult.

4.17 Link Tasks

Dependencies describe logical relationships between tasks. Without dependencies, tasks only stand next to each other. With dependencies, they form a calculable schedule.

Rillsoft Project supports these dependency types:

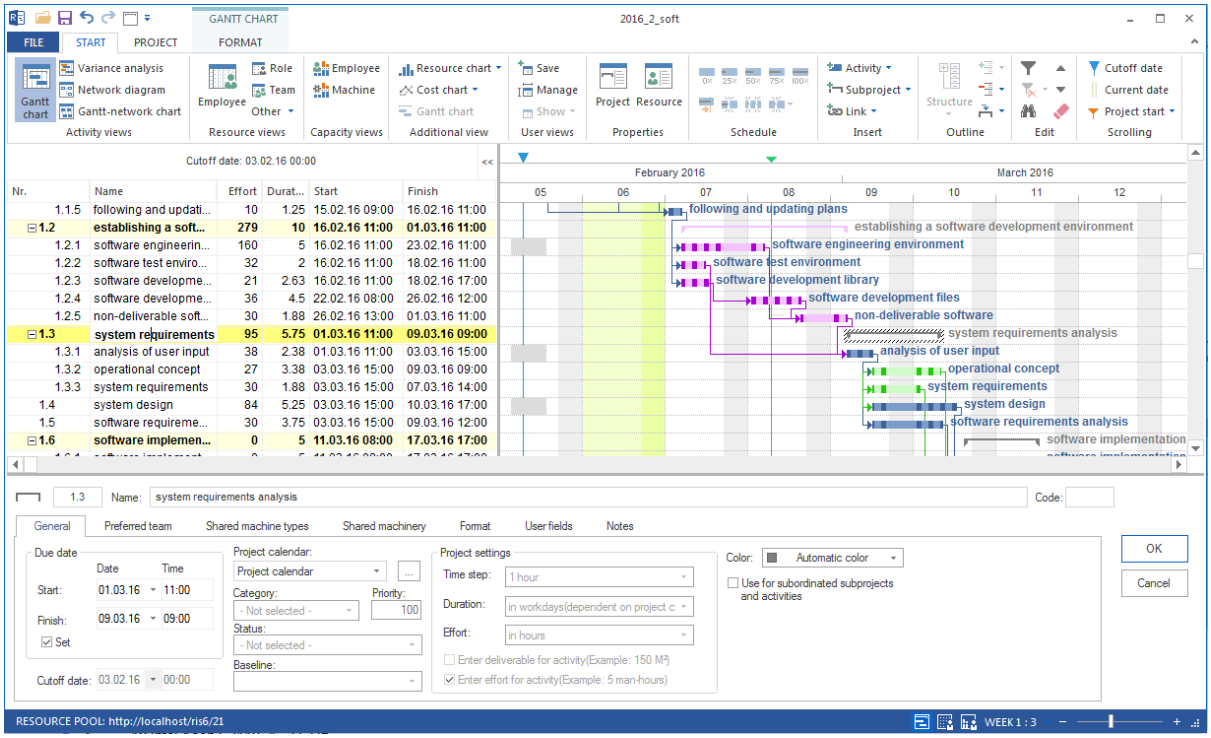
Dependency type	Meaning
Finish-Start	The successor can start only after the predecessor has finished.
Start-Start	The successor cannot start earlier than the predecessor.
Finish-Finish	The successor cannot finish before the predecessor has finished.
Start-Finish	The successor cannot finish before the predecessor has started.
Incompatible activity group	Tasks must not be executed at the same time.

For most schedules, **Finish-Start** is the standard dependency type.

4.18 Create Dependencies

Typical workflow:

1. Choose the suitable dependency type.
2. Connect predecessor and successor in the Gantt chart, network chart, or Gantt-network chart.
3. Check the created dependency.
4. Enter a time interval or delay if needed.
5. Check the calculated schedule.



Time intervals can be positive or negative:

- positive interval: waiting time between predecessor and successor
- negative interval: overlap between predecessor and successor

Intervals can be absolute, calendar-based, or relative to the predecessor. Use intervals deliberately so the schedule remains understandable.

4.19 Check and Change Dependencies

Check dependencies whenever dates move unexpectedly.

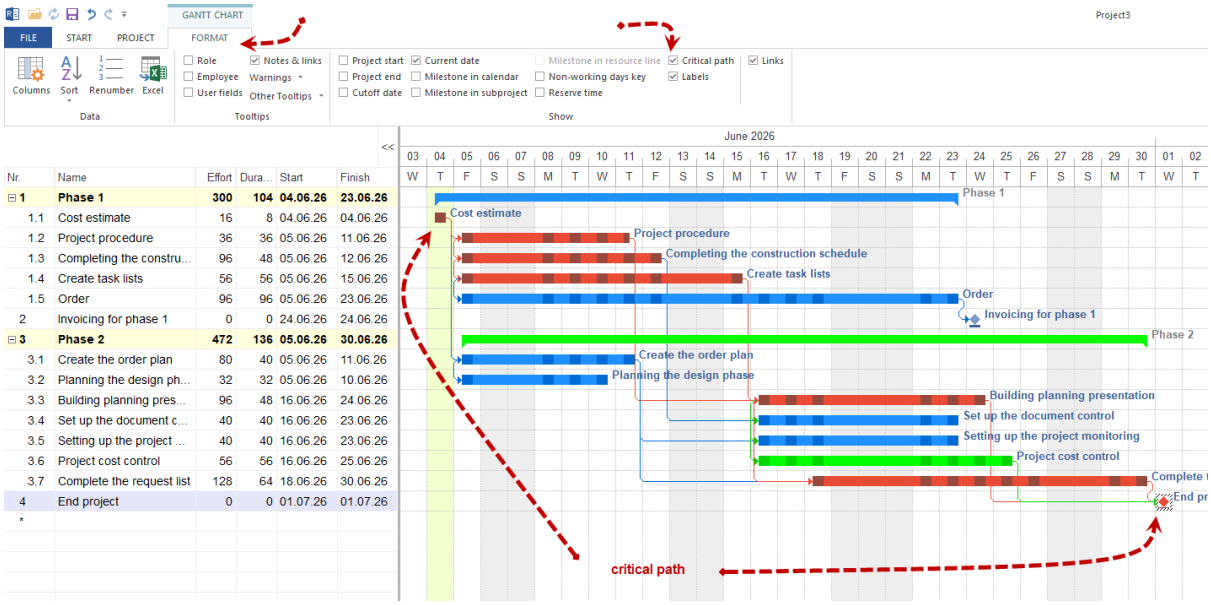
Typical check questions:

- Is the selected dependency type professionally correct?
- Are there unnecessary dependencies?
- Are there missing dependencies?
- Is a delay or overlap understandable?
- Has a task already started and therefore should no longer be changed freely?

Existing dependencies can be changed by using the dependency line or the properties window. A change is useful only when it describes the professional workflow more accurately, not when it merely makes a date look convenient.

4.20 Analyze the Critical Path

The critical path shows the tasks that determine the finish date. If a task on the critical path moves, the project finish date usually moves as well.



Use the critical path to decide:

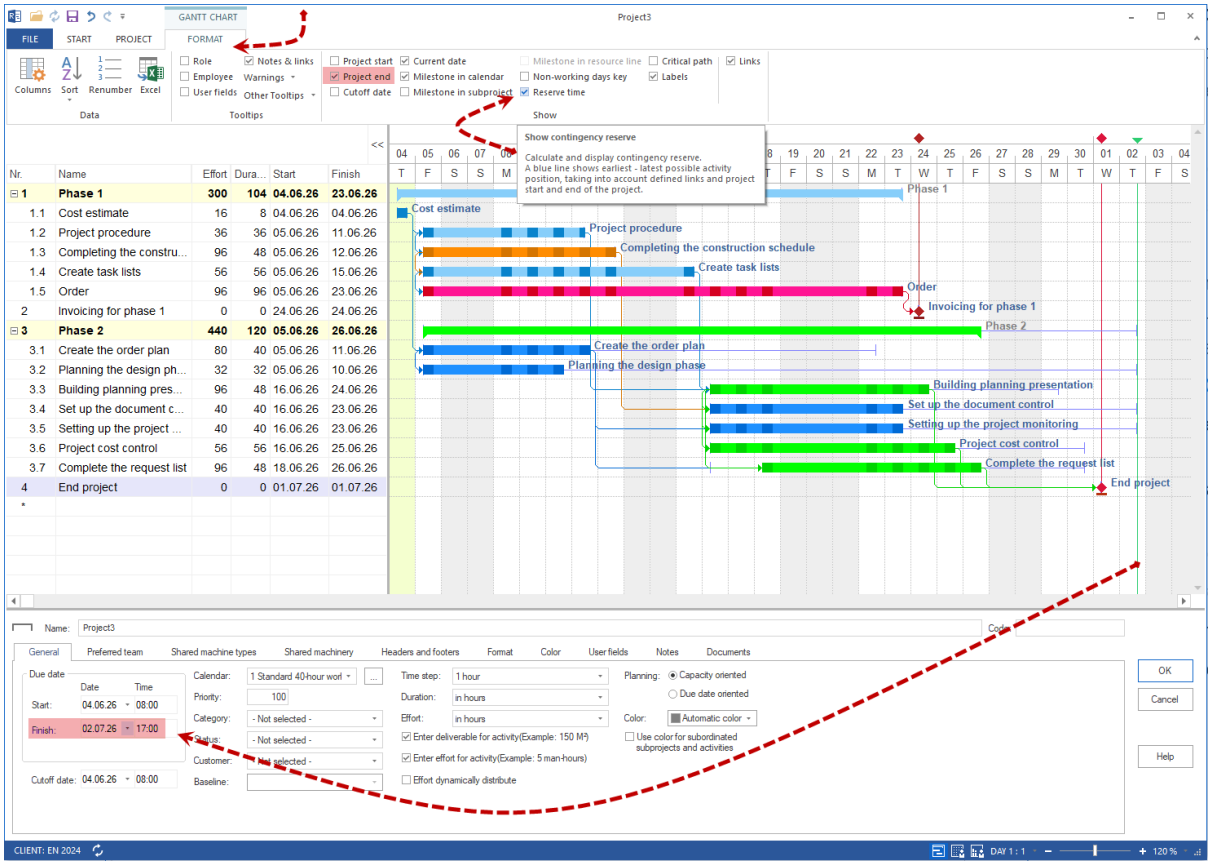
- which tasks need close monitoring
- where schedule risks arise

- which delays endanger the finish date
- which tasks must not be delayed further

The critical path is not a separate planning method. It is a result of the schedule logic and is meaningful only when tasks, durations, and dependencies are maintained plausibly.

4.21 Evaluate Free Float

Free float shows how far a task can move before it reaches the next fixed date in the schedule; the calculation runs no earlier than the cutoff date. On subproject rows, the line shows the envelope of the contained tasks, not a buffer of its own.



Free float is useful for these questions:

- Which tasks still have room to move?
- Which tasks are time-critical?
- Which changes are possible without endangering the finish date?
- Where can a move help reduce resource overload?

4.22 Check and Stabilize the Schedule

A schedule is reliable only after it has been checked.

Check at least:

- Are all important tasks included?
- Are subprojects separated sensibly?
- Are there tasks without necessary dependencies?
- Are there implausible durations?
- Are there unnecessary or incorrect dependencies?
- Is the critical path understandable?
- Is there realistic free float?
- Does the calculated finish date match the project target?

If the calculated finish date does not match the target date, do not blindly change individual dates. Check these items first:

1. Dependencies
2. Durations
3. Subproject boundaries
4. Free float
5. Resource demand and capacities

4.23 Reload a Project

In a multi-user environment, the currently open project version can become outdated. Changes made by other project managers or editors become visible only after the project is reloaded.

Important after reloading:

- Check the schedule again.
- Check resource utilization.
- Check the critical paths.
- Check the subprojects.
- Check the dependencies.

4.24 Optimize a Project

Project optimization aims to reach a specified finish date and keep resource utilization as even as possible.

Important for project planning:

- Fixed tasks should not be moved by optimization runs.

- Fixed dates of subprojects are taken into account.
- Individual subprojects can be optimized separately.
- For personnel resources, the assignment hierarchy is employees, teams, roles.

Use optimization only when the basic plan is professionally clean. A poorly structured plan does not automatically become better through optimization.

4.25 Common Planning Mistakes

Avoid these mistakes in particular:

- tasks without a clear professional meaning
- tasks that are too large to control
- missing dependencies
- too many manually fixed dates
- dependencies that exist only to move dates cosmetically
- subprojects without a clear professional boundary
- resource decisions before the schedule logic is reliable

4.26 Result of Project Planning

After completing this section, your project should:

- have a clear structure
- contain realistic tasks
- use professionally meaningful subprojects
- be logically linked
- show an understandable critical path
- make free float visible
- be ready for resource planning and capacity control

4.27 Next Steps

When the schedule is professionally stable, plan resource demand by qualifications and then check the available resource supply.

- *Manage Subprojects*
- *Resources and Capacities*
- *Resource Assignment*
- *Troubleshooting*
- *Optimization*

project planning, project structure, tasks, dependencies, critical path, schedule stability, schedule, gantt, bar chart, timeline, dependency, project manager, pmo

CHAPTER

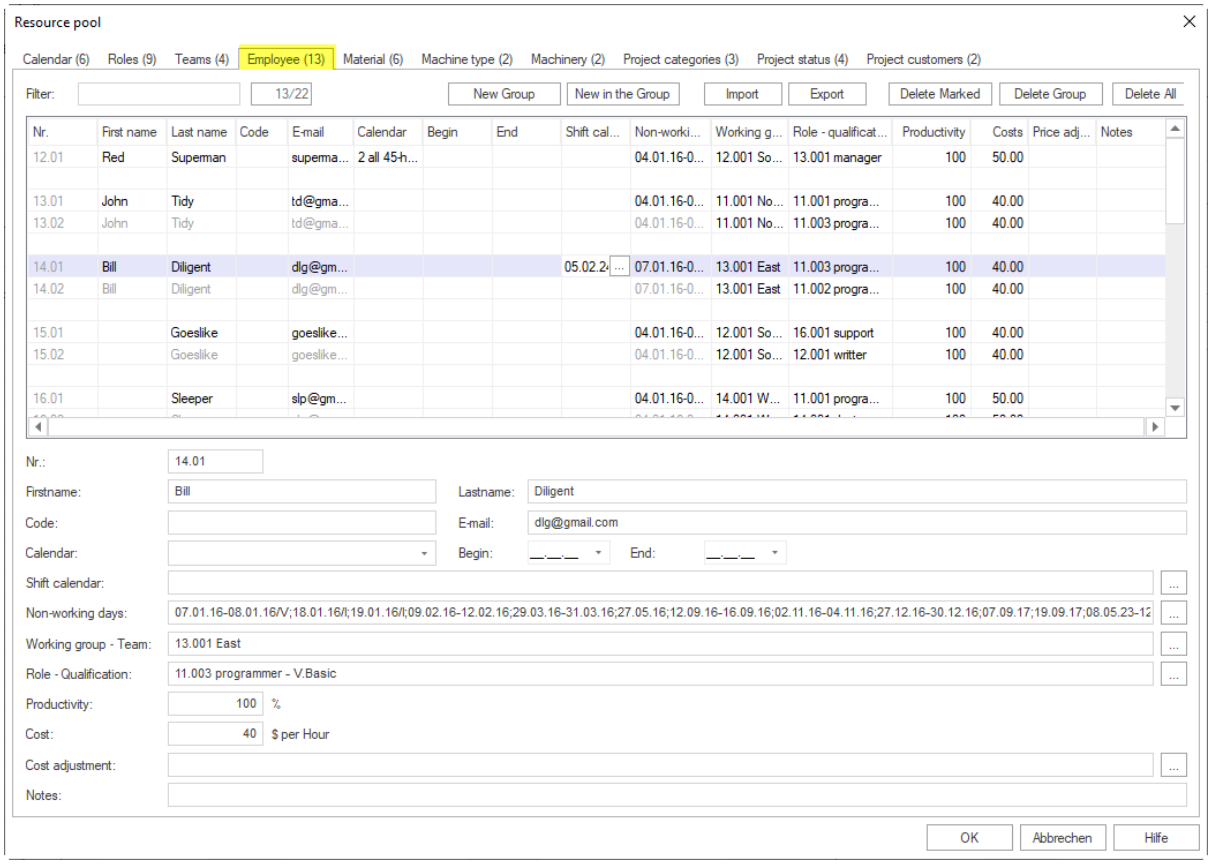
FIVE

RESOURCES AND CAPACITIES

This section explains how Rillsoft Project separates resource demand from resource supply and checks whether enough working capacity is available before named employees are assigned to tasks.

The central idea is:

- **Resource demand** comes from the project plan: tasks, period, effort, and required professional qualifications.
- **Resource supply** comes from the resource pool: employees, professional qualifications, working times, calendars, and non-working days.
- **Capacity balancing** compares demand and supply and makes bottlenecks visible before employees are assigned.



5.1 Plan Resource Demand by Qualifications

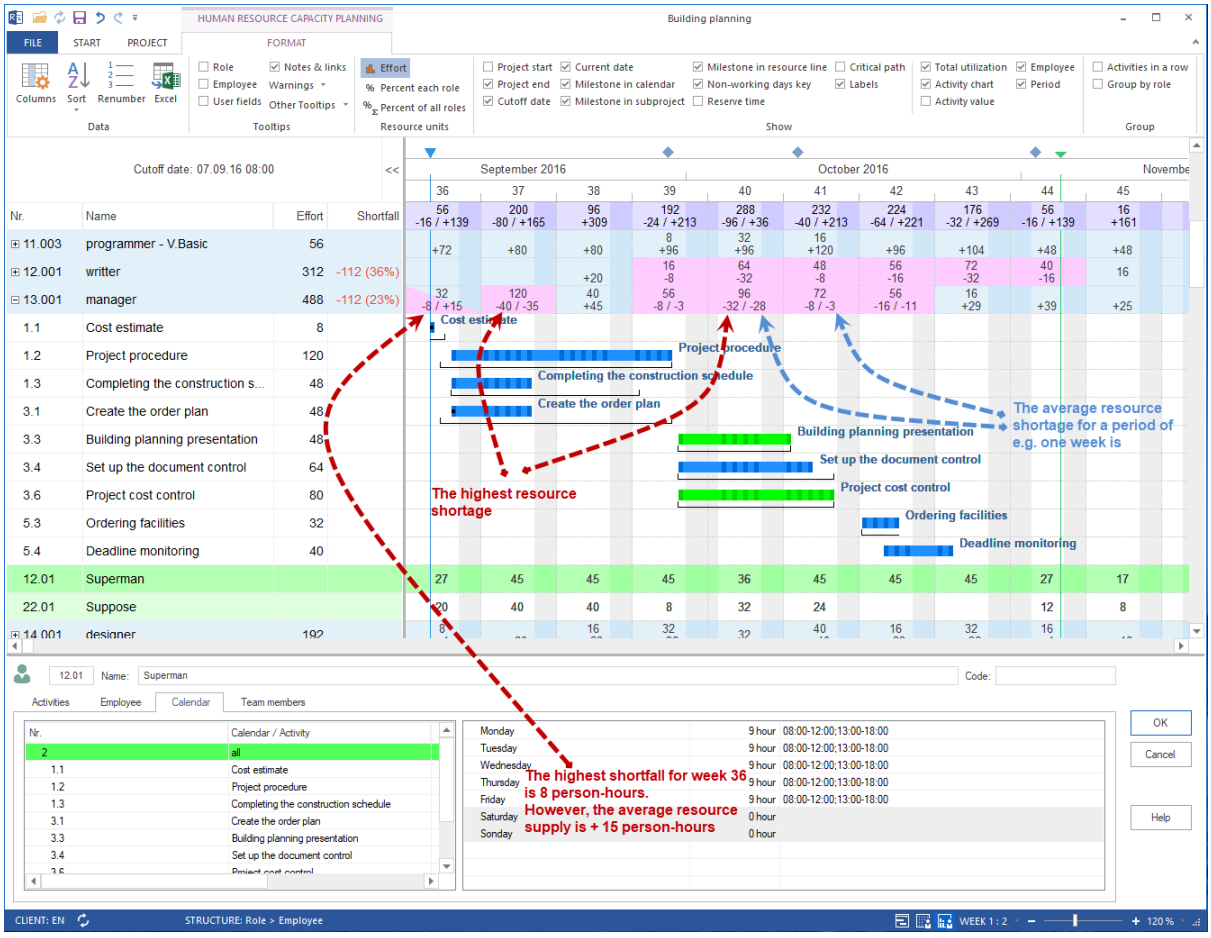
5.1.1 Goal

Plan resource demand first by professional qualification. This lets the project plan describe what work is needed without immediately assigning named employees.

5.1.2 Why This Matters

If employees are assigned directly at the beginning, the capacity question often appears too late: Is the employee available? Is there vacation? Is another employee with the same qualification available? Is the team overloaded in this period?

Qualification-based planning reverses that order:



1. The task describes demand.
2. The resource pool describes supply.
3. Capacity balancing checks whether supply and demand match.
4. Suitable employees are assigned only after that.

5.1.3 Terms

Term	Meaning in this workflow
Task	Schedulable work unit in the project.
Professional qualification	Maintained as a role in Rillsoft Project; describes the skill or function required.
Effort	Amount of work required for the task.
Period	Time range in which the effort should be performed.
Resource demand	Combination of qualification, effort, and period.

5.1.4 Prerequisites

- The schedule contains tasks with plausible dates or durations.
- The required professional qualifications are available in the resource pool.
- The effort per task can be estimated professionally.

5.1.5 Prepare Professional Qualifications

Rillsoft Project maintains professional qualifications in the **Roles** area. Roles can be organized in groups and maintained with qualification levels, costs, and notes.

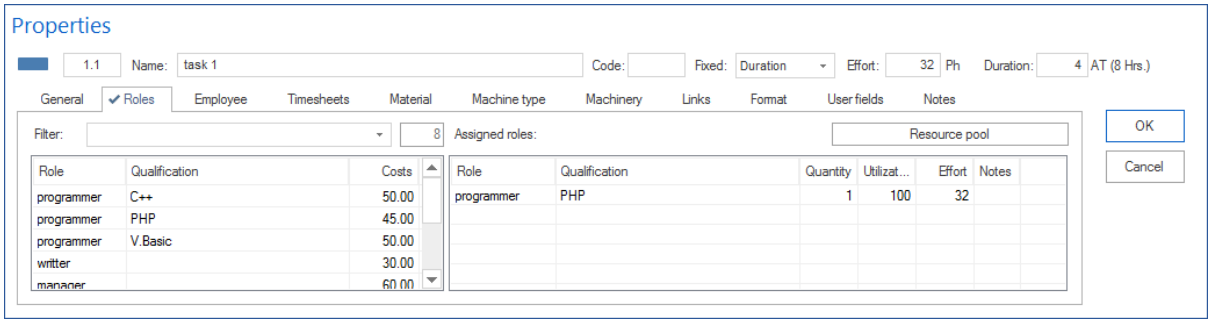
Example:

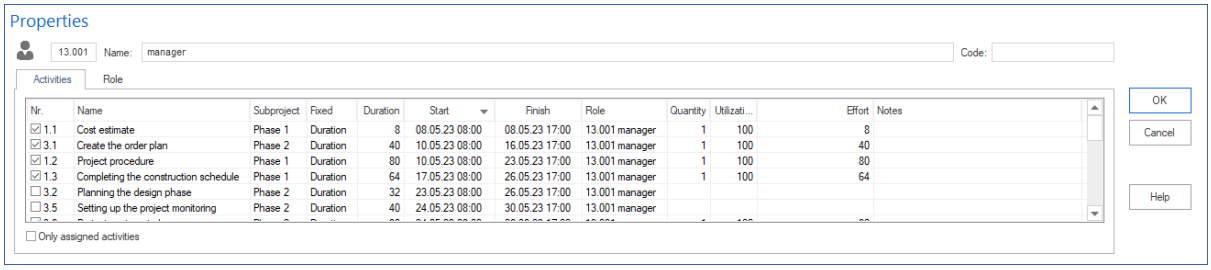
- Role: carpenter
- Qualification levels: foreman, master, journeyman, apprentice
- Costs: hourly rate per qualification level

This structure matters because later capacity balancing does not simply search for a name. It checks whether matching qualifications are available in the planned period.

5.1.6 Workflow

1. Open the project plan.
2. Check the tasks that require working capacity.
3. Open the task properties or the suitable resource view.
4. Open the **Roles** tab in the task properties window. In **Filter**, enter a string to search for specific roles. Enter two dots `..` to show only roles already used in the project. Double-click an entry in the left table to assign that role to the task.
5. Enter the effort, for example in hours or person-days.
6. Check the period in which the work should be performed.
7. Repeat the assignment for all capacity-relevant tasks.





Note

For quick access to resources, use **Resource pool** for the general resource pool or **Project resources** for project-specific resources.

5.1.7 Evaluate Resource Demand

After professional qualifications have been assigned, Rillsoft Project can evaluate demand by qualification and period.

Check especially:

- Which qualifications are required?
- In which period does demand arise?
- How much effort is required per qualification?
- Are there demand peaks?
- Are material, machine types, or machinery also relevant?

5.1.8 Good Practice

Plan demand as concretely as necessary, but do not break it down to individual people earlier than useful.

Useful:

- “2 design engineers for 5 days”
- “1 project manager with 20 hours of effort”
- “welders during the assembly phase”

Defined too early:

- “Employee Miller must perform this task”, although several suitable employees may be available.

5.1.9 Typical Mistakes

- Roles are misunderstood as people.
- Effort is not maintained.
- Tasks contain dates but no resource demand.
- Qualifications are too general and do not create usable capacity information.
- Employees are assigned directly even though capacity balancing should happen first.

5.1.10 Check the Result

Resource demand is complete enough when you can answer these questions:

- Which professional qualifications does the project require?
- How much effort arises per qualification?
- In which period does demand arise?
- Can demand be compared with resource supply?

5.1.11 Next Steps

Then check resource supply from the resource pool.

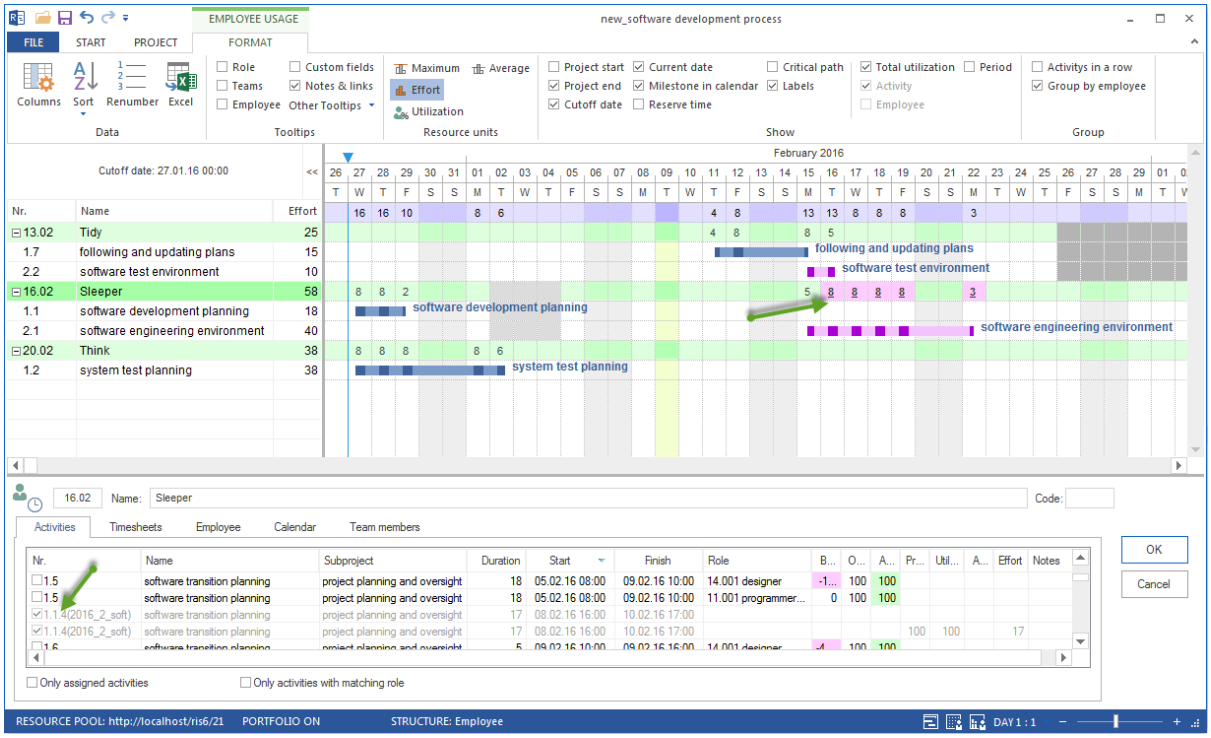
- *Derive Resource Supply From the Resource Pool*
- *Maintain Working Times and Non-Working Days*
- *Perform Capacity Balancing*

qualification, role, skill, resource demand, open demand, skill-based planning, project manager, resource manager

5.2 Derive Resource Supply From the Resource Pool

5.2.1 Goal

Check which working capacity is available in the resource pool and which employees have the required professional qualifications.



5.2.2 Basic Idea

The resource pool describes resource supply. For capacity planning, it is not enough to enter employees. Rillsoft Project also needs information about when those employees are available and which professional qualifications they have.

Resource supply includes:

- employees
- employees' professional qualifications
- working times and calendars
- shift calendars
- non-working days
- team memberships
- productivity
- start and leaving date

5.2.3 Open the Resource Pool

Open the resource pool with **Start > Properties > Resources**. The **Resource pool** dialog contains several tabs, including calendars, roles, teams, and employees.

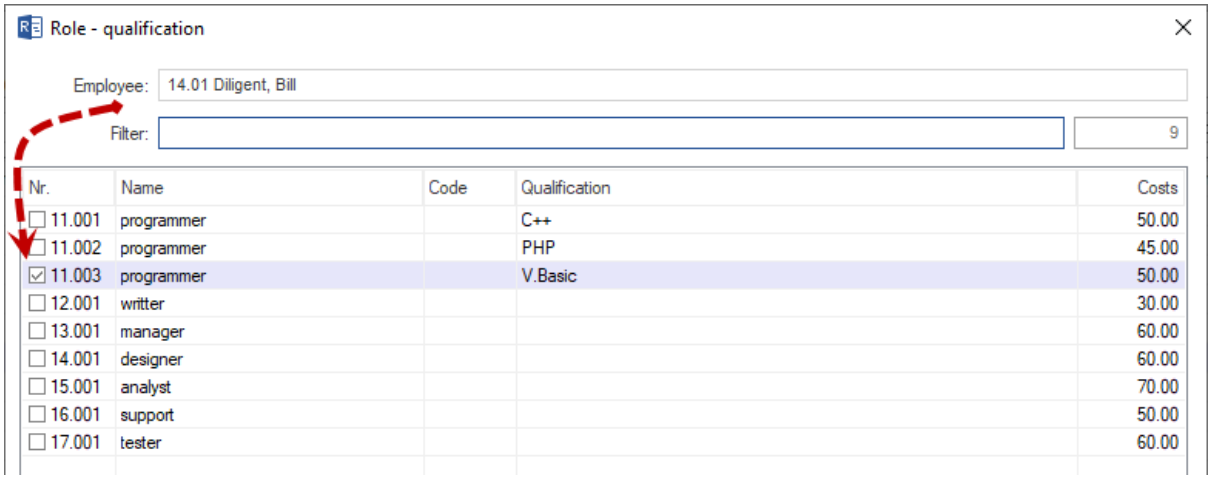
Important: Check whether you are working with a general resource pool. The name and path of the current resource pool file are shown in the left part of the status bar. If the status bar shows **Project resources**, switch to the resource pool.

For personnel capacity planning, these tabs are especially relevant:

- **Calendars** for working times, holidays, and exceptions
- **Roles** for professional qualifications
- **Employees** for employees, calendars, non-working days, and roles

5.2.4 Check Employees' Professional Qualifications

Employees must be connected with the professional qualifications they can perform. In Rillsoft Project, this is done by assigning roles in the employee area.



Nr.	Name	Code	Qualification	Costs
11.001	programmer		C++	50.00
11.002	programmer		PHP	45.00
11.003	programmer		V.Basic	50.00
12.001	writter			30.00
13.001	manager			60.00
14.001	designer			60.00
15.001	analyst			70.00
16.001	support			50.00
17.001	tester			60.00

Check:

- Is the role available in the resource pool?
- Is the suitable qualification level maintained?
- Is the role assigned to the employee?
- Can the employee perform several roles?
- Are costs or productivity maintained differently?

5.2.5 Check Employee Data

For resource supply, names alone are not enough.

Check each employee for:

- first name and last name
- unique code if data is exchanged
- email address if communication or interfaces are relevant
- calendar
- start date
- leaving date
- shift calendar
- non-working days

- team membership
- professional qualifications
- productivity
- costs

5.2.6 Observe the Calendar Hierarchy

If no employee calendar is selected, Rillsoft Project searches for a valid calendar in this hierarchy: **team calendar**, **task calendar**, **project calendar**.

For capacity planning this means:

- A missing employee calendar is not automatically wrong.
- Actual capacity depends on which calendar takes effect.
- If availability is unexpected, check calendar assignment first.

5.2.7 Classify Teams

Teams help group employees organizationally. For capacity planning, teams are especially important when:

- several employees are planned together
- team calendars apply
- non-working days are also defined at team level
- resource managers check capacity by team

Teams do not replace professional qualifications. A team says where an employee belongs organizationally; a role says which work the employee can perform professionally.

Note

Direct team assignment to tasks is available only in the **Standard** edition of Rillsoft Project. In the Light, Professional, and Enterprise editions, a task receives its team assignment indirectly through assigned employees and their team membership in the resource pool.

5.2.8 Material, Machine Types, and Machinery

The new resource planning workflow first focuses on personnel. Rillsoft Project can also maintain material, machine types, and machinery.

Separate these resource types professionally:

- Employees: working capacity of employees
- Professional qualification: skill or role required for a task
- Material: consumable or material demand
- Machine type: required type of machine

- Machinery: specific available machine

5.2.9 Check the Result

Resource supply is reliable when you can answer these questions:

- Which employees are maintained in the resource pool?
- Which professional qualifications do they have?
- Which calendars and working times apply?
- Which non-working days are stored?
- Are start and leaving dates relevant?
- Is there team or shift logic that affects availability?

5.2.10 Next Steps

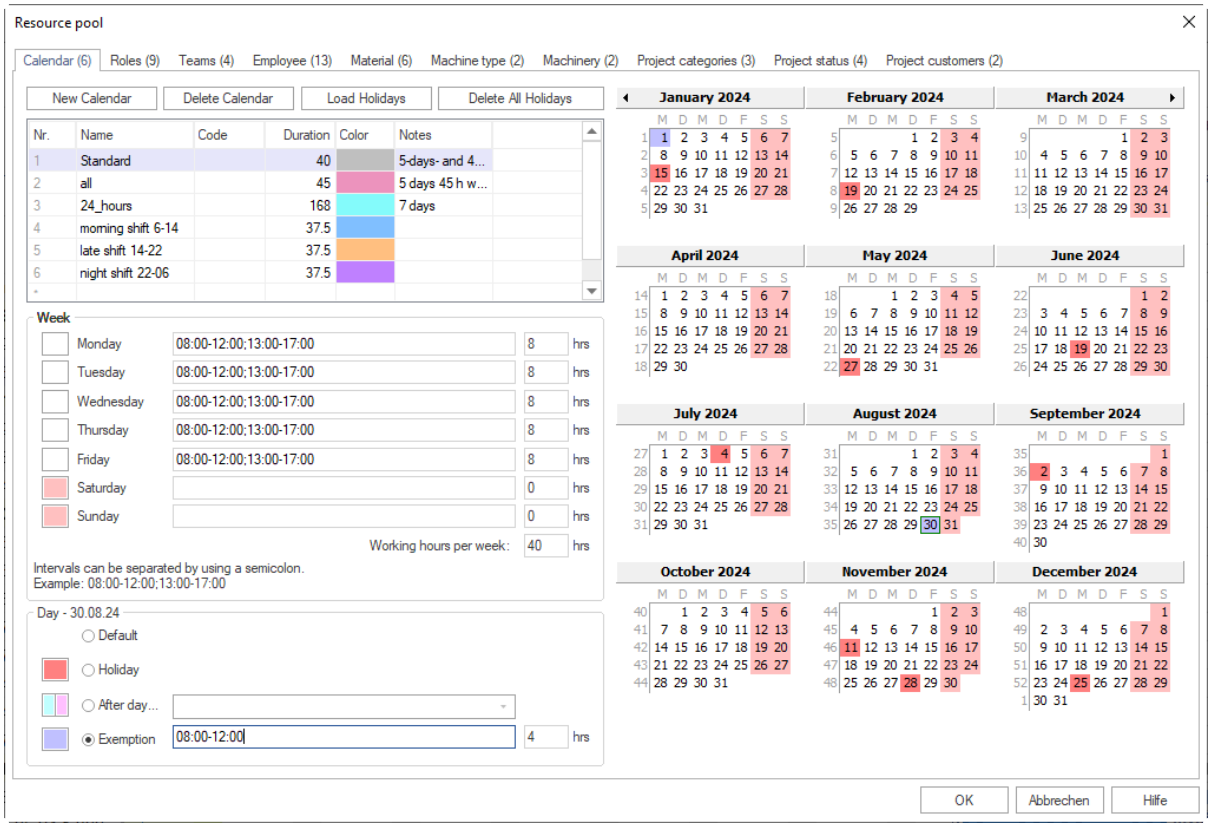
Then check working times and non-working days in more detail before evaluating capacity balancing.

- *Maintain Working Times and Non-Working Days*
- *Perform Capacity Balancing*

5.3 Maintain Working Times and Non-Working Days

5.3.1 Goal

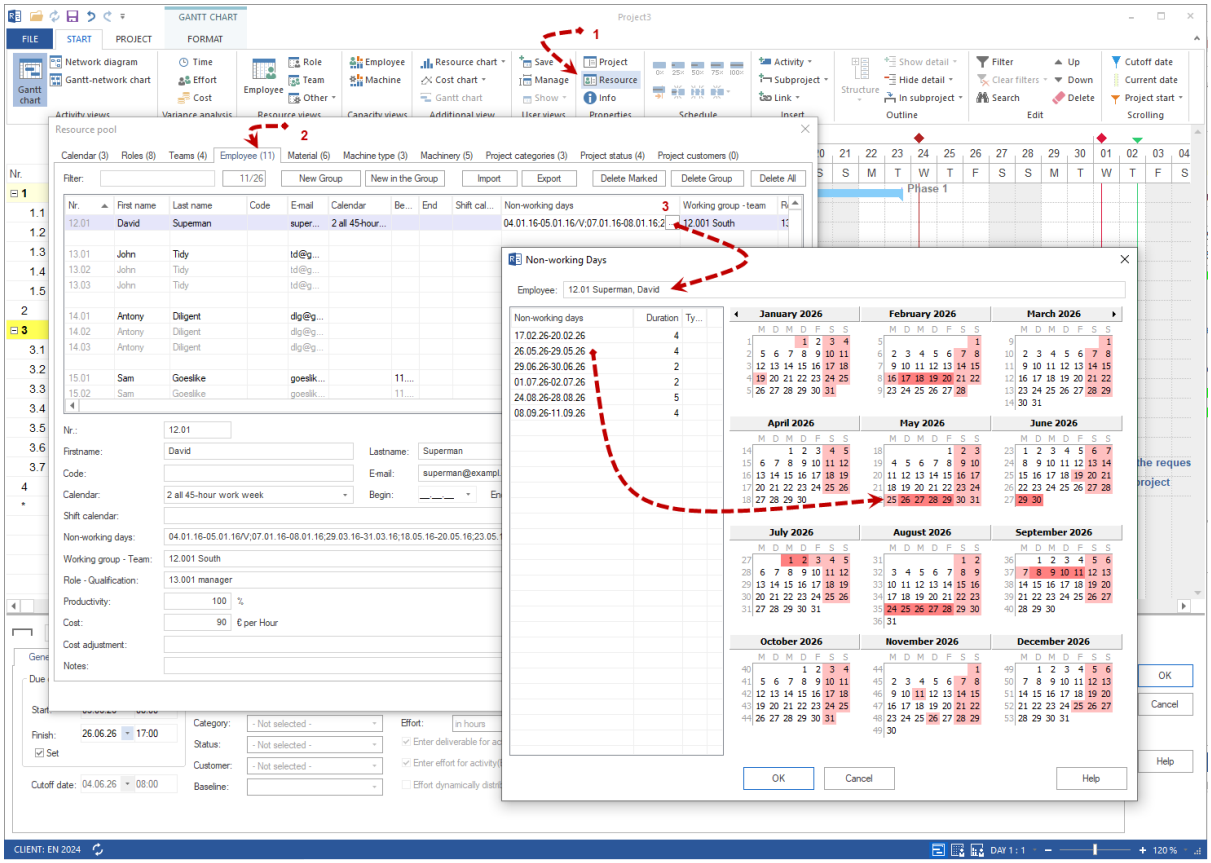
Ensure that resource supply is calculated realistically. Working times, calendars, holidays, shift calendars, and non-working days determine which capacity is actually available in capacity balancing.



5.3.2 Why This Matters

Capacity balancing is only as good as the availability data in the resource pool.

If non-working days, vacation, illness, training, or different working times are missing, Rillsoft Project may show too much available capacity. Bottlenecks may then appear only after employees have already been assigned.



5.3.3 Maintain Calendars

Calendars define basic working time. Open the resource pool with **Start > Properties > Resources** and select the **Calendars** tab.

Check in the calendar:

- calendar name
- code if data is exchanged
- color for easier distinction
- working time per weekday
- working-time intervals, for example `08:00-12:00; 13:00-17:00`
- holidays
- different working days
- exceptions for individual days

5.3.4 Distinguish Weekdays and Individual Days

Rillsoft Project distinguishes between working-time definitions for the week and exceptions for individual days.

Examples:

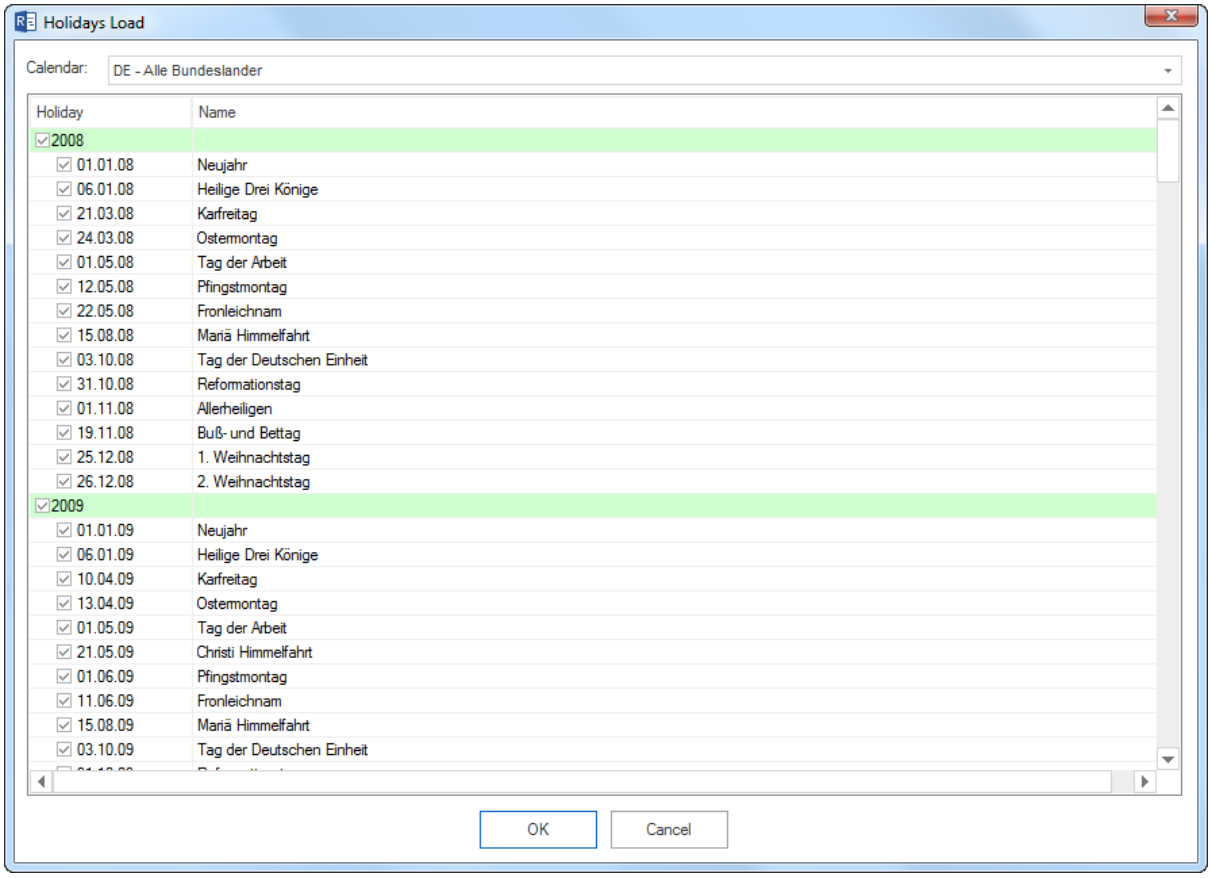
- Monday to Friday use regular working times.

- A holiday is non-working.
- One individual day has different working times.
- One day exceptionally follows the definition of another weekday.

For capacity planning, the important point is that changing the weekly definition has a different effect than an exception for a specific date.

5.3.5 Load Holidays

Public holidays can be downloaded from the server for additional years and different federal states and then imported into the calendar. Use **Load holidays** on the **Calendars** tab of the resource pool. You can import all offered holidays for a year or select individual holidays.



Afterwards, check:

- Was the correct calendar selected?
- Were all holidays imported or only selected holidays?
- Are holidays available for the relevant planning period?
- Were old or wrong holidays imported accidentally?

5.3.6 Check Employee Calendars

An employee can have a calendar assigned in the employee area. If no employee calendar is selected, Rillsoft Project uses a calendar hierarchy.

Check:

- Does the employee have a personal calendar?
- Does a team calendar apply?
- Does a task or project calendar apply?
- Is the calendar logic plausible for the planned period?

5.3.7 Use Shift Calendars

A shift calendar is useful when an employee works according to different calendars in different periods.

Typical cases:

- changing shifts
- temporary different working times
- project phase with special working time
- seasonal working-time models

The selectable calendars must already be available on the **Calendars** tab of the resource pool.

5.3.8 Enter Non-Working Days

Non-working days reduce resource supply in addition to the calendar.

Typical reasons:

- vacation
- illness
- training
- further education
- business trip
- internal absence

Non-working days are entered in **Non-working days** on the **Employees** tab of the resource pool (**Start > Properties > Resources** -> **Employees**). These non-working days are considered in addition to non-working days defined for the team.

Examples for periods:

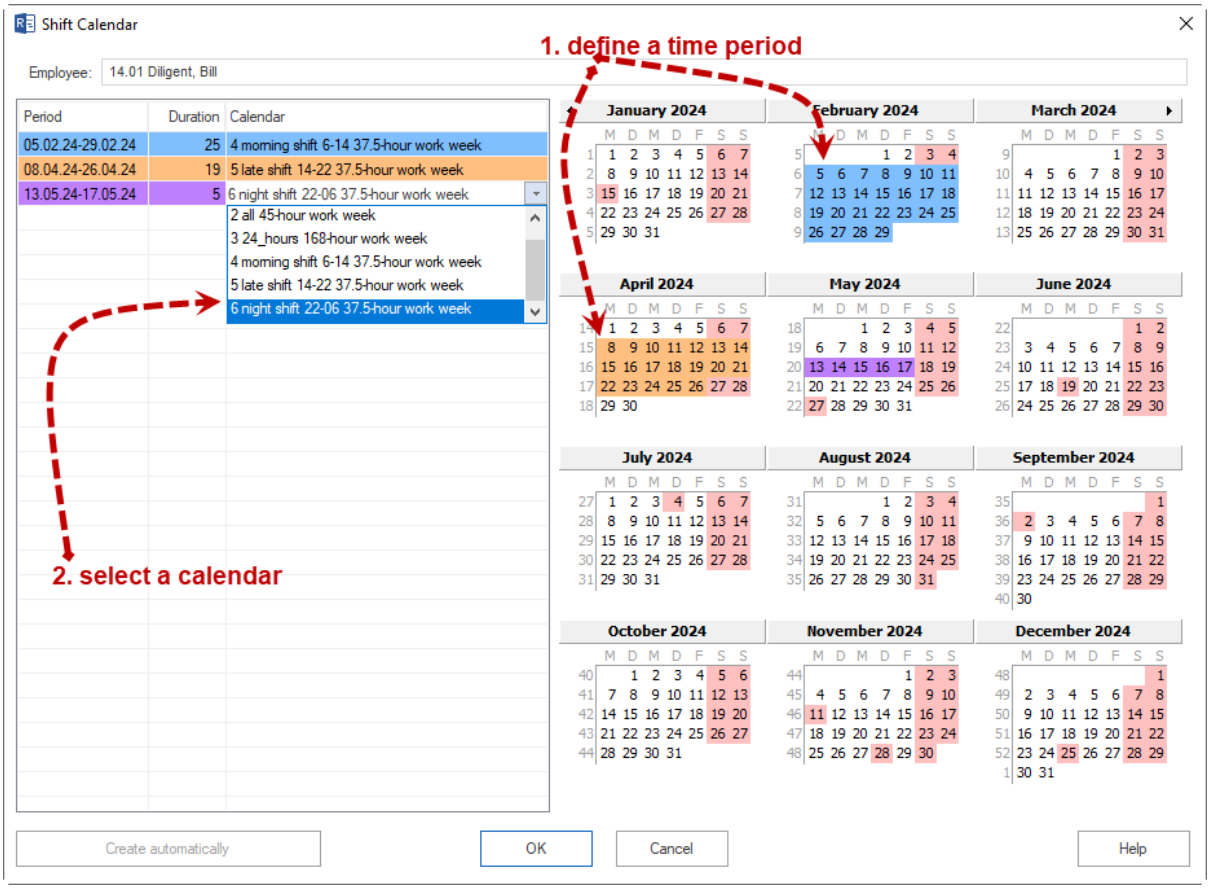
- `18.03.2026-22.03.2026`
- `25.05.2026`
- `08.06.2026-17.06.2026`

5.3.9 Impact on Capacity Balancing

Non-working days and different working times directly affect resource supply.

This means:

- An employee may be professionally suitable but unavailable in the period.
- A team may generally have enough employees but be undercovered in the period.
- A capacity bottleneck can be caused by vacation or a shift calendar even when enough people exist in the resource pool.
- A wrong calendar assignment can create the appearance of free capacity.



5.3.10 Pre-Balancing Checklist

Before capacity balancing, check:

- Are calendars maintained for the planning period?
- Are holidays loaded?
- Are different working days entered?
- Are employee non-working days entered?
- Are team-related non-working days relevant?
- Do employees have suitable shift calendars?
- Are start and leaving dates plausible?

5.3.11 Check the Result

Availability data is maintained sufficiently when capacity balancing shows realistic working capacity in the planned period, not just theoretical employee counts.

5.3.12 Next Steps

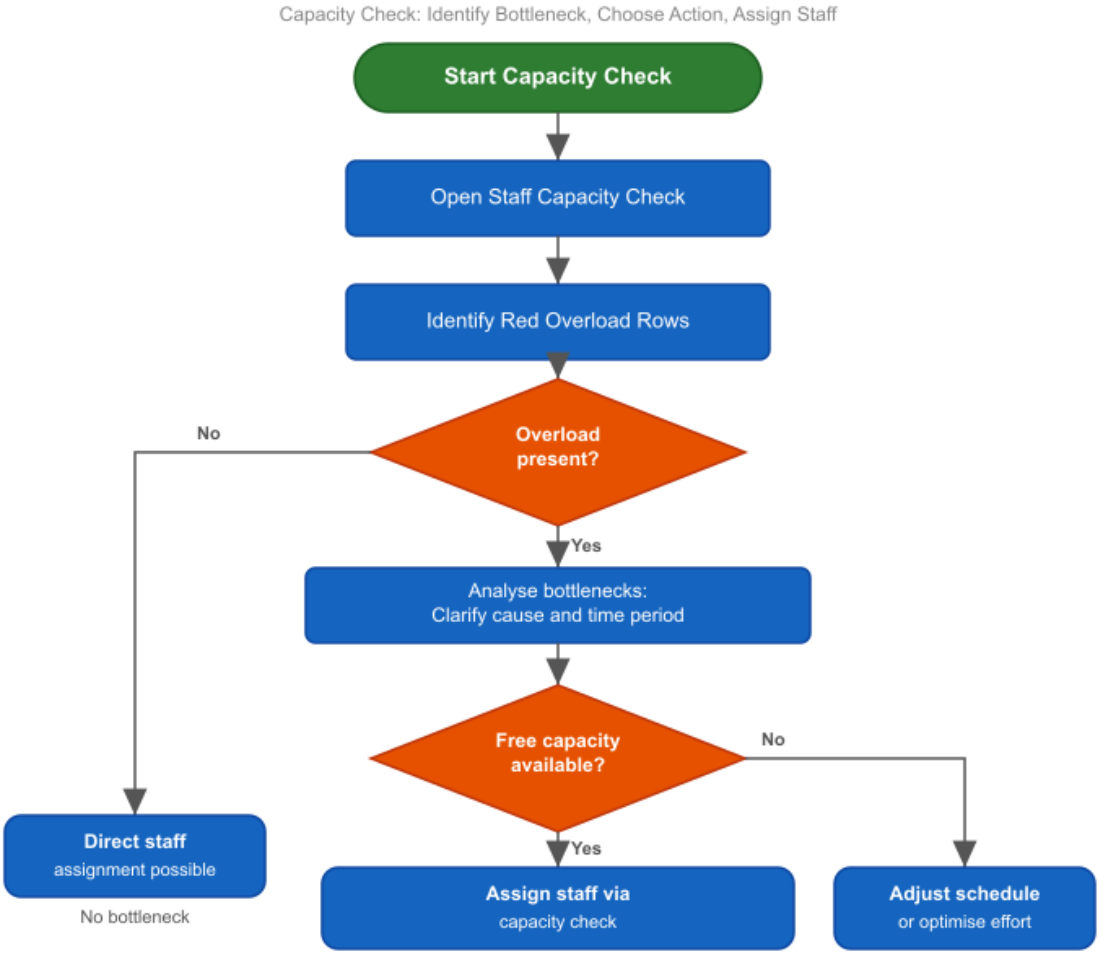
Then perform capacity balancing.

- *Perform Capacity Balancing*

5.4 Perform Capacity Balancing

5.4.1 Goal

Compare resource demand with resource supply and check whether the available working capacity is sufficient for the planned period.

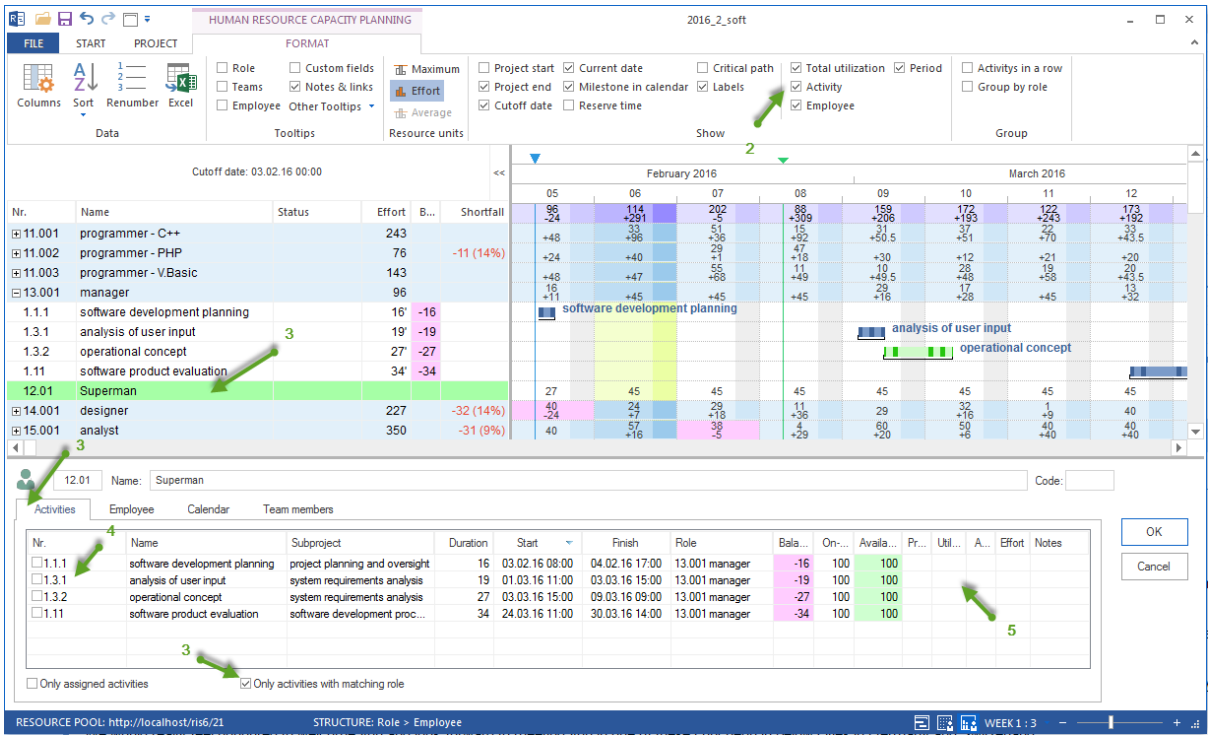


5.4.2 Professional Context

Capacity balancing is the decision point between resource planning and resource assignment.

Before capacity balancing, you know:

- which tasks are planned
- which professional qualifications are required
- which effort arises in the period
- which employees are maintained in the resource pool
- which working times and non-working days apply



After capacity balancing, you know:

- whether matching capacity is available
- which qualifications are undercovered
- when bottlenecks arise
- whether dates, demand, or resource supply must be adjusted
- which basis exists for later employee assignment

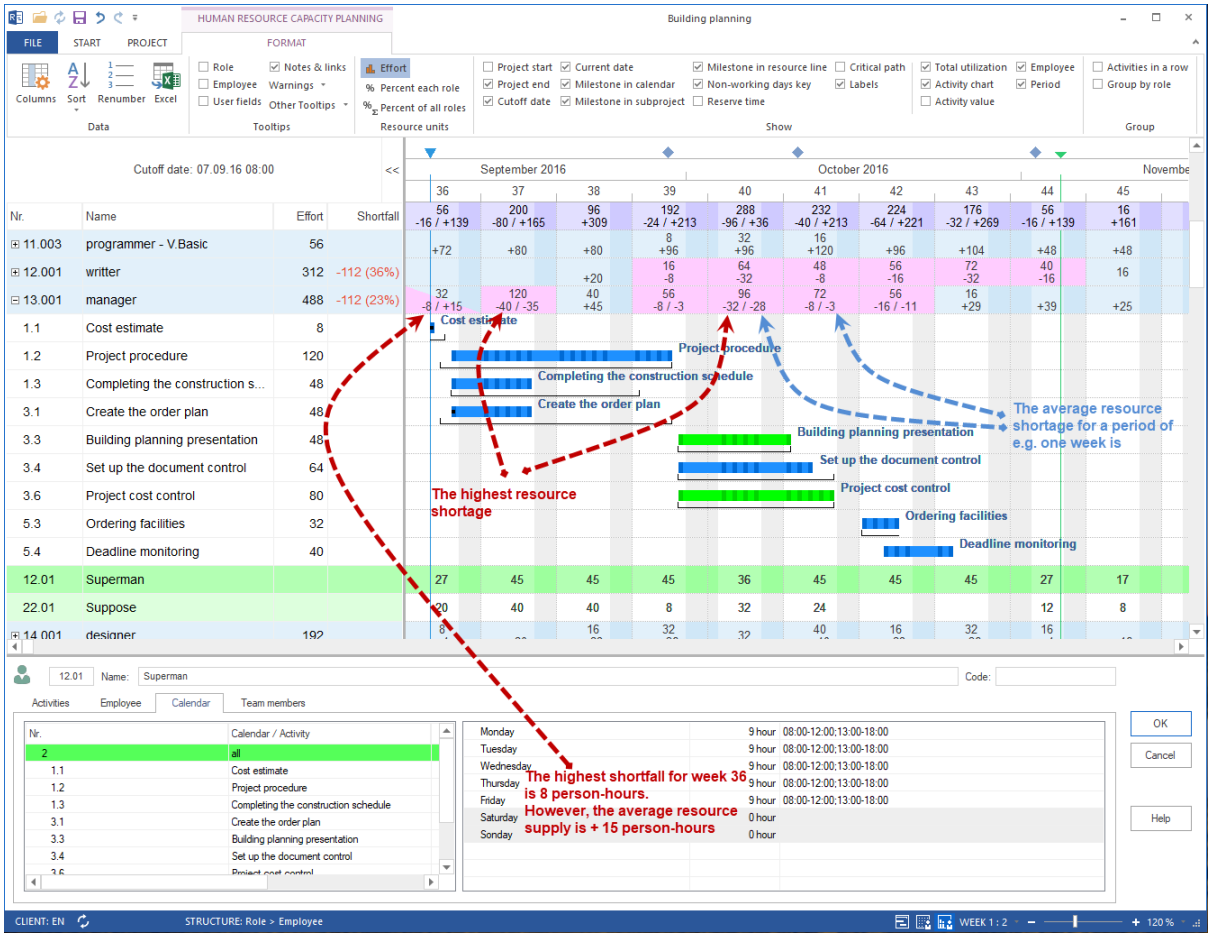
5.4.3 Prerequisites

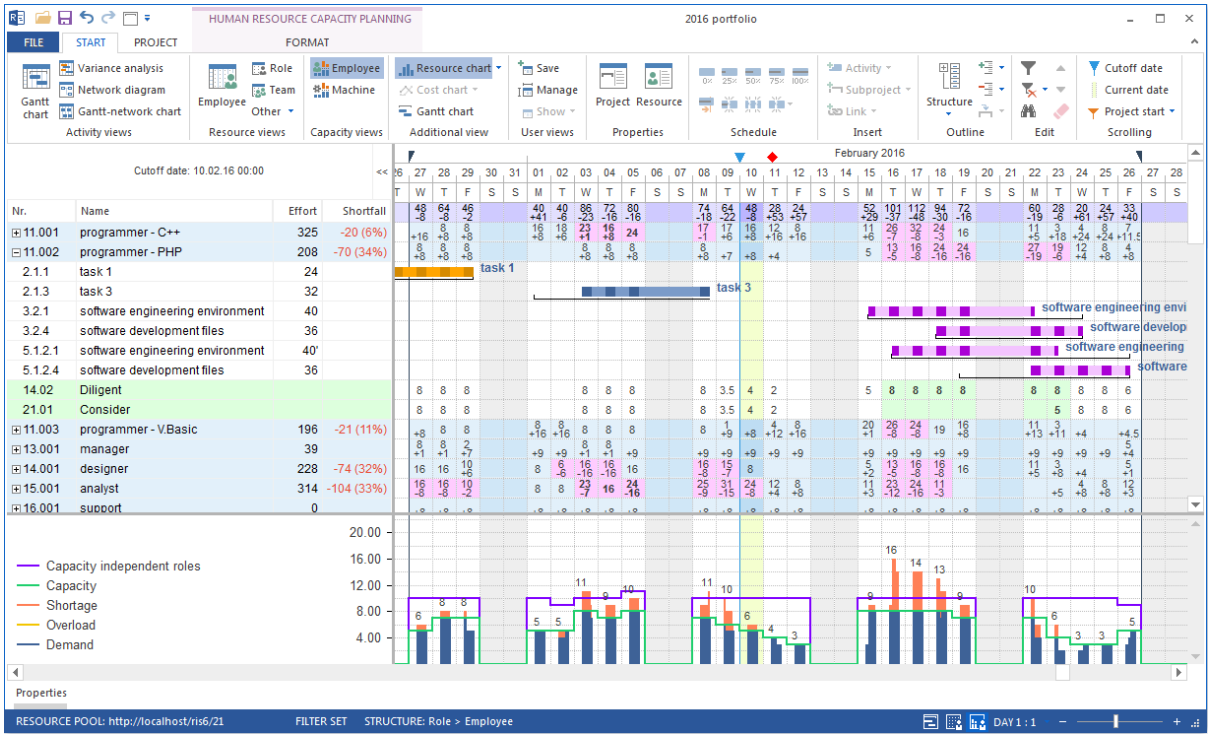
- The schedule is professionally stable.
- Professional qualifications have been assigned to tasks.
- Effort and period are maintained plausibly.
- The resource pool contains employees with matching qualifications.
- Working times, calendars, and non-working days have been checked.

5.4.4 Use Capacity Views

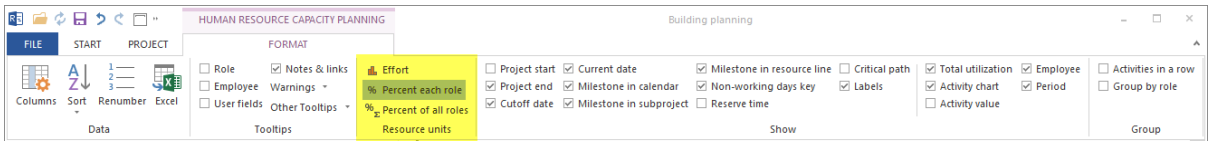
The old Rillsoft documentation lists several capacity views, including:

- Human Resource Capacity Balancing
- Human Resource Capacity Balancing, percentage of roles
- Human Resource Capacity Balancing with additional Gantt chart
- Project-specific Human Resource Capacity Balancing
- Human Resource Capacity Balancing with additional resource diagram
- Machinery Capacity Balancing
- Machinery Capacity Balancing with additional resource diagram





This task-oriented help focuses first on personnel capacity balancing.



5.4.5 Workflow

1. Open the suitable capacity view with **Start > Capacity views > Employee** for personnel or **Start > Capacity views > Machine** for machines.
2. Select the relevant period.
3. Check demand per professional qualification.
4. Check available resource supply from the resource pool.
5. Compare demand and supply.
6. Mark periods with shortfall.
7. Check whether the shortfall is caused by working times, non-working days, qualifications, or the schedule.
8. Decide on the next action.

5.4.6 What to Check

Do not check only individual employees. First check professional capacity.

Important questions:

- Are there enough employees with the required professional qualification?
- Are those employees available in the planned period?

- Do vacation, illness, or other non-working days reduce available capacity?
- Do several parallel tasks create demand peaks?
- Is the bottleneck qualification-related or schedule-related?
- Is a schedule move professionally possible?
- Does additional resource demand need to be clarified?

5.4.7 Possible Results

Result	Meaning	Next action
Supply is sufficient	Available working capacity covers demand.	Assign employees in resource assignment.
Supply is generally sufficient, but not in the period	The qualification exists but is not available at the required time.	Check dates, working times, or priorities.
Qualification is missing	No matching employee or role exists in the resource pool.	Check resource pool or demand.
Non-working days create a bottleneck	Employees would be suitable but are absent.	Check absences, replacement, or schedule move.
Demand peak creates a bottleneck	Several tasks create too much demand at the same time.	Move tasks or clarify priorities.

5.4.8 Clarify Bottlenecks

When a bottleneck becomes visible, check the cause in this order:

1. Is resource demand correct?
2. Is the professional qualification assigned correctly?
3. Are effort and period plausible?
4. Is resource supply complete in the resource pool?
5. Are employees with matching qualifications maintained?
6. Are working times, calendars, and non-working days correct?
7. Does the schedule need to be adjusted?

Only then should named employee assignment take place.

5.4.9 Distinction From Resource Assignment

Capacity balancing does not automatically assign the professionally best person finally. It first shows whether matching working capacity is available.

The concrete assignment is then done in *Resource Assignment*.

There are two paths:

- direct employee assignment for small, manageable projects
- assignment after capacity balancing for qualification-based planning

5.4.10 Typical Mistakes

- Employees are assigned directly although available capacity should be checked first.
- Non-working days are not maintained.
- Employees have no assigned professional qualification.
- Roles are too general or named inconsistently.
- Demand peaks are treated as a people problem instead of a schedule problem.
- The resource pool is not current.

5.4.11 Check the Result

Capacity balancing is complete when you can answer these questions:

- Is resource supply sufficient for resource demand?
- Where do bottlenecks arise?
- Which professional qualifications are affected?
- Which periods are critical?
- What is the cause of the bottleneck?
- Can resource assignment begin?

5.4.12 Next Steps

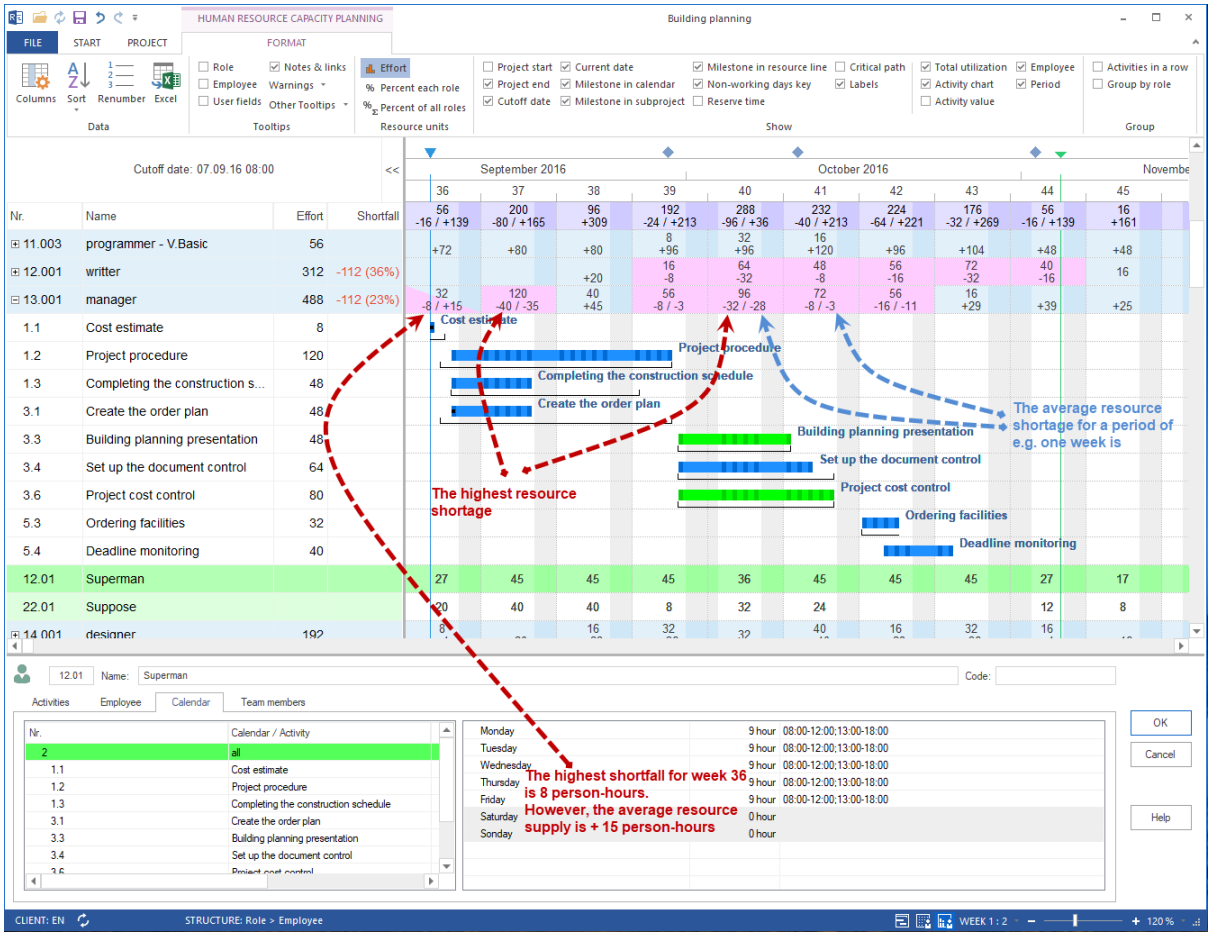
If enough capacity is available, assign suitable employees.

- *Choose Direct or Capacity-Based Assignment*
- *Troubleshooting*

capacity balancing, human resource capacity leveling, overload, utilization, uncovered demand, bottleneck, capacity planning, resource manager, project manager

5.5 Capacity View Variants

Rillsoft Project provides several capacity views for employees and machinery. Each capacity view can also be extended with an additional chart. This article describes the variants and explains when each one is useful.



5.5.1 Employee Variants

All employee variants show capacity balancing between planned resource demand (roles or qualifications) and available resource supply (employees with matching qualifications).

Human Resource Capacity Balancing

The standard variant. It shows resource demand and resource supply per professional qualification over the project period. Use it for daily capacity balancing.

Open: **Start > Capacity views > Employee**

Human Resource Capacity Balancing does not only show required person-hours or person-days for employees or roles. It also shows **excess or shortfall** (supply minus demand) and overloads.

Visual conventions:

- person-hours or person-days of an employee in a task shown **bold**: the employee is already assigned to this task
- values shown **bold and red**: assignment conflict, for example the same employee assigned to several tasks at the same time

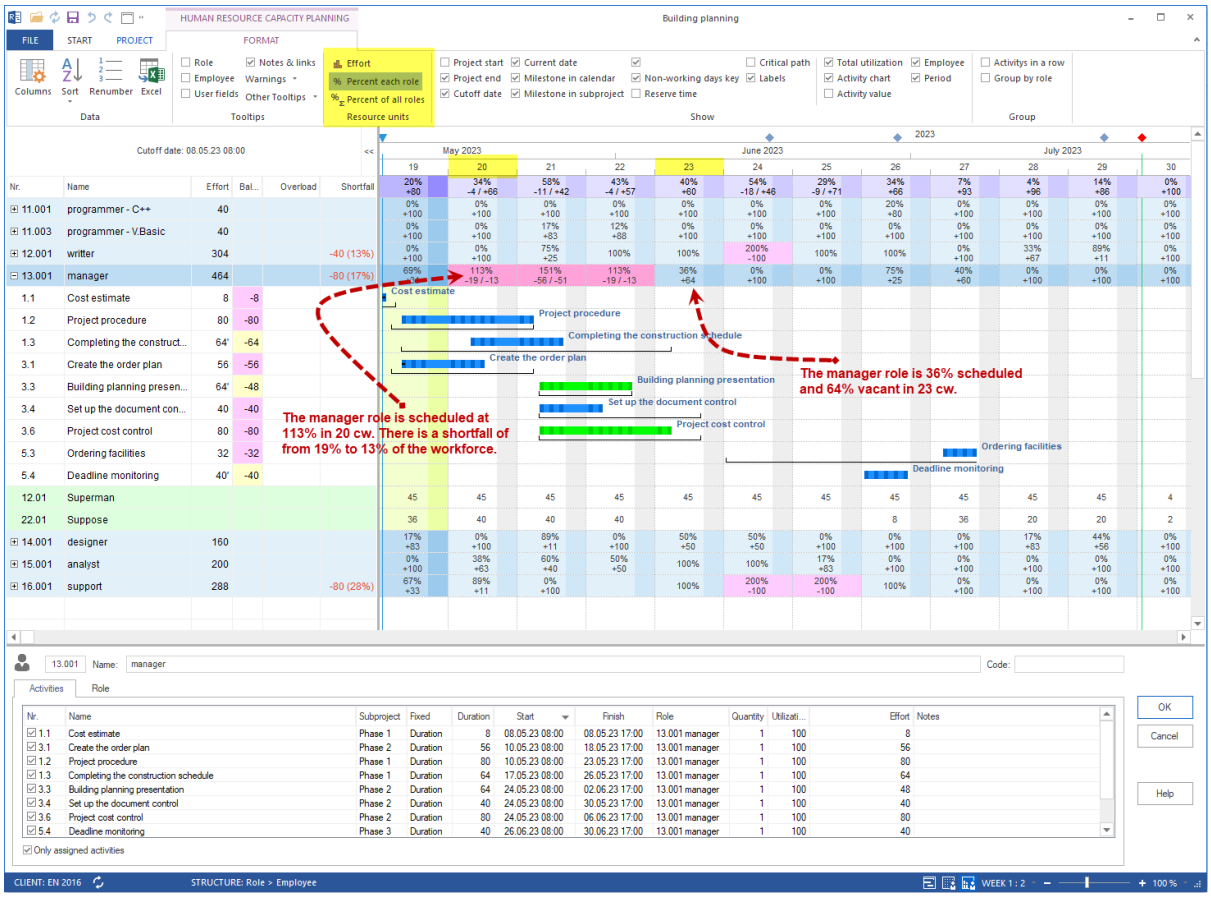
In this view you can:

- determine overloaded resources and the extent and causes of overloads

- display working capacity by resource role
- see how many hours of work are assigned to individual employees
- identify remaining time for additional assignments
- assign resources optimally

Human Resource Capacity Balancing, Percentage of Roles

Shows the coverage of each professional qualification as a percentage. Instead of absolute person-hours, you see to what percentage a role demand is covered by available employees.

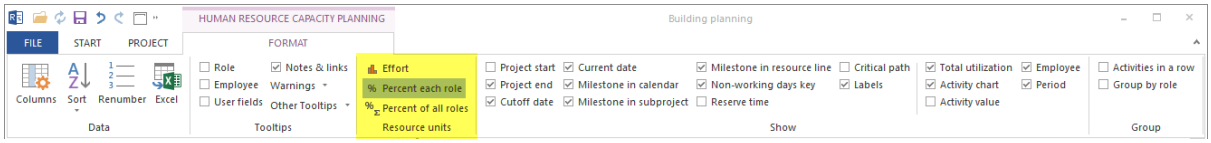


Especially useful when:

- several projects run at the same time and overall utilization per qualification must be compared
- you need to communicate how completely a qualification profile is covered in the resource pool

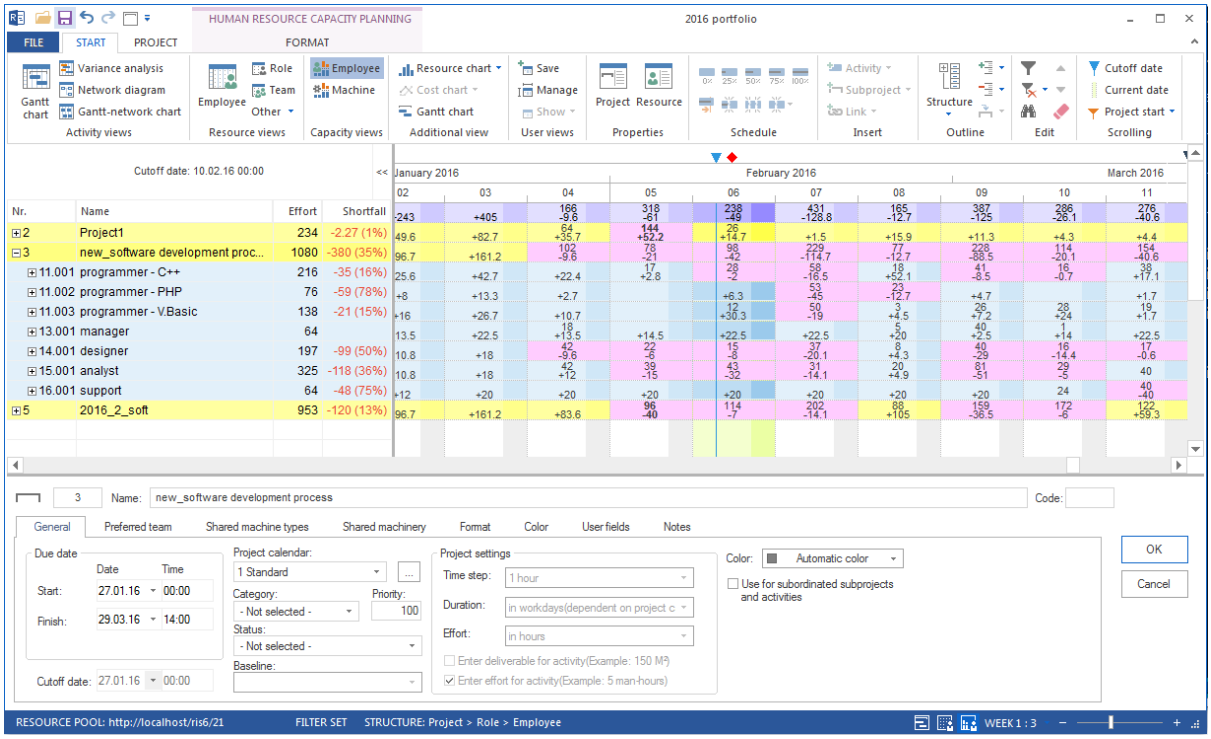
Format options:

- **Percentage per role** shows the coverage of a professional qualification.
- **Percentage of all roles** shows the share of a qualification in total demand across all qualifications.



Project-Specific Human Resource Capacity Balancing

Shows capacity balancing separated by project. Use it in multiproject management when several projects use the same resource pool.



Especially useful when:

- the same employees are planned in several projects
- you need to identify which project causes the largest resource demand
- resource decisions must be justified across projects

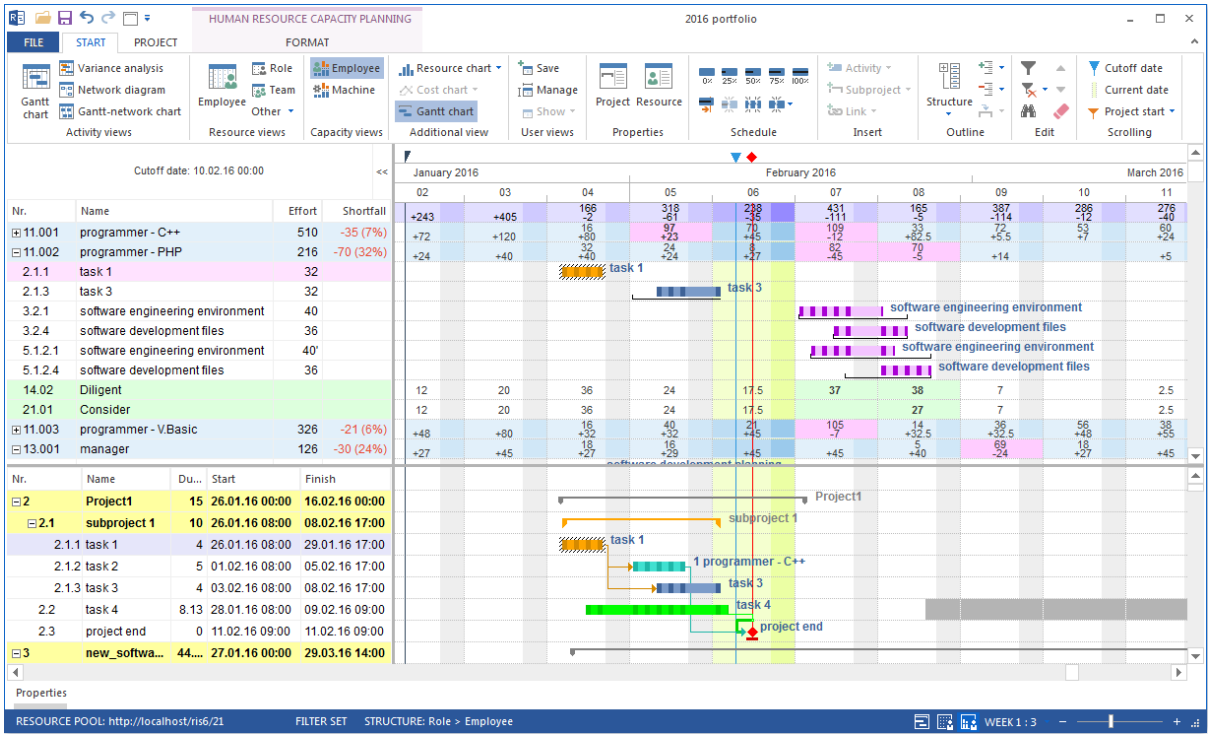
5.5.2 Variants With Additional Charts

Each capacity view can be extended with an additional chart. The additional chart appears in the lower part of the view.

Human Resource Capacity Balancing With Additional Gantt Chart

Combines capacity balancing with the Gantt chart. You see which tasks are planned in the period and which capacity they bind.

Open: **Start > Additional view > Gantt chart** in a capacity view.



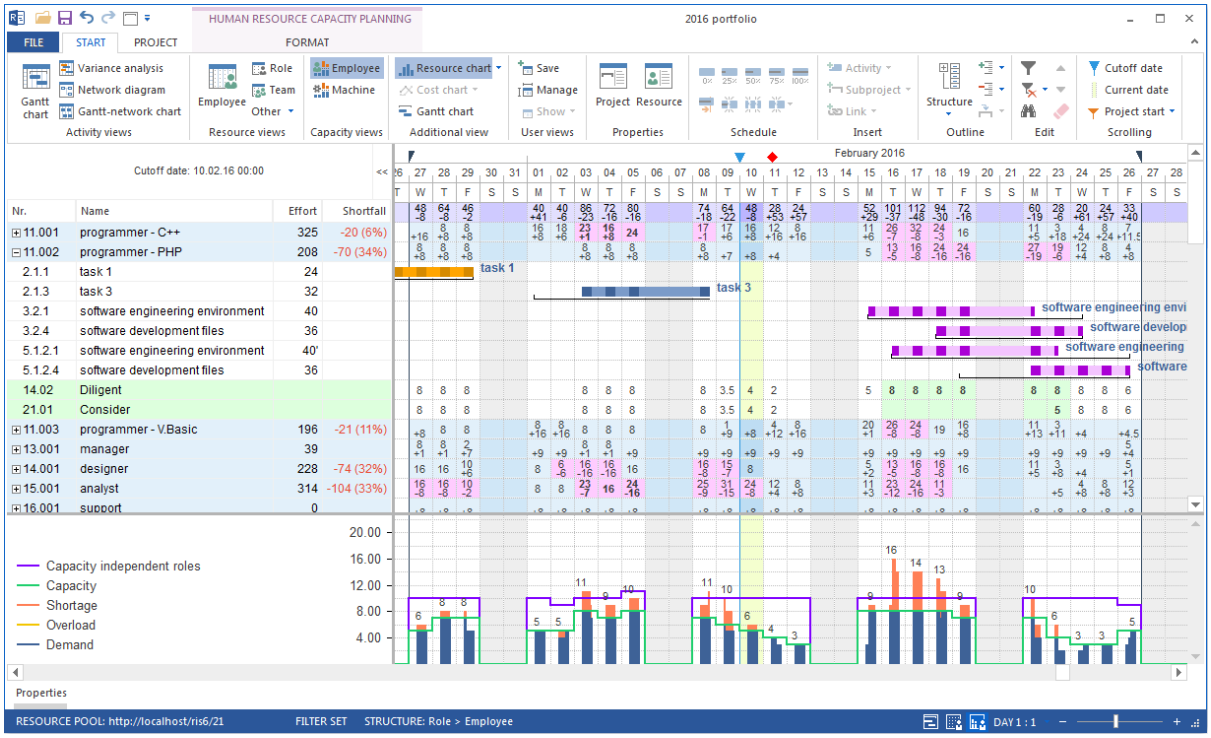
Especially useful when:

- a bottleneck must be assigned to a specific task or subproject
- resource decisions should be traceable directly in the schedule
- project manager and resource manager work together in one view

Human Resource Capacity Balancing With Additional Resource Diagram

Adds a resource diagram to capacity balancing. The diagram shows utilization graphically as an area chart.

Open: **Start > Additional view > Resource diagram** in a capacity view.



Especially useful when:

- utilization peaks should be shown graphically
- shortfall, overload, and free capacity should be communicated in one image
- reports or presentations are prepared

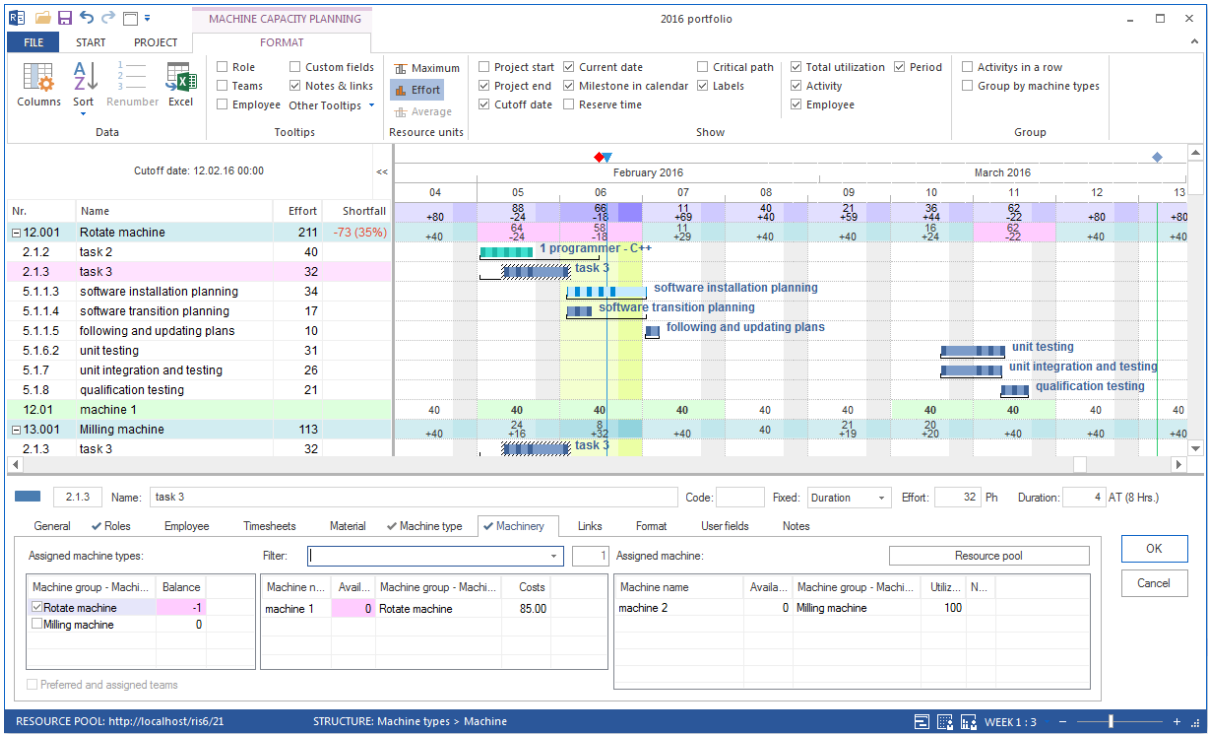
5.5.3 Machine Variants

Machine capacity views work like employee capacity views but relate to machine types and machinery.

Machinery Capacity Balancing

Shows machinery demand from tasks against available machines in the machinery pool. Use it for machine-critical projects such as construction, production, or manufacturing.

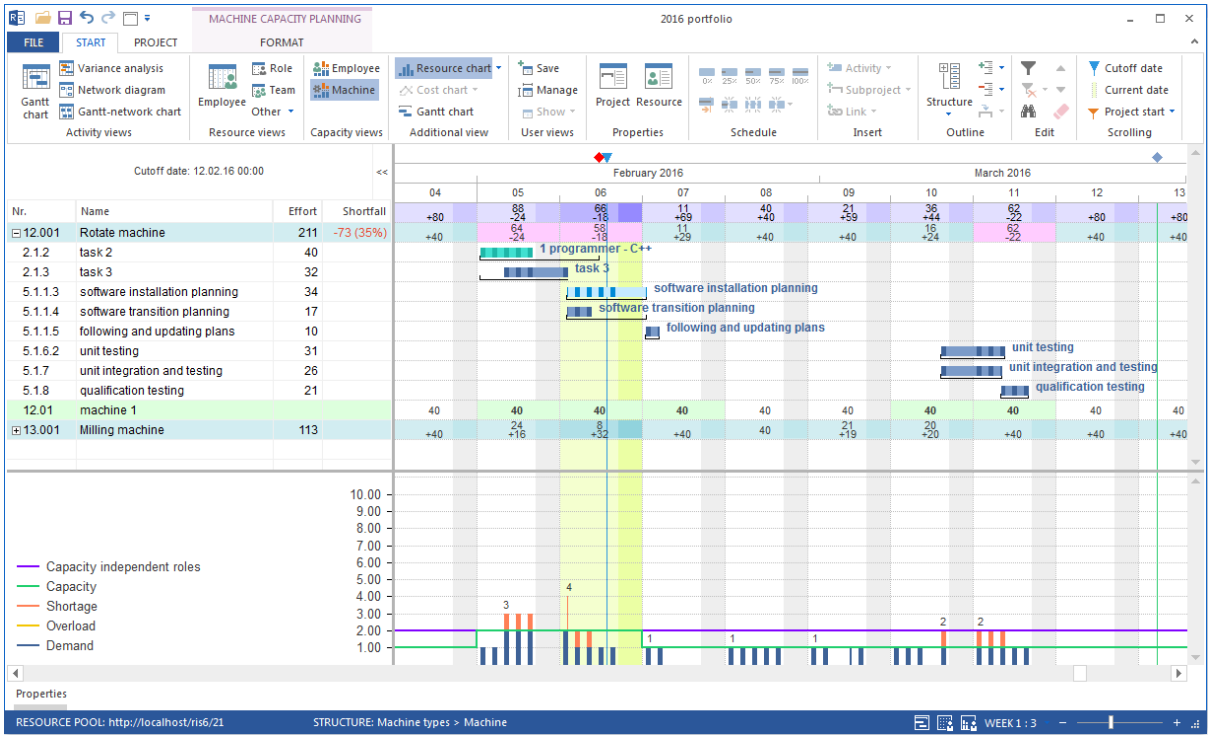
Open: **Start > Capacity views > Machine**



Machinery Capacity Balancing With Additional Resource Diagram

Adds a resource diagram to machinery capacity balancing and enables graphical analysis of machine demand over the project period.

Open: **Start > Additional view > Resource diagram** in a machinery capacity view.



The resource diagram compares the demand for a machine group or type with available capacity:

- **Blue bars**: capacity demand of the machine group or type per time unit, as

long as demand does not exceed supply.

- **Green line**: available number of machines per time unit.
- **Red bars**: shortfall where demand exceeds supply.

5.5.4 Additional Views Overview

The three additional charts can be activated in all capacity and resource views:

Additional chart	Description
Gantt chart	Gantt chart of tasks as lower view. Shows which tasks are planned in the current period.
Resource diagram	Area chart of resource utilization. Shows supply and demand as lines or areas.
Cost diagram	Time curve of resource costs. Shows planned costs over the project period.

Activate: **Start > Additional view > [chart type]** in the relevant view.

5.5.5 Format Tab for Capacity Views

Each capacity view has a **Format** tab in the ribbon that controls the display.

Resource units

Defines how resource effort is displayed in Human Resource Capacity Balancing:

Option	Display
Effort	Resource demand in person-hours or person-days. Standard for daily use.
Percentage per role	Percentage of demand for a qualification covered by available employees.
Percentage of all roles	Percentage share of a qualification in total demand across all qualifications.

Show

Option	Effect
Employee	Shows individual employees inside their qualifications in the capacity view.
Period	Highlights windows in which tasks can be moved.
Total utilization	Summed resource utilization in the title area of the diagram.
Task bars	Shows task bars in resource views.
Task numbers	Shows resource effort per task.

Group

- **Tasks in one row**: condenses the display, useful with many parallel tasks
- **Combine employee**: combines all activities of an employee into one row, even if the employee has several qualifications or team memberships

5.5.6 Decision Guide: Which Variant Should You Choose?

Situation	Recommended variant
Check bottlenecks for a professional qualification	Human Resource Capacity Balancing
Communicate coverage of a qualification	Human Resource Capacity Balancing, Percentage of Roles
Several projects with a shared resource pool	Project-specific Human Resource Capacity Balancing
Assign a bottleneck to a task	Human Resource Capacity Balancing + Gantt chart
Show utilization for reports	Human Resource Capacity Balancing + resource diagram
Check machine demand and availability	Machinery Capacity Balancing

5.5.7 Related Topics

- *Perform Capacity Balancing*
- *Group Resource Views*
- *Resource Assignment*
- *Customize Views*

5.6 Resource View Variants

Rillsoft Project provides several resource views. Each view focuses on a specific resource type or analysis perspective. This article describes the variants and explains when each view is useful.

Resource views complement capacity balancing views: capacity balancing compares demand with supply; resource views show actual utilization and distribution of already assigned or planned resources.

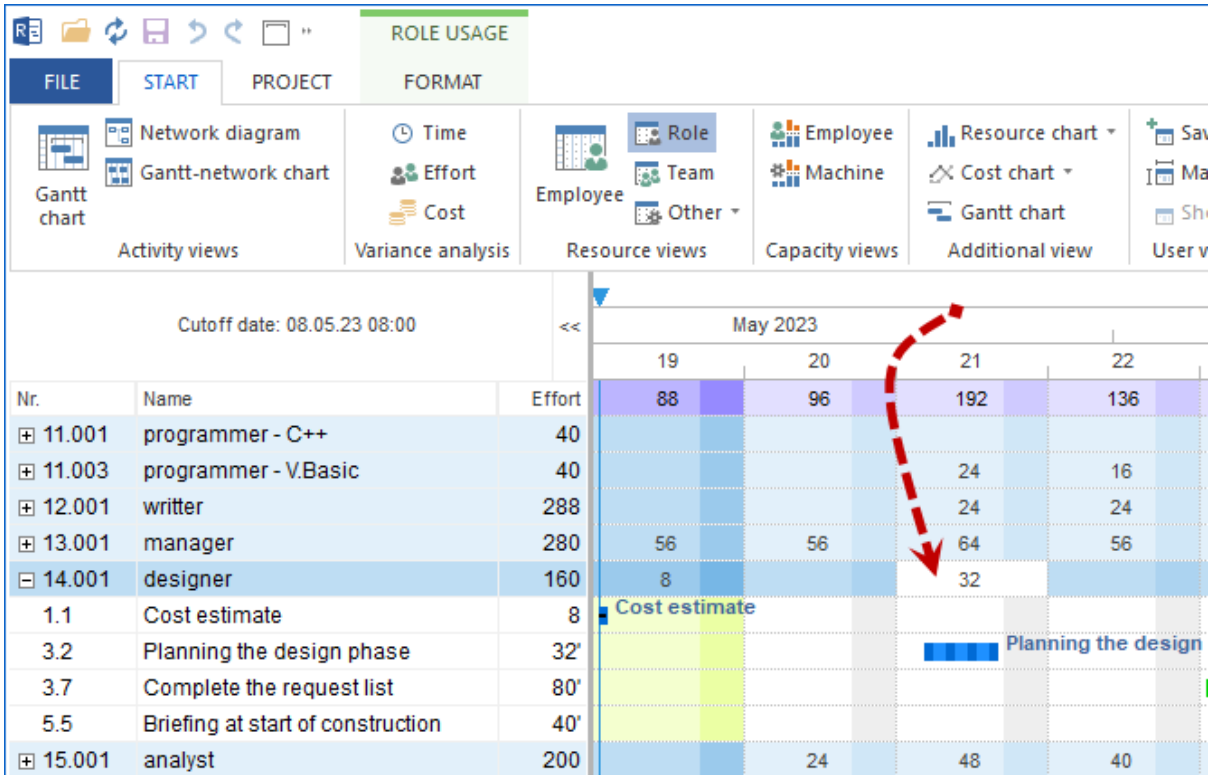
5.6.1 Role Utilization

Role utilization views show how strongly professional qualifications are used over the project period. They refer to all projects that use the same resource pool.

Role utilization

The standard view shows utilization per professional qualification as a time series. You can immediately see which roles are heavily used, fully utilized, or underutilized.

Open: **Start > Resource views > Roles**



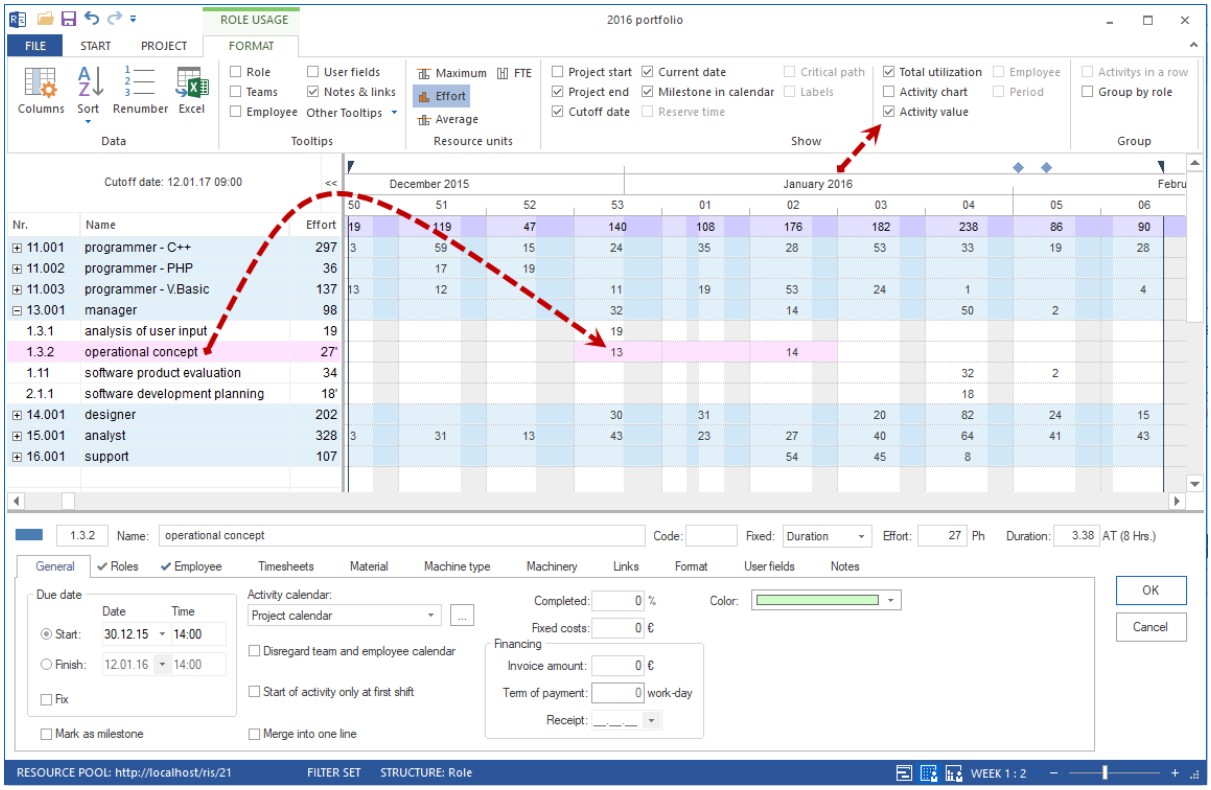
Especially useful when:

- you need to identify which qualifications are permanently heavily used or fully utilized
- bottlenecks across several projects should be detected
- the resource pool should be checked for completeness

Role utilization, effort

Shows utilization per professional qualification in person-hours or person-days. Use this variant when the amount of planned work must be evaluated in absolute terms.

Open: **Role utilization Format > Resource units > Effort** in the role utilization view.



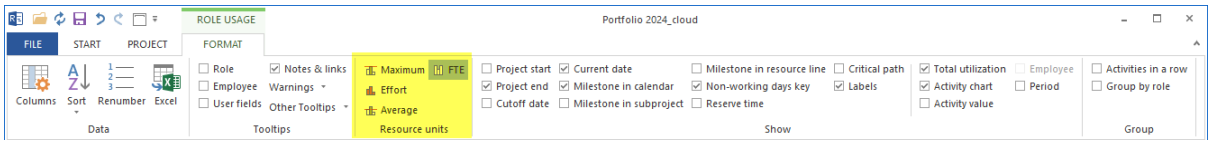
Especially useful when:

- resource effort must be quantified for reporting or budgeting
- qualification bottlenecks should be expressed in hours
- additional effort caused by extra projects must be calculated

Role utilization, FTE

Shows utilization as full-time equivalents (FTE). Instead of hours, you see how many full-time positions a qualification binds or requires over the project period.

Open: **Role utilization Format > Resource units > FTE** in the role utilization view.



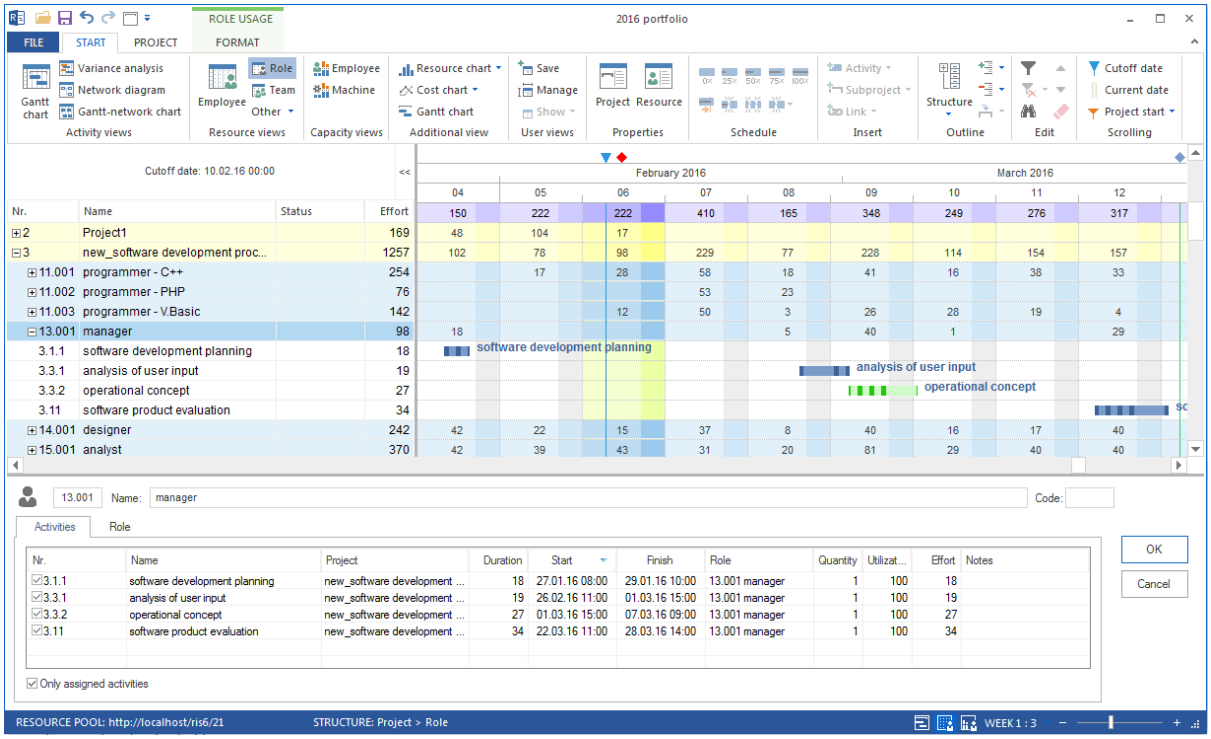
Especially useful when:

- staffing plans or personnel decisions are prepared
- you need to communicate to management how many full-time positions a project or portfolio binds
- capacity must be presented in an organizationally understandable unit

Role utilization by project

Shows role utilization broken down by projects. You can see which project uses which qualifications and to what extent.

Open: **Start > Resource views > Roles**, then **Start > Outline > Grouping > Project > Role**.



Especially useful when:

- several projects compete for the same professional qualifications
- project-related resource decisions must be justified
- resource bottlenecks must be assigned to a specific project

5.6.2 Team Utilization

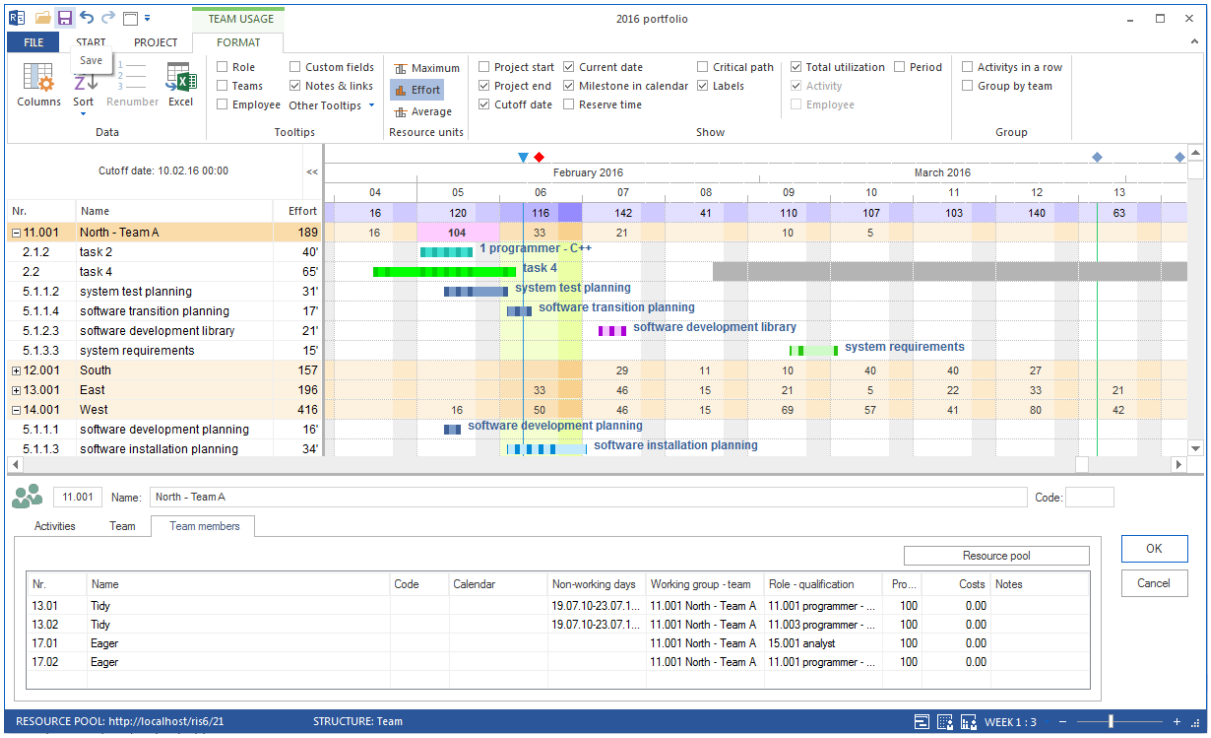
Team utilization views show team workload over the project period.

> **Note**
>
> Direct team assignment to tasks is available only in the **Standard** edition of Rillsoft Project. In the Light, Professional, and Enterprise editions, tasks receive their team assignment indirectly through assigned employees and their team membership.

Team utilization

Shows utilization per team as a time series. Overloaded teams are immediately visible.

Open: **Start > Resource views > Team**



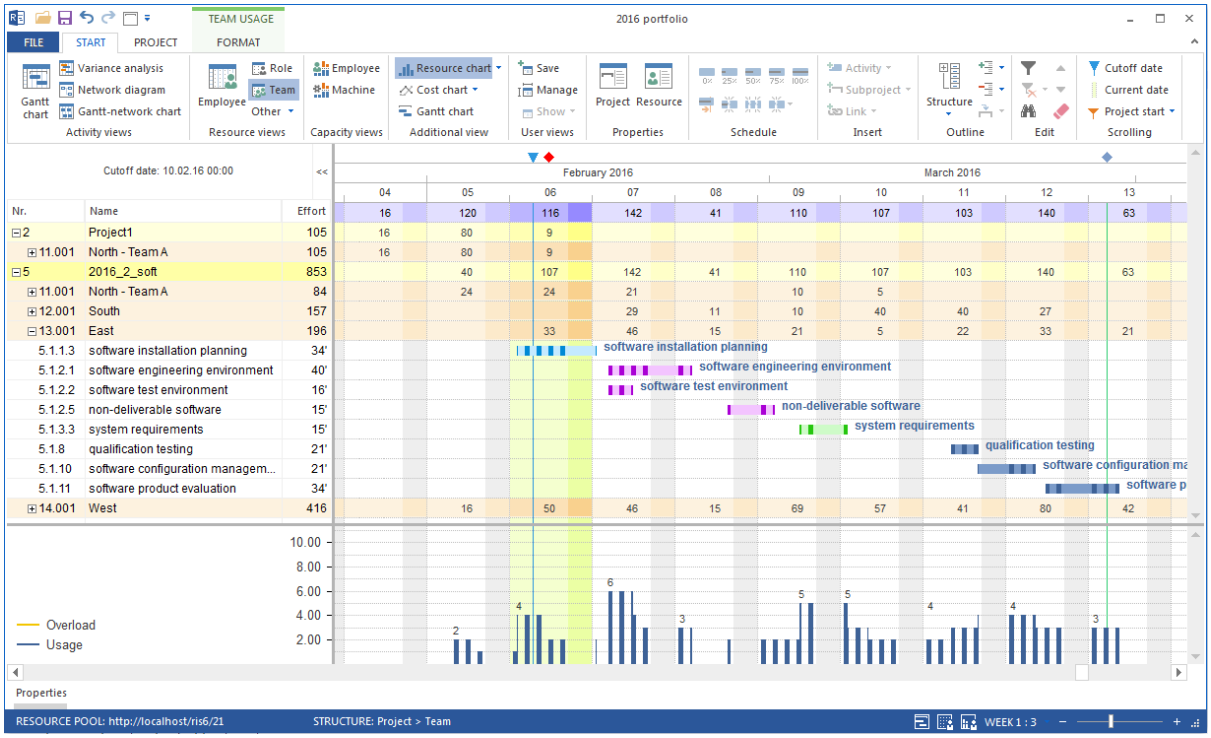
Especially useful when:

- total workload of a team should be evaluated
- teams are the planning unit instead of individual employees
- team leads need an overview of their capacity

Teams by project

Shows team utilization broken down by project. For each project, you can see which teams are involved and how heavily they are used.

Open: **Start > Resource views > Team**, then **Start > Outline > Grouping > Project > Team**.



Especially useful when:

- several projects are planned with the same teams
- team owners need to see project usage of their employees
- portfolio conflicts should be analyzed at team level

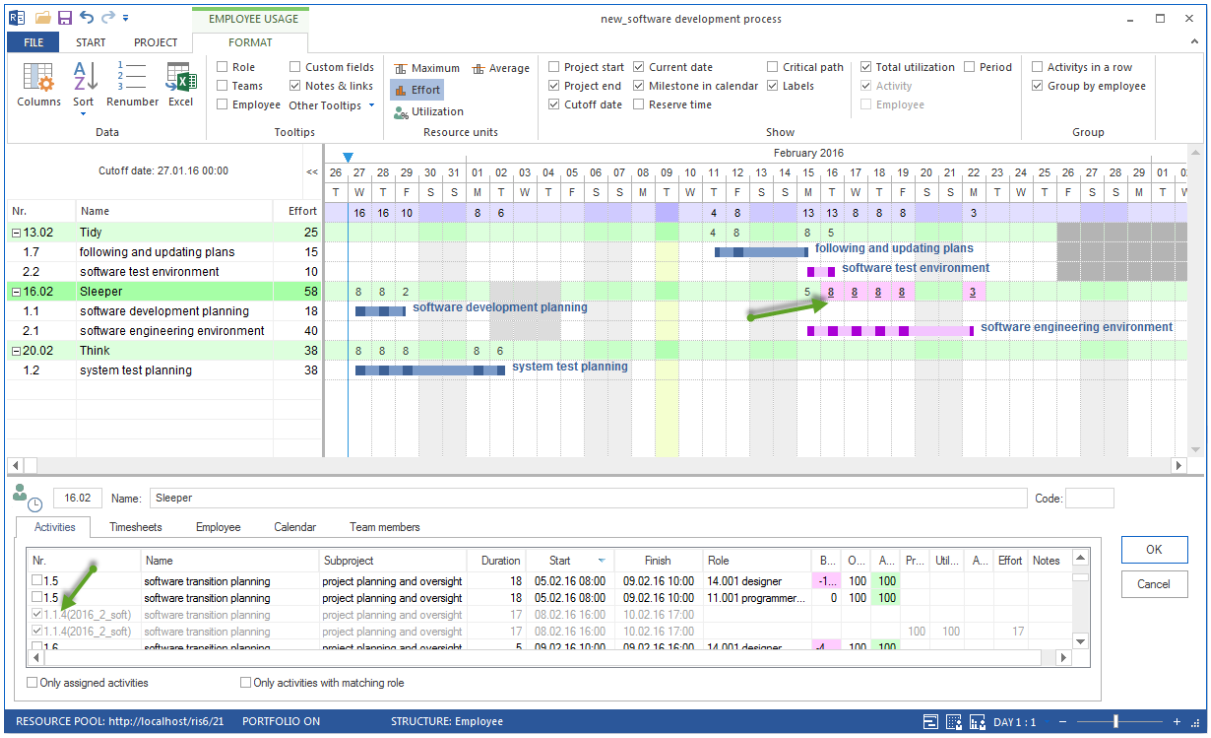
5.6.3 Employee Utilization

Employee utilization views show workload for individual employees.

Employee view

Shows all employees with their current utilization as a time series. Employees who are overloaded or double-booked become visible immediately.

Open: **Start > Resource views > Employee**



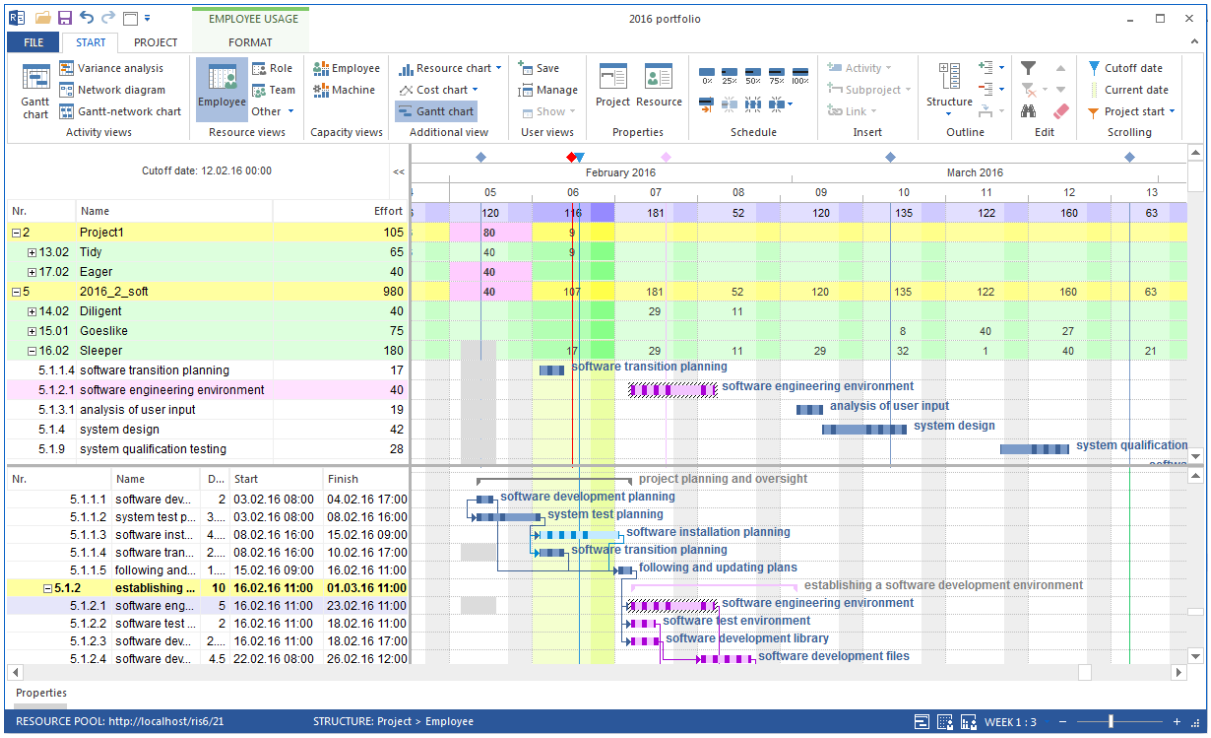
Especially useful when:

- individual employees should be checked for over- or underload
- utilization distribution within a group or department should be evaluated
- free capacity is needed for a new assignment

Employee Gantt

Combines the employee list with a Gantt chart. Assigned tasks are shown over time for each employee.

Open: **Start > Resource views > Employee**, then **Start > Additional view > Gantt chart**.



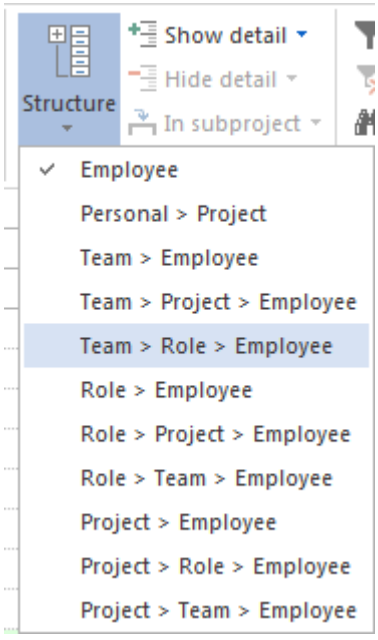
Especially useful when:

- the timing of employee assignments must be traced
- overlaps for individual employees must be found
- project manager and resource manager check availability together

Employees by project

Shows employee utilization broken down by project. For each employee, you can see in which project and to what extent the employee is planned.

Open: **Start > Resource views > Employee**, then **Start > Outline > Grouping > Project > Role > Employee**.



Especially useful when:

- employees work in several projects at the same time
- double assignment or multiple bookings must be detected
- individual employees should be relieved and work redistributed

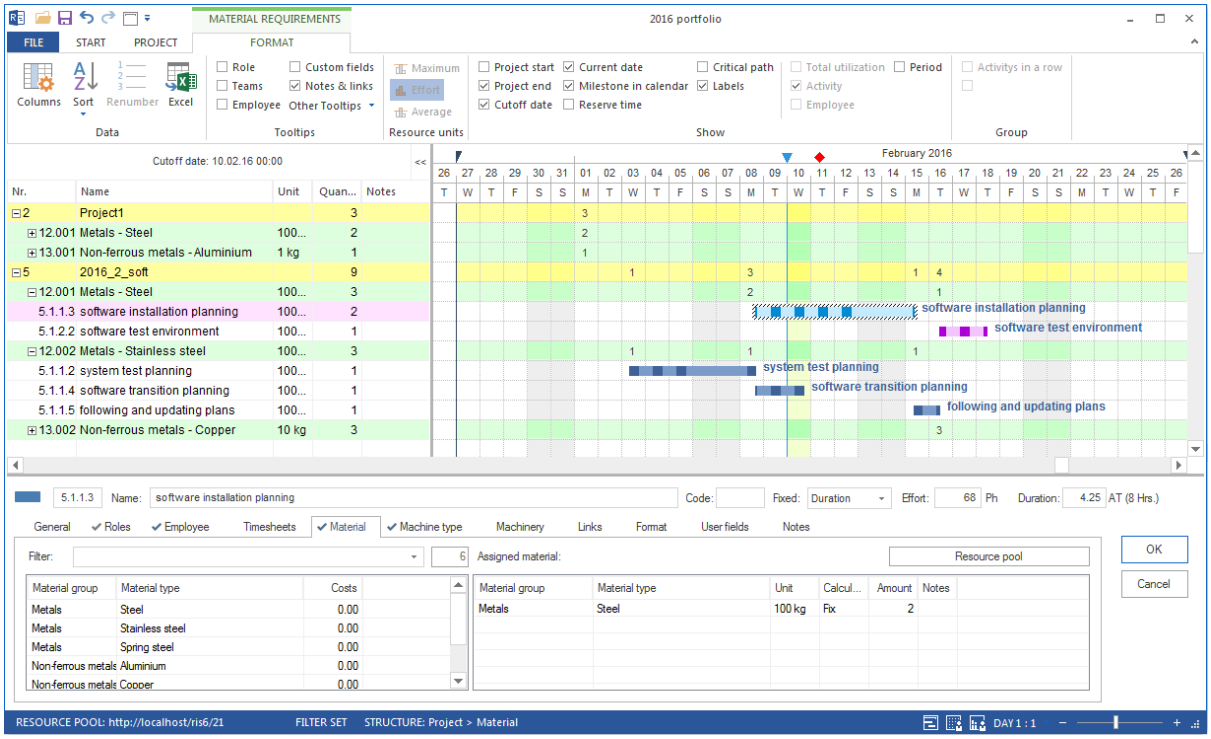
5.6.4 Material, Machine Type, and Machinery Views

These views show utilization of technical resources. They are especially relevant in industries with high material or machine use, such as construction, production, and manufacturing.

Material view

Shows material utilization as a time series.

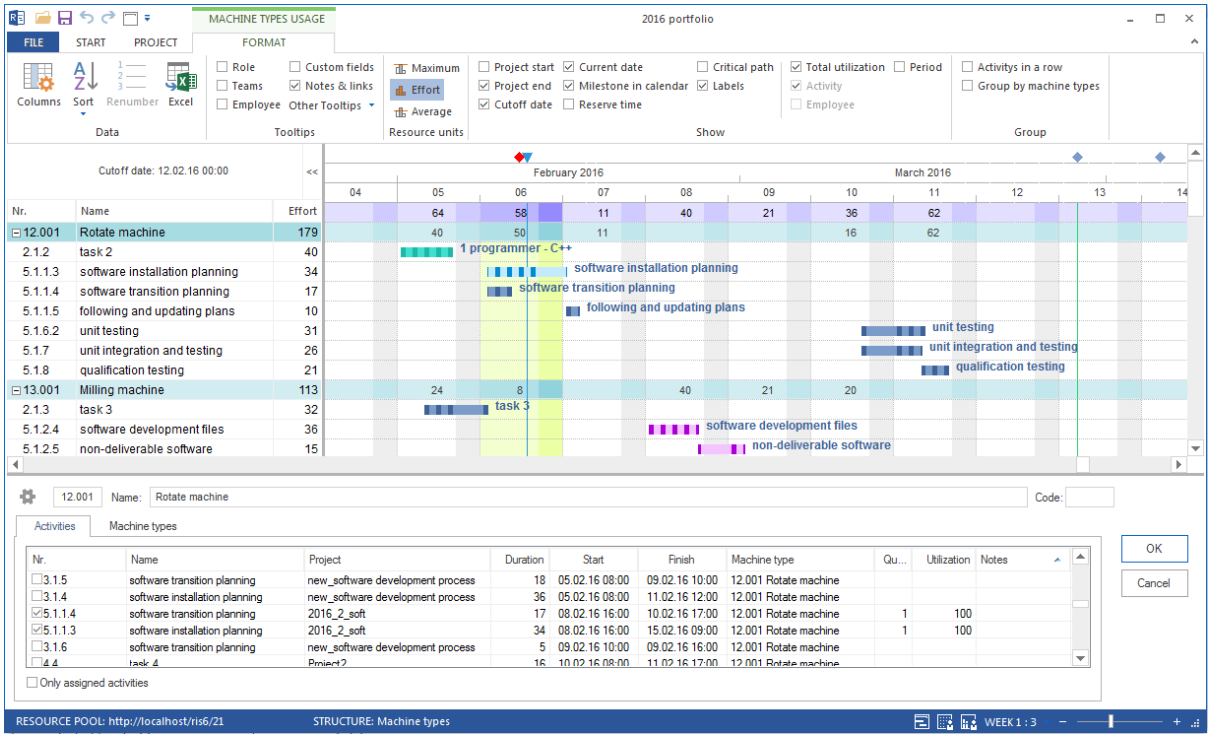
Open: **Start > Resource views > Other > Material**



Machine type view

Shows utilization of machine types.

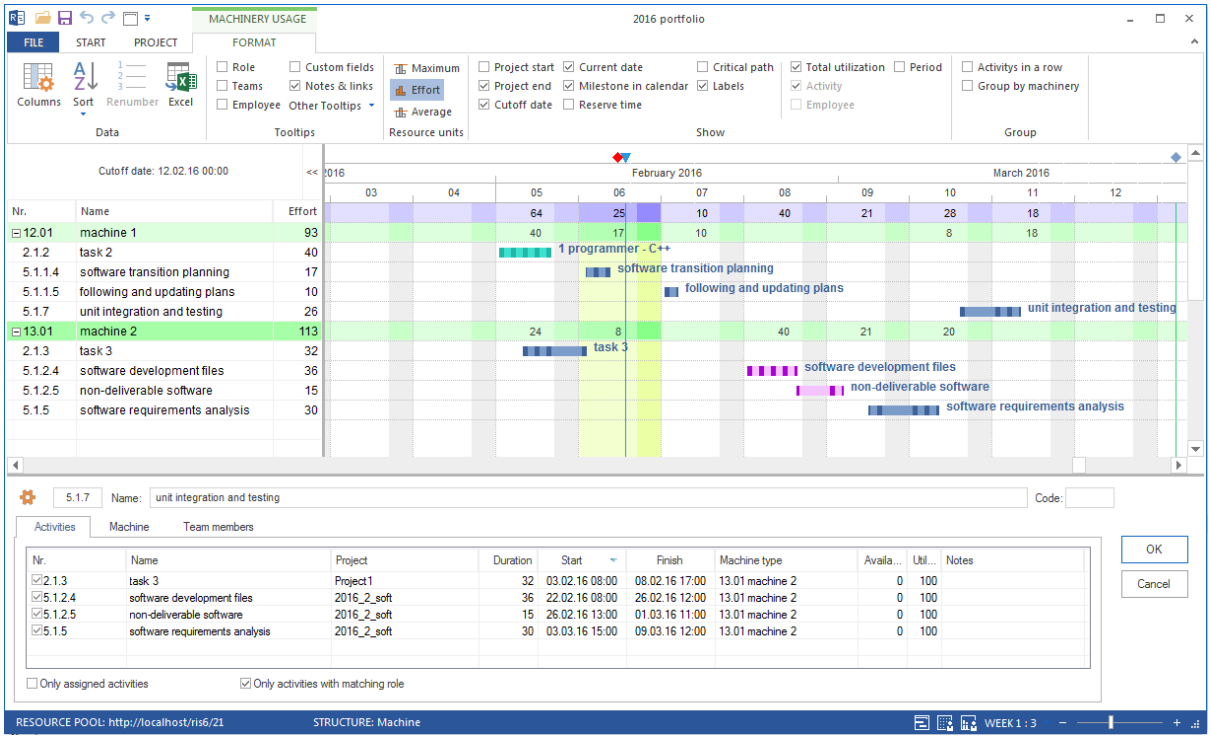
Open: **Start > Resource views > Other > Machine types**



Machinery view

Shows utilization of the machinery pool, meaning specific machines. Machinery includes stationary or heavy technical resources such as cranes, processing machines, or plants.

Open: **Start > Resource views > Other > Machinery**



All three views follow the same structure as the employee utilization view: a resource list on the left and a time series of utilization on the right.

Especially useful when:

- technical resources are planned in several projects at the same time
- bottlenecks for machines or devices should be detected early
- investment or rental decisions should be prepared from utilization data

5.6.5 Decision Guide: Which View Should You Choose?

Situation	Recommended view
Detect bottlenecks in professional qualifications	Role utilization
Quantify qualification bottlenecks in hours	Role utilization, effort
Show staffing needs for management	Role utilization, FTE
Which project uses a role most strongly?	Role utilization by project
Check overall team utilization	Team utilization
Break down team workload by project	Teams by project
Check employees for over- or underload	Employee view
Trace assignment timing	Employee Gantt
Review employees in several projects	Employees by project
Check machine demand and availability	Machinery view
Detect machine type conflicts between projects	Machine type view

5.6.6 Group Resource Views

All resource views can be grouped by several characteristics, for example by employee, project, role, or team. Grouped views help you not only detect bottlenecks but also classify them professionally.

Open: **Start > Outline > Grouping** in the relevant view.

More: *Group Resource Views*

5.6.7 Related Topics

- *Capacity View Variants*
- *Group Resource Views*
- *Perform Capacity Balancing*
- *Check Employee Assignments*
- *Employee Time Entry*

- *Views*
- *Customize Views*

5.7 Group Resource Views

Resource and capacity views show more than a list of employees or roles. You can group these views to analyze resource demand, resource supply, and utilization by several characteristics at the same time.

Grouping is especially useful when a simple employee or role list is not enough. This is often the case with several projects, several teams, similar professional qualifications, or a mixture of planned role work and concrete employee assignment.

5.7.1 When to Use Grouped Views

Use grouped resource views when you need to clarify:

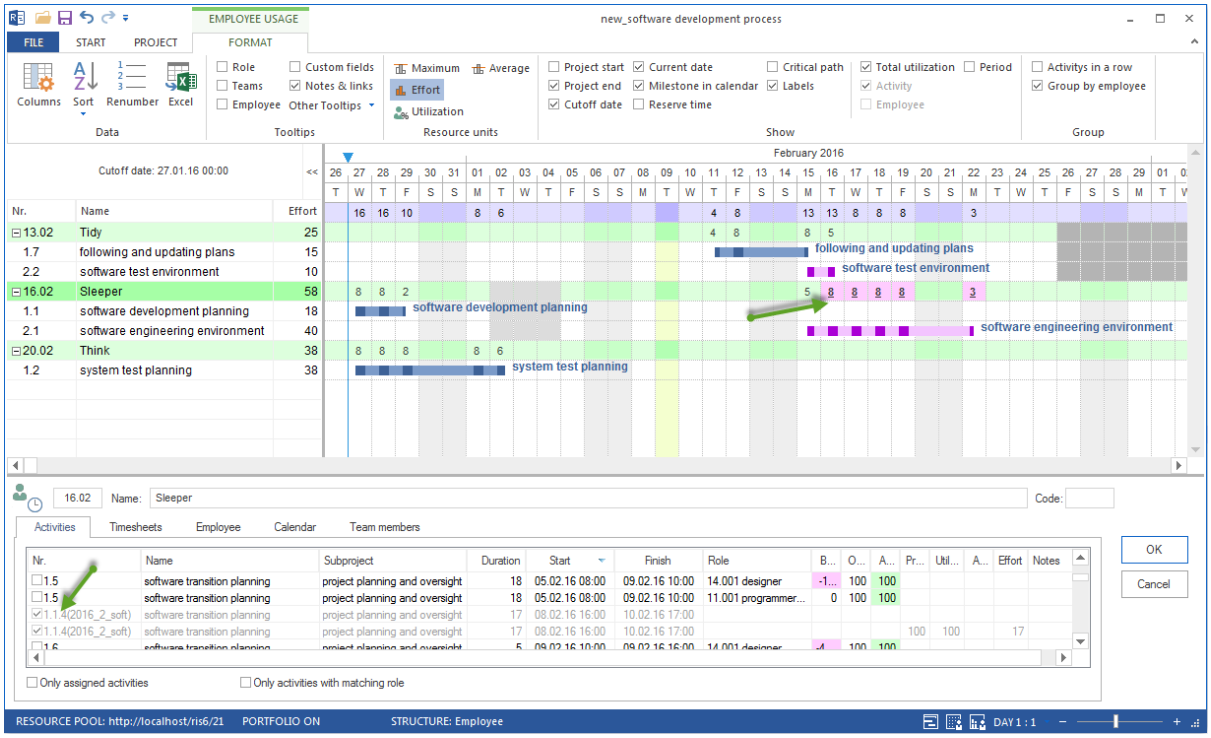
- which professional qualifications are required in which project
- which employees cover which role demand
- which teams are loaded in which project
- which projects use the same employees
- whether an overload comes from one task, one project, or several projects
- where free capacity is available

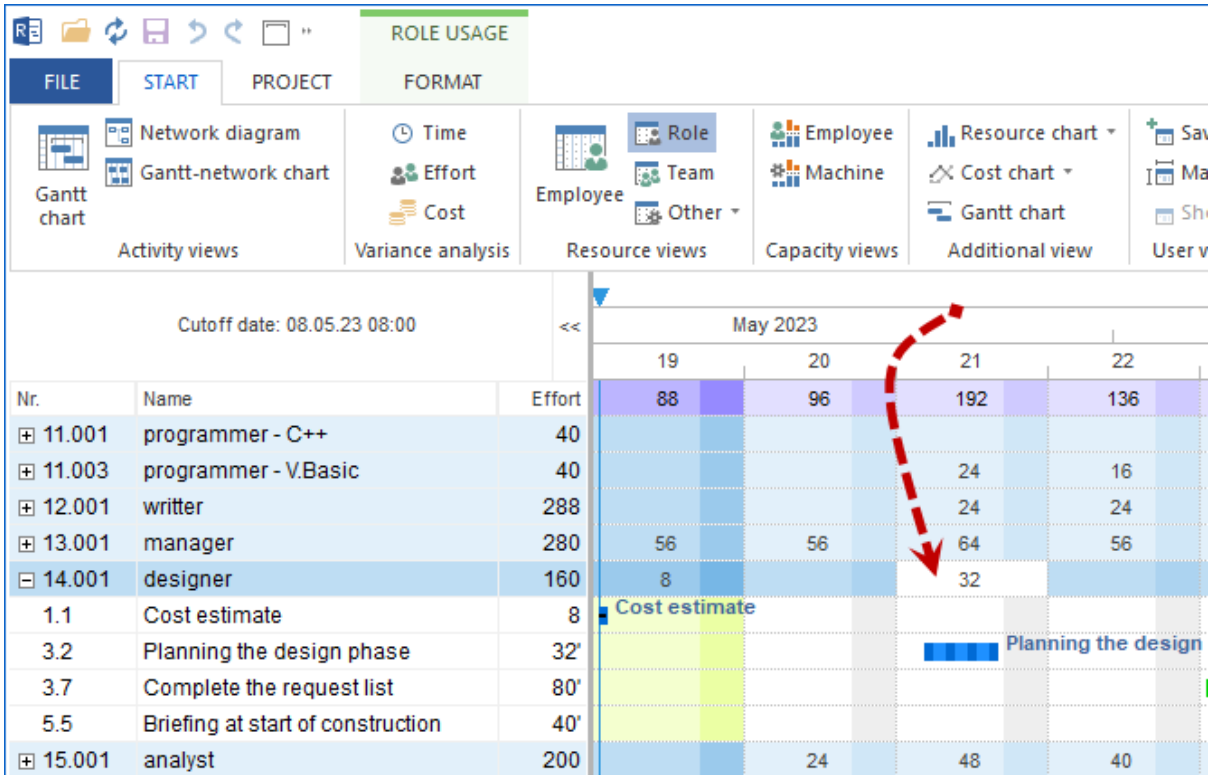
5.7.2 Group a View

Goal: The resource view is grouped by one or more characteristics.

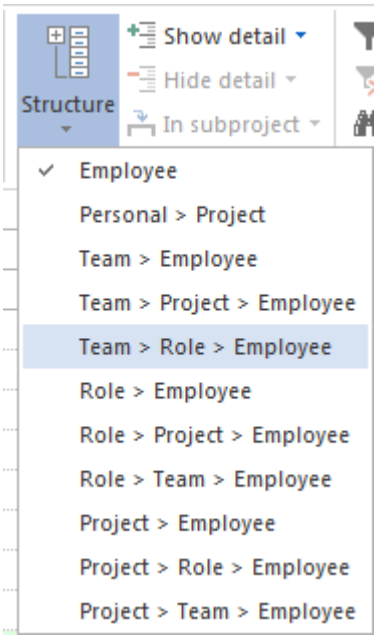
Workflow:

1. Open a resource or capacity view, for example **Employee**, **Roles**, **Role utilization**, or **Human Resource Capacity Balancing**.
2. Click **Start > Outline > Grouping**.
3. Select the required grouping.
4. Check the newly grouped view.





Rillsoft Project adapts the view automatically to the selected grouping.



5.7.3 One-Dimensional Grouping

One-dimensional grouping groups the view by one characteristic. This display is clear and suitable for simple evaluations.

Typical characteristics:

- Employee
- Role or professional qualification
- Team
- Project

5.7.4 Two-Dimensional Grouping

Two-dimensional grouping combines two characteristics. This lets you see not only the resource but also the professional or organizational context.

Typical groupings:

- **Employee > Project**
- **Team > Employee**
- **Role > Employee**
- **Project > Employee**

5.7.5 Three-Dimensional Grouping

Three-dimensional grouping combines up to three characteristics. This view is intended for complex resource and portfolio analyses.

Typical groupings:

- **Project > Role > Employee**

- **Team > Project > Employee**
- **Role > Team > Employee**

5.7.6 Relation to Resource Planning

In resource and capacity planning, grouping mainly helps separate demand from supply.

Use grouping to check:

- whether planned role demand can be covered completely by employees
- which professional qualifications are scarce
- which employees are generally eligible for a role
- whether shortfall comes from one project or several projects
- whether a schedule move or another assignment is more appropriate

5.7.7 Relation to Resource Assignment

In resource assignment, grouping helps with concrete assignment decisions.

Use grouping to check:

- which employee is already planned in which project
- whether direct employee assignment creates overload
- whether an employee matches the required professional qualification
- whether the planned assignment remains plausible in the portfolio context
- whether another employee with the same qualification is available

5.7.8 Typical Decision Situations

Question	Suitable grouping
Which projects load an employee?	Employee > Project
Which employees cover a professional qualification?	Role > Employee
Which roles are missing in a project?	Project > Role > Employee
How is work distributed in the team?	Team > Employee
Which teams are loaded in which projects?	Team > Project > Employee

5.7.9 Typical Mistakes

- Overload is considered only per employee without checking project, role demand, or shortfall.
- Role demand is assigned directly to individual employees without comparing available alternatives.

- Portfolio projects are evaluated individually although the same employees are planned multiple times.
- The view is grouped too deeply although a simple two-dimensional view would be sufficient.

5.7.10 Related Topics

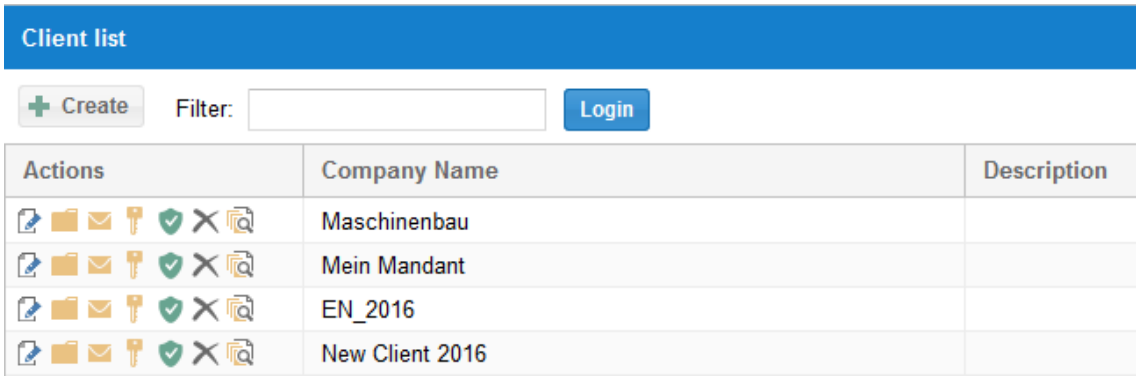
- *Perform Capacity Balancing*
- *Plan Resource Demand by Qualifications*
- *Resource Assignment*
- *Portfolio Analysis*

5.8 Create and Select a Resource Pool with Rillsoft Integration Server

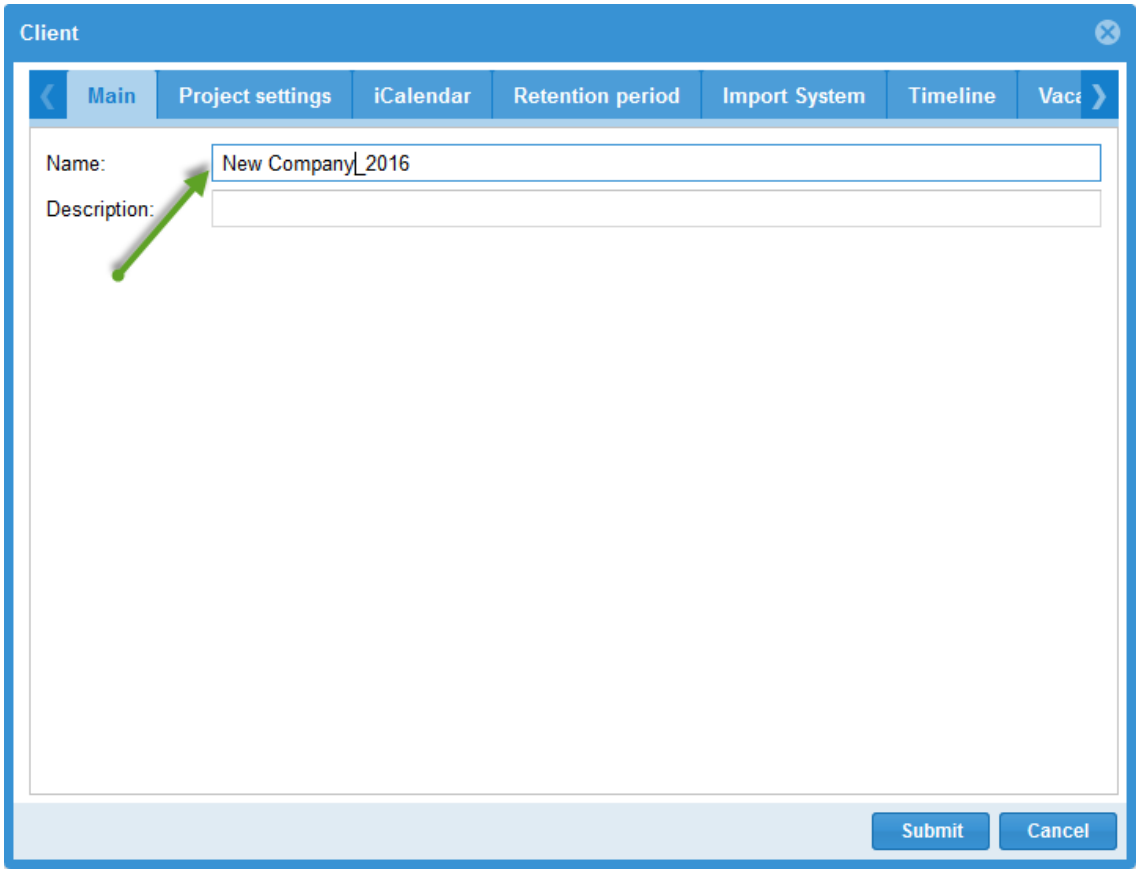
When working with Rillsoft Integration Server or Rillsoft Cloud, the resource pool is not stored in a local `*.xml` file but in the server database. Each client has exactly one resource pool there. To create a new resource pool, you therefore create a new client; afterwards you select this client in Rillsoft Project as the resource pool source.

5.8.1 Create a New Resource Pool (Create a Client)

1. In the web interface of Rillsoft Integration Server, open **Administration > Clients** and click **New client**.



2. On the **Main** tab, enter the name of the client and confirm with **Submit**.



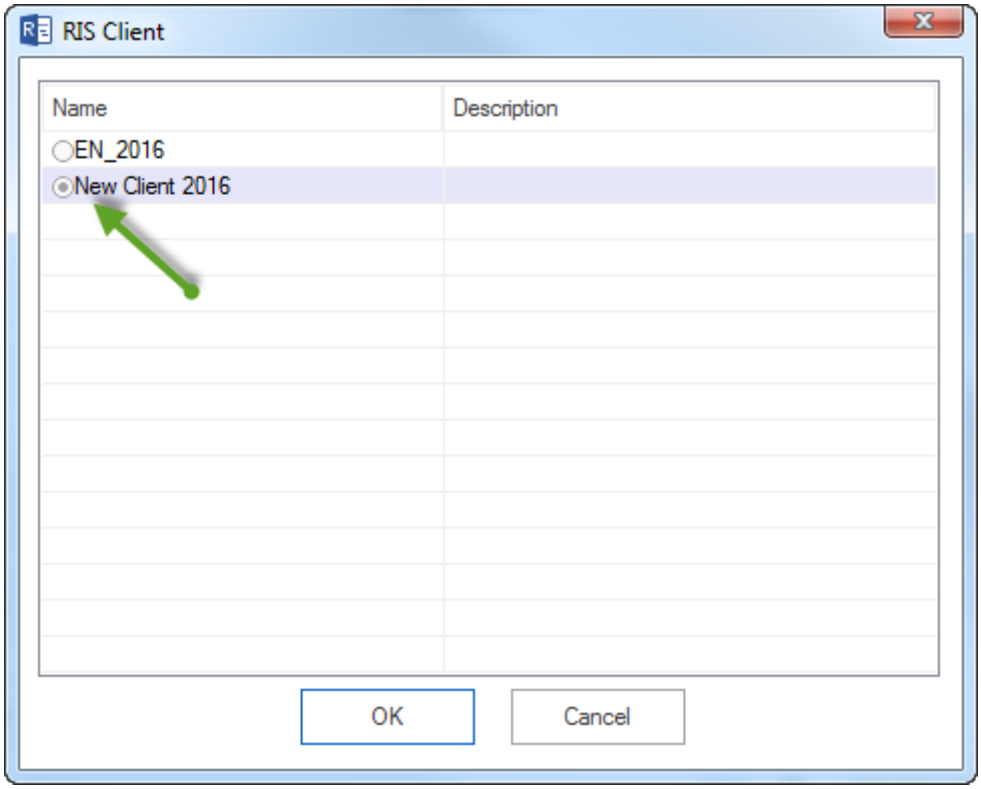
Rillsoft Integration Server automatically creates an empty resource pool for the new client.

Note

To work with the new client, users need client access as well as matching user roles and directory roles. See *Setting Up and Operating Integration Server*.

5.8.2 Select the Resource Pool in Rillsoft Project

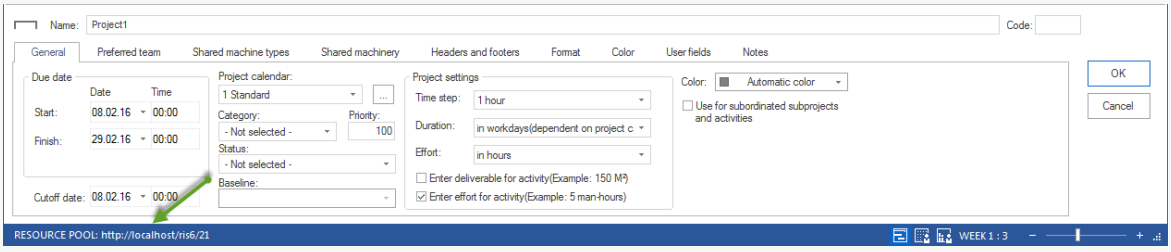
1. Close all open projects.
2. Click **File > Resource pool > Rillsoft Integration Server > Select**.
3. In the **RIS Client** dialog, select the desired client and confirm with **OK**.



From now on, Rillsoft Project uses the resource pool of this client for planning.

Note

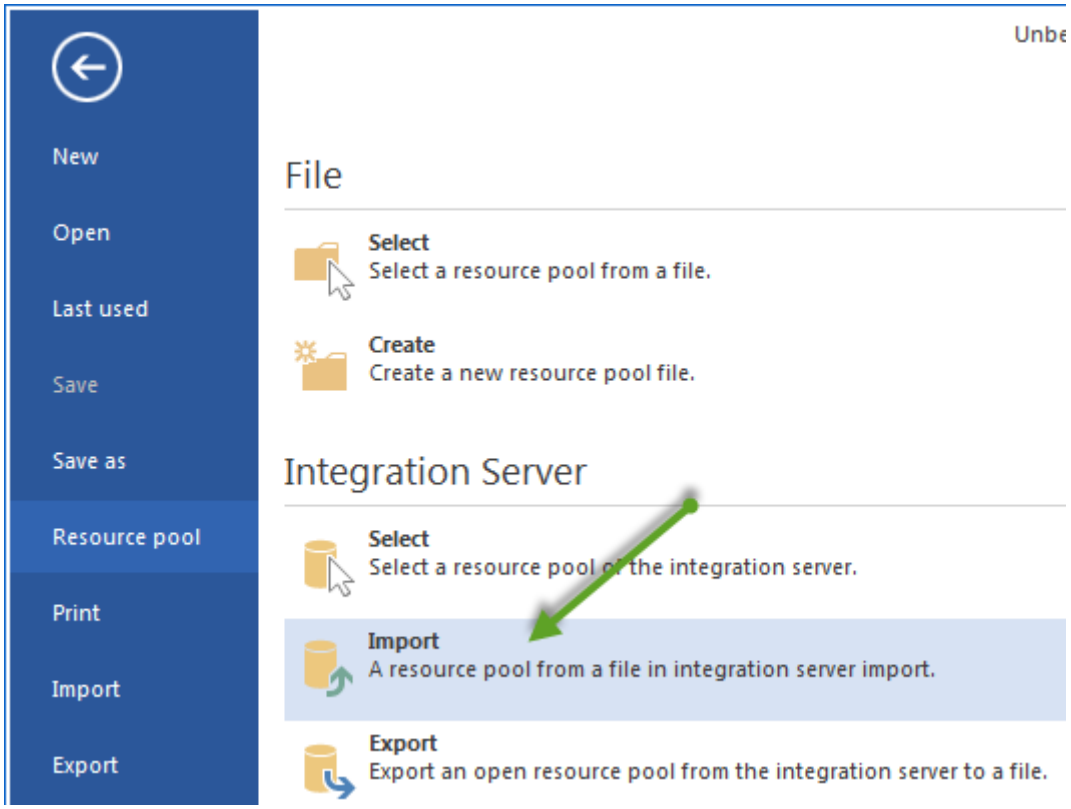
The source of the current resource pool is shown in the left corner of the status bar. A project should be open.



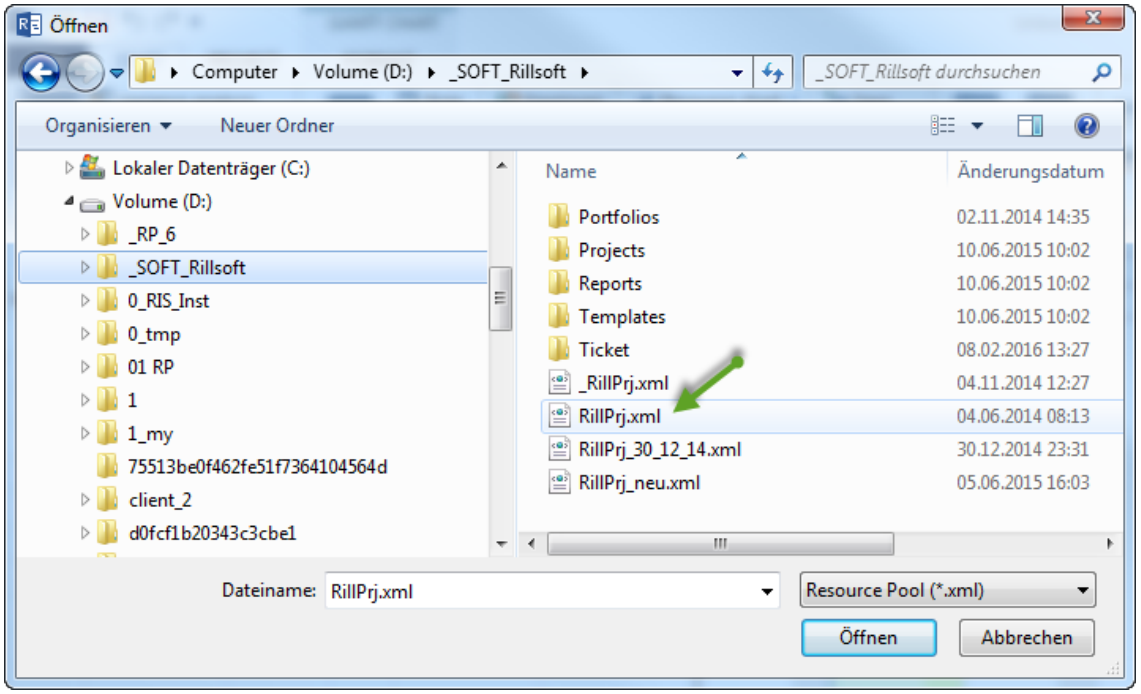
5.8.3 Import a Resource Pool File into Integration Server

If your resource pool has so far been maintained as a `*.xml` file, you can import it into Rillsoft Integration Server.

1. First create a client (see above) and select it.
2. Click **File > Resource pool > Rillsoft Integration Server > Import**.



3. In the dialog, select the desired resource pool file (`*.xml`).



4. Click **Open**.

Note

With **File > Resource pool > Rillsoft Integration Server > Export** you can, conversely, export the open resource pool from Integration Server to a `*.xml`

file.

5.8.4 Alternative: Resource Pool as a File

Without Rillsoft Integration Server, the resource pool is kept as a `*.xml` file. Create a new resource pool file with **File > Resource pool > File > Create**, or select an existing one with **File > Resource pool > File > Select** — see *First Steps with Rillsoft Project* and, for shared use on a network drive, *Working in Networks*.

5.8.5 Related Topics

- *Update the Resource Pool*
- *Resource Pool*
- *Manage Resource Pool*
- *Integration Server*
- *Setting Up and Operating Integration Server*

create new resource pool, select resource pool, resource pool integration server, select client, create client, import resource pool, export resource pool, standalone, integration server, ris, cloud, multi-user, time entry, vacation planning, it and administration, resource manager

5.9 Synchronize Resources

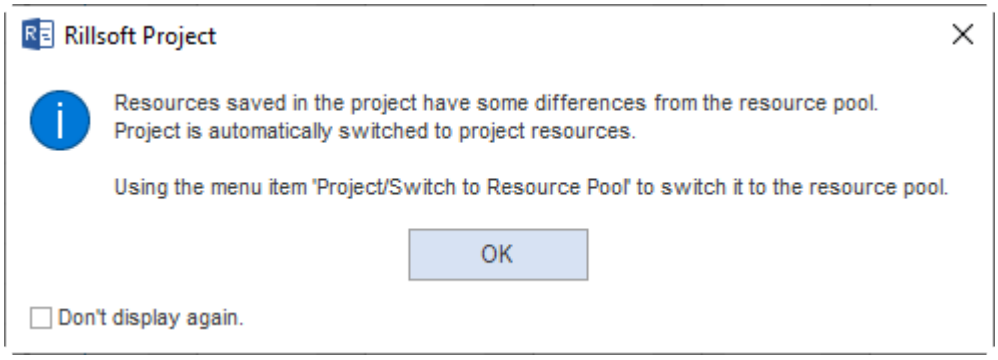
When the resource pool changes after a project has already been created, the resources stored in the project can differ from the current resource pool. Rillsoft Project detects these differences and provides a synchronization dialog where you decide how to resolve them.

5.9.1 When Synchronization Is Needed

Project resources are saved together with the project. When you open a project and the resource pool has changed in the meantime, one of the following may have happened:

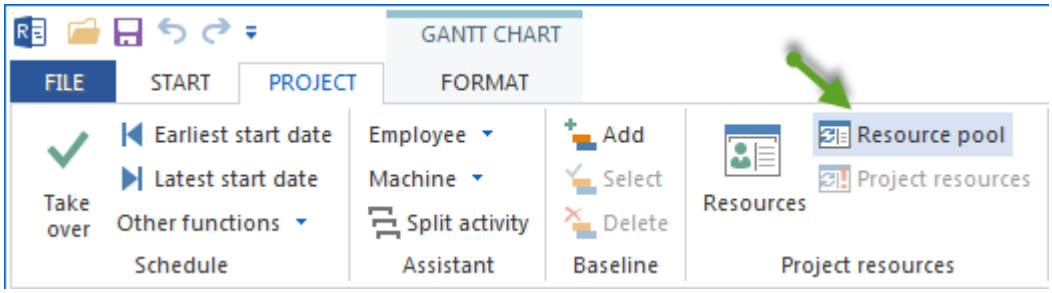
- An employee has received new professional qualifications.
- A calendar was adjusted.
- A role was renamed or changed.
- New employees were created in the resource pool.
- An employee was removed from the resource pool.

In this case, Rillsoft Project shows a message and opens the synchronization dialog automatically.



You can also start synchronization manually:

Project > Project resources > To resource pool



5.9.2 Basic Synchronization Options

When differences are detected, the dialog **Selection between project resources and resource pool** appears. The first table row shows the entry from the resource pool, and the second row shows the entry from the project.

You have three basic options:

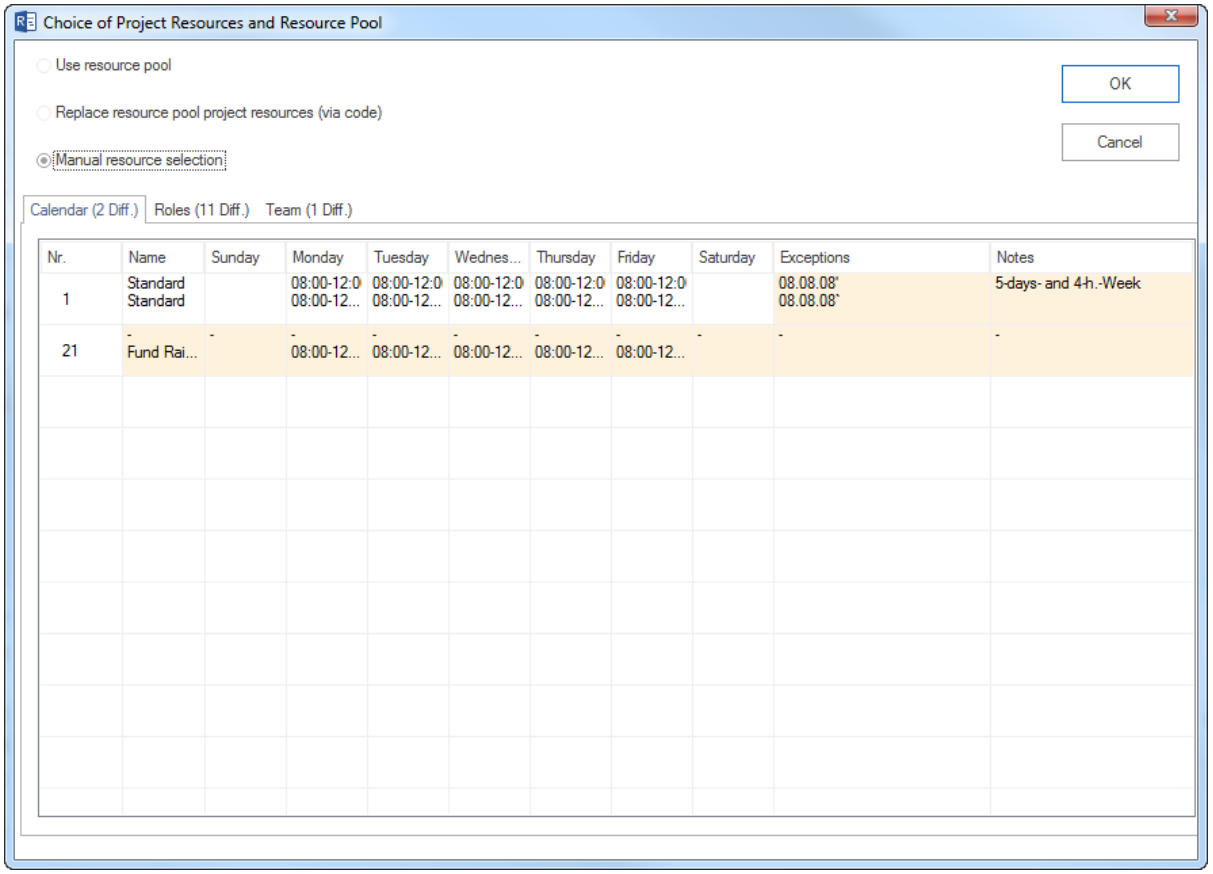
Option	Meaning
Use resource pool	Resource pool data completely overwrites project resources.
Replace project resources with resource pool by code	Different project resources are automatically replaced with resource pool entries by internal code.
Manual resource selection	You decide manually for each individual difference which variant should be used.

Click **OK** to apply the selected option.

5.9.3 Manual Synchronization by Resource Type

With **Manual resource selection**, a dialog opens with several tabs, one for each resource type. Switch between the tabs to resolve all differences.

The buttons apply to the entry selected in the project resources table.



Calendars

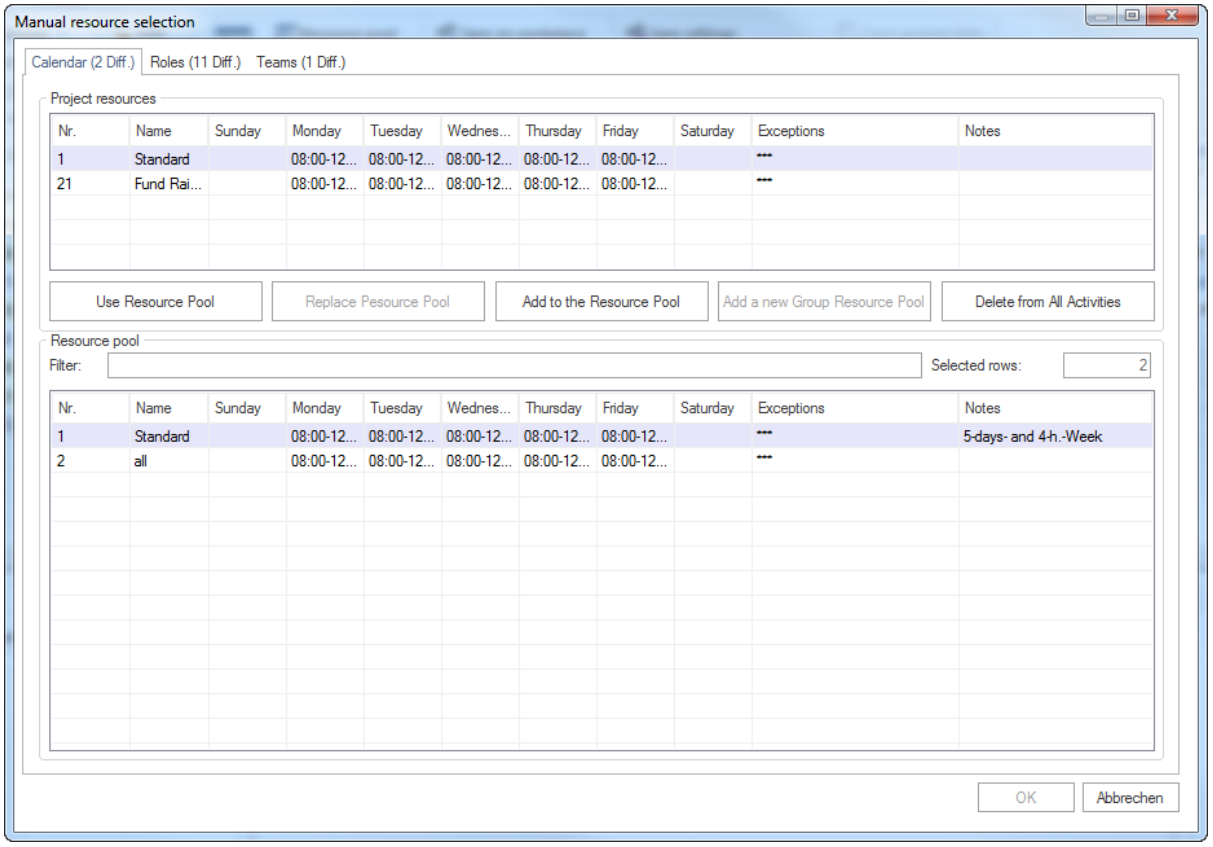
Available actions:

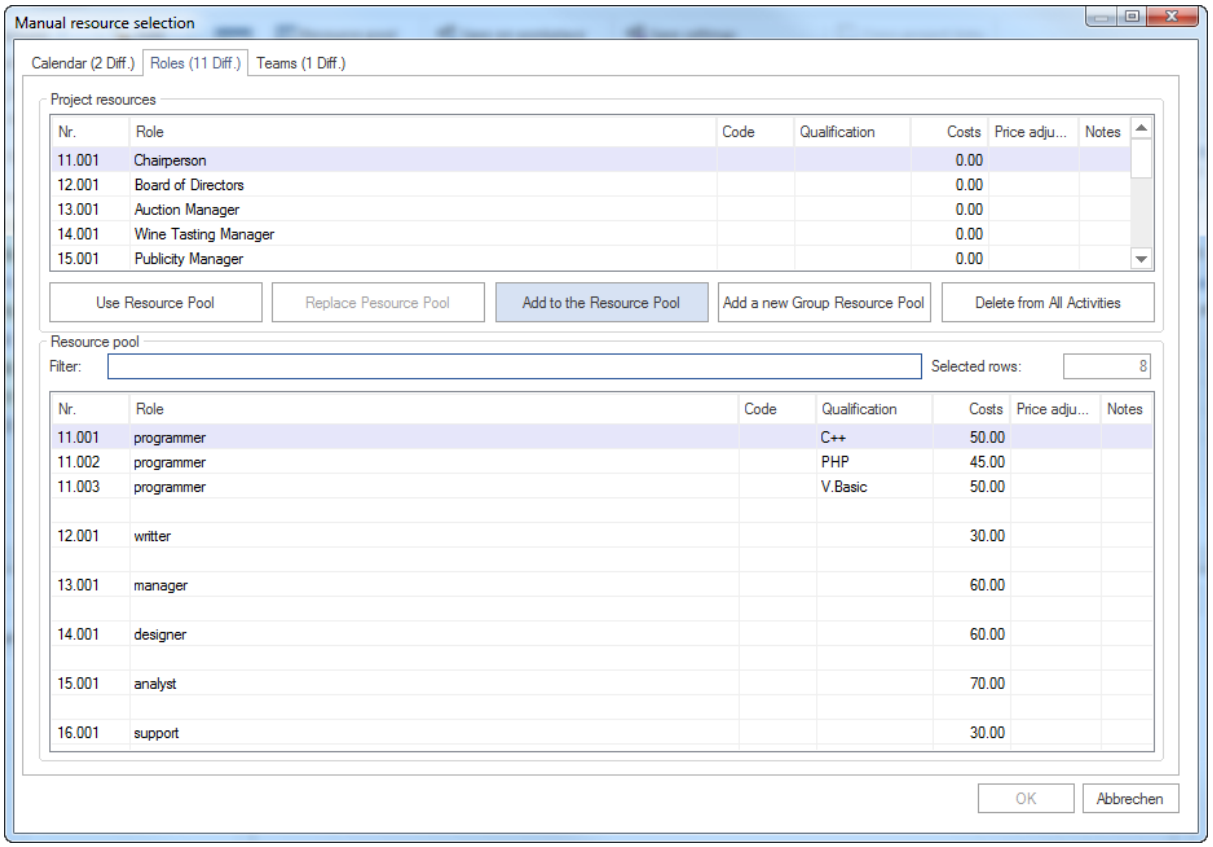
- **Use resource pool**: use the resource pool calendar; active only when an entry in the resource pool is selected.
- **Add to resource pool**: add the project calendar to the resource pool.
- **Delete from all project tasks**: remove the project calendar from the project.

Roles and Professional Qualifications

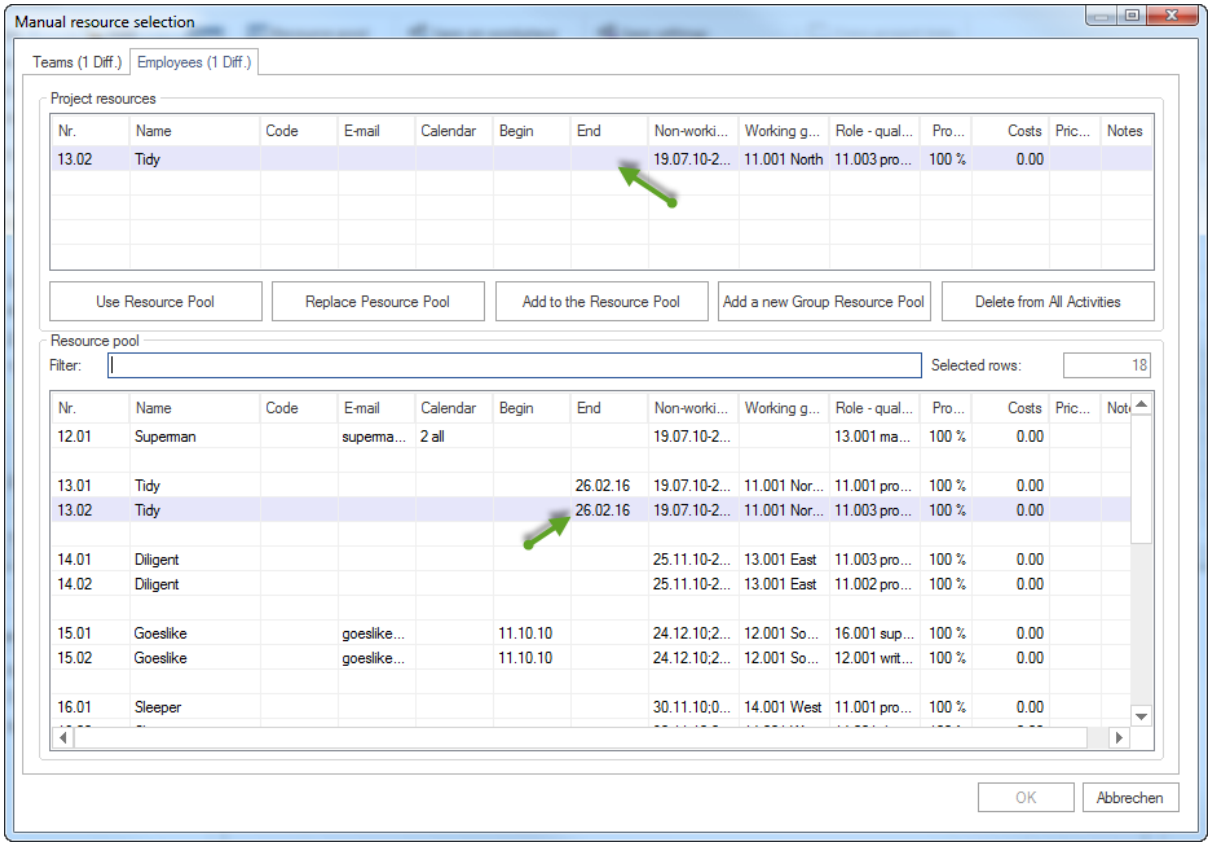
Available actions:

- **Use resource pool**: use the resource pool role; active only when a resource pool entry is selected.
- **Replace resource pool**: replace the resource pool role with the project resource; active only when code matching was successful.
- **Add to resource pool**: add the project resource to an existing resource pool group.
- **Add to resource pool in a new group**: create a new group in the resource pool.
- **Delete from all project tasks**: remove the project resource from the project.


Manual resource selection
Calendar (2 Diff.)
Roles (11 Diff.)
Teams (1 Diff.)
Project resources
Nr. Name Sunday Monday Tuesday Wednes... Thursday Friday Saturday Exceptions Notes
1 Standard 08:00-12... 08:00-12... 08:00-12... 08:00-12... 08:00-12... ***
21 Fund Rai... 08:00-12... 08:00-12... 08:00-12... 08:00-12... 08:00-12... ***
Use Resource Pool
Replace Pesource Pool
Add to the Resource Pool
Add a new Group Resource Pool
Delete from All Activities
Resource pool
Filter:
Selected rows: 2
Nr. Name Sunday Monday Tuesday Wednes... Thursday Friday Saturday Exceptions Notes
1 Standard 08:00-12... 08:00-12... 08:00-12... 08:00-12... 08:00-12... *** 5-days- and 4-h.-Week
2 all 08:00-12... 08:00-12... 08:00-12... 08:00-12... 08:00-12... ***
OK
Abbrechen


Manual resource selection
Calendar (2 Diff.)
Roles (11 Diff.)
Teams (1 Diff.)
Project resources
Nr. Role Code Qualification Costs Price adju... Notes
11.001 Chairperson 0.00
12.001 Board of Directors 0.00
13.001 Auction Manager 0.00
14.001 Wine Tasting Manager 0.00
15.001 Publicity Manager 0.00
Use Resource Pool
Replace Pesource Pool
Add to the Resource Pool
Add a new Group Resource Pool
Delete from All Activities
Resource pool
Filter:
Selected rows: 8
Nr. Role Code Qualification Costs Price adju... Notes
11.001 programmer C++ 50.00
11.002 programmer PHP 45.00
11.003 programmer V.Basic 50.00
12.001 writter 30.00
13.001 manager 60.00
14.001 designer 60.00
15.001 analyst 70.00
16.001 support 30.00
OK
Abbrechen

Employees



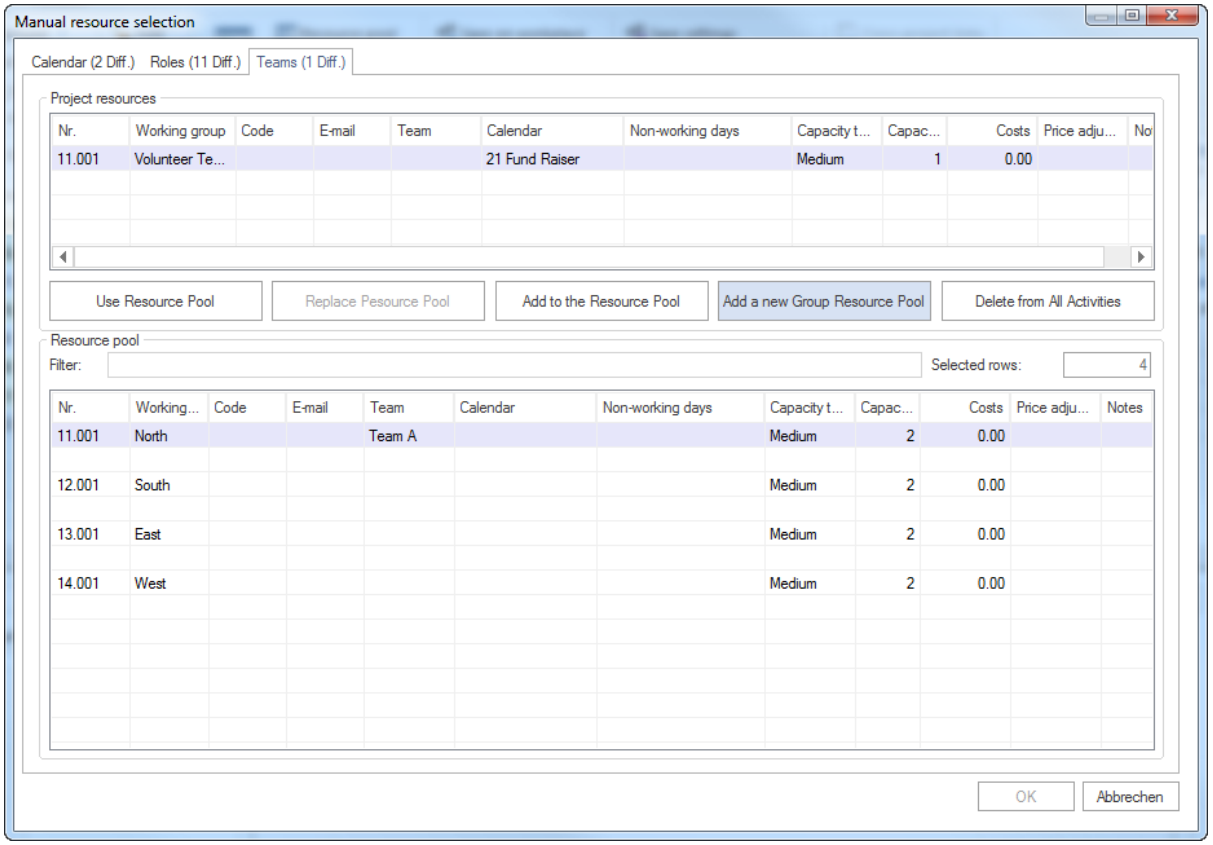
The program automatically filters matching entries between project resources and resource pool in the **Filter** field.

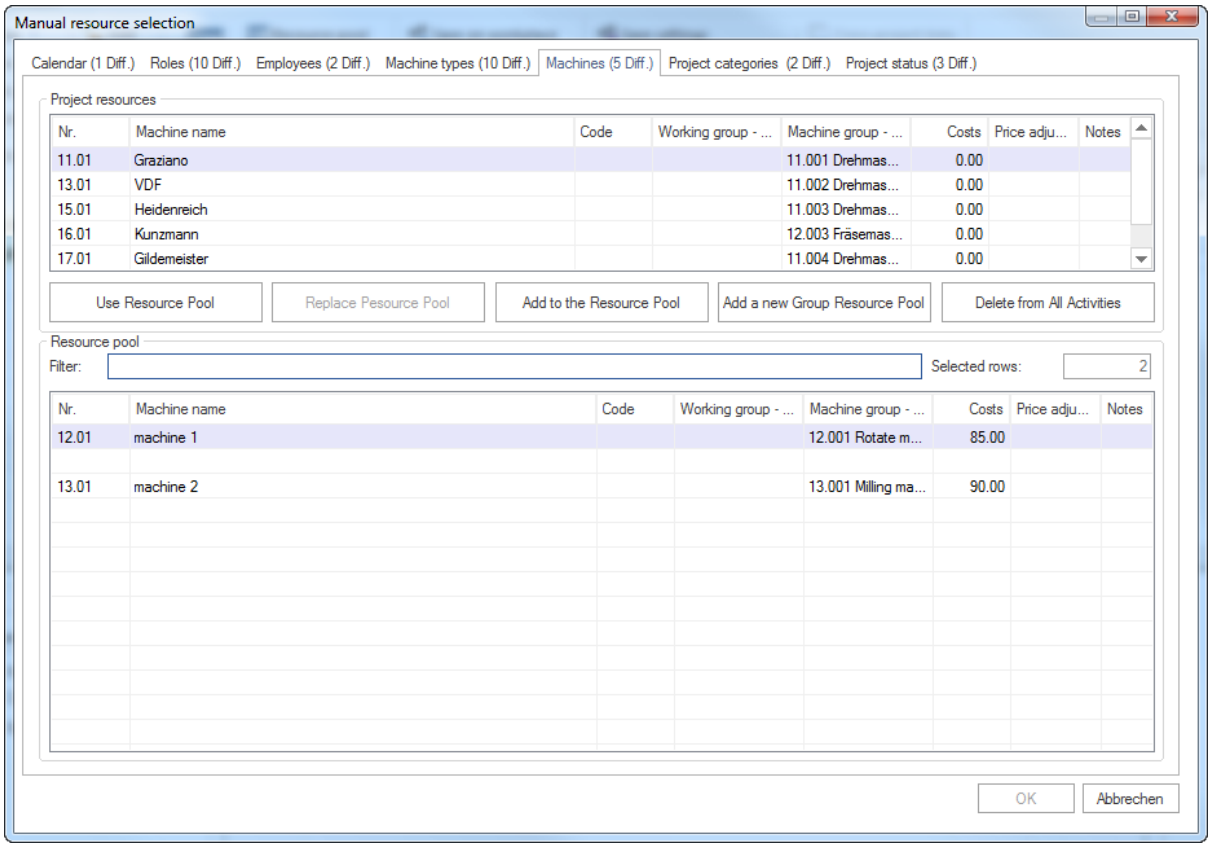
Available actions:

- **Use resource pool**: use the resource pool employee.
- **Replace resource pool**: replace the resource pool employee with the project resource; active only with successful code matching.
- **Add to resource pool**: add the project resource to an existing group; the group name is not adopted.
- **Add to resource pool in a new group**: create the project resource and group name in the resource pool.
- **Delete from all project tasks**: remove the employee from the project.

5.9.4 Teams, Material, Machine Types, Machinery, Categories, Status, Customers

The same button logic applies to all other resource types. Switch to the corresponding tab in the dialog and resolve the differences in the same way.


Manual resource selection
Calendar (2 Diff.)
Roles (11 Diff.)
Teams (1 Diff.)
Project resources
Nr.
Working group
Code
E-mail
Team
Calendar
Non-working days
Capacity t...
Capac...
Costs
Price adju...
No
11.001
Volunteer Te...
21 Fund Raiser
Medium
1
0.00
Use Resource Pool
Replace Pesource Pool
Add to the Resource Pool
Add a new Group Resource Pool
Delete from All Activities
Resource pool
Filter:
Selected rows:
4
Nr.
Working...
Code
E-mail
Team
Calendar
Non-working days
Capacity t...
Capac...
Costs
Price adju...
Notes
11.001
North
Team A
Medium
2
0.00
12.001
South
Medium
2
0.00
13.001
East
Medium
2
0.00
14.001
West
Medium
2
0.00
OK
Abbrechen


Manual resource selection
Calendar (1 Diff.)
Roles (10 Diff.)
Employees (2 Diff.)
Machine types (10 Diff.)
Machines (5 Diff.)
Project categories (2 Diff.)
Project status (3 Diff.)
Project resources
Nr.
Machine name
Code
Working group - ...
Machine group - ...
Costs
Price adju...
Notes
11.01
Graziano
11.001 Drehmas...
0.00
13.01
VDF
11.002 Drehmas...
0.00
15.01
Heidenreich
11.003 Drehmas...
0.00
16.01
Kunzmann
12.003 Fräsemas...
0.00
17.01
Gildemeister
11.004 Drehmas...
0.00
Use Resource Pool
Replace Pesource Pool
Add to the Resource Pool
Add a new Group Resource Pool
Delete from All Activities
Resource pool
Filter:
Selected rows:
2
Nr.
Machine name
Code
Working group - ...
Machine group - ...
Costs
Price adju...
Notes
12.01
machine 1
12.001 Rotate m...
85.00
13.01
machine 2
13.001 Milling ma...
90.00
OK
Abbrechen

Note

Direct team assignment to tasks is available only in the **Standard** edition of Rillsoft Project. In the Light, Professional, and Enterprise editions, tasks receive their team assignment indirectly through assigned employees and their team membership. The **Teams** tab in the synchronization dialog is therefore mainly relevant for projects from the Standard edition.

5.9.5 Tips for Synchronization

- Before synchronizing, clarify which data source is authoritative: the resource pool or the project.
- Use replacement by code only when codes are maintained reliably. If codes are wrong or missing, automatic matching can fail.
- A summary project cannot be synchronized directly. Projects with resource differences must first be opened and synchronized individually before they are included in a summary project.

5.9.6 Next Steps

- *Derive Resource Supply From the Resource Pool*
- *Perform Capacity Balancing*
- *Manage a Summary Project*

5.10 Update the Resource Pool

In a multi-user environment, the shared resource pool can be changed by a responsible person while you are already working with it. To adopt those changes, reload the resource pool.

5.10.1 When Reloading Is Useful

Reload the resource pool when:

- a responsible person has changed employees, roles, calendars, or other master data in the resource pool
- several planners use the same resource pool
- you want to make sure that you plan with the current resource supply

5.10.2 Reload the Resource Pool

Click the **Update resource pool** icon in the left corner of the status bar. The current resource pool is reloaded, and the changes are adopted.

5.10.3 Distinction

- **Update resource pool** reloads the unchanged, current resource pool to adopt changes made by other users in the meantime.
- **Synchronize resources** resolves differences between the resources stored in the project and the resource pool. See *Synchronize Resources*.
- **Reload project/portfolio** reloads the project data, not the resource pool. See *Reload a Project*.

5.10.4 Related Topics

- *Synchronize Resources*
- *Derive Resource Supply From the Resource Pool*
- *Reload Project*
- *Work on Projects Simultaneously*
- *Manage the Resource Pool*

5.11 When to Use This Section

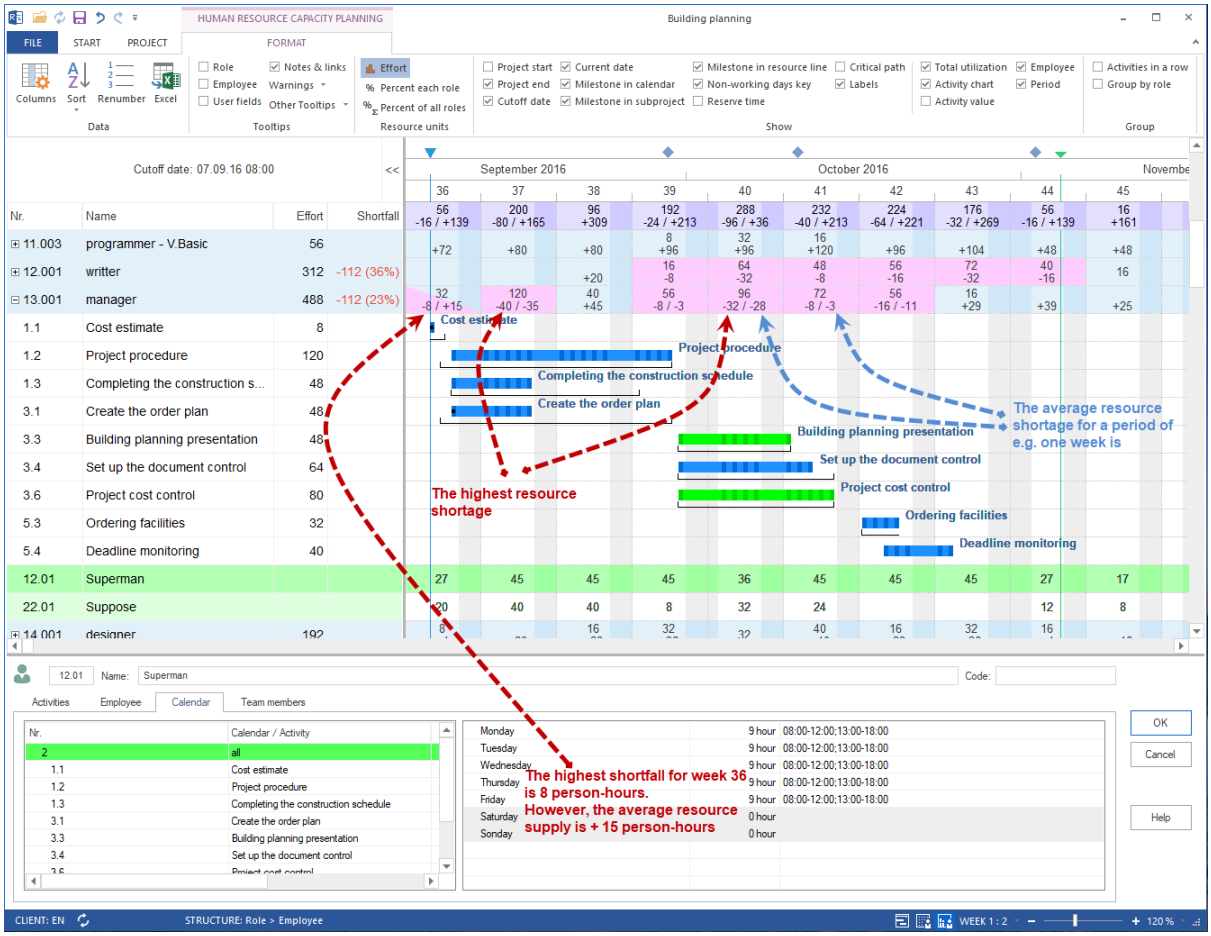
Use this workflow when:

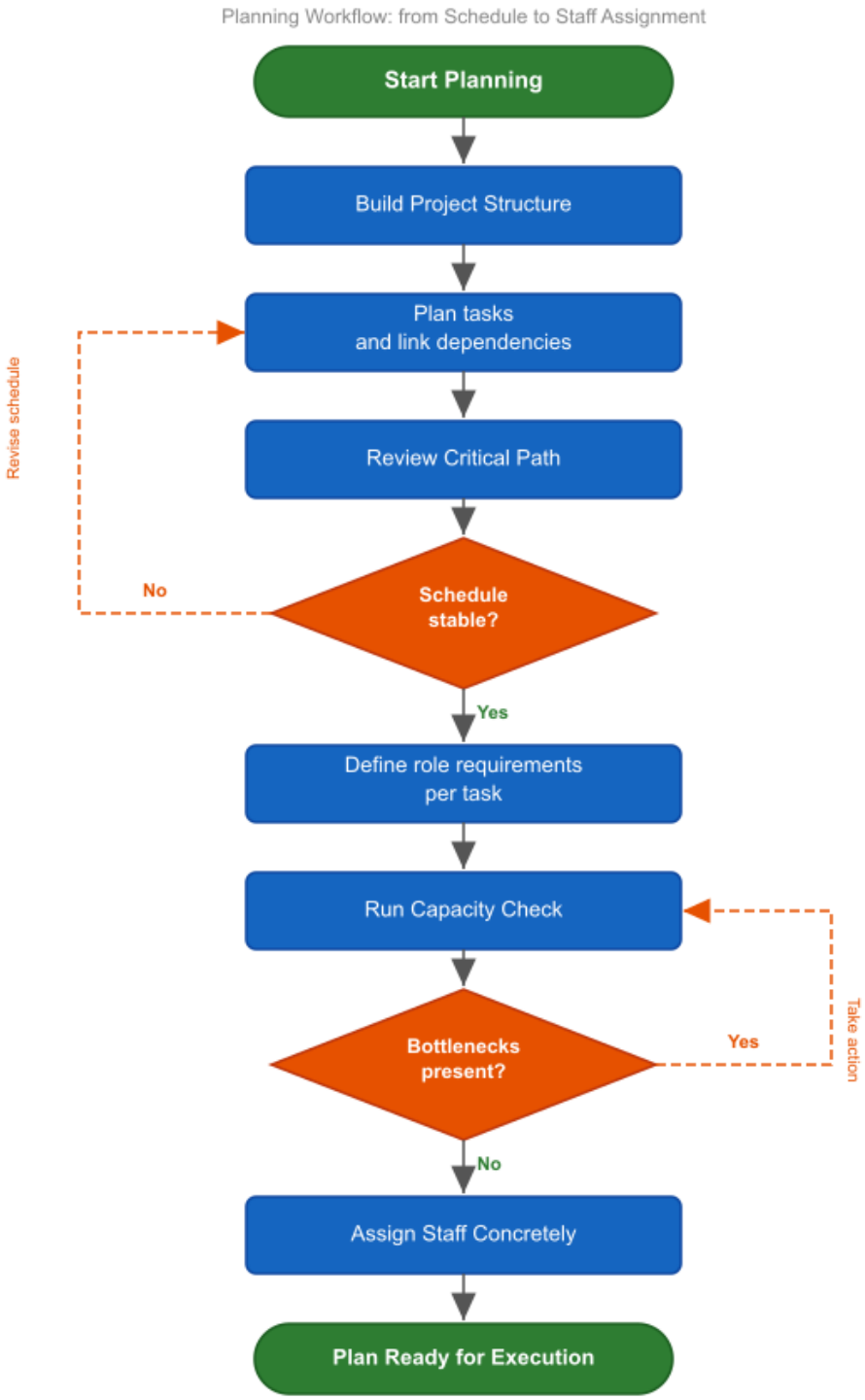
- several employees could perform similar work
- professional qualifications matter more than individual names
- working times, vacation, illness, or other non-working days must be considered
- several projects or subprojects compete for the same capacity
- bottlenecks should be identified before resource assignment becomes binding

For small projects with only a few employees, direct employee assignment may be sufficient. That workflow belongs to *Resource Assignment*.

5.12 Basic Principle: Separate Demand and Supply

Rillsoft Project provides functions for entering resources, creating roles, maintaining employees, assigning resources, and using resource and capacity views. In this task-oriented help, those functions are combined into one workflow.


HUMAN RESOURCE CAPACITY PLANNING
Building planning
FILE
START
PROJECT
FORMAT
Cutoff date: 07.09.16 08:00
September 2016
October 2016
Nr.
Name
Effort
Shortfall
11.003 programmer - V.Basic 56
12.001 writter 312 -112 (36%)
13.001 manager 488 -112 (23%)
1.1 Cost estimate 8
1.2 Project procedure 120
1.3 Completing the construction s... 48
3.1 Create the order plan 48
3.3 Building planning presentation 48
3.4 Set up the document control 64
3.6 Project cost control 80
5.3 Ordering facilities 32
5.4 Deadline monitoring 40
12.01 Superman
22.01 Suppose
14.001 designer 192
Cost estimate
Project procedure
Completing the construction schedule
Create the order plan
Building planning presentation
Set up the document control
Project cost control
Ordering facilities
Deadline monitoring
The highest resource shortage
The average resource shortage for a period of e.g. one week is
The highest shortfall for week 36 is 8 person-hours. However, the average resource supply is + 15 person-hours
Activities
Employee
Calendar
Team members
OK
Cancel
Help
CLIENT: EN
STRUCTURE: Role > Employee



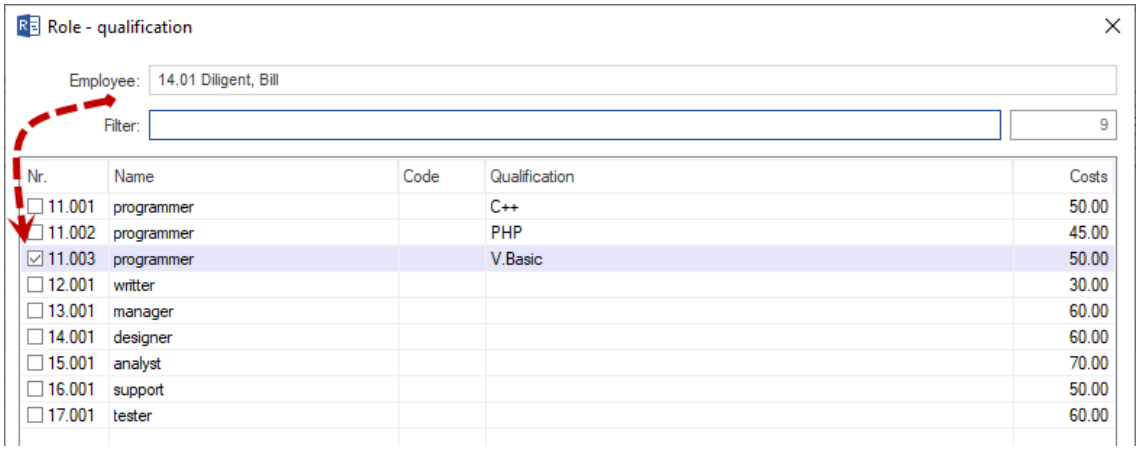
The workflow has four steps:

1. **Plan resource demand**

   Assign professional qualifications to tasks. This describes what type of work the project needs.

2. **Check resource supply**

   Check the resource pool to see which employees have those qualifications and when they are available.



3. **Consider working times and non-working days**

   Check calendars, working-time models, shift calendars, vacation, illness, and other absences. These values determine how much capacity is actually available.

4. **Perform capacity balancing**

   Compare resource demand with resource supply. This shows whether capacity is sufficient or bottlenecks arise.

5.13 Roles as Professional Qualifications

Rillsoft Project uses roles for qualification-based planning. In this help, roles are therefore explained as **professional qualifications**.

Examples:

- Design engineer
- Project manager
- Welder
- Assembler
- Foreman
- Journeyman

Roles can be organized in groups and maintained with qualification levels, costs, and notes. For resource planning, the important point is that a task first needs a professional qualification, not necessarily a specific employee.

5.14 Resource Pool as the Source of Supply

The resource pool is the professional basis for resource supply. It contains, among other things:

- calendars
- roles or professional qualifications
- teams

- employees
- material
- machine types
- machinery

Note

Direct team assignment to tasks is available only in the **Standard** edition of Rillsoft Project. In the Light, Professional, and Enterprise editions, a task receives its team assignment indirectly through assigned employees and their team membership in the resource pool.

For personnel capacity planning, these values are especially important:

- professional qualifications of employees
- working times and calendars
- shift calendars
- non-working days
- team memberships
- productivity
- start and leaving date

5.15 Capacity Balancing as a Decision Point

Capacity balancing does not first answer which employee should be assigned. It answers the more important question:

Is the available resource supply sufficient for the planned resource demand?

Only after this question has been clarified should named resource assignment be performed for larger or capacity-critical projects.

5.16 Group Resource Views

If you need to analyze bottlenecks or available capacity in more detail, group resource and capacity views by several characteristics. This shows not only **that** an employee is overloaded or a professional qualification is undercovered, but also in which project, role, or team the load occurs.

Typical groupings are:

- Employee
- Role or professional qualification
- Team

- Project
- Employee by project
- Role by employee
- Project by role and employee

Grouped views are especially useful when several projects compete for the same employees or when role demand is planned first and assigned to named employees later.

5.17 Result of This Section

After resource and capacity planning, you know:

- which professional qualifications the project needs
- in which period the demand arises
- which employees in the resource pool have those qualifications
- which working times and non-working days limit availability
- whether bottlenecks arise
- whether the schedule, resource pool, or later employee assignment must be adjusted

5.18 Next Steps

If capacity balancing shows sufficient capacity, switch to resource assignment and assign suitable employees.

- *Perform Capacity Balancing*
- *Group Resource Views*
- *Resource Assignment*
- *Troubleshooting*

resource planning, capacity planning, resource demand, resource supply, resource pool, capacity balancing, utilization, overload, bottleneck, resource manager, project manager

CHAPTER

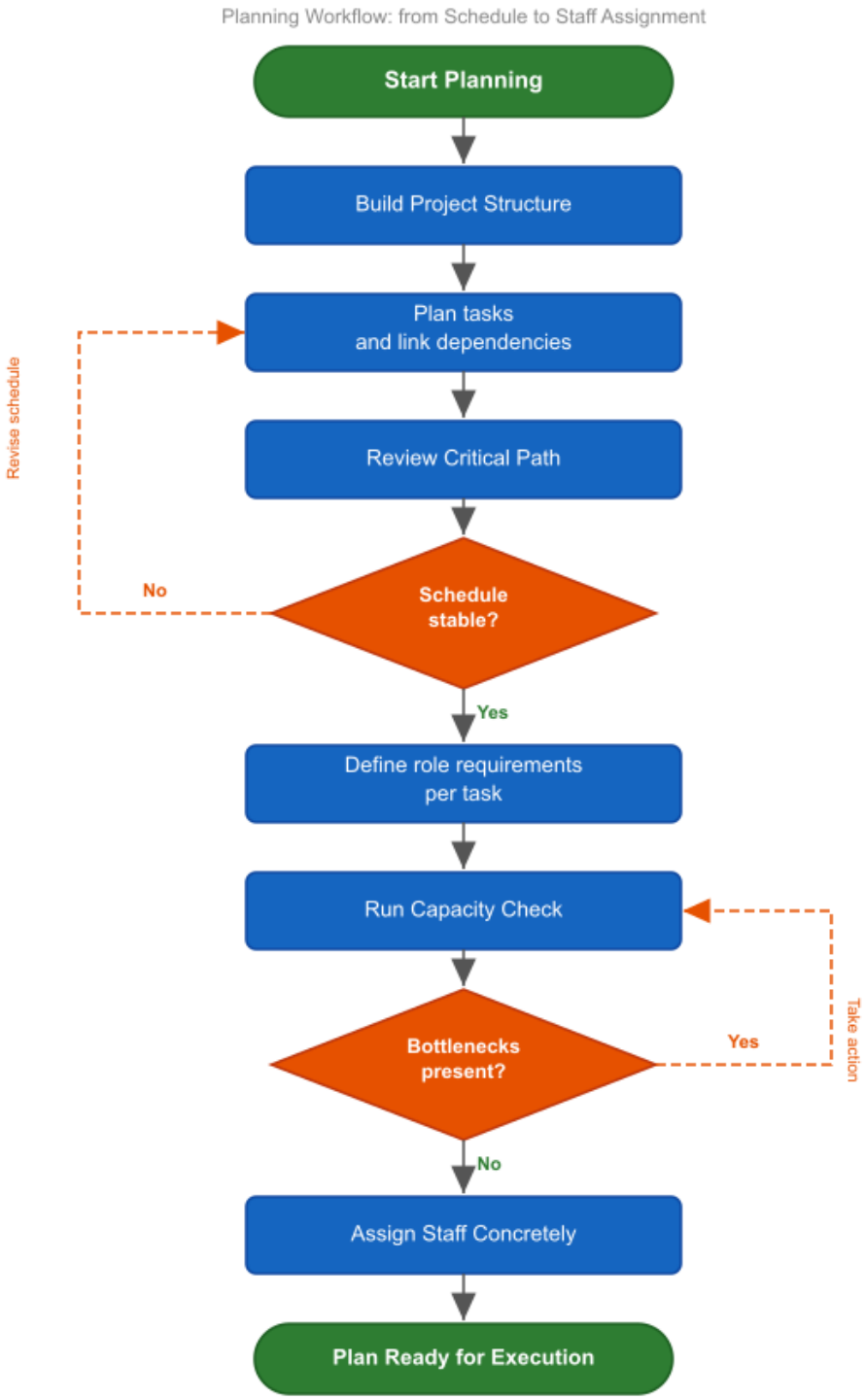
SIX

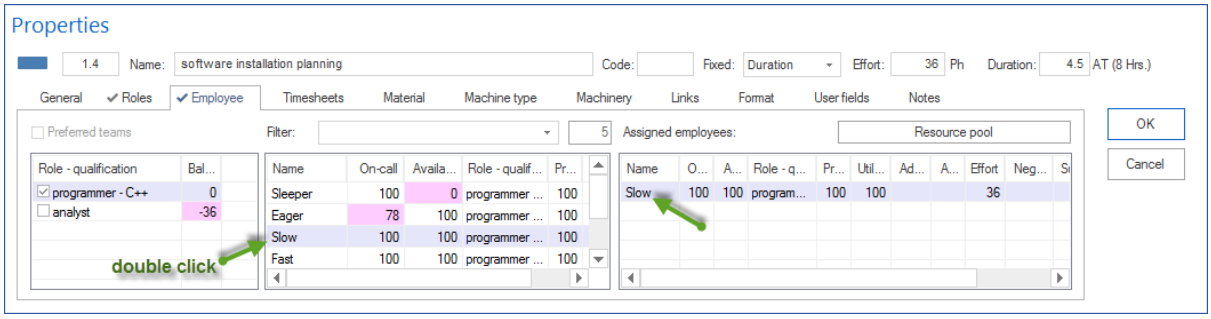
RESOURCE ASSIGNMENT

This section describes the concrete assignment of employees to tasks. It starts where project planning and resource planning have created the professional basis.

Rillsoft Project supports two valid paths:

- assign an employee directly to a task
- assign an employee after capacity balancing


Planning Workflow: from Schedule to Staff Assignment
Start Planning
Build Project Structure
Plan tasks
and link dependencies
Review Critical Path
Schedule
stable?
No
Revise schedule
Yes
Define role requirements
per task
Run Capacity Check
Bottlenecks
present?
Yes
Take action
No
Assign Staff Concretely
Plan Ready for Execution


Properties
1.4
Name:
software installation planning
Code:
Fixed:
Duration
Effort:
36
Ph
Duration:
4.5
AT (8 Hrs.)
General
Roles
Employee
Timesheets
Material
Machine type
Machinery
Links
Format
User fields
Notes
Preferred teams
Filter:
5
Assigned employees:
Resource pool
OK
Cancel
Role - qualification
programmer - C++
analyst
double click
Name
Sleeper
Eager
Slow
Fast
Slow

6.1 Assign Employees Directly

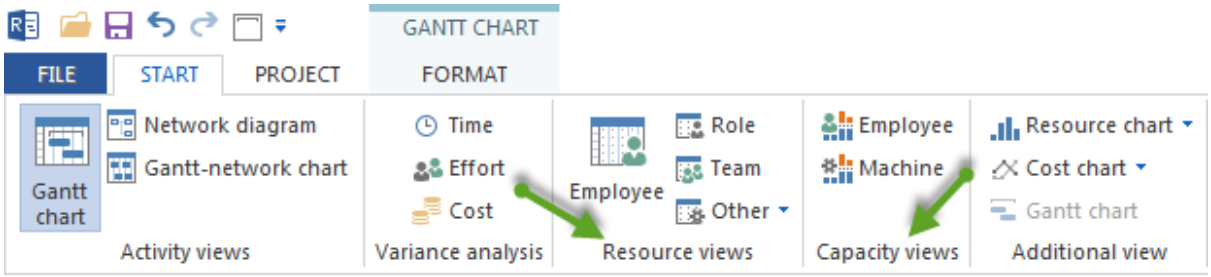
6.1.1 Goal

Assign a concrete employee directly to a task. This variant is suitable for small, manageable projects or deliberately fixed responsibilities.

6.1.2 When This Variant Is Useful

Direct employee assignment is useful when:

- only a few employees are involved
- availability is known
- no complex capacity check is required
- the task should deliberately be performed by a specific person
- the assignment should be quick and pragmatic



6.1.3 Prerequisites

- The project plan contains tasks.
- The required employee exists in the resource pool.
- Roles are assigned to employees.

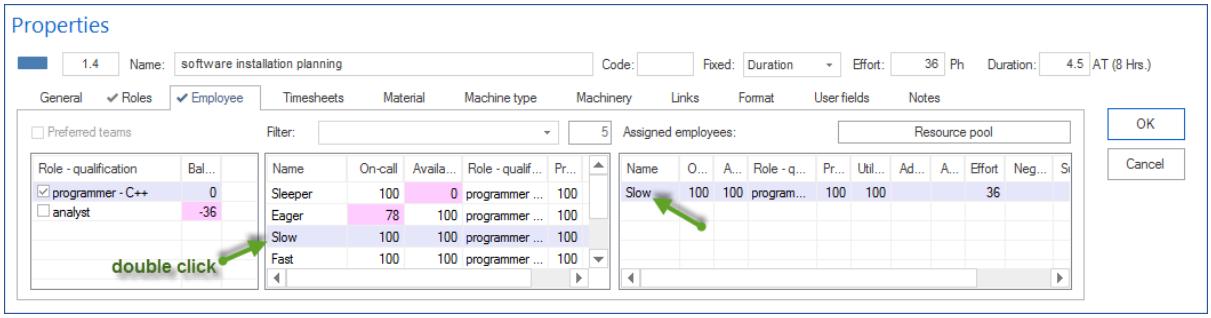
Important: Check whether you are working with a general resource pool. If the status bar shows **Project resources**, switch to the resource pool.

6.1.4 Assign Directly at the Task

You can assign employees directly from the task view.

Typical workflow:

1. Open the Gantt chart.
2. Select the task in the table or in the Gantt chart.
3. Open the **Employees** tab in the task properties window.
4. Double-click an entry in the middle table to assign that employee to the task.
5. Define workload, effort, or other assignment values if required.
6. Click **OK**.



6.1.5 Options and Fields on the Employees Tab

The upper table lists the roles assigned to the task. Select a role checkbox to use it as an additional filter for the employee list. The **Number-workload-effort** column is disabled by default. **Balance** dynamically shows the difference between requested role effort and the summed effort of already assigned employees.

Select **Preferred teams** to show only employees from preferred teams.

Use **Filter** to search for specific employees. Enter two dots `..` to show only employees already used in the project.

The middle table lists available employees. These values are especially important:

- **On-call**: percentage of possible working capacity within the task period, adjusted for non-working days. A red background indicates non-working days in the tooltip.
- **Availability**: percentage of possible working capacity, adjusted for participation in other tasks. The tooltip shows tasks already assigned.

To consider employee utilization in other projects of a portfolio, use **Start > Properties > Info**, open the portfolio from the lower part of the properties window, and select the **Portfolio dashboard** tab.

In the right table with assigned employees, check or define:

- **Additional utilization**: shows whether workload may be higher on other days because of non-working days; visible only with due-date-oriented planning.
- **Absence**: opens the absence window; the task period is highlighted and days can be defined when the employee does not participate.
- **Negative effort**: difference between role effort and effort covered by employees; visible only with due-date-oriented planning.
- **Substitution for**: shows whether the resource is planned as a substitute and for which employee.
- **Responsible**: select when the employee should be entered as responsible for the task.

Dynamic effort distribution: Select **Distribute effort dynamically** if you want the shortest possible task duration. This function is active only with capacity-oriented planning and when at least two people with the same professional qualification are assigned to the task. With due-date-oriented planning, the option is grayed out.

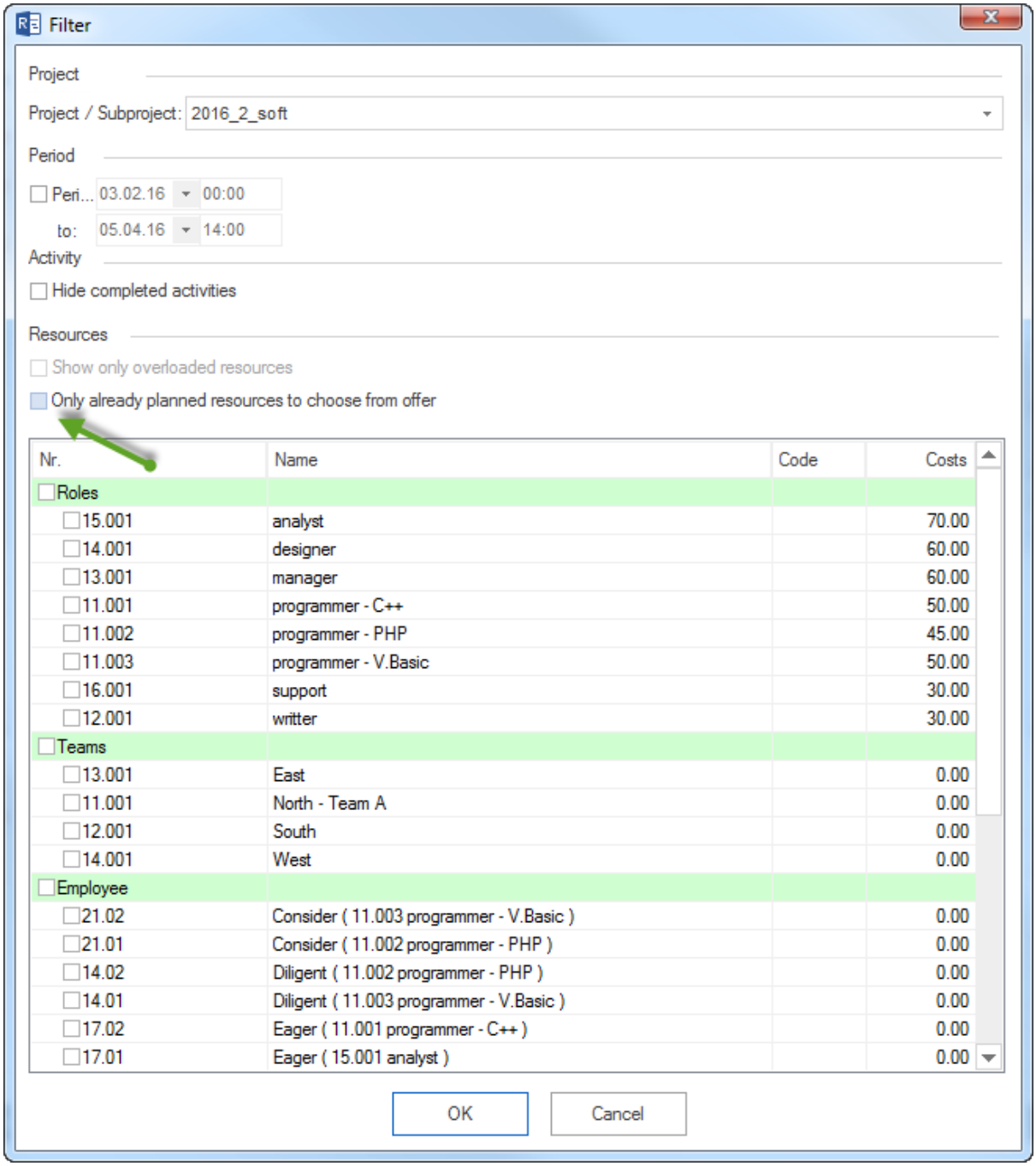
The **Resource pool** and **Project resources** buttons provide quick access to all resources of the general resource pool or the project-specific resource pool.

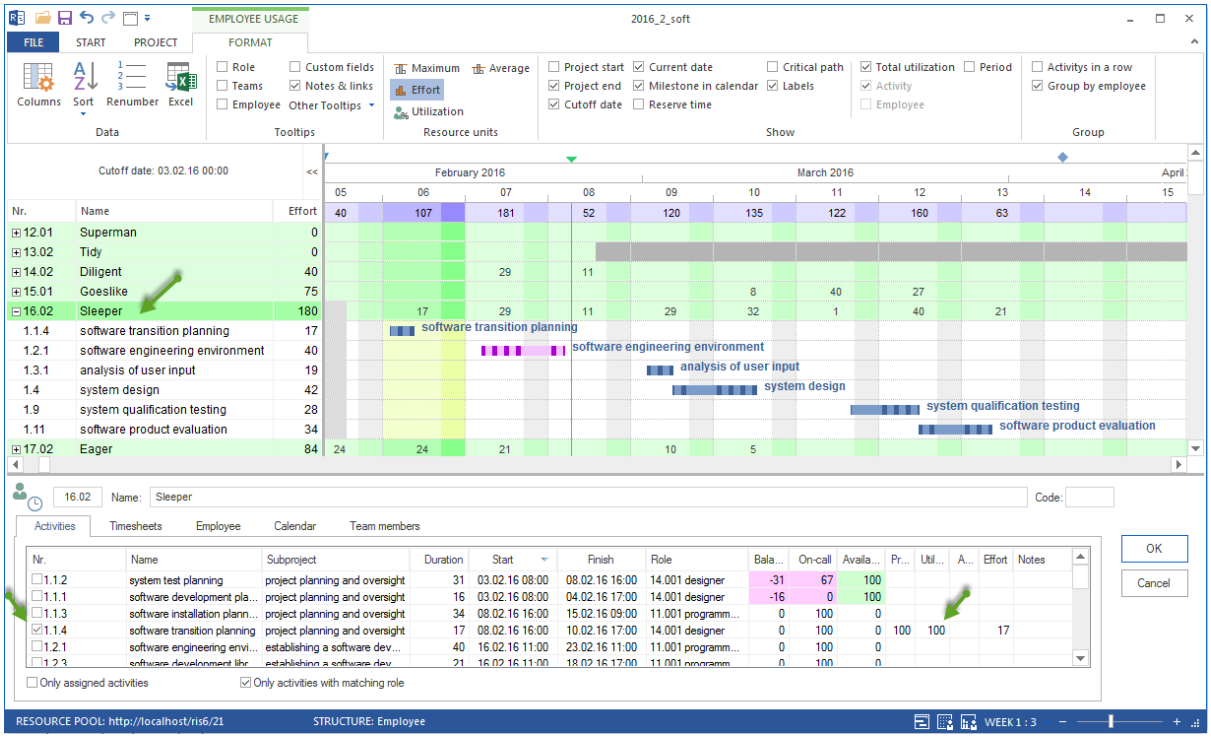
6.1.6 Assign Tasks to One Employee

Alternatively, work from the employee view.

Typical workflow:

1. Open **Start > Resource views > Employee**.
2. Choose **Start > Edit > Filter**. The **Filter** dialog opens.
3. Clear **Offer only used resources for selection** so all employees from the resource pool can be shown.
4. Select the employee.
5. Open the **Activities** tab in the resource properties window.
6. Select the tasks to assign to the employee.
7. Define workload or effort if required.
8. Click **OK**.

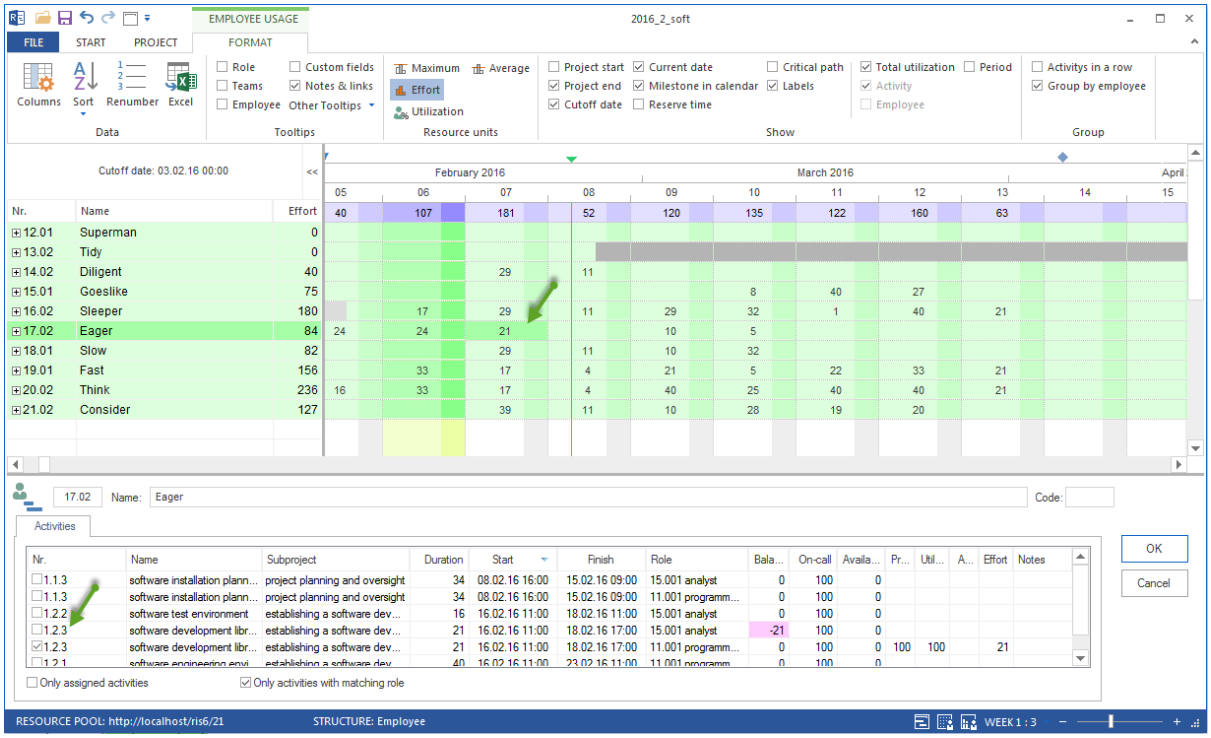

Filter
Project
Project / Subproject: 2016_2_soft
Period
Peri... 03.02.16 00:00
to: 05.04.16 14:00
Activity
Hide completed activities
Resources
Show only overloaded resources
Only already planned resources to choose from offer
Nr. Name Code Costs
Roles
15.001 analyst 70.00
14.001 designer 60.00
13.001 manager 60.00
11.001 programmer - C++ 50.00
11.002 programmer - PHP 45.00
11.003 programmer - V.Basic 50.00
16.001 support 30.00
12.001 writter 30.00
Teams
13.001 East 0.00
11.001 North - Team A 0.00
12.001 South 0.00
14.001 West 0.00
Employee
21.02 Consider (11.003 programmer - V.Basic) 0.00
21.01 Consider (11.002 programmer - PHP) 0.00
14.02 Diligent (11.002 programmer - PHP) 0.00
14.01 Diligent (11.003 programmer - V.Basic) 0.00
17.02 Eager (11.001 programmer - C++) 0.00
17.01 Eager (15.001 analyst) 0.00
OK
Cancel



6.1.7 Important Options

In the employee view, these options are especially important:

- **Assigned activities only**: reduces the list to tasks already assigned to the employee.
- **Activities with matching role only**: shows only tasks that have a role the employee can perform.
- Date-related filtering: left-click a cell at the intersection of an employee row and date column to show tasks relevant for the selected period.



Activities with matching role only is especially helpful when direct assignment is combined with existing qualification-based planning.

6.1.8 Several Roles per Employee

An employee can have several professional qualifications. In this case, a task can appear several times in the selection so the employee can be booked under different roles.

Check:

- under which professional qualification the employee is assigned
- whether the assignment matches planned resource demand
- whether costs or productivity differ by role

6.1.9 What to Check During Assignment

Depending on the task, these values may be relevant:

- on-call
- availability
- productivity
- workload
- multiple booking
- absence
- effort
- negative effort

- substitution
- notes

6.1.10 Check the Result

After direct assignment, check:

- Is the correct employee assigned?
- Does the assignment match the required professional qualification?
- Does overload arise?
- Are effort and workload correct?
- Are calendars and non-working days considered?

6.1.11 Limits of Direct Assignment

Direct assignment can reveal too late that an employee is unavailable in the period or that several projects need the same person.

Switch to capacity balancing when:

- overloads occur
- several employees could perform the work
- working times and non-working days are decisive
- several projects are planned at the same time

6.1.12 Next Steps

- *Check Employee Assignments*
- *Assign Employees After Capacity Balancing*

6.2 Assign Employees After Capacity Balancing

6.2.1 Goal

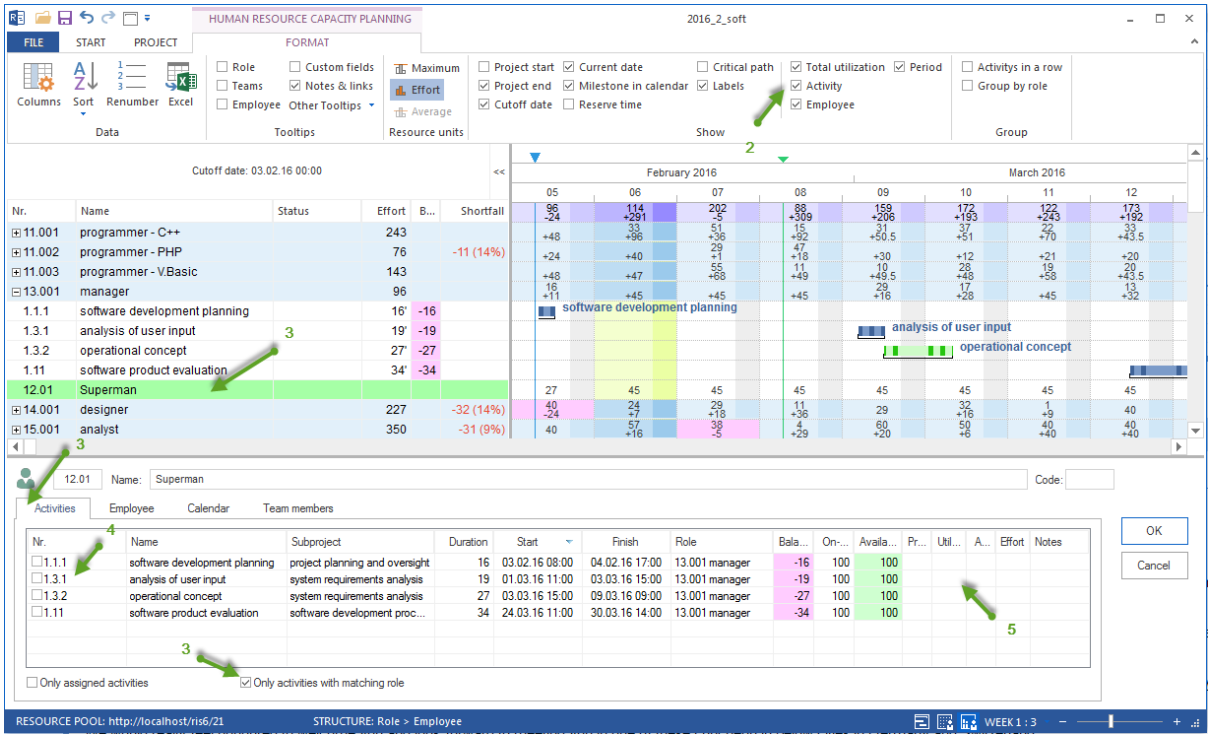
Assign employees only after Rillsoft Project has compared resource demand with resource supply. This variant is the recommended path for qualification-based planning.

6.2.2 When This Variant Is Useful

Use this variant when:

- tasks were first planned by professional qualifications
- several employees are suitable for the same qualification
- working times and non-working days must be considered
- bottlenecks should be detected before assignment

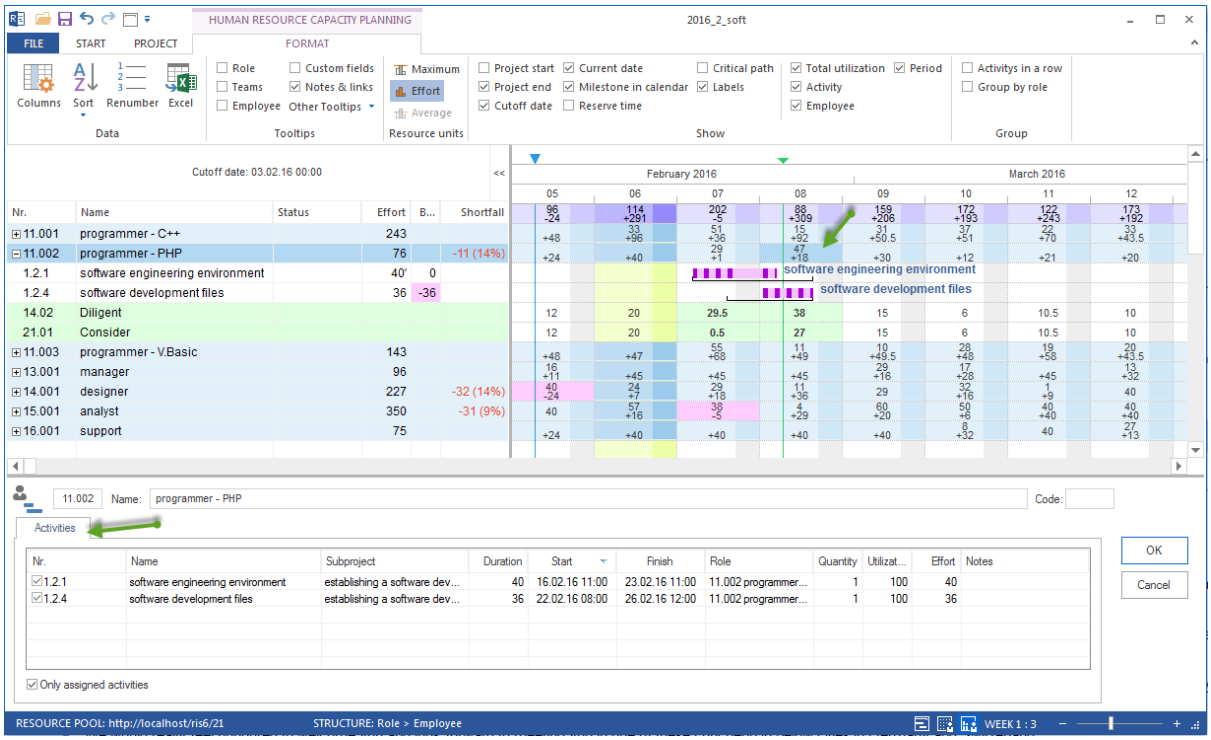
- several projects or subprojects compete for the same employees



6.2.3 Prerequisites

Before assignment, these items should be complete:

- Employees exist in the resource pool and are described with roles.
- The corresponding roles have been assigned to tasks.
- Working times, calendars, and non-working days have been checked.

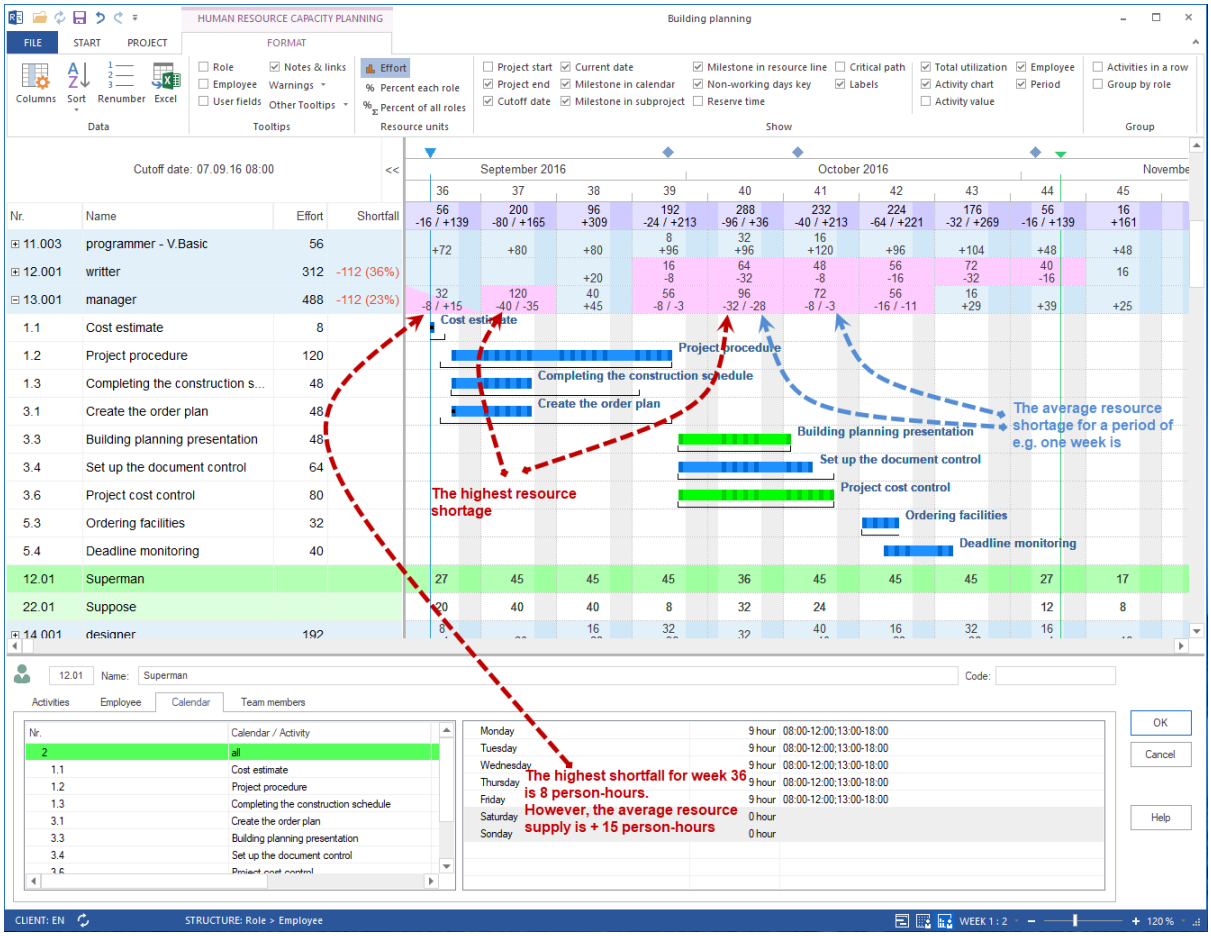


6.2.4 Use the Capacity View

For assignment after capacity balancing, use the employee capacity view.

Typical workflow:

1. Open **Start > Capacity views > Employee**.
2. In **Human Resource Capacity Balancing Format**, select **Show > Employee** so employees are displayed.
3. Select an employee.
4. Open the **Activities** tab in the resource properties window.
5. Use **Activities with matching role only** if required.
6. Select the tasks to assign to the employee.
7. Define the employee **workload** for a task where required.
8. Click **OK**.



6.2.5 Show Matching Tasks

Activities with matching role only is especially important for this variant.

It ensures that the employee is offered only tasks with a professional qualification the employee can perform.

This reduces wrong assignments and supports the logic:

1. The task requires a professional qualification.
2. The employee has that professional qualification.
3. Capacity balancing shows availability.
4. The employee is assigned appropriately.

Tasks can also be filtered by date. Left-click a cell at the intersection of a resource row and date column to show only tasks relevant for the selected period.

6.2.6 Group the View and Use Context Commands

Use **Start > Outline > Grouping** to group Human Resource Capacity Balancing by project, role, or employee. This helps evaluate overloads and capacity by project, role, or employee.

The context menu in Human Resource Capacity Balancing offers these display options:

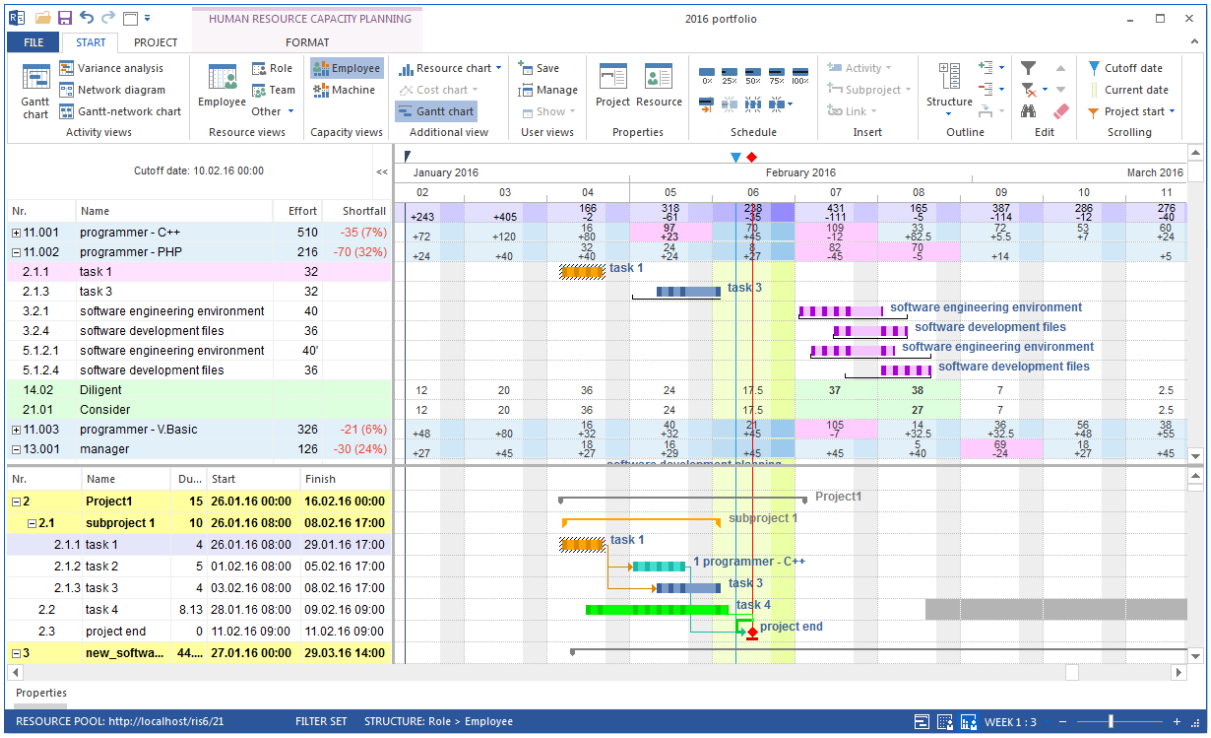
- **Show maximum per time unit**: maximum required number of personnel resources per day, week, and so on
- **Show average per time unit**: average required number of personnel resources per day, week, and so on
- **Show effort per time unit**: planned effort in person-hours or person-days per day, week, and so on

6.2.7 Additional Views

Human Resource Capacity Balancing can show additional diagrams.

Additional Gantt chart

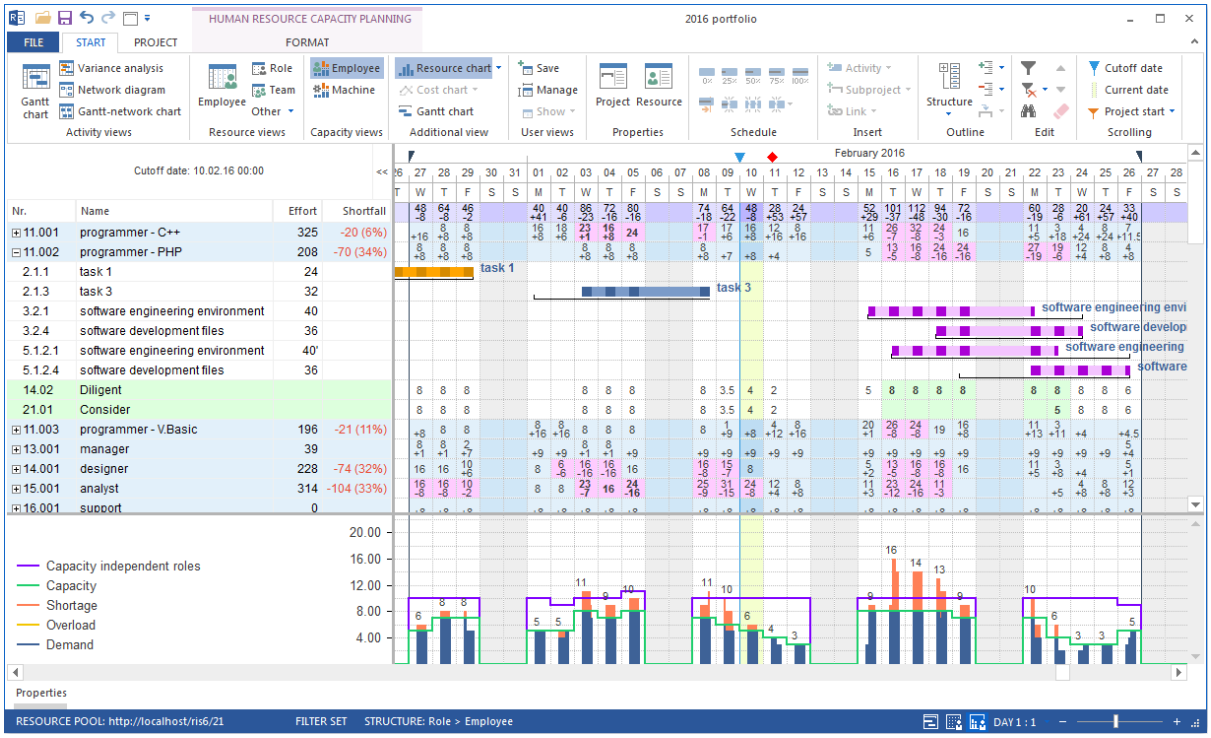
Click **Start > Additional view > Gantt chart** to show the Gantt chart above Human Resource Capacity Balancing. This keeps the project timeline visible while you assign employees.



Additional resource diagram

Click **Start > Additional view > Resource diagram**. It compares the demand for a role with available capacity:

- **Blue bars**: capacity demand per time unit while demand does not exceed supply.
- **Green line**: available number of employees per time unit.
- **Red bars**: shortfall where demand exceeds supply.



Percentage per role and percentage of all roles

Human Resource Capacity Balancing can show percentage evaluations of role utilization:

- **Percentage per role**: percentage to which demand for a professional role can be covered by qualified employees.
- **Percentage of all roles**: percentage share of one professional role in the combined demand across all roles.

6.2.8 Define Workload and Effort

During assignment, define or check workload and effort.

Check:

- Should the employee cover the full effort?
- Should the task be split across several employees?
- Is workload realistic in the planned period?
- Does the assignment cause multiple booking?
- Does the schedule remain stable?

6.2.9 Absences and Substitution

If employees are partly absent in the period, check:

- non-working days
- vacation
- illness
- training or further education
- substitution for another employee
- negative effort if corrections are required

The assignment should fit both the professional qualification and the real available working time.

6.2.10 Consider Portfolio Context

Resource utilization views can show tasks from the open project and from the assigned portfolio. This makes overloads visible that do not come only from the current project.

To consider employee utilization in other projects of a portfolio, use **Start > Properties > Info**, open the portfolio from the lower part of the properties window, and select the **Portfolio dashboard** tab.

Check:

- Are there parallel tasks in other projects?
- Is the employee already planned in a portfolio project?

- Does cross-project overload arise?
- Does project priority need to be clarified?

6.2.11 Typical Mistakes

- Capacity balancing is ignored and employees are still assigned directly.
- **Activities with matching role only** is not used.
- The employee does not have the role or has only a different qualification level.
- Non-working days are overlooked.
- Workload and effort are not checked.
- Portfolio overloads are not considered.

6.2.12 Check the Result

Assignment after capacity balancing is reliable when:

- the professional qualification matches
- the employee is available in the period
- no unresolved overload arises
- effort and workload are plausible
- non-working days were considered
- portfolio conflicts were checked

6.2.13 Next Steps

- *Check Employee Assignments*
- *Project Control*

6.3 Check Employee Assignments

6.3.1 Goal

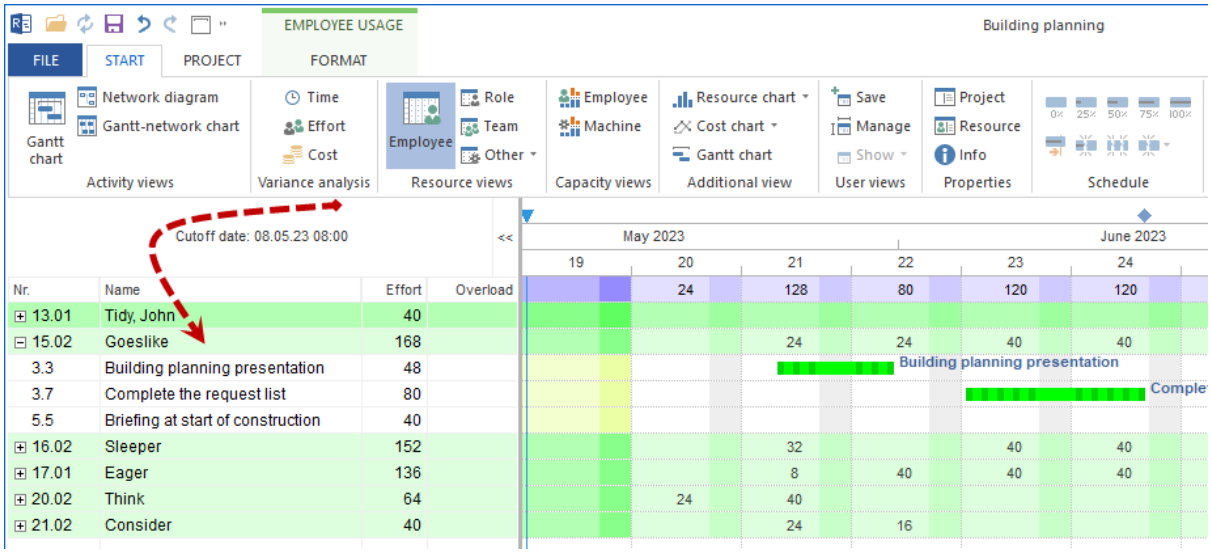
Check whether employee assignment is professionally, schedule-wise, and capacity-wise plausible.

6.3.2 Why the Check Matters

An assignment is not automatically correct just because it is technically possible. Rillsoft Project can show availability, utilization, calendars, and tasks. The professional decision remains with the project manager or resource manager.

6.3.3 Use the Employee View

In the employee view, you can check the assignment of an employee.



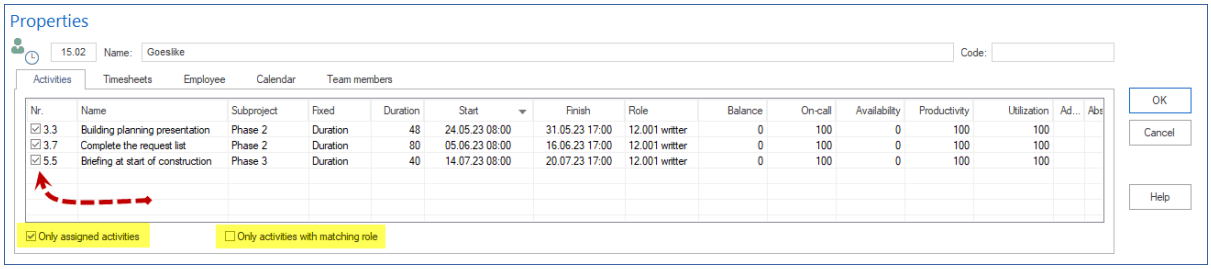
When you click a row in an employee view, detailed information about the employee resource is shown in the properties window. The information is on these tabs:

- **Activities**: shows assigned or matching tasks. In the **No.** column, tasks can be assigned by selecting them.
- **Employee**: shows the employee properties stored in the resource pool, including professional qualifications.
- **Calendar**: shows which calendars are used in assigned tasks and how working times are defined.
- **Team members**: lists other team members with their properties from the resource pool.

6.3.4 Check Tasks

Check on the **Activities** tab:

- Which tasks are assigned?
- Do the tasks match the employee's professional qualification?
- Is **Activities with matching role only** useful?
- Are effort and workload correct?
- Is there multiple booking?
- Is there absence or substitution?
- Are notes or special cases documented?

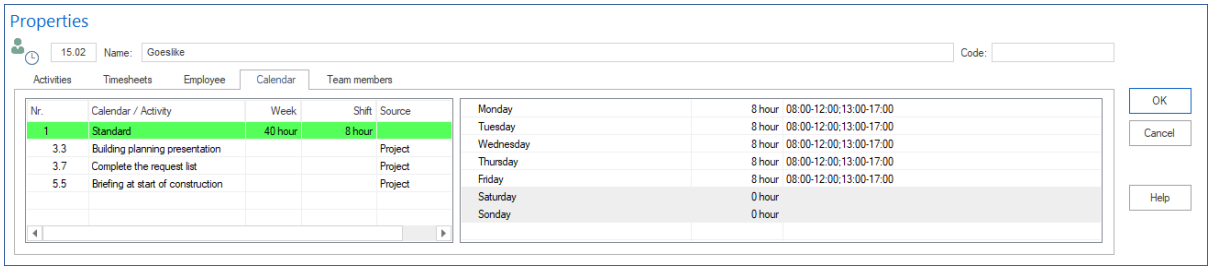


Per task, you can check on-call, availability, additional utilization, negative effort, and substitution. You can also define productivity, workload, absence, effort, and notes directly.

6.3.5 Check Calendar and Availability

Check on the **Calendar** tab:

- Which calendars apply to assigned tasks?
- Are working times correct?
- Are non-working days considered?
- Are there shift calendars or exceptions?
- Is the employee actually working in the planned period?

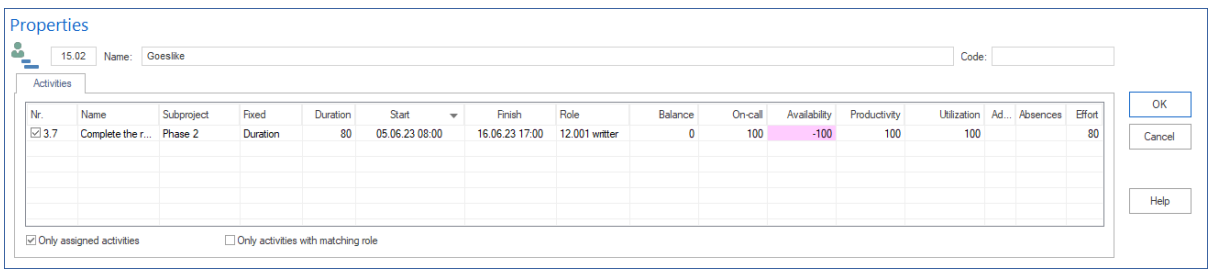


6.3.6 Check Tasks for a Specific Date

You can filter tasks that are due in a specific period. Left-click a cell at the intersection of an employee row and date column to show only tasks relevant for the selected period.

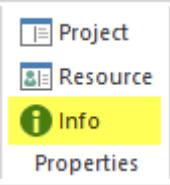
This is helpful when overload arises only in a specific time window. Check:

- Which tasks are in the critical period?
- Which of them cause overload?
- Are there parallel tasks in other projects?
- Is absence maintained correctly for the period?



6.3.7 Check Project Information

Use **Start > Properties > Info** for a quick diagnosis of conflicts and bottlenecks.

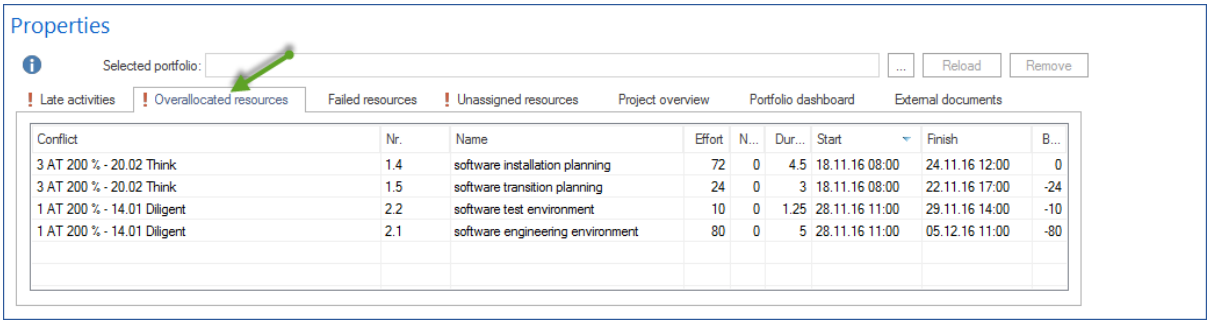


Overallocated Resources

Click **Start > Properties > Info** and select **Overallocated resources**.

Important: Only one conflict per task is listed. Detailed information about overallocated resources is available in the **Employee** resource view or on the **Employees** tab of task properties.

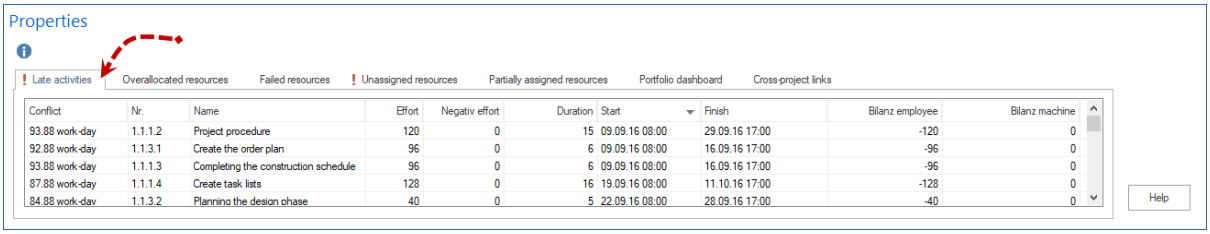
Relevant columns include conflict, task number, name, effort, negative effort, duration, start, finish, employee balance, and machine balance.



Late Activities

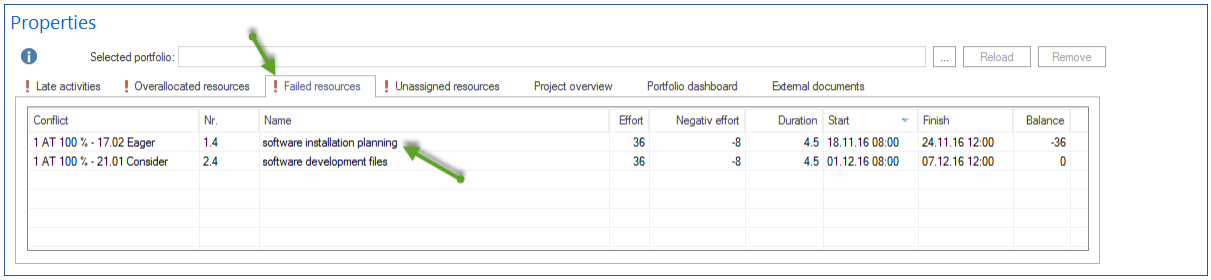
Use the project information tab for late activities when assignment or missing capacity has shifted work.

Important: Only one conflict per task is listed. Detailed information is available in the employee resource view or on the **Employees** tab of task properties.



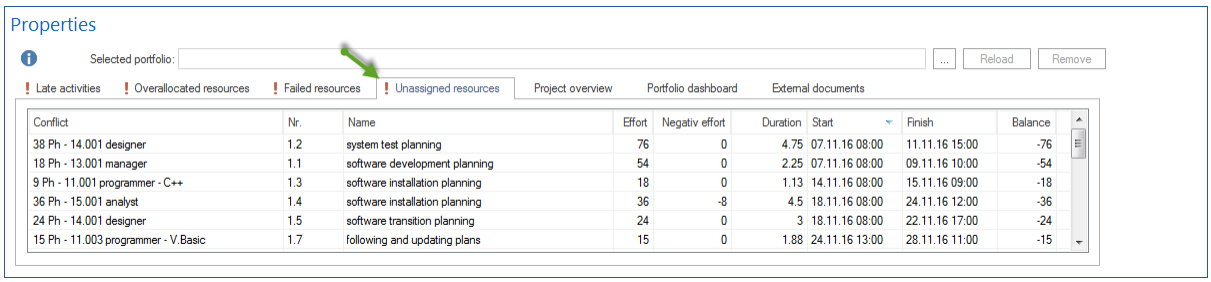
Failed Resources

Failed resources are visible only with due-date-oriented planning. If several conflicts arise because of resource absence, only one conflict is listed. Detailed information appears in task properties on the **Employees** tab in the **Negative effort** column.



Unassigned Resources

Use **Unassigned resources** to identify role effort that is not yet covered by employees.



6.3.8 Detect Overloads

For detailed root-cause analysis, use grouped resource views with **Start > Outline > Grouping**. These groupings are especially useful:

- **Employee > Project**: shows which projects load an employee
- **Role > Employee**: shows which employees are assigned to a role
- **Project > Role > Employee**: shows role-based employee assignment by project

This helps determine whether overload comes from one task or several projects. When overload occurs, check:

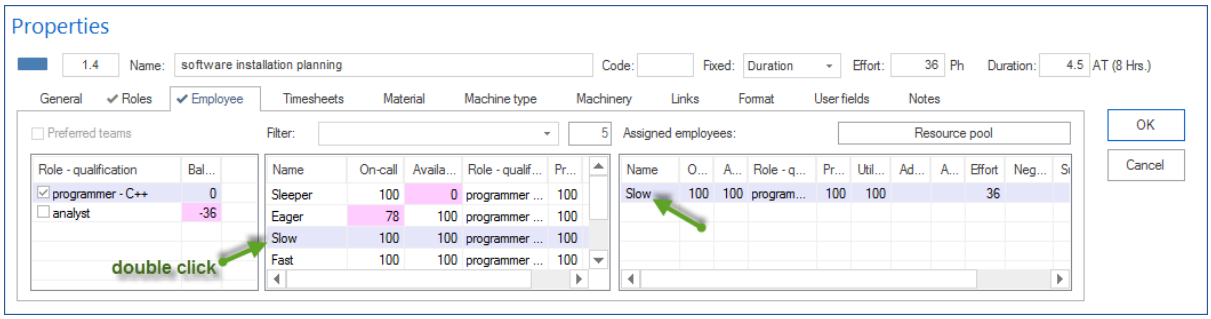
1. Is the assignment professionally necessary?
2. Can another employee with the same professional qualification take over?
3. Can the task be moved?
4. Can workload be reduced?
5. Are there portfolio conflicts with other projects?

6.3.9 Checklist After Assignment

An assignment is checked when these questions are answered:

- Is the correct employee assigned?
- Does the professional qualification match?
- Are working time and calendar plausible?
- Are non-working days considered?

- Are effort and workload correct?
- Is there no unresolved multiple booking?
- Are portfolio conflicts checked?
- Is the assignment understandable for project manager and resource manager?



6.3.10 Next Steps

When the assignment is stable, the project plan can be controlled and later evaluated in target/actual comparison.

- *Project Control*
- *Group Resource Views*
- *Troubleshooting*

check assignments, matching role only, assigned activities only, missing employees, partial assignment, overload, assignment properties, resource planning, resource assignment, resource demand, resource supply, project manager, resource manager

6.4 Choose Direct or Capacity-Based Assignment

6.4.1 Goal

Decide whether employees should be assigned directly to a task or whether capacity balancing should be performed first.

This page summarizes the decision. Detailed workflows are available here:

- *Assign Employees Directly*
- *Assign Employees After Capacity Balancing*
- *Check Employee Assignments*

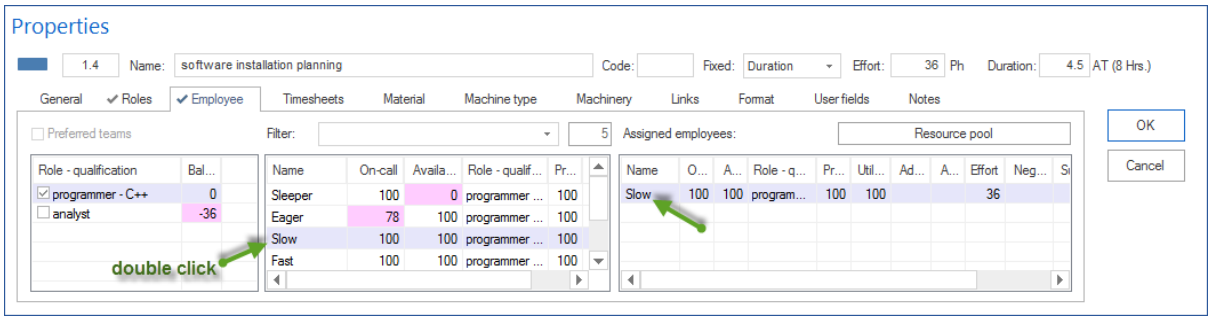
6.4.2 Variant 1: Direct Assignment

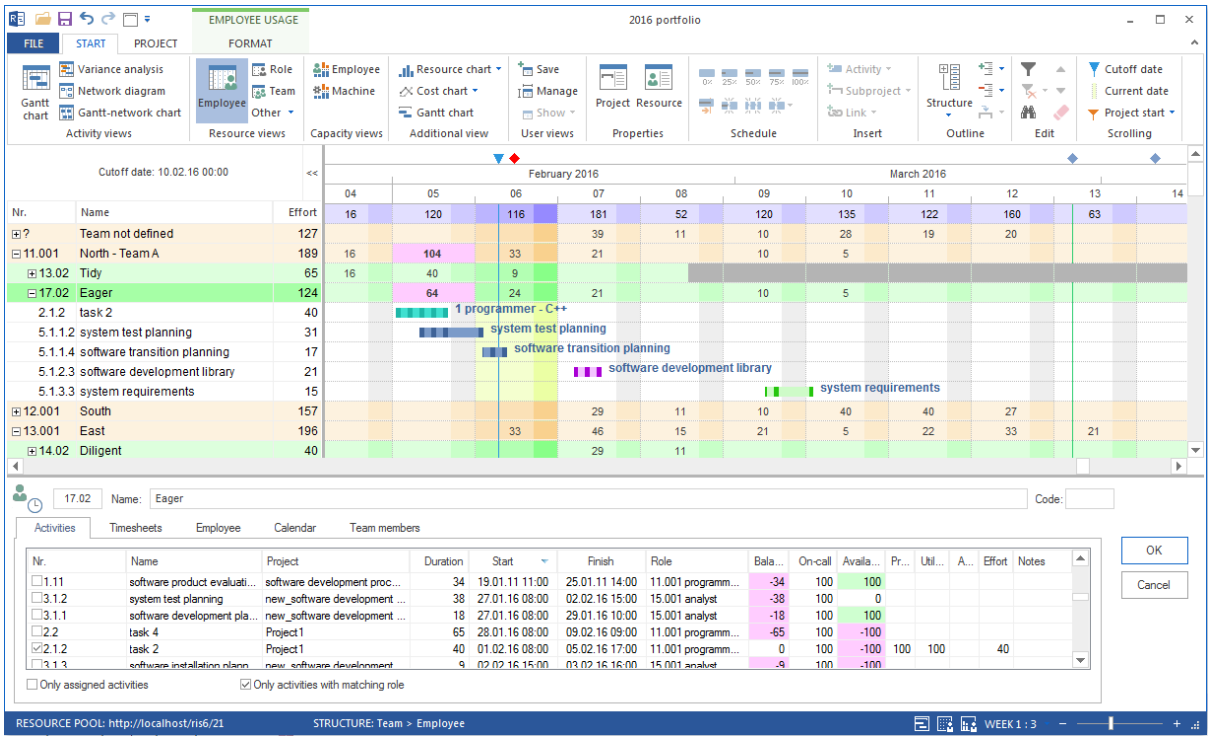
This variant is useful when only a few employees are involved, the project is manageable, and no complex capacity check is required.

Short workflow:

1. Select the task.

2. Assign the employee directly from the **Resource pool**. If project resources are active, the button is **Project resources**; check the status bar to see which mode is active.
3. Check workload, effort, and dates.
4. Check calendars and non-working days.
5. Check overloads after assignment.





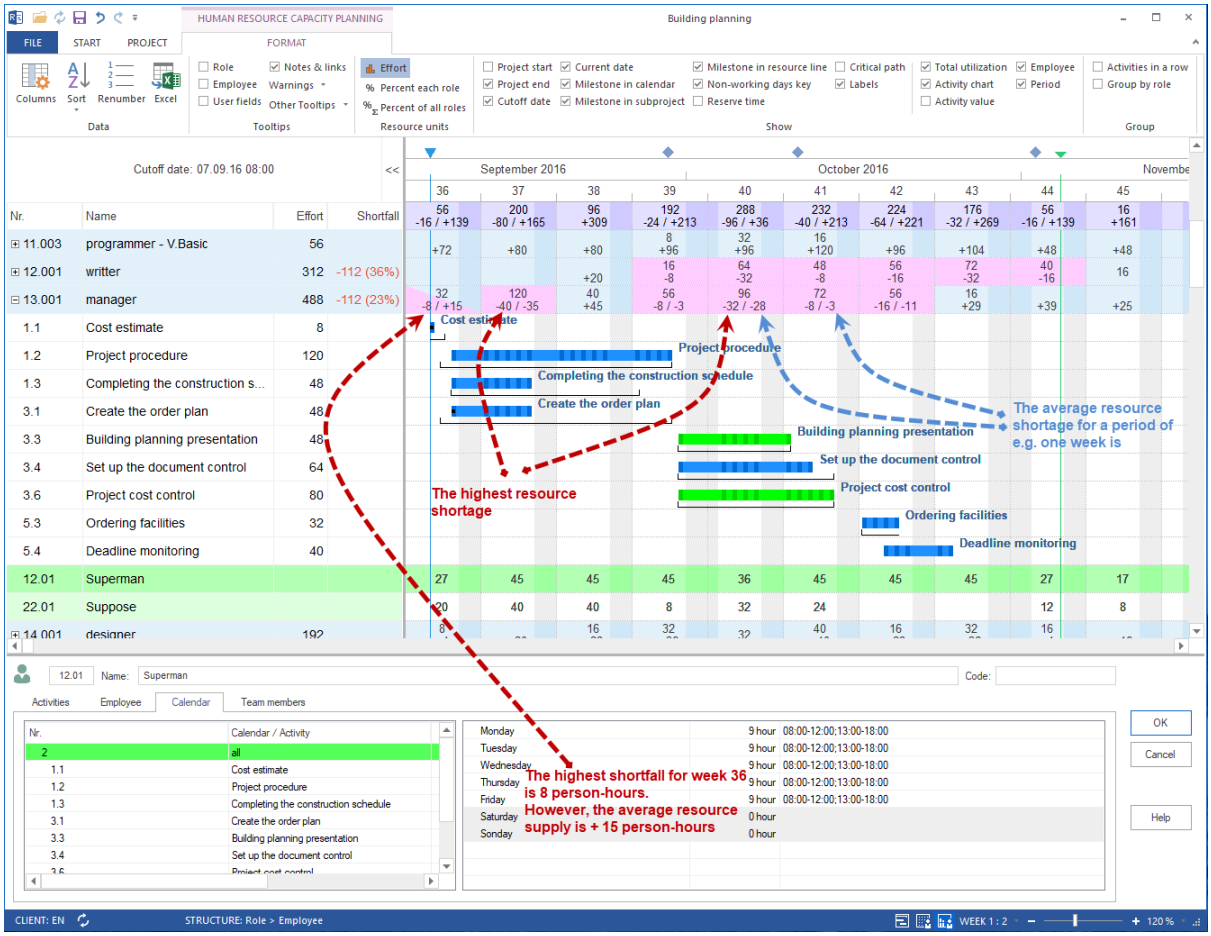
6.4.3 Variant 2: Assignment After Capacity Balancing

This variant is recommended when professional qualifications, several employees, several projects, different working times, or non-working days are relevant.

Short workflow:

1. Plan tasks first by professional qualifications.
2. Check resource demand and resource supply in capacity balancing.
3. Show suitable employees with the required professional qualification.
4. Consider working times, calendars, and non-working days.
5. Assign employees bindingly.

6. Check utilization and dates again.



6.4.4 Decision Guide

Question	If yes
Is the team small and easy to oversee?	Direct assignment may be sufficient.
Are there several suitable employees?	Use capacity balancing first.
Are non-working days, shifts, or vacation relevant?	Use capacity balancing first.
Are there several projects with the same employees?	Use capacity balancing first.
Should a specific person deliberately be fixed?	Use direct assignment and then check utilization.

6.4.5 Basic Rule

The larger the team, the more projects are involved, and the more important availability is, the more likely it is that you should first plan by professional qualification and then perform capacity balancing.

direct assignment, capacity based assignment, assignment decision, qualification demand, resource planning, resource assignment, resource demand, resource supply, project manager, resource manager

6.5 Assign Resources Automatically

Rillsoft Project provides assistants that assign employees and machines semi-automatically to tasks. These assistants are useful when many tasks should be staffed with matching employees or machines without opening each task individually.

6.5.1 When to Use the Assistant

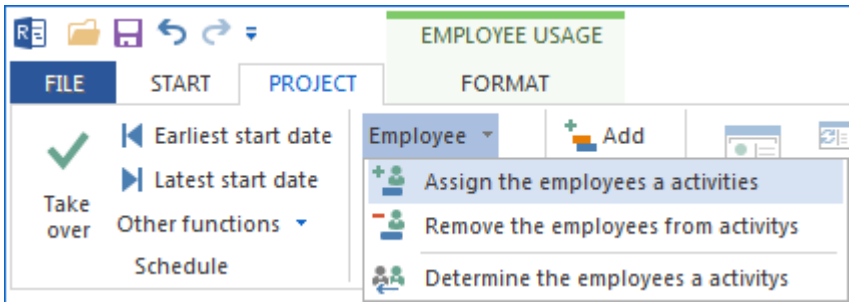
Use the assignment assistant when:

- many tasks should be staffed with employees at once
- roles have already been assigned to tasks
- availability of several employees should be compared before assignment
- machines should be assigned by machine type and machinery pool

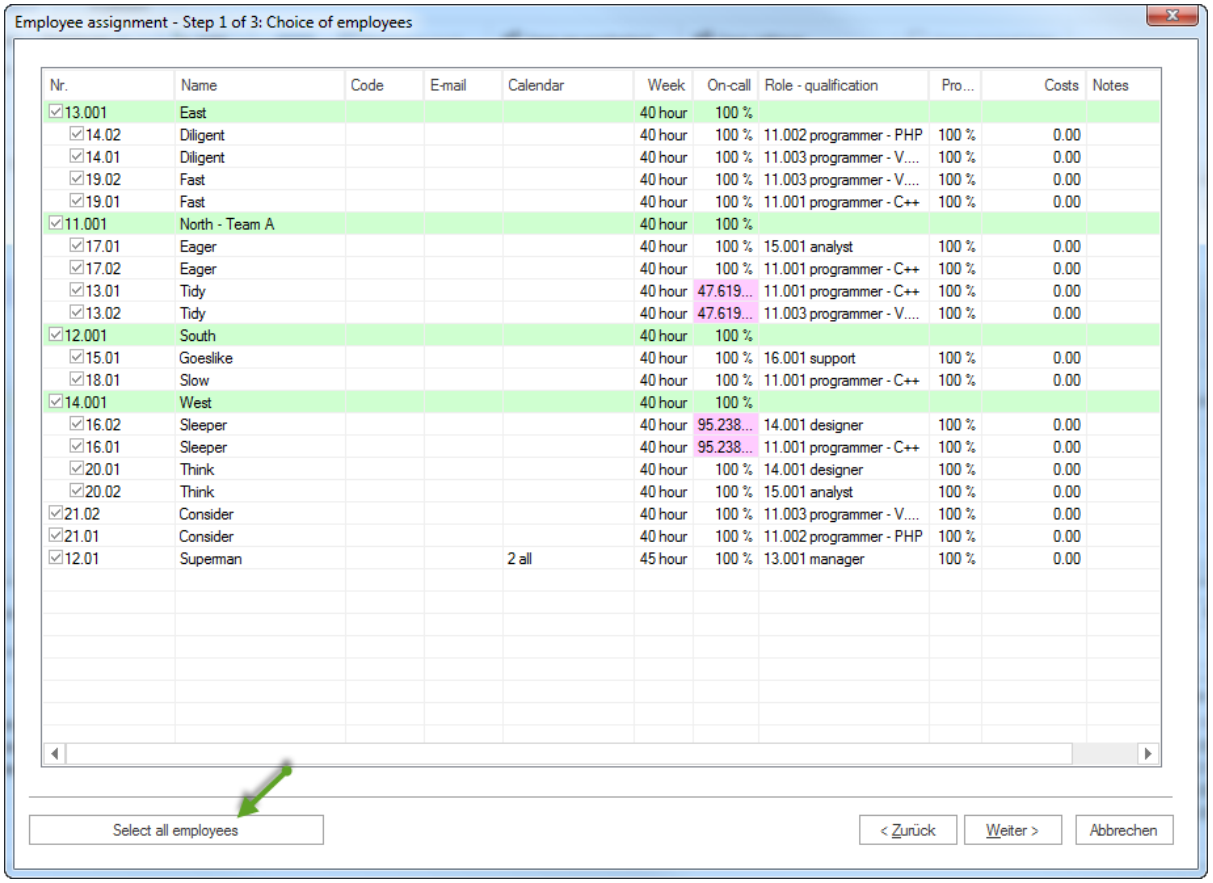
Prerequisite: Tasks must already have professional qualifications (roles) or machine types assigned before the assistant is started.

6.5.2 Assign Employees Automatically

1. Choose **Project > Assistant > Employee > Assign employees to activities**.



Step 1 of 3: Choice of employees



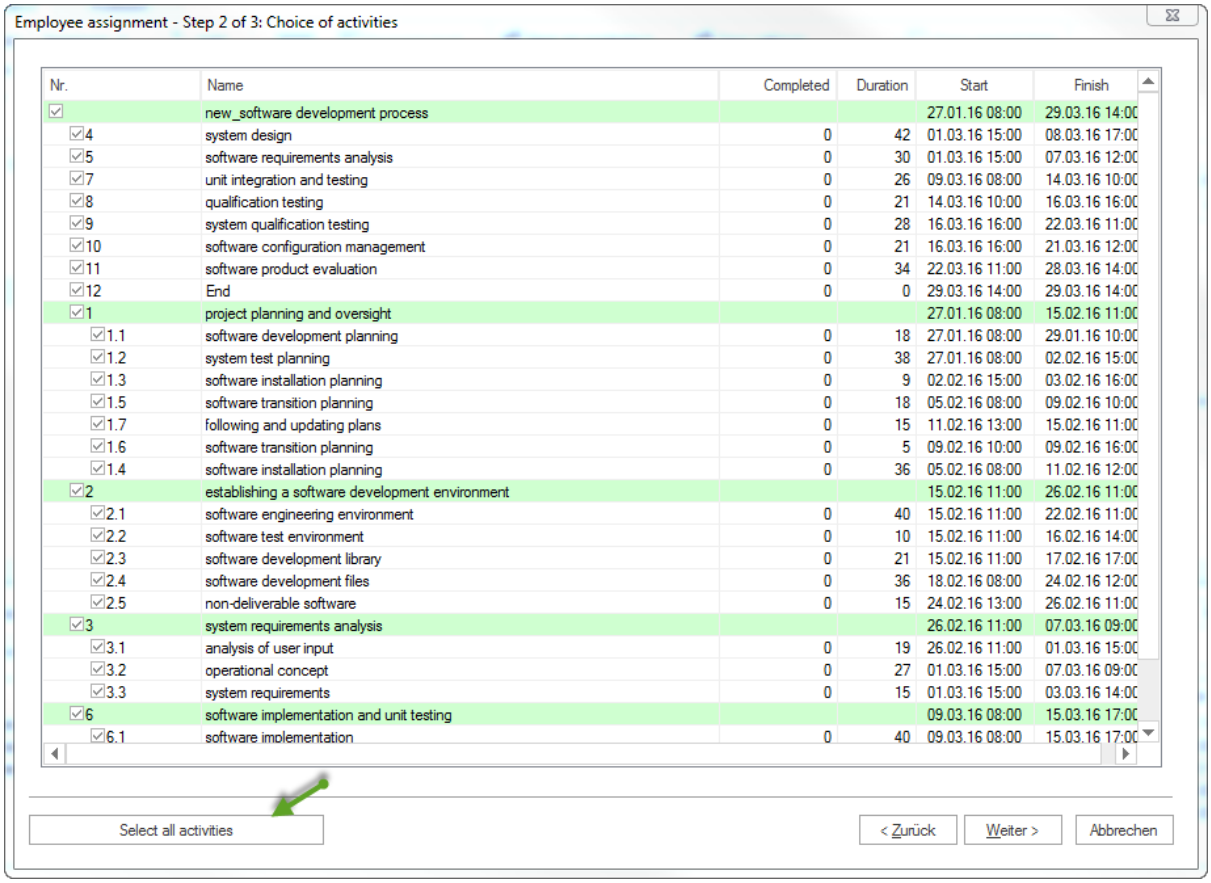
The list shows all employees that can be assigned. Employees are grouped by team. Employees without team membership appear at the end of the list.

Columns:

- **Calendar**: predefined calendar of the employee
- **Week**: average working hours per week
- **On-call**: percentage of possible working capacity within project duration, adjusted for non-working days

Select the employees to assign. You can also use **Select all**. Click **Continue**.

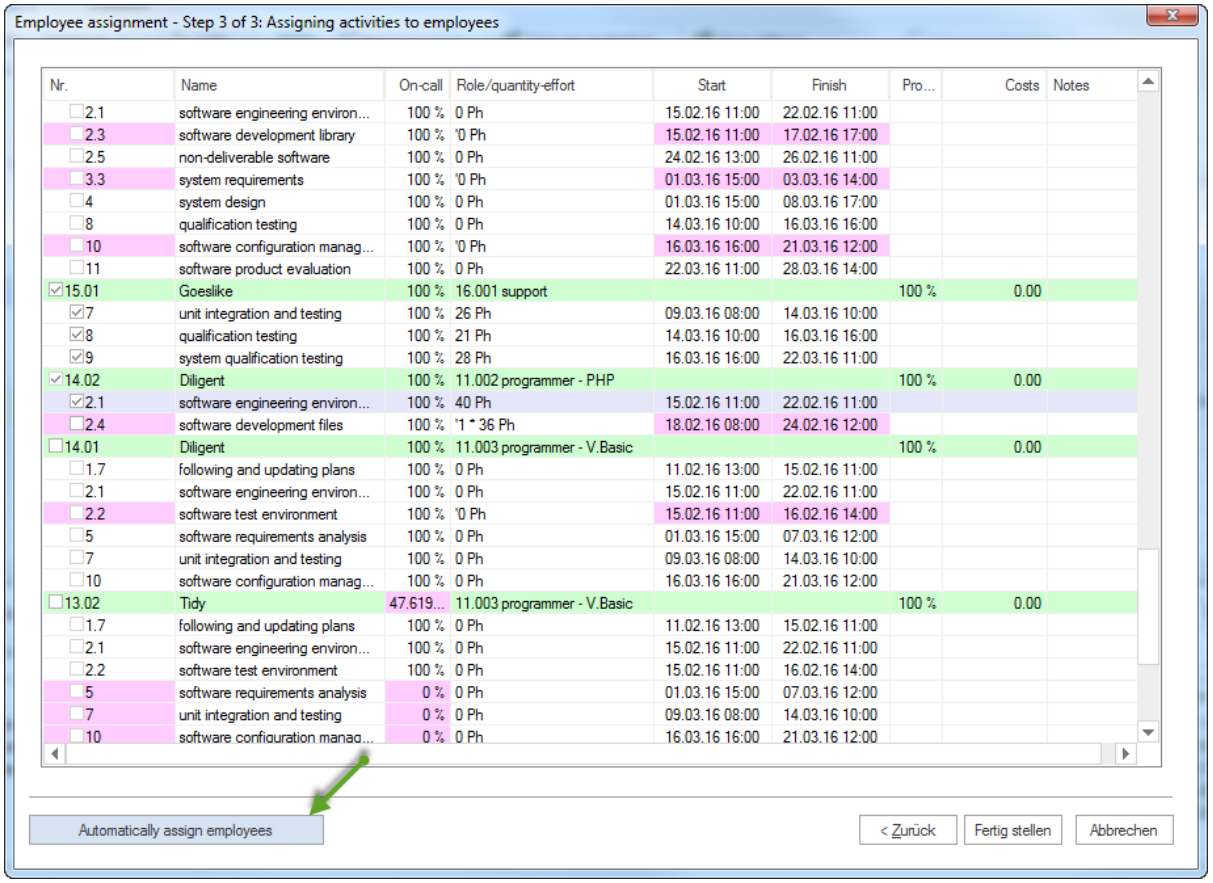
Step 2 of 3: Choice of activities



The list shows all tasks that can be staffed. The display reflects the project structure.

Select the tasks to which employees should be assigned. You can also use **Select all**. Click **Continue**.

Step 3 of 3: Assigning activities to employees



Nr.	Name	On-call	Role/quantity-effort	Start	Finish	Pro...	Costs	Notes
2.1	software engineering environ...	100 %	0 Ph	15.02.16 11:00	22.02.16 11:00			
2.3	software development library	100 %	'0 Ph	15.02.16 11:00	17.02.16 17:00			
2.5	non-deliverable software	100 %	0 Ph	24.02.16 13:00	26.02.16 11:00			
3.3	system requirements	100 %	'0 Ph	01.03.16 15:00	03.03.16 14:00			
4	system design	100 %	0 Ph	01.03.16 15:00	08.03.16 17:00			
8	qualification testing	100 %	0 Ph	14.03.16 10:00	16.03.16 16:00			
10	software configuration manag...	100 %	'0 Ph	16.03.16 16:00	21.03.16 12:00			
11	software product evaluation	100 %	0 Ph	22.03.16 11:00	28.03.16 14:00			
15.01	Goeslike	100 %	16.001 support			100 %	0.00	
7	unit integration and testing	100 %	26 Ph	09.03.16 08:00	14.03.16 10:00			
8	qualification testing	100 %	21 Ph	14.03.16 10:00	16.03.16 16:00			
9	system qualification testing	100 %	28 Ph	16.03.16 16:00	22.03.16 11:00			
14.02	Diligent	100 %	11.002 programmer - PHP			100 %	0.00	
2.1	software engineering environ...	100 %	40 Ph	15.02.16 11:00	22.02.16 11:00			
2.4	software development files	100 %	'1 * 36 Ph	18.02.16 08:00	24.02.16 12:00			
14.01	Diligent	100 %	11.003 programmer - V.Basic			100 %	0.00	
1.7	following and updating plans	100 %	0 Ph	11.02.16 13:00	15.02.16 11:00			
2.1	software engineering environ...	100 %	0 Ph	15.02.16 11:00	22.02.16 11:00			
2.2	software test environment	100 %	'0 Ph	15.02.16 11:00	16.02.16 14:00			
5	software requirements analysis	100 %	0 Ph	01.03.16 15:00	07.03.16 12:00			
7	unit integration and testing	100 %	0 Ph	09.03.16 08:00	14.03.16 10:00			
10	software configuration manag...	100 %	0 Ph	16.03.16 16:00	21.03.16 12:00			
13.02	Tidy	47.619...	11.003 programmer - V.Basic			100 %	0.00	
1.7	following and updating plans	100 %	0 Ph	11.02.16 13:00	15.02.16 11:00			
2.1	software engineering environ...	100 %	0 Ph	15.02.16 11:00	22.02.16 11:00			
2.2	software test environment	100 %	0 Ph	15.02.16 11:00	16.02.16 14:00			
5	software requirements analysis	0 %	0 Ph	01.03.16 15:00	07.03.16 12:00			
7	unit integration and testing	0 %	0 Ph	09.03.16 08:00	14.03.16 10:00			
10	software configuration manag...	0 %	0 Ph	16.03.16 16:00	21.03.16 12:00			

All selected employees are compared with the selected tasks. An employee can be assigned to a task only if the employee's role and qualification meet the task requirements.

Color coding shows assignment status:

- **White**: assignment possible
- **Gray**: assignment not possible because the task is already fully covered by another employee
- **Red**: assignment possible, but time conflicts occur

Columns:

- **On-call**: percentage of possible working capacity within the task period
- **Role**: employee role
- **Effort**: required employee count and effort for the task
- **Start / Finish**: planned task dates

Recommended strategy: Assign first those employees who can cover a task with 100% **On-call** and 100% productivity. This helps avoid overload from the beginning.

Select the checkbox for the desired employee-task combination. Assignment options are updated dynamically.

You can also click **Assign employees automatically**.

Click **Finish**.

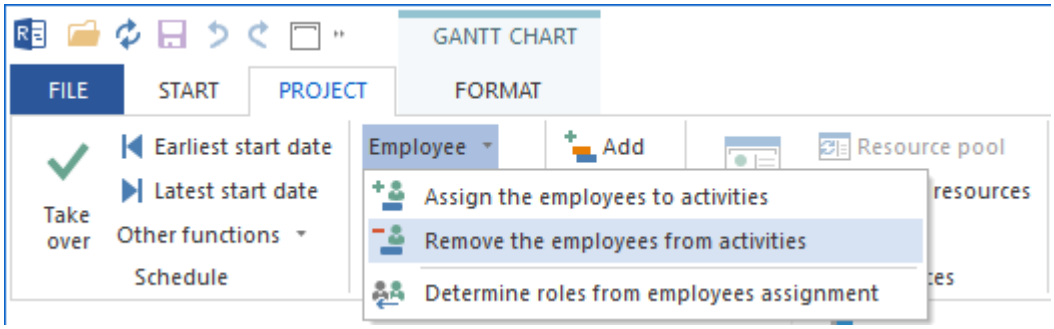
Important

Conflicts and possible overloads are shown in red. In this case, automatic assignment is not performed. Adjust the selection manually.

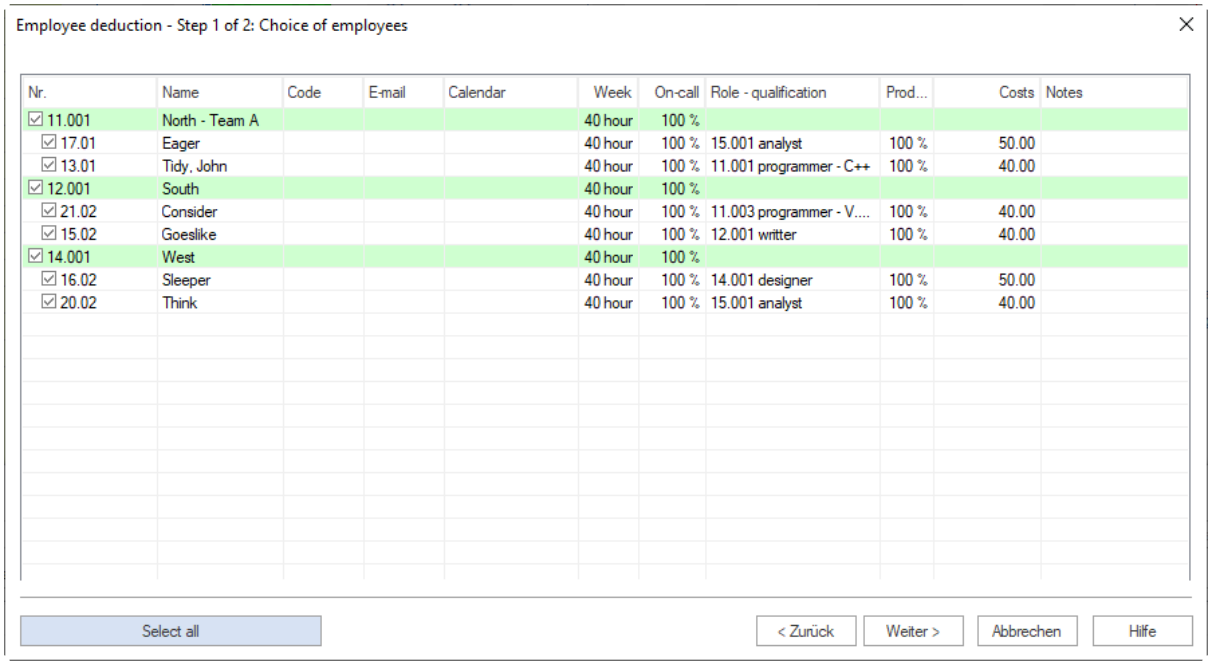
6.5.3 Remove Employees From Tasks

The same assistant concept can remove employees from tasks in bulk.

1. Choose **Project > Assistant > Employee > Remove employees from activities**.

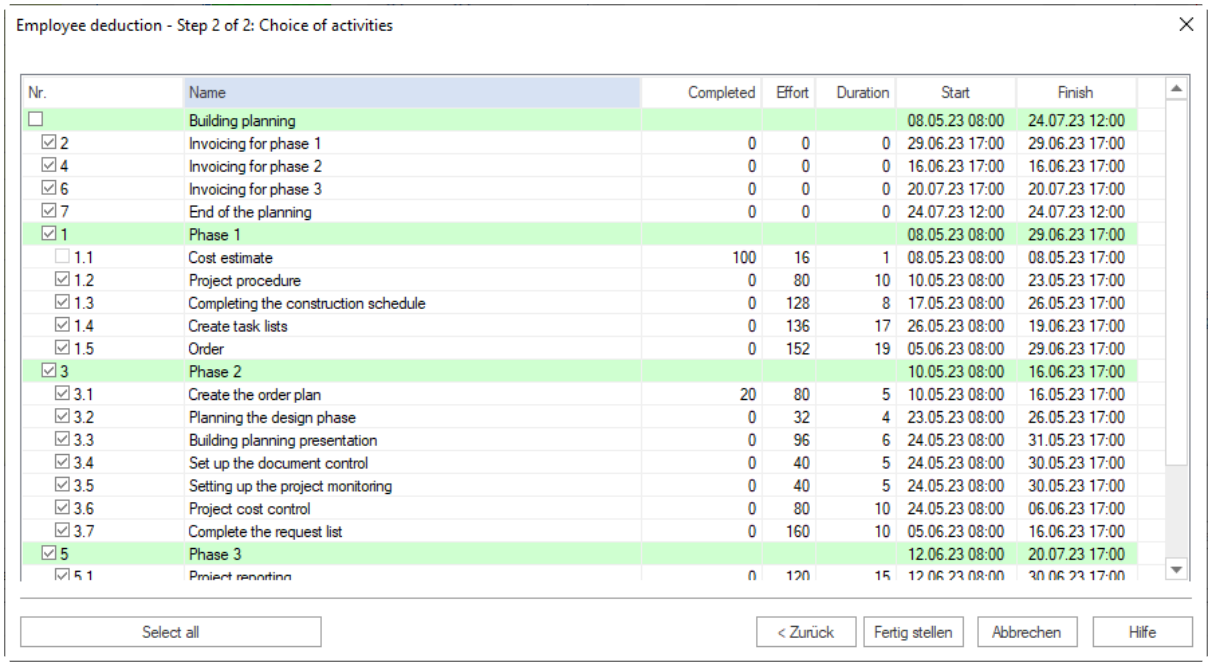


Step 1 of 2: Choice of employees



Select the employees to remove from tasks. You can also click **Select all employees**. Click **Continue**.

Step 2 of 2: Choice of activities



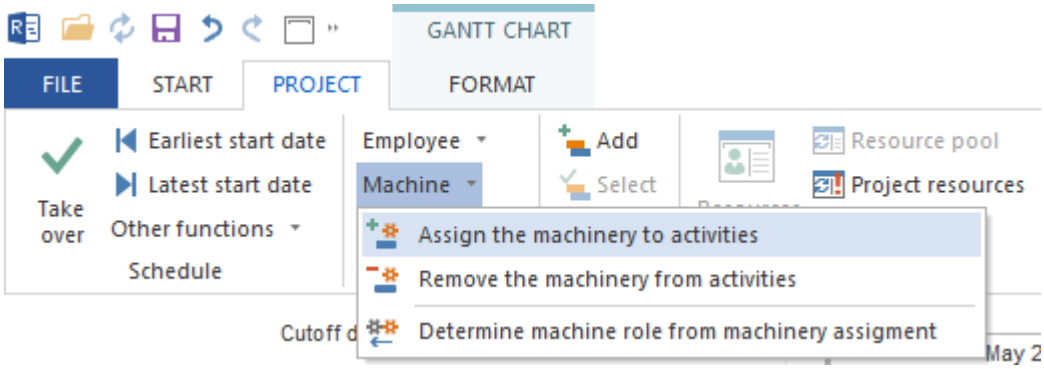
Select the tasks from which the employees should be removed. You can also click **Select all activities**. Click **Finish**.

6.5.4 Assign Machines Automatically

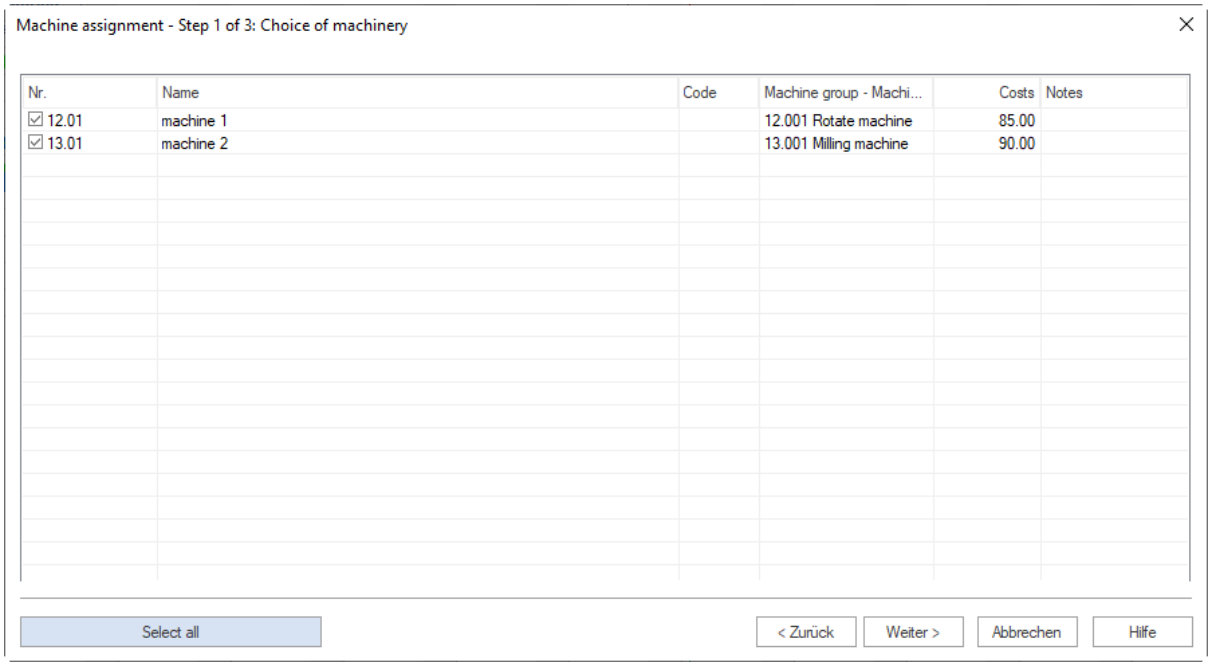
The machine assistant works like the employee assistant. It uses machine types instead of roles.

Prerequisite: Tasks must have machine types assigned.

1. Choose **Project > Assistant > Machinery > Assign machinery to activities**.



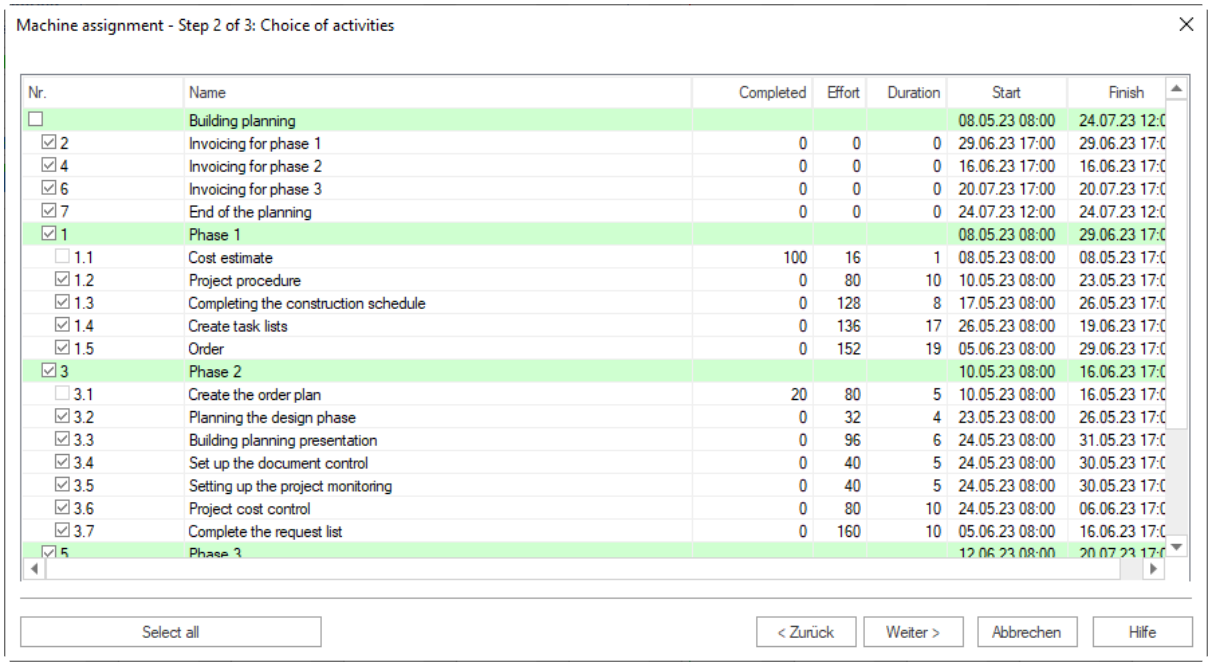
Step 1 of 3: Choice of machines



The list shows available machines grouped by machine groups. Columns include machine group, machine type, and hourly costs.

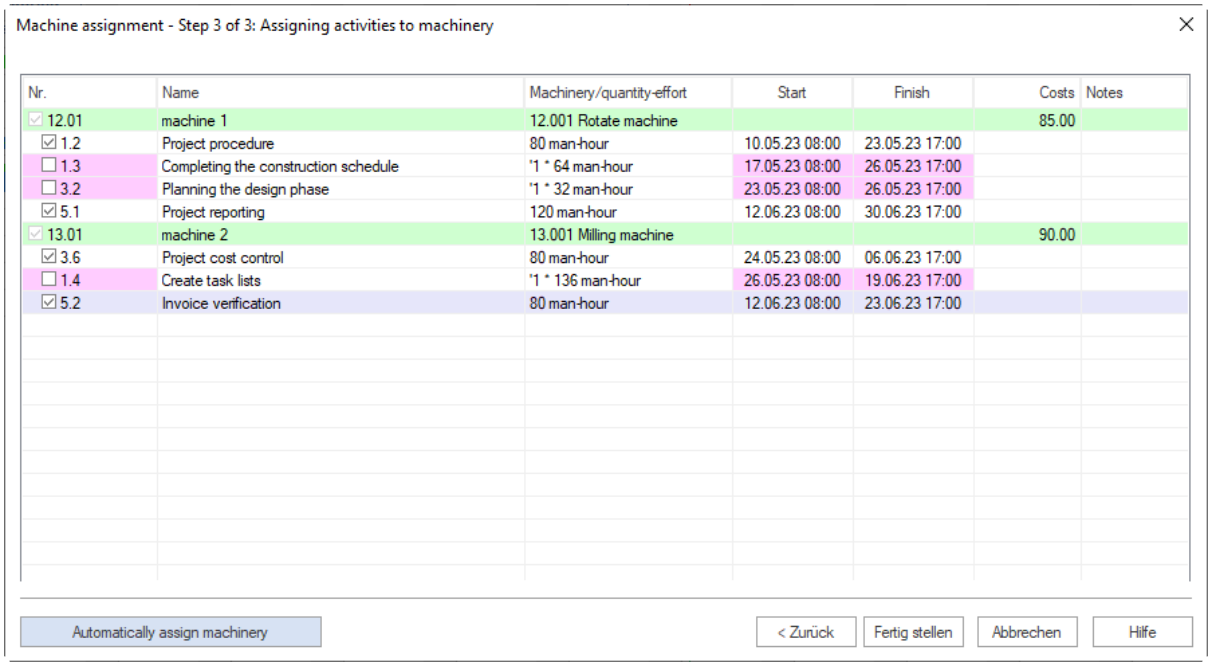
Select the machines and click **Continue**.

Step 2 of 3: Choice of activities



Select the tasks to which machines should be assigned. Click **Continue**.

Step 3 of 3: Assigning machines to activities



A machine can be assigned only when its machine group and machine type match the task requirements. The color coding is the same as for employee assignment: white, gray, and red.

Columns:

- **Machinery**: machine type of the machine
- **Number-effort**: required machine count and effort
- **Start / Finish**: planned task dates

Click **Assign machines automatically** or assign manually. Then click **Finish**.

6.5.5 Check Machine Utilization After Assignment

After automatic machine assignment, check **Machinery Capacity Balancing**. With **Start > Outline > Grouping**, group machine utilization by:

- Machine type > Machinery
- Machine type > Project > Machinery
- Project > Machine type > Machinery

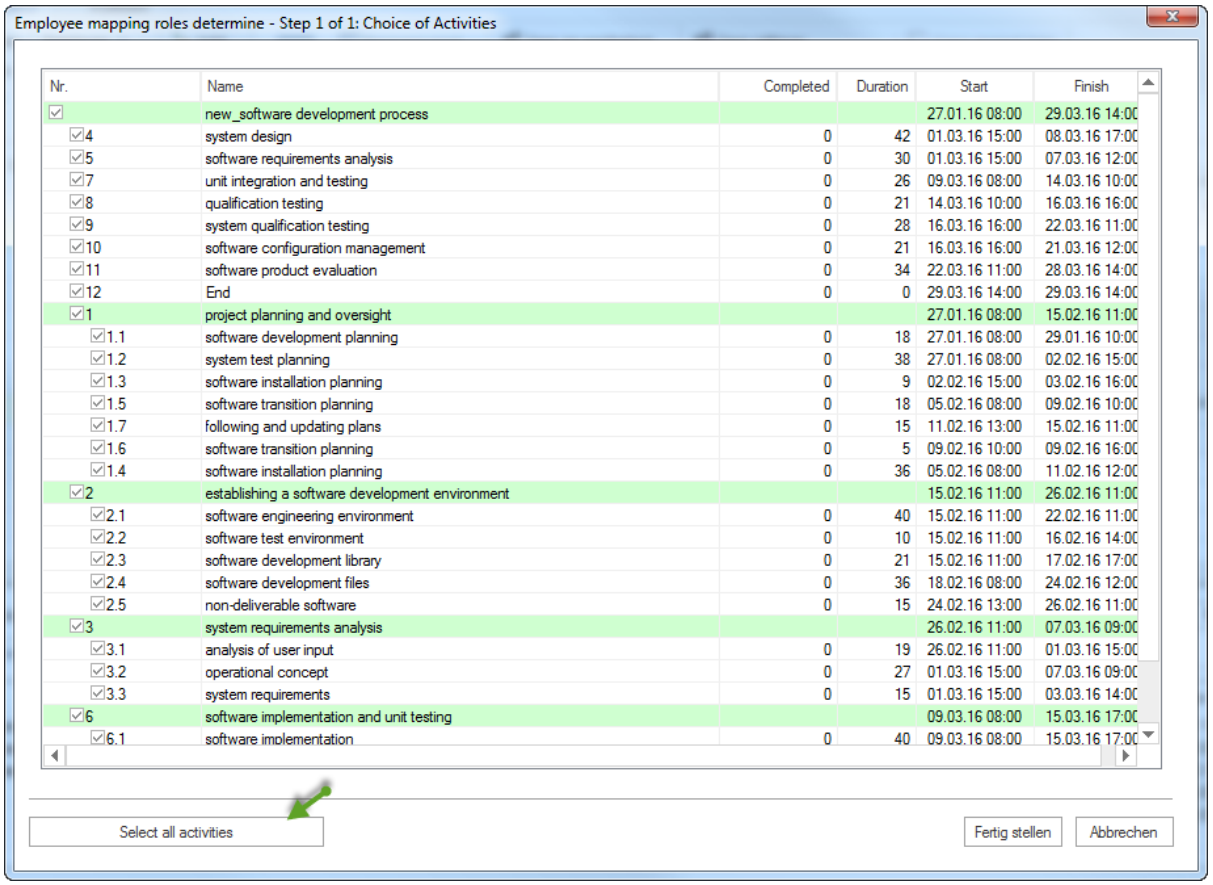
The context menu in the view offers:

- **Show maximum per time unit**: required number of machine resources per role or qualification per day, week, and so on
- **Show effort per time unit**: planned effort in machine-hours per day, week, and so on

6.5.6 Derive Roles From Existing Employee Assignment

If employees were assigned directly without prior role assignment, you can later derive the required roles from employee assignment.

1. Choose **Project > Assistant > Employee > Determine roles from employee assignment**.



The dialog shows all tasks in the project.

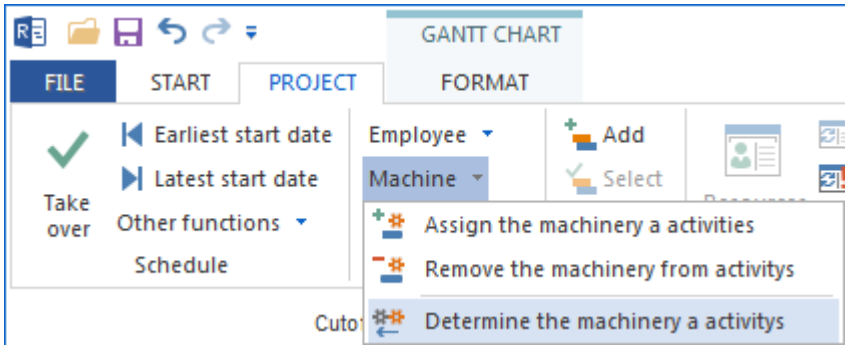
2. Select the tasks for which roles should be derived. Use **Select all** for a complete derivation.
3. Click **Finish**.

Rillsoft Project automatically enters the roles of assigned employees in the corresponding tasks.

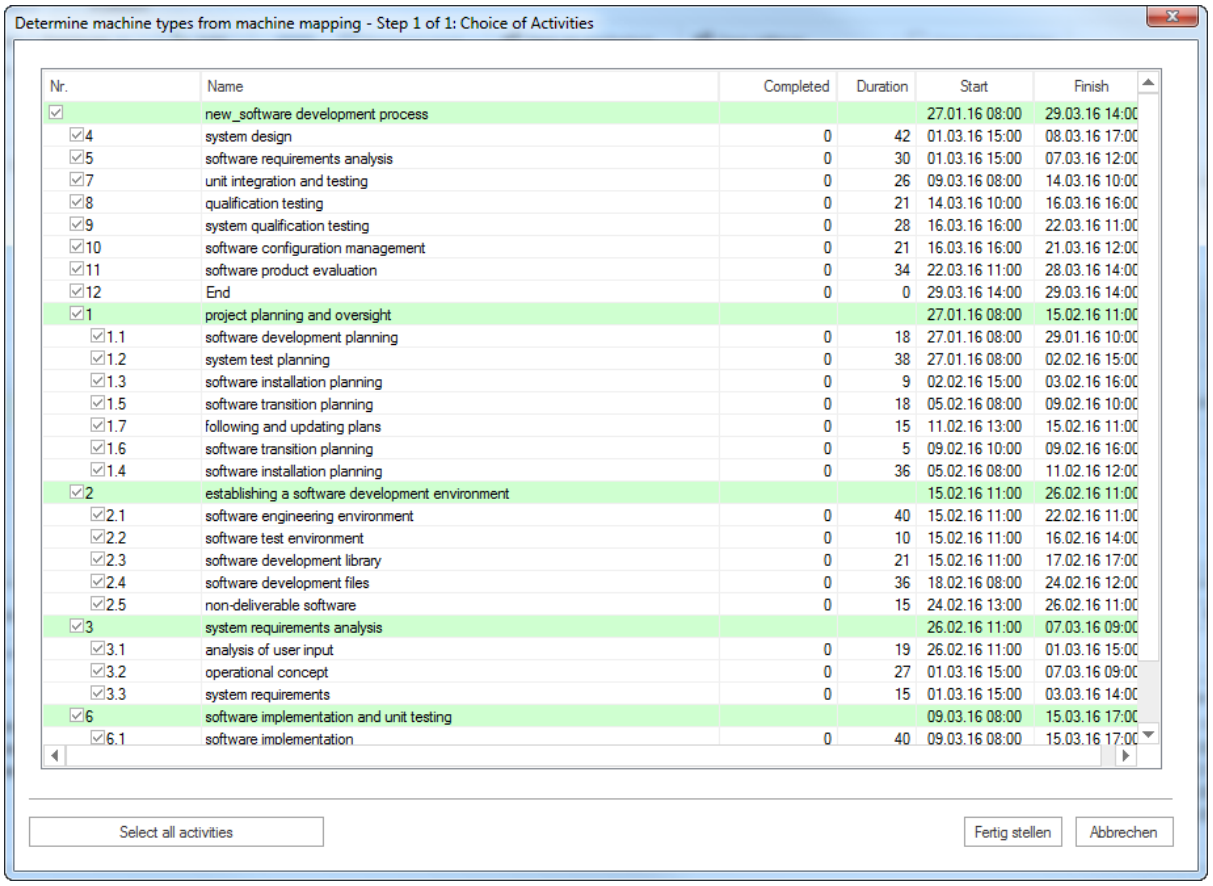
6.5.7 Identify Machine Types From Machine Assignment

If concrete machines were assigned to tasks without prior machine type assignment, you can later identify the required machine types from the machine assignment.

1. Choose **Project > Assistant > Machine > Identify machine types from machine allocation**.



The dialog **Identify machine types from machine allocation** shows all tasks in the project.



2. Select in the **Number** column the tasks for which machine types should be identified. Use **Select all activities** for a complete derivation.
3. Click **Finish**.

Rillsoft Project automatically enters the machine types of assigned machines in the corresponding tasks.

6.5.8 Next Steps

- *Check Employee Assignments*
- *Perform Capacity Balancing*
- *Synchronize Resources*

6.6 Assign Additional Resources

Besides employees and roles, Rillsoft Project can assign teams, material, machine types, and machinery to tasks. This article describes those resource types and explains the relevant fields in their properties.

6.6.1 Assign Teams

Teams are predefined groups of employees with shared capacity. Assigning a team to a task means that the team as a whole is planned for that task.

> **Note**
>
> Direct team assignment in Rillsoft Project is available only in the **Standard** edition. In the Light, Professional, and Enterprise editions, tasks receive their team assignment indirectly through assigned employees and their team membership.

Assign teams when:

- a group of employees works together on a task and individual assignment is not required
- team capacity is used as the planning unit
- team staffing and team availability are controlled from the resource pool

Workflow:

1. Select the task in the Gantt chart or task list.
2. Open task properties by double-clicking the task or using **Start > Properties**.
3. Open the **Employees** tab.
4. Double-click a team in the left table to assign it to the task.
5. Define capacity, workload, and effort.
6. Confirm with **OK**.

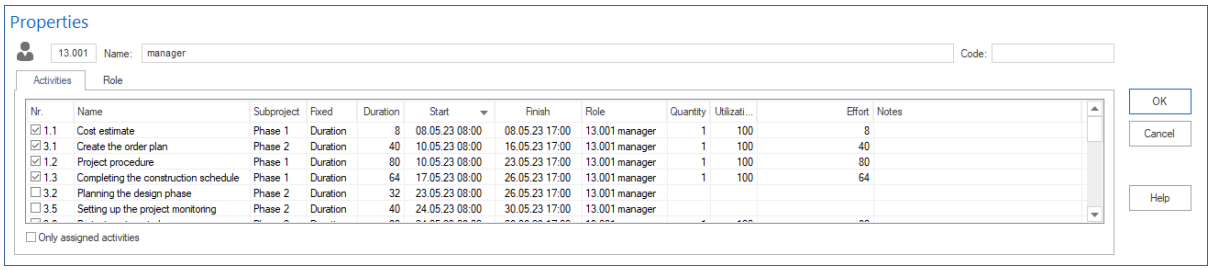
Fields in team assignment properties:

Field	Meaning
Team	Name of the assigned team from the resource pool.
Capacity	Team capacity for this task.
Workload (%)	Share of team capacity planned for this task.
Effort	Planned total team effort for this task in hours or days.
Notes	Optional notes about the team in the task context.

6.6.2 Role Assignment Properties

When a professional qualification (role) is assigned to a task, the properties window contains the following fields.

Field	Meaning
Role	Professional qualification from the resource pool.
Number	Number of people with this qualification required for the task.
Workload (%)	Work share per person as a percentage of normal working time.
Effort	Total role effort for the task.
Notes	Optional notes about the role in the task context.

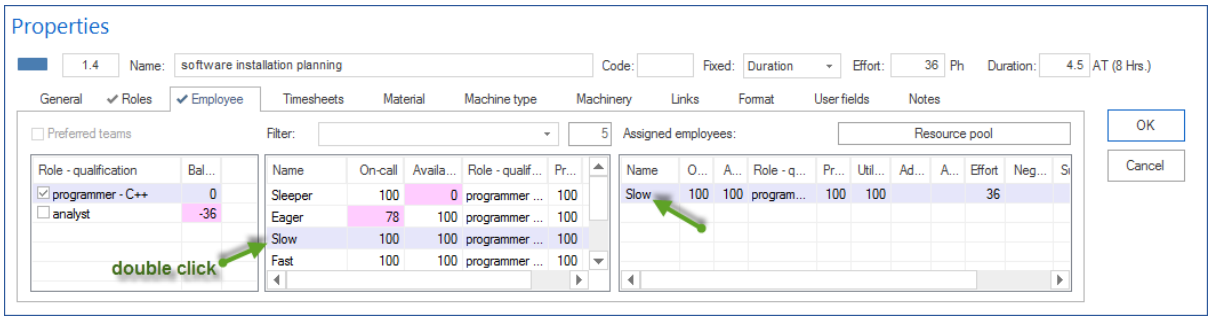


More about qualification-based planning: *Plan Resource Demand by Qualifications*.

6.6.3 Employee Assignment Properties

When a concrete employee is assigned to a task, the properties window contains the following fields.

Field	Meaning
Employee	Name of the assigned employee from the resource pool.
On-call	Percentage of possible working capacity within the task period, adjusted for non-working days such as vacation or illness.
Availability	Percentage of possible working capacity within the task period, adjusted for participation in other tasks.
Productivity	Percentage value with which the employee works on the task; suggested from the resource pool.
Workload (%)	Work share as a percentage of normal working time.
Additional utilization	Shows whether workload may be higher on other days because of non-working days. Visible only with due-date-oriented planning.
Absence	Opens the absence window. Defines days when the employee does not participate in the task.
Effort	Planned effort of the employee for this task.
Negative effort	Difference between role effort and employee-covered effort. Visible only with due-date-oriented planning.
Substitution for	Shows whether the resource is planned as a substitute and for whom.
Responsible	Checkbox for entering the employee as responsible for the task.
Notes	Optional notes about the employee in the task context.



More about employee assignment: *Assign Employees Directly*.

6.6.4 Assign Material

Material is assigned to tasks when consumable material or a quantity-planned resource is required.

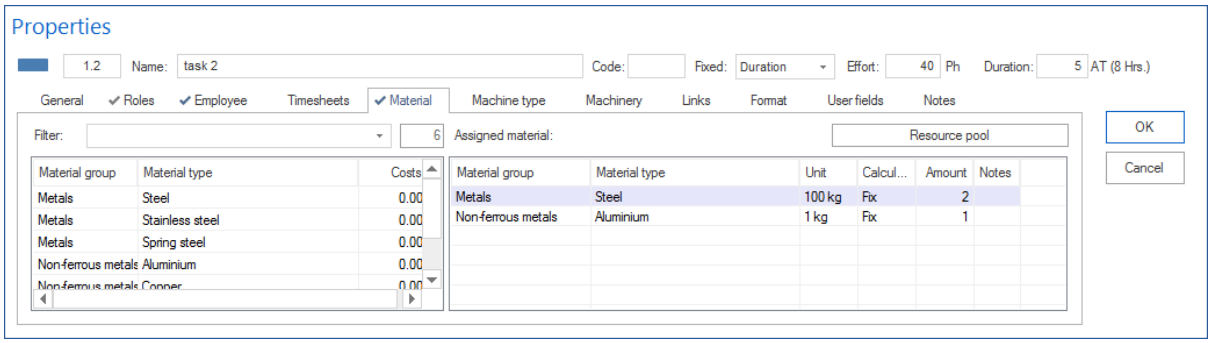
Typical material:

- construction material such as concrete, steel, or wood
- consumables such as paint, cables, or seals

- flat costs such as license fees or travel costs

Workflow:

1. Select the task and open its properties.
2. Open the **Material** tab.
3. Use **Filter** to search by material group, material type, or code. Enter two dots `..` to show material already used in the project.
4. Double-click an entry in the left table to assign it to the task.
5. Select the calculation method in **Calculation** and enter the quantity if required.
6. Confirm with **OK**.



Fields in material assignment properties:

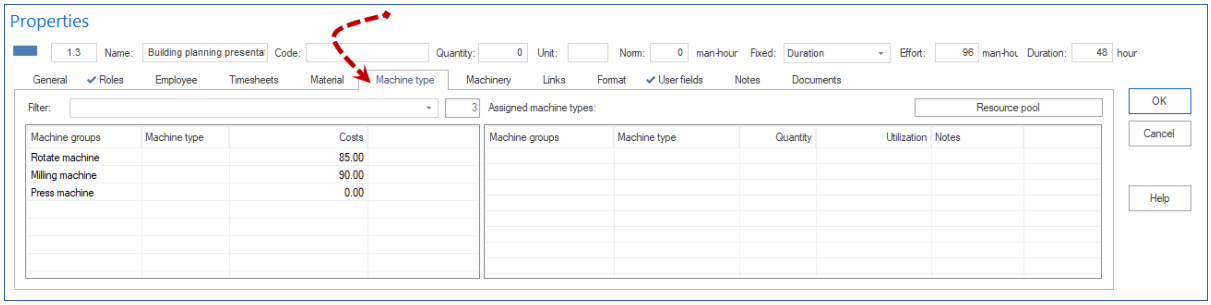
Field	Meaning
Material	Name of the material from the resource pool.
Calculation	Material demand calculation: **Fixed**, **per hour**, **per man-hour**, or **per quantity**.
Quantity	Planned material quantity for the task.
Notes	Optional notes about the material in the task context.

6.6.5 Assign Machine Types

Machine types are technical resources assigned as a type to a task.

Workflow:

1. Select the task and open its properties.
2. Open the **Machine types** tab.
3. Use **Filter** to search by machine group, machine type, or code. Enter two dots `..` to show machine types already used in the project.
4. Double-click an entry in the left table to assign this machine type.
5. Enter number and workload if required.
6. Confirm with **OK**.



Fields:

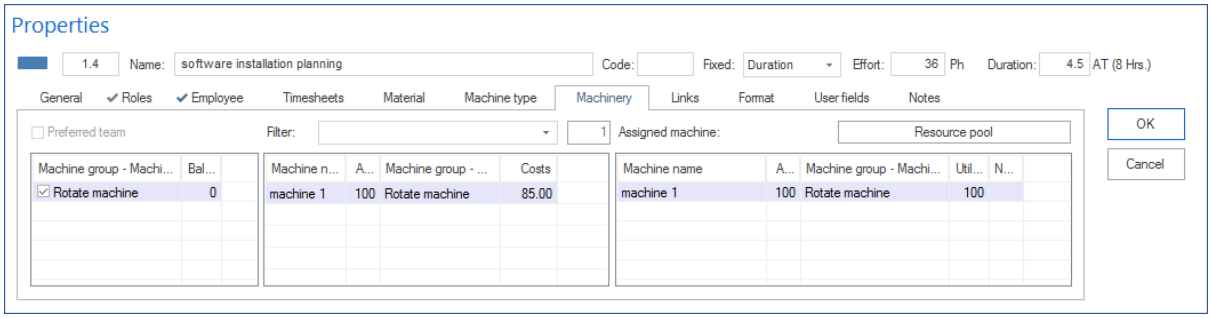
Field	Meaning
Machine type	Machine type from the resource pool.
Number	Required number of machines of this type.
Workload (%)	Workload of the machine type for this task.
Notes	Optional notes about the machine type in the task context.

6.6.6 Assign Machinery

Concrete machines from the machinery pool are assigned when specific machines should be planned.

Workflow:

1. Select the task and open its properties.
2. Open the **Machinery** tab.
3. Select a machine group or machine type in the assigned machine groups table to filter the machinery list.
4. Select **Preferred and assigned teams** if only machines from assigned teams should be shown.
5. Use **Filter** to search by machine group, machine type, or code. Enter two dots `..` to show machines already used in the project.
6. Check **Availability** in the middle table.
7. Double-click an entry to assign the machine.
8. Enter workload and notes if required.
9. Confirm with **OK**.



Fields and displays for machinery:

Field / display	Meaning
Machine	Concrete machine from the machinery pool.
Workload (%)	Workload of the machine for this task.
Availability	Percentage of possible machine capacity within the task period, adjusted for participation in other tasks.
Balance	Dynamic difference between requested number for the machine type and the summed number of assigned machines of the same type.
Number-workload	Required number of machines and workload for the machine type. Disabled by default.
Notes	Optional notes about the machine in the task context.

6.6.7 General Notes

- **Maintain the resource pool first:** All assignable resources must exist in the resource pool before they can be assigned to a task.
- **Resource utilization views:** Resource utilization views exist for roles, teams, employees, machine types, machinery, and material. They show bottlenecks before assignments become binding.
- **Time entry:** Completed working hours are shown on the **Timesheet** tab of task or employee properties after they have been entered in Rillsoft Integration Server. See *Employee Time Entry*.

6.6.8 Related Topics

- *Assign Employees Directly*
- *Assign Employees After Capacity Balancing*
- *Employee Time Entry*
- *Resource View Variants*
- *Perform Capacity Balancing*
- *Dialogs*
- *Manage the Resource Pool*

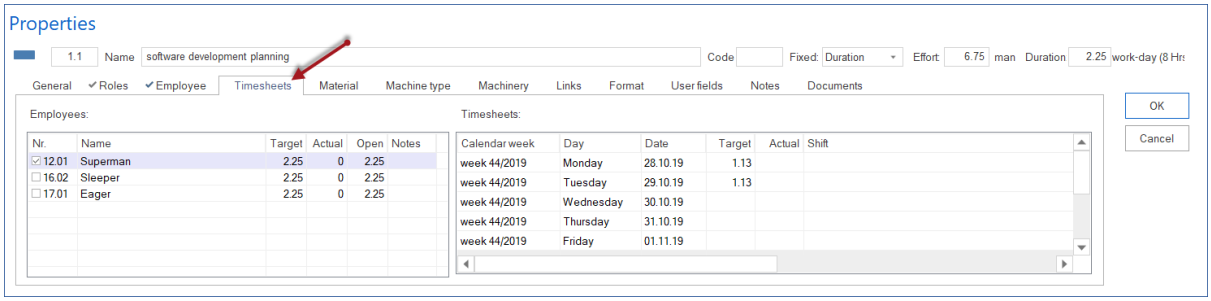
6.7 Employee Time Entry

Use this page to display information about completed working hours by task and employee.

Prerequisite: You or assigned employees can enter time entries only in the Rillsoft Integration Server interface. In Rillsoft Project, time entry data can only be read after it has been entered in Rillsoft Integration Server.

6.7.1 Time Entry in Task Properties

1. Open the properties window of a task by double-clicking the task in the Gantt chart or task list.
2. Open the **Timesheet** tab.



Employees

All employees assigned to the task are listed here.

Column	Meaning
Name	Name of the assigned employee.
Effort	Planned effort for this employee in the task.
Close	Effort already completed by the employee for the task.
Open	Remaining open effort for this employee in the task.
Notes	Optional notes.

Timesheet

For an employee selected on the left, you can see how the employee worked on the task day by day.

Column	Meaning
Week	Calendar week in which the employee worked on the task.
Weekday	Day of the week on which the employee worked on the task.
Date	Date.
Effort	Planned effort for this employee on the day and for the task.
Close	Effort already completed by the employee on that day.
Shift	Time of day.

6.7.2 Time Entry in Employee Properties

1. Open the properties window of an employee by double-clicking the employee in a resource view.
2. Open the **Timesheet** tab.

Activities

All tasks assigned to the employee are listed here.

Column	Meaning
Name	Name of the assigned task.
Effort	Planned effort for this employee in the task.
Close	Effort already completed by the employee for the task.
Open	Remaining open effort for this employee in the task.
Notes	Optional notes.

Whether effort is displayed in person-hours or person-days depends on project settings.

Timesheet

For a task selected on the left, you can see how the employee worked on the task day by day.

Column	Meaning
Week	Calendar week in which the employee worked on the task.
Weekday	Day of the week on which the employee worked on the task.
Date	Date.
Effort	Planned effort for this employee on the day and for the task.
Close	Effort already completed by the employee on that day.
Shift	Time of day.

6.7.3 Relation to Target/Actual Comparison

Employee-level time entry is a basis for project-wide target/actual comparison. It complements task progress with actual resource consumption.

After time entry, check:

- whether actual effort of individual employees is within the plan
- whether individual employees worked significantly more or less than planned
- whether deviations are caused by planning errors or project changes

6.7.4 Related Topics

- *Check Employee Assignments*
- *Perform Target/Actual Comparison*
- *Target/Actual Comparison Views*
- *Resource View Variants*

6.8 Distinction From Resource Planning

Resource planning answers which demand arises and whether resource supply is generally sufficient.

Resource assignment then answers which concrete employee performs which task.

This separation is important:

- Resource planning first works with professional qualifications.
- Capacity balancing checks demand against supply.
- Resource assignment makes the assignment binding.

6.9 Variant 1: Direct Employee Assignment

Direct assignment is useful when:

- only a few employees are involved
- the project is manageable
- no complex bottlenecks are expected
- the project manager knows availability well
- no prior qualification-based planning is required

In this variant, you select a task and assign an employee directly.

6.10 Variant 2: Assignment After Capacity Balancing

Assignment after capacity balancing is the recommended path when:

- several employees have the same professional qualification
- roles or professional qualifications were planned in advance
- working times and non-working days are relevant
- several projects compete for the same capacity
- bottlenecks should be detected before binding assignment

In this variant, tasks are first planned with professional qualifications. Then capacity balancing shows whether matching working capacity is available in the planned period. Employees are assigned only after that.

6.11 Important Views and Functions

Important: Before assignment, check whether you are working with a general resource pool. If the status bar shows **Project resources**, switch to the resource pool.

For resource assignment, these views and functions are especially relevant:

- **Gantt chart** for assigning resources directly at a task

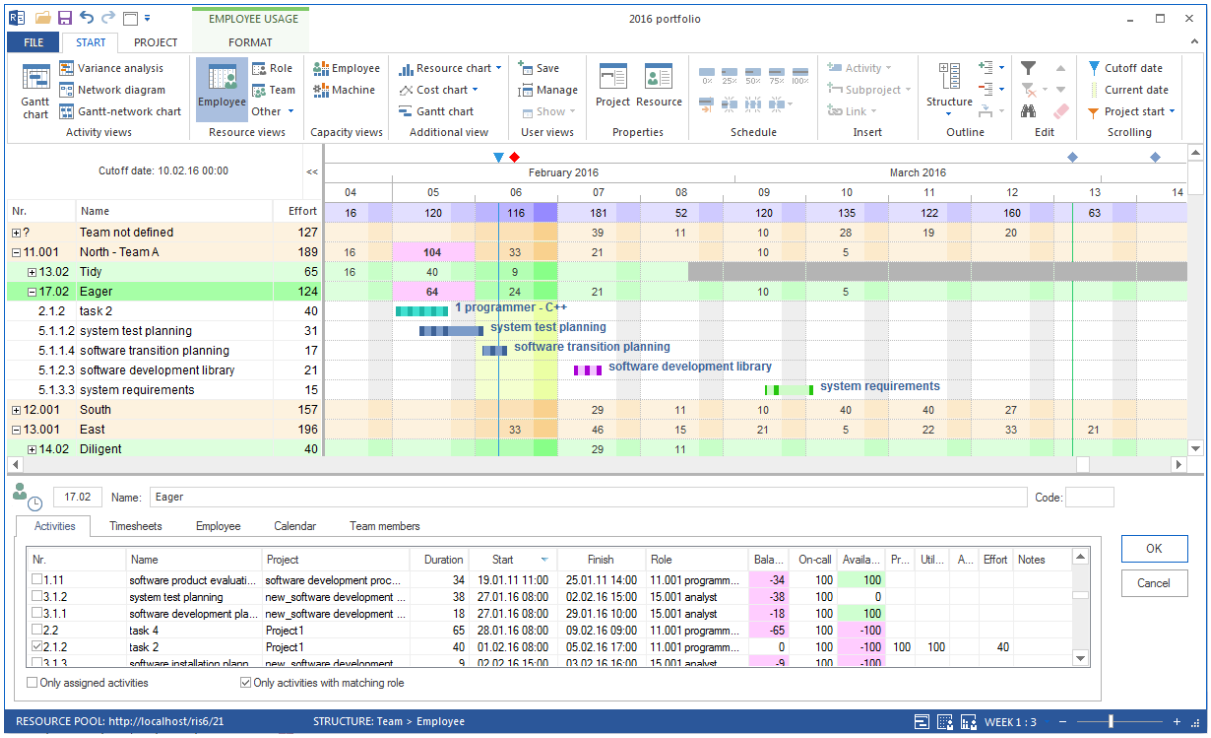
- **Employee view** for assigning tasks to an employee
- **Human Resource Capacity Balancing** for assignment after qualification-based planning
- **Grouped resource views** for analysis by employee, project, team, and professional qualification
- **Filter** to select all or specific employees
- **Activities with matching role only**
- **Activities** tab in the resource properties window
- **Employee**, **Calendar**, and **Team members** tabs for checking availability
- **Additional Gantt chart** (**Start > Additional view > Gantt chart**) to show the Gantt chart beside a resource view
- **Additional resource diagram** (**Start > Additional view > Resource diagram**) to compare demand and supply by role
- **Additional cost diagram** (**Start > Additional view > Cost diagram**) for cost evaluation beside the resource view

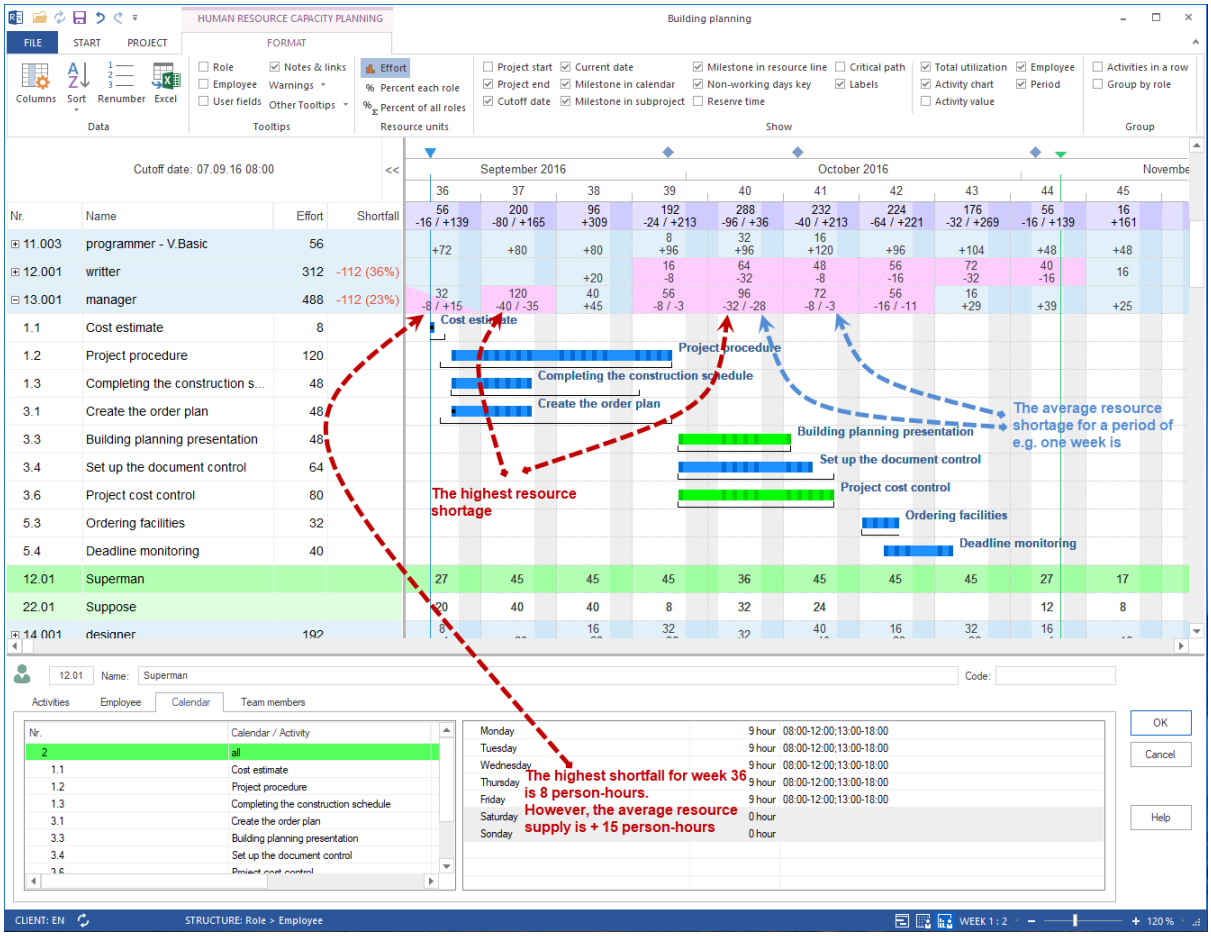
6.12 Group Resource Views for Assignment

A simple employee list is often not enough for resource assignment. Grouped resource views show in which project an employee is already planned, which professional qualification the employee covers, and whether an assignment remains plausible in a team or portfolio context.

Typical groupings for resource assignment are:

- **Employee > Project** to check which projects an employee is distributed across
- **Role > Employee** to find suitable employees for a professional qualification
- **Project > Role > Employee** to see which qualifications a project needs and which employees cover them
- **Team > Employee** to evaluate utilization inside a team





Open a resource or capacity view and choose **Start > Outline > Grouping**.

This analysis is especially important before a binding assignment. It helps avoid assigning an employee directly to a task even though the employee is already fully loaded in another project.

6.13 Decision Guide

Situation	Recommended variant
Small project, few employees, clear responsibilities	Direct employee assignment
Several suitable employees with the same professional qualification	Assignment after capacity balancing
Vacation, illness, shift calendars, or non-working days are relevant	Assignment after capacity balancing
Several projects share the same employees	Assignment after capacity balancing
One known employee should deliberately be fixed	Direct assignment, then check utilization

6.14 Result of Resource Assignment

After resource assignment, you should know:

- which employee is assigned to which task
- with which workload or effort the employee is planned
- whether the assignment matches the professional qualification
- whether availability, calendars, and non-working days were considered
- whether overload or multiple booking arises
- whether the assignment is plausible in the portfolio context

6.15 Next Steps

After assignment, check utilization and dates. If deviations occur, return to resource planning, capacity balancing, or project planning.

- *Check Employee Assignments*
- *Resources and Capacities*
- *Group Resource Views*
- *Project Control*

resource assignment, employee assignment, capacity based assignment, direct assignment, resource planning, resource demand, resource supply, project manager, resource manager

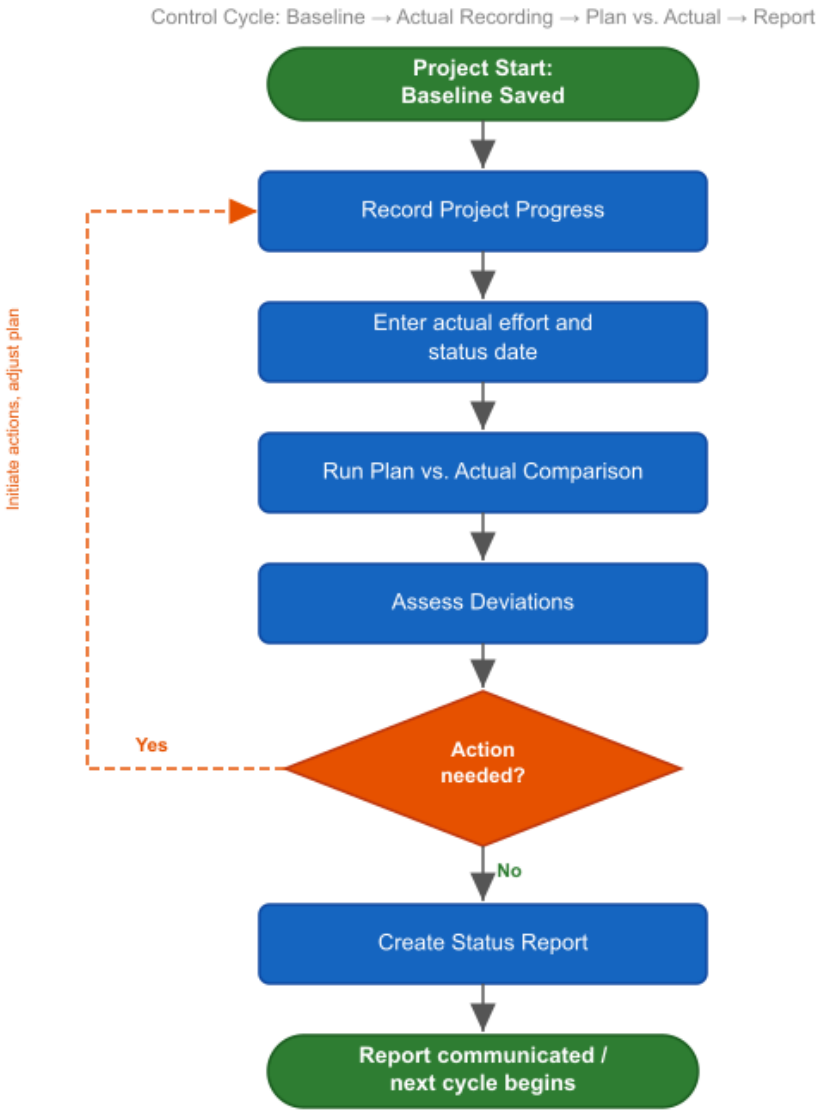
CHAPTER

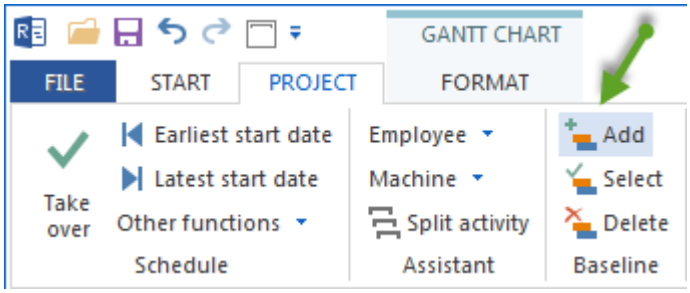
SEVEN

TARGET/ACTUAL COMPARISON AND PROJECT CONTROL

This section explains how to check a running project plan against the planned state, evaluate deviations, and prepare control decisions.

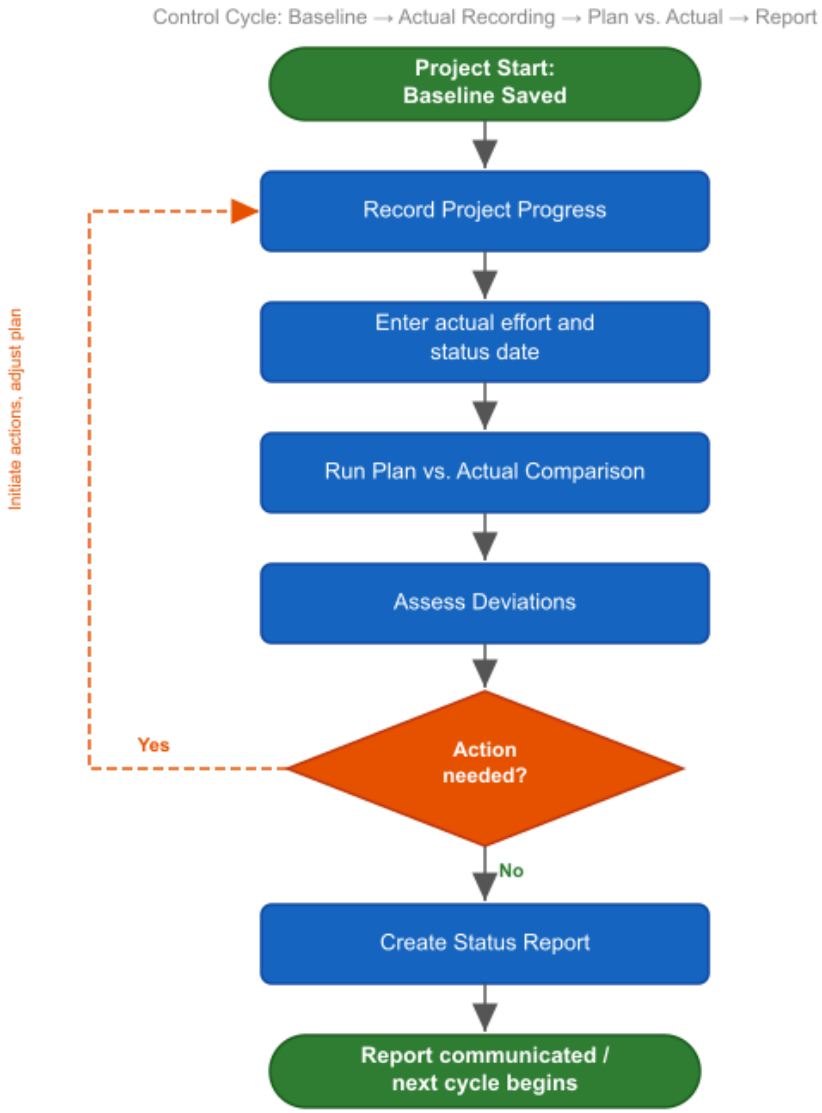
Rillsoft Project connects project control with scheduling, resource planning, and project controlling. A baseline stores the planned state. Progress data, cutoff date, actual effort, and current assignments then show whether dates, effort, resources, and costs are still within the expected range.





7.1 Save Baseline and Enter Progress

A target/actual comparison is meaningful only when you have a clear reference state. This reference state is the baseline. It records which dates, effort, resources, and costs were planned at a specific point in time.



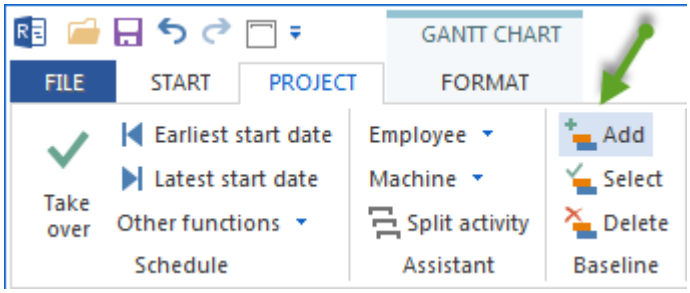
Save a baseline when the project plan has been professionally approved or when you want to document an important plan state. This may be useful before project start, after a major replanning, or before a status meeting.

7.1.1 Save a Baseline

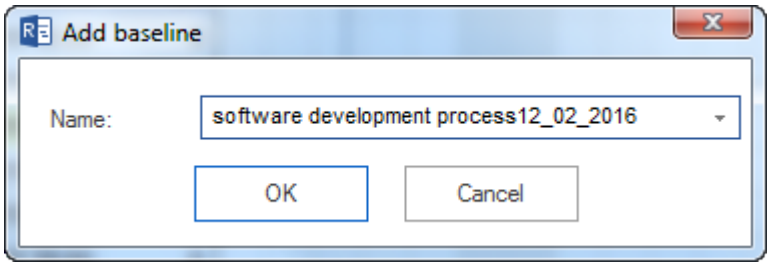
Goal: The approved plan state is available as a comparison basis.

Workflow:

1. Check whether dates, tasks, resource demand, employee assignments, and costs are plausible.
2. Open **Project > Baseline > Add**.



3. Enter a clear name, for example `Planning approval 2026-05`.
4. Confirm the dialog.



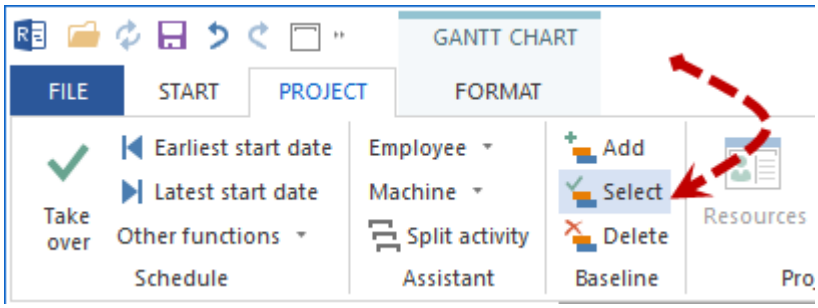
Result: Rillsoft Project stores the current project state as a baseline. You can maintain several baselines in the project and document different plan states.

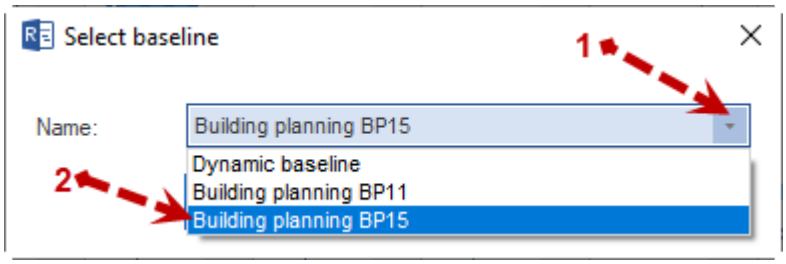
7.1.2 Select a Baseline

Goal: The correct reference plan is used for comparison.

Workflow:

1. Open **Project > Baseline > Select**.
2. Select the required baseline from the list.
3. Confirm the selection.





For status reports, use the same baseline as long as the original plan remains valid. Change the baseline only deliberately, for example after approved replanning.

7.1.3 Delete a Baseline

Baselines document earlier plan states. Deleting a baseline is permanent, so delete one only when it is no longer professionally needed.

Delete when:

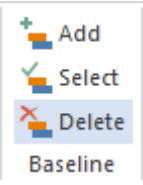
- test baselines were saved accidentally
- old baselines make evaluations unclear
- older plan states are no longer relevant after a project restart

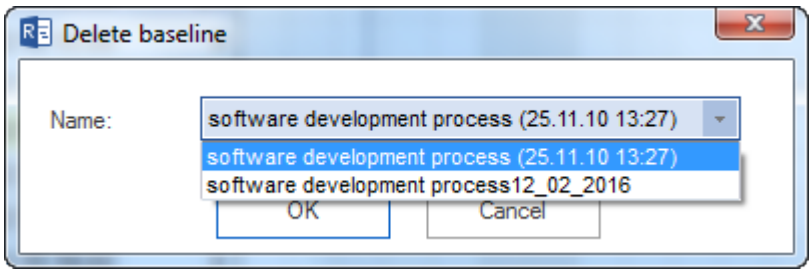
Do not delete when:

- the baseline is still needed for current or future target/actual comparisons
- the baseline is a contractual basis or evidence for customers
- status reports or evaluations still refer to it

Workflow:

1. Open **Project > Baseline > Delete**.
2. Select the baseline to delete.
3. Click **Delete**.
4. Confirm the prompt.

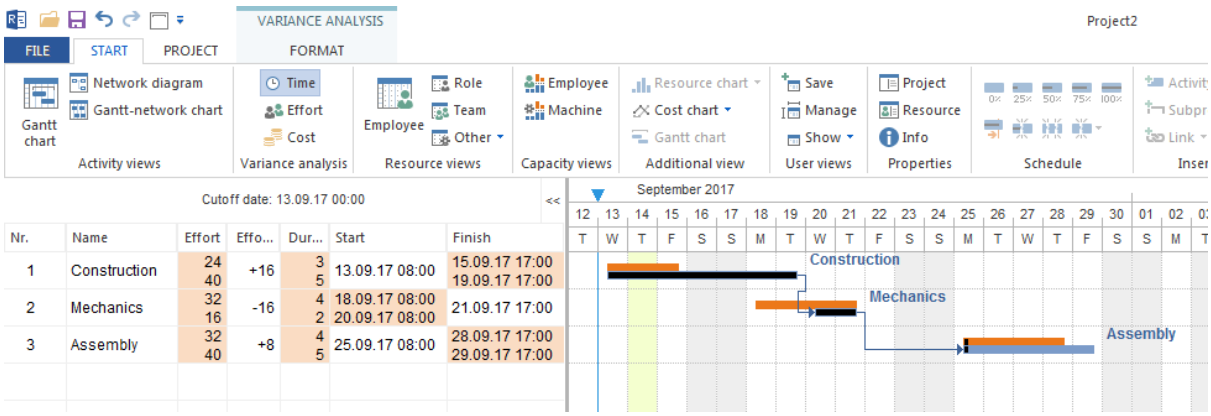




Deleting a baseline cannot be undone. If you are unsure, keep the baseline or export the project state before deleting it.

7.1.4 Use a Dynamic Baseline

A dynamic baseline is useful when several baselines exist and tasks were updated at different times.



Rillsoft Project can then automatically use a suitable reference state per task:

- For tasks that have not started, the latest saved baseline is used.
- For started tasks, the baseline saved before the last progress entry is used.

Prerequisites:

- Several baselines are saved.
- Progress or actual effort is maintained regularly.

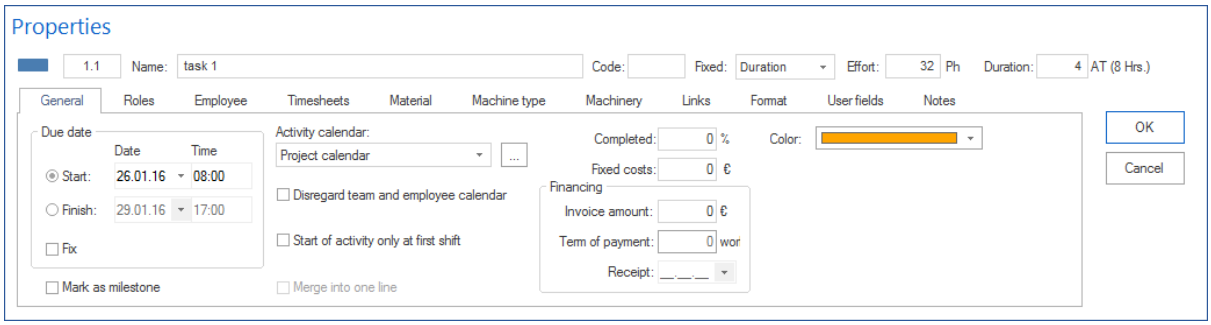
> **Note**
>
> The more baselines are saved in a project, the larger the project file becomes. Save baselines deliberately at professionally important points, not after every small change.

7.1.5 Enter Progress

Goal: The current implementation state is stored on the tasks.

Progress can be entered in several ways:

- on the **General** tab of task properties
- from a task context menu
- directly in the Gantt table when the relevant columns are visible



Enter at least completion percentage per task. Completion percentage is entered directly in Rillsoft Project.

Important

Actual effort and time entries can be entered by you or assigned employees only in the Rillsoft Integration Server interface. In Rillsoft Project, time entry data can only be read after it has been entered in Integration Server.

7.1.6 Set the Cutoff Date

The cutoff date is the date up to which progress is evaluated. It makes visible which tasks should have started or finished by then.

Set the cutoff date before target/actual comparison. Then check:

- Which tasks are late on the cutoff date?
- Which tasks have progress although they should not have started according to the plan?
- Which tasks have started but are not updated sufficiently?
- Which resource problems explain the deviation?

7.1.7 Typical Mistakes

- The baseline is saved only after the project has already changed.
- The wrong baseline is selected for comparison.
- Progress values are maintained irregularly or only for selected tasks.
- The cutoff date is moved without updating progress data.
- A new baseline replaces deviation analysis although the cause has not been clarified.

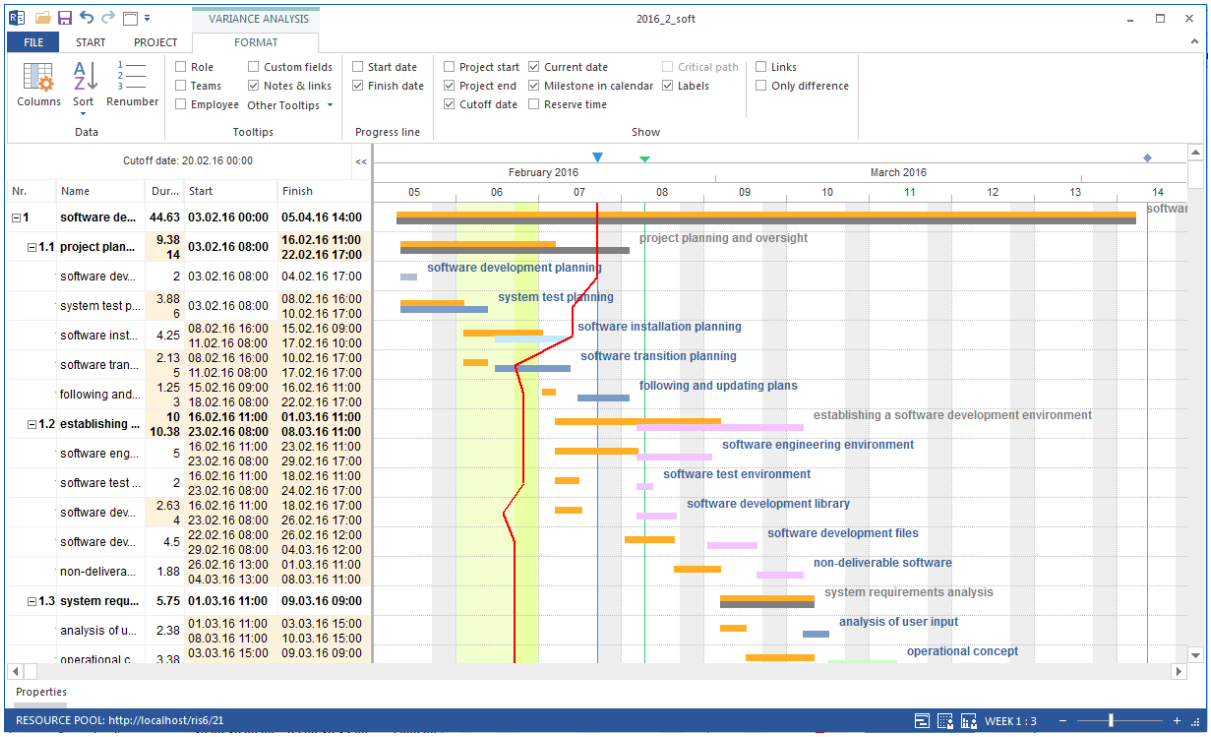
7.1.8 Related Topics

- *Perform Target/Actual Comparison*
- *Evaluate Deviations*
- *Perform Capacity Balancing*

baseline, base plan, progress, actual values, reporting date, target actual comparison, deviation, project manager

7.2 Perform Target/Actual Comparison

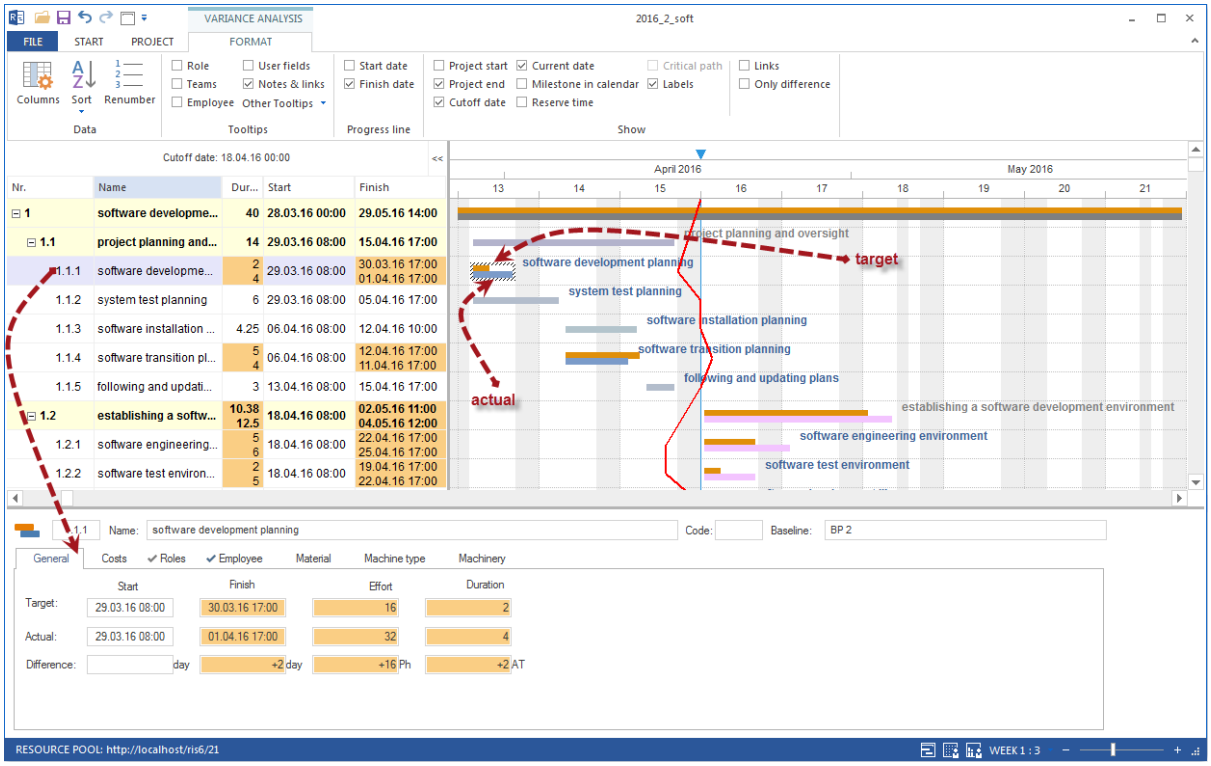
Target/actual comparison shows how strongly the current project state deviates from the selected baseline. It is the central evaluation for project controlling in Rillsoft Project.

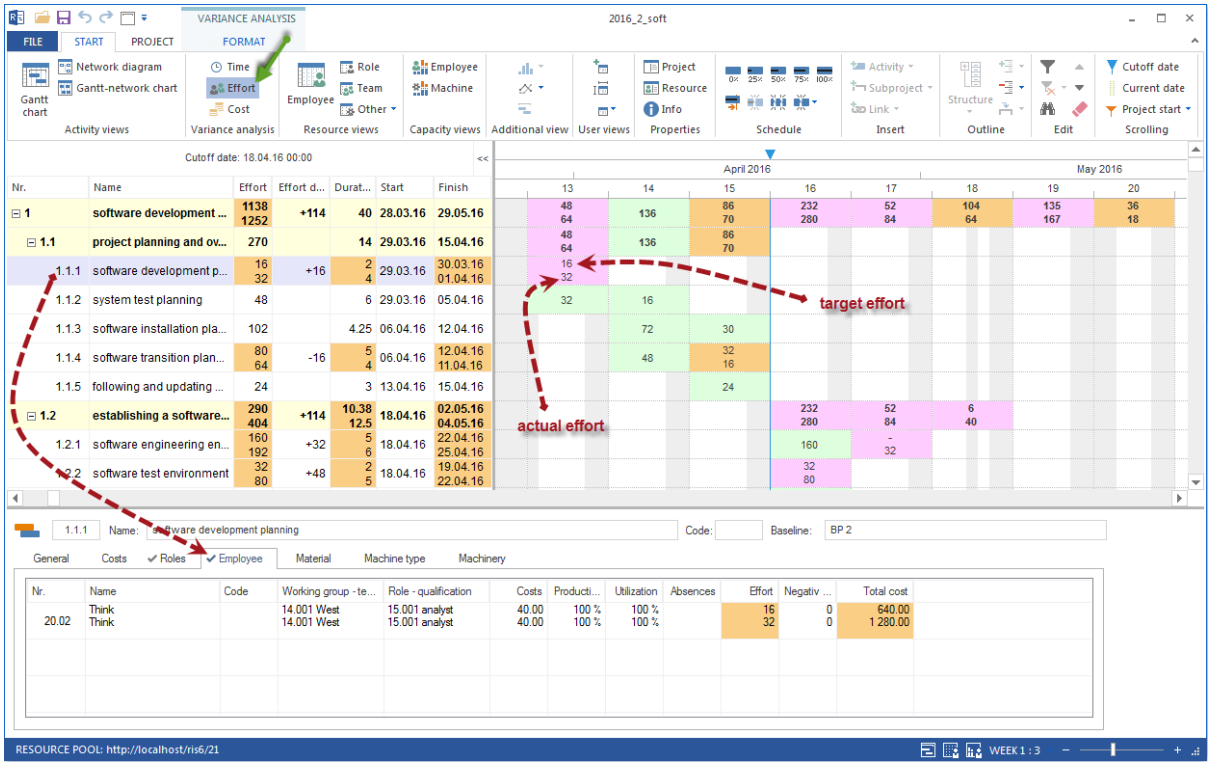


Rillsoft Project can show deviations graphically and in tables. This helps you see not only that a project deviates from the plan, but also which tasks, resources, or cost items are affected.

7.2.1 Prerequisites

Before starting target/actual comparison, check:





- A baseline is saved.
- The correct baseline is selected.
- Progress, actual effort, or time entries are maintained.
- The cutoff date is set.
- Resource and cost data is current enough for evaluation.

7.2.2 Use Variance Analysis

Variance analysis is the entry point for evaluation. It shows deviations between the current state and the baseline for:

- dates
- effort
- costs

Changed values are highlighted in table and diagram. The table places planned state next to current state so you can see whether a problem comes from a date shift, increased effort, or changed costs.

7.2.3 Check Schedule Deviations

Goal: Detect whether tasks, subprojects, or milestones deviate from the planned period.

Use the time deviation view when:

- a task starts or finishes later than planned
- the project finish date is endangered

- a critical task deviates from the baseline
- you need to see whether a delay affects successor tasks

Check especially:

- task start and finish
- critical path
- dependencies to successors
- free float
- cutoff date and progress line

7.2.4 Check Effort Deviations

Goal: Detect whether actual or expected effort deviates from the baseline.

Use the effort deviation view when:

- tasks need more work than planned
- actual effort from time entries is available
- remaining effort no longer matches remaining schedule
- resource bottlenecks arise from higher effort

An effort deviation is especially critical when it also affects the schedule or resource utilization.

7.2.5 Check Cost Deviations

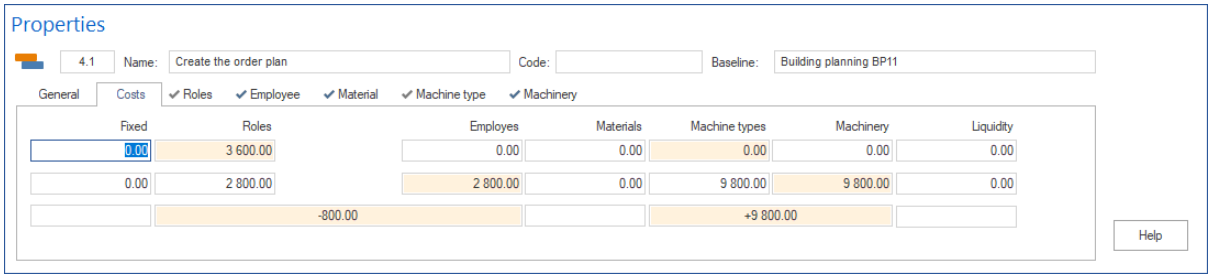
Goal: Detect whether resource costs or total costs deviate from the planned state.

Use the cost deviation view when:

- employee, machine, or material costs are higher than planned
- increased effort causes additional costs
- project budget or financing must be checked
- commercial project owners need deviation analysis

7.2.6 Check Tasks and Subprojects in Detail

If a row in target/actual comparison is conspicuous, open the properties of the task or subproject. There you can check deviations in detail on the tabs.



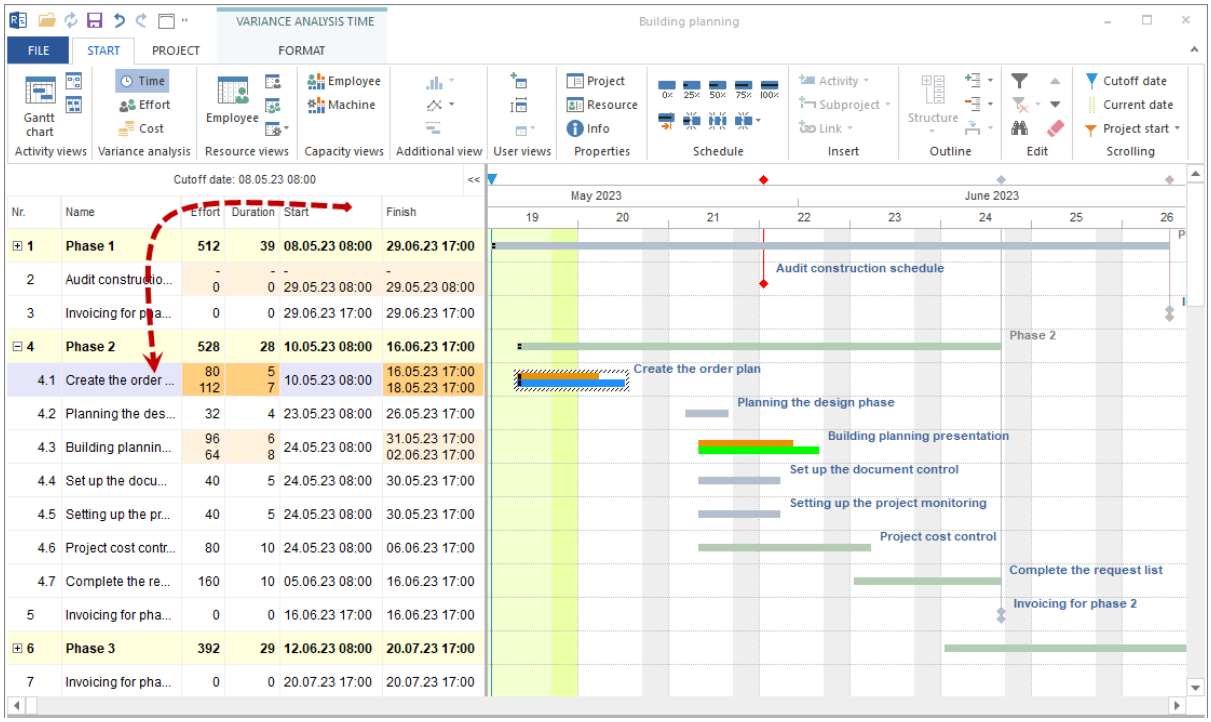
For tasks, these tabs are especially relevant:

- **General** for start, finish, duration, and effort
- **Costs** for resource costs
- **Roles** for planned and current role demand
- **Employees** for planned and current employee assignment
- **Material**, **Machine types**, and **Machinery** for non-human resources

For subprojects, also check shared machine types and shared machinery when they are relevant to planning.

7.2.7 Check the Result

After target/actual comparison, you should know for each major deviation:



- What deviates?
- Since when is the deviation visible?
- Does it affect dates, effort, costs, or resources?
- Is a single task affected or a whole project area?
- Does it create risk for finish date, budget, or capacity?

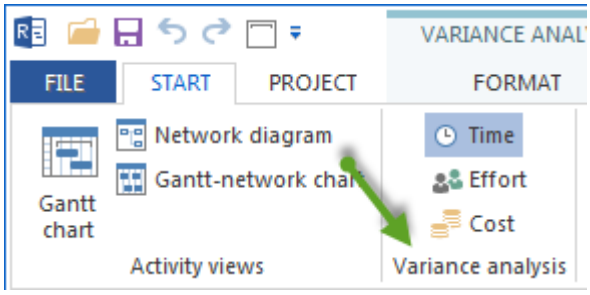
7.2.8 Related Topics

- *Baseline and Progress*
- *Evaluate Deviations*
- *Control Project Financing*

target actual comparison, variance analysis, only difference, progress line, actual effort, baseline comparison, baseline, progress, reporting date, deviation, project manager, pmo

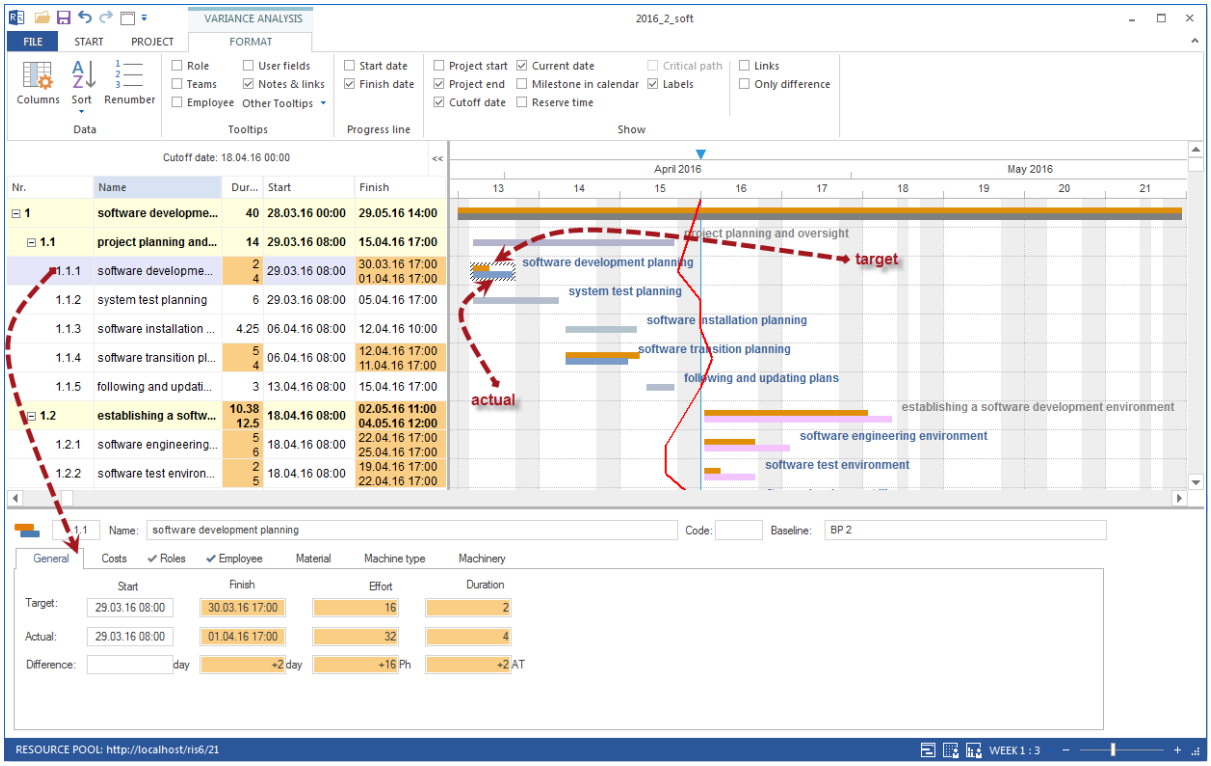
7.3 Target/Actual Comparison Views

This article describes the three target/actual comparison views, detail checks through task and subproject properties in analysis mode, and available format options.



All three views compare the current project state with a saved baseline. They are opened with **Start > Variance analysis**.

7.3.1 Target/Actual Comparison Time



Open: **Start > Variance analysis > Time**

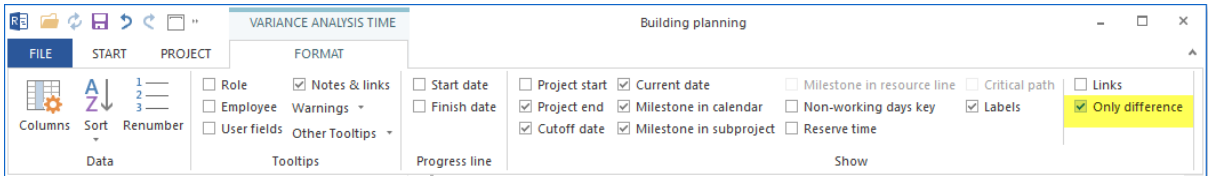
Shows date deviations between current project plan and baseline. Tasks and subprojects are shown in two rows: the first row contains planned properties, the second row current properties. Values that differ from the baseline are highlighted.

Typical use cases:

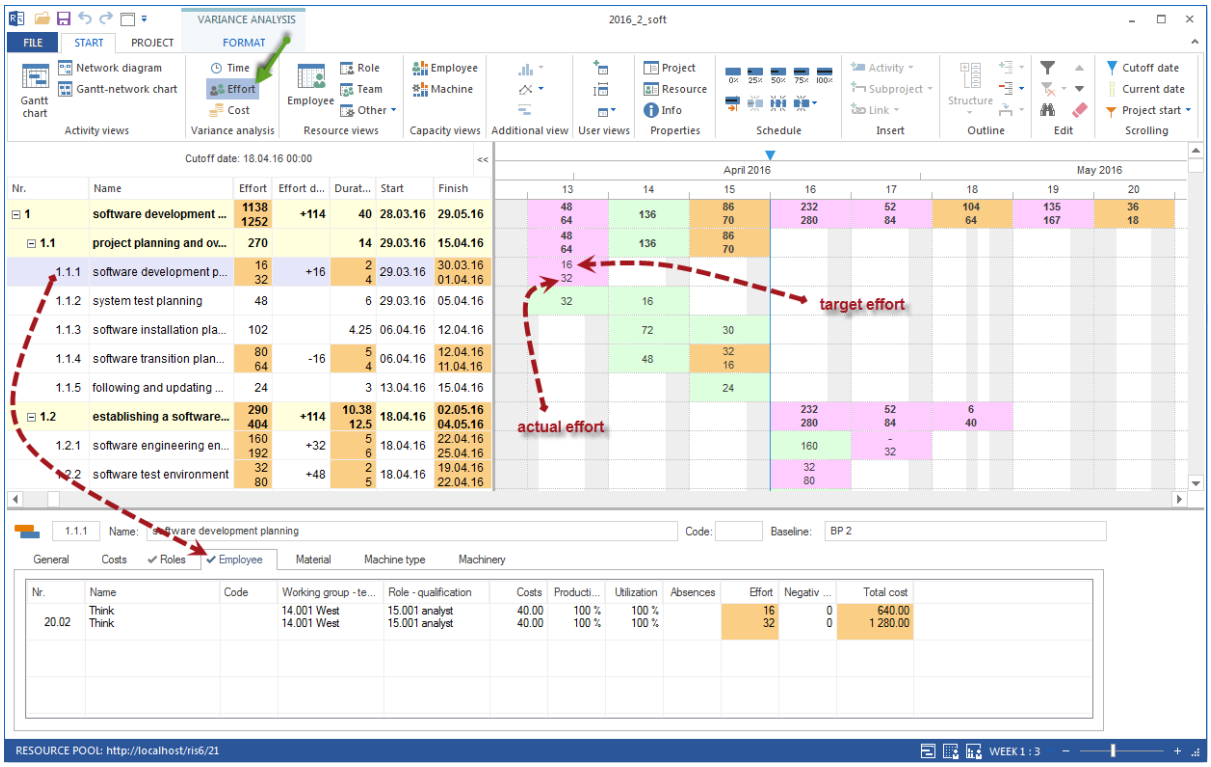
- visualize the date difference between target and actual
- show schedule deviations graphically
- detect delays quickly with a progress line

Format options:

- **Progress line start dates**: line based on task start dates
- **Progress line finish dates**: line based on task finish dates
- **Only difference**: shows only tasks and subprojects that differ from the baseline



7.3.2 Target/Actual Comparison Effort

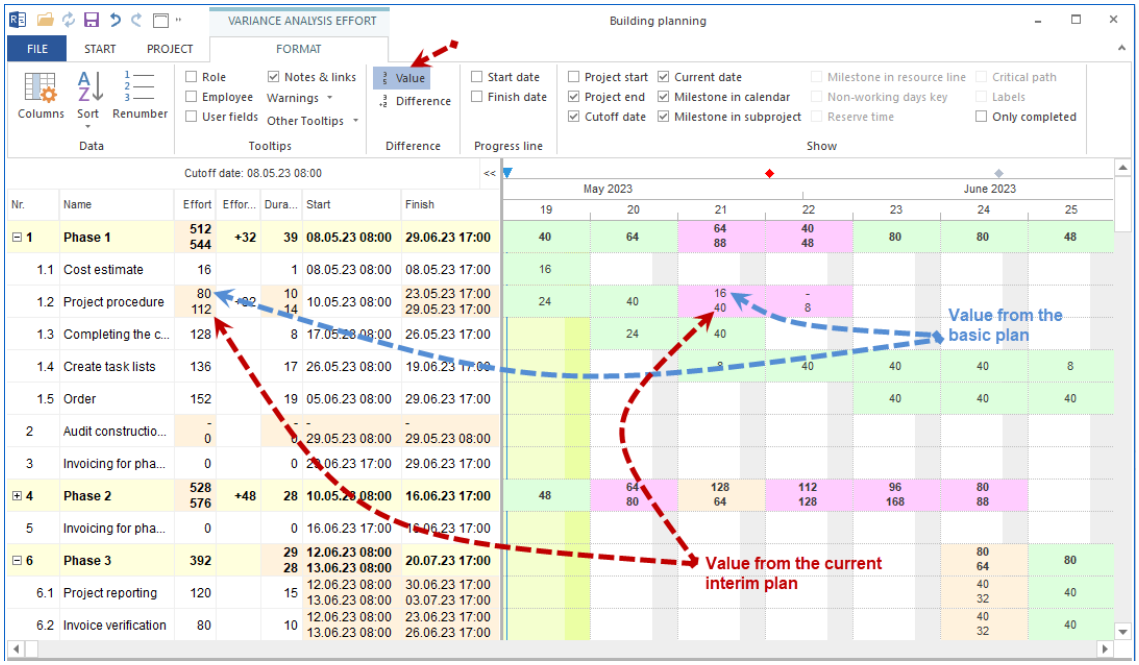


Open: **Start > Variance analysis > Effort**

Shows the difference between effort saved in the baseline and current effort. It visualizes effort deviations per task over the time scale.

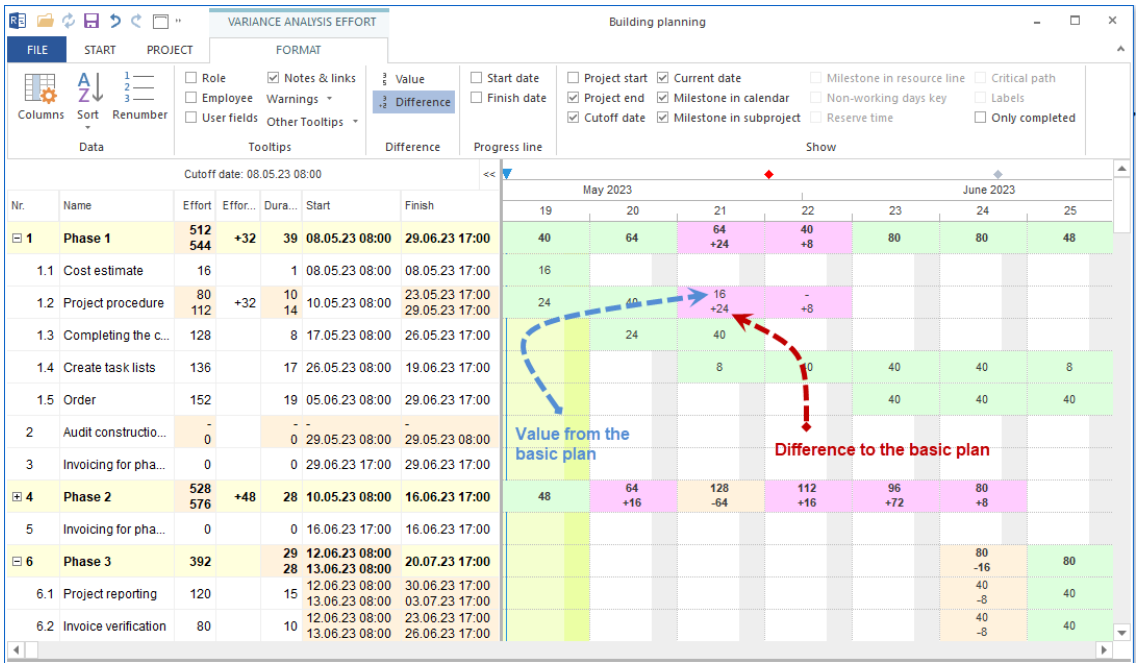
Format options:

Value
: Shows baseline effort and current effort side by side.



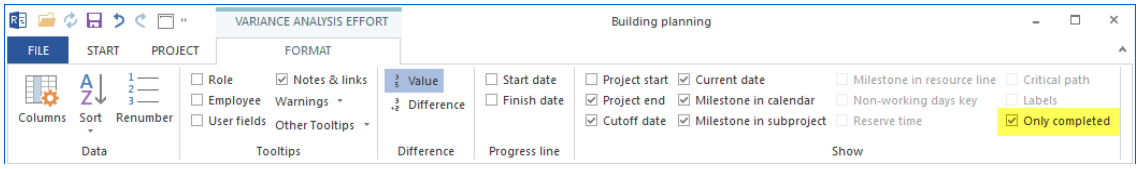
Difference

Shows baseline effort and deviation from the baseline.

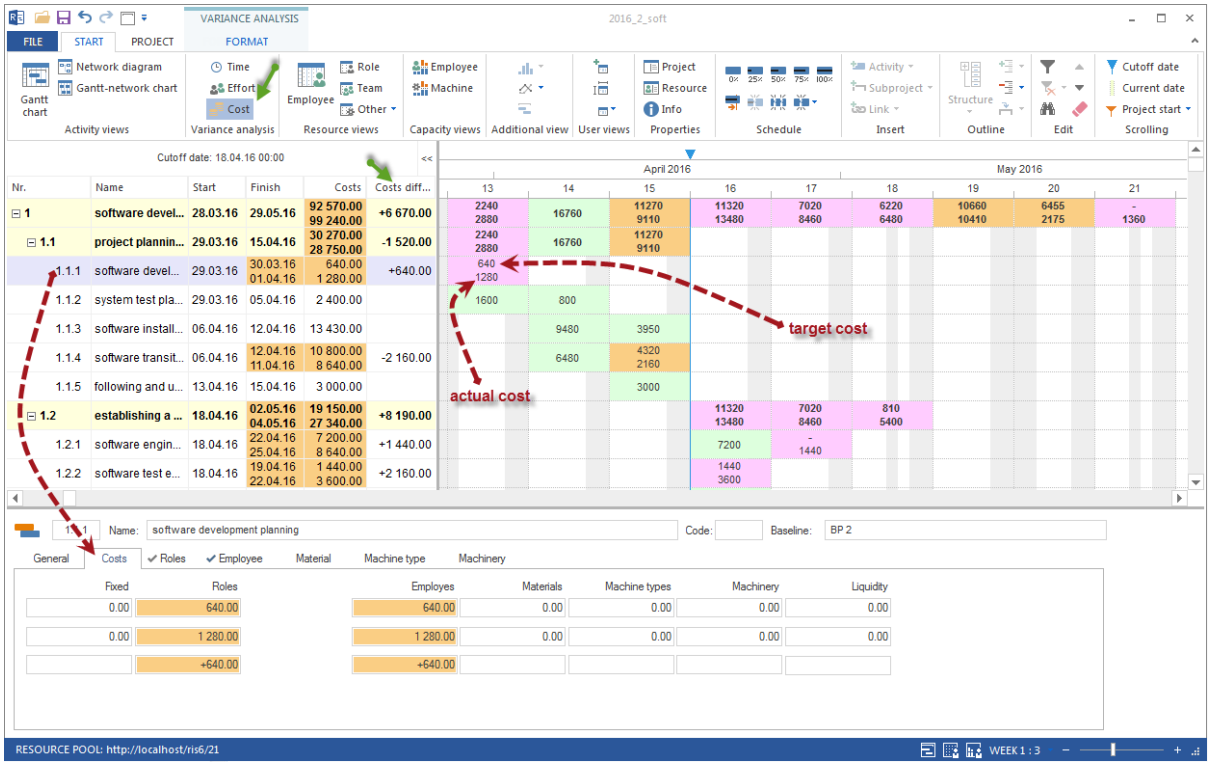


Completed only

Compares only tasks on which work has already been performed. For a task that is 100% complete, total effort is compared. For a task that is 50% complete, current 50% effort is compared with planned 50% effort.



7.3.3 Target/Actual Comparison Costs



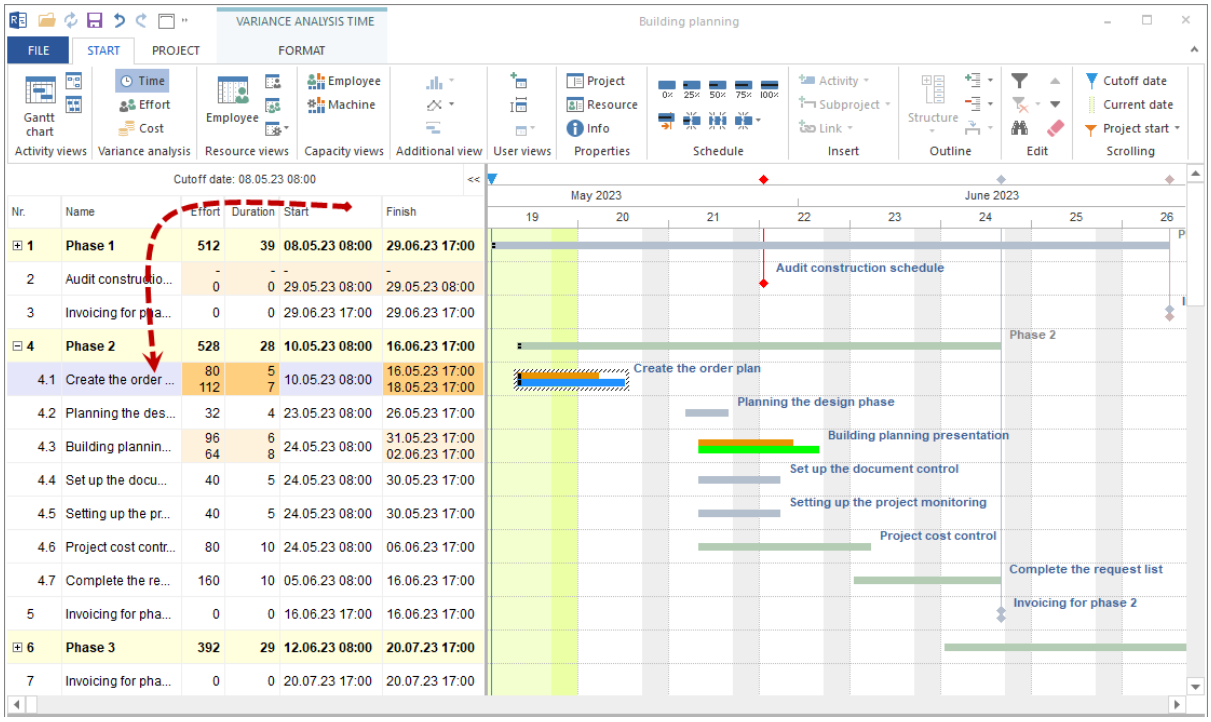
Open: **Start > Variance analysis > Cost**

Shows the difference between current costs and costs saved in the baseline. It visualizes cost deviations over the time scale.

Format options correspond to effort comparison: value, difference, and completed only.

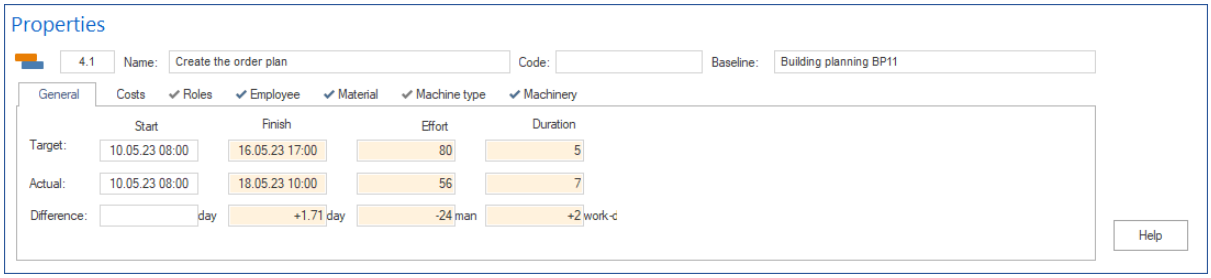
7.3.4 Task Properties in Analysis Mode

When you click a row in a target/actual comparison view, the properties window shows the deviations of this task in detail.



The deviations are visible on seven tabs:

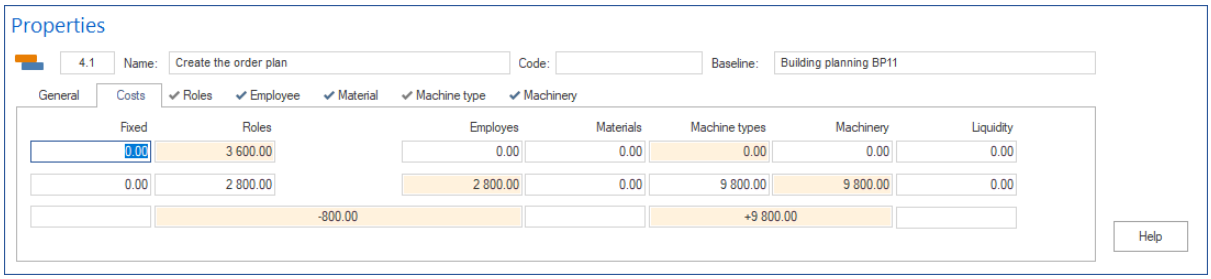
General



Shows deviations and summed difference between planned and current values for:

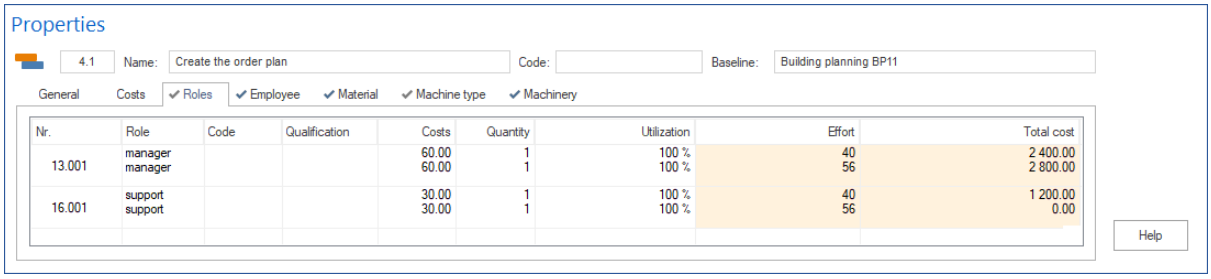
- start date and finish date
- effort
- duration

Costs



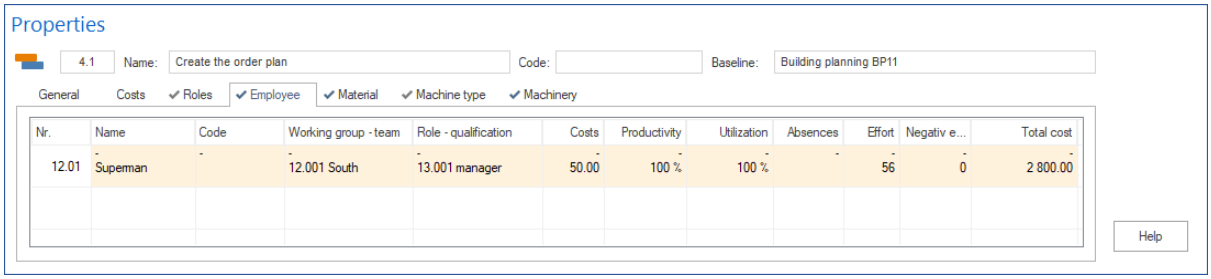
Target/actual deviations for resource costs of the task.

Roles



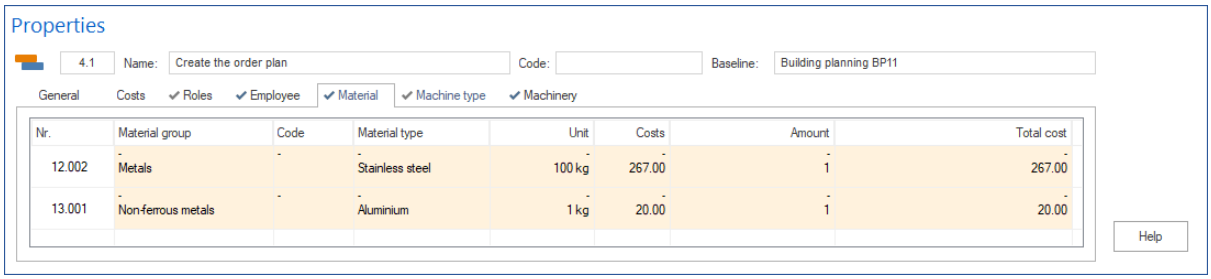
Comparison between planned and actual role demand. Shows which professional qualifications were originally planned and which are currently assigned.

Employees



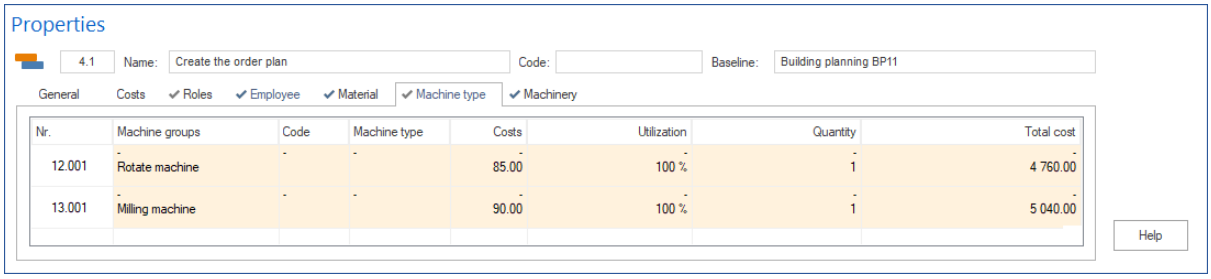
Comparison of employee assignment: originally planned employees against currently assigned employees.

Material



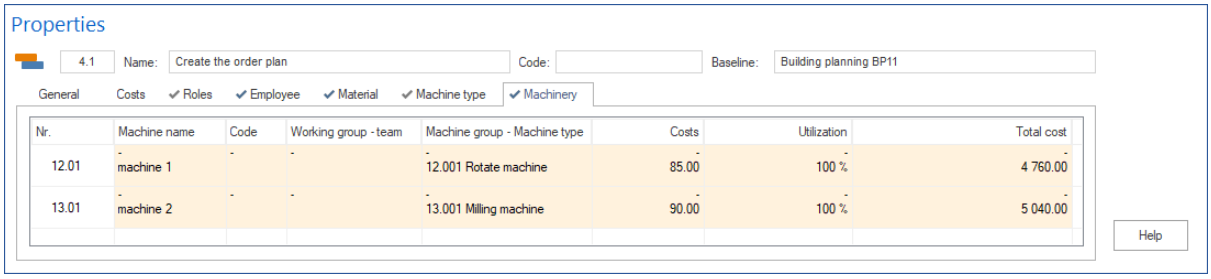
Comparison between planned and actual material use.

Machine types



Comparison between planned and actual demand for machine types.

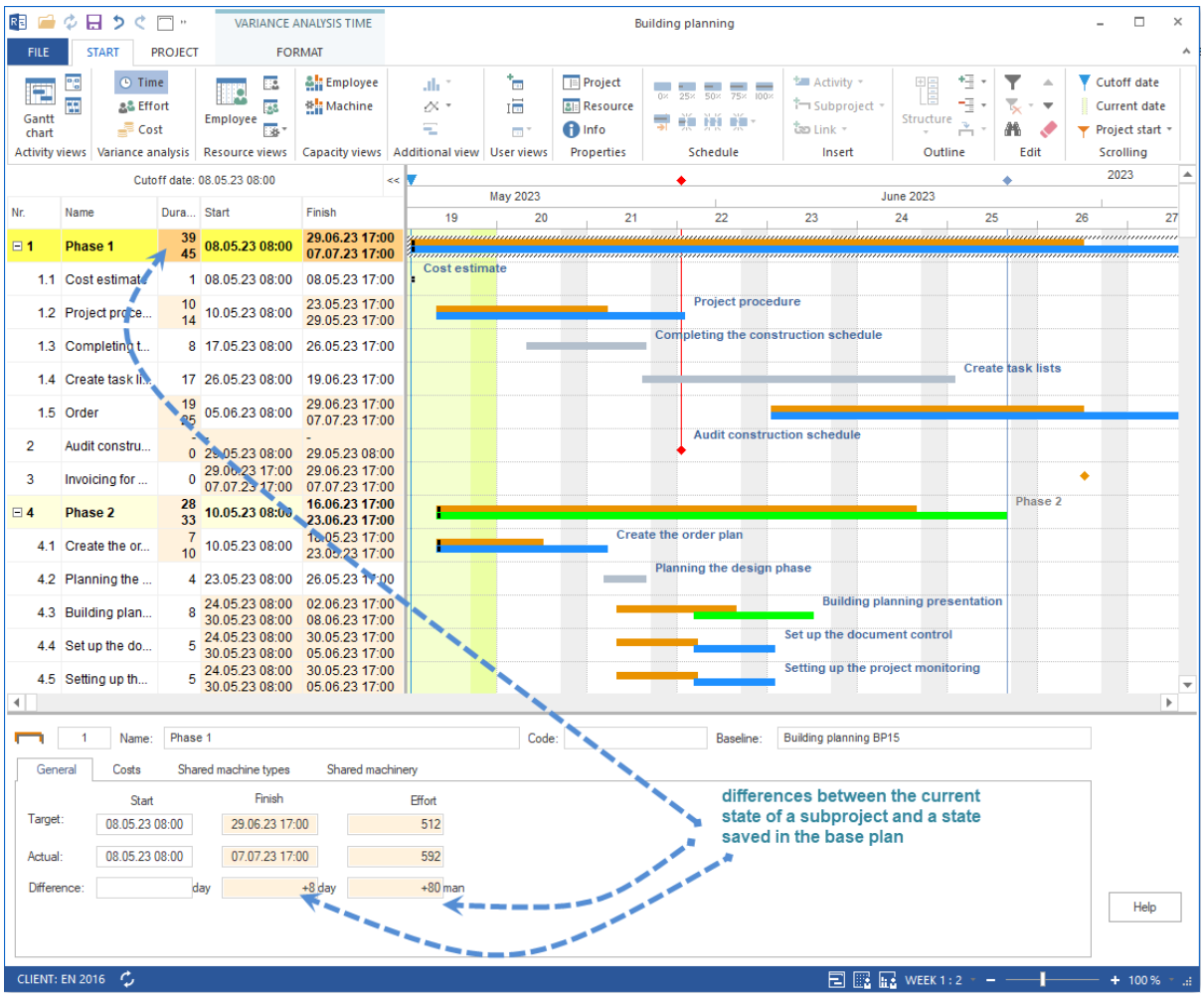
Machinery



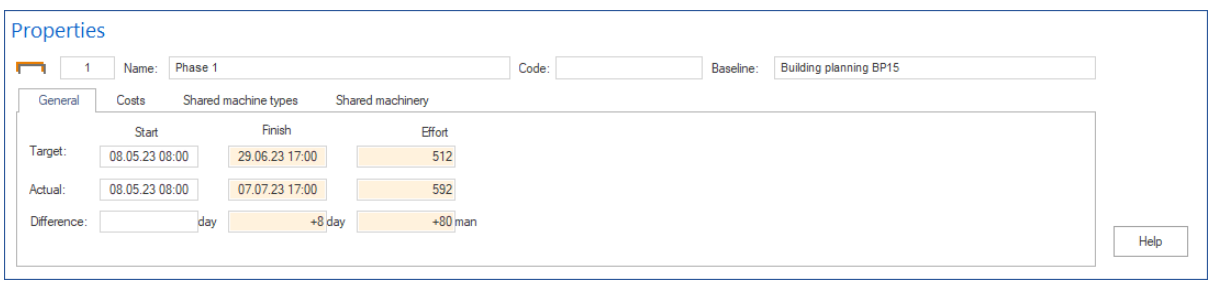
Comparison between planned and actual machinery demand.

7.3.5 Subproject Properties in Analysis Mode

When you click a subproject in the target/actual comparison view, the properties window shows deviations on four tabs:

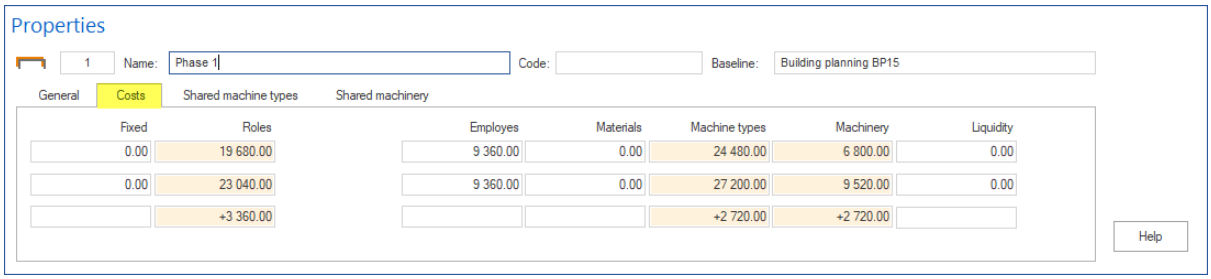


General



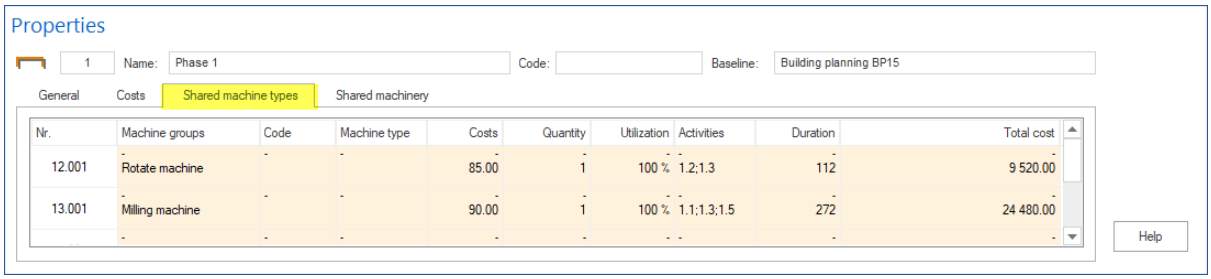
Deviations for subproject start, finish, effort, and duration.

Costs



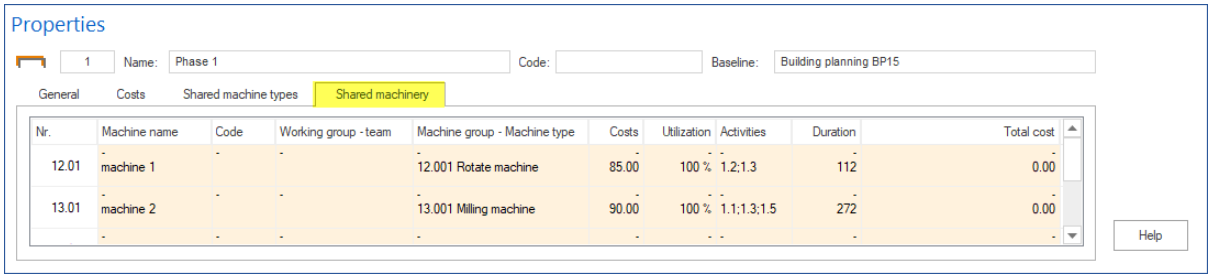
Target/actual deviations for resource costs of the subproject.

Shared machine types



Comparison between planned and actual demand for shared machine types in the subproject.

Shared machinery



Comparison between planned and actual demand for shared machinery in the subproject.

7.3.6 Related Topics

- *Perform Target/Actual Comparison*
- *Baseline and Progress*
- *Evaluate Deviations*
- *Customize Views*

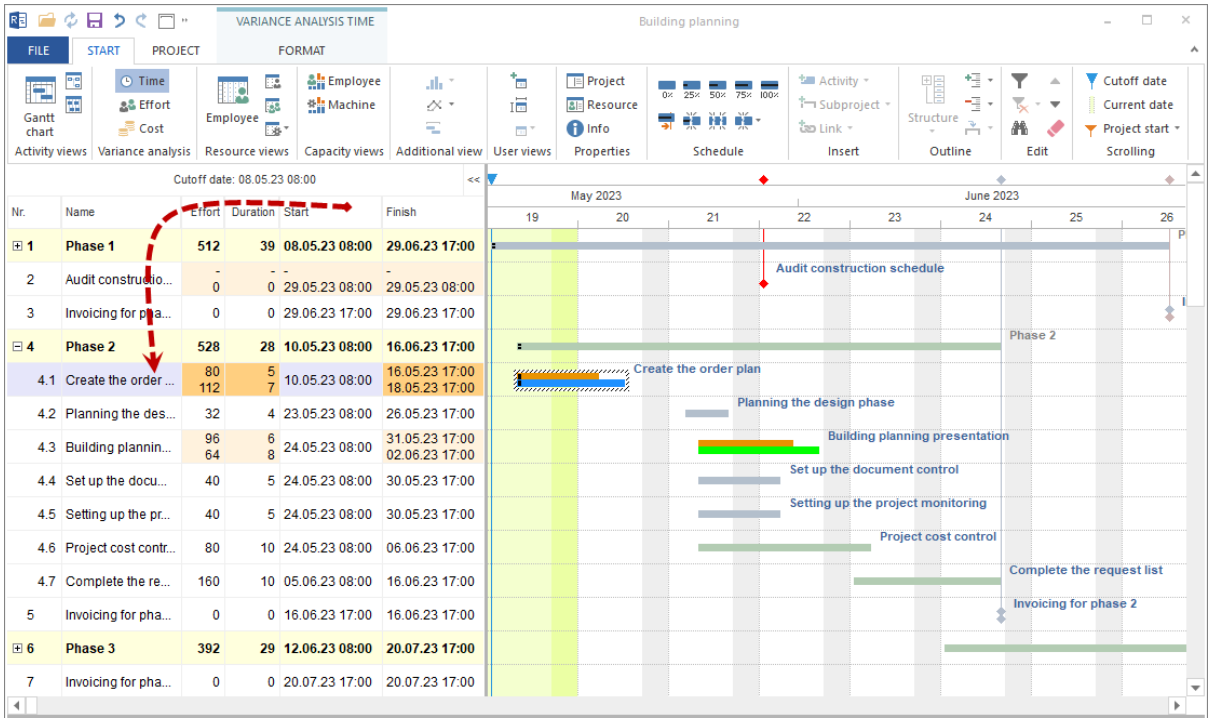
7.4 Evaluate Plan Deviations

Not every deviation requires replanning. The decisive question is whether the deviation changes the project finish date, resource situation, costs, or the decision basis for the portfolio.

Do not evaluate deviations in isolation. A schedule deviation can be caused by missing capacity. A cost deviation can follow from higher effort. A resource deviation can endanger the finish date even when the individual task still looks non-critical.

7.4.1 Classify the Deviation

Check every major deviation in this order:



1. **Location of the deviation**

   Does it affect one task, a subproject, one project, or several projects?

2. **Type of deviation**

   Is it about dates, effort, costs, role demand, employee assignment, material, or machines?

3. **Impact**

   Does the critical path move, does effort increase, do costs rise, or are resources overloaded?

4. **Cause**

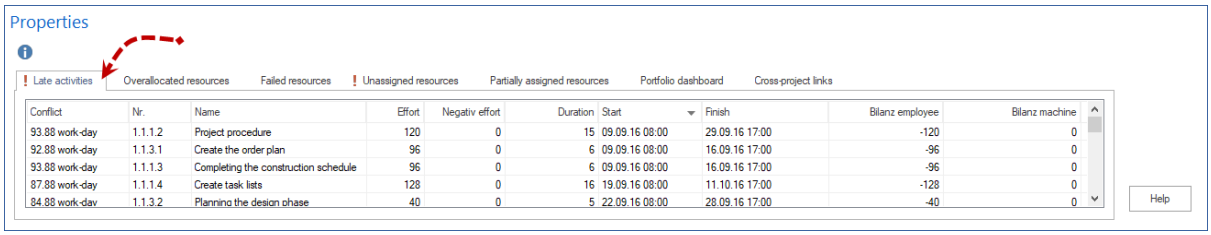
   Is the cause wrong planning, changed requirements, missing availability, execution feedback, or resource overload?

5. **Decision need**

Can the project manager act directly, is resource clarification required, or must PMO or management decide?

7.4.2 Use Warnings and Project Information

Rillsoft Project shows conflicts and critical states in project information. Use these warnings as the entry point for root-cause analysis.



Important warnings are:

- **Late activities**: tasks should have progressed further by the cutoff date.
- **Overallocated resources**: employees or other resources are planned beyond their available capacity.
- **Failed resources**: non-working days or absences prevent planned work.
- **Unassigned resources**: planned role effort is not yet covered by named employees.
- **Partially assigned resources**: demand is only partly covered by available resources.
- **Project overview and Portfolio dashboard**: condensed view of project and portfolio state.

7.4.3 When Replanning Is Needed

Replanning is useful when:

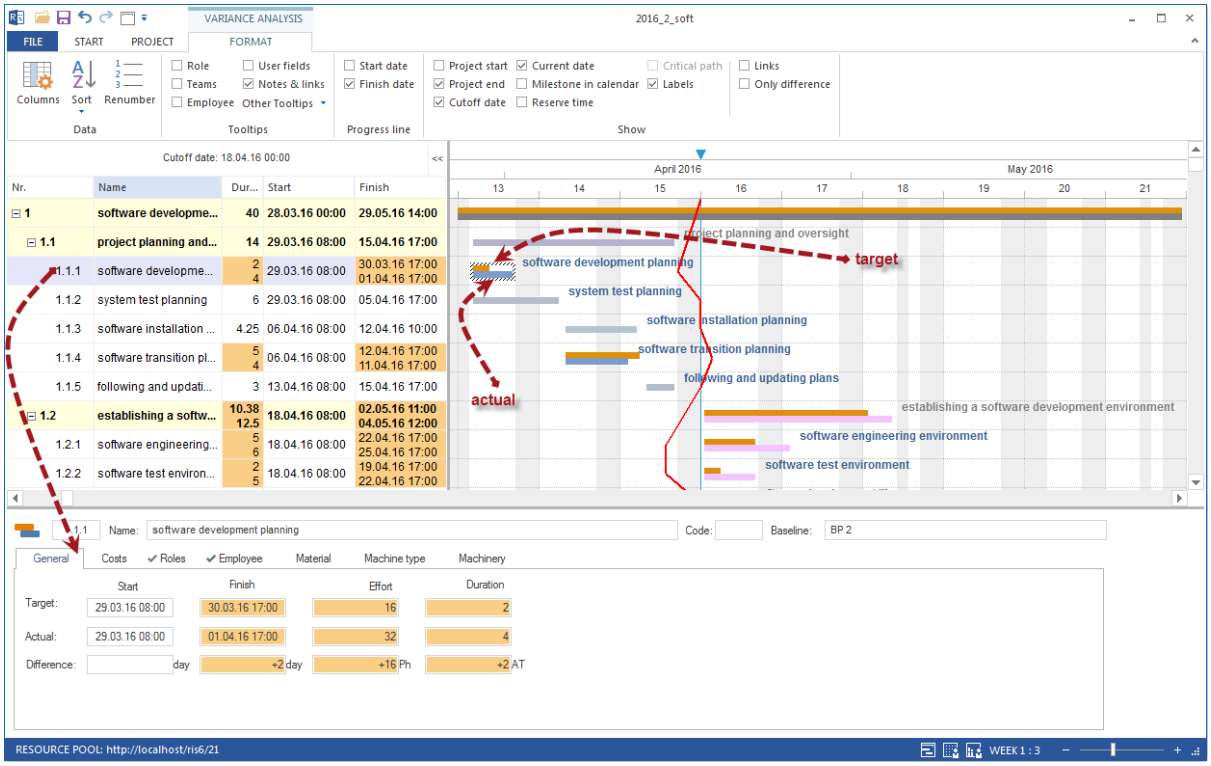
- the critical path is affected
- the project finish date is no longer reachable
- effort or costs are permanently higher than planned
- resource bottlenecks cannot be solved by simple reassignment
- several tasks have the same cause
- an approved scope or schedule change exists

No replanning is needed when:

- the deviation is small and remains within available buffer
- the cause has already been resolved
- the task is not critical and no successor dates are endangered
- only a feedback entry was entered late

7.4.4 Check Resources as a Cause

Because Rillsoft Project evaluates dates and resources together, always check the resource situation when schedule deviations occur.



Check:

- Is the required role demand fully covered by employees?
- Are there overloads in the relevant period?
- Are non-working days, vacation, or illness entered?
- Are suitable employees available with the required professional qualifications?
- Do other projects compete for the same capacity?

If resources are the cause, switch to capacity balancing before moving dates manually.

7.4.5 Prepare the Decision

Formulate the control decision concretely:

Situation	Possible decision
Task is late but still has buffer	Monitor and check progress again at the next cutoff date.
Critical task is late	Clarify cause, check schedule and resources.
Effort increases	Reevaluate remaining effort, capacity, and costs.
Employee is overloaded	Perform capacity balancing and check assignment.
Costs increase	Check cost cause and financing.
Plan change is approved	Update the project and save a new baseline if required.

7.4.6 Typical Mistakes

- Deviations are evaluated only by color, not by cause.
- Dates are corrected manually without checking dependencies and resources.
- A new baseline is saved before the deviation is professionally approved.
- Resource overloads are treated as a schedule problem.
- Status reports list deviations but no decision or next action.

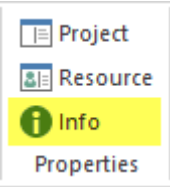
7.4.7 Related Topics

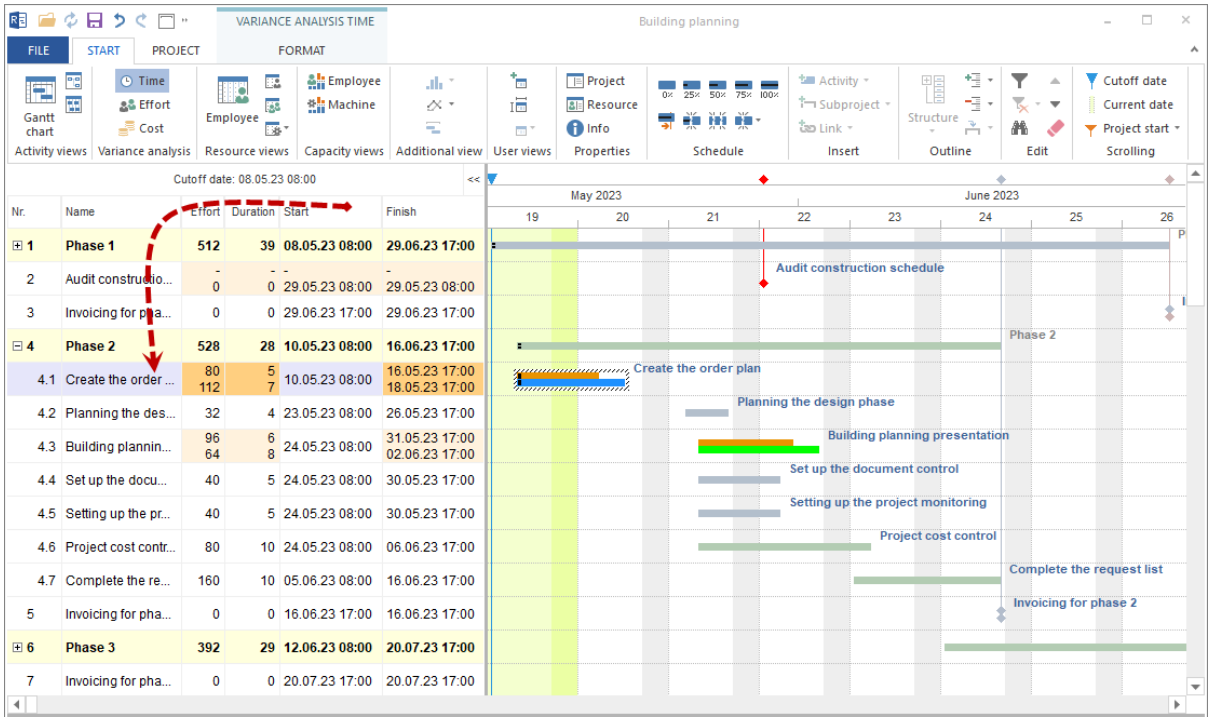
- *Perform Target/Actual Comparison*
- *Prepare a Status Report*
- *Resources and Capacities*
- *Check Employee Assignments*

7.5 Prepare a Status Report

A status report should not only describe the current project state. It should show whether the project can be controlled and which decisions are required.

Use target/actual comparison, project information, and resource views to base the report on checkable data.





7.5.1 Preparation

Before creating the status report, check:

- Is the correct baseline selected?
- Is the cutoff date set?
- Are progress and actual effort current?
- Are known absences and non-working days entered?
- Are bottlenecks from capacity balancing considered?
- Are cost and financing data current enough for a statement?

7.5.2 Contents of the Status Report

A reliable status report contains:

- current state at the cutoff date
- most important schedule deviations
- most important effort deviations
- most important cost deviations
- resource bottlenecks and unassigned role effort
- risks for critical path, finish date, and budget
- actions already taken
- open decisions
- recommendation for next steps

7.5.3 Formulate Deviations Clearly

Always describe deviations with cause and effect.

Less helpful:

- “Task is late.”
- “Costs are higher.”
- “Resource is overloaded.”

Better:

- “Prepare assembly is three working days behind the baseline because the assigned employee was unavailable due to non-working days. The successor is on the critical path.”
- “Actual effort for design is above the baseline. This increases expected personnel costs and reduces available capacity for two downstream projects.”
- “Role demand for design engineer is not fully covered by employees in calendar weeks 22 to 24.”

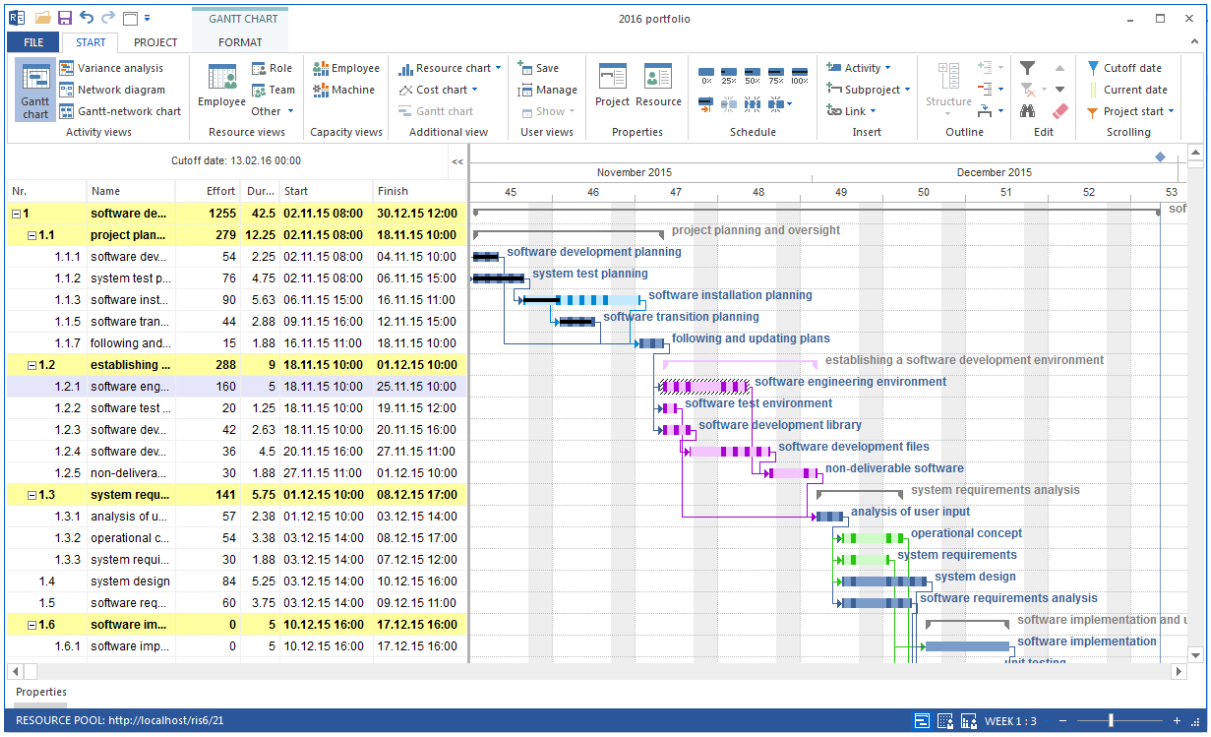
7.5.4 Make Decision Needs Visible

Mark which points need a decision:

Question	Typical decision
Finish date endangered?	Move date, change scope, or provide additional capacity.
Resources missing?	Reassign employees, check external capacity, or prioritize projects.
Effort increasing?	Confirm remaining effort, check budget, or adjust planning.
Costs increasing?	Clarify financing, budget approval, or scope.
Portfolio affected?	Align priorities with PMO or management.

7.5.5 Status in Portfolio Context

If the project is part of a portfolio, the individual project view is not enough. Also check:



- Which other projects use the same employees?
- Does replanning create new bottlenecks in the portfolio?
- Does project priority change?
- Are cross-project dependencies affected?
- Does management need to decide between competing project goals?

7.5.6 Result

After preparation, the status report should clearly answer:

- Is the project on plan?
- Which deviations are critical?
- Which causes are known?
- Which actions have already been started?
- Which decision is needed?

7.5.7 Related Topics

- *Evaluate Deviations*
- *Control Project Financing*
- *Portfolio and Multiproject*

7.6 Control Project Financing

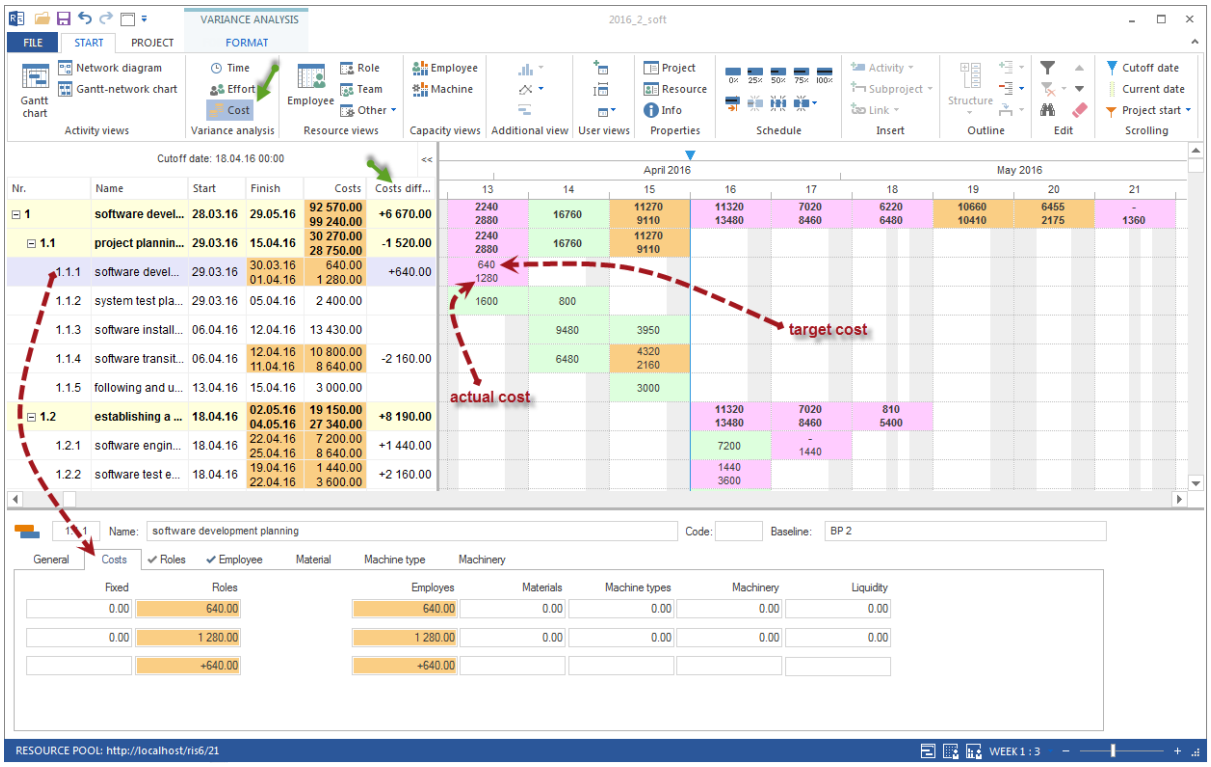
Project financing control adds a commercial perspective to target/actual comparison. It shows whether cost development and planned incoming payments fit together over time.

This evaluation is important when a project requires high advance financing, milestone payments are agreed, or payment periods affect liquidity.

7.6.1 When to Use It

Use financing control when:

- project costs occur before incoming payments
- invoicing or payment period is planned as a milestone
- liquidity risks should be visible
- commercial project owners need to check cost development
- cost deviations from target/actual comparison must be evaluated



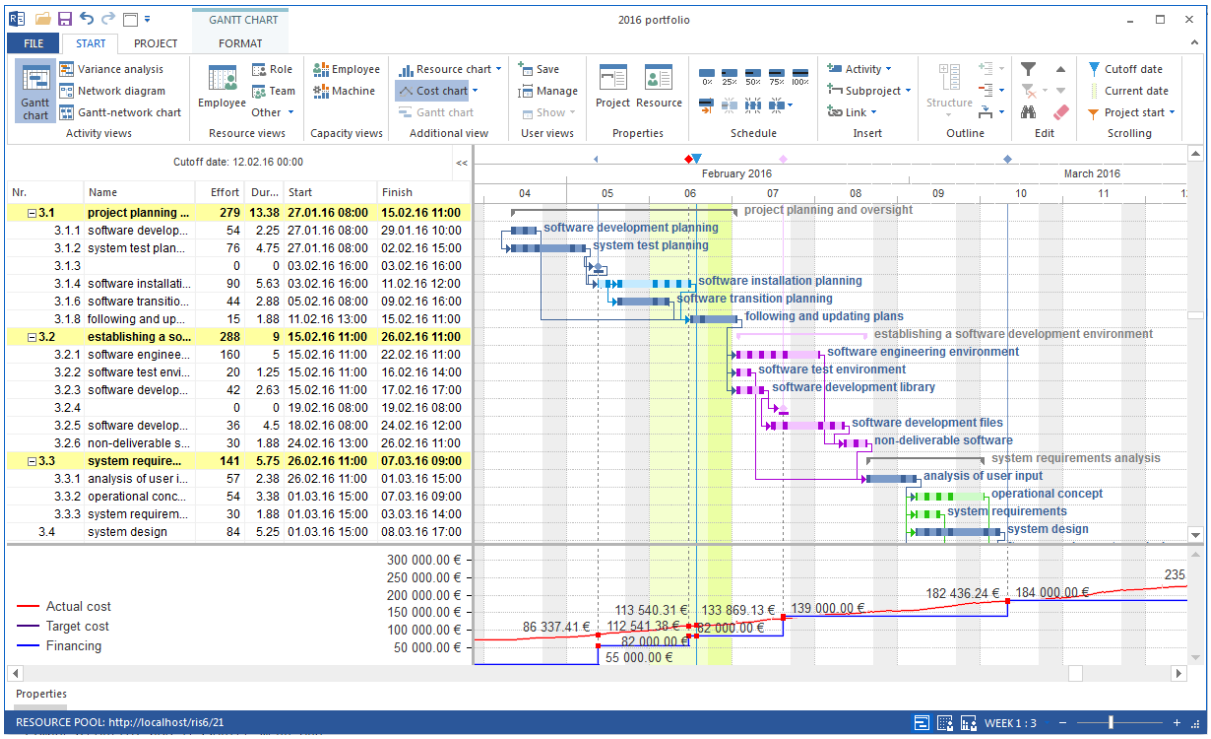
7.6.2 Workflow

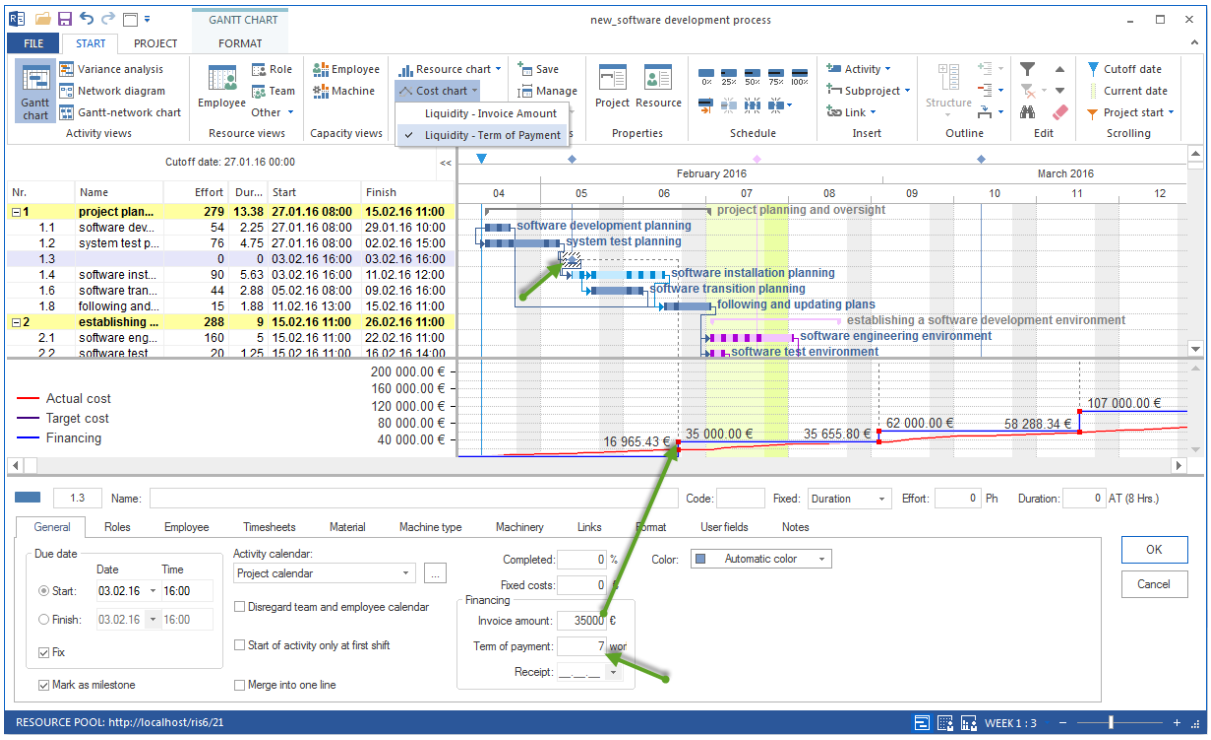
Goal: Costs and financing are compared over time.

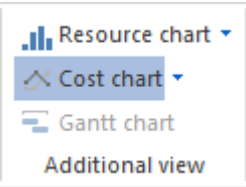
Workflow:

1. Open an additional cost diagram with **Start > Additional view > Cost diagram**.
2. Enter planned incoming payments as separate milestones, for example on the invoicing date.

3. In the cost diagram, check how actual costs and planned financing relate to each other.
4. If required, switch between financing by invoicing and financing by payment period.
5. Evaluate whether advance financing or a liquidity bottleneck arises.







7.6.3 Invoicing or Payment Period

Financing can be viewed from two perspectives:

- **Invoicing**: incoming money is professionally connected with the invoice date.
- **Payment period**: incoming money is shifted to the expected payment date.

For control, the payment period is often more meaningful because costs can arise before money is actually available.

7.6.4 Evaluate the Result

Check:

- Do actual costs rise earlier than planned?
- Do larger cost blocks occur before planned incoming payments?
- Does a payment shift because a milestone is late?
- Must project date, scope, or invoicing plan be adjusted?
- Does the topic belong in the next status report?

7.6.5 Typical Mistakes

- Invoice milestones are not maintained.
- Payment periods are ignored.
- Cost deviations are checked but not compared with financing and liquidity.
- Project controlling and commercial evaluation run separately.

7.6.6 Related Topics

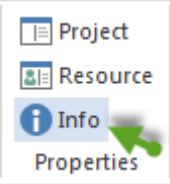
- *Perform Target/Actual Comparison*
- *Prepare a Status Report*

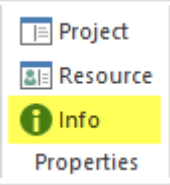
7.7 Project Information and Status Panel

The project information panel summarizes project status in a compact overview. It shows which tasks are late, which employees are overloaded or failed, and whether the project is connected with other projects in the portfolio.

The panel does not replace target/actual comparison. It is a quick diagnostic tool: it immediately shows whether there are problems and in which area.

Open: **Start > Properties > Info**





7.7.1 Overview: Panel Categories

The project information panel is divided into several categories. Each category can be expanded and shows related entries.

Category	Content
General	Project name, status, project manager, start, finish, progress, and basic project indicators.
Portfolio	Parent portfolio, project evaluation, portfolio status.
Late activities	Tasks whose calculated finish date is after the planned finish date.
Overallocated resources	Employees with overload. For roles or qualifications, capacity balancing is relevant for shortfall.
Failed resources	Resources that are not or only partly available in the project period.
External links	References to external systems or URLs linked with this project.
External documents	Documents from DMS or external file systems assigned to the project.

7.7.2 General

General shows the most important project data at a glance.

Typical fields:

- project name and project code
- project status, for example planned, active, completed
- project manager
- planned start and planned finish
- current calculation state and finish date
- total progress in percent
- project buffer (gap between planned finish and the latest calculated activity finish, in days)

These fields come from project properties and are updated automatically. To edit them, open **Start > Properties > Project**.

7.7.3 Portfolio

If the project belongs to a portfolio, **Portfolio** shows:

- name of the parent portfolio
- portfolio evaluation of the project
- project status from portfolio perspective
- further cross-project indicators maintained in the portfolio

This is especially useful when:

- a portfolio contains several projects and a project manager wants to classify the project's portfolio contribution
- PMO or management check project status in portfolio context

Without portfolio membership, this category remains empty.

7.7.4 Late Activities

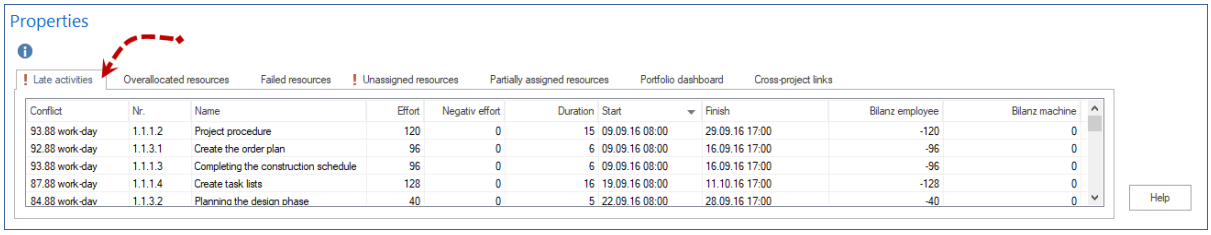
Late activities lists all tasks whose calculated finish date is later than the planned or stored finish date.

Typical entries:

- task name
- planned date according to baseline
- calculated current finish date
- deviation in days

Use this list to:

- quickly identify tasks that endanger the project finish date
- set priorities for control
- connect the list with target/actual comparison



More: *Perform Target/Actual Comparison*

7.7.5 Overallocated Resources

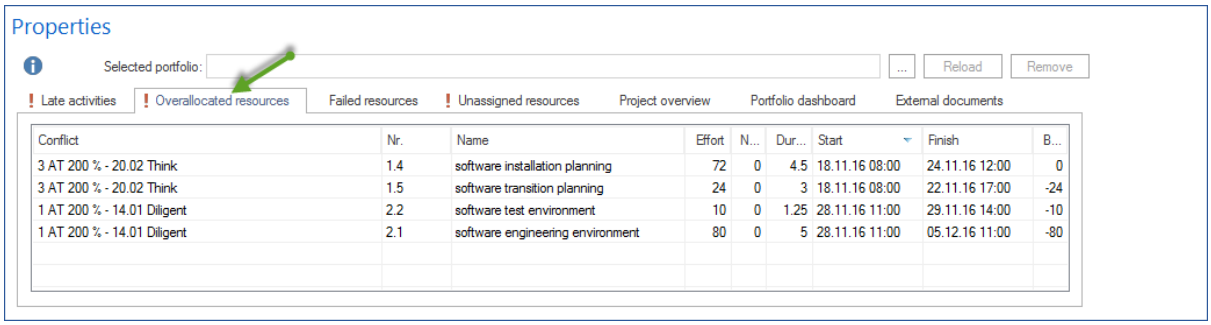
Overallocated resources shows employees with overload. If roles or qualifications are affected, check capacity balancing for shortfall.

Typical entries:

- resource name, employee or role
- period of overload or shortfall
- extent of overload or shortfall

Use these entries as a starting point:

- Open the employee utilization view or capacity balancing to analyze the cause.
- Check whether employee overload or role shortfall comes from one task or several projects.
- Decide whether a date move, resource change, or reassignment is required.



More: *Perform Capacity Balancing*

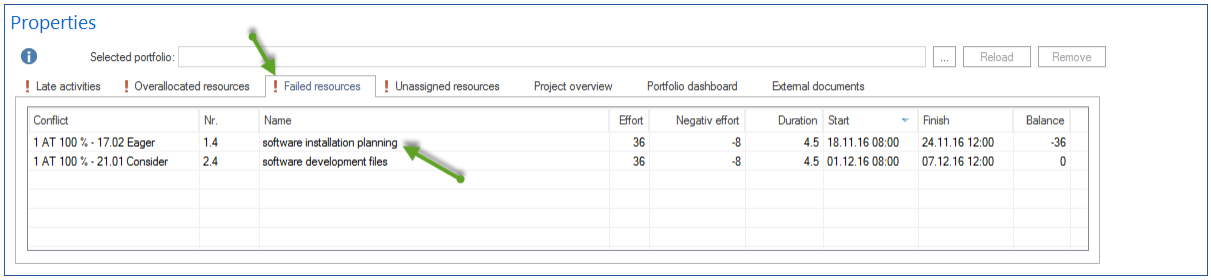
7.7.6 Failed Resources

Failed resources shows resources that are unavailable or only partly available in the project period.

Typical causes:

- illness or unplanned absence
- resignation or leaving date
- calendar change, such as new non-working days or changed working time
- removal of a resource from the resource pool

The panel shows whether a resource planned in the project period is no longer available for assignment. This helps detect early which assignments must be checked or replaced.



Possible actions:

- replace failed employees (*Check Employee Assignments*)
- perform capacity balancing again (*Perform Capacity Balancing*)
- adjust dates if no replacement is available

7.7.7 External Links

External links lists URLs or external system references assigned to the project.

Typical use:

- links to tickets in a project management system
- references to contract documents in an external system
- URLs to reports, dashboards, or approval pages

Links can be maintained in project properties on **Notes & Links**.

7.7.8 External Documents

External documents shows documents assigned to the project through DMS or as direct file references.

Typical documents:

- contracts and offers
- plans, drawings, and specifications
- meeting minutes
- status reports

Documents can be linked in project properties on **Documents/DMS**. The panel category is for display only; open project properties to change documents.

7.7.9 Related Topics

- *Perform Target/Actual Comparison*
- *Evaluate Deviations*
- *Prepare a Status Report*
- *Perform Capacity Balancing*
- *Check Employee Assignments*
- *Dialogs*

7.8 Prepare Project Closure

Project closure in Rillsoft Project means more than setting the status to “Completed”. This article describes which system steps are useful for closing a project cleanly, preserving experience, and releasing resources.

7.8.1 When to Close

Close the project in Rillsoft Project when:

- all defined deliverables have been handed over
- acceptance has taken place
- no further tasks are open, or open tasks have deliberately been moved to a follow-up project
- the closure milestone has been reached

Do not close the project too early while active tasks are still running or the baseline is still needed for deviation reports.

7.8.2 Closure Checklist

Before formal closure, check these points:

Task status

- [ ] All tasks set to 100% complete?
- [ ] No tasks with open actual effort or missing progress?
- [ ] All milestones reached or formally rescheduled?

Baseline and target/actual

- [ ] Final target/actual comparison performed and documented?
- [ ] Deviations explained and commented?
- [ ] Baseline saved for archiving?

Resources

- [ ] All employee assignments correctly completed?
- [ ] Actual effort fully entered through time entry?
- [ ] No open vacation request or unapproved effort in running tasks?

Documents

- [ ] All relevant documents stored in DMS or as external links?
- [ ] Acceptance protocol, status reports, and decision logs archived?

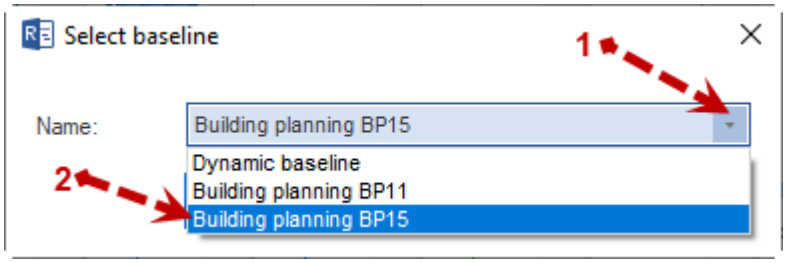
Project status

- [ ] Project status set to **Completed** in project properties?
- [ ] Project removed from the active portfolio or marked inactive?

7.8.3 Archive a Baseline

Before closing the project, save a final baseline, even if an initial baseline already exists.

1. Open **Project > Baseline > Add**.
2. Save a new baseline.
3. Give it a clear name, for example `Closure 2026-05-25`.
4. Confirm.



The final baseline serves as reference for later lessons learned and as evidence for customers or authorities.

More: *Baseline and Progress*

7.8.4 Set Project Status

1. Open **Project properties** by double-clicking the project name or using **Start > Properties > Project**.
2. Open **General**.
3. Set **Status** to **Completed** or to the closure status category defined in your resource pool.
4. Confirm with **OK**.

The project then appears in the portfolio with the correct status and can be handled as completed in portfolio evaluations.

7.8.5 Release Resources

After project closure, resources become available for other projects. In Rillsoft Project, no explicit release is required; capacity is automatically available once no active assignments remain.

Check:

- Are all employee assignments in completed tasks marked with actual effort or 100% complete?
- Are there still future tasks accidentally assigned to this project?

After closure, capacity balancing should no longer show open demand for this project.

7.8.6 Document Lessons Learned

Rillsoft Project offers several ways to preserve experience:

- **Notes in task properties**: comments on critical tasks or unexpected problems
- **Notes in project properties**: overall evaluation and recommendations for follow-up projects
- **External documents**: lessons-learned protocol as DMS document or external link

A structured lessons-learned template does not belong in the project plan itself. It belongs in DMS or a separate document. The project plan documents what was planned and implemented; the lessons-learned document explains why and what should be done differently next time.

7.8.7 Remove the Project From the Active Portfolio

To prevent completed projects from loading active portfolio views:

1. Open the portfolio.
2. Select the completed project.
3. Clear it from consideration or set it inactive in the portfolio settings.

Alternatively, maintain a separate archive portfolio for completed projects.

7.8.8 Related Topics

- *Baseline and Progress*
- *Perform Target/Actual Comparison*
- *Evaluate Deviations*
- *Prepare a Status Report*
- *Best Practices*
- *Project Manager*

7.9 When to Use This Section

Use project control when:

- an approved schedule or resource plan should be monitored
- the current project state must be compared with an earlier planned state
- schedule deviations, effort deviations, or cost deviations become visible
- resource overloads, failed resources, or unassigned role effort endanger implementation
- project manager, PMO, or management need a reliable decision basis

7.10 Basic Principle

Project control does not only answer how far a project has progressed. It primarily clarifies whether the current state still matches the approved plan.

The workflow has five steps:

1. **Save a baseline**

   Save a plan state as soon as dates, resource demand, assignments, and costs should serve as a binding basis.

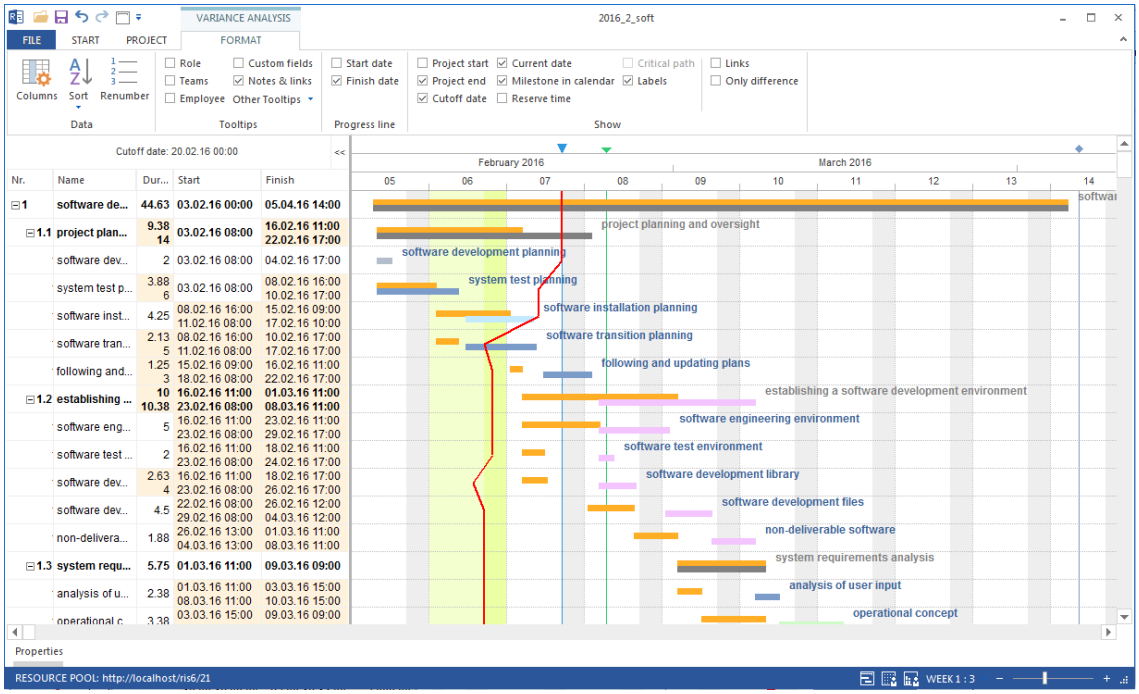
2. **Enter progress**

   Maintain completion percentage, actual effort, or other progress information for relevant tasks.

3. **Set the cutoff date**

   Define the date up to which progress is evaluated. The cutoff date separates implementation so far from future planning.

4. **Evaluate target/actual comparison**



   Compare the current project state with the selected baseline. Check dates, effort, costs, roles, employees, material, and machines.

5. **Prepare the control decision**

   Decide whether dates must be adjusted, resources clarified, assignments changed, costs checked, or a new baseline saved.

7.11 Set the Cutoff date

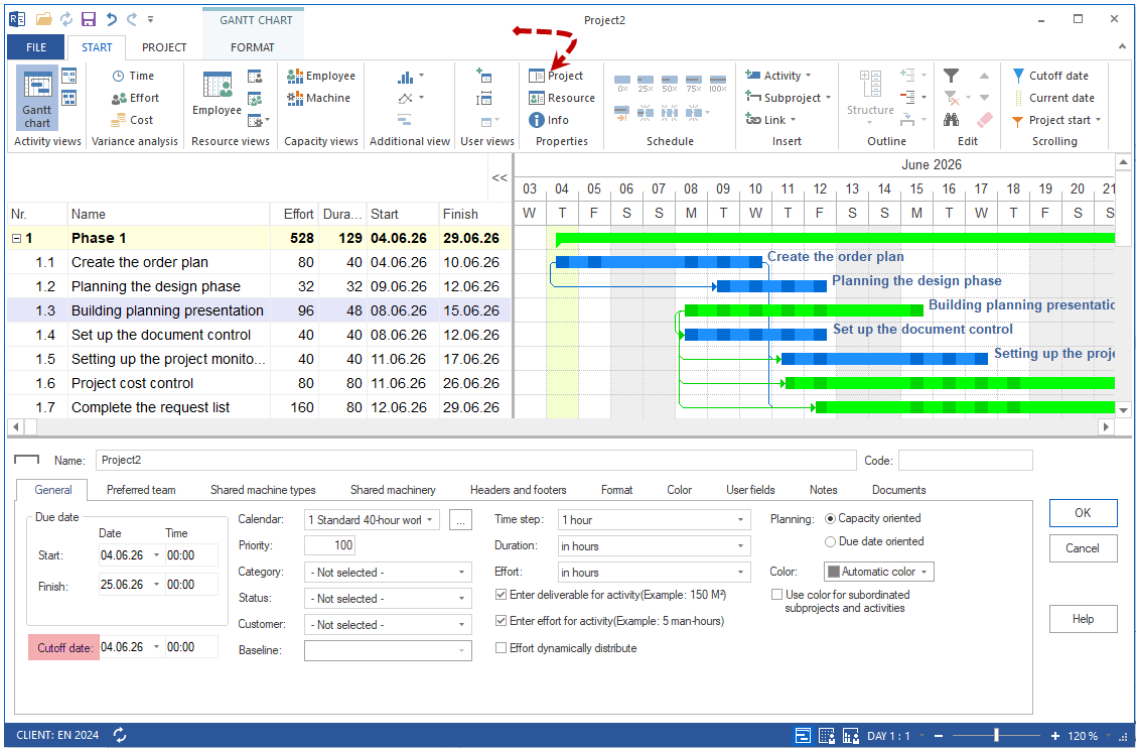
The cutoff date is the date for which target/actual comparison is calculated. It determines which tasks should be completed, started, or still open on the evaluation date.

Purpose of the cutoff date:

- Progress bars and deviations in the Gantt chart refer to the cutoff date.
- Tasks that should have finished before the cutoff date but are not yet complete become visible as late.
- The cutoff date is independent of the system date, so earlier or planned evaluation states can also be analyzed.

Set the cutoff date:

1. Choose **Start > Properties > Project** and use the **Cutoff date** field.



2. Select the date from the calendar.
3. Confirm the selection.

A vertical line appears in the Gantt chart at the cutoff date.

To remove the cutoff date, set it to an empty date or disable it in the same menu.

For regular control, set the cutoff date to the current evaluation date, for example daily or weekly before status review.

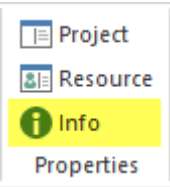
7.12 Important Deviations

Deviation	Meaning for control
Schedule deviation	Tasks, subprojects, or milestones are earlier or later than in the baseline.
Effort deviation	Actual or expected effort differs from planned effort.
Cost deviation	Resource costs or total costs develop differently than planned.
Resource deviation	Role demand, employee assignment, material, or machine demand has changed.
Progress deviation	Tasks should have progressed further by the cutoff date.
Financing deviation	Cost development and planned incoming payments do not match in time.

7.13 Result

After project control, you should know:

- which tasks or subprojects deviate from the plan
- whether the deviation concerns dates, effort, costs, or resources
- whether the project finish date is endangered
- whether resource bottlenecks are the cause of the deviation
- whether a new baseline is needed or the existing baseline remains the reference
- which points belong in the status report



7.14 Next Steps

- *Baseline and Progress*
- *Perform Target/Actual Comparison*
- *Evaluate Deviations*
- *Resources and Capacities*
- *Portfolio and Multiproject*

project control, baseline, target actual comparison, progress, variance, reporting date, deviation, project manager, pmo

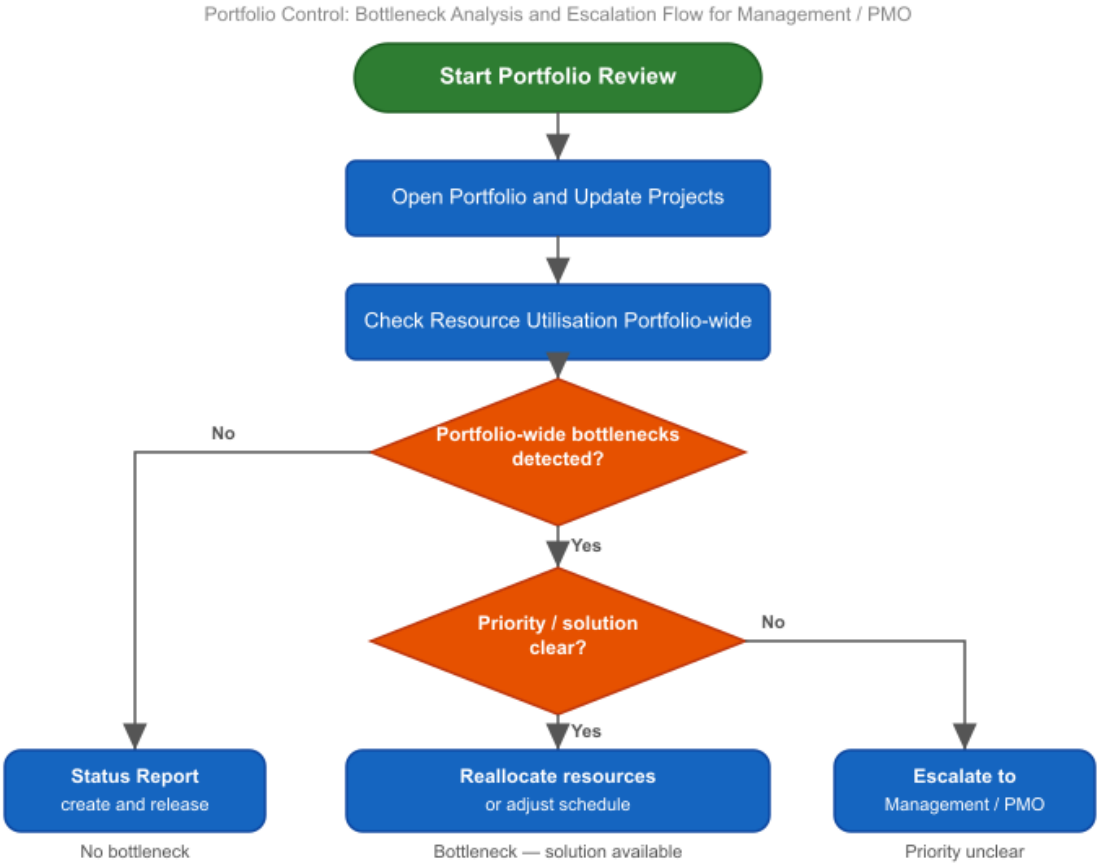
CHAPTER

EIGHT

PROJECT PORTFOLIO AND MULTIPROJECT MANAGEMENT

This section is for users who control several projects at the same time. It explains how to build a project portfolio, how to use the summary project for operational multiproject planning, how to maintain cross-project dependencies, and how to evaluate resources, priorities, and risks across several projects.

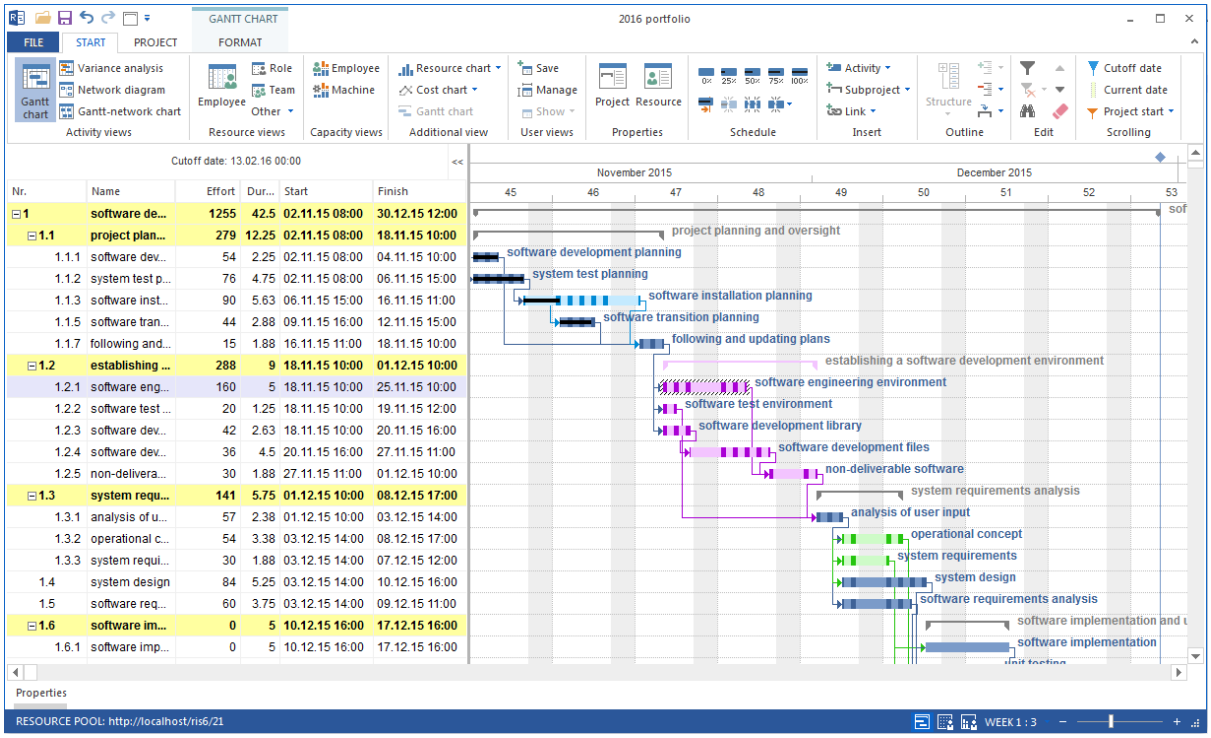
A project portfolio makes the project landscape visible. Multiproject management goes further: it evaluates how several projects jointly influence dates, resources, and decisions.



8.1 Build a Project Portfolio

A project portfolio in Rillsoft Project combines several separate individual projects in one shared view. It enables cross-project capacity planning, resource optimization, and simulation.

All projects in the portfolio should use the same resource pool. This is the technical prerequisite for utilization, capacity balancing, and resource bottlenecks to be calculated correctly across several projects.



The portfolio provides the same basic views as an individual project, for example Gantt chart, resource views, capacity balancing, and target/actual comparison. Tasks can also be edited, resources assigned, and results saved directly from the portfolio.

> **Note**
>
> A new project is not created inside the portfolio. Create new projects as separate project files and then add them to the portfolio.

8.1.1 Create a New Project Portfolio

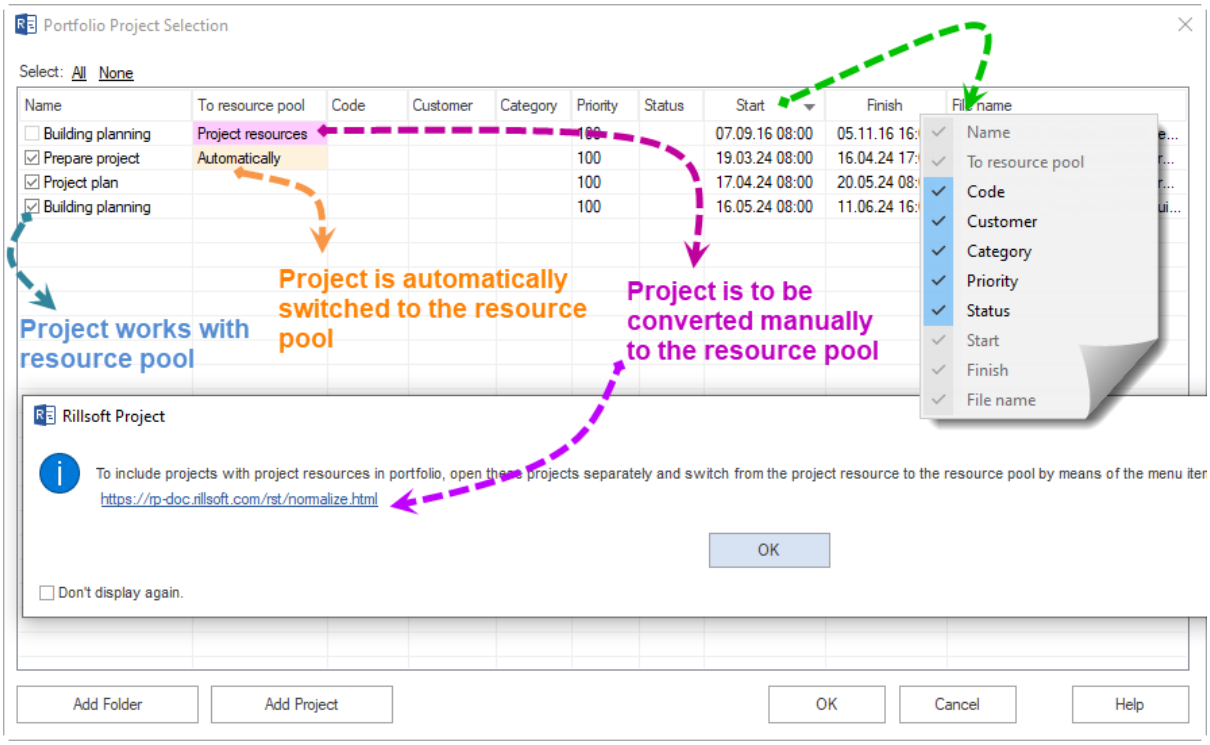
Goal: Several projects are combined in a portfolio, and cross-project resource utilization is visible.

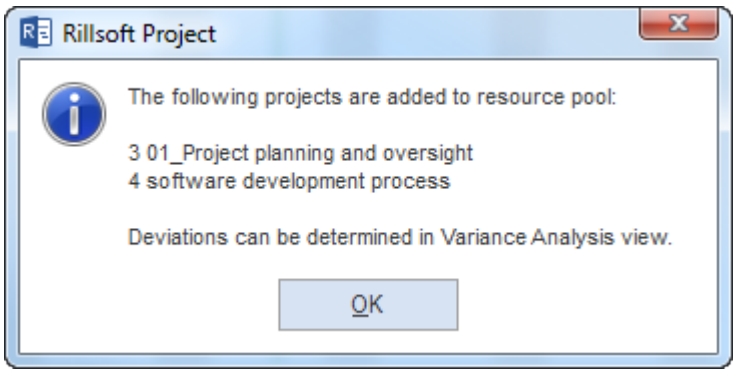
Prerequisites:

- At least two project files exist.
- The projects use the same resource pool.
- Ideally, the projects are stored in a common folder.

Workflow:

1. Click **File > Open new project portfolio**.
2. In **Portfolio Project selection**, click **Add Folder**.
3. Select the folder with the project files.
4. Check the **To resource pool** column.
5. Select the projects to include in the portfolio.
6. Set the project order if required.
7. Click **OK**.
8. Save the portfolio with **File > Save**.



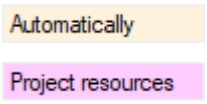


Result: The portfolio shows all selected projects together on the timeline. Cross-project resource utilization is visible in resource and capacity views.

8.1.2 Check Resource Pool Status

When opening or creating a portfolio, Rillsoft Project shows whether projects match the shared resource pool.

Display	Meaning	Recommendation
No colored background	The project matches the resource pool.	Include the project without restrictions.
Yellow background	Minor resource differences exist, for example new non-working days or changed costs.	Enable **Replace deviating project resources by resource pool** if Rillsoft Project should align the differences when opening.
Red background	Significant resource differences exist.	Open the project separately and switch it manually to the shared resource pool with **Project > Project resources > Switch to Resource pool**.



8.1.3 Maintain Project Category, Status, and Priority

For a reliable portfolio overview, project management data should be maintained consistently. These values are later available for sorting, filtering, and evaluation.

Maintain especially:

- **Category**, for example customer project, internal project, or research and development
- **Status**, for example planned, active, completed, or paused
- **Priority**, as a numeric value for importance compared with other projects
- **Customer**, as client or internal requester

Workflow:

1. Open the individual project or switch to the required project in the portfolio.
2. Click **Start > Properties > Project**.
3. Open the **General** tab.
4. Enter category, status, priority, and customer.
5. Click **OK** and save the project.

Master data for categories, status, and customers is maintained centrally in the resource pool. Create these values consistently before several project managers work with portfolios.

8.1.4 Assign Project Customers and Owners

Project customers and owners help classify projects faster in the portfolio.

Workflow:

1. Open project properties with **Start > Properties > Project**.
2. Select the responsible customer in **Customer**.
3. Create the customer in the resource pool if required.
4. Enter the responsible project manager if this field is available in your project.
5. Save the project.

8.1.5 Prepare Portfolio Views

These views are especially relevant for regular portfolio work:

Gantt chart
: Shows all projects together on the timeline. Use it for schedule position, overlaps, and rough resource peaks.

Human Resource Capacity Balancing
: Shows total employee utilization across all portfolio projects. Red periods indicate cross-project overload.

Project-specific employee utilization
: Shows which share of an employee's working time belongs to which project.

Project-specific role utilization
: Shows demand for professional qualifications across several projects. This is useful when named employees are not yet fully assigned.

8.1.6 Integration Server and Cloud Note

If your organization uses Rillsoft Integration Server or Rillsoft Cloud, open portfolios through the corresponding Integration Server interface. Projects are then stored centrally in the database instead of as local project files.

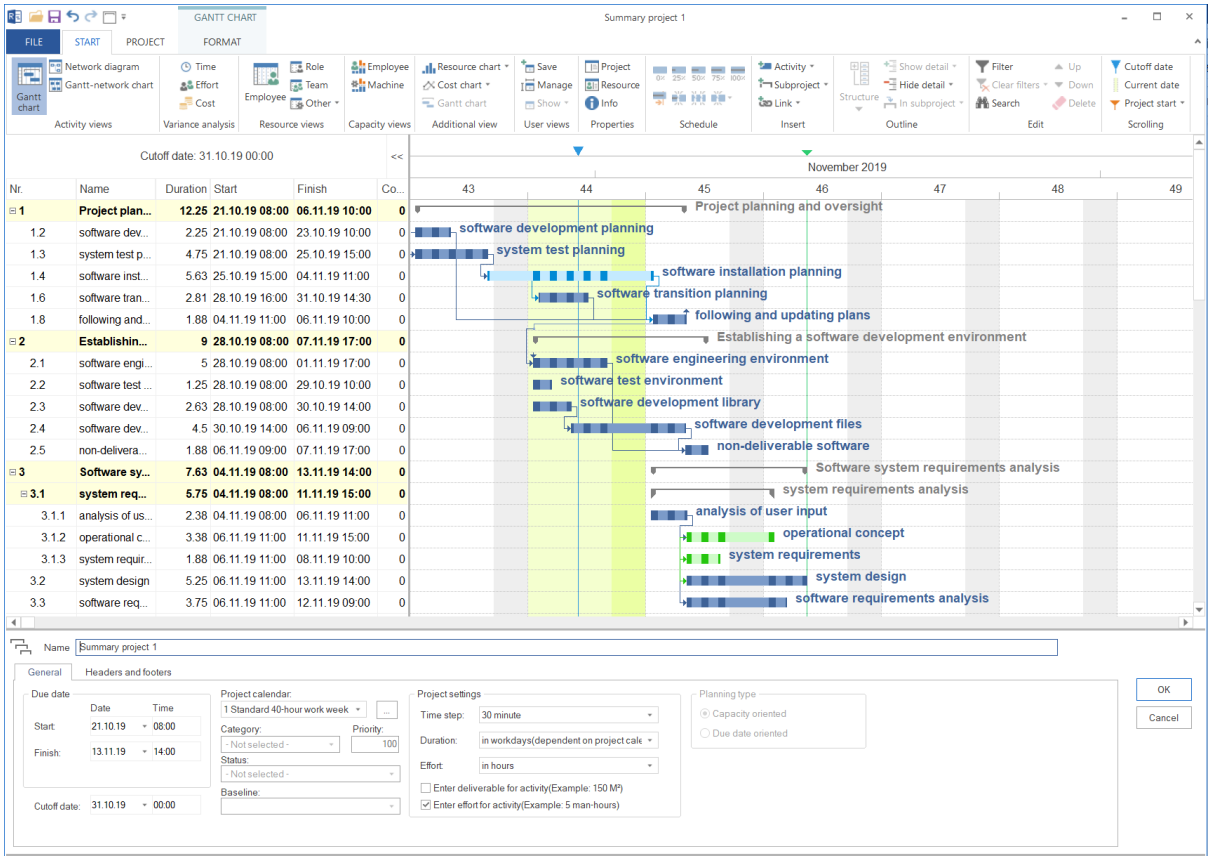
8.1.7 Related Topics

- *Control Multiproject Planning*
- *Portfolio Analysis*
- *Resources and Capacities*

project portfolio, portfolio project selection, add folder, add file, shared resource pool, replace deviating project resources, multiproject planning, multiple projects, portfolio, master project, pmo, executive management

8.2 Control Multiproject Planning

Multiproject planning becomes important when several projects share the same resources, dates, or professional dependencies. Rillsoft Project supports this with the summary project, cross-project dependencies, and shared resource planning.



8.2.1 Use a Summary Project

The summary project is the operational tool for multiproject planning. It lets you edit several projects together in one view and can show cross-project links between tasks from different projects.

Typical use cases:

- Several subprojects or lots of a large project are maintained separately and planned together.
- Tasks in different projects have direct dependencies.
- One project manager is responsible for several projects that use the same resources.
- Project managers or PMO need an operational overall view of several schedules.

8.2.2 Create a New Summary Project

Goal: Several projects are edited in one shared planning view.

> **Note**
>
> The summary project requires **Rillsoft Project with Rillsoft Integration Server** or **Rillsoft Cloud**. In standalone operation, this function is not available.

Workflow:

1. Click **File > Open new summary project**.
2. In the **Rillsoft Integration Server summary project property** dialog, enter a name in **Name**.
3. Use **Filter** to limit the project list if required, and select the folder with the required projects.
4. Select the projects to include.
5. Click **OK**.

Result: The summary project opens with the selected projects in a combined view.

Detailed description including splitting a project, opening, and merging: *Manage a Summary Project*. An end-to-end example with several project managers: *Plan Related Projects of Several Project Managers Together*.

8.2.3 Keep the Summary Project Current

Individual projects can still be edited by their project managers. Reload the summary project regularly.

Click the **Reload** icon in the **Quick Access Toolbar** to load the current versions of all included projects. If the icon is not visible, add it with **Customize Quick Access Toolbar**.

More notes on locks and simultaneous work: *Work on Projects Simultaneously*.

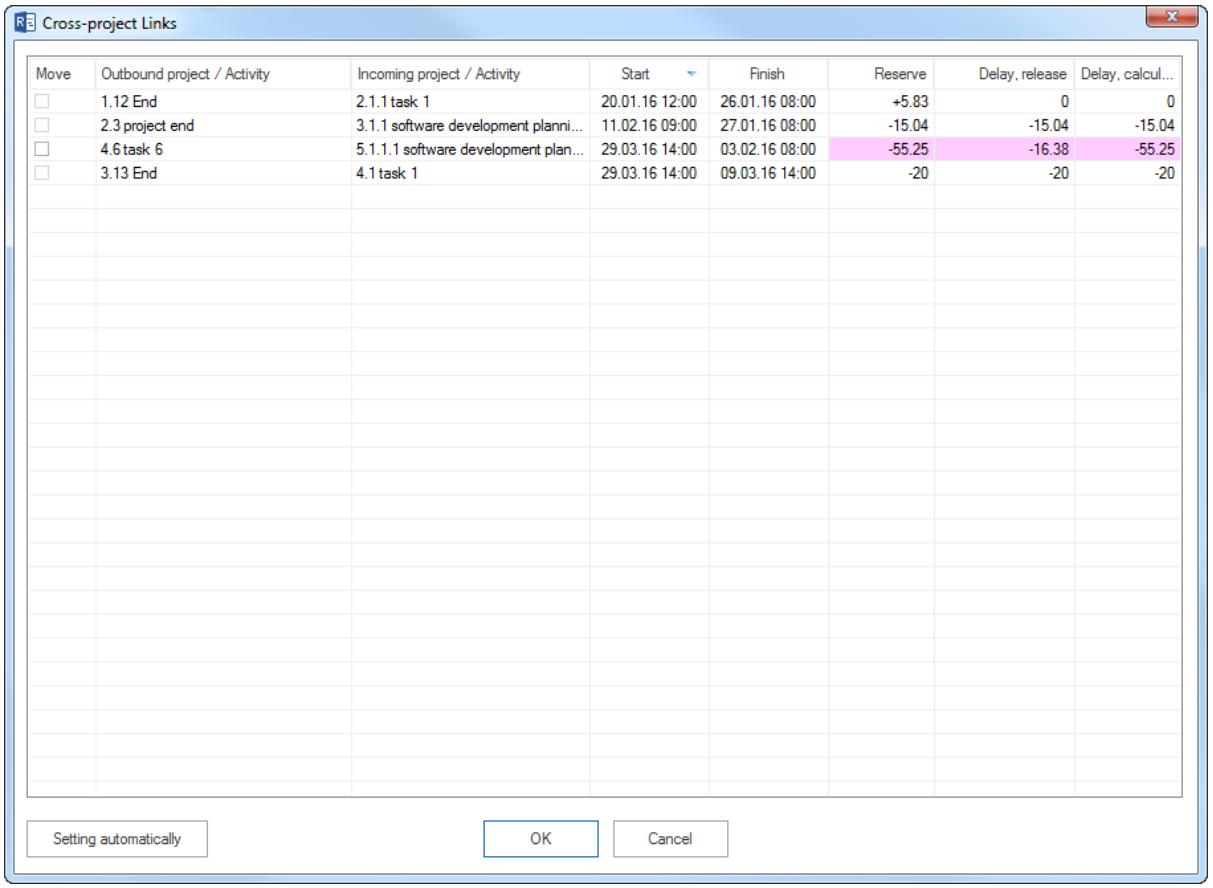
8.2.4 Maintain Cross-Project Dependencies

Cross-project dependencies describe dependencies between tasks from different projects. Example: A task in project B can start only after a task in project A has finished.

> **Note**
>
> Cross-project dependencies are available only with Rillsoft Integration Server. In pure standalone work with local files, cross-project dependencies cannot be created.

Create a cross-project dependency:

1. Open the portfolio or summary project that contains both projects.
2. Choose the suitable dependency type with **Start > Insert > Link**.
3. Drag from the predecessor task in the source project to the successor task in the target project.
4. Enter a delay if required.
5. Confirm the dependency.



If no delay is entered, Rillsoft Project calculates the delay from the current positions of the linked tasks.

8.2.5 Check and Clean Up Dependencies

Cross-project dependencies can change when dates shift in one of the involved projects. Check them regularly.

Workflow:

1. Open **Project > Rillsoft Integration Server > Cross-project links**.
2. Check the dependency overview.
3. Compare the released delay, the calculated delay, and the reserve.
4. Watch for red-marked deviations.
5. Select **Move** if required.
6. Use **Setting automatically** to resolve several deviations.

Warning

A cross-project dependency does not always move the successor automatically. If a successor is already planned before the predecessor finishes, a negative interval can arise. Check those cases deliberately.

8.2.6 Make Cross-Project Dependencies Visible

For status reports and coordination between project managers, an overview of all dependencies is important.

Workflow:

1. Click **Start > Properties > Info**.
2. Open **Cross-project links**.
3. Check the list of links between tasks from different projects.

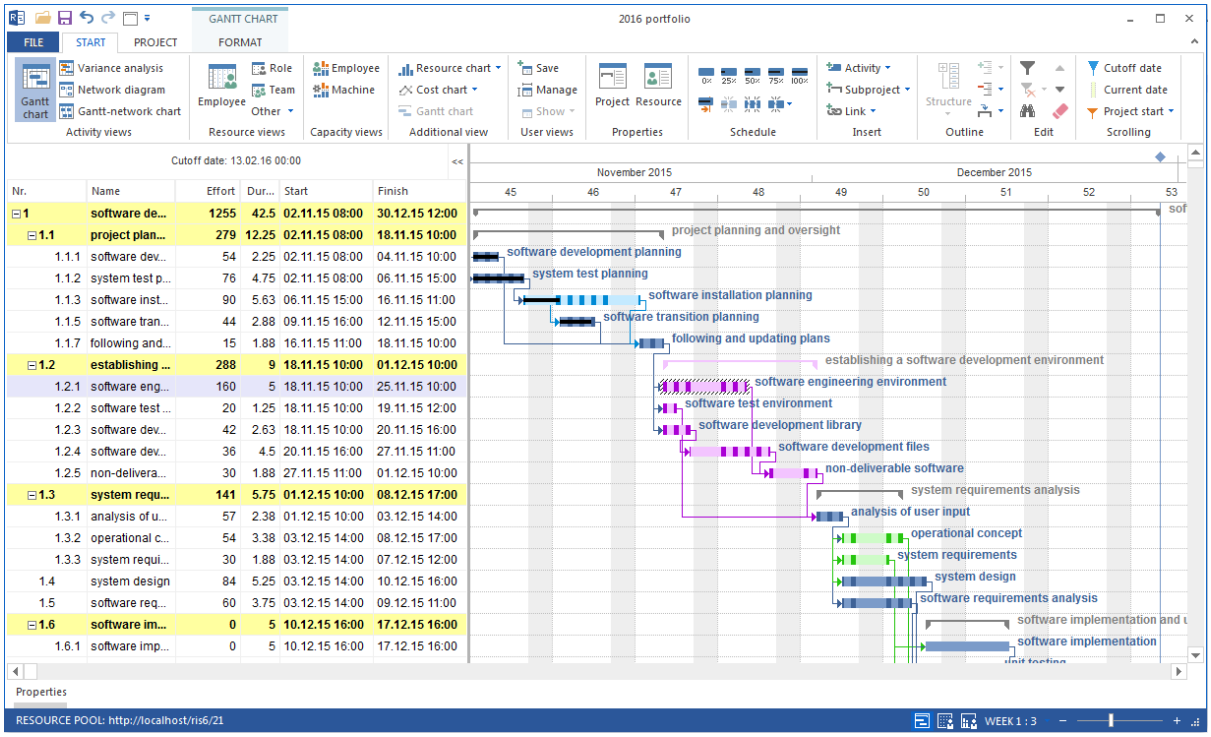
This overview shows which projects depend on each other and which delays result from those dependencies.

8.2.7 Plan Resources Across Several Projects

Cross-project resource planning is the central value of portfolio and summary project work. It shows whether the same employees are planned in several projects at the same time.

Workflow:

1. Open the portfolio or summary project.
2. Switch to **Human Resource Capacity Balancing**.
3. Check total utilization per employee across all projects.
4. Identify red-marked periods.
5. Open the related tasks and projects that contribute to overload.



Possible actions for cross-project overload:

- move tasks in time
- distribute effort across several employees with the same professional qualification
- assign another suitable employee from the resource pool
- evaluate projects by priority
- move or pause lower-priority projects

8.2.8 Use Project Priority for Resource Decisions

When several projects compete for the same resources, project priority helps with the decision.

Workflow:

1. Open project properties with **Start > Properties > Project > General**.
2. Enter a numeric value in **Priority**.
3. Use lower values for higher priority.
4. Save the project.

In the portfolio, the project list can be sorted by priority. Use this order as a decision basis when bottlenecks cannot be fully resolved.

8.2.9 Typical Mistakes

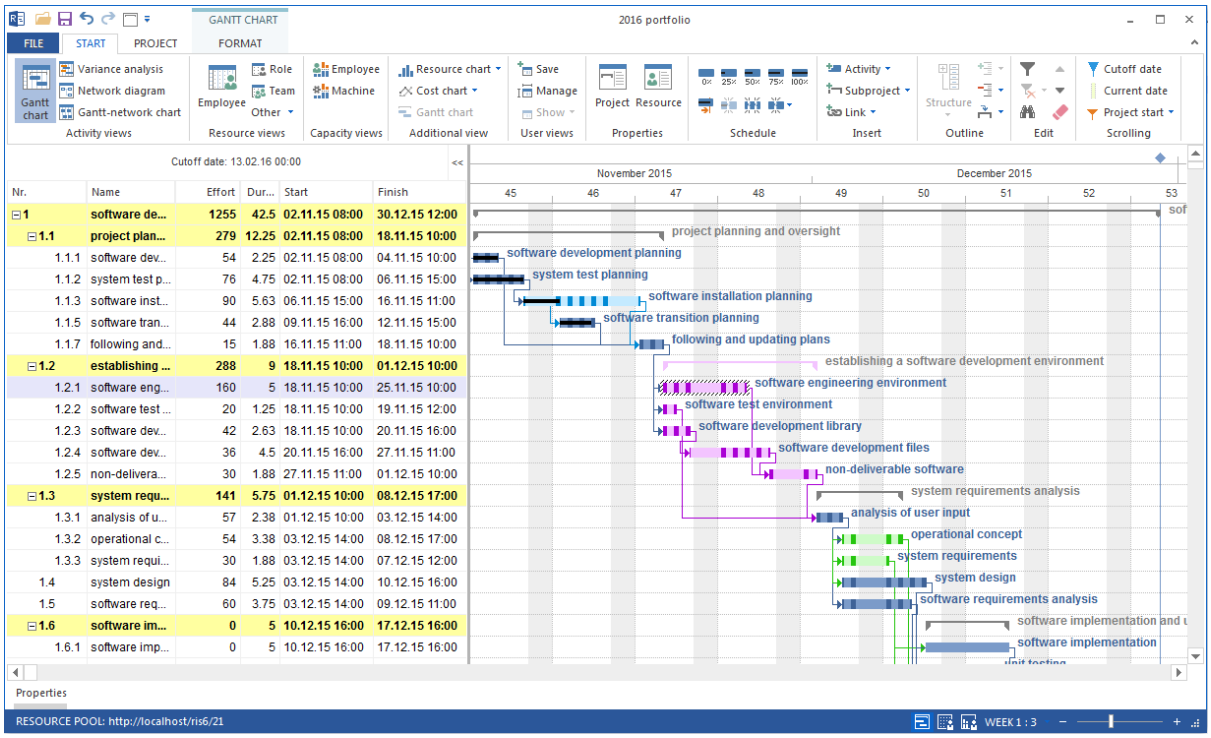
- Projects in the portfolio use different resource pools.
- Priorities are outdated or not maintained consistently.
- Cross-project dependencies are created but not checked regularly.
- Resource bottlenecks are evaluated in an individual project although other projects use the same employees.
- Summary project and portfolio are confused professionally.

8.2.10 Related Topics

- *Planning as a Team: Multi-User Work and Summary Projects*
- *Build a Project Portfolio*
- *Portfolio Analysis*
- *Perform Capacity Balancing*

8.3 Portfolio Analysis

Portfolio analysis is used to evaluate all running projects together. It answers questions such as: Which projects are on track? Where do resource bottlenecks arise? Which projects endanger other projects because of their dates or resource situation?

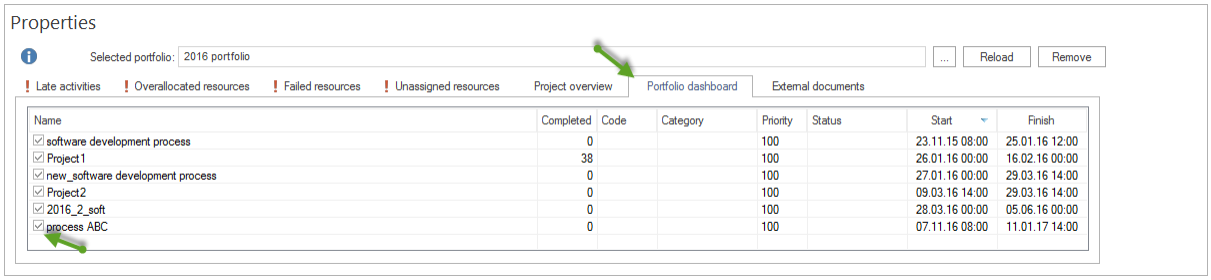


8.3.1 Perform Portfolio Analysis

Goal: Get a reliable overview of status, priority, schedule position, and resource situation for all projects.

Workflow:

1. Open the portfolio.
2. Click **Start > Properties > Info**.
3. Open the **Portfolio dashboard** tab.
4. Check projects with category, status, priority, customer, start, and finish.
5. If required, use **Selected portfolio** to choose another portfolio for the overview.



In the portfolio dashboard, you can control which projects are included in capacity calculation. Active projects are considered. Deactivated projects are hidden and are not included in resource availability calculation.

This is useful for simulations. Example: Temporarily hide a project and check how the resource situation changes without it.

8.3.2 Compare Projects

Do not compare projects only by finish date. Portfolio decisions need several perspectives.

Perspective	Question	Suitable view
Status	Which projects are planned, active, paused, or completed?	Portfolio dashboard, filters in the Gantt chart
Priority	Which projects should be preferred when bottlenecks occur?	Project sorting by priority
Dates	Which projects overlap critically?	Gantt chart, critical path, late tasks
Employees	Which employees are overloaded across projects?	Human Resource Capacity Balancing, project-specific employee utilization
Roles	Which professional qualifications are missing across several projects?	Project-specific role utilization

8.3.3 Identify Bottleneck Projects

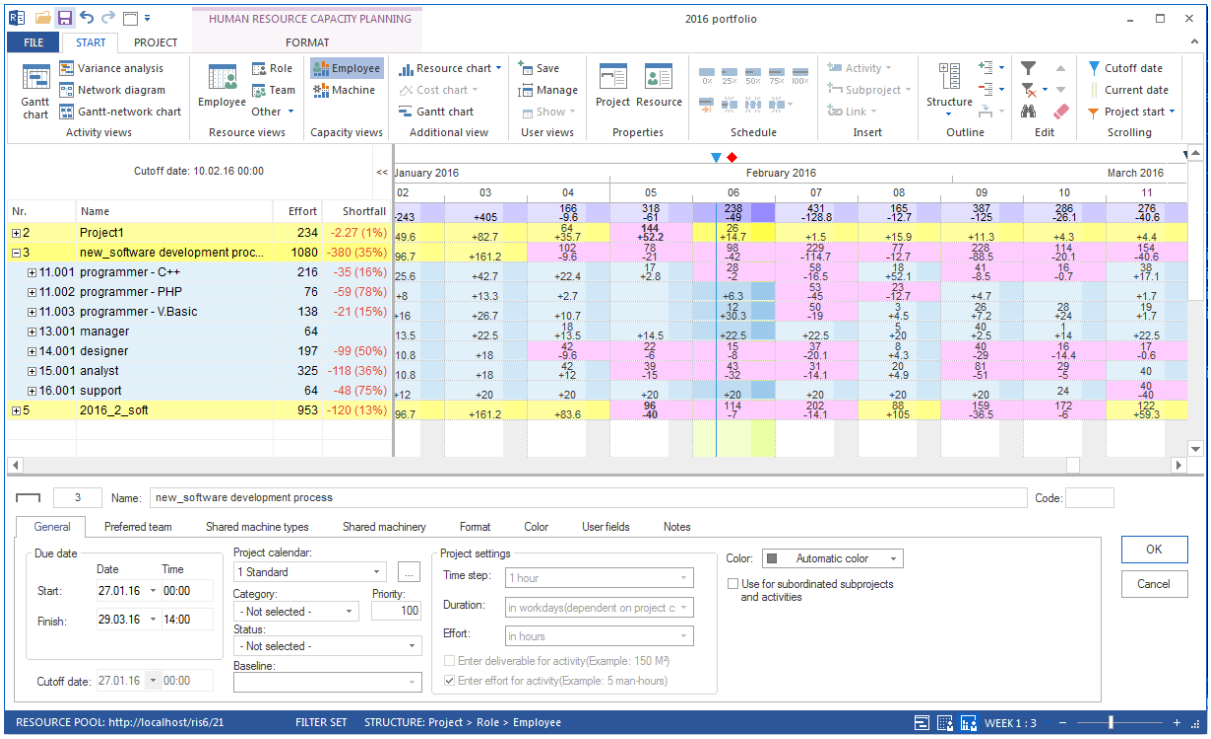
A bottleneck project is a project that blocks other projects because of its schedule or resource demand, or that can trigger a chain reaction in the portfolio if delayed.

Signs of a bottleneck project:

- The project uses a high share of a scarce professional qualification in specific periods.
- Finish dates are close to start dates of downstream projects.
- The project contains late tasks on the critical path.
- The project causes overload for key employees.
- Cross-project dependencies show little or negative link distance.

Workflow:

1. Open the individual project or check it in the portfolio.
2. In **Human Resource Capacity Balancing**, check which roles or qualifications are undercovered in critical phases.
3. Open **Start > Properties > Info > Late activities**.
4. Analyze the critical path.
5. Check whether bottleneck resources are involved in critical tasks.
6. Decide whether resources must be redistributed, dates moved, or priorities changed.



8.3.4 Derive Risks From Schedule and Resource Situation

Portfolio risks often arise from the combination of schedule situation and resource situation.

Schedule risks
: Projects with late tasks on the critical path are especially critical. Each further delay can move the project finish date and affect downstream projects.

Resource risks
: Projects with few key employees or rare professional qualifications are vulnerable to absence, vacation, illness, or parallel load from other projects.

Dependency risks
: Cross-project dependencies can make a delay in one project directly affect another project.

Priority risks
: If priorities are not maintained, resource decisions become unclear. Projects then compete for the same employees without a reliable decision rule.

8.3.5 Prepare Decision Basis for Management and PMO

Portfolio analysis should not only collect information. It should prepare decisions.

For a portfolio status report, these items are especially relevant:

- portfolio dashboard with status, priority, and finish date of all projects
- list of late projects
- projects with resource bottlenecks
- critical professional qualifications
- cross-project dependencies with little link distance
- simulations, for example the effect of pausing a project or changing priority

For resource decisions, these items are especially relevant:

- Human Resource Capacity Balancing across all projects
- project-specific employee utilization
- role utilization for critical qualifications
- priority of affected projects
- effect on finish dates and downstream projects

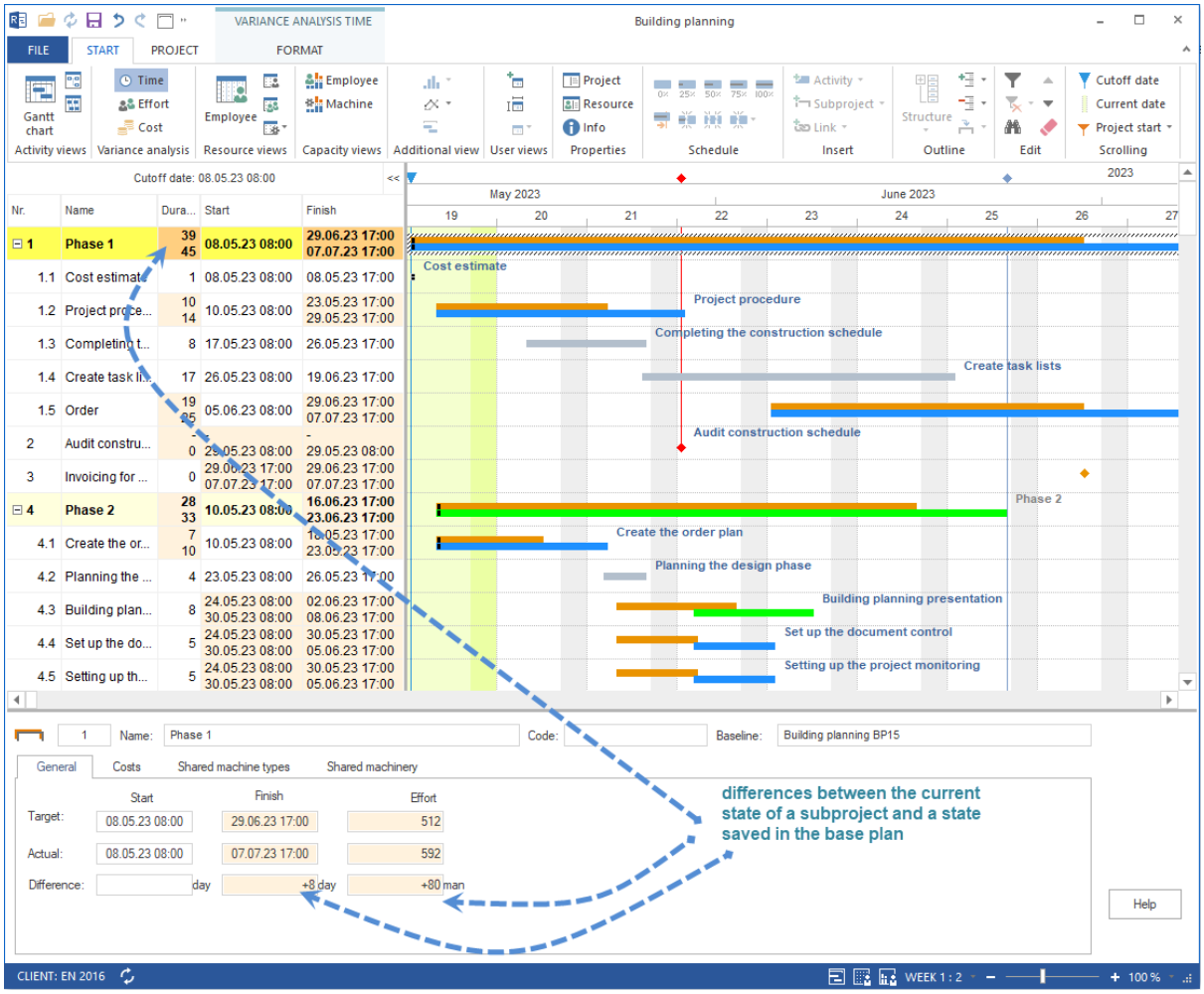
8.3.6 Export and Further Processing

Portfolio evaluations can be processed for external reports. Use export functions when results are needed in Office documents, presentations, or coordination material.

Typical export targets:

- Microsoft Excel for tables and evaluations
- XML if data should be processed in other project management systems

- PDF or print output for static reports



8.3.7 Typical Mistakes

- Portfolio analysis is understood only as a schedule overview.
- Resource bottlenecks are not connected with project priorities.
- Individual projects are evaluated without checking cross-project dependencies.
- Simulations are not documented.
- Status reports list risks but no decision recommendation.

8.3.8 Related Topics

- *Build a Project Portfolio*
- *Control Multiproject Planning*
- *Prepare Status Report*
- *Role-Based Help*

8.4 Manage a Summary Project

A summary project is a Rillsoft Project mode in which several individual projects are edited operationally together. Unlike a project portfolio, which is primarily used for analysis, the summary project enables direct planning, resource assignment, dependencies, and corrections across project boundaries.

> **Note**
>
> The summary project requires **Rillsoft Project with Rillsoft Integration Server** or **Rillsoft Cloud**. In standalone operation, this function is not available.

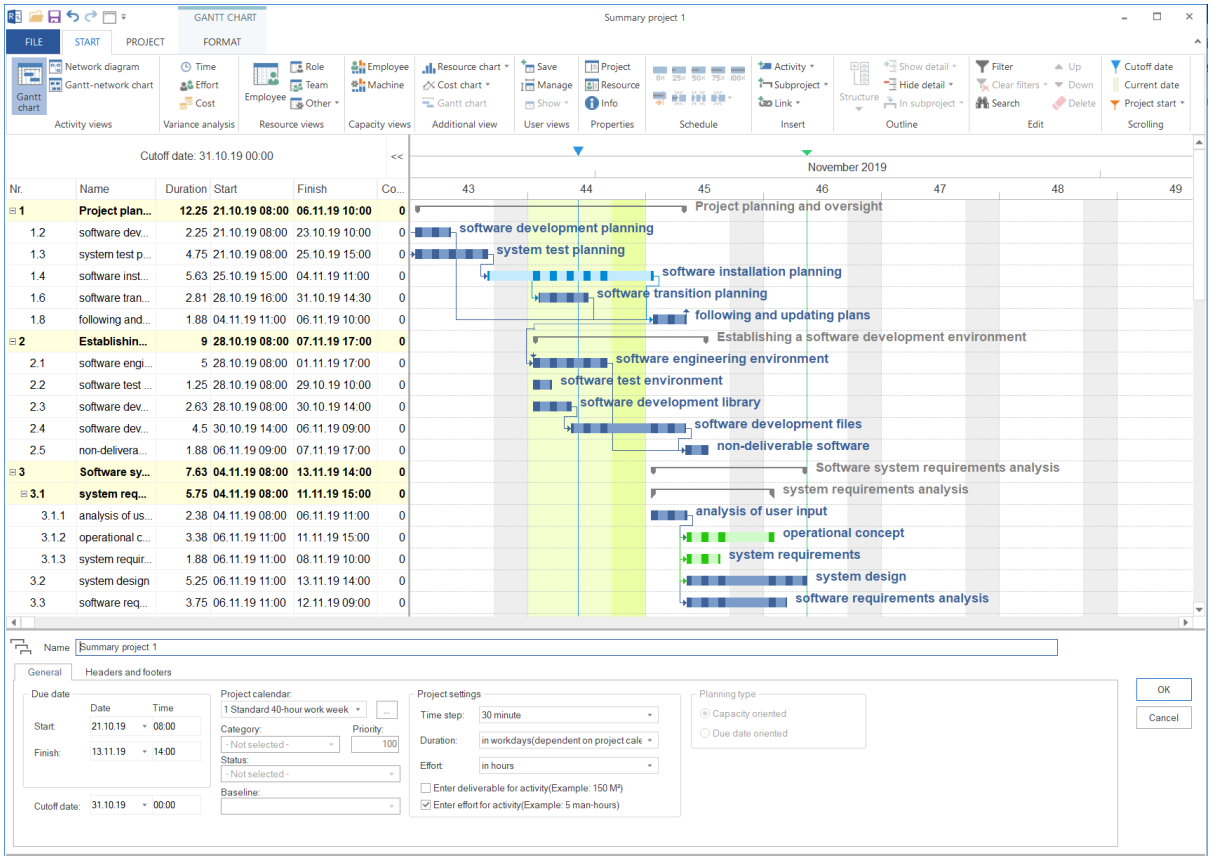
How several project managers collaborate with summary projects in a team is described in *Planning as a Team: Multi-User Work and Summary Projects*.

8.4.1 When to Use a Summary Project

Use a summary project when:

- several projects are edited by different teams at the same time
- cross-project task dependencies must be maintained
- shared resource utilization optimization across several projects is required
- an existing project should be split into several separate projects
- simulations with combined project contents should be performed

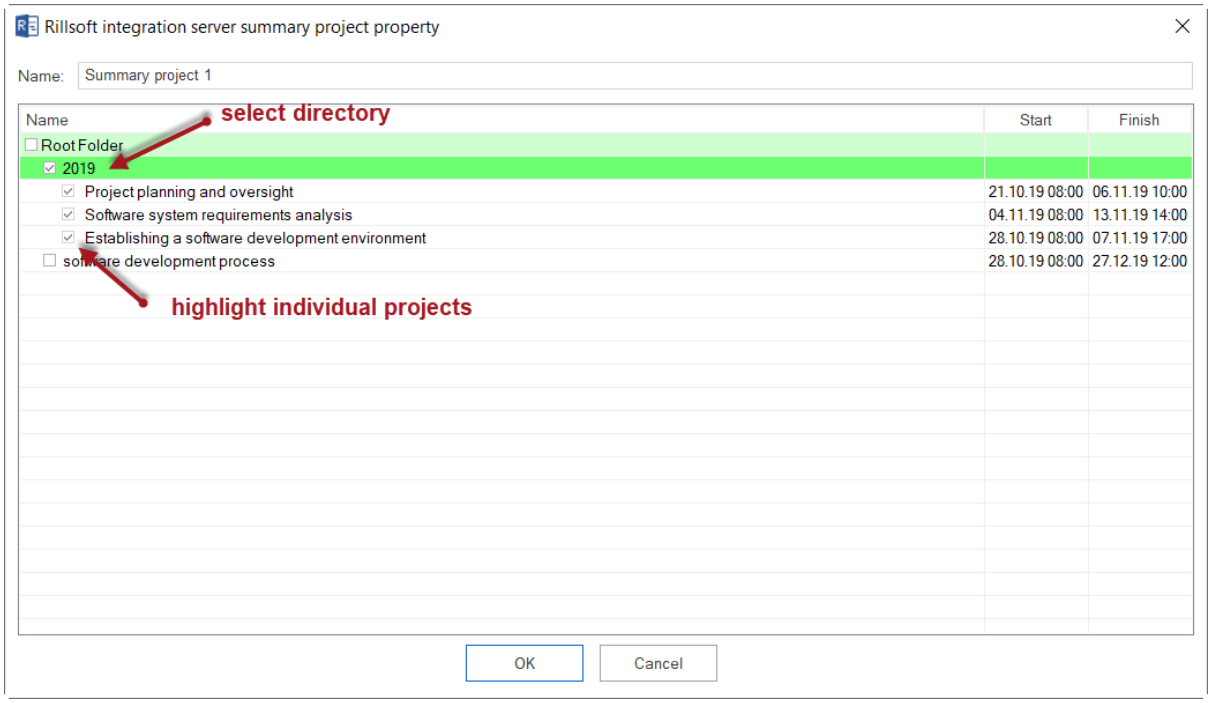
Important prerequisite: All projects in the summary project must use the same resource pool. Projects with deviating resources must be synchronized first.



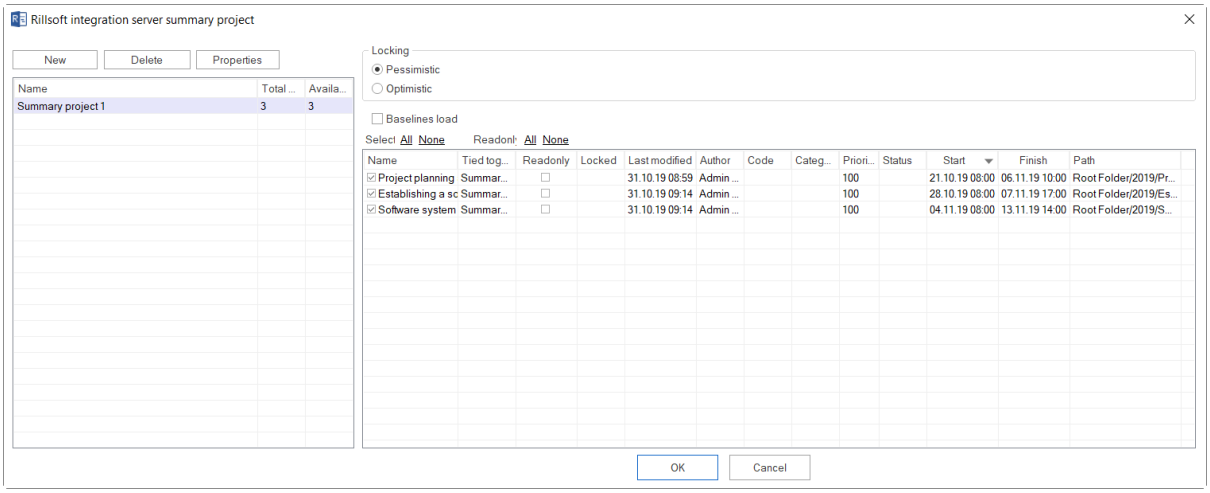
8.4.2 Create a Summary Project

Option 1: Create a new summary project

1. Choose **File > Open new summary project**.
2. The **Rillsoft Integration Server summary project property** dialog appears.



3. Enter a name for the summary project.
4. Use **Filter** to limit the project list.
5. Select the folder where the required projects are stored.
6. Select the projects to include in the summary project. You can also add projects from other folders.
7. Click **OK**.



After creation, the **Rillsoft Integration Server summary project** dialog shows all summary projects on the left. The new summary project is selected. On the right, you see the included projects.

The **Project count** column shows the total number of projects in the summary project. **Available** shows how many projects you can read.

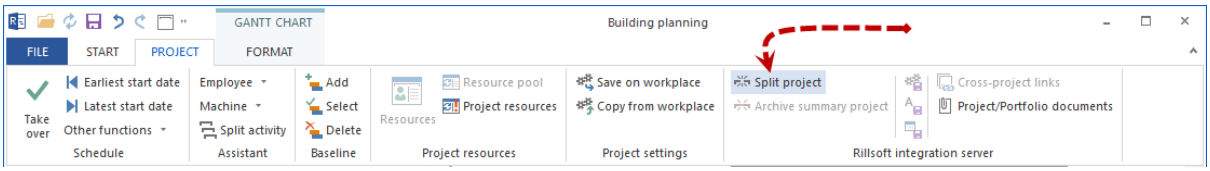
Option 2: Create a summary project from a split project

If an existing project consists of several subprojects and should be converted into a summary project, check these prerequisites first:

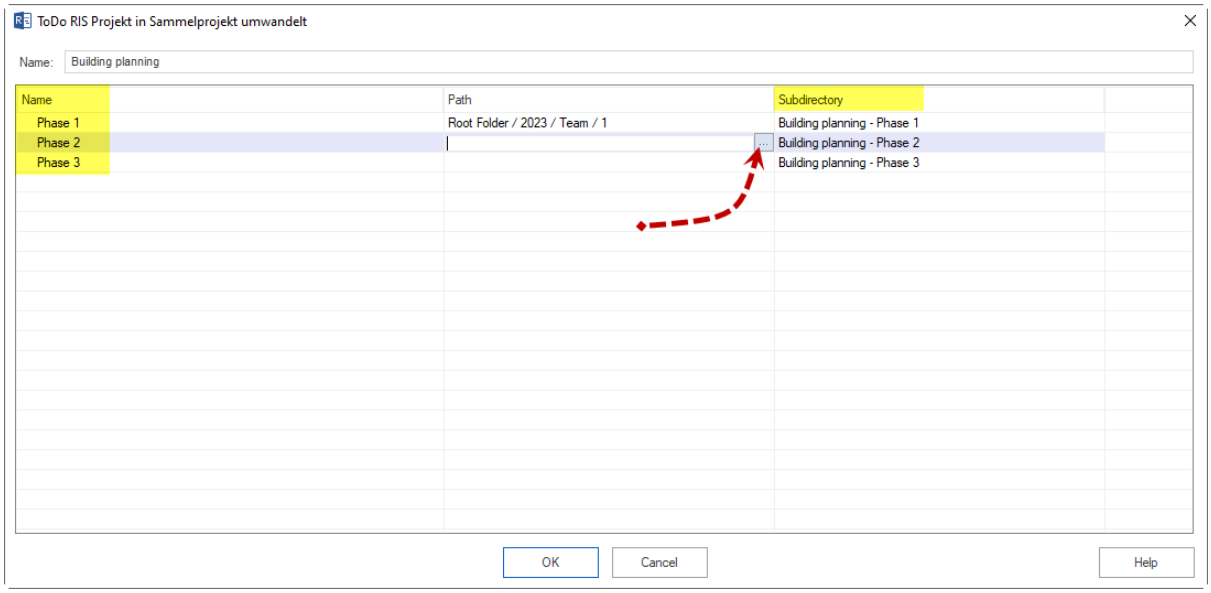
1. The project must contain at least one subproject.
2. There must be no separate tasks on the top project level. All tasks must be below a subproject.
3. There must be no added documents on the top project level.

If the prerequisites are met:

1. Open the project.
2. Choose **Project > Rillsoft Integration Server > Split project**.



3. The dialog shows in **Name** how many separate projects the project can be split into.

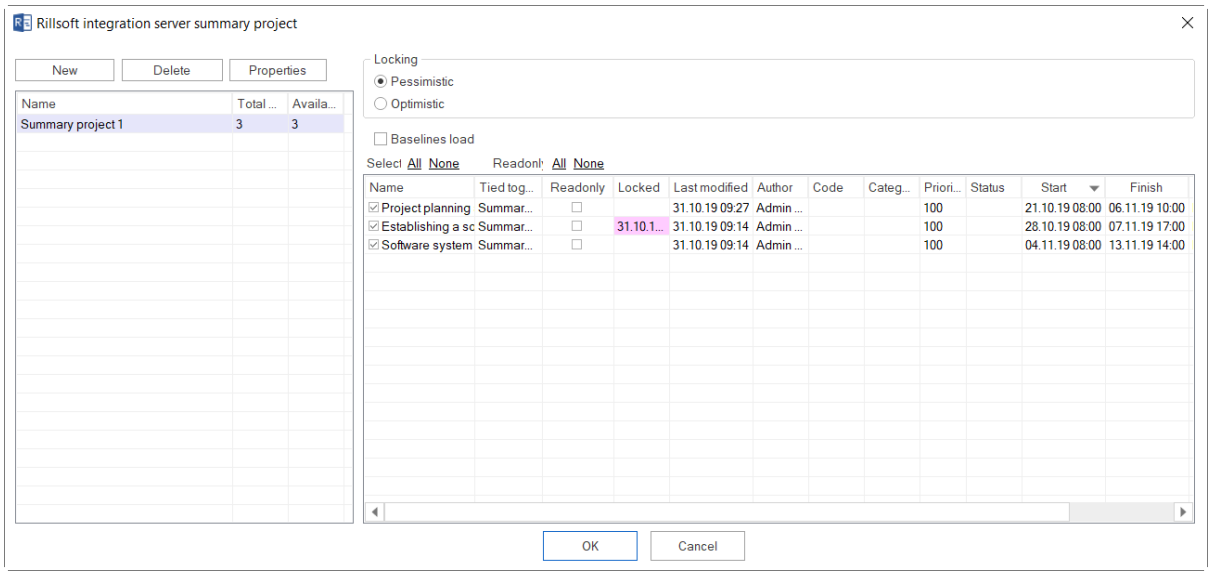


4. In **Path**, click the three dots and select a virtual folder for each subproject.
5. Click **OK**.

The original subprojects are saved as separate projects and automatically combined into a new summary project.

8.4.3 Open a Summary Project

1. Choose **File > Open > Rillsoft Integration Server > Summary project**.
2. The **Rillsoft Integration Server summary project** dialog appears.



3. On the left, you see all summary projects with project count and availability information.
4. On the right, you see the projects in the selected summary project. You can clear individual projects for this opening process.
5. Projects with a red background are locked.
6. Optionally select **Read only** to open projects read-only.

7. Click **OK**.

Set project order

Click a column header in the dialog to sort projects by that characteristic. Available columns include project name, code, category, priority, status, start, finish, and file name. The selected order is used in the summary project.

Load baseline

If you do not need target/actual comparison in the summary project, clear **Load baseline**. This speeds up loading significantly.

Locking mode

- **Pessimistic**: As soon as one user changes a project, others can open it only as a read-only copy.
- **Optimistic**: Every user can edit the project at any time.

The locking mode can be selected only by users with the corresponding access rights. Notes on working with locks in a team: *Work on Projects Simultaneously*.

8.4.4 Work in a Summary Project

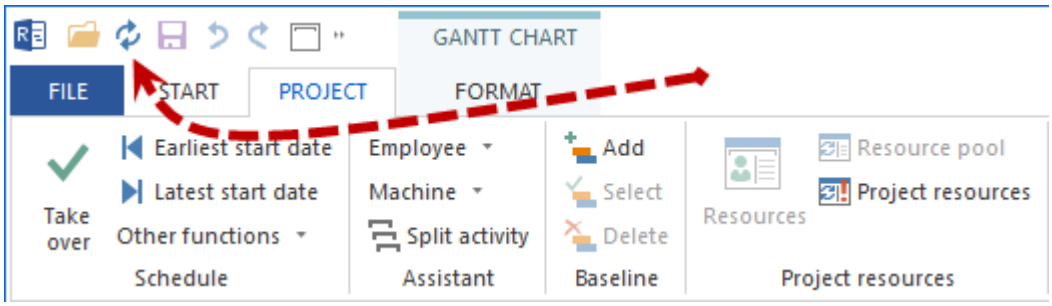
All views from Gantt chart to resource diagram are available in the summary project. You can create tasks, assign resources, correct workflows, and save results, as in a normal individual project.

Note: A new project cannot be created inside the summary project. New projects must be created separately and then added to the summary project.

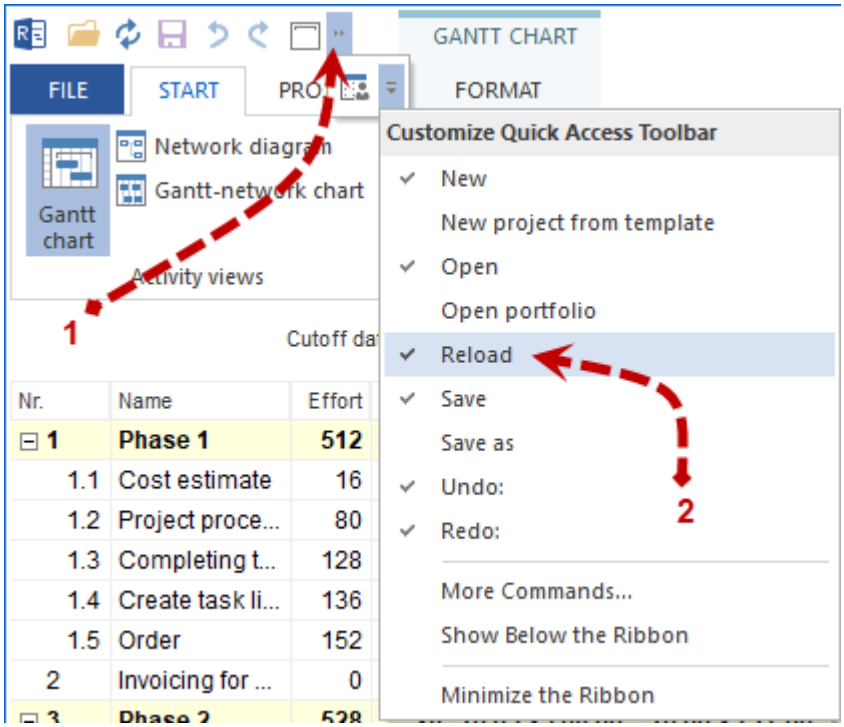
8.4.5 Reload a Summary Project

When several people work in the summary project at the same time, reload it to see changes made by others.

Click the **Reload** icon in the Quick Access Toolbar.



If the icon is not visible, use **Customize Quick Access Toolbar** and add the **Reload** command.



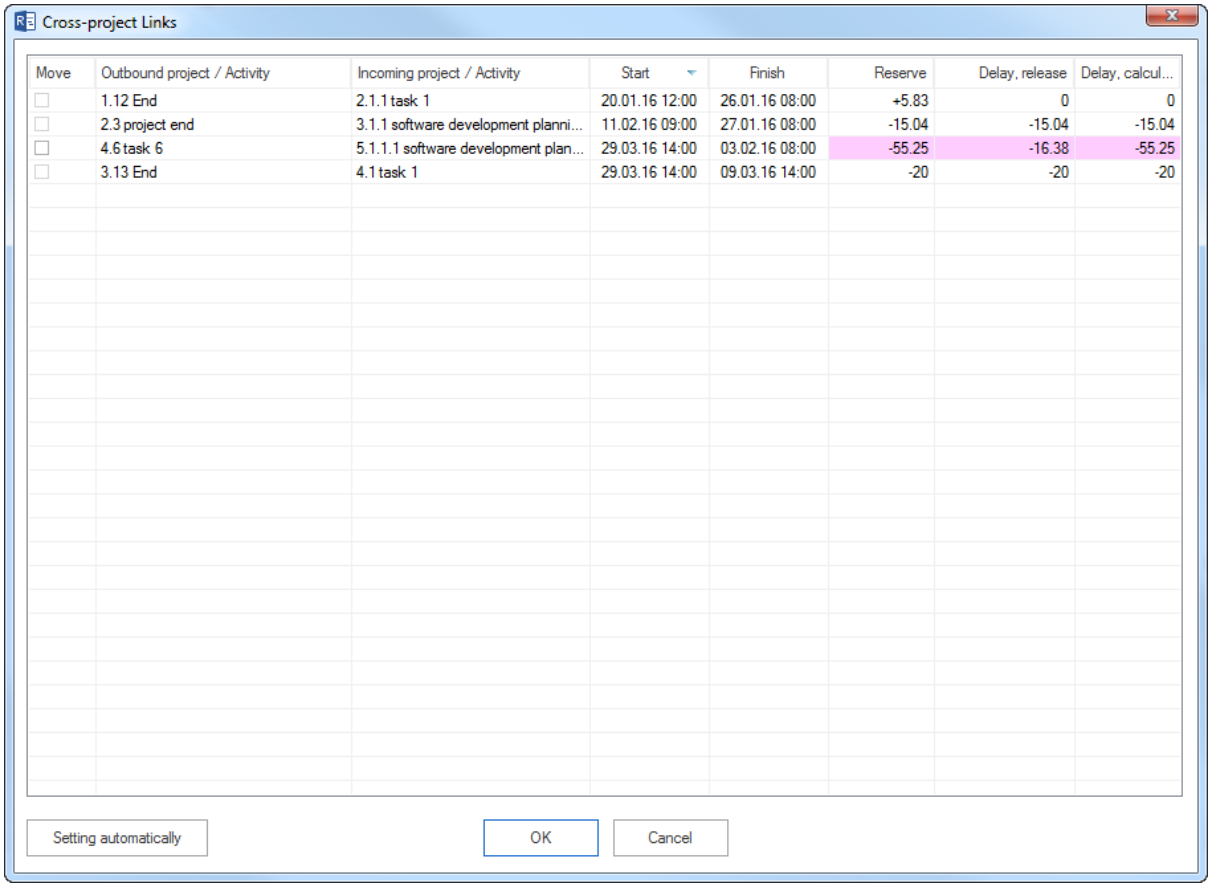
8.4.6 Cross-Project Dependencies

In a summary project, tasks from different projects can be linked directly. This function is available only with Rillsoft Integration Server.

> **Note**
>
> With cross-project dependencies, successors are not always moved automatically. Negative intervals may arise and must be checked manually.

Check and accept cross-project dependencies

Open **Project > Rillsoft Integration Server > Cross-project links**.



The table shows all links between projects with these values:

Column	Meaning
Move	If selected, the calculated delay is aligned with the released delay.
Outgoing project/task	Predecessor of the dependency.
Incoming project/task	Successor of the dependency.
Start	Shows when the dependency starts.
Finish	Shows when the dependency ends.
Reserve	Time interval in absolute time between outgoing and incoming position.
Delay, release	Released interval value.
Delay, calculated	Calculated interval value.

Red background indicates a difference between released and calculated delay.

Click **Setting automatically** to accept all calculated delays automatically.

Create a new cross-project dependency

1. Choose a dependency type with **Start > Insert > Link**.
2. In the Gantt chart, draw a connection from a task in one project to a task in another project.

3. Enter a delay if required, positive for waiting time or negative for overlap.
4. Click **OK**.

Intervals for cross-project dependencies can be entered only in absolute time, for example 10 hours or 2 days.

8.4.7 Merge a Summary Project

If the contents of several projects from a summary project should be saved as one single project:

1. Choose **Project > Rillsoft Integration Server > Merge summary project**.
2. In **Rillsoft Integration Server save project**, select a virtual folder on the left and projects on the right.
3. Click **OK**.

The individual projects are merged into one shared project.

8.4.8 Resolve Resource Differences Before Opening

If Rillsoft Project reports resource differences in individual projects when opening a summary project, open those projects individually first and synchronize them with **Project > Project resources > To resource pool**. Only then can they be reliably included in a summary project.

More about synchronization:

- *Synchronize Resources*

8.4.9 Next Steps

- *Plan Related Projects of Several Project Managers Together*
- *Build a Project Portfolio*
- *Control Multiproject Planning*
- *Assign Resources Automatically*
- *Integration Server*

8.5 When to Use This Section

Use this section when:

- several projects use the same resource pool
- employees are planned in several projects at the same time
- project priorities are needed for resource decisions
- dependencies between projects should be visible
- PMO or management need a common view of project status, risks, and bottlenecks

- several project managers plan related projects at the same time, see *Planning as a Team: Multi-User Work and Summary Projects*

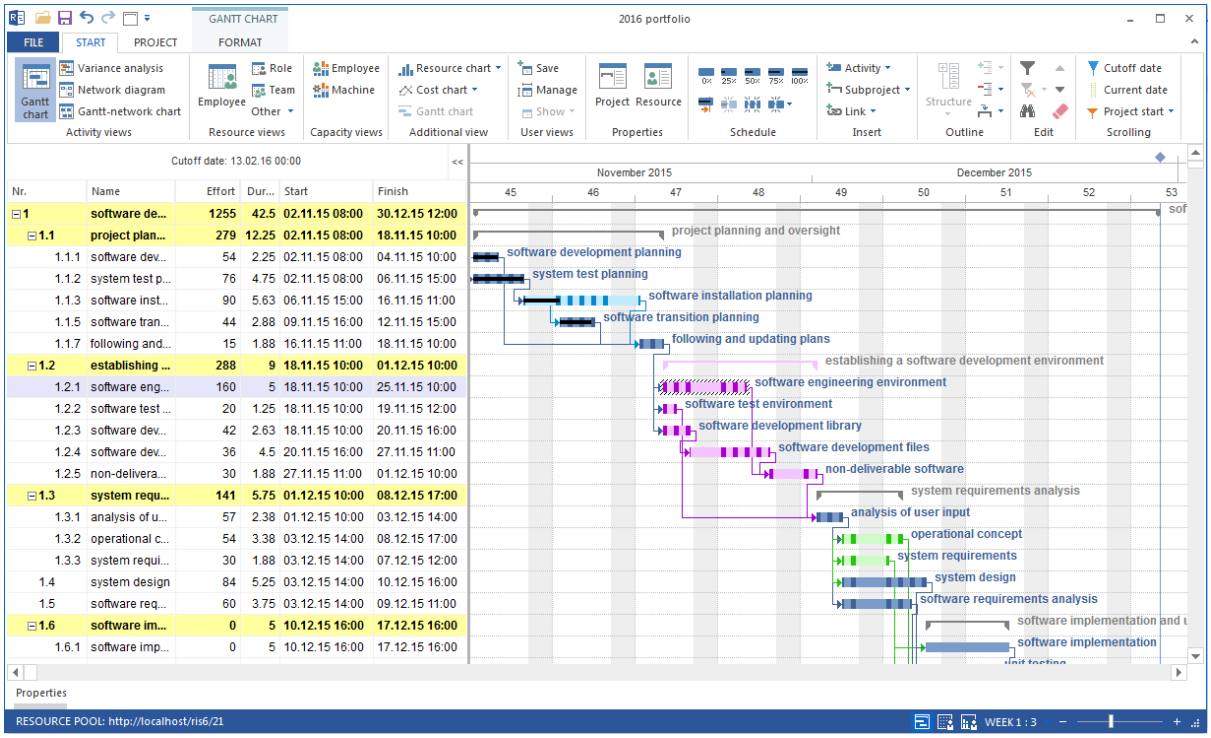
8.6 Basic Principle

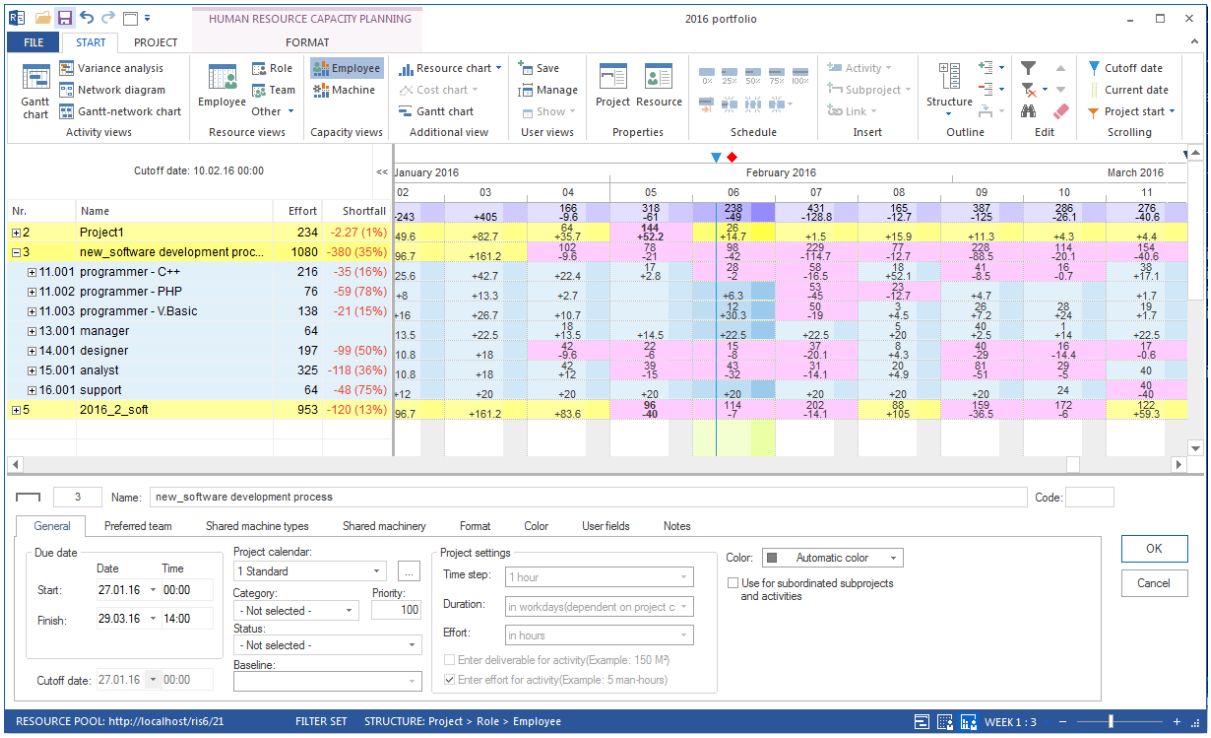
Rillsoft Project supports two central views of several projects:

Project portfolio
: Several separate individual projects are displayed and evaluated together. The portfolio is especially suitable for overview, analysis, capacity checking, simulation, and status evaluation.

Summary project
: Several projects are planned operationally together. The summary project is especially suitable when projects are edited directly together and cross-project dependencies are relevant.

The most important prerequisite is a shared resource pool. Only then can Rillsoft Project calculate cross-project utilization correctly.





8.7 Next Steps

- *Build a Project Portfolio*
- *Control Multiproject Planning*
- *Portfolio Analysis*
- *Planning as a Team: Multi-User Work and Summary Projects*
- *Resources and Capacities*
- *Project Control*

portfolio, multiproject, master project, shared resources, project selection, multi-project planning, multiple projects, project portfolio, pmo, executive management, project manager

CHAPTER

NINE

PLANNING AS A TEAM: MULTI-USER WORK AND SUMMARY PROJECTS

With Rillsoft Project and **Rillsoft Integration Server** or **Rillsoft Cloud**, several project managers plan at the same time. Each one maintains their own project, all of them use the same resource pool, and the **summary project** lets related projects be opened, linked, and planned together like **one** project. In the **project portfolio**, these projects are also evaluated together.

This section shows how this collaboration works in day-to-day practice. The individual steps for the summary project are described in *Manage a Summary Project*.

9.1 Work on Projects Simultaneously

When working with Rillsoft Integration Server or Rillsoft Cloud, all projects are stored centrally. Several project managers work at the same time: each on their own project and all with the same resource pool. This page describes what you need to consider.

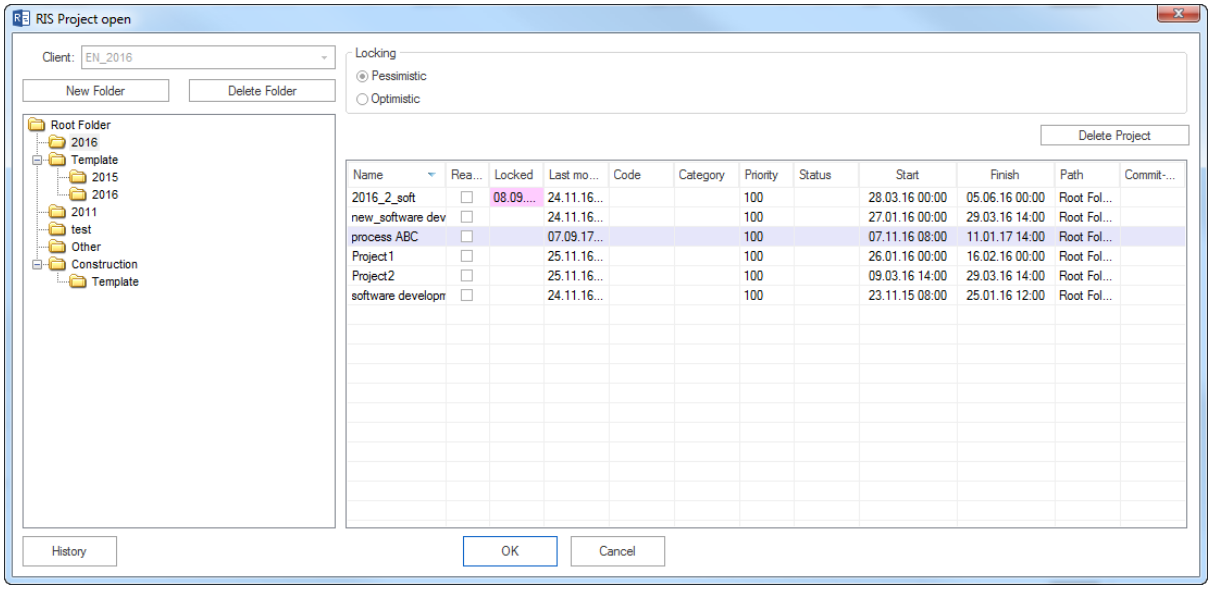
> **Note**
>
> Multi-user work requires **Rillsoft Project with Rillsoft Integration Server** or **Rillsoft Cloud**. It is not available in standalone operation with local project files.

9.1.1 Open a Project From Central Storage

1. Choose **File > Open > Rillsoft Integration Server > Project**.
2. Select the folder on the left. You see only the folders for which you have access rights.
3. Select the project on the right.
4. Click **OK**.

The **Locked** column shows whether, and since when, another user has been editing the project. In the **Read only** column, you can specify that you open the project for reading only.

A new project is saved with **File > Save as > Rillsoft Integration Server > Project**.



9.1.2 Locks: Who May Change a Project Right Now?

To prevent changes made by several users from overwriting each other, Rillsoft Project works with locks. When opening a project, you choose the locking mode:

Locking mode	Behavior
Pessimistic	As soon as one user changes the project, all other users can open the project only as a read-only copy.
Optimistic	Every user can edit the project at any time.

The locking mode can be selected only by users with the corresponding access rights.

Recommendation: Use the pessimistic locking mode in a team when several people work on the same projects. This way, it is always clear who is currently changing a project.

If a project remains locked although nobody is working on it anymore, for example after a lost connection, the administration can release the lock in Rillsoft Integration Server. See Lock in the Rillsoft Integration Server help.

9.1.3 Open Read-Only

Open a project read-only if you only want to view or evaluate it. The project then remains available to the responsible project manager.

Typical cases:

- You check the state of a neighbouring project without changing it.
- As overall project management or PMO, you evaluate several projects.
- The project is already locked by another user.

In a summary project, you can specify for each included project individually

whether it is opened read-only. See *Plan Related Projects of Several Project Managers Together*.

9.1.4 Make Changes by Others Visible

You see changes made by other users only after you reload the data.

What has changed?	How to reload
Project, portfolio, or summary project Resource pool (employees, roles, calendars)	**File > Reload Project** or the **Reload** icon in the Quick Access Toolbar. See *Reload a Project*. **Update resource pool** icon in the left corner of the status bar. See *Update the Resource Pool*.

Reload especially before capacity balancing and before status meetings. Otherwise, you evaluate utilization based on an outdated state.

9.1.5 View an Earlier Project Version

Rillsoft Integration Server stores the versions of a project. In the dialog for opening a project from Rillsoft Integration Server, the **History** button opens a list of versions with date, user, and comment. If required, you can restore an earlier version.

This lets the team trace who changed a project and when.

9.1.6 Typical Mistakes

- A project is opened read-only and edited anyway. Before making larger changes, check whether you opened the project for editing.
- A project remains open and locked for a long time. Other project managers cannot maintain their dependencies.
- Utilization is evaluated without reloading the project and the resource pool first.
- Projects are saved locally as files instead of in central storage. They are then missing from the summary project and the portfolio.

9.1.7 Related Topics

- *Planning as a Team: Multi-User Work and Summary Projects*
- *Organize Collaboration in the Team*
- *Reload a Project*
- *Update the Resource Pool*
- *Create and Select a Resource Pool with Rillsoft Integration Server*

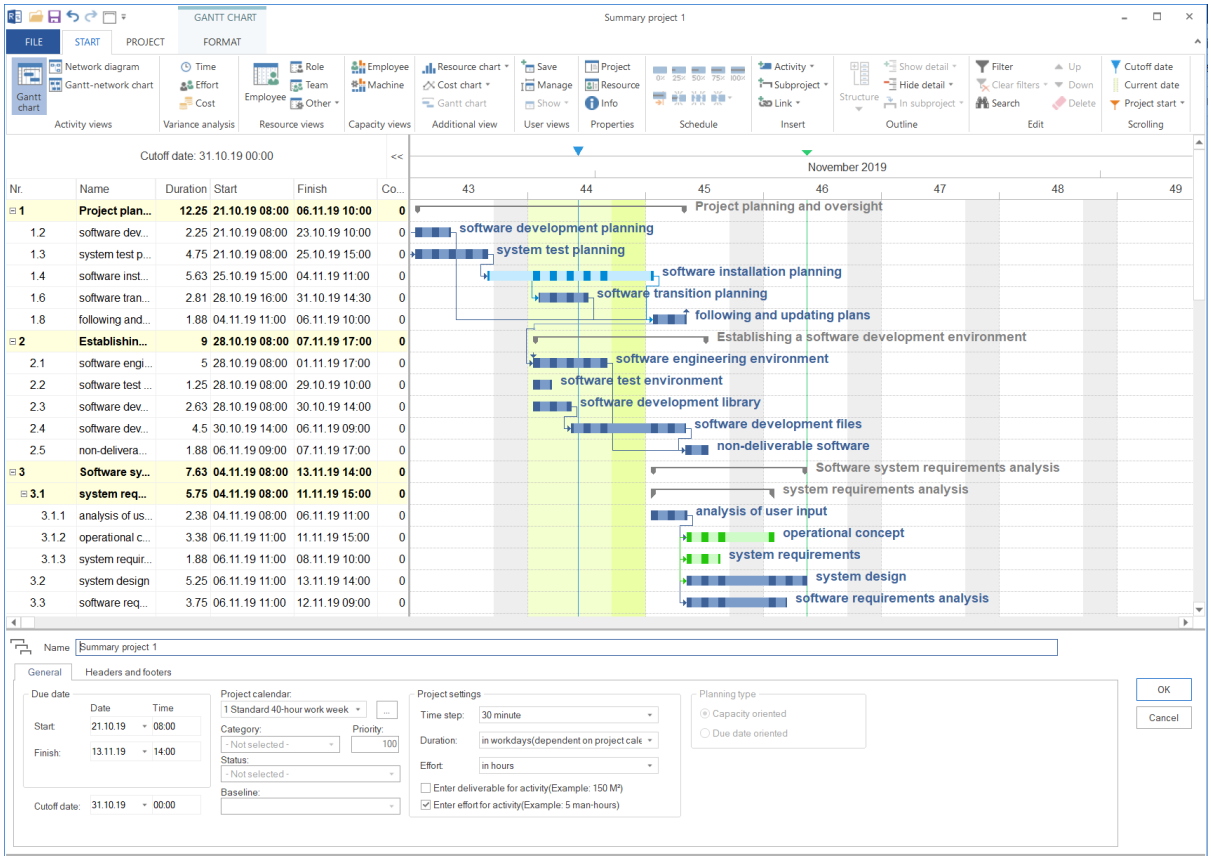
lock, locked, locking mode, pessimistic, optimistic, read only, reload, project version, history, standalone, integration server, ris, cloud, multi-user, time entry, vacation planning

9.2 Plan Related Projects of Several Project Managers Together

Large undertakings are often implemented jointly by several project managers. With the **summary project**, each project manager keeps their own project, and the entire undertaking can still be opened, linked, and planned like **one** project.

This page shows the workflow using one continuous example. The individual dialogs are described in *Manage a Summary Project*.

> **Note**
>
> The summary project requires **Rillsoft Project with Rillsoft Integration Server** or **Rillsoft Cloud**. All projects in the summary project must use the same resource pool.



9.2.1 Example

A mechanical engineering company builds a plant. Design, manufacturing, and assembly are the responsibility of three project managers:

Project	Responsible	Dependency
Plant – Design	Design project manager	—
Plant – Manufacturing	Manufacturing project manager	Starts after the design drawings are released
Plant – Assembly	Assembly project manager	Starts after the assemblies are completed

The overall project management wants to see the overall schedule, maintain dependencies between the three projects, and check the utilization of the shared employees.

9.2.2 Step 1: Create the Projects

There are two ways:

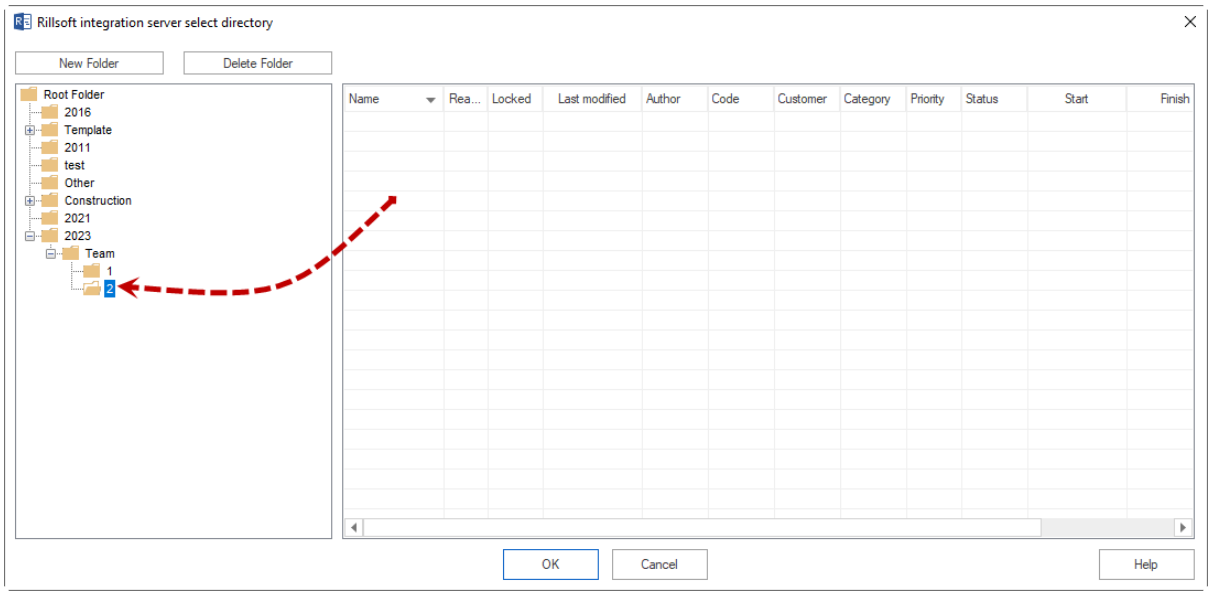
Option A — Separate projects from the start

Each project manager creates their project and saves it to central storage with **File > Save as > Rillsoft Integration Server > Project**, ideally in a shared folder for the undertaking.

Option B — Split one project with subprojects

The undertaking was first planned as one project with the subprojects Design, Manufacturing, and Assembly. With **Project > Rillsoft Integration Server > Split project**, each subproject is saved as a separate project. Rillsoft Project automatically combines the new projects into a summary project.

For each new project, you select the target folder:



Prerequisites and individual steps: *Manage a Summary Project* (section “Option 2: Create a summary project from a split project”).

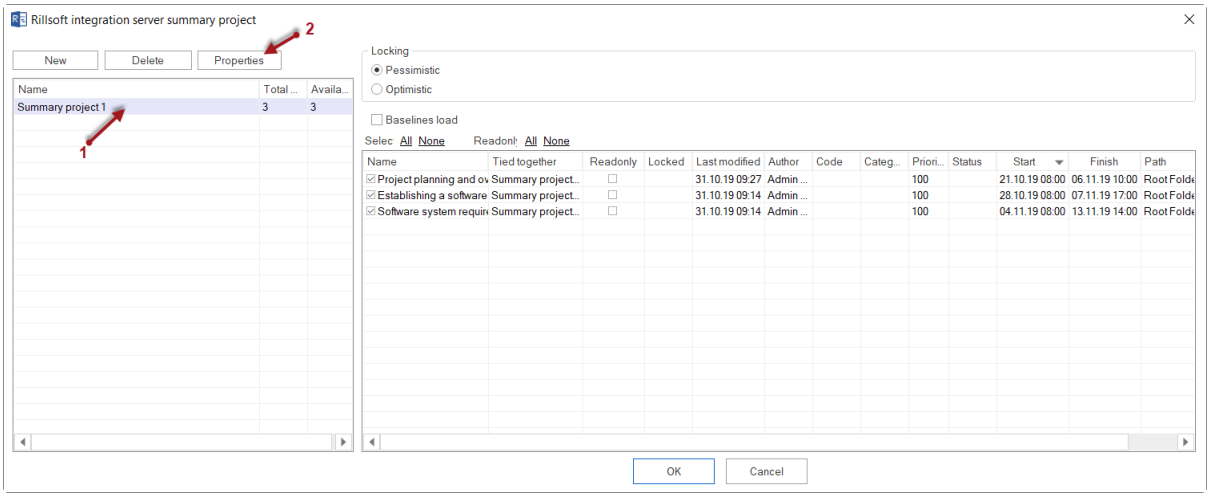
9.2.3 Step 2: Create the Summary Project

With option A, the overall project management creates the summary project:

1. Choose **File > Open new summary project**.
2. Enter a name, for example “Plant – Overall”.
3. Select the three projects, also from different folders.
4. Click **OK**.

With option B, the summary project already exists.

Further projects can be added later: Select the summary project in the **Rillsoft Integration Server summary project** dialog and click **Properties**.



A new project cannot be created inside the summary project itself. Create it separately and then add it.

9.2.4 Step 3: Each Project Manager Plans Their Project

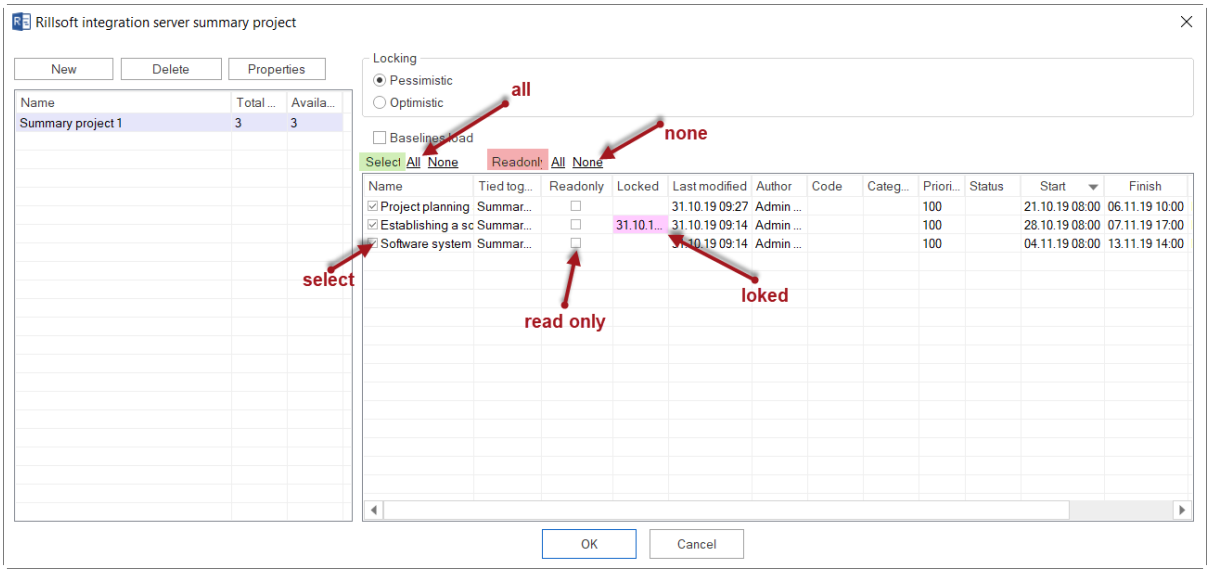
The project managers open and edit only their own project with **File > Open > Rillsoft Integration Server > Project**. They plan tasks, dates, and resources as usual.

Because everyone uses the same resource pool, each project manager also sees the utilization caused by other projects during capacity balancing.

Notes on locks and reloading: *Work on Projects Simultaneously*.

9.2.5 Step 4: Overall Project Management Opens the Summary Project

1. Choose **File > Open > Rillsoft Integration Server > Summary project**.
2. Select the summary project on the left. The included projects appear on the right.
3. Specify which projects are opened and which are only loaded read-only.
4. Click **OK**.



Projects with a red background are currently locked by another user. With **All** and **None**, you select or clear all projects at once, or set all of them to read-only.

Recommendation: As overall project management, open the projects that the project managers are currently working on read-only. The projects then remain available to the people responsible for them, and you still see the overall schedule.

All views from Gantt chart to resource diagram are available in the summary project — as if the undertaking were one single project.

9.2.6 Step 5: Maintain Dependencies Between the Projects

In the summary project, you connect tasks from different projects with **cross-project dependencies**, in the example “Release of design drawings” → “Start of manufacturing”.

1. Choose a dependency type with **Start > Insert > Link**.
2. In the Gantt chart, drag from the task of one project to the task of the other project.
3. If required, enter a delay in absolute time, for example 2 days.

Check the dependencies regularly with **Project > Rillsoft Integration Server > Cross-project links**.

Warning

With cross-project dependencies, successors are not moved automatically. If the design is delayed, a negative interval may arise in manufacturing. Rows marked red in the dialog show such deviations.

Details: *Manage a Summary Project* (section “Cross-Project Dependencies”).

9.2.7 Step 6: Check Utilization Across All Projects

In the summary project, open the **Human Resource Capacity Balancing** view. It shows the total utilization of each employee across all projects of the undertaking. Coordinate bottlenecks with the responsible project managers. See *Control Multiproject Planning*.

9.2.8 Step 7: Keep the State Current

The project managers continue working in parallel. Reload the summary project before every coordination meeting: **Reload** icon in the Quick Access Toolbar.

If you do not need target/actual comparison, clear **Load baseline** when opening. The summary project then loads much faster.

9.2.9 Optional: Merge the Summary Project Into One Project

If the undertaking should finally be saved as one single project again, use **Project > Rillsoft Integration Server > Merge summary project**. See *Manage a Summary Project* (section “Merge a Summary Project”).

9.2.10 Related Topics

- *Planning as a Team: Multi-User Work and Summary Projects*
- *Summary Project in the Portfolio*
- *Organize Collaboration in the Team*
- *Manage a Summary Project*
- *Manage Subprojects*

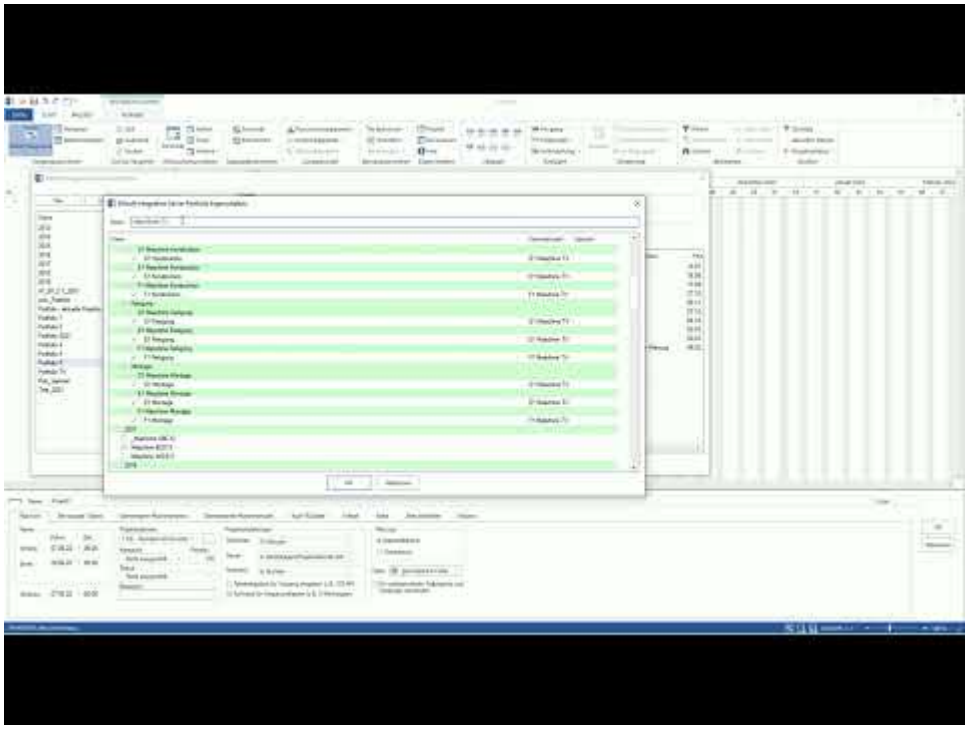
summary project, split project, overall project management, overall schedule, cross-project dependency, cross-project link, lots, trades, multiproject planning, multiple projects, portfolio, project portfolio, master project, project manager, pmo

9.3 Summary Project in the Portfolio

Summary projects can be added to a **project portfolio** and edited there. This lets you connect the operational planning of an undertaking with the evaluation of the entire project landscape.

> **Note**
>
> The summary project and a project portfolio with summary projects require **Rillsoft Project with Rillsoft Integration Server** or **Rillsoft Cloud**.

9.3.1 Video: Summary Project in the Portfolio



Summary project in the portfolio – Rillsoft Project (YouTube, in German, approx. 3 minutes)

9.3.2 When to Combine Summary Project and Portfolio

	Summary project	Project portfolio
Purpose	Plan related projects of one undertaking together	Evaluate and control many projects and undertakings together
Typical users	Overall project management, involved project managers	PMO, executive management, resource managers
Typical questions	Does the overall schedule work? Are the dependencies between the projects correct?	Which undertakings have priority? Where do resource bottlenecks arise across all projects?

Combine both when:

- several undertakings are planned as summary projects and compete for the same resources
- PMO or executive management want to see an undertaking as a whole in the context of all other projects
- priorities, status, and utilization should be evaluated across undertakings

9.3.3 Workflow

1. Plan related projects as a summary project, see *Plan Related Projects of Several Project Managers Together*.
2. Create or open the portfolio, see *Build a Project Portfolio*.
3. Add the summary project to the portfolio. The procedure is shown in the video.
4. Evaluate the portfolio, for example in **Human Resource Capacity Balancing**, see *Portfolio Analysis*.

Maintain status and priority in every project of the summary project. Only then can the portfolio be sorted and evaluated meaningfully.

9.3.4 Typical Mistakes

- The projects of the summary project use a different resource pool than the other projects in the portfolio.
- The portfolio is evaluated without reloading it first. Changes made by the project managers are then missing.
- Summary project and portfolio are confused: dependencies between tasks belong in operational planning, priority decisions in the portfolio evaluation.

9.3.5 Related Topics

- *Planning as a Team: Multi-User Work and Summary Projects*
- *Plan Related Projects of Several Project Managers Together*
- *Build a Project Portfolio*
- *Portfolio Analysis*
- *Individual Project, Summary Project, or Project Portfolio?*

summary project, portfolio, project portfolio, evaluate undertakings, multiproject planning, multiple projects, master project, pmo, executive management

9.4 Organize Collaboration in the Team

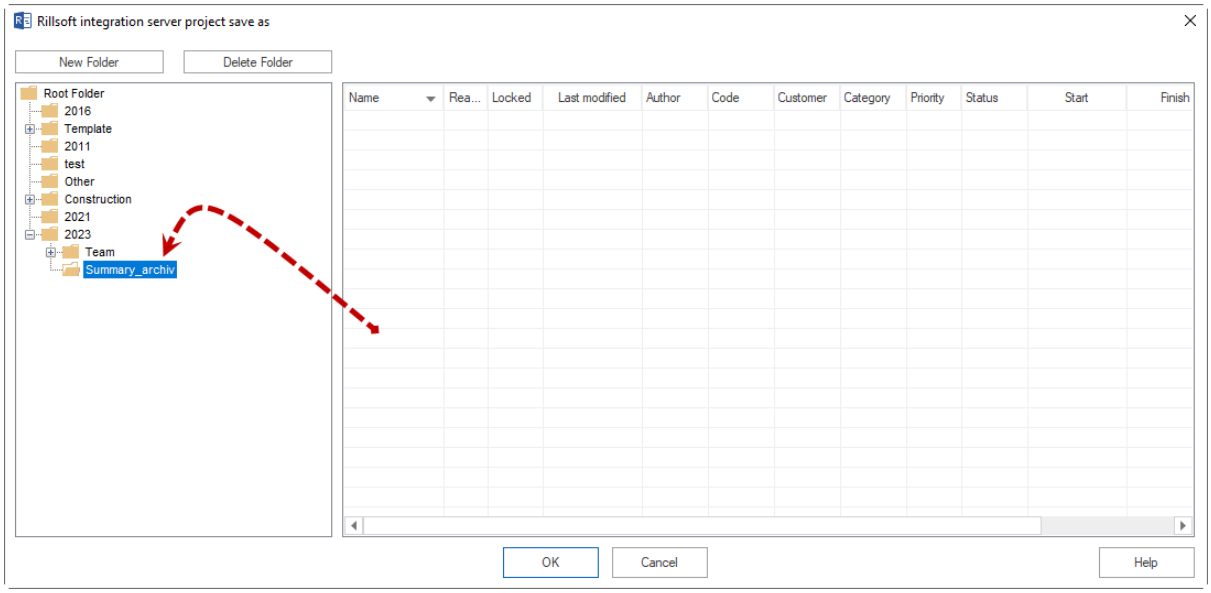
Rillsoft Project with Rillsoft Integration Server or Rillsoft Cloud makes simultaneous work technically possible. To keep shared planning reliable, the team also needs clear ground rules.

9.4.1 Checklist Before You Start

Item	Recommendation
Responsibility per project	Exactly one project manager is responsible for each project. Others open the project read-only.
Shared resource pool	All projects that are planned or evaluated together use the same resource pool. See *Create and Select a Resource Pool with Rillsoft Integration Server*.
Responsibility for the resource pool	A named person maintains employees, roles, and calendars in the resource pool.
Folder structure	Create folders per undertaking, team, or department. Folder rights control who sees which projects and who may change them.
Locking mode	Define it uniformly in the team, usually **pessimistic**. See *Work on Projects Simultaneously*.
Summary projects	Define who creates and maintains summary projects, for example the overall project management.
Cross-project dependencies	Set them only for real professional dependencies and define who checks them.
Status and priority	Maintain them uniformly in every project so that summary project and portfolio can be sorted meaningfully.
Coordination rhythm	Fixed dates, for example a weekly status meeting, before which the summary project or portfolio is reloaded.

A folder structure in Rillsoft Integration Server can look like this, for example:

Folders, users, and access rights are set up by the administration in Rillsoft Integration Server. See *Setting Up and Operating Integration Server*.



9.4.2 Day-to-Day Workflow

1. Define and connect the shared resource pool.
2. Maintain projects with status, priority, and responsible persons.
3. Each project manager edits their own project.
4. The overall project management opens the summary project; PMO or executive management open the portfolio.
5. Set cross-project dependencies only where real professional dependencies exist.
6. Check capacity balancing across all projects involved.
7. Evaluate delays, link distances, and bottlenecks regularly in status meetings.

9.4.3 Typical Mistakes

- Projects in the summary project or portfolio use different resource pools.
- Several people change the same project without clear responsibility.
- Projects remain locked for a long time.
- The summary project is understood as mere storage for several projects instead of being used for shared planning.
- Cross-project dependencies are set too often and are not checked.
- Resource conflicts are checked only in the individual project although other projects use the same employees.

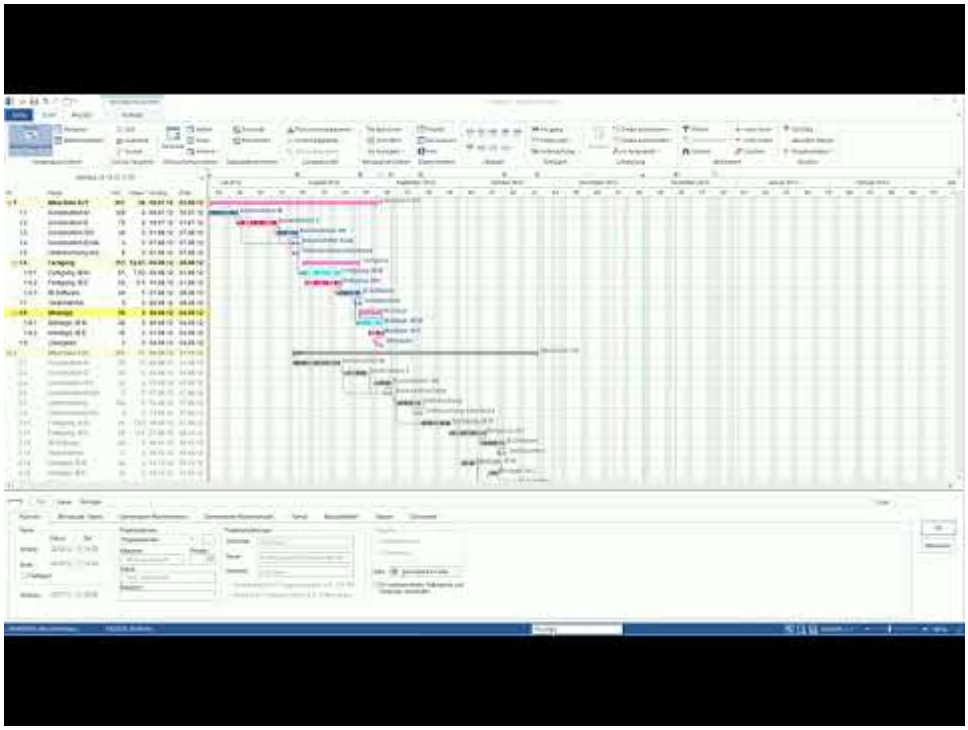
9.4.4 Related Topics

- *Planning as a Team: Multi-User Work and Summary Projects*
- *Work on Projects Simultaneously*

- *Plan Related Projects of Several Project Managers Together*
- *Multiproject Planning*
- *Setting Up and Operating Integration Server*

ground rules, checklist, responsibility, folder structure, locking mode, status meeting, multiproject planning, multiple projects, portfolio, project portfolio, master project, pmo, it and administration, project manager

9.5 Video: Multi-User Work in Rillsoft Project



Multi-project planning in a team: multi-user work – Rillsoft Project (YouTube, in German, approx. 8 minutes)

9.6 Prerequisite

Multi-user work and summary projects are available only with central data storage:

Operating model	Multi-user work and summary project
Standalone (local project files)	Not available. Several project managers cannot work with the same resources at the same time.
Rillsoft Integration Server (own server)	Available
Rillsoft Cloud	Available

In addition, all projects involved must use **the same resource pool**. Only then does Rillsoft Project calculate utilization across all projects correctly.

Which operating model suits your company is described in *Choose an Operating Model*.

9.7 Three Typical Scenarios

A — Several project managers, own projects, shared resources
Each project manager plans their own project. Because everyone uses the same resource pool, everyone can see when an employee is already planned in another project.

→ *Work on Projects Simultaneously*

B — Related projects should look like one project
A large undertaking is split into several projects, for example by lots, trades, or departments. Each project manager edits their part. The overall project management opens all parts together as a summary project, sees the overall schedule, and maintains the dependencies between the projects.

→ *Plan Related Projects of Several Project Managers Together*

C — Control related projects in the portfolio
PMO or executive management evaluate several undertakings together. For this purpose, summary projects can be added to a portfolio and edited there.

→ *Summary Project in the Portfolio*

9.8 How the Building Blocks Fit Together

Building block	Role in teamwork
Individual project	Work area of one project manager. Stored centrally on Rillsoft Integration Server or in Rillsoft Cloud.
Resource pool	Shared resource base of all projects of a client. Basis for cross-project utilization.
Locks	Control who may currently change a project. During this time, other users open it read-only.
Summary project	Opens several projects together in one planning view. The projects remain stored separately.
Cross-project dependencies	Connect tasks from different projects, for example “Assembly in project B starts after manufacturing in project A”.
Project portfolio	Evaluates several projects and summary projects together by status, priority, resource situation, and risks.

Clients, folders, users, and access rights are set up by the administration in Rillsoft Integration Server. See *Setting Up and Operating Integration Server*.

9.9 Related Topics

- *Manage a Summary Project*
- *Control Multiproject Planning*
- *Individual Project, Summary Project, or Project Portfolio?*
- *Integration Server*

multi-user work, multi-user, multi-user operation, teamwork, several project managers, plan simultaneously, summary project, rillsoft cloud, multiproject planning, multiple projects, portfolio, project portfolio, master project, project manager, pmo, executive management

CHAPTER

TEN

TROUBLESHOOTING AND DECISION SUPPORT

Use this section when a project behaves differently than expected. Each article starts with the visible symptom, explains the most likely causes, and then gives concrete checks and corrective actions.

10.1 Why Does My Project Date Shift?

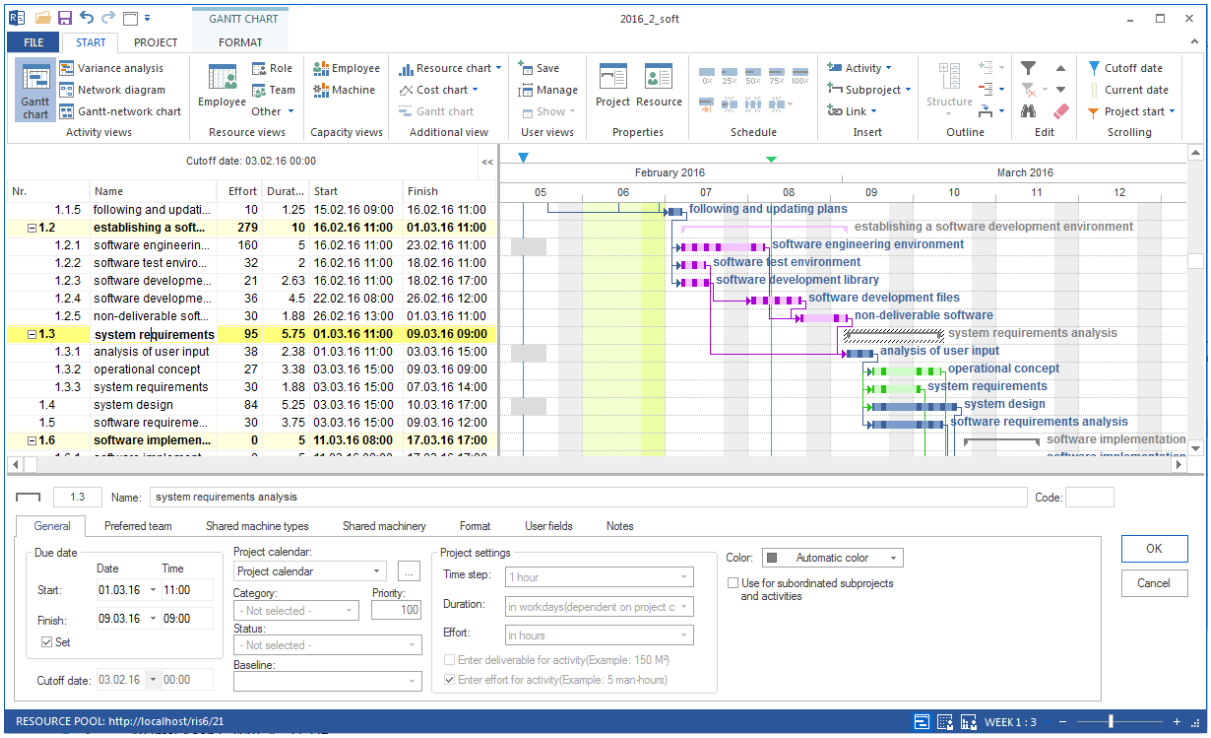
Rillsoft Project calculates dates automatically from tasks, dependencies, and resources. The project finish date therefore shifts when a task on the critical path becomes longer, when non-working days of an assigned employee extend a capacity-oriented task, when a fixed subproject limits the schedule frame, or when dependencies are missing or incorrect. The fastest entry point is **Start > Properties > Info > Late activities**.

10.1.1 Symptom

The project finish date moves later although no tasks were moved manually. Or one task is moved and the entire project finish date changes.

10.1.2 Why This Happens

Rillsoft Project calculates the schedule based on tasks, dependencies, resources, and scheduling rules. When a task is moved forward, successor planning is recalculated automatically as far as tasks are not fixed. This is intended behavior: the plan remains logically consistent.



When the finish date shifts, the cause lies in the plan itself. Common causes are the critical path, resource availability, fixed subprojects, or missing dependencies.

10.1.3 Cause 1: Task on the Critical Path

Tasks on the critical path have no float. Every extension or shift of such a task directly shifts the project finish date.

Check:

1. Switch to the Gantt view.
2. Check the red tasks on the critical path.
3. Find the task whose duration, start, or finish changed.

Solution:

- check and correct the duration of the causing task
- split the task into meaningful work packages
- assign additional suitable resources
- accelerate predecessors if this is technically possible

10.1.4 Cause 2: Non-Working Days of the Assigned Employee

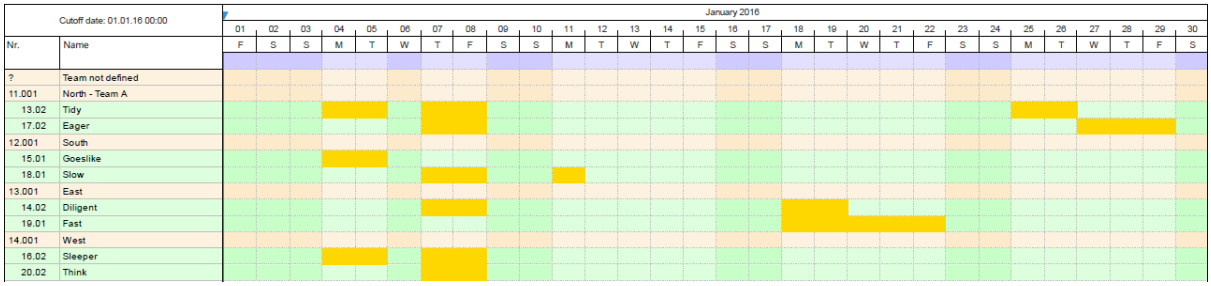
If capacity-oriented planning is used and a named employee is assigned to a task, Rillsoft Project considers that employee's working time. If non-working days, vacation, illness, or other absences fall within the task period, the task is extended by these non-working days. If non-working days lie directly at the planned start, the task may start later.

This is not a general overload reaction. It is the result of an employee assignment combined with capacity-oriented planning: the task can only be worked on days when the assigned employee is available.

Check:

1. Check whether capacity-oriented planning is used for the project or task.
2. Open the affected task and check the employee assignment.
3. Open the resource pool and check the assigned employee's calendar, working time, and non-working days.
4. Check whether non-working days lie within the task period or directly at the planned start.
5. Check in the Gantt chart whether the task is extended or starts later because of this.

Employee_2016_non_work



Solution:

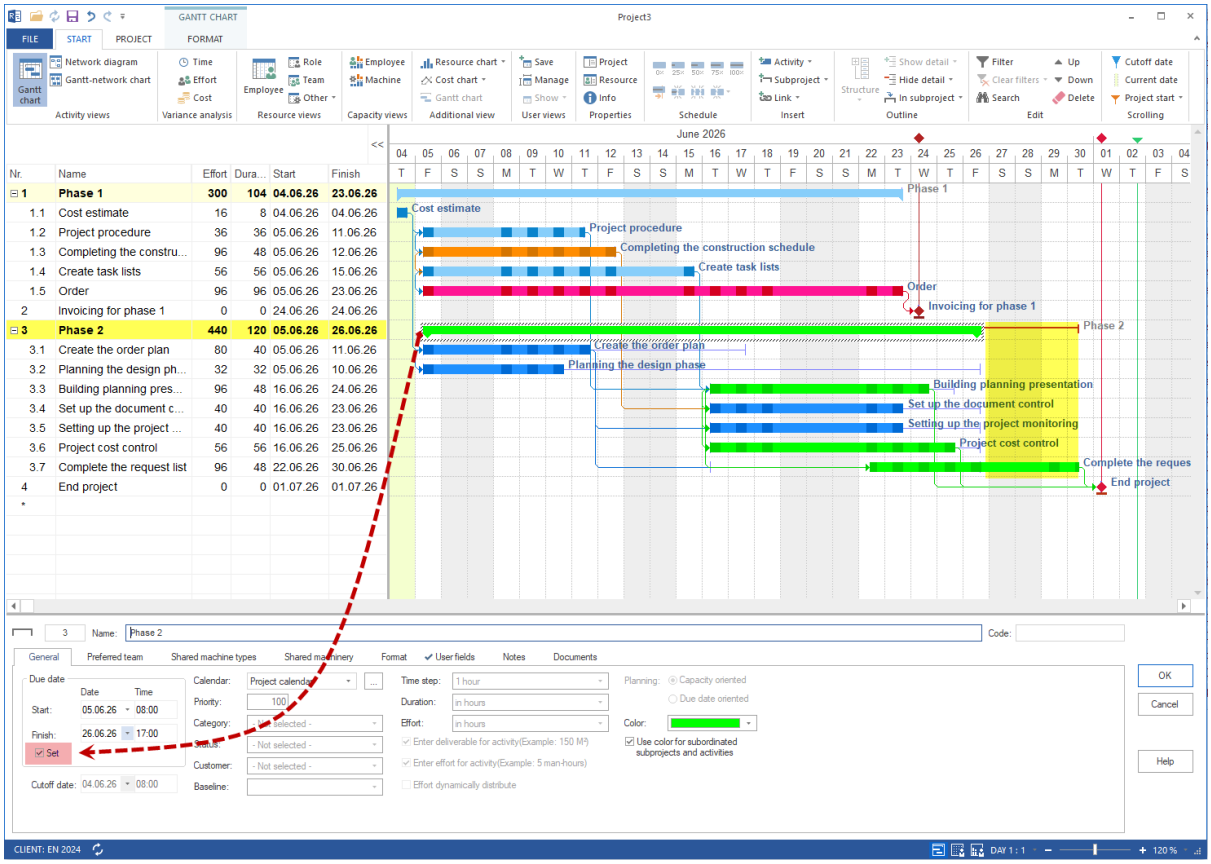
- correct non-working days if they were maintained incorrectly
- assign another available employee with a suitable professional qualification
- intentionally move the task to a period with sufficient availability
- distribute the effort across several available employees if needed
- check whether capacity-oriented planning is intended for this case

10.1.5 Cause 3: Fixed Date in a Subproject

If a subproject has fixed start or finish dates, tasks inside that frame can create red date overruns. The project finish date shifts especially when the subproject lies on the critical path.

Check:

1. Open the subproject properties.
2. Check fixed start and finish dates.
3. Check whether tasks inside the subproject take longer than planned.



Solution:

- adjust the fixed date if the planning situation requires it
- shorten or replan tasks inside the subproject
- check resource demand and capacity

10.1.6 Cause 4: Missing or Incorrect Dependencies

If tasks are not linked correctly, Rillsoft Project may calculate sequences that do not match the real process. If a missing dependency is added later, the finish date can immediately jump back.

Check:

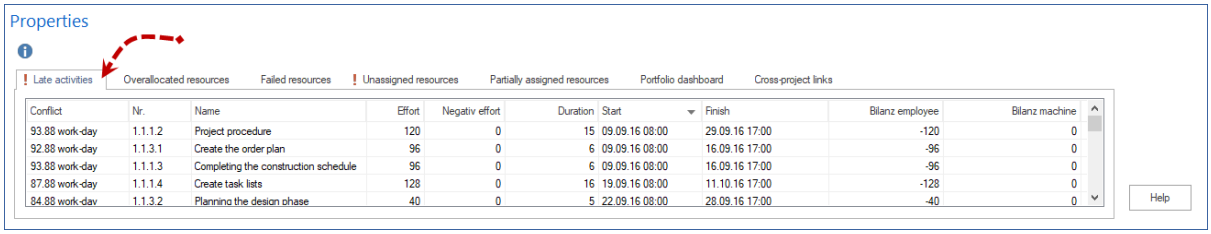
1. Switch to the network diagram view.
2. Check whether the tasks are logically connected.
3. Check dependency type and lag.

Solution:

- add missing dependencies
- correct wrong dependency types
- remove unnecessary dependencies

10.1.7 Quick Check

Open **Start > Properties > Info > Late activities**. This view shows affected tasks compactly and is a fast starting point for root-cause analysis.



10.1.8 Related Topics

- *Project Planning*
- *Perform Capacity Balancing*
- *Maintain Working Times and Non-Working Days*
- *Check Employee Assignments*
- *Evaluate Plan Deviations*

10.2 Why Is a Task Not Movable?

A task cannot be moved if it is fixed, if a backward schedule shift must first be confirmed, if a dependency prevents the earlier position, or if the parent subproject has fixed dates. First check the **General** tab of the task properties to see whether the task is fixed.

10.2.1 Symptom

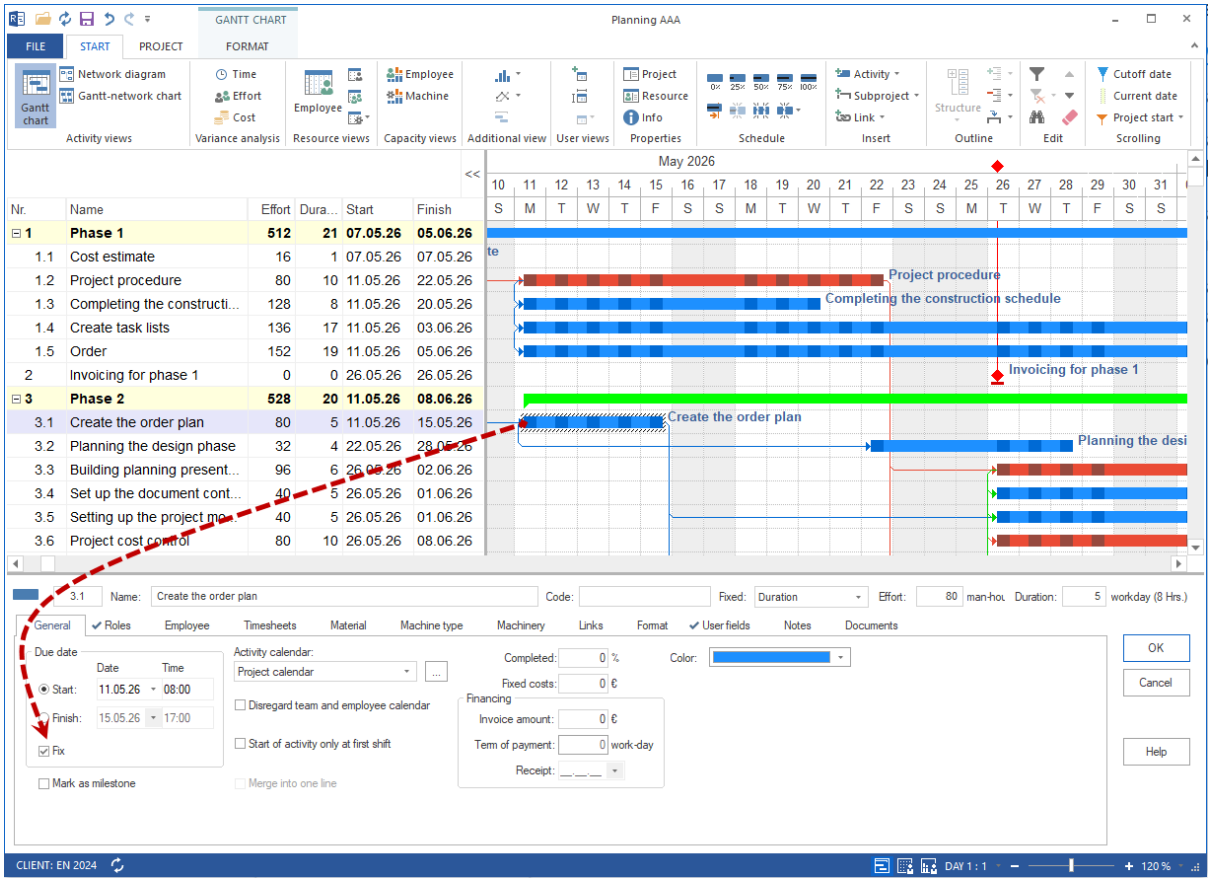
A task cannot be moved with the mouse, jumps back to its original position after moving, or requires a separate confirmation before it can be moved.

10.2.2 Cause 1: The Task Is Fixed

Fixed tasks are not moved automatically during schedule shifts. They remain on their set date even if predecessors move.

Check:

1. Open the task properties.
2. Switch to **General**.
3. Check whether **Fix date** is enabled.



Solution:

Disable the fixed date if the task should remain movable. If the fixed date is technically required, adjust the date deliberately and document the reason.

10.2.3 Cause 2: Backward Schedule Shift

When a task is moved earlier, Rillsoft Project requires explicit confirmation. Without this confirmation, the task can jump back.

Solution:

Confirm the backward schedule shift using the displayed context menu item or dialog.

10.2.4 Cause 3: Dependency Prevents the Earlier Position

A successor cannot be moved freely before its predecessor if the dependency prevents that sequence.

Check:

1. Open the network diagram view.
2. Check predecessor, successor, and dependency type.
3. Check whether a lag is entered.

Solution:

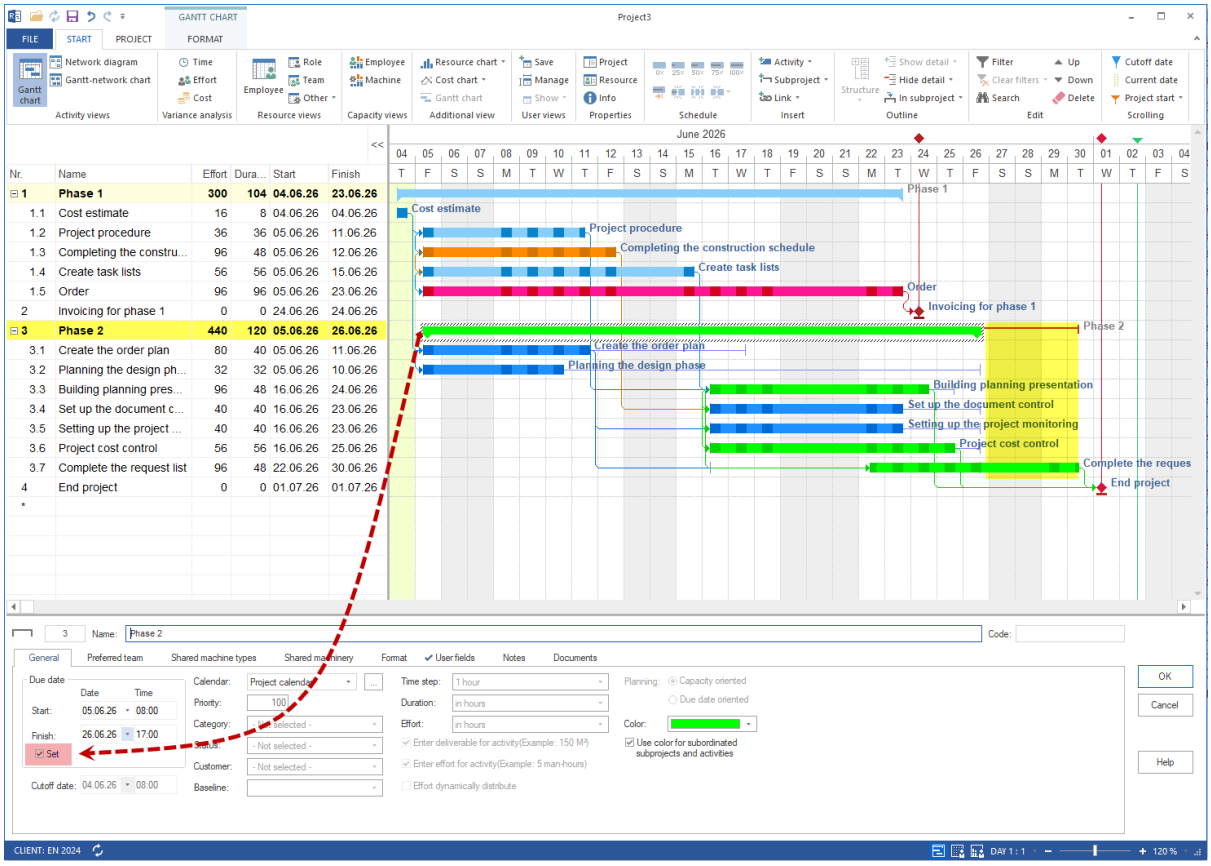
Move the predecessor first, change the dependency type, or enter a technically justified negative lag.

10.2.5 Cause 4: Subproject with Fixed Dates

If the parent subproject has fixed start or finish dates, contained tasks can only be moved within that frame.

Check:

Open the subproject properties and check the fixed dates.



10.2.6 Related Topics

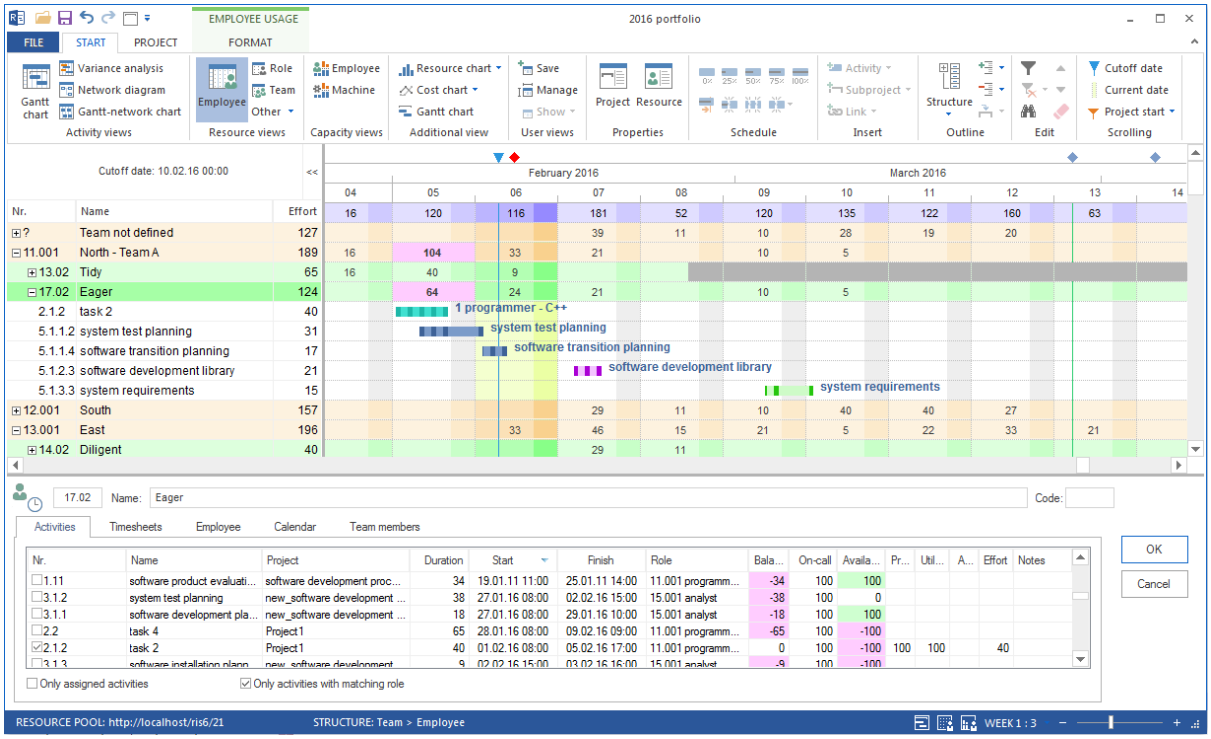
- *Project Planning*
- *Why Does My Project Date Shift?*

10.3 Why Does a Resource Show Overload?

A resource shows overload when its planned utilization exceeds its available working capacity in a time period. Common causes are parallel tasks assigned to the same employee, an incorrect calendar or working time, too high a workload percentage, or multiple projects using the same employee. First check **Start > Properties > Info > Overallocated resources** and the employee view. Red values in capacity balancing usually indicate a shortage by qualification instead.

10.3.1 Symptom

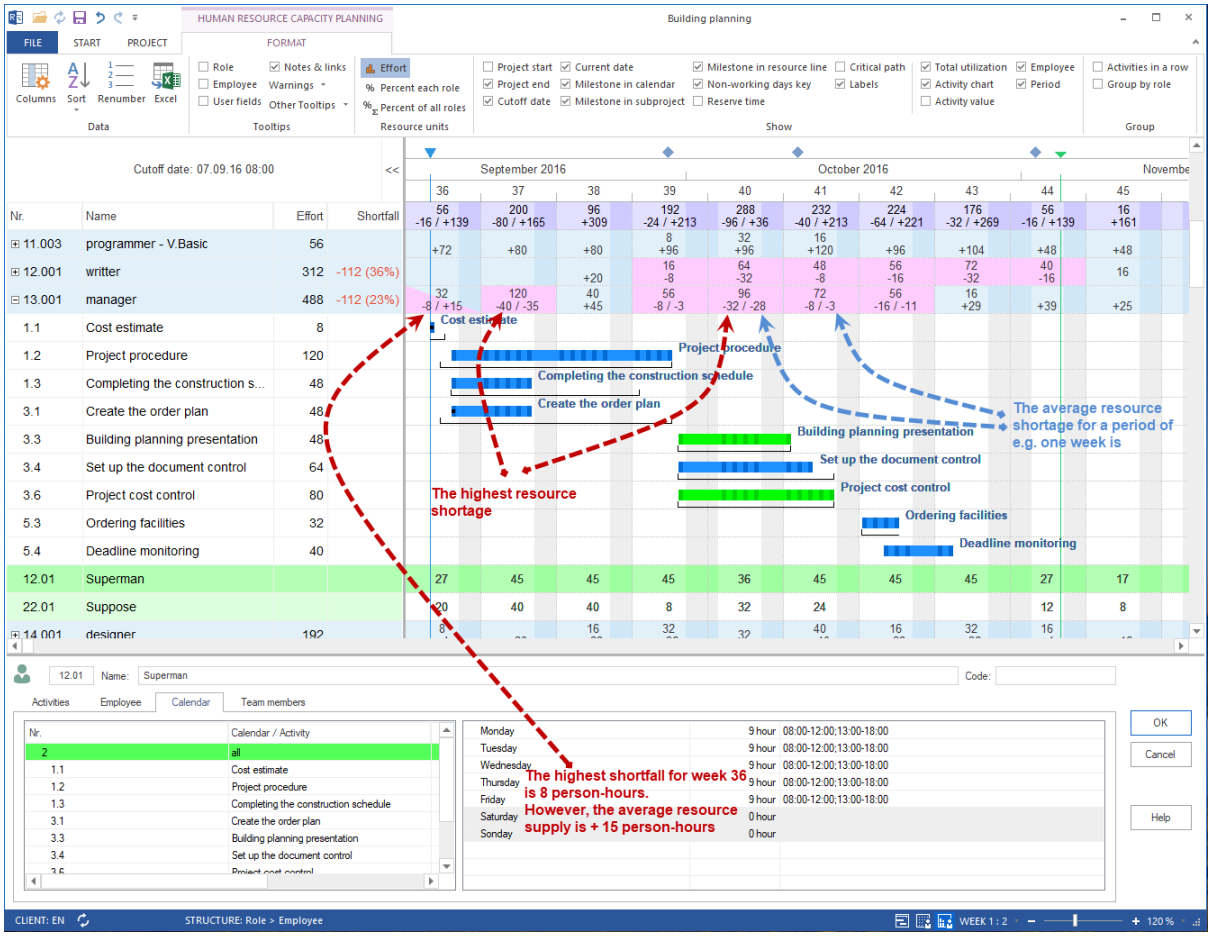
Red periods appear in the employee view. Under **Start > Properties > Info > Overallocated resources**, an employee is listed as overloaded. If red qualification rows appear in capacity balancing, also check whether role demand is not covered.



10.3.2 What Overload Means

The planned utilization of an employee exceeds the available working capacity in a specific period. Causes can be parallel tasks, too little working time, absences, or a high workload percentage.

Capacity balancing uses a different perspective: it compares demand and supply by role or professional qualification. Red values there normally indicate a shortage.

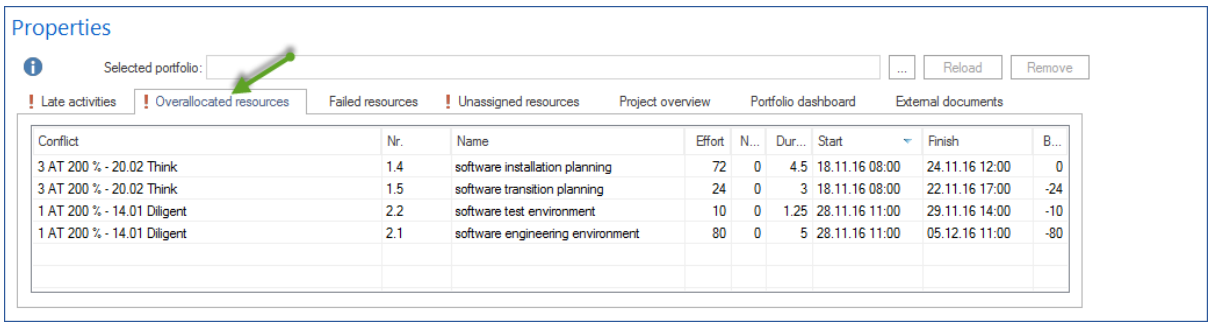


10.3.3 Cause 1: Parallel Tasks

Several tasks run at the same time and use the same employee. The total assignment exceeds available capacity.

Check:

1. Open **Overallocated resources**.
2. Check conflict, effort, negative effort, and employee balance.
3. If needed, switch to the **Employee** view or the **Employee** tab in the task properties.



Solution:

- move one task

- assign another employee with a suitable professional qualification
- distribute the effort across several employees

10.3.4 Cause 2: Calendar or Working Time Is Incorrect

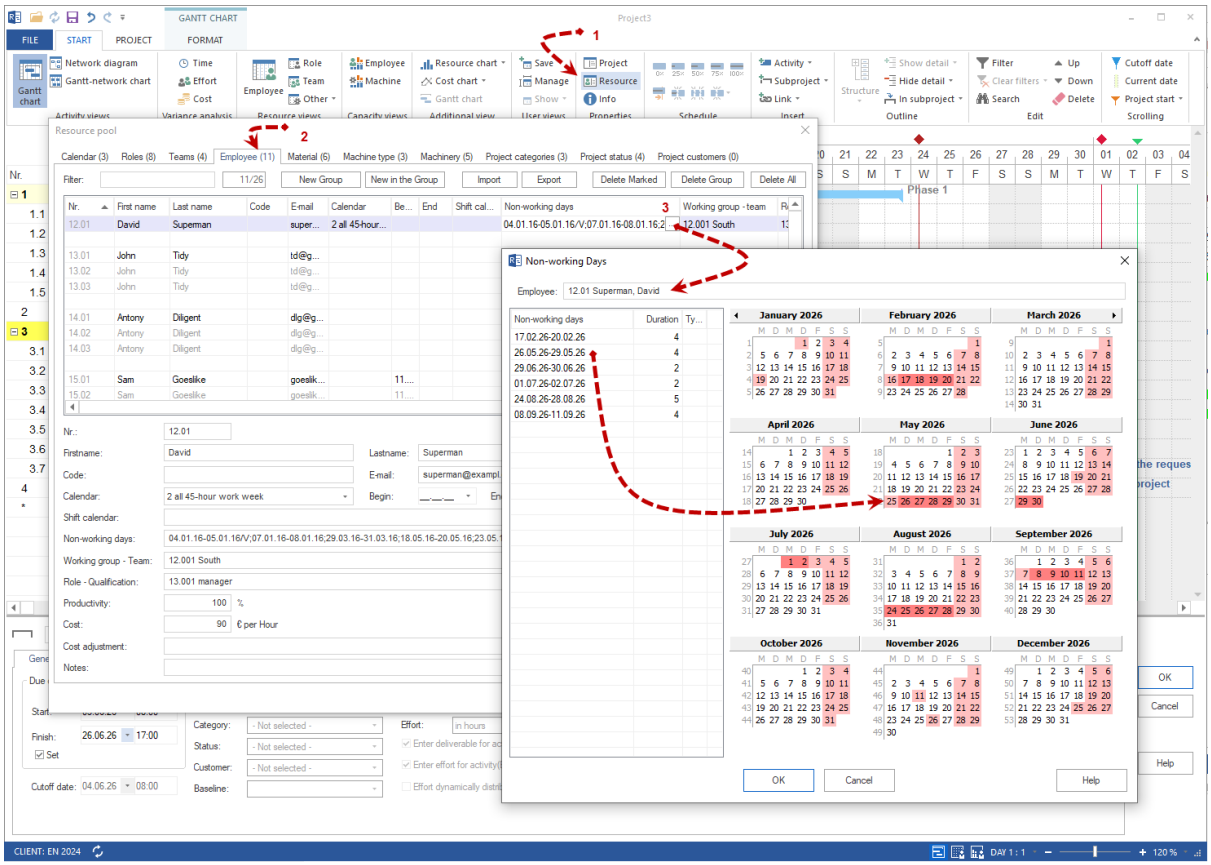
Incorrect calendars, part-time models, or non-working days can create real or apparent overloads.

Check:

1. Open the resource pool.
2. Check the employee record under **Employee**.
3. Check calendar, working-time model, and non-working days.

Solution:

Correct calendars and non-working days. Vacation and illness belong to the individual resource, not globally to the project calendar.



10.3.5 Cause 3: Workload Percentage Is Too High

If an employee is assigned to several tasks with a high workload percentage, overload can occur quickly.

Check:

Open the affected tasks and check the workload percentage on the **Employee** tab.

Solution:

Reduce the workload percentage, move tasks, or distribute work to additional employees.

10.3.6 Cause 4: Several Projects Use the Same Resource

This overload may not be visible in an individual project. It appears only in the portfolio or summary project.

Check:

1. Open the portfolio or summary project.
2. Switch to the employee view or a grouped resource view.
3. If needed, group the view by **Employee > Project**.

Solution:

Clarify project priorities and move lower-priority tasks or projects.

10.3.7 Related Topics

- *Perform Capacity Balancing*
- *Group Resource Views*
- *Check Employee Assignments*

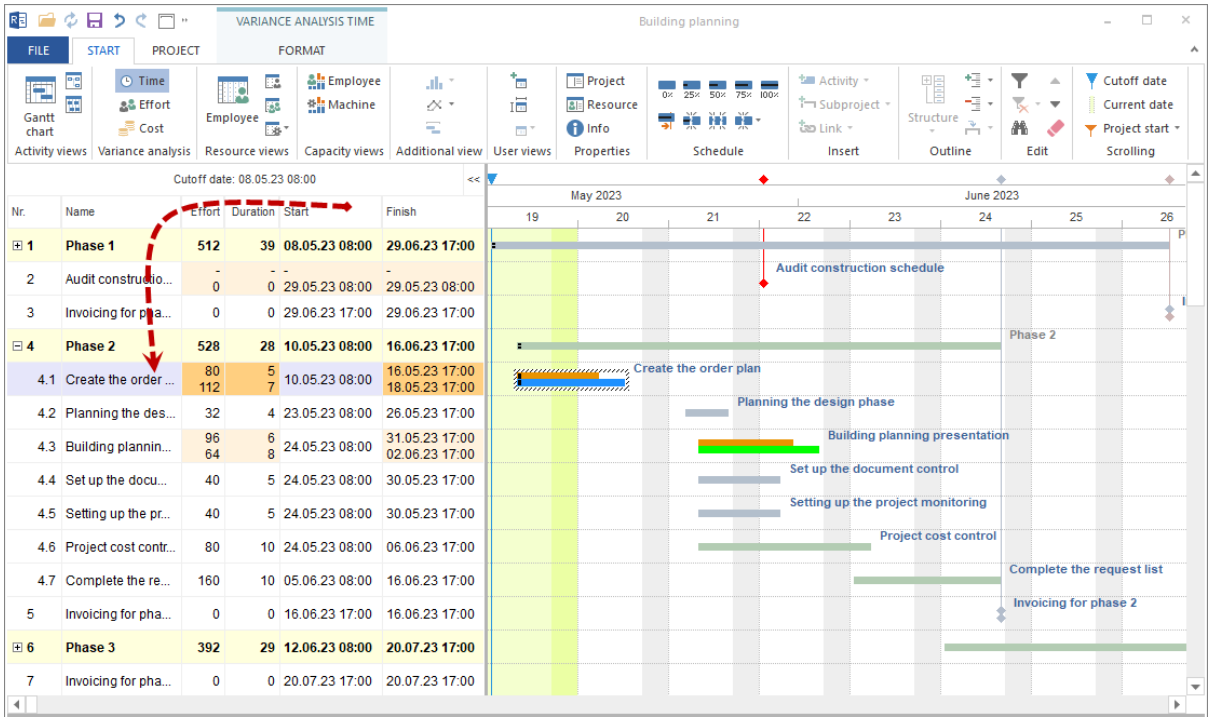
overload, overallocated resource, capacity conflict, utilization, capacity planning, capacity balancing, bottleneck, resource manager, project manager

10.4 Why Do Target and Actual Values Not Match?

Target/actual comparison is meaningful only when a suitable baseline is saved as the reference and actual data is maintained. Unexpected or missing deviations occur when no baseline exists, the wrong baseline is active, or progress, actual start, and actual effort are missing. Check the active baseline via **Project > Baseline > Select** and check actual data on the **General** tab of the tasks.

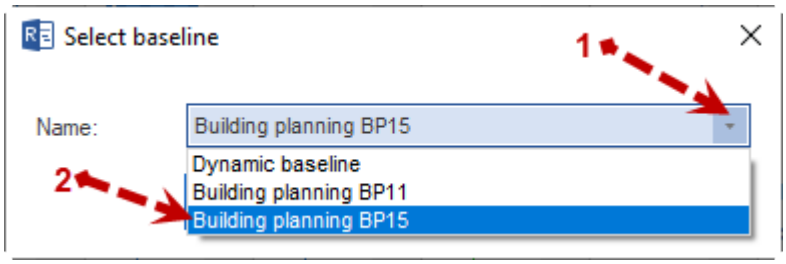
10.4.1 Symptom

Target/actual comparison shows unexpected deviations. Or it shows no deviations although delays are known.



10.4.2 Basic Principle

Rillsoft Project compares the current planning status with a saved baseline. Without a suitable baseline, there is no meaningful target value.



10.4.3 Cause 1: No Baseline Was Saved

If no baseline exists, the reference status is missing.

Check:

Open **Project > Baseline > Select** and check whether a baseline exists.

Solution:

Save a baseline with **Project > Baseline > Add**. Note: this baseline captures the current status. For later comparisons, the baseline must be saved before execution starts.

10.4.4 Cause 2: Wrong Baseline

If several baselines exist, the wrong reference status may be selected.

Check:

Open **Project > Baseline > Select** and check the active baseline.

Solution:

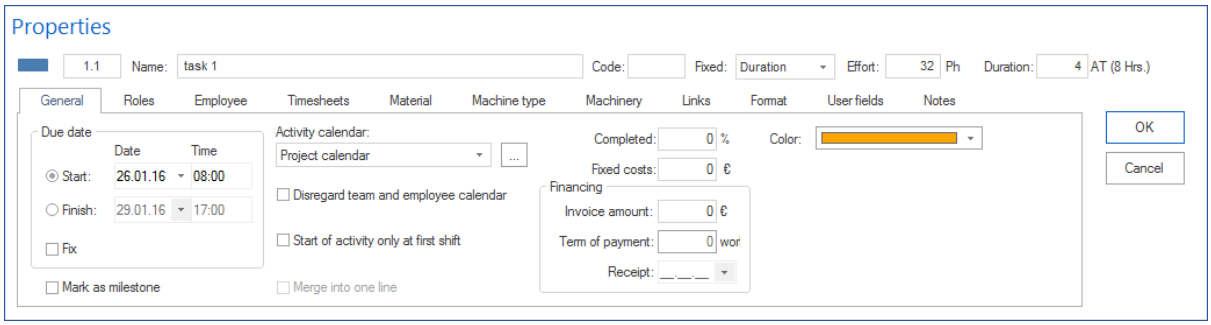
Select the baseline that matches the desired reference status.

10.4.5 Cause 3: Actual Data Is Missing

Deviations appear only when actual data is maintained, for example progress, actual start, or actual effort.

Check:

Open affected tasks and check on **General** whether progress and actual data are entered.



Solution:

Enter progress for started or completed tasks. Completed tasks receive 100 percent progress.

10.4.6 Cause 4: Cutoff Date Is Missing or Incorrect

The cutoff date defines the point in time at which the project status is evaluated.

Check:

Open **Start > Properties > Project** and check the **Cutoff date** field on the **General** tab. Alternatively, check the cutoff date marker directly (the small triangle in the upper part of the timescale).

Solution:

Set the cutoff date to the required evaluation date.

10.4.7 Color Logic

Background color	Meaning
Green	No difference from the baseline.
Light yellow	Actual effort or actual costs are lower than planned.
Intense pink	Actual effort or actual costs exceed the plan.
Yellow in the time comparison	Schedule deviation from the baseline.

10.4.8 Related Topics

- *Save Baseline and Enter Progress*
- *Perform Target/Actual Comparison*

target actual mismatch, baseline mismatch, actual effort, variance, target actual comparison, baseline, progress, reporting date, deviation, project manager, pmo

10.5 Why Does a Project Not Appear in the Portfolio?

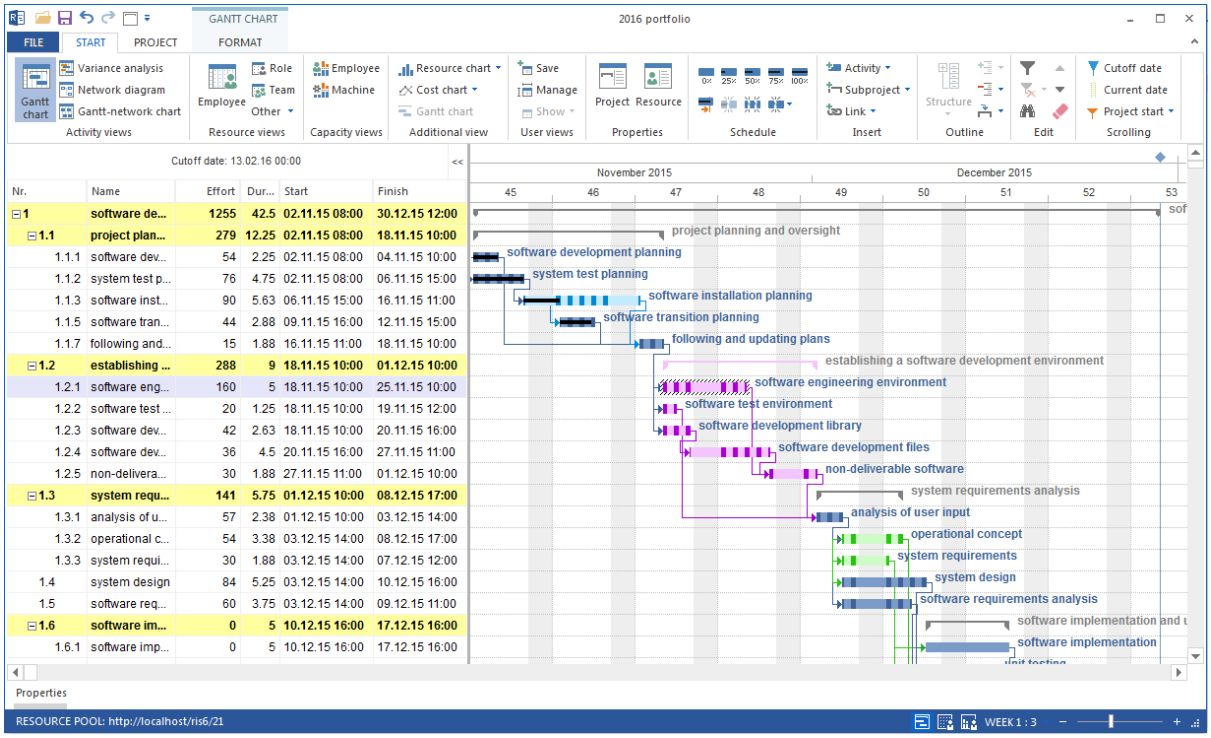
A project is missing from the portfolio if it is stored in a folder that is not searched, uses a different resource pool, is locked by another user, or was disabled in the portfolio dashboard. Add the folder in the **Portfolio Project Selection** dialog with **Add Folder** and align the resource pool via **Project > Project resources > To resource pool** if needed.

10.5.1 Symptom

A project is not shown when opening the portfolio. Or it appears in the list but cannot be selected.

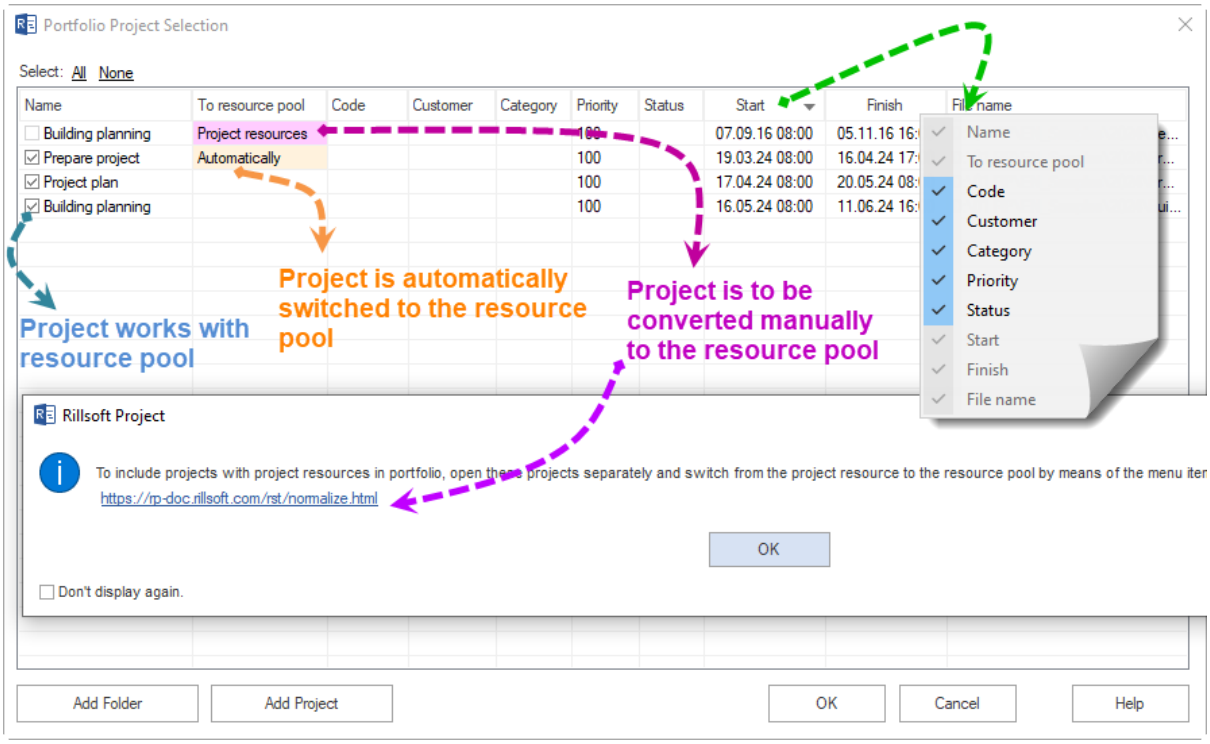
10.5.2 Cause 1: Wrong Folder

The portfolio only searches folders that were specified when opening it.



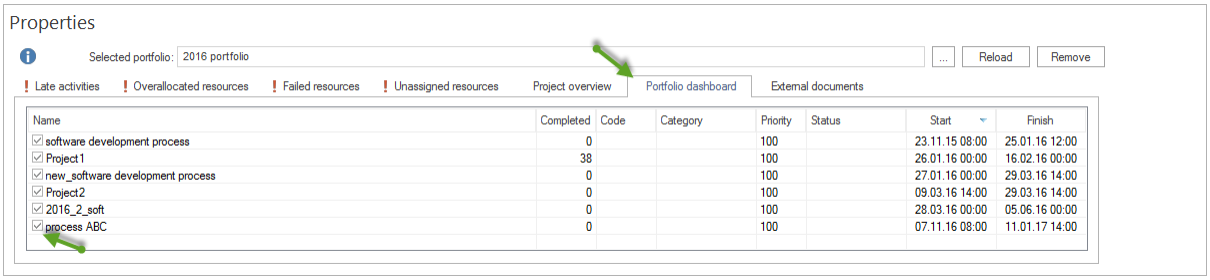
Solution:

In the **Portfolio Project Selection** dialog, click **Add Folder** and select the folder in which the project is stored. Alternatively, add the project file directly with **Add Project**.



10.5.3 Cause 2: Different Resource Pool

Projects with significant resource differences from the portfolio resource pool receive a red background in the **To resource pool** column and cannot be included directly.



Solution:

Open the project as an individual project. Change project resources to the shared resource pool with **Project > Project resources > To resource pool**. Save the project and open the portfolio again.

10.5.4 Cause 3: Minor Resource Difference

A yellow background indicates minor differences, for example new non-working days or changed cost rates.

Solution:

Enable **Replace deviating project resources by resource pool** in the dialog so that Rillsoft Project aligns these differences when opening.

10.5.5 Cause 4: Project Is Locked

When working with Rillsoft Integration Server, a project may be locked by another user.

Solution:

Check whether another user has opened the project and coordinate access.

10.5.6 Cause 5: Project Is Disabled in the Portfolio Dashboard

In the portfolio dashboard, each project can be enabled or disabled for capacity calculation. A disabled project appears in the portfolio but is not considered for resource availability.

Solution:

Open **Start > Properties > Info > Portfolio dashboard** and enable the checkbox for the affected project.

10.5.7 Related Topics

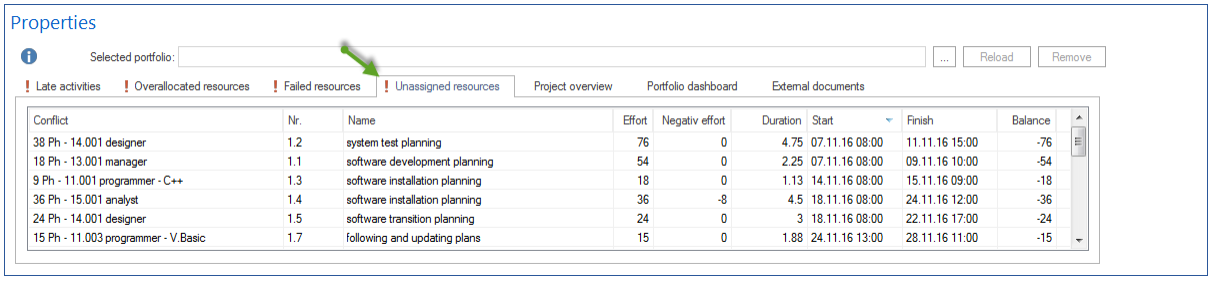
- *Build a Project Portfolio*
- *Portfolio Analysis*

10.6 Why Are Unassigned Resources Shown?

Unassigned resources mean that a task has role demand, that is a required professional qualification, but no named employee yet. This is a normal interim state in qualification-based planning or the result of an employee who was removed or is no longer available. Perform capacity balancing and assign suitable employees. Also check in the resource pool whether removed employees must be replaced.

10.6.1 Symptom

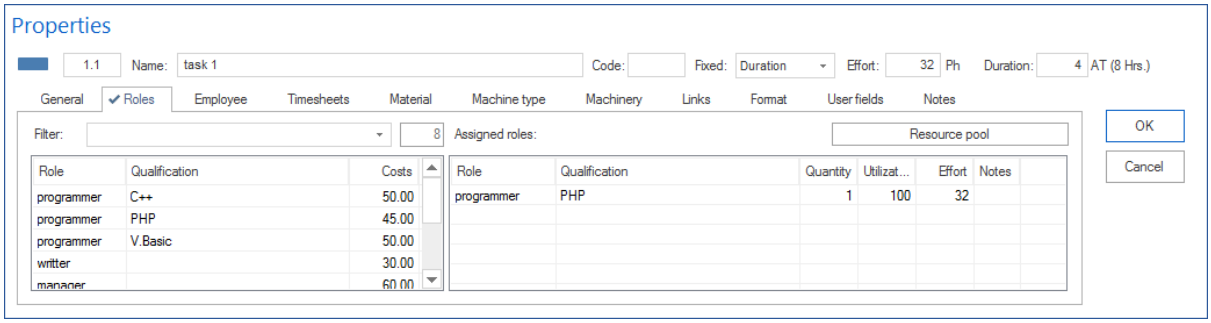
Under **Start > Properties > Info > Unassigned resources**, tasks appear although they are considered planned from a content perspective.



Conflict	Nr.	Name	Effort	Negativ effort	Duration	Start	Finish	Balance
38 Ph - 14.001 designer	1.2	system test planning	76	0	4.75	07.11.16 08:00	11.11.16 15:00	-76
18 Ph - 13.001 manager	1.1	software development planning	54	0	2.25	07.11.16 08:00	09.11.16 10:00	-54
9 Ph - 11.001 programmer - C++	1.3	software installation planning	18	0	1.13	14.11.16 08:00	15.11.16 09:00	-18
36 Ph - 15.001 analyst	1.4	software installation planning	36	-8	4.5	18.11.16 08:00	24.11.16 12:00	-36
24 Ph - 14.001 designer	1.5	software transition planning	24	0	3	18.11.16 08:00	22.11.16 17:00	-24
15 Ph - 11.003 programmer - V.Basic	1.7	following and updating plans	15	0	1.88	24.11.16 13:00	28.11.16 11:00	-15

10.6.2 What This Means

The task contains role demand, meaning a required professional qualification, but no concrete employee. Resource demand is planned, but resource supply has not yet been assigned bindingly.



10.6.3 Cause 1: Planning Is Complete Only at Role Level

This is a normal interim state in qualification-based planning. First, role demand is planned. Then capacity balancing checks which employees are available.

Solution:

Perform capacity balancing and assign suitable employees.

10.6.4 Cause 2: Employee Was Removed or Is No Longer Available

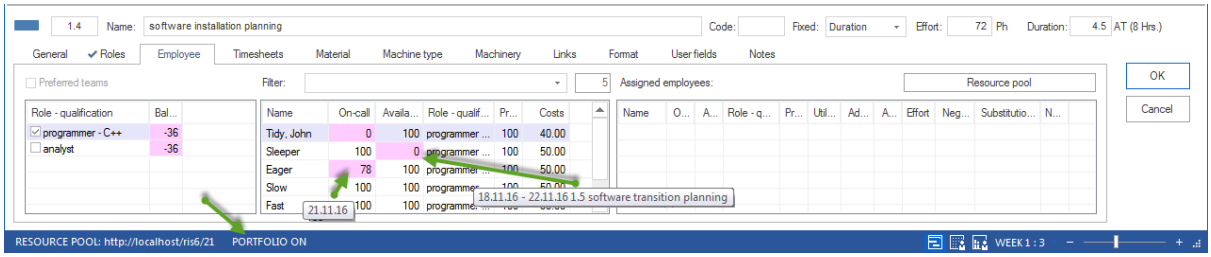
If an employee was removed from the resource pool or has a leaving date, the assignment may no longer be valid.

Check:

Open the resource pool and check under **Employee** whether the employee exists and is available.

Solution:

Replace the employee with an available resource that has the required professional qualification.

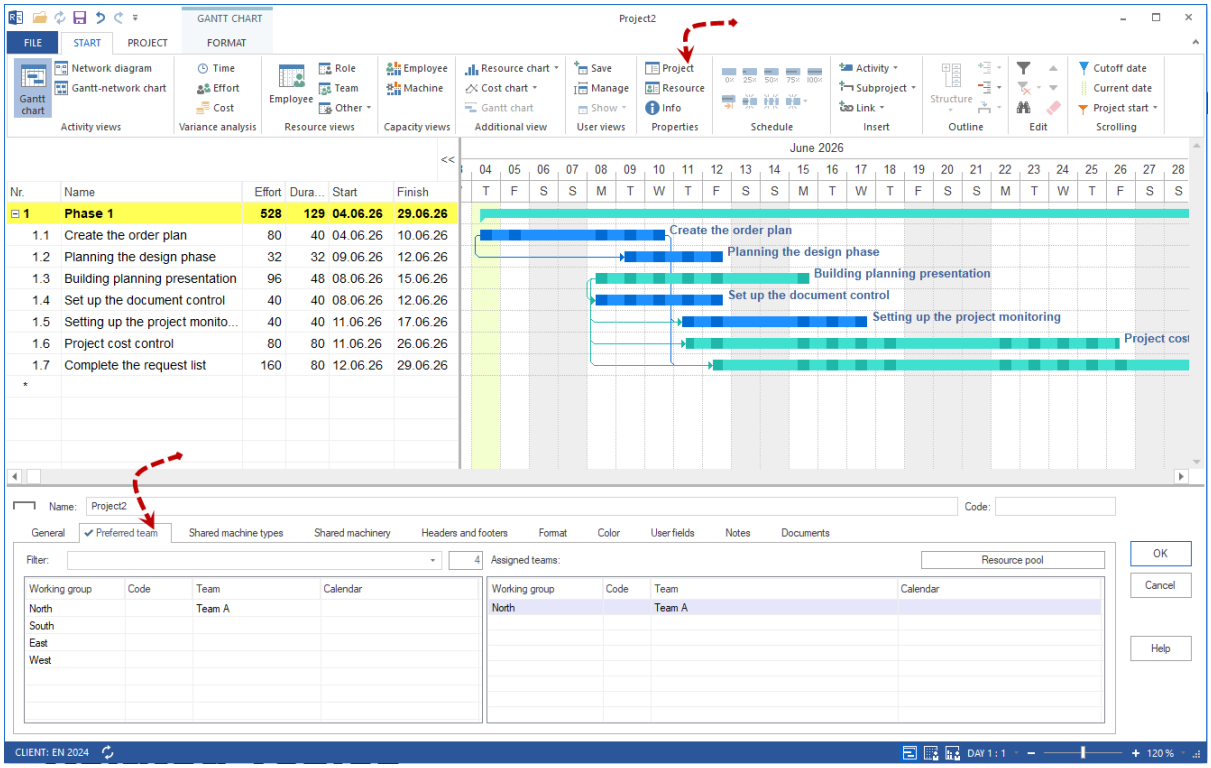


10.6.5 Cause 3: Preferred Teams Exclude Suitable Employees

If preferred teams are used, only employees from those teams are available for assignment. If the required qualification is missing there, the task remains unstaffed.

Solution:

Extend the preferred teams or disable the restriction to preferred teams for the affected task.



10.6.6 Related Topics

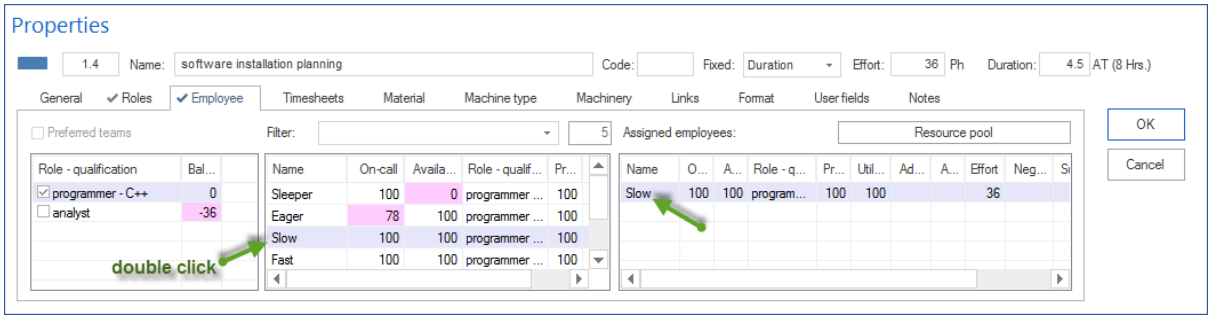
- *Plan Resource Demand by Qualifications*
- *Perform Capacity Balancing*
- *Assign Employees After Capacity Balancing*

10.7 Why Are There Partially Assigned Resources?

A partial assignment means that the role demand of a task is only partly covered by assigned employees. The difference is shown in the employee balance. Causes include too few assigned employees, too low a workload percentage, limited availability, or restrictive team and filter settings. Check and complete the assignment on the **Employee** tab of the task.

10.7.1 Symptom

Entries appear under **Start > Properties > Info > Partially assigned resources**. The effort of a task is not fully covered by assigned employees.



10.7.2 What This Means

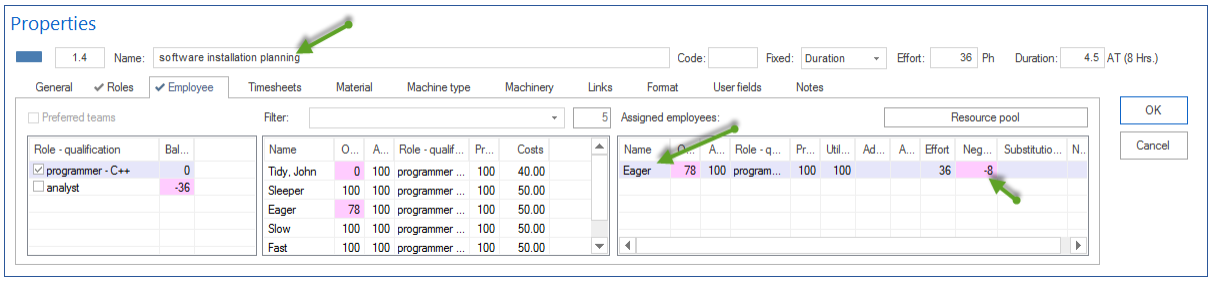
A task has role demand, for example three days of engineering work. The assigned employees cover only part of that demand. The employee balance shows the difference.

10.7.3 Typical Causes

- Role demand was planned, but only part of the required employees was assigned.
- The employee's workload percentage is too low.
- An employee is not fully available during the period.
- Preferred teams or filters restrict the selection.
- The task was changed, but the employee assignment was not adjusted.

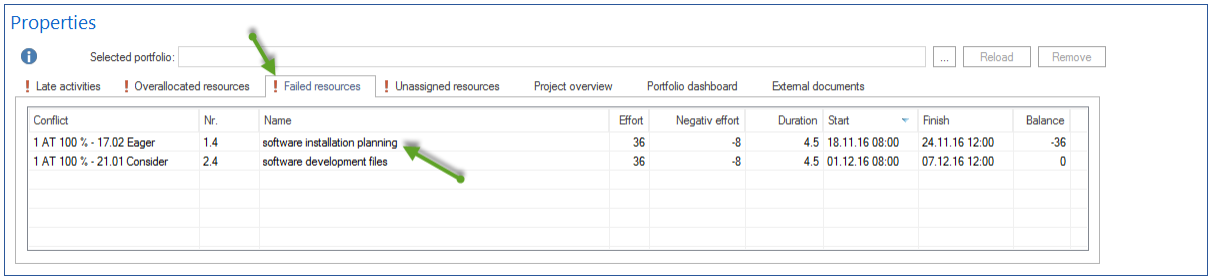
10.7.4 Solution

1. Open the affected task.
2. Switch to the **Employee** tab.
3. Check role demand, assigned employees, effort, and workload percentage.
4. Assign additional suitable employees or adjust the workload percentage.
5. Check the employee balance again.



10.7.5 Tip

Use the filter function in the employee view to show only resources that are not fully assigned or are overloaded. In large projects, this reduces the data volume significantly.



10.7.6 Related Topics

- *Check Employee Assignments*
- *Group Resource Views*

10.8 Why Are Tasks Not Rescheduled After Plan Changes?

Successors do not move after a plan change if the task is manually scheduled, if dependencies between predecessor and successor are missing, or if the successor is fixed. First check on the **General** tab of the task properties whether **Schedule manually** is enabled, and check in the network diagram whether the tasks are linked.

10.8.1 Symptom

A task was moved or extended, but dependent successors do not move with it.

10.8.2 Cause 1: Successor activities are not shifted backward

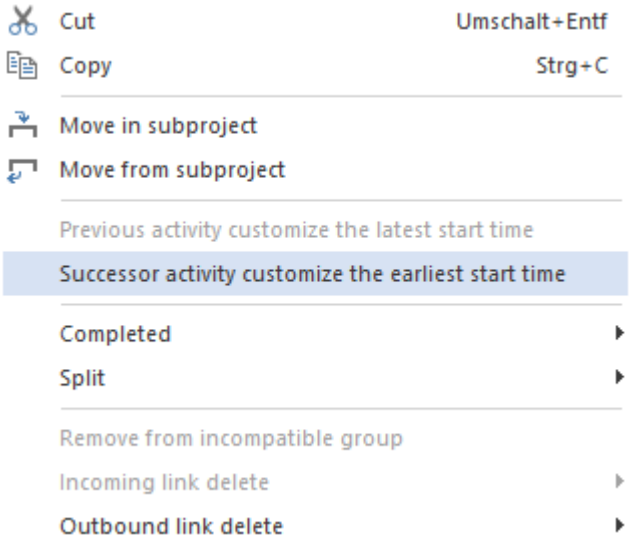
Successor tasks are not automatically shifted backward when changes are made to predecessor tasks.

Check:

Whether successor tasks should be adjusted to the earliest possible start date.

Solution:

1. Open the context menu of the predecessor task.
2. Select **Adjust successor tasks to the earliest possible start date**.



10.8.3 Cause 2: Dependencies Are Missing

Without a dependency, there is no technical relationship. The successor does not know that it should react to the predecessor.

Check:

Open the network diagram view and check whether a connection exists between predecessor and successor.

Solution:

Add the missing dependencies.

10.8.4 Cause 3: Successor Is Fixed

A fixed task remains on its set date even if the predecessor moves.

Check:

Open the task properties of the successor and check **Fix date**.

Solution:

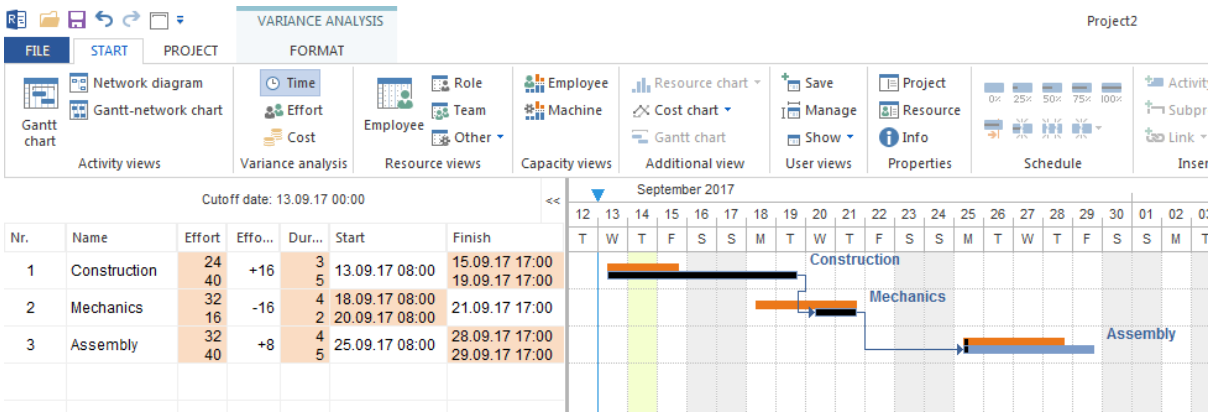
Disable the fixed date or adjust the fixed date deliberately by hand.

10.8.5 Related Topics

- *Project Planning*
- *Why Is a Task Not Movable?*
- *Why Does My Project Date Shift?*

10.9 Decision Guides

Use these articles when several working methods are possible and you need to choose the right approach for the planning situation.



10.9.1 Direct Resource Assignment or Role-Based Planning?

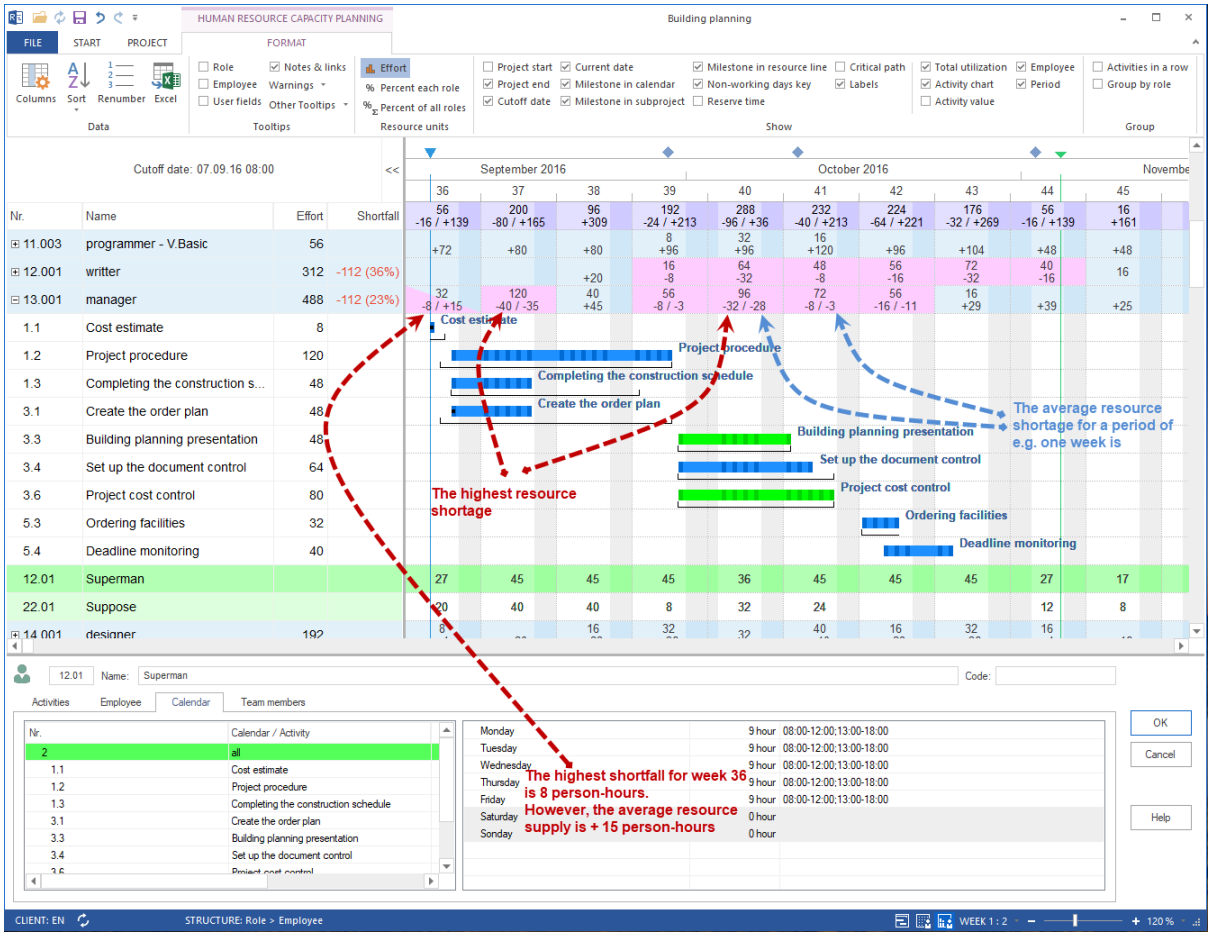
Decision

Use direct employee assignment when the project and team are small, manageable, and technically clear. Use role-based planning when the demand for professional qualifications must first be clarified and available capacity must then be checked.

Direct Assignment

Direct assignment means that you select a task and immediately assign a named employee.

This approach fits when:

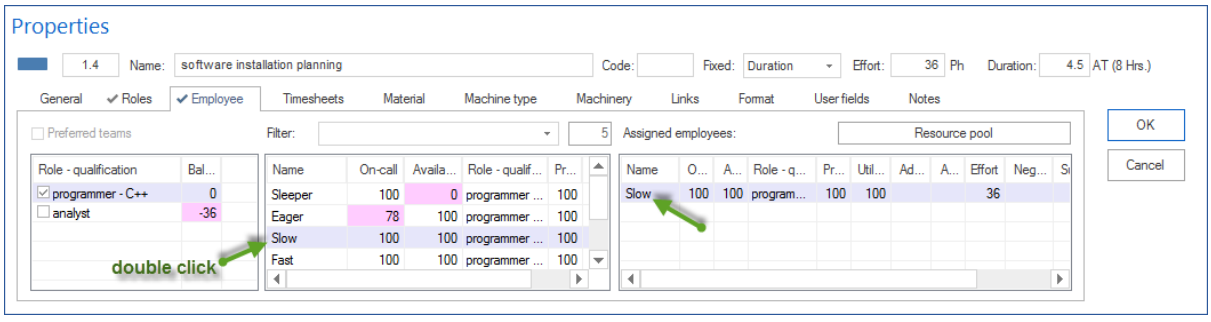


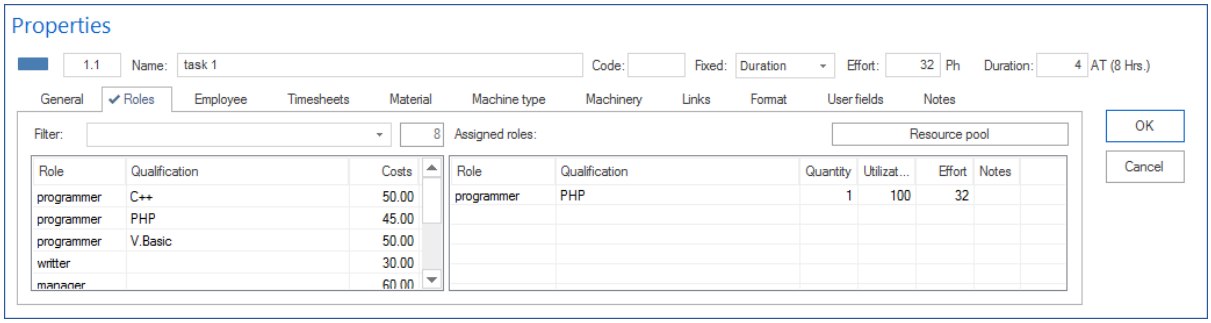
- only a few employees are involved
- responsibilities are already fixed
- working times and absences are well known
- no complex bottlenecks are expected
- the project manager can assess availability directly

Risk: bottlenecks often become visible only after assignment.

Role-Based Planning

Role-based planning means that you first plan resource demand by professional qualification. Then capacity balancing checks whether suitable employees are available.





This approach fits when:

- several employees have the same professional qualification
- several projects compete for the same employees
- vacation, illness, part-time work, or shift calendars are relevant
- project dates depend on sufficient capacity
- resource managers or the PMO are involved in assignment

Risk: the planning requires more master-data maintenance, but provides a better basis for decisions.

Decision Table

Situation	Recommendation
Small project with known team	Direct employee assignment
Several suitable employees	Role-based planning with capacity balancing
Non-working days are decisive	Role-based planning and availability check
Employee is intentionally fixed	Direct assignment, then check utilization
Several projects share resources	Role-based planning in the portfolio context

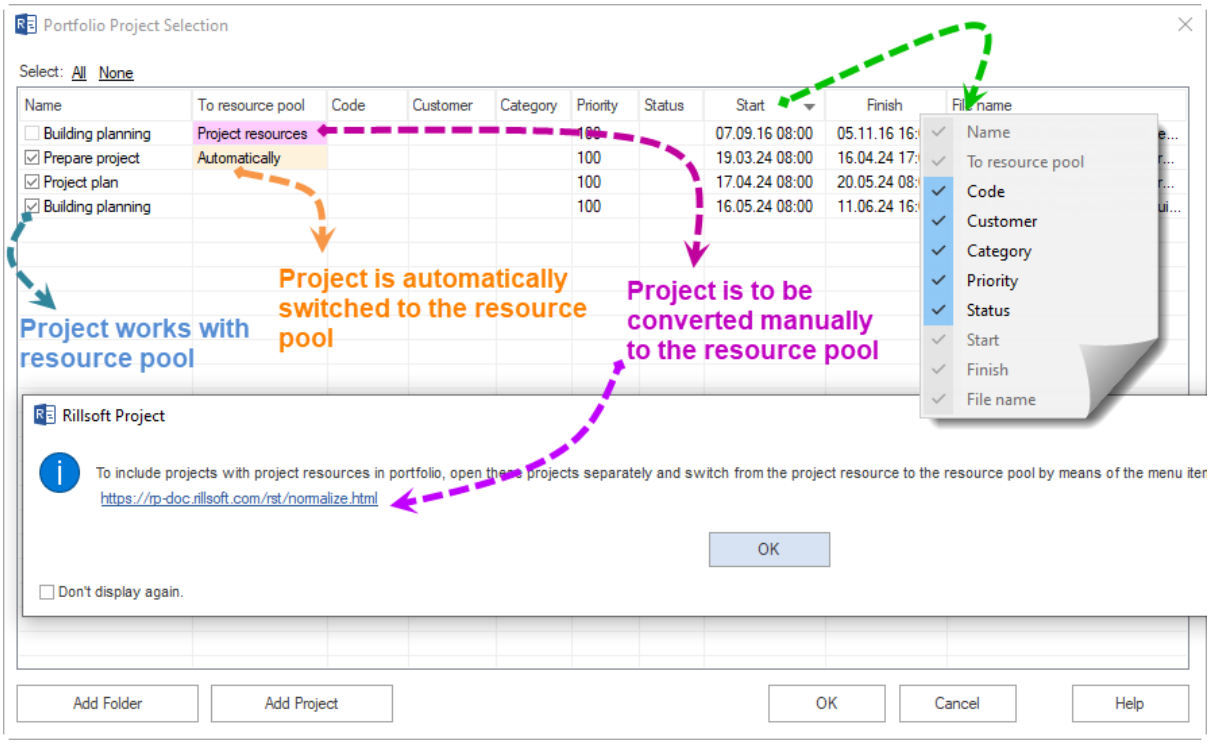
Related Topics

- *Assign Employees Directly*
- *Assign Employees After Capacity Balancing*
- *Perform Capacity Balancing*

10.9.2 Individual Project, Summary Project, or Project Portfolio?

Decision

Use an individual project to plan one clearly delimited project. Use a summary project when several projects must be planned operationally together. Use a project portfolio when several projects should be evaluated, prioritized, and analyzed for capacity together.



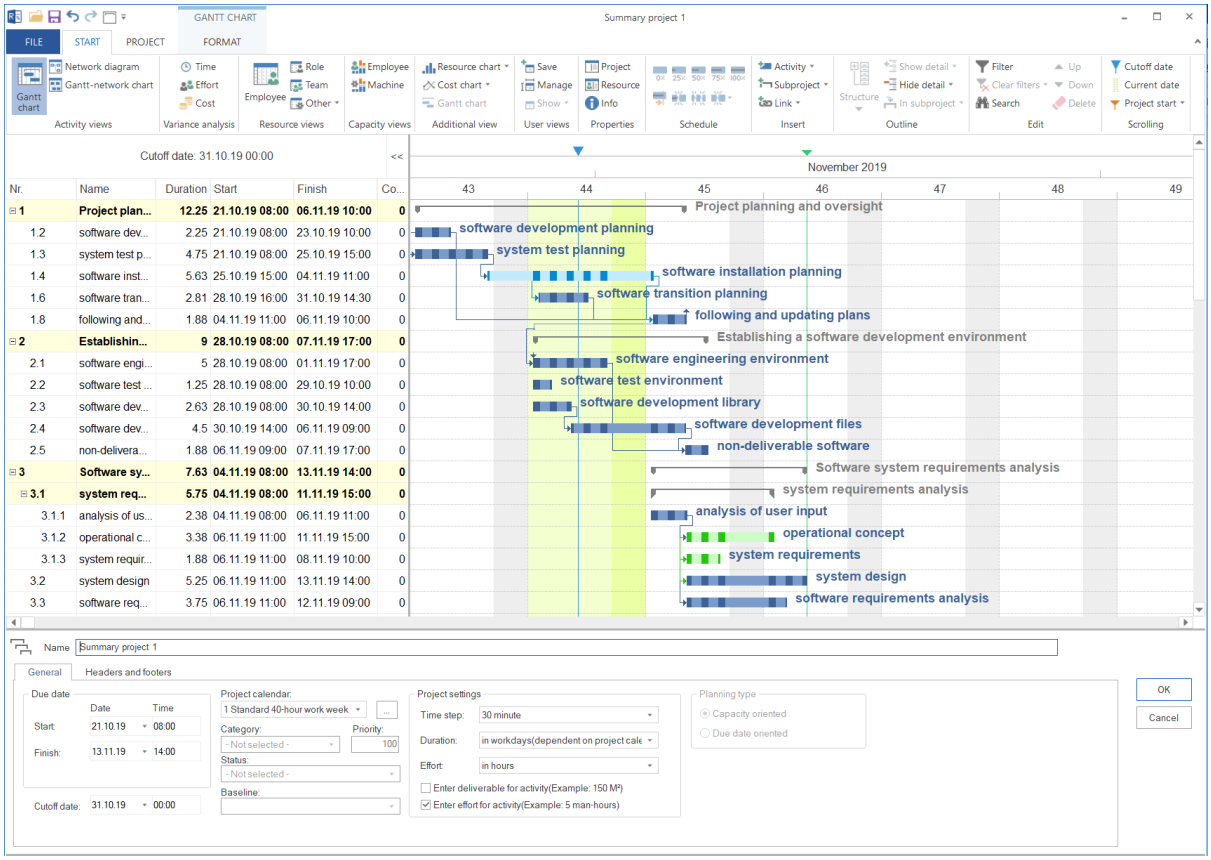
Individual Project

An individual project is the right choice when:

- one project is planned independently
- tasks, subprojects, and resources remain within this project
- no cross-project dependencies must be maintained
- project-related status and target/actual comparison are sufficient

Summary Project

A summary project is useful when several projects must be planned or opened together operationally. It requires Rillsoft Project with Rillsoft Integration Server or Rillsoft Cloud and is the basis for multi-user work of several project managers, see *Planning as a Team: Multi-User Work and Summary Projects*.



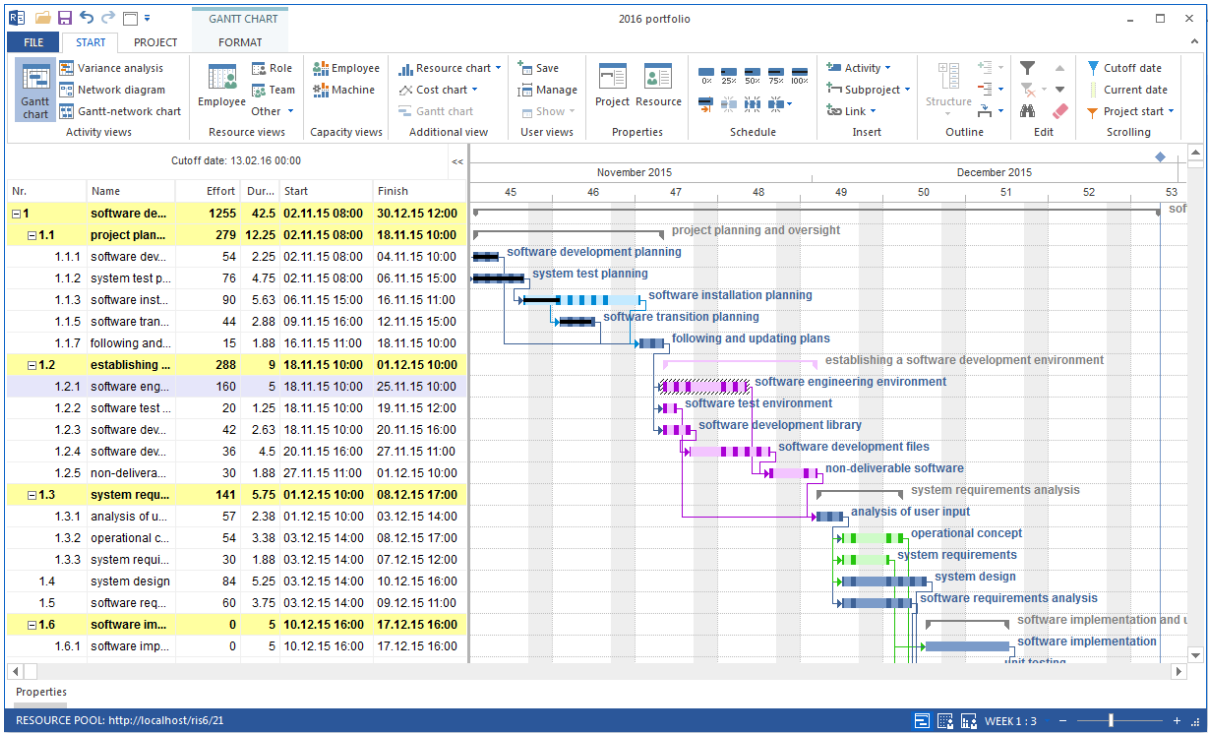
Use a summary project when:

- several subprojects of a large project are maintained separately
- project managers plan several connected projects at the same time
- cross-project dependencies are relevant
- dates between projects directly depend on each other

Project Portfolio

A project portfolio is useful when several projects are analyzed and controlled together.

Use a portfolio when:



- projects use the same resource pool
- resources must be checked across projects
- project status, priorities, and customers are evaluated together
- management or PMO needs an overview of feasibility and risks
- simulations are required, for example temporarily excluding a project from capacity calculation

Decision Table

Question	Recommendation
Am I planning one individual project?	Individual project
Do I need to edit several projects together?	Summary project
Do I need to evaluate several projects together?	Project portfolio
Are there cross-project dependencies?	Summary project or Integration Server-based project linking
Do several project managers plan related projects at the same time?	Summary project with Rillsoft Integration Server or Rillsoft Cloud, see *Planning as a Team: Multi-User Work and Summary Projects*
Should related projects also be evaluated together with other projects?	Summary project in the project portfolio, see *Summary Project in the Portfolio*
Is the focus on priorities and resource bottlenecks?	Project portfolio

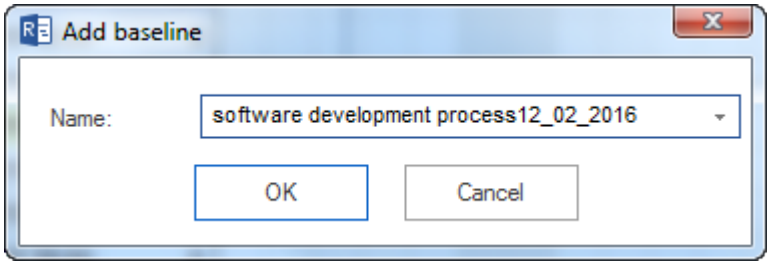
Related Topics

- *Build a Project Portfolio*
- *Control Multiproject Planning*
- *Portfolio Analysis*
- *Planning as a Team: Multi-User Work and Summary Projects*

10.9.3 Baseline or Dynamic Baseline?

Decision

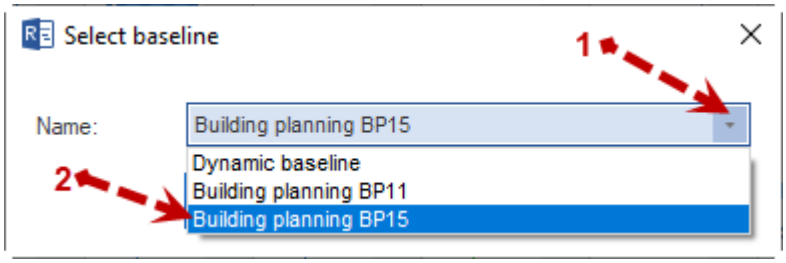
Use a normal baseline when one clearly approved planning status should serve as the comparison basis. Use the dynamic baseline when several saved baselines exist and tasks should be evaluated against different reference statuses depending on progress.



Baseline

A baseline saves the current project status as a fixed comparison basis.

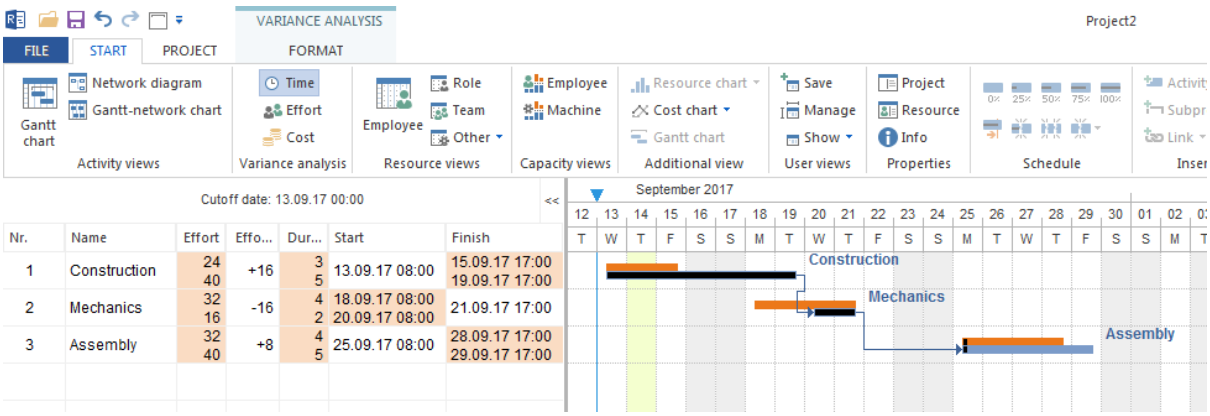
Use a baseline when:



- the project plan was approved
- a status report is created against a defined planning status
- schedule, effort, and cost deviations should be evaluated against a known status
- a project should be frozen before execution starts

Dynamic Baseline

A dynamic baseline uses several saved baselines. For tasks, a suitable reference status is used depending on the progress status.



Use it when:

- several planning statuses were documented
- progress is recorded regularly
- started and not-yet-started tasks should be evaluated differently
- long projects with several approved planning statuses must be controlled

Decision Table

Situation	Recommendation
One approved start plan	Baseline
Monthly status reports against the same reference status	Baseline
Several approved planning statuses	Check dynamic baseline
Progress is maintained regularly	Dynamic baseline can be useful
Small projects with few changes	Baseline is sufficient

Important

Save baselines deliberately. Too many baselines make evaluation harder and can increase the project file size.

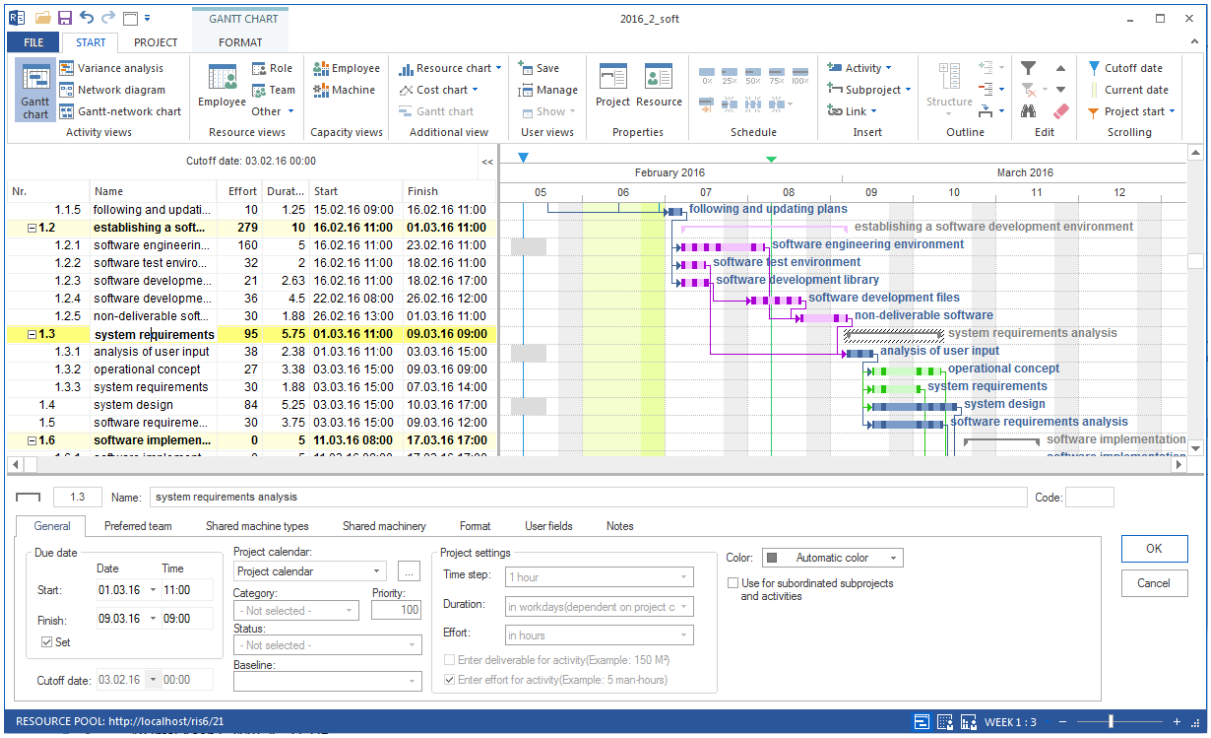
Related Topics

- *Save Baseline and Enter Progress*
- *Perform Target/Actual Comparison*
- *Evaluate Plan Deviations*

10.9.4 Schedule First or Resource Planning First?

Decision

Create a technically plausible schedule first. Then add resource demand and capacity checks. In capacity-critical projects, schedule planning and resource planning then continue iteratively.



Why the Schedule Comes First

Resource demand arises from tasks, time periods, and effort. If tasks, subprojects, and dependencies are not yet plausible, capacity calculation is not reliable either.

Start with:

- project structure
- tasks
- milestones
- dependencies
- critical path
- free float

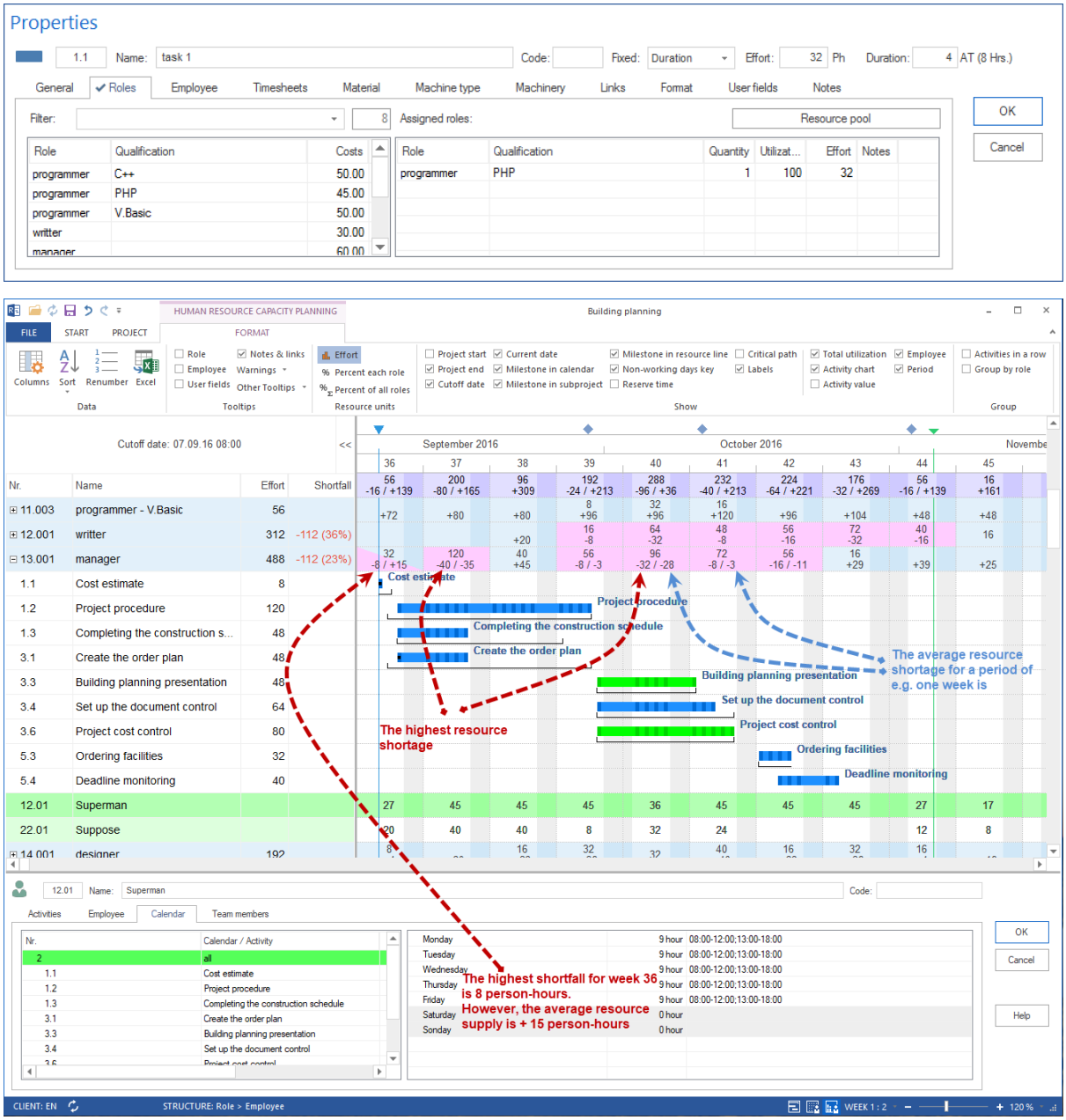
When to Include Resources Earlier

Resources should be considered early when:

- a few key people determine the project date
- specific professional qualifications are scarce
- machinery or equipment is limiting
- several projects use the same resource pool
- the finish date can only be reached with realistically available capacity

Recommended Sequence

1. Build project structure and scheduling logic.
2. Plan rough resource demand by professional qualification.
3. Perform capacity balancing.
4. Stabilize the schedule based on identified bottlenecks.
5. Assign employees bindingly.
6. Check utilization and date impact again.



Decision Table

Situation	Approach
New project without scheduling logic	Schedule first
Project with known bottleneck resources	Schedule and resources iteratively
Rough feasibility check	Plan role demand early
Binding employee planning	After capacity check
Portfolio with several projects	Include resource planning early

Related Topics

- *Project Planning*
- *Plan Resource Demand by Qualifications*
- *Perform Capacity Balancing*

10.9.5 Manual Correction or Capacity Balancing?

Decision

Correct manually when the cause is clear and locally limited. Use capacity balancing when dates, resource demand, and resource supply must be evaluated together.

Manual Correction

A manual correction is useful when:

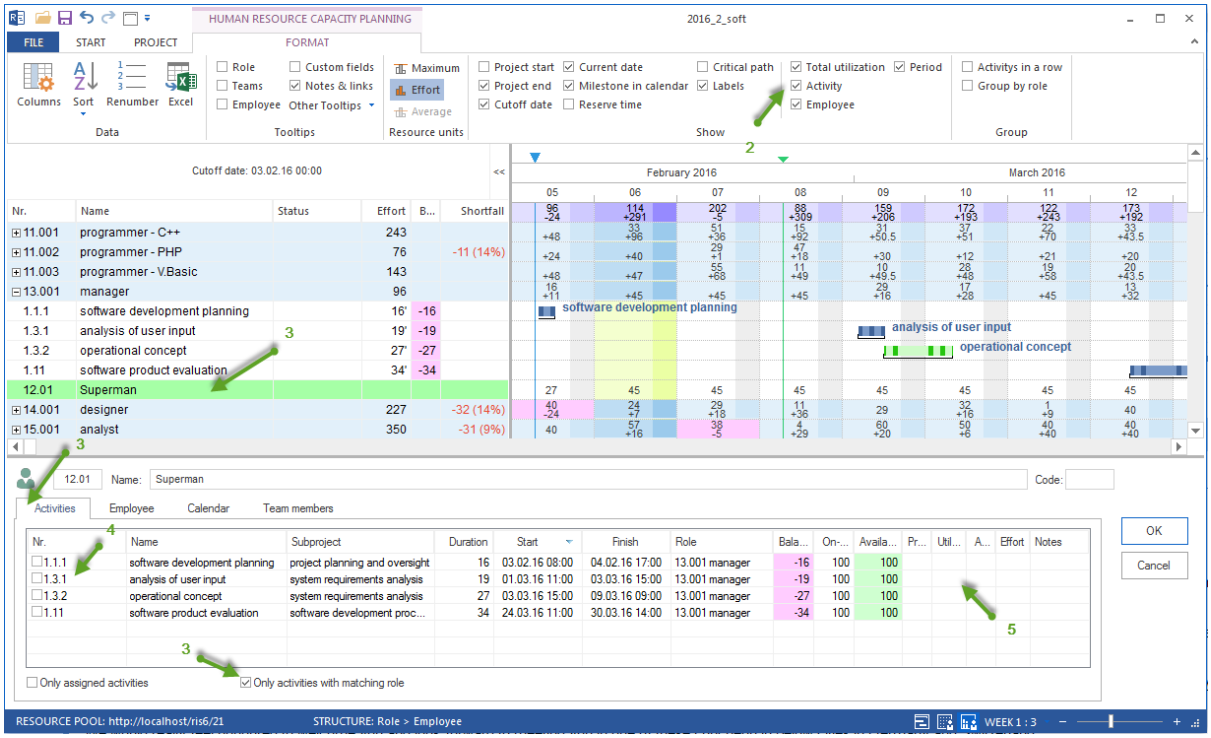
- an incorrect task date was entered
- a dependency is technically wrong
- a task must remain fixed
- one effort value is obviously wrong
- a small adjustment has no resource impact

Risk: manual corrections can smooth symptoms without solving the cause.

Capacity Balancing

Capacity balancing is useful when:

- employees are overloaded or role demand is not covered
- several projects use the same resources
- non-working days, vacation, or part-time work affect the date
- role demand is not yet covered by named employees
- a project date can only be reached with sufficient capacity

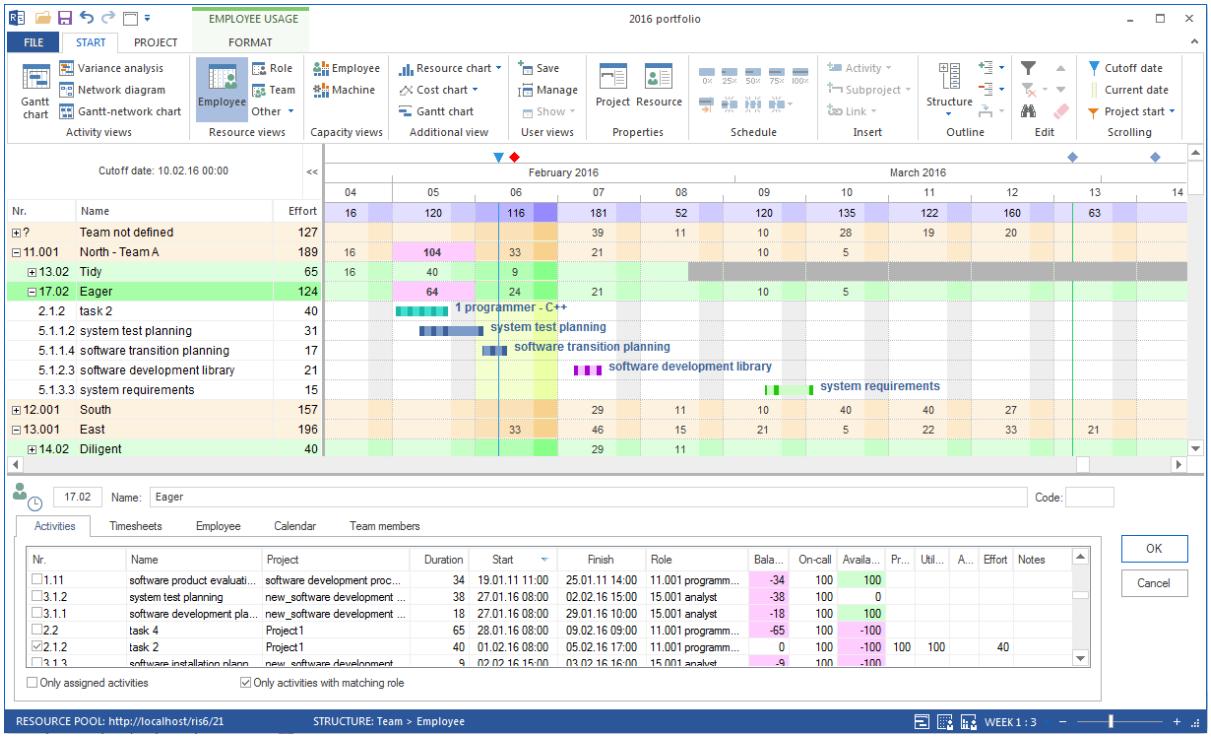


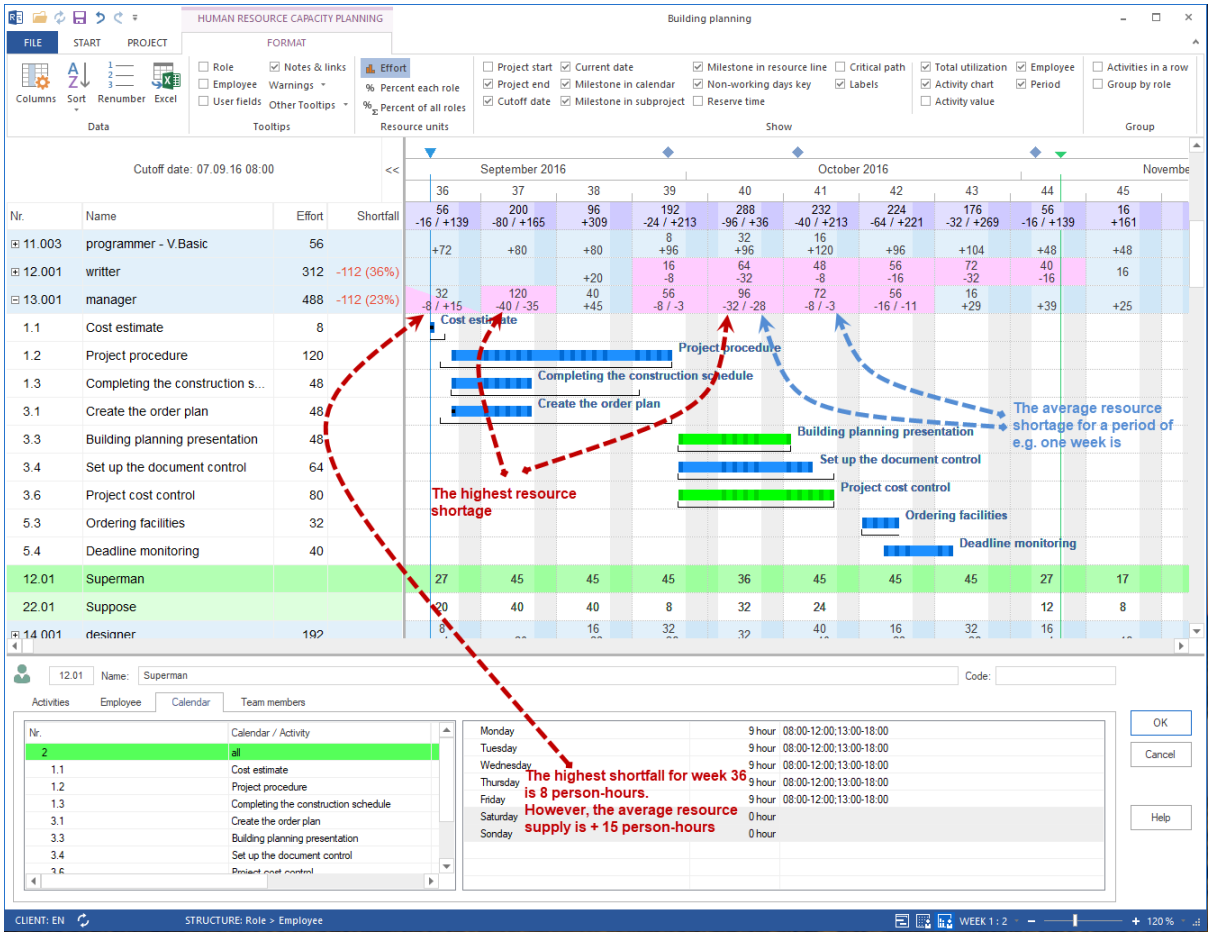
Decision Table

Situation	Recommendation
Wrong task date	Correct manually and check scheduling logic
Overloaded employee	Capacity balancing
Missing professional qualification	Capacity balancing
Wrong dependency	Correct the dependency
Several projects compete for resources	Capacity balancing in the portfolio context

Control Question

If you cannot explain why a date or utilization is wrong, use analysis views and capacity balancing first. Correct the plan only afterwards.


2016 portfolio
Cutoff date: 10.02.16 00:00
February 2016
March 2016
1 programmer - C++
system test planning
software transition planning
software development library
system requirements
RESOURCE POOL: http://localhost/ris6/21
STRUCTURE: Team > Employee

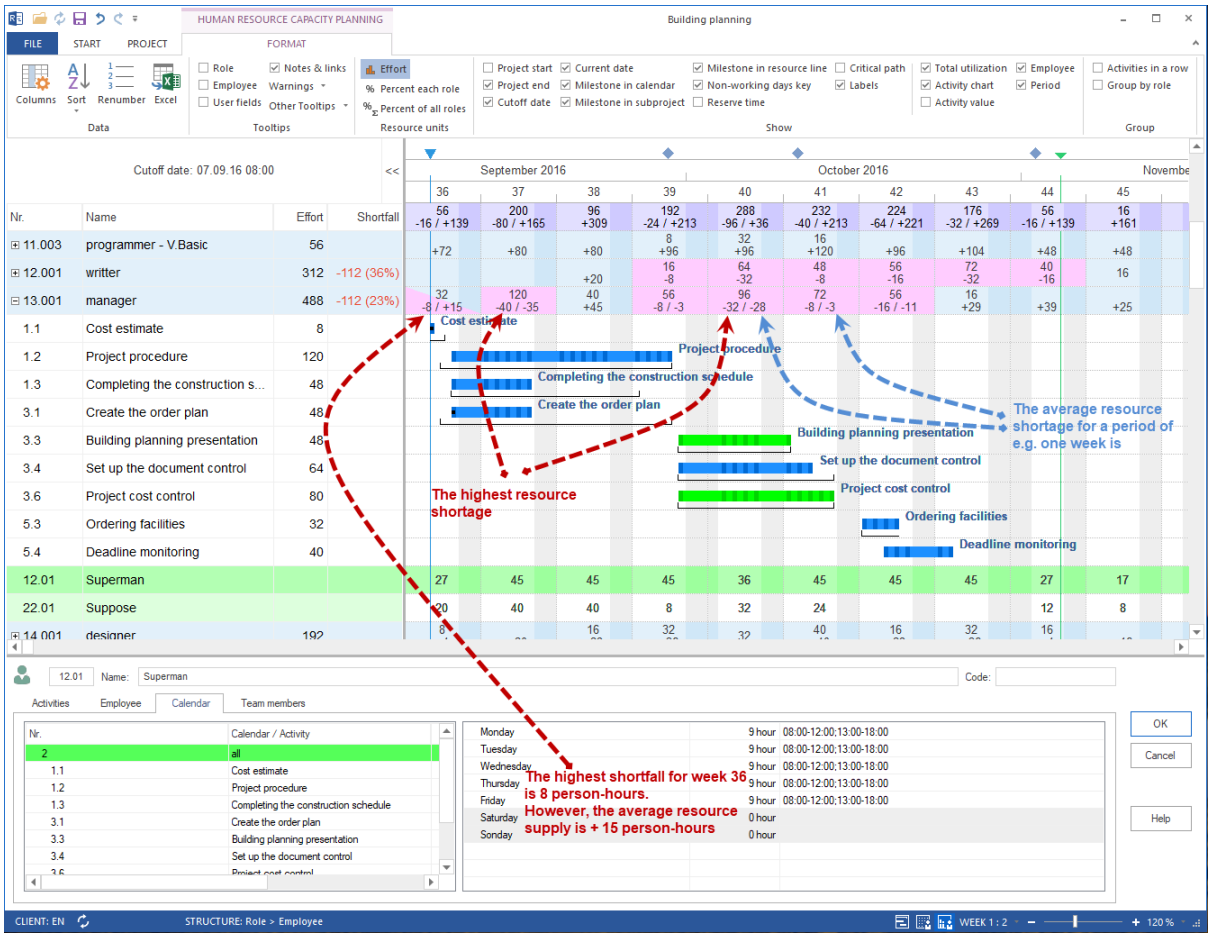

Building planning
Cutoff date: 07.09.16 08:00
September 2016
October 2016
Cost estimate
Project procedure
Completing the construction schedule
Create the order plan
Building planning presentation
Set up the document control
Project cost control
Ordering facilities
Deadline monitoring
The highest resource shortage
The average resource shortage for a period of e.g. one week is
The highest shortfall for week 36 is 8 person-hours. However, the average resource supply is + 15 person-hours
CLIENT: EN
STRUCTURE: Role > Employee

Related Topics

- *Perform Capacity Balancing*
- *Group Resource Views*
- *Why Does a Resource Show Overload?*

10.9.6 Typical Decisions

Rillsoft Project connects individual projects, resource demand, employee assignment, capacity balancing, target/actual comparison, and project portfolios in one system. This creates several valid workflows. The decision should not be based on a menu item, but on project size, resource risk, date commitment, and control requirements.



10.9.7 Related Sections

- *Project Planning*
- *Resources and Capacities*
- *Resource Assignment*
- *Project Portfolio and Multiproject Management*

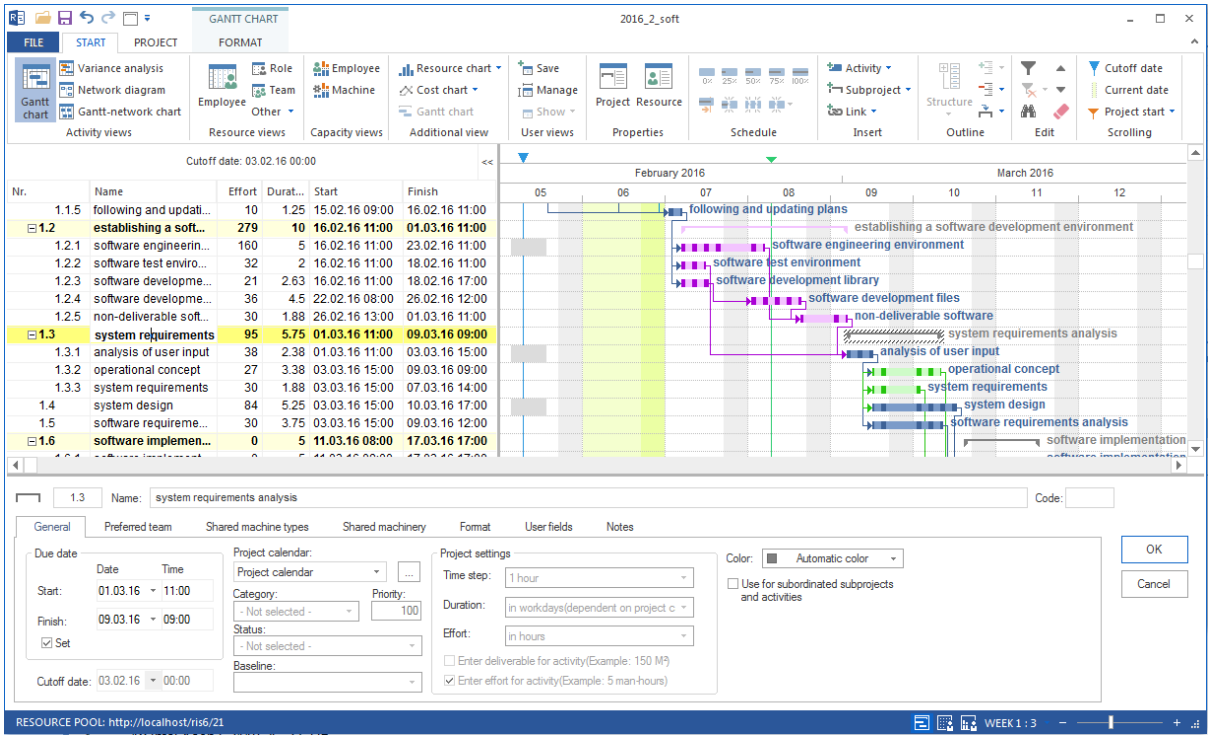
10.10 Checklists

Use these checklists to systematically check project, resource, control, portfolio, and import/export data before important work steps.

10.10.1 Checklist: Check Project Before Planning Approval

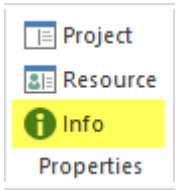
Goal

Check whether a project is technically, schedule-wise, and resource-wise robust enough to be approved as a planning status.



Project Structure

- Project name, customer, category, status, and priority are maintained.
- Subprojects are meaningfully separated.
- Tasks describe concrete work or deliverables.
- Milestones mark important approvals or delivery dates.
- Tasks that are too large were split into controllable units.



Scheduling Logic

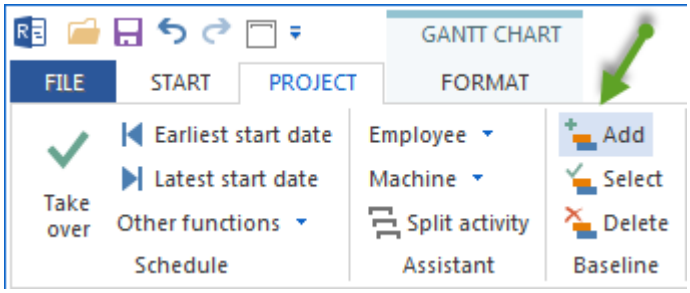
- Important tasks are linked.
- Dependency types are technically plausible.
- The critical path is understandable.
- Free float is known.
- Fixed dates are intentional and documented.

Resources and Effort

- Resource demand is plausible for each task.
- Professional qualifications are assigned correctly.
- Direct employee assignments are intentional.
- Capacity balancing was checked for scarce resources.
- Non-working days and calendars are considered.

Approval

- Open planning risks are documented.
- The project manager and relevant resource owners checked the status.
- A baseline was saved if needed.



Related Topics

- *Project Planning*
- *Resources and Capacities*
- *Save Baseline and Enter Progress*

10.10.2 Checklist: Validate Resource Planning

Goal

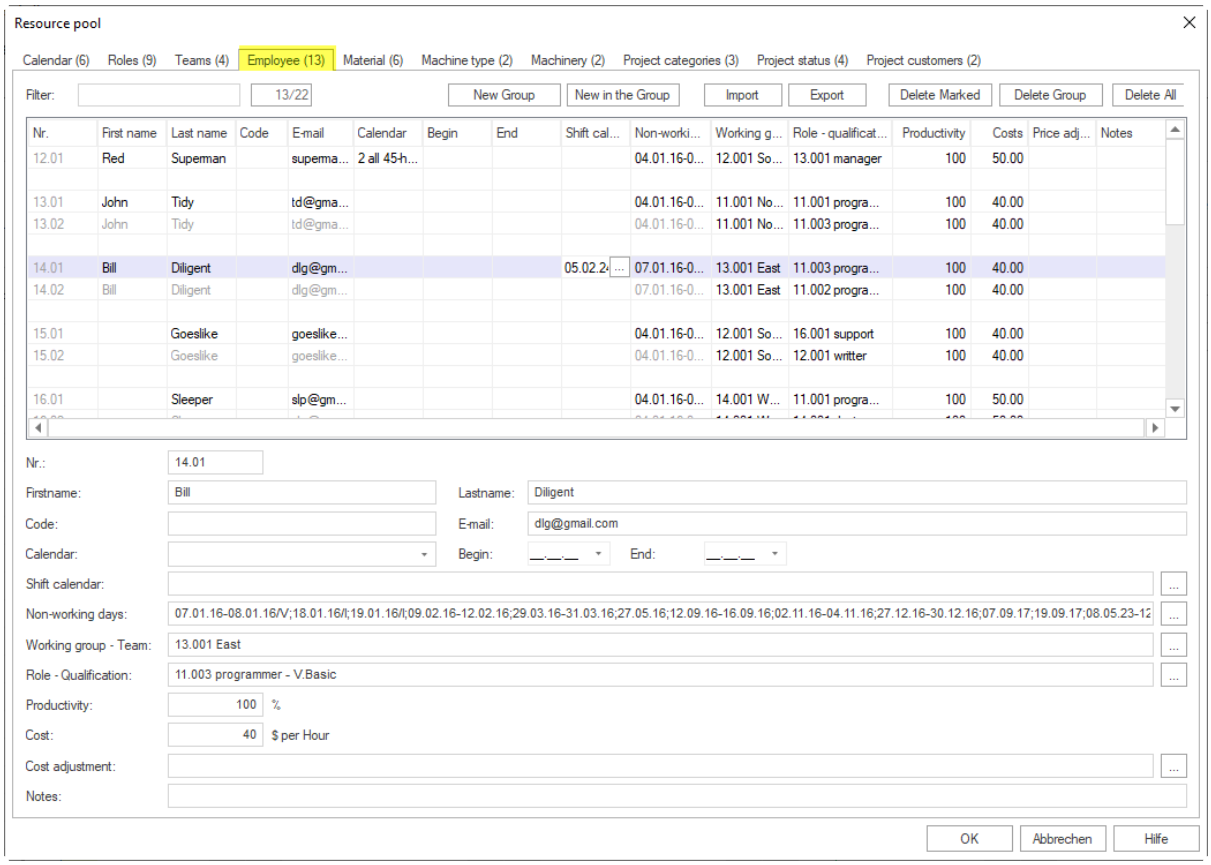
Check whether resource demand, resource supply, and assignments fit together technically.

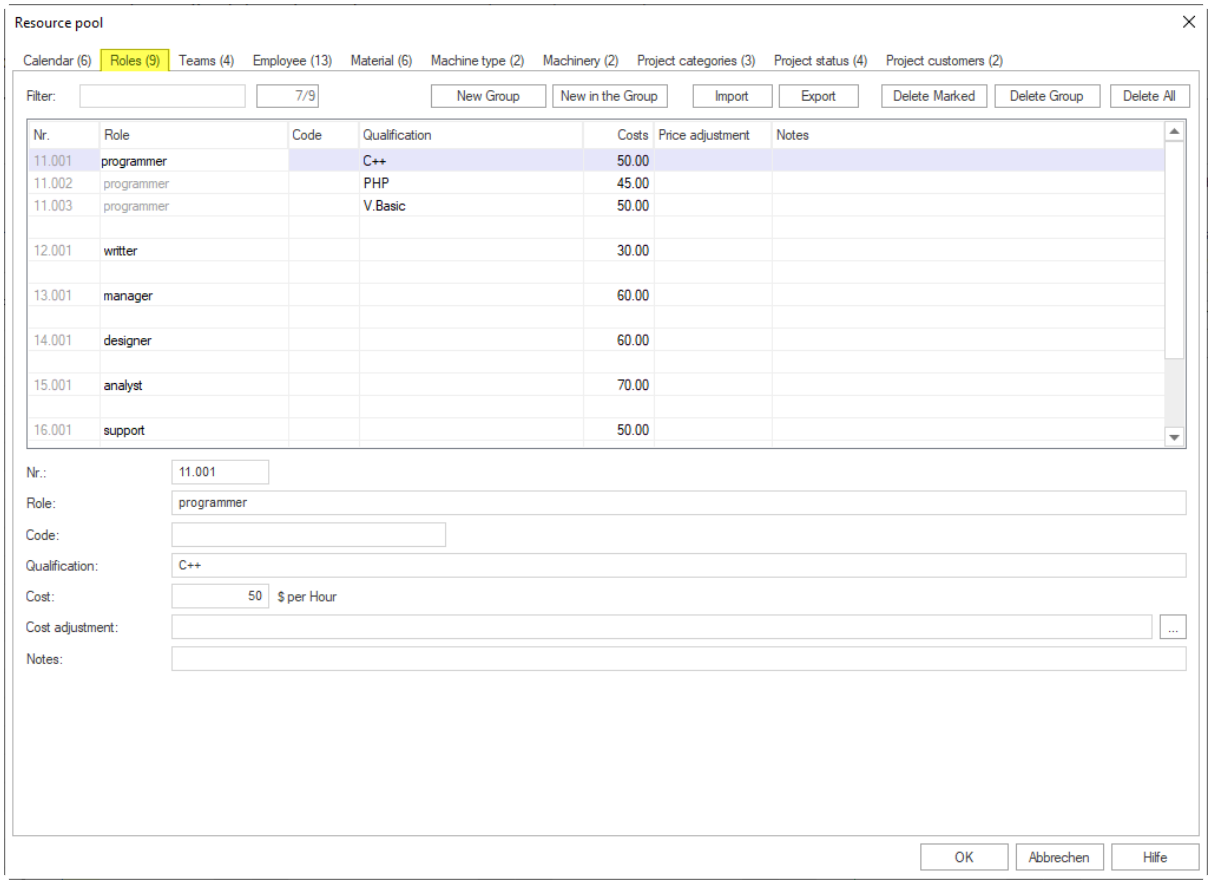
Resource Demand

- Tasks contain realistic effort values.
- Professional qualifications are selected correctly.
- Material, machinery, and equipment are considered separately if relevant for planning.
- Role demand is not maintained twice by accident.

Resource Supply

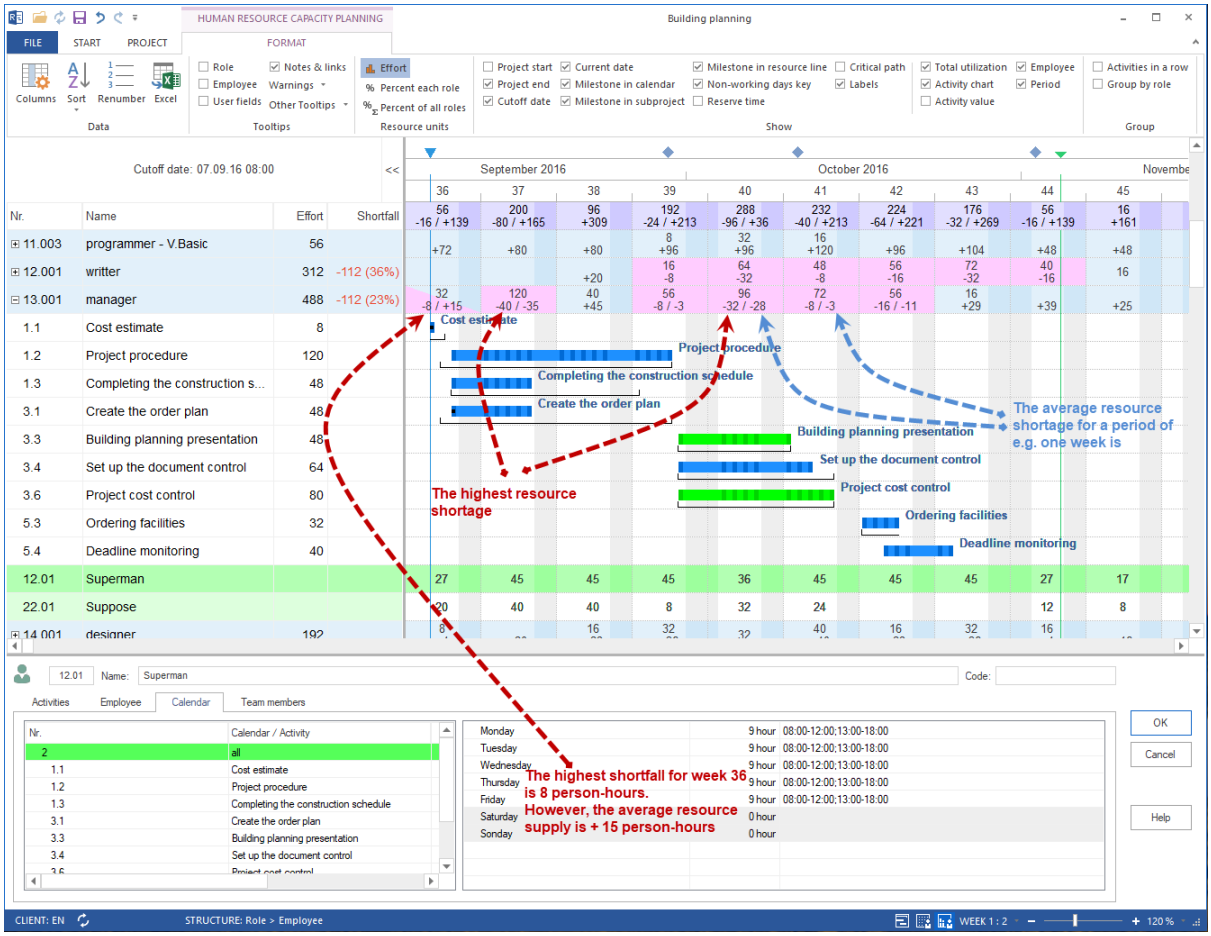
- Employees in the resource pool are up to date.
- Professional qualifications are assigned to employees.
- Working times, part-time models, and shift calendars are maintained.
- Vacation, illness, and other non-working days are entered.
- Entry and leaving dates were checked.





Capacity Check

- Employee capacity balancing was checked.
- Overloads are explained or resolved.
- Unassigned resources were checked.
- Partially assigned resources were checked.
- Grouped resource views were used for complex bottlenecks.



Result

- Bottlenecks are known.
- Assignments are technically plausible.
- Open resource decisions are documented.

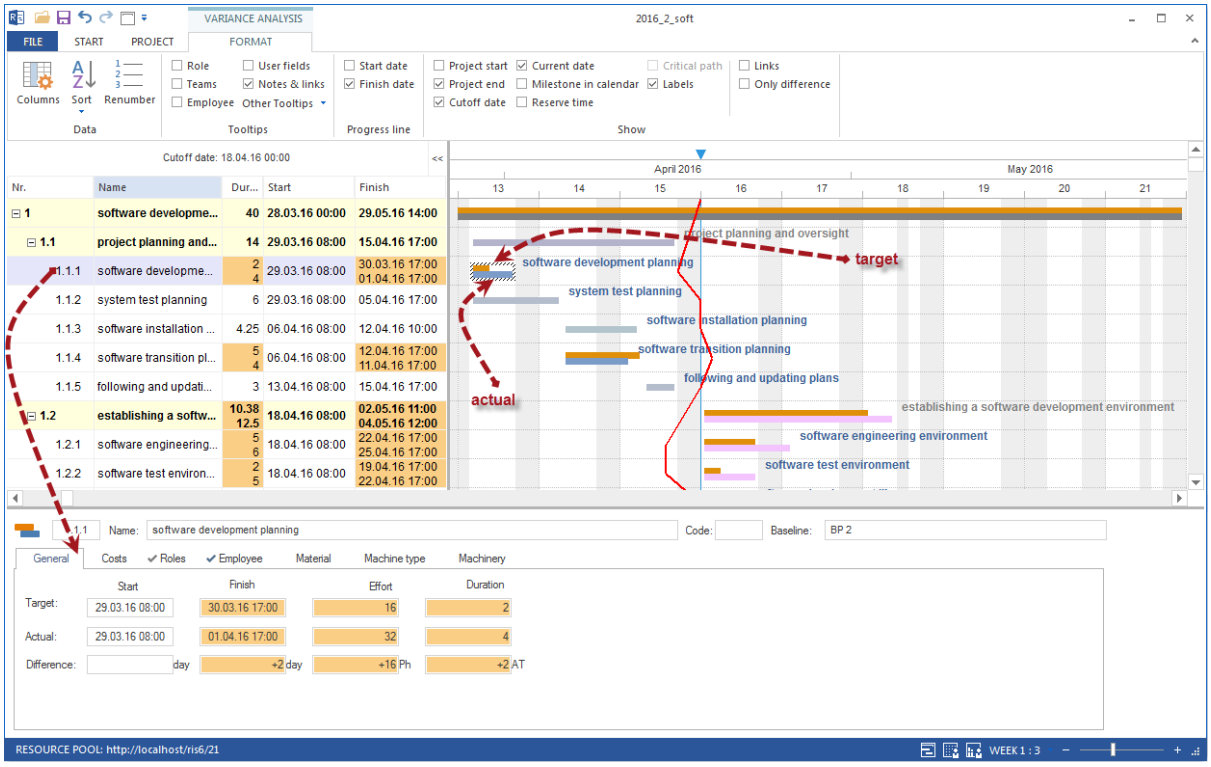
Related Topics

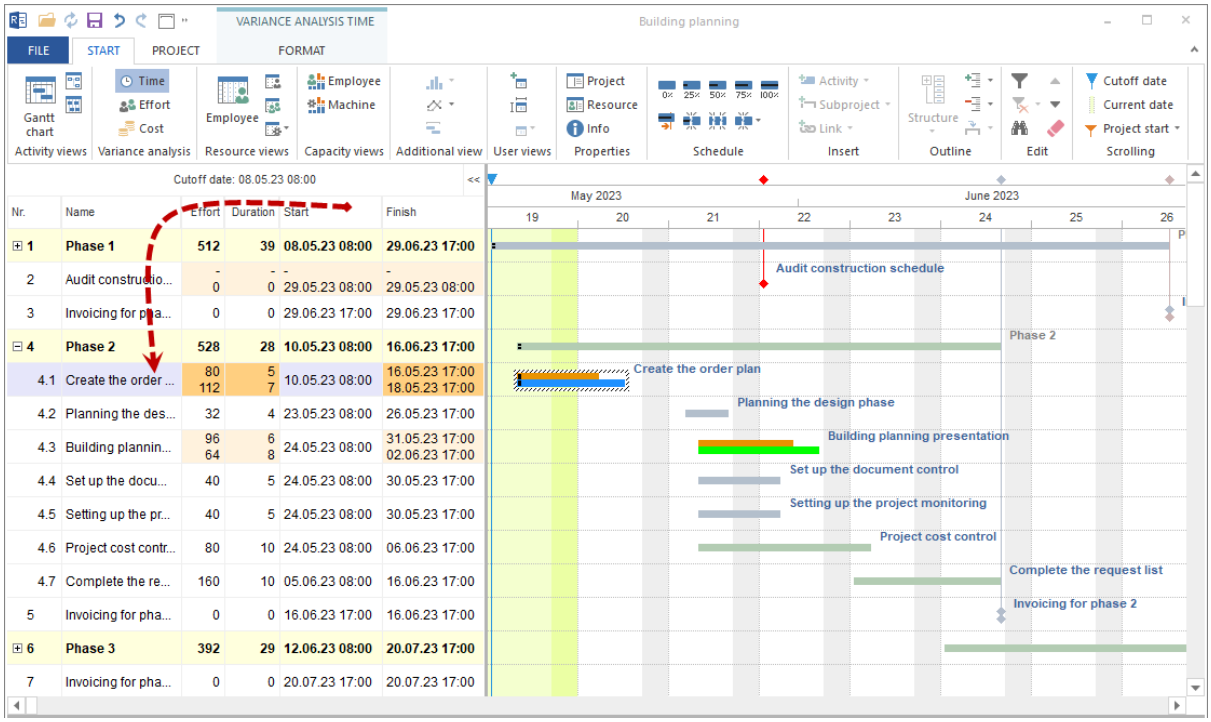
- *Plan Resource Demand by Qualifications*
- *Derive Resource Supply From the Resource Pool*
- *Perform Capacity Balancing*
- *Why Are Unassigned Resources Shown?*

10.10.3 Checklist: Prepare Target/Actual Comparison

Goal

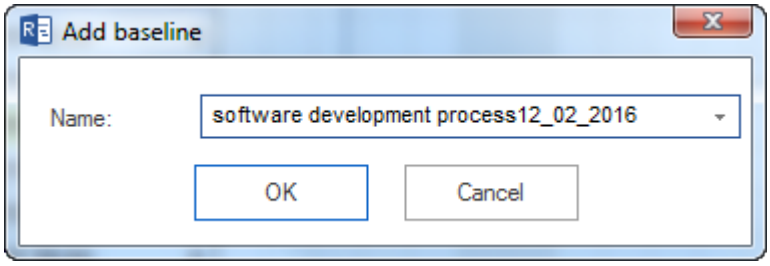
Make sure that target/actual comparison uses the correct reference status and contains current actual data.





Baseline

- A baseline is saved.
- The correct baseline is selected.
- If several planning statuses exist, it is clear whether a normal or dynamic baseline is used.
- The baseline was not overwritten accidentally afterwards.



Actual Data

- Progress is maintained for started tasks.
- Completed tasks have 100 percent progress.
- Actual effort is entered if effort should be evaluated.
- Actual start or finish dates are maintained where relevant.

Cutoff Date

- The cutoff date is set.
- The cutoff date matches the status report.
- Progress data was updated for the cutoff date.

Evaluation

- Schedule deviations are checked.
- Effort deviations are checked.
- Cost deviations are checked.
- Critical deviations are documented with cause and corrective action.

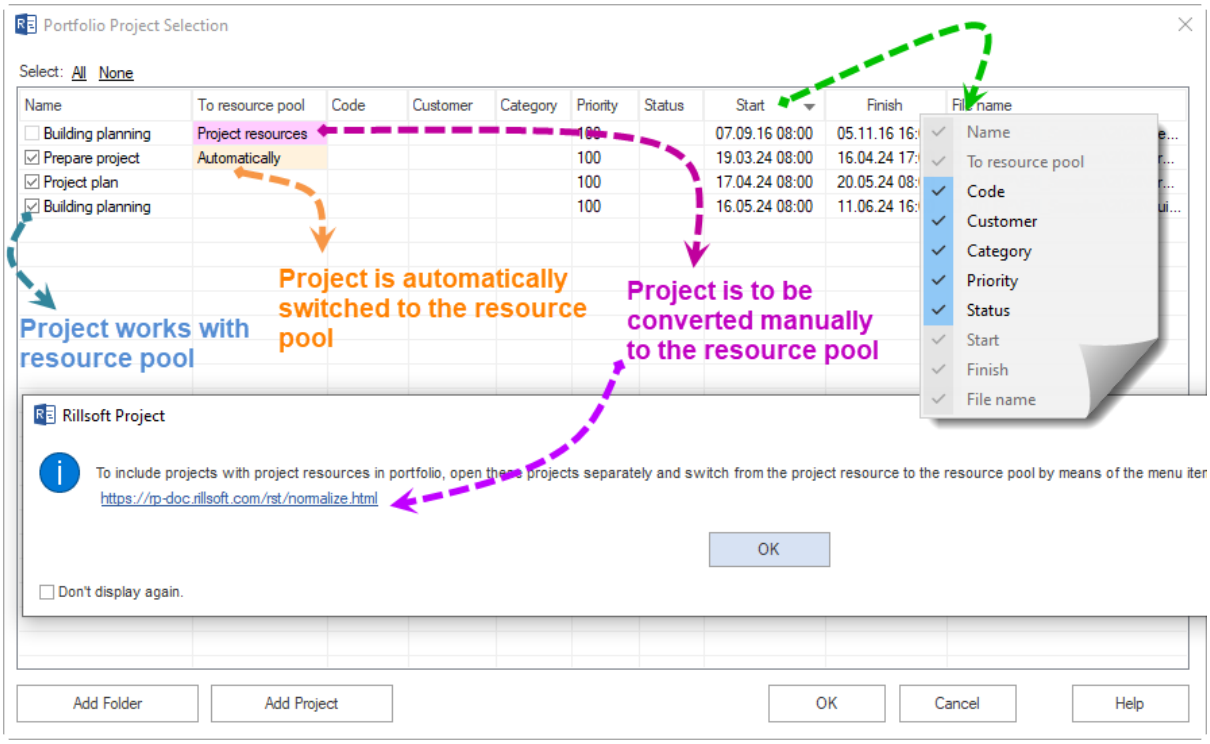
Related Topics

- *Save Baseline and Enter Progress*
- *Perform Target/Actual Comparison*
- *Why Do Target and Actual Values Not Match?*

10.10.4 Checklist: Prepare Portfolio Review

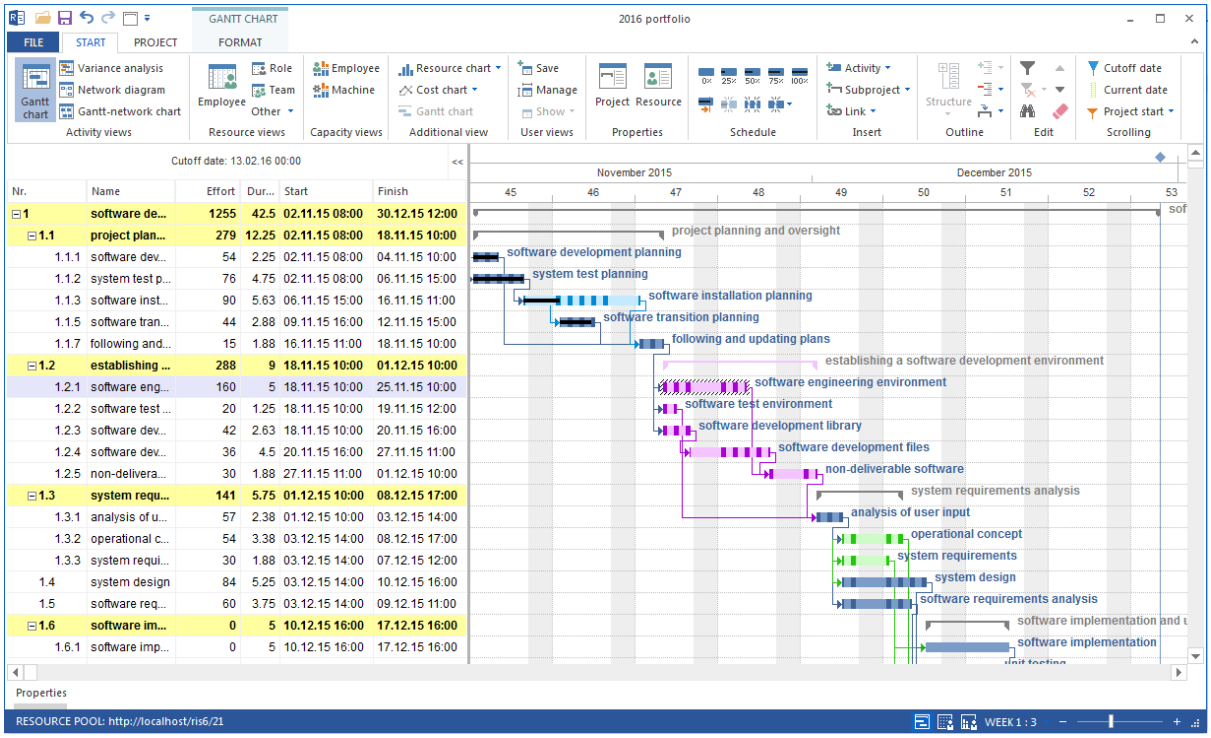
Goal

Prepare a portfolio review so that project status, priorities, bottlenecks, and decision needs are visible.



Portfolio Data

- All relevant projects are included in the portfolio.
- Projects use the same resource pool.
- Category, status, priority, and customer are maintained.
- Project owners are known.
- Disabled projects in the portfolio dashboard are intentionally disabled.

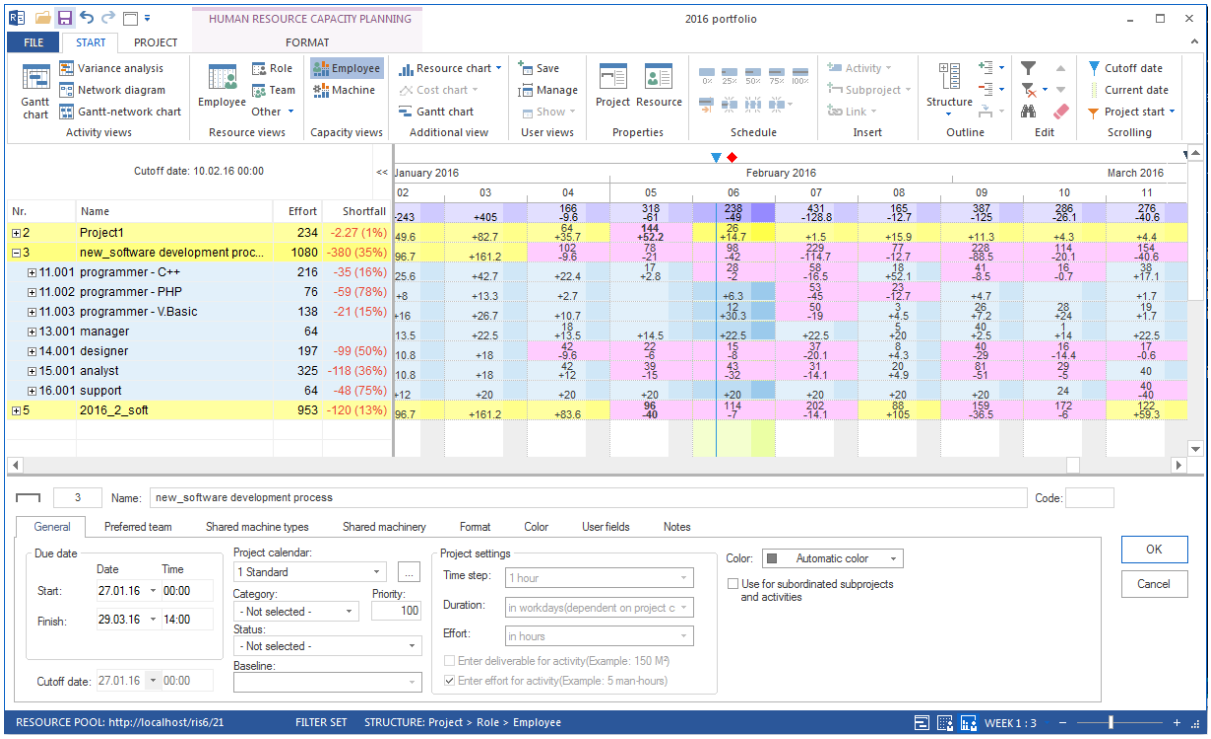


Schedule and Status Situation

- Critical finish dates are checked.
- Late tasks are known.
- Cross-project dependencies are checked.
- Dependencies between projects are documented.

Resource Situation

- Employee capacity balancing was checked across the portfolio.
- Key people and scarce qualifications are known.
- Overloaded employees were analyzed by project and priority.
- Bottleneck projects are named.



Decision Needs

- Projects with priority conflicts are marked.
- Possible shifts or pauses are prepared.
- Effects on finish dates and resources are described.
- Recommendations for PMO or management are formulated.

Related Topics

- *Portfolio Analysis*
- *Control Multiproject Planning*
- *Why Does a Project Not Appear in the Portfolio?*

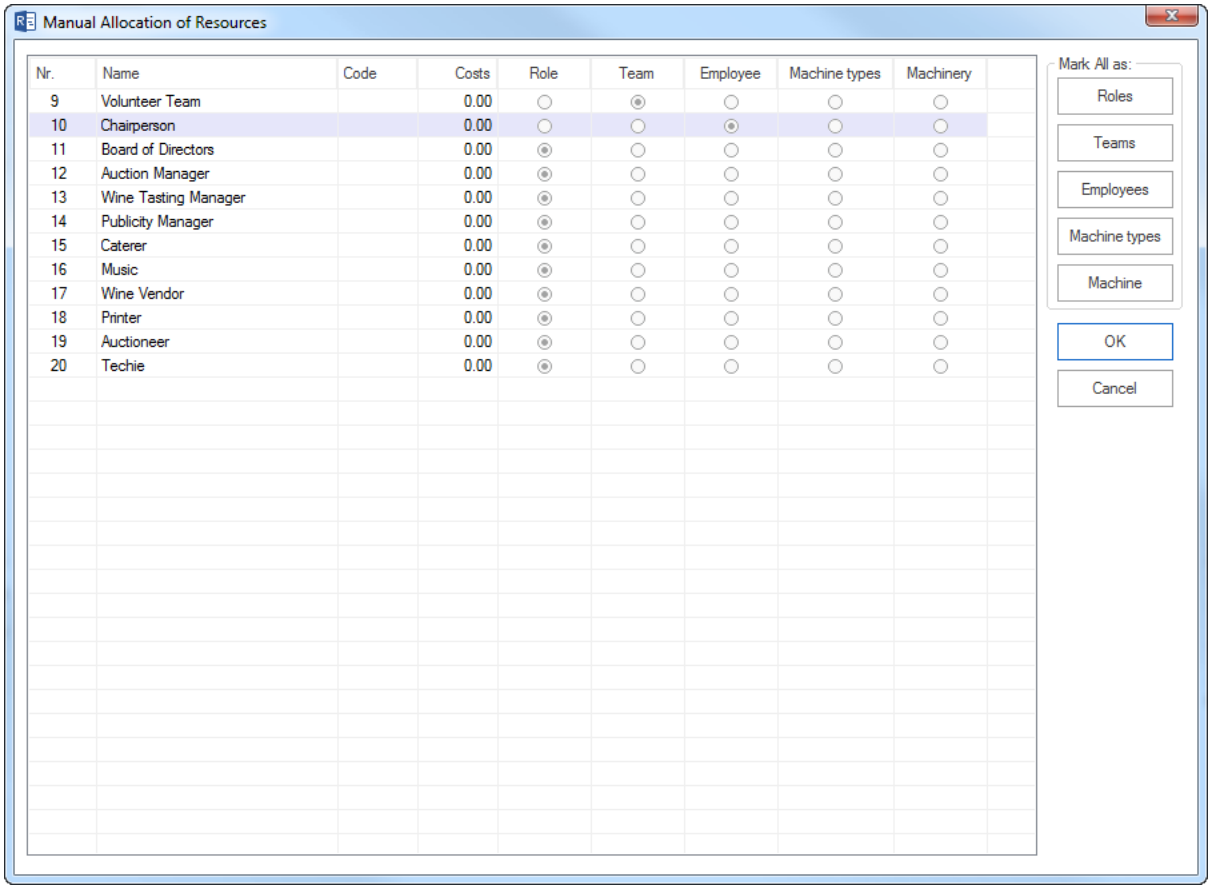
10.10.5 Checklist: Check Data Before Import or Export

Goal

Check project and master data before data is imported, exported, or transferred to other systems.

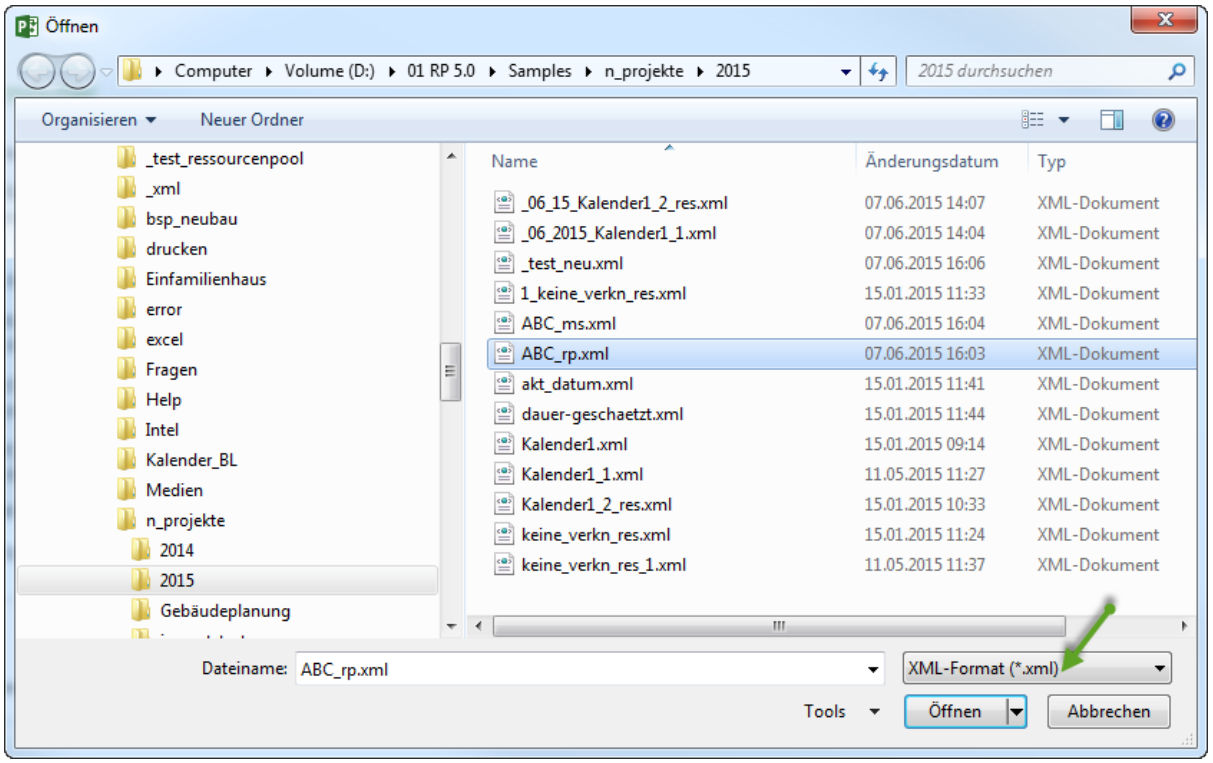
Before Import

- File format and source are known.
- Project structure and outline are technically plausible.
- Calendars, working days, and time units fit the target project.
- Resource names and professional qualifications are aligned.
- Duplicate employees, roles, or resources are avoided.
- Imported tasks are checked technically after import.



Before Export

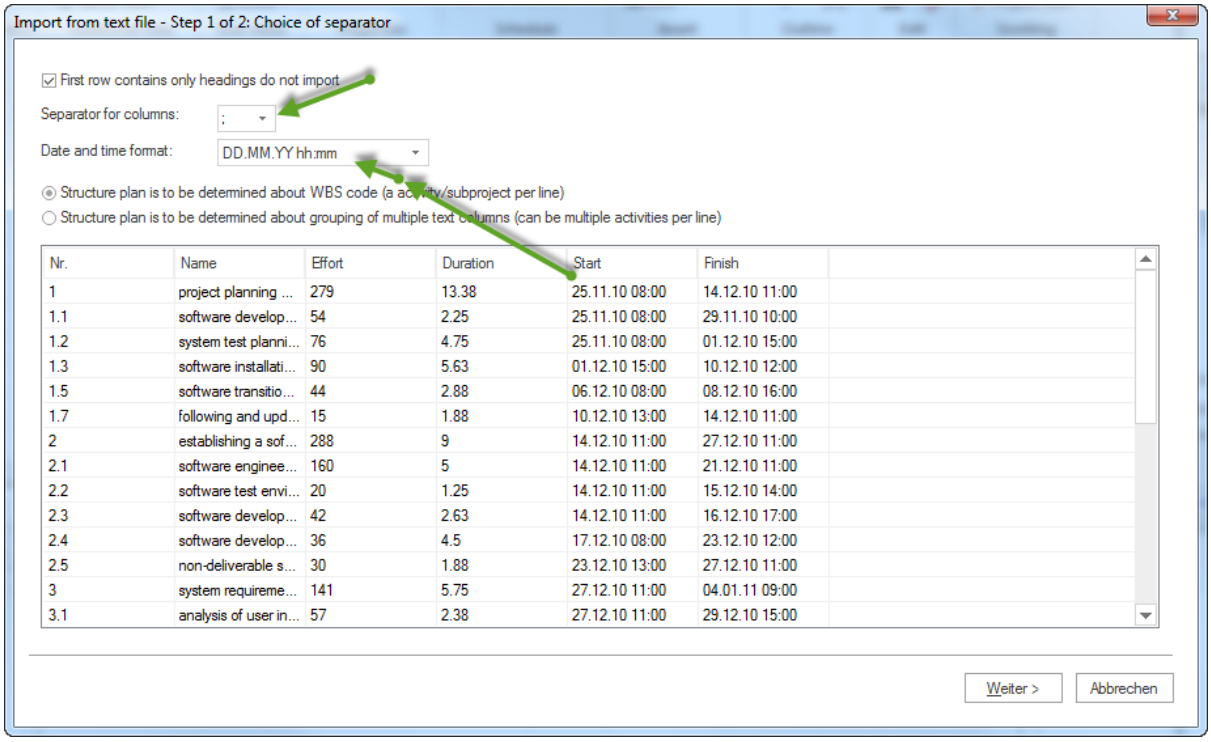
- Target system and required format are known.
- Only required projects or tasks are exported.
- Project status, dates, and responsible persons are current.
- Resource and cost data may be passed on.
- Confidential information was checked.
- The export is opened and checked after creation.



Special Points for Server Operation

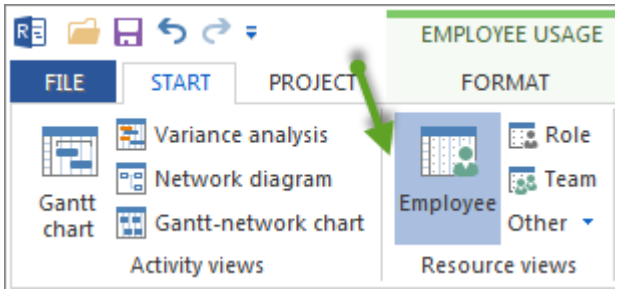
If Rillsoft Integration Server or Rillsoft Cloud is used, also check:

- user rights for import, export, and project access
- locks or simultaneous editing
- central storage and folder structure
- DMS assignment if documents are involved
- feedback from time entry or vacation planning if relevant for export



After Import or Export

- The project can be opened.
- Tasks, dependencies, and dates are plausible.
- Resources and calendars were transferred correctly.
- Capacity balancing shows no unexpected effects.
- For XML or external-system export, the result was checked in the target system.

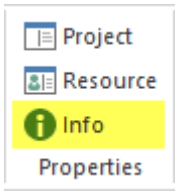


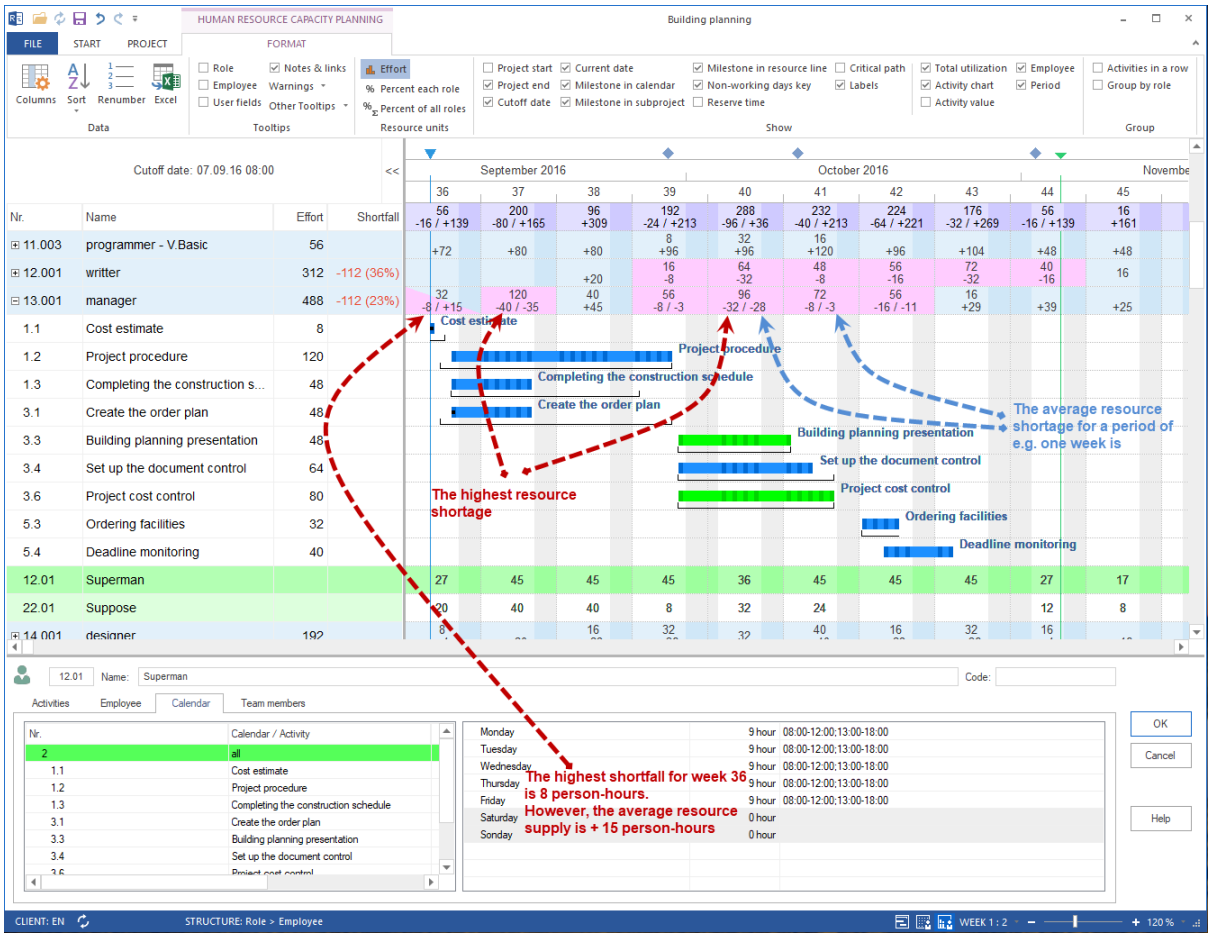
Related Topics

- *Build a Project Portfolio*
- *Derive Resource Supply From the Resource Pool*
- *Expert Knowledge*

10.10.6 When to Use Them

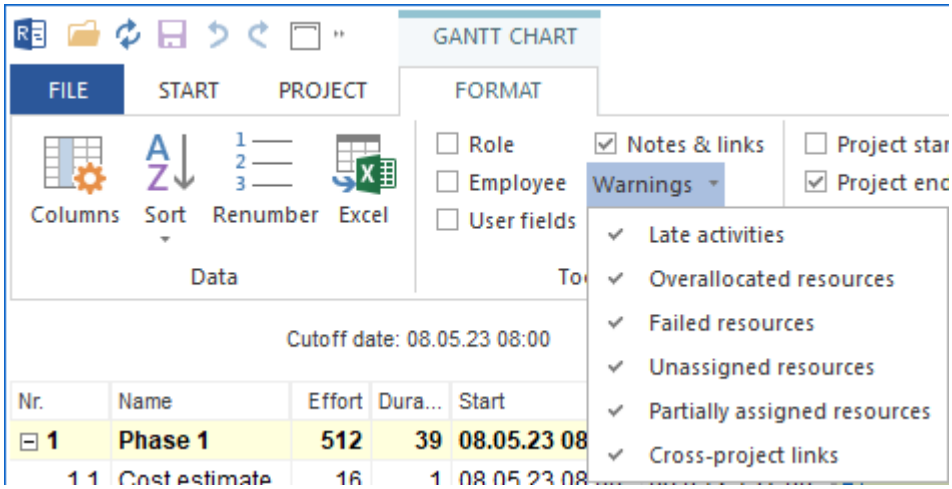
Use the checklists before approvals, status meetings, portfolio reviews, or data handovers. They do not replace a professional decision, but they make typical gaps visible.





10.11 Typical Planning Problems

Use this section when:

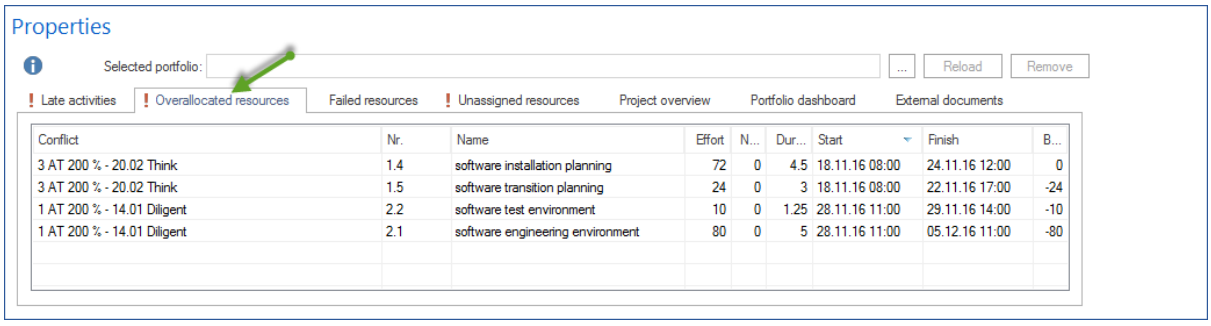


- the project finish date shifts unexpectedly
- tasks cannot be moved
- employees are overloaded or role demand is not covered
- target and actual values do not match the expected project status
- projects are missing from the portfolio or are not considered correctly
- role demand is not yet covered by named employees
- tasks are not recalculated after a plan change

10.12 Recommended Approach

For planning problems, proceed in this order:

1. Describe the symptom precisely.
2. Check the affected view or task.
3. Check scheduling logic, dependencies, and fixed dates.
4. Check resources, calendars, and assignments.
5. Check the portfolio or summary-project context if several projects are involved.
6. Change the plan only after the cause is clear.



10.13 Related Sections

- *Project Planning*
- *Resources and Capacities*
- *Resource Assignment*
- *Target/Actual Comparison and Project Control*
- *Project Portfolio and Multiproject Management*

10.14 More Help

- *Decision Guides*
- *Checklists*

troubleshooting, problem solving, overload, date shift, missing project, partial assignment, target actual comparison, baseline, progress, reporting date, deviation, project manager, resource manager, pmo

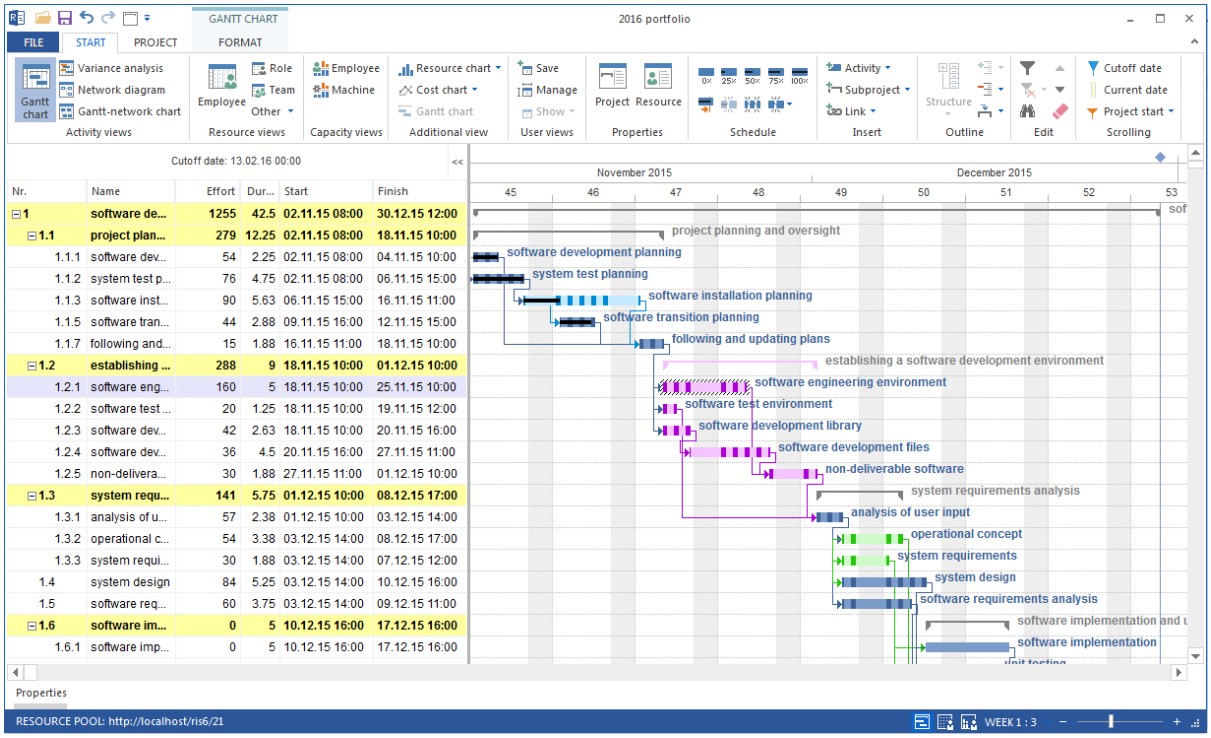
CHAPTER

ELEVEN

ROLE-BASED ENTRY POINTS

This section guides different user groups quickly to their typical tasks in Rillsoft Project, Rillsoft Integration Server, and Rillsoft Cloud.

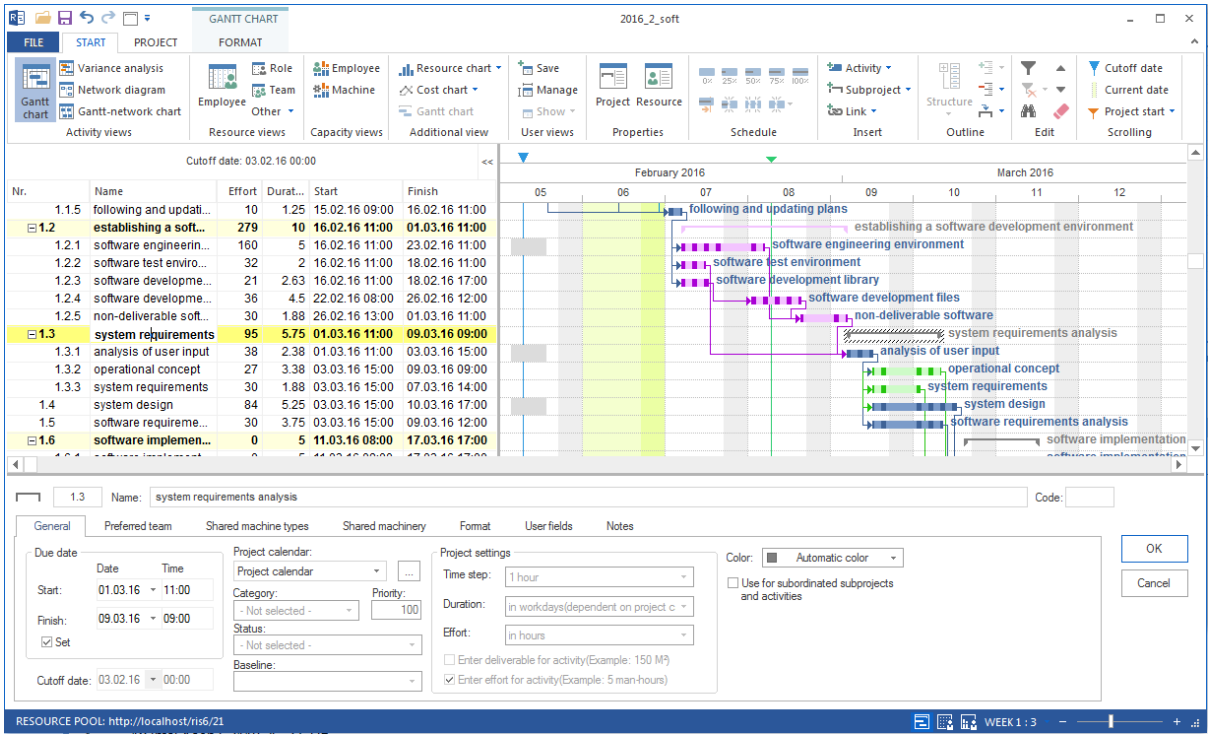
The roles are not technical user roles from Integration Server. They describe professional ways of working: who plans projects, who is responsible for resources, who controls the portfolio, who decides priorities, and who manages users, rights, and central data.



11.1 Project Manager

Project managers plan, control, and evaluate individual projects. Their goal is a reliable project plan that makes dates, tasks, resource demand, progress, and deviations understandable.

In Rillsoft Project, project managers mainly work with the Gantt chart, tasks, subprojects, dependencies, resource demand, employee assignment, baselines, and target/actual comparison.



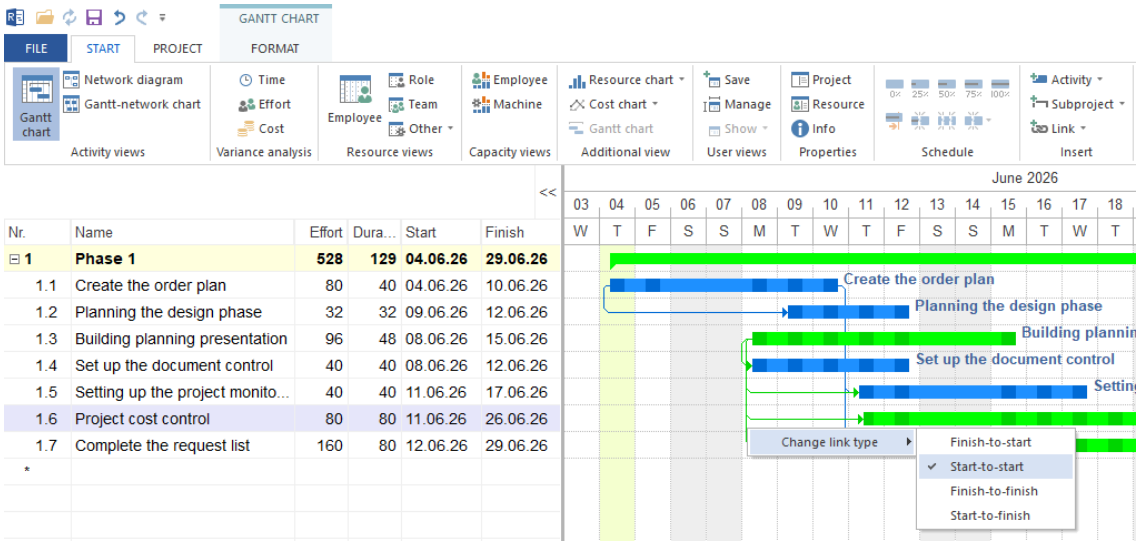
11.1.1 Typical Tasks

- build the project structure
- plan and link tasks
- evaluate critical path and float
- clarify resource demand by professional qualification
- assign employees directly or after capacity balancing
- record progress
- evaluate target/actual comparison
- prepare a status report

11.1.2 Working Path for Project Managers

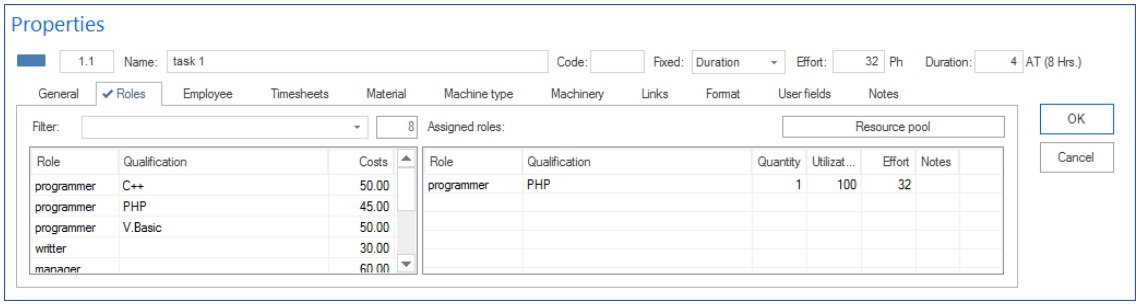
1. **Build the project plan**

   Start with project structure, subprojects, tasks, milestones, and dependencies. A project can only be controlled reliably when the scheduling logic is technically correct.



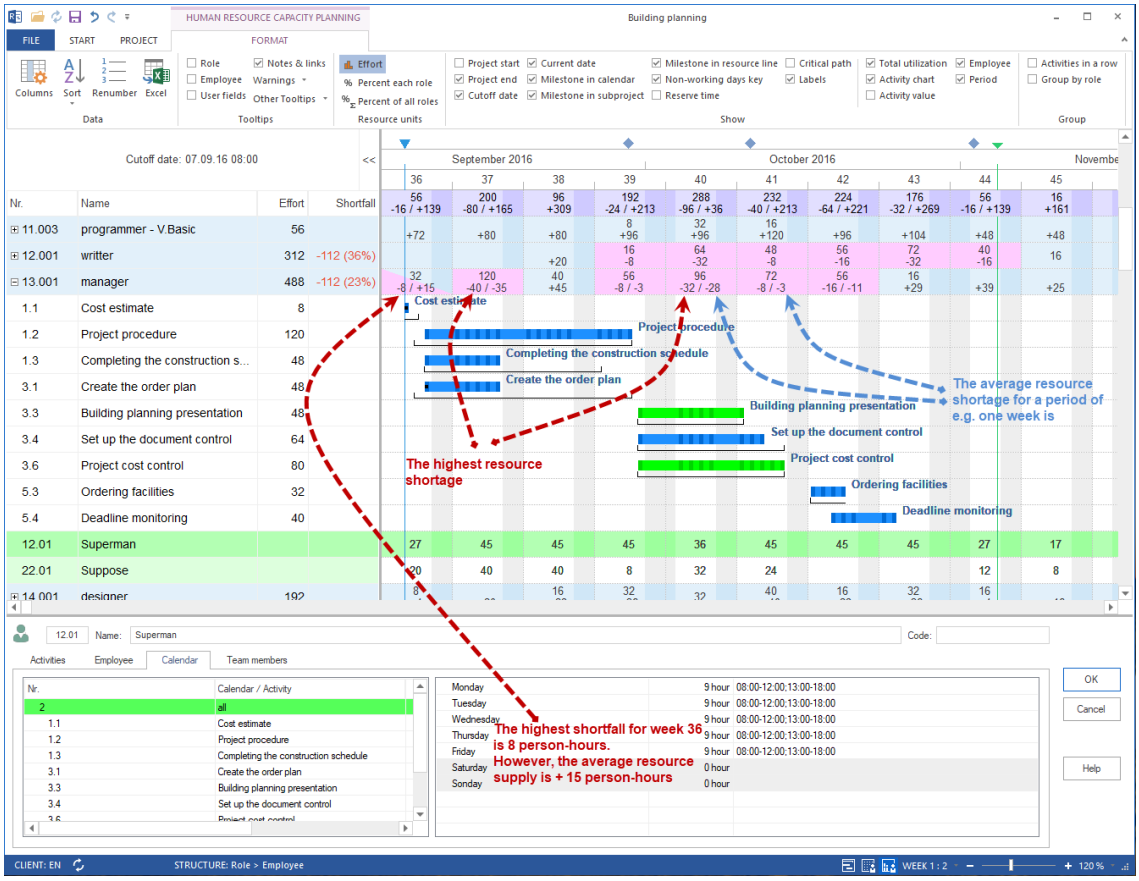
2. **Clarify resource demand**

   First plan which professional qualifications are needed. This prevents individual employees from being committed too early.



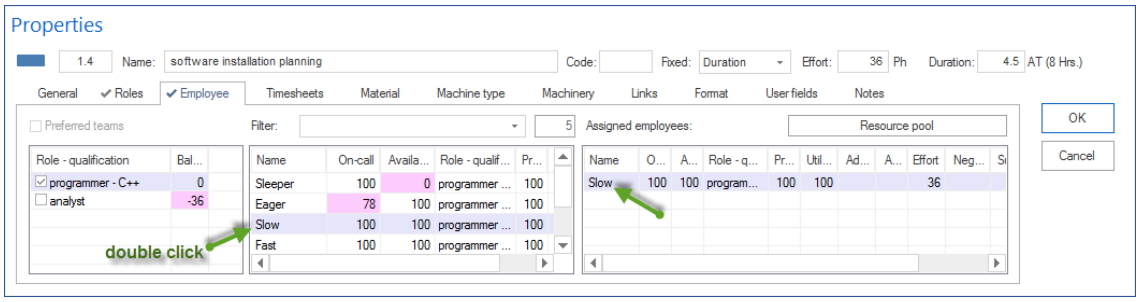
3. **Check capacity**

   Check whether the resource supply from the resource pool matches the planned demand. For larger projects or scarce employees, perform capacity balancing before binding assignment.



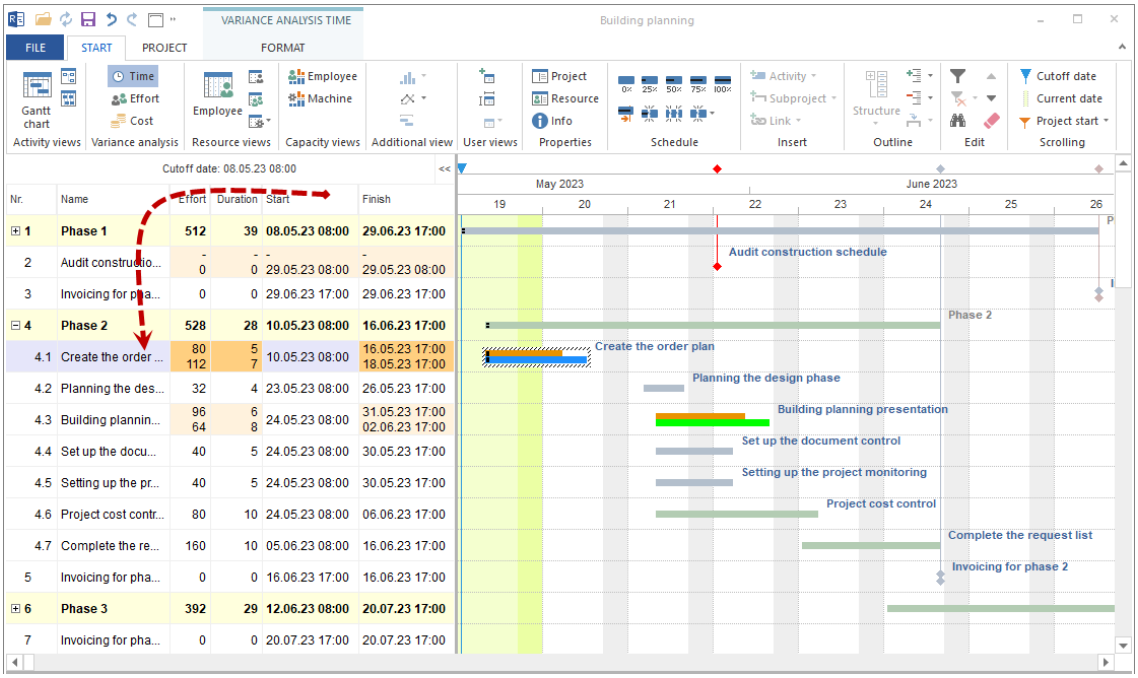
4. **Assign employees**

   Assign employees directly when team and project are manageable. Use assignment after capacity balancing when several employees, working times, absences, or several projects are relevant.



5. **Control progress**

   Save a baseline, record progress, and check deviations with target/actual comparison.



11.1.3 Important Views

- Gantt chart for schedule, tasks, and dependencies
- network diagram for logical dependencies
- employee capacity balancing for bottlenecks and free capacity
- employee view for concrete employee assignment
- target/actual comparison for schedule, effort, and cost deviations
- project information for late activities, overloaded resources, and unassigned resources

11.1.4 Decisions

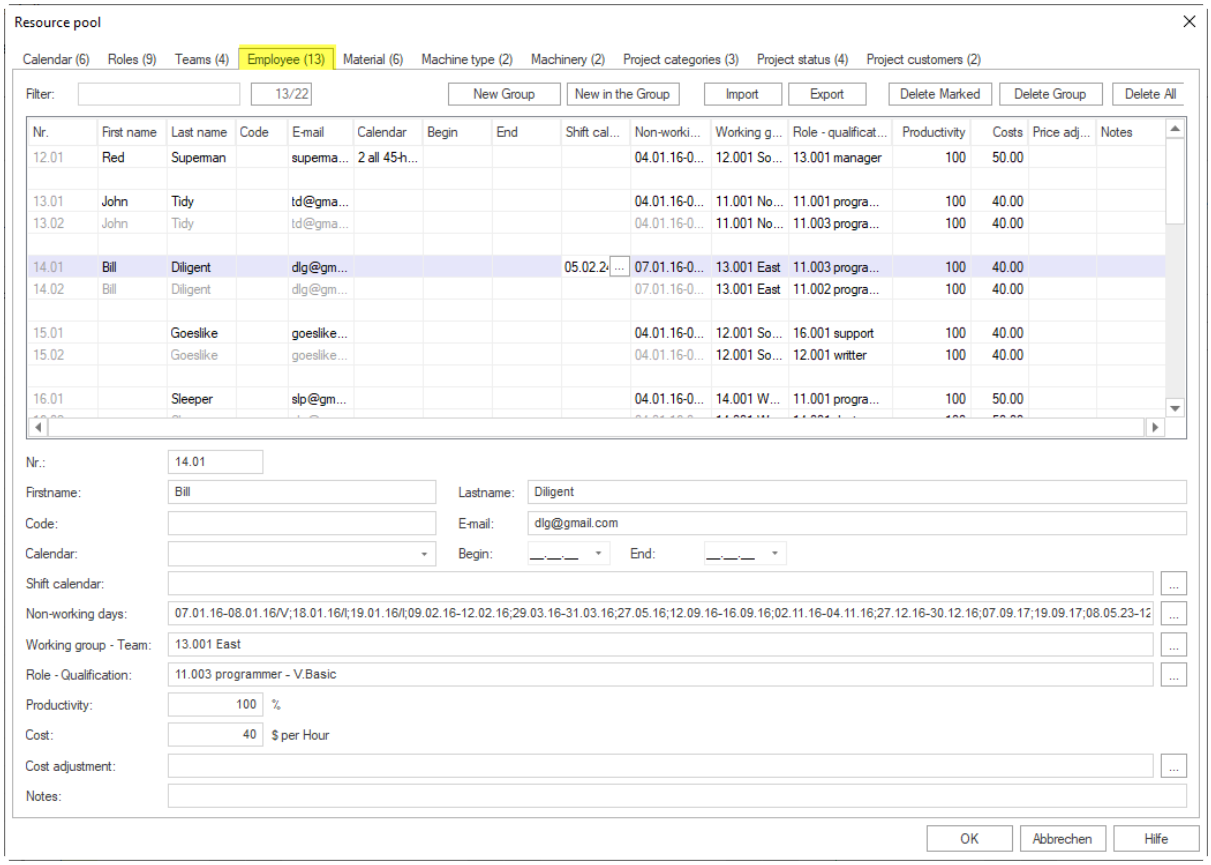
Situation	Decision
Project is new or unstructured	Stabilize project structure and scheduling logic first.
Demand is clear, employees are not yet fixed	Plan roles or professional qualifications.
Employees are scarce	Perform capacity balancing before binding assignment.
Project is already running	Use baseline, progress, and target/actual comparison.
Finish date is at risk	Check critical path, resources, and deviations together.

11.1.5 Related Topics

- *Project Planning*
- *Resources and Capacities*
- *Resource Assignment*
- *Target/Actual Comparison and Project Control*
- *Planning as a Team: Multi-User Work and Summary Projects*
- *Why Does My Project Date Shift?*

11.2 Resource Manager

Resource managers ensure that resource supply is maintained realistically and can be compared with project resource demand. They mainly work with the resource pool, professional qualifications, teams, working times, non-working days, and capacity balancing.



The task is not only to record employees. The decisive question is whether available employees, with their qualifications, working times, and absences, fit the planned project workload.

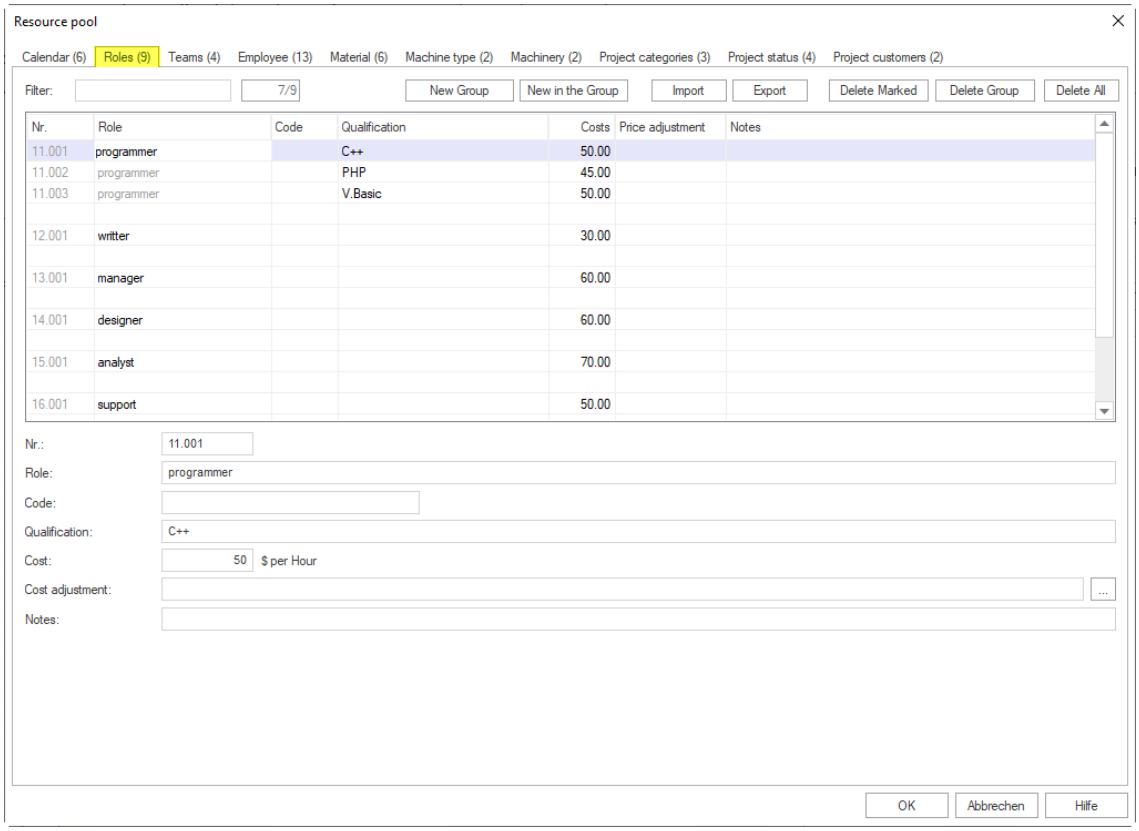
11.2.1 Typical Tasks

- maintain the resource pool
- keep employees, teams, and professional qualifications up to date
- consider working times, vacation, illness, and other non-working days
- evaluate resource supply by time period
- support capacity balancing
- analyze overloads, shortages, and free capacity
- find suitable employees for professional qualifications
- support project managers in assignment decisions

11.2.2 Working Path for Resource Managers

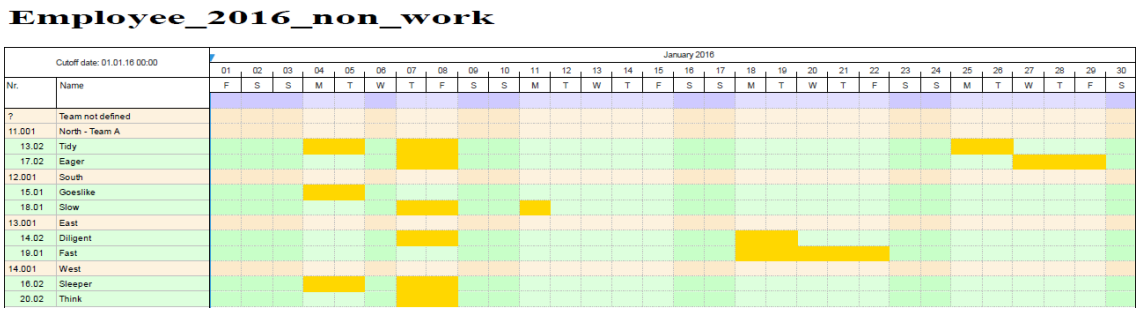
1. **Check the resource pool**

   Make sure that employees, professional qualifications, teams, calendars, and non-working days are current.



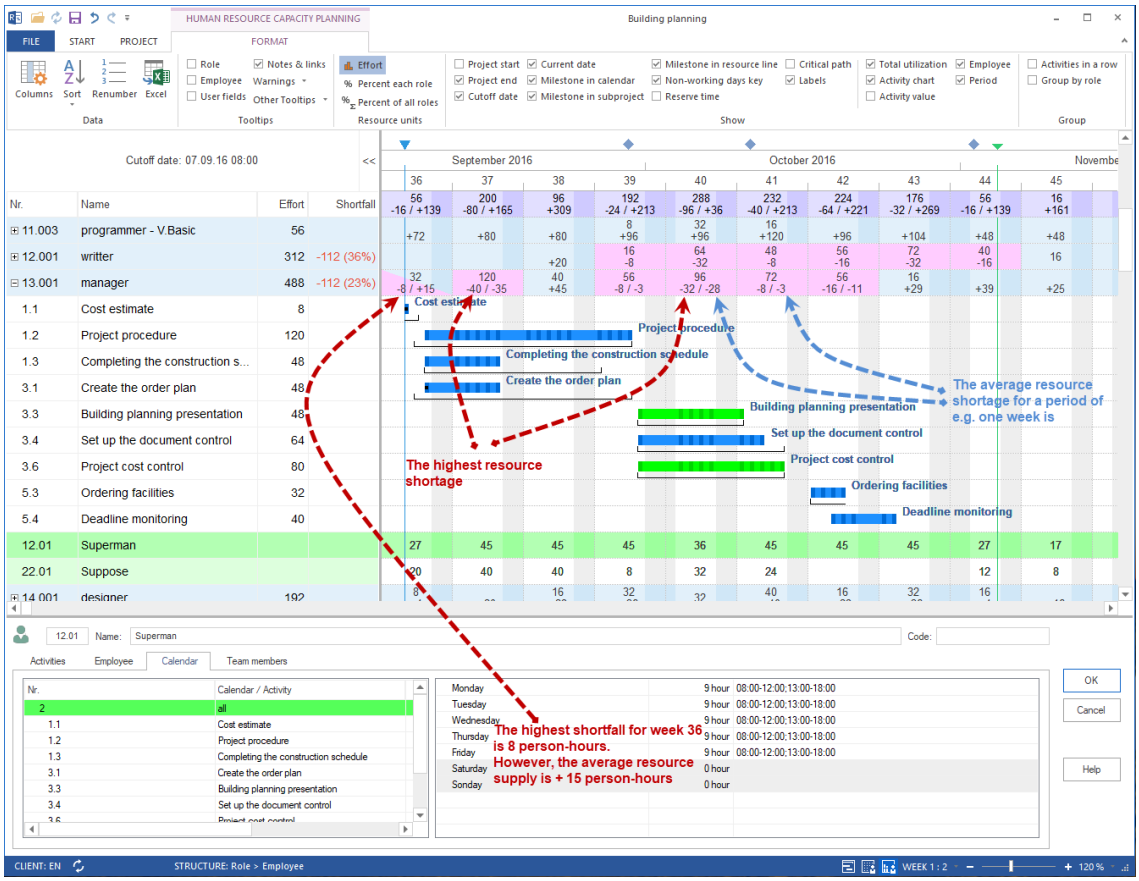
2. **Evaluate resource supply**

   Check which capacities are available in the period under review. Consider part-time work, shift calendars, vacation, illness, and other absences.



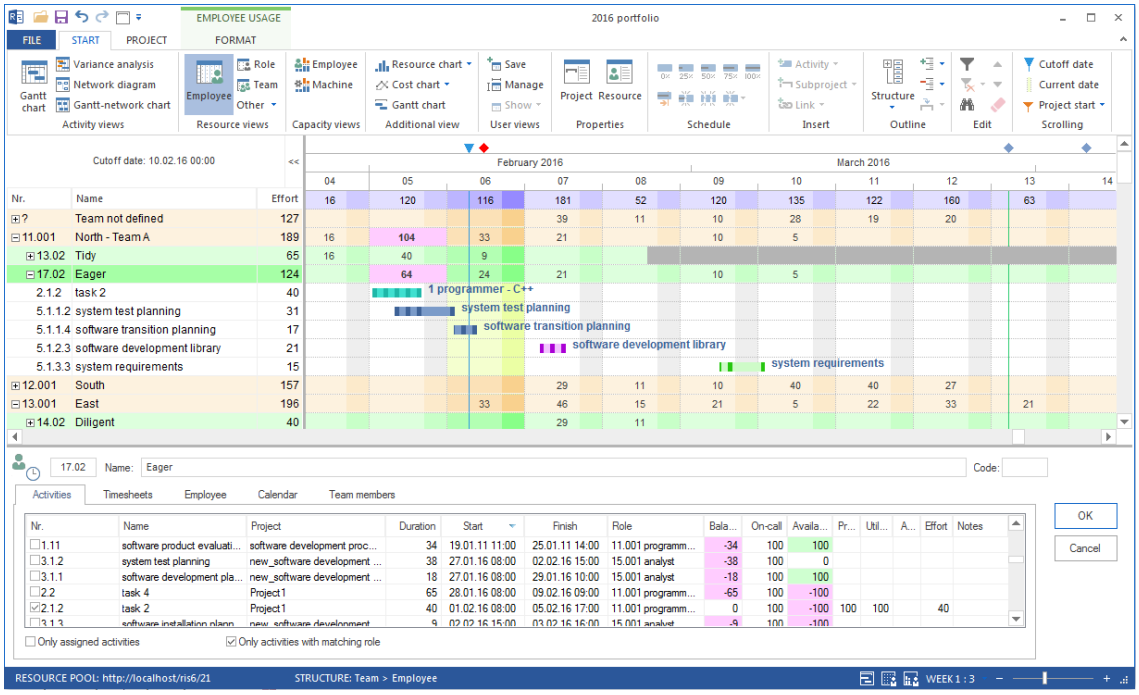
3. **Compare demand with supply**

   Use capacity balancing to compare planned role demand with available employees and qualifications.



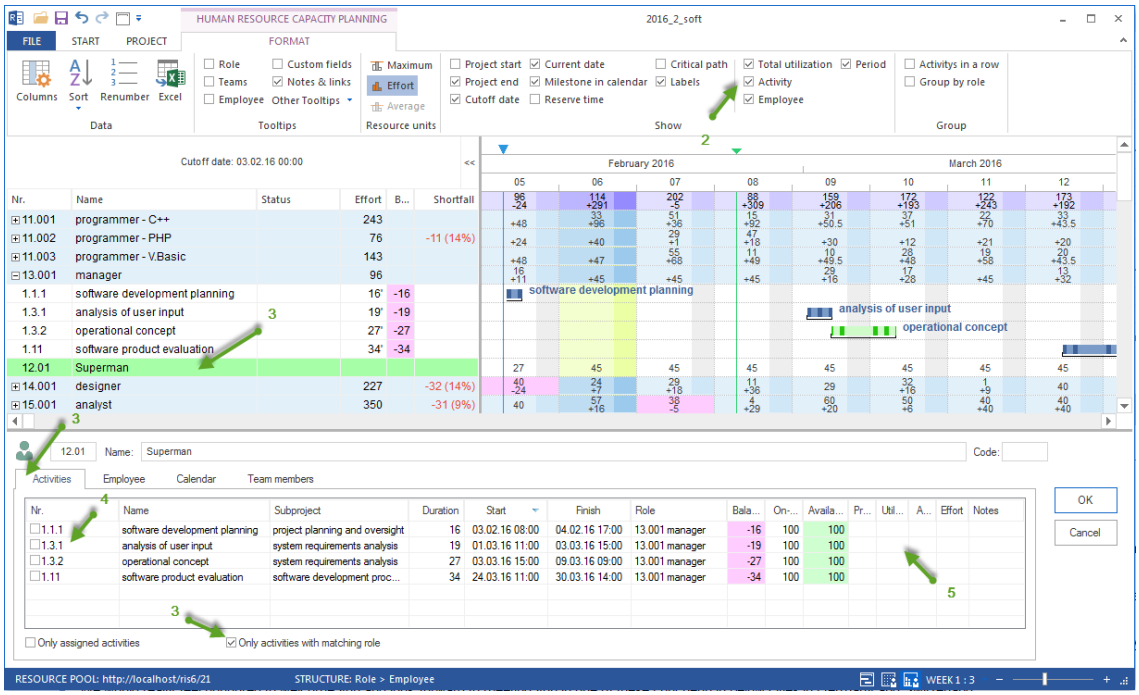
4. **Analyze bottlenecks**

   Group resource views by employee, role, team, and project. This shows whether bottlenecks come from one project, several projects, or missing qualifications.



5. **Support assignment**

   Recommend suitable employees or alternative time periods. Depending on the organization, the final project decision is made by the project manager, PMO, or resource management.



11.2.3 Important Views

- resource pool for employees, roles, teams, and calendars
- employee capacity balancing for demand, supply, and shortage
- role utilization for scarce professional qualifications

- employee utilization by project for cross-project assignment
- grouped resource views for employee, role, team, and project
- overloaded resources and failed resources in project information

11.2.4 Decisions

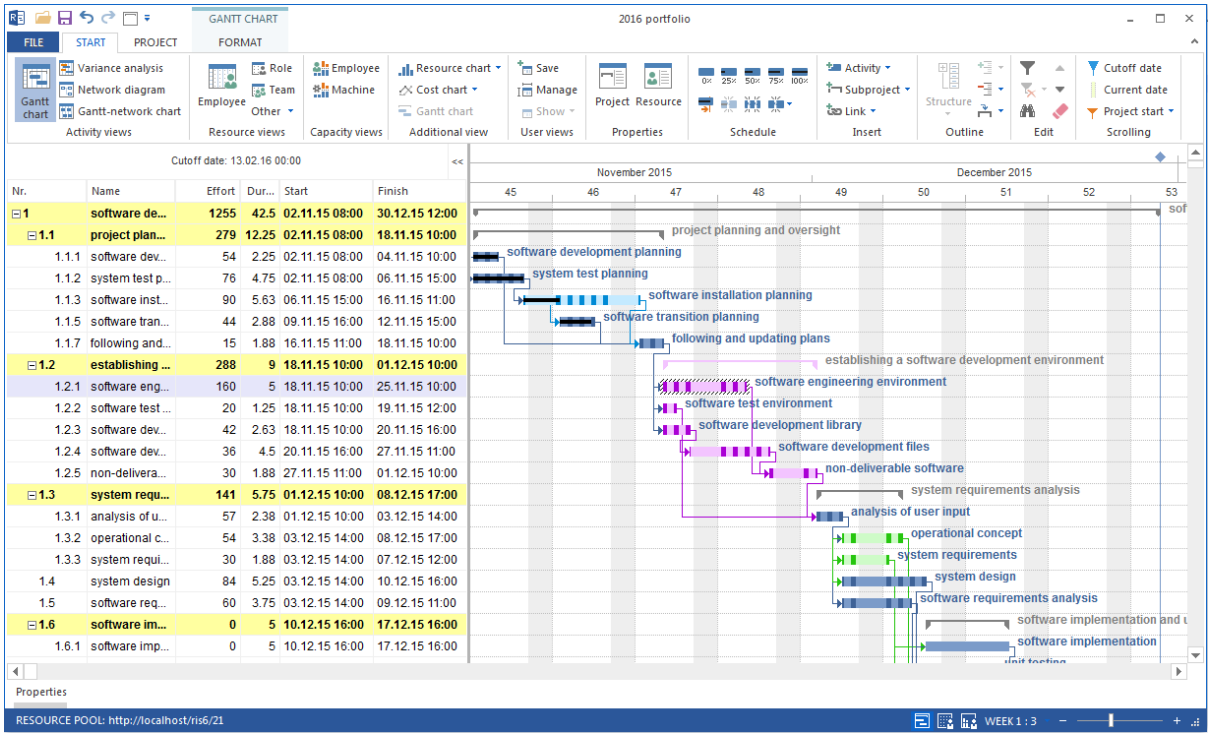
Situation	Decision
Role demand is not covered	Search suitable employees or shift demand in time.
Employee is overloaded	Check project context and propose alternatives.
Non-working days fall within the task period	Check calendar and clarify date impact with the project manager.
Several projects compete	Clarify priorities with PMO or management.
Qualification is permanently missing	Report capacity risk to PMO or management.

11.2.5 Related Topics

- *Derive Resource Supply From the Resource Pool*
- *Maintain Working Times and Non-Working Days*
- *Perform Capacity Balancing*
- *Group Resource Views*
- *Check Employee Assignments*

11.3 PMO

The PMO controls standards, transparency, and prioritization across several projects. In Rillsoft Project, the focus is on project portfolio, multiproject management, resource bottlenecks, project status, templates, and status reports.



The PMO does not evaluate every task in detail. It ensures that projects are planned comparably, evaluated together, and controlled by traceable priorities when resource conflicts arise.

11.3.1 Typical Tasks

- define standards for project structure and planning
- provide project templates and consistent status values
- monitor the project portfolio
- maintain or prepare project priorities
- make resource bottlenecks visible across several projects
- consolidate status reports
- evaluate cross-project dependencies
- prepare decision bases for executive management

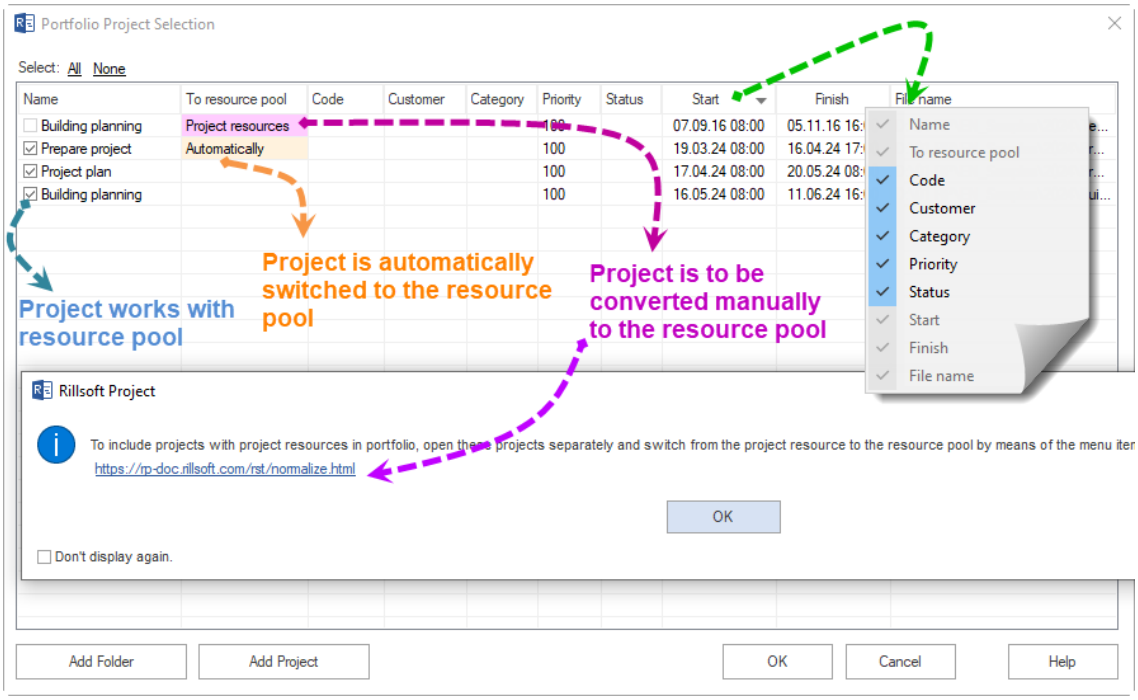
11.3.2 Working Path for PMO

1. **Define planning standards**

   Define how projects are structured, tasks are named, milestones are set, and baselines are saved.

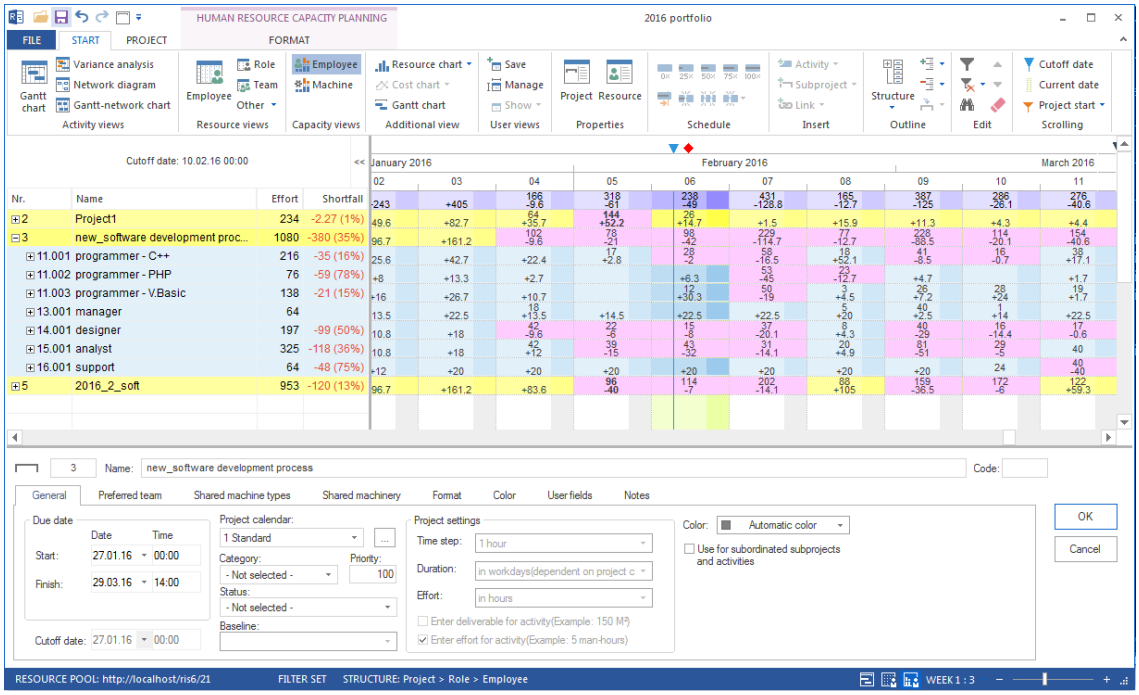
2. **Build the portfolio**

   Make sure that projects use the same resource pool and are maintained with category, status, priority, and customer.



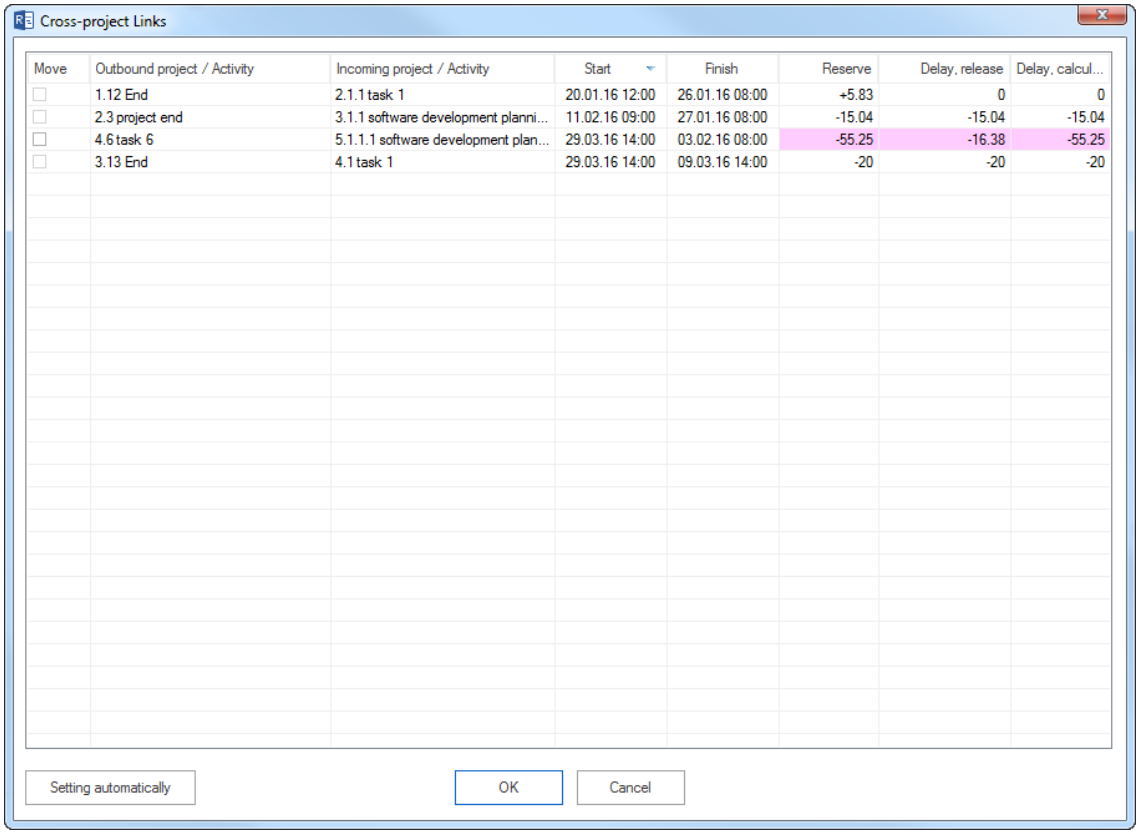
3. **Check the cross-project resource situation**

   Use portfolio and capacity balancing to evaluate bottlenecks not only in individual projects, but across all relevant projects.



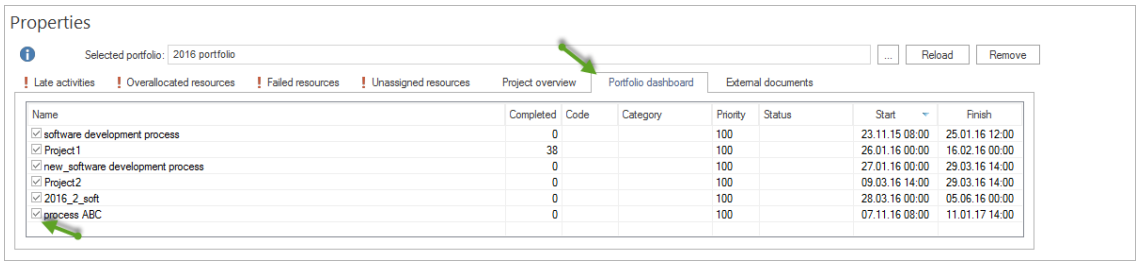
4. **Evaluate dependencies and risks**

   Check critical projects, late activities, cross-project dependencies, and bottleneck resources.



5. **Prepare decisions**

   Summarize risks, priority conflicts, and resource decisions so that management or a steering committee can decide.



11.3.3 Important Views

- project portfolio for a shared view of several projects
- portfolio dashboard for status, priority, customer, start, and finish
- employee capacity balancing across several projects
- employee utilization by project
- role utilization by project
- cross-project dependencies
- target/actual comparison for project status and deviations

11.3.4 Decisions

Situation	PMO question
Several projects use the same resource	Which priority applies and which projects are moved?
Project status is inconsistent	Which status values and reporting rules must become binding?
Portfolio shows bottleneck projects	Which projects need a management decision?
Cross-project dependency shifts dates	Which project managers must plan together?
Deviations are accumulating	Is a new baseline approved or does the old reference status remain valid?

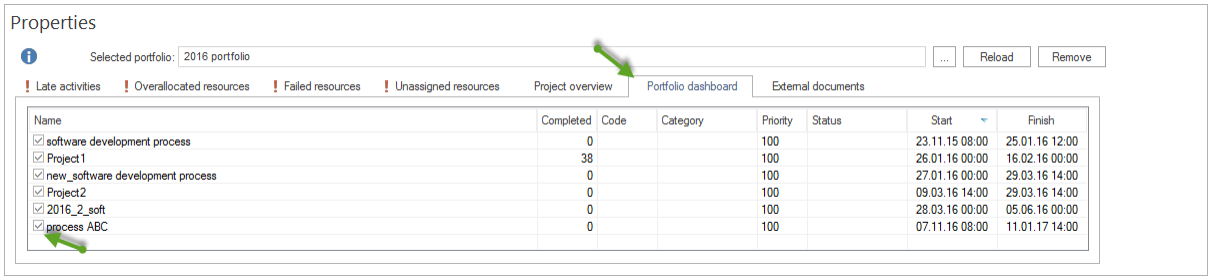
11.3.5 Related Topics

- *Project Portfolio and Multiproject Management*
- *Portfolio Analysis*
- *Summary Project in the Portfolio*
- *Prepare a Status Report*
- *Perform Capacity Balancing*
- *Why Does a Project Not Appear in the Portfolio?*

11.4 Executive Management

Executive management does not need a detailed view of every task. It needs a reliable view of feasibility, risks, priorities, bottlenecks, and effects on delivery dates or costs.

Rillsoft Project supports this view through portfolio, capacity planning, project priorities, status information, and target/actual comparison. The decisive question is: which projects are realistically feasible with the available employees, qualifications, and machinery?



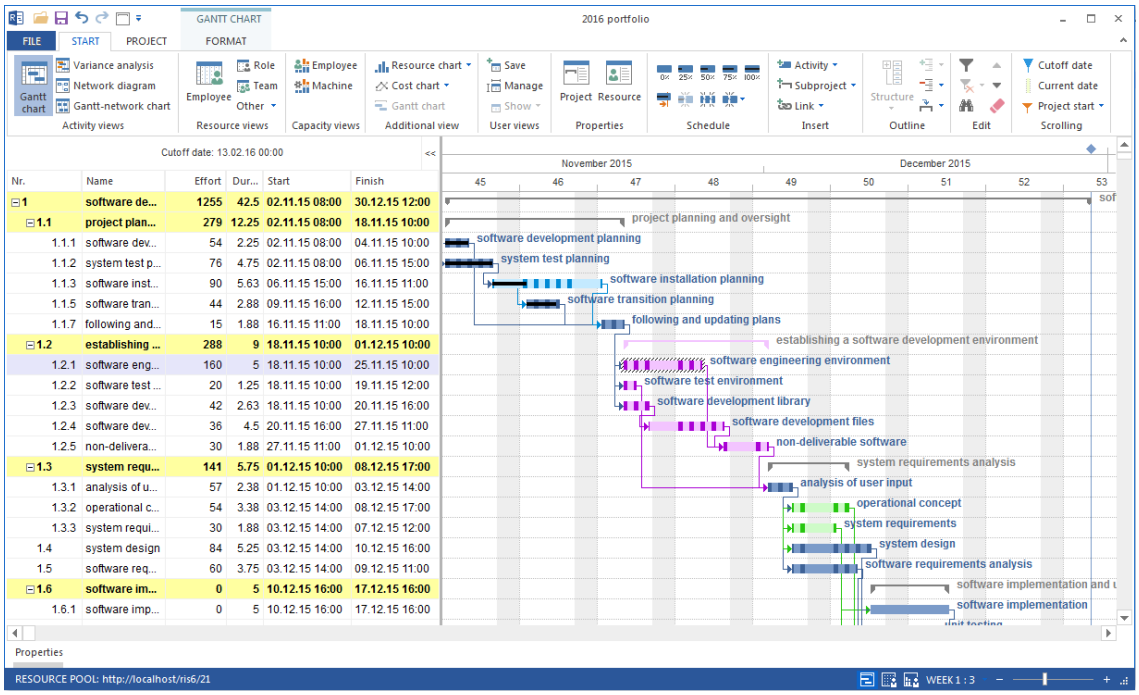
11.4.1 Typical Tasks

- evaluate the project portfolio
- identify bottlenecks and risks
- set or confirm project priorities
- use decision-ready evaluations
- check the strategic resource situation
- identify critical qualifications and key people
- evaluate the effects of project shifts
- prepare investment, staffing, or priority decisions

11.4.2 Working Path for Executive Management

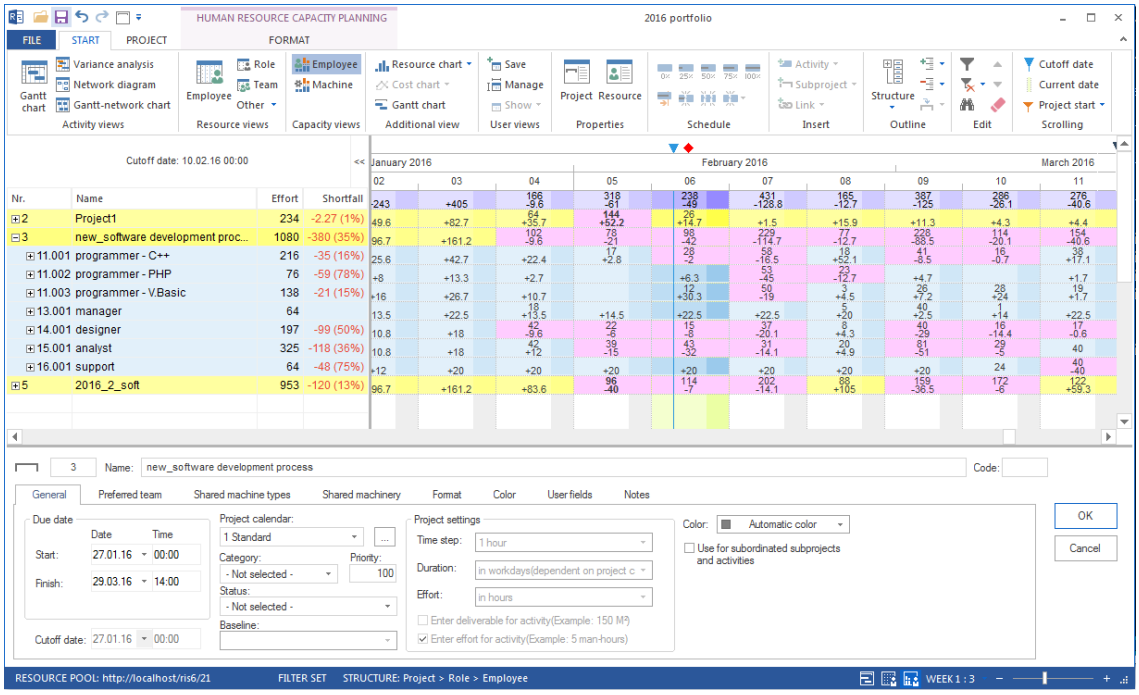
1. **Check the portfolio dashboard**

   Review active projects with status, priority, start, finish, and responsible persons.



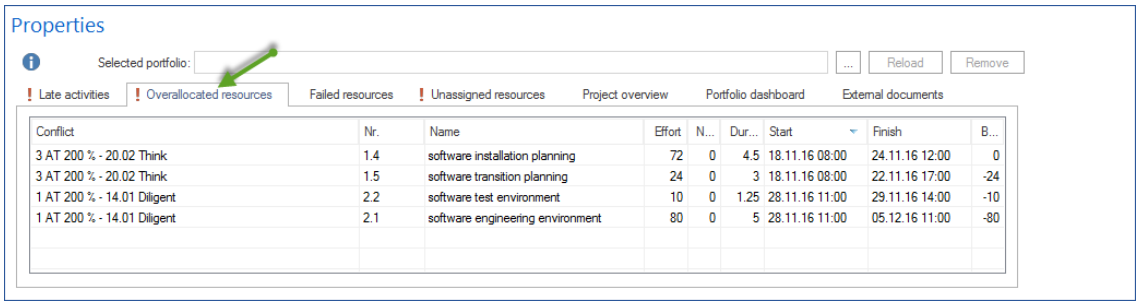
2. **Evaluate feasibility**

   Check whether available employees, qualifications, and machine capacities fit the planned project workload.



3. **Identify bottleneck projects**

   Watch for projects that bind scarce resources for a long time or endanger downstream projects.

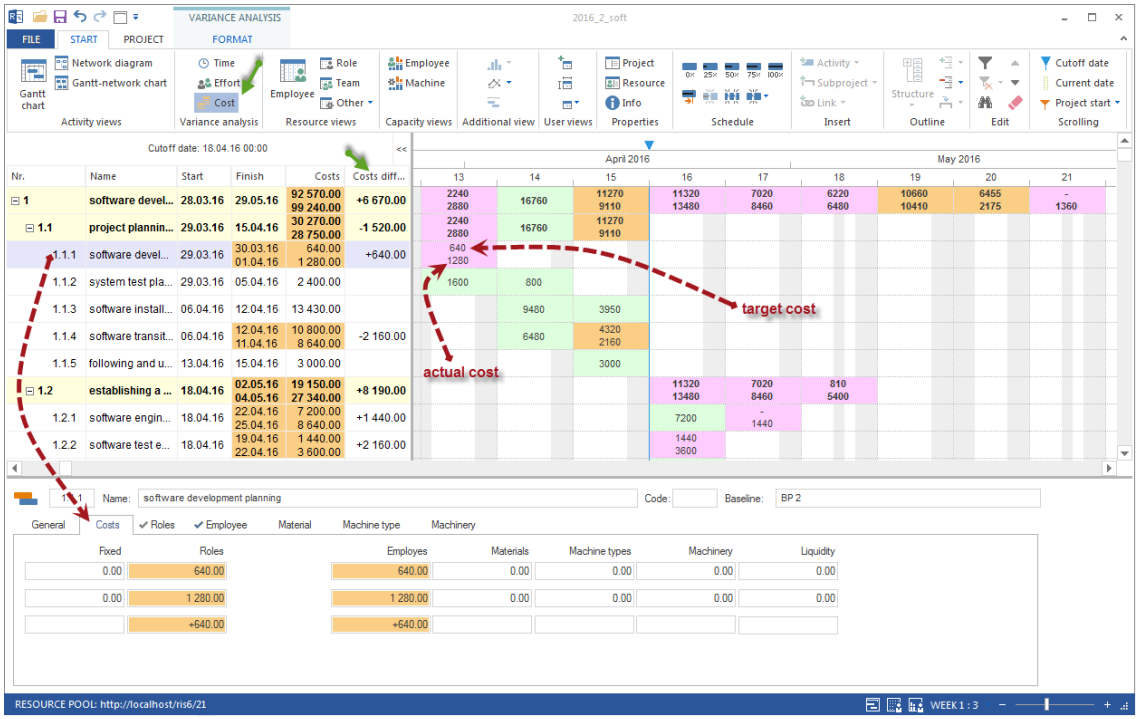


4. **Decide priorities**

   If not all projects can realistically be implemented at the same time, priorities, dates, or resources must be clarified.

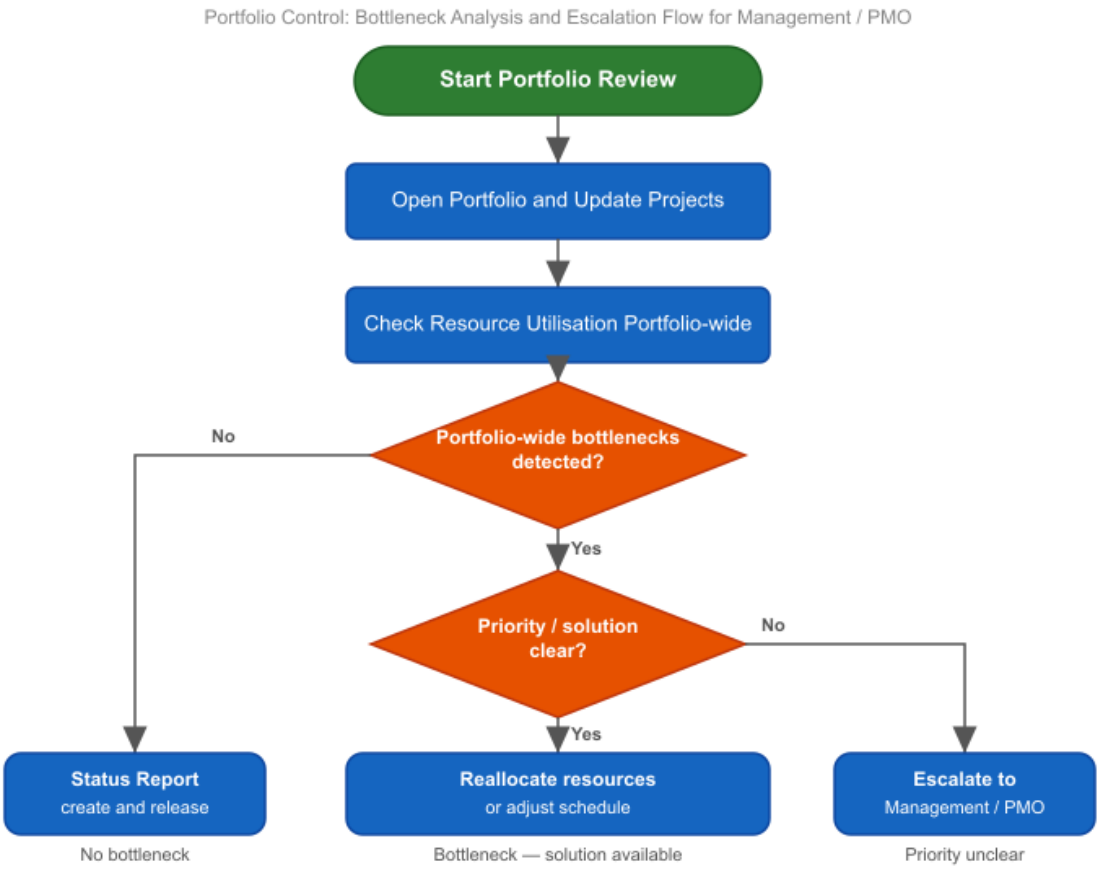
5. **Evaluate status and deviations**

   Use status reports and target/actual comparison to detect schedule, effort, and cost deviations early.



11.4.3 Important Metrics and Signals

- project status and project priority
- finish dates and critical path of important projects
- resource bottlenecks by employee, team, or professional qualification
- overloaded key people
- target/actual deviations for dates, effort, and costs
- cross-project dependencies
- scenarios: move, pause, prioritize, or additionally staff a project



11.4.4 Decisions

Question	Possible decision
Is existing capacity sufficient for all projects?	Prioritize projects, move them, or create additional capacity.
Which projects are strategically more important?	Set priority in the portfolio.
Which qualification is permanently scarce?	Check staffing, external capacity, or project scope.
Is a finish date at risk?	Decide on scope, date, or resources.
Are several projects dependent on each other?	Initiate joint control by PMO or steering committee.

11.4.5 Related Topics

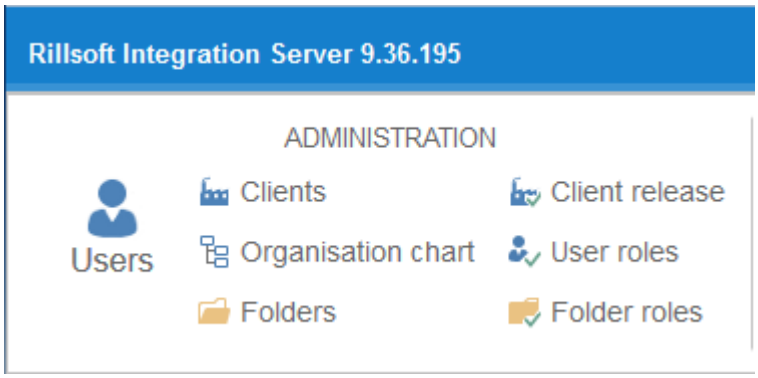
- *Portfolio Analysis*
- *Control Multiproject Planning*
- *Planning as a Team: Multi-User Work and Summary Projects*
- *Prepare a Status Report*
- *Perform Capacity Balancing*

- *PMO*

11.5 IT and Administration

IT and administration ensure that Rillsoft Project, Rillsoft Integration Server, or Rillsoft Cloud can be used correctly from an organizational and technical perspective. This includes users, rights, clients, central data storage, resource pool, folders, interfaces, and add-on modules.

This role is especially relevant when the organization does not work only with local project files, but uses central server operation with multi-user access, project portfolio, time entry, vacation planning, or DMS.



11.5.1 Typical Tasks

- classify Integration Server or Cloud operation
- manage users and clients
- maintain user roles and access rights
- enable access to the resource pool
- manage virtual folder structures for projects and portfolios
- support project access, locks, and multi-user operation
- administer LDAP, email, DMS, time entry, and vacation planning
- consider data storage, auditability, and version control

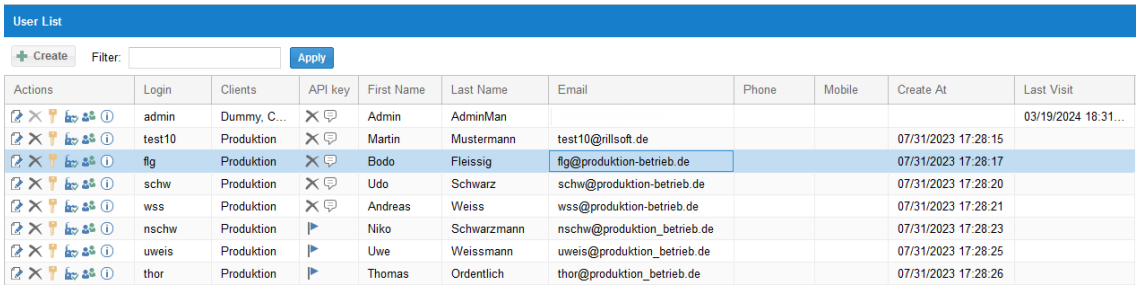
11.5.2 Working Path for IT and Administration

1. **Clarify operating model**

   Rillsoft Project can be operated locally with project files, with Rillsoft Integration Server, or with Rillsoft Cloud. The operating model determines where projects are stored and which administrative functions are available.

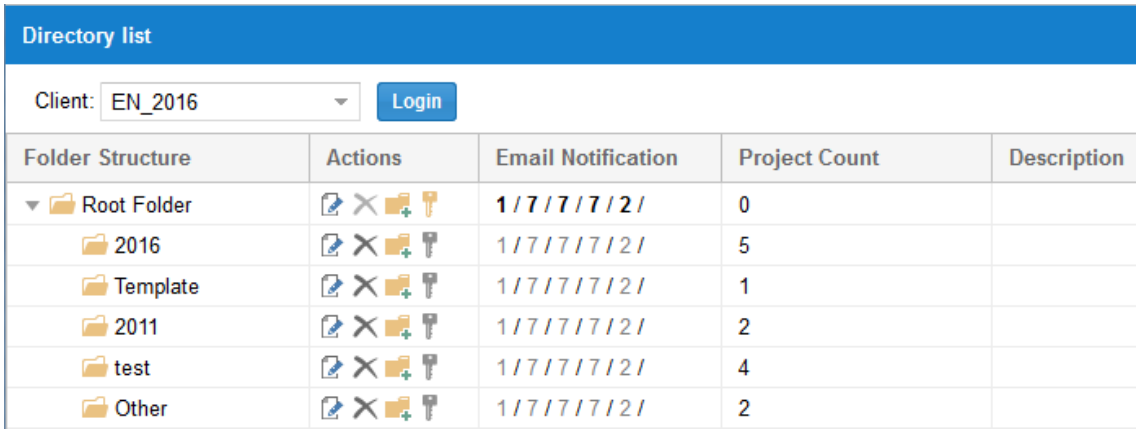
2. **Maintain users and rights**

   In Integration Server, user roles define rights for user management, portfolio, resource pool, and add-on modules. For work with Rillsoft Project, at least **Read resource pool** access is required.



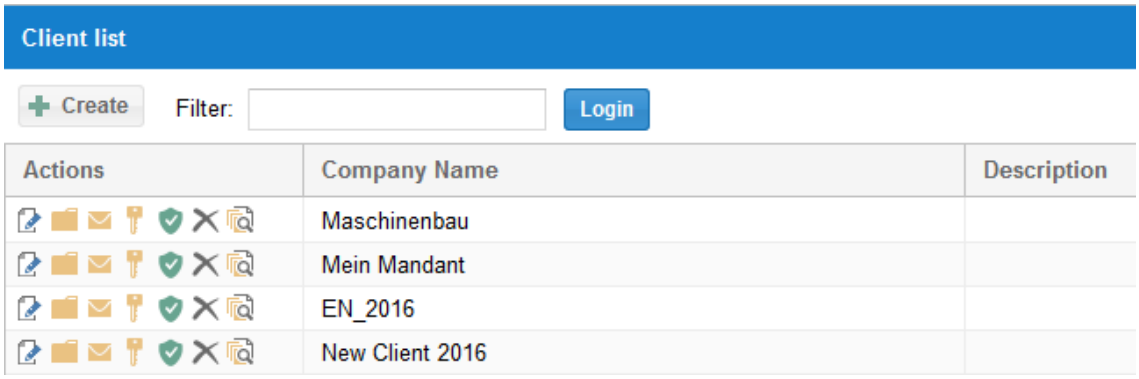
3. **Structure clients and folders**

   In server operation, projects, portfolios, and templates can be stored in virtual database folders. The folder structure is managed in the web interface.



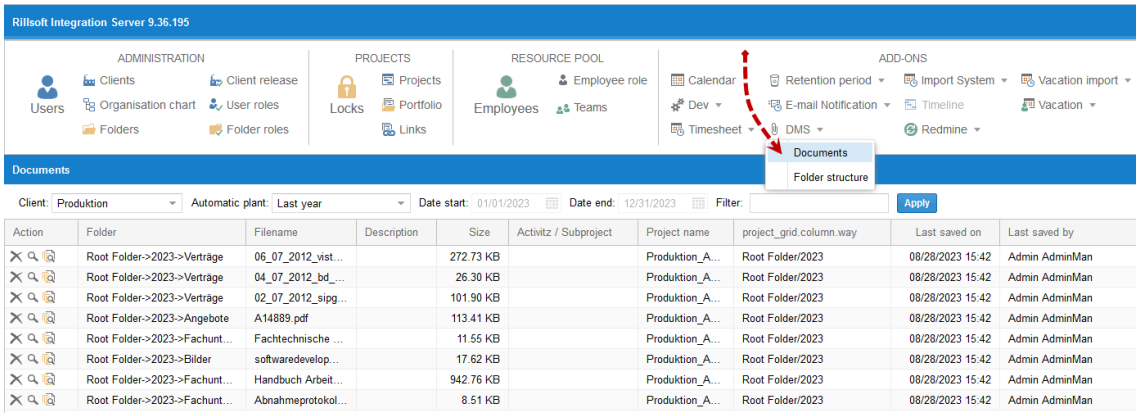
4. **Protect the resource pool**

   The resource pool is the basis for planning, capacity balancing, and portfolio work. Define who may read, change, lock, or unlock it.



5. **Operate add-on modules**

   Depending on the installation, time entry, vacation planning, DMS, email notification, iCalendar, LDAP, and other modules may be involved.



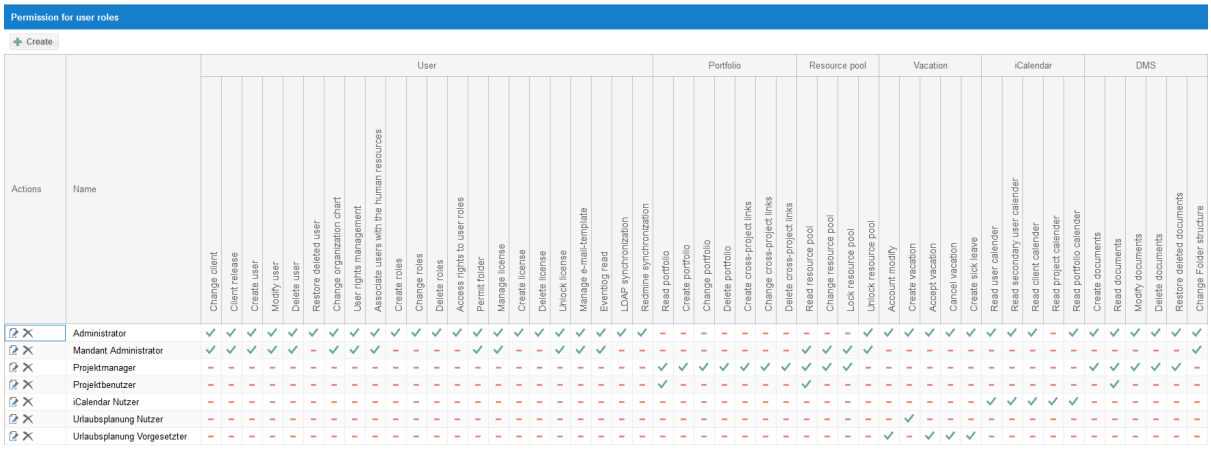
11.5.3 Separate Technical User Roles and Professional Roles

The professional roles in this help section describe ways of working. The technical user roles in Rillsoft Integration Server control permissions.

Typical predefined user roles in Integration Server are:

- Administrator
- Client Administrator
- Project Manager
- Project User
- iCalendar User
- Vacation Planning User
- Vacation Planning Supervisor

Assign these roles so that users receive only the data and functions they need for their work.



11.5.4 Important Administration Areas

Area	Purpose
User management	Create, change, delete, and release users for clients.
User roles	Control rights for portfolio, resource pool, user management, and add-on modules.
Resource pool	Control read, change, lock, and unlock rights.
Portfolio	Control read, create, change, delete, and cross-project dependency rights.
DMS	Manage documents and folder structures.
Vacation planning	Model vacation, illness, and approval processes organizationally.
Time entry	Make feedback and actual times usable for project control.

11.5.5 Decisions

Question	Decision
Local files or server operation?	Define standalone operation, Integration Server, or Cloud.
Who may change the resource pool?	Assign rights narrowly and name professional owners.
Who may change portfolios and cross-project dependencies?	Define PMO or project-manager rights.
How are absences maintained?	Define vacation planning, illness reporting, and calendar process.
How are documents managed?	Define DMS structure and rights.

11.5.6 Related Topics

- *Expert Knowledge*
- *Integration Server*
- *Setting Up and Operating Integration Server*
- *DMS*
- *Build a Project Portfolio*
- *Organize Collaboration in the Team*
- *Derive Resource Supply From the Resource Pool*
- *PMO*

11.6 Entry Point for Construction Planners

This entry point is for project managers and planners in construction projects: building construction, civil engineering, plant construction, infrastructure, and related areas. Rillsoft Project supports the requirements of these industries: trades, capacity balancing, machinery planning, and long-term schedule control.

11.6.1 Typical Tasks in Construction Planning

- build a construction schedule by trades or phases
- link tasks with duration, waiting times, and overlaps
- plan equipment, devices, and machinery and detect conflicts
- check capacity utilization of subcontractors and internal staff
- keep critical path and float visible in daily work
- document dates for customers and authorities
- save a baseline for target/actual comparison and report progress

11.6.2 Typical Working Path

1. Build project structure by trade

Structure the project into subprojects by trade, for example shell construction, roof, heating, electrical, and interior work. Each trade receives its own level with the related tasks.

- *Project Manager*
- *Build a Project Structure*

2. Link tasks with waiting times and overlaps

Many construction tasks have real waiting times, for example concrete curing or screed drying. Use positive lag in finish-start dependencies. For overlaps, for example interior work starts while shell construction is still running, use negative lag.

- *Link Tasks*

3. Assign equipment, devices, and machinery

Crane, concrete mixer, excavator, or scaffolding are resources with limited availability. Create them as equipment, device, or machinery in the resource pool and assign them to tasks.

- *Assign Additional Resources*

4. Perform capacity balancing

Check whether employee and equipment capacities are sufficient. Overloads become visible in resource views. Rillsoft Project can resolve overloads automatically through optimization, or you can move tasks manually.

- *Perform Capacity Balancing*

5. Monitor the critical path

In construction projects, the critical path often shifts, for example when material deliveries are delayed or weather blocks external work. Check the critical path after every planning change.

- *Analyze the Critical Path*

6. Baseline and progress report

Save the baseline before construction starts. Record progress weekly, for example percent complete and actual effort, and compare it with the baseline.

- *Project Information and Status Panel*
- *Perform Target/Actual Comparison*

11.6.3 Important Views for Construction Planners

View	Use
Gantt chart	Daily work: tasks, bars, dependencies, critical path
Equipment utilization	Equipment and machine capacity over time
Employee utilization	Utilization of trade workers and subcontractors
Network diagram	Check process logic, especially for complex dependencies
Portfolio bar chart	Overview of all active construction projects in the company
Information panel	Overdue tasks, consistency checks, external documents such as plans and permits

11.6.4 Typical Decisions

Situation	Recommendation
Concrete task needs three days curing time	Finish-start dependency with lag +3 days.
Interior work starts while shell construction still runs for ten days	Finish-start dependency with lag -10 days.
Crane is needed for two parallel tasks	Use an incompatible task group or create the crane as machinery with capacity 1.
Finish date cannot be reached	Analyze critical path, check parallel execution, focus resources on critical tasks.
Subcontractor provides dates as an Excel list	Store external links or external documents in the information panel.
Authority milestone must remain fixed	Create the task as a milestone with a fixed date and make preceding float visible.

11.6.5 Related Topics

- *Project Planning*
- *Resources and Capacities*
- *Resource Assignment*
- *Best Practices*
- *Project Manager*

11.7 Entry Point for IT Project Managers

This entry point is for project managers in IT projects: software development, system integration, infrastructure projects, digital transformation, and related areas. Typical IT project characteristics are considered here: iterative phases, changing requirements, distributed teams, and scarce specialists.

11.7.1 Typical Tasks in IT Projects

- create project structure by deliverables or sprints, for example frontend, backend, database, documentation
- plan specialists and teams as qualifications or roles according to demand
- detect capacity bottlenecks for scarce profiles, for example security experts or architects
- coordinate parallel development streams and model dependencies
- make critical path and risks visible across project boundaries
- use Rillsoft Integration Server for time entry and developer feedback
- measure progress and prepare target/actual comparison for control meetings

11.7.2 Typical Working Path

1. Build project structure by deliverables

Structure the IT project into subprojects by deliverable, for example frontend, backend, API, testing, and deployment. Avoid tasks that are too granular. Individual tasks below one working day usually do not belong in the project plan.

- *Build a Project Structure*

2. Plan roles before assigning employees

Assign roles to tasks first, for example Senior Backend Developer, DevOps Engineer, or UX Designer. Capacity balancing then shows whether available employees cover the demand before concrete names are planned.

- *Plan Resource Demand by Qualifications*

3. Link parallel development streams

In IT projects, several streams often run in parallel. Use start-start dependencies for activities that should start together and finish-finish dependencies for activities that must finish together. Negative lag models overlaps.

- *Link Tasks*

4. Perform capacity balancing for bottleneck profiles

After role planning, check whether bottleneck profiles, meaning rare qualifications, are short. Capacity balancing shows this aggregated across all projects.

- *Perform Capacity Balancing*

5. Use Rillsoft Integration Server for time entry

If developers should report their own effort, set up feedback through Integration Server. Developers enter actual hours directly at the task, and the project manager sees progress in target/actual comparison.

- *Employee Time Entry*
- *Setting Up and Operating Integration Server*

6. Progress and control

Use the information panel to keep late activities, overloaded resources, and consistency problems visible. Save a baseline before actual development starts.

- *Project Information and Status Panel*
- *Save Baseline and Enter Progress*

11.7.3 Important Views for IT Project Managers

View	Use
Gantt chart	Daily work: tasks, dependencies, critical path
Role utilization	Capacity demand per qualification over the project period
Team utilization	Utilization of complete development teams at a glance
Employee utilization	Individual utilization of developers and specialists
Network diagram	Check process logic, especially for complex sprint handovers
Information panel	Late activities, consistency checks, external links such as tickets or wikis
Portfolio bar chart	Overview of all IT projects and their resource competition

11.7.4 Typical Decisions

Situation	Recommendation
Security review blocks several successors	Create the security review as a milestone and link all dependent tasks with finish-start.
Frontend and backend can be developed in parallel	Use a shared start-start dependency after design approval and finish-finish for integration testing.
DevOps resource is a bottleneck across several projects	Check role utilization in the portfolio context and perform capacity balancing across the summary project.
Developers should report actual effort themselves	Set up feedback through Integration Server and access rights for project tasks.
Sprint transition: current sprint ends, next sprint starts	Use a milestone at sprint end, a new sprint as subproject, and a finish-start dependency.
Deployment date is contractually fixed	Create deployment as a milestone with fixed date and make preceding float visible.
External API delivery is unclear	Create a task with estimated duration, add a note, and update it after clarification.

11.7.5 Related Topics

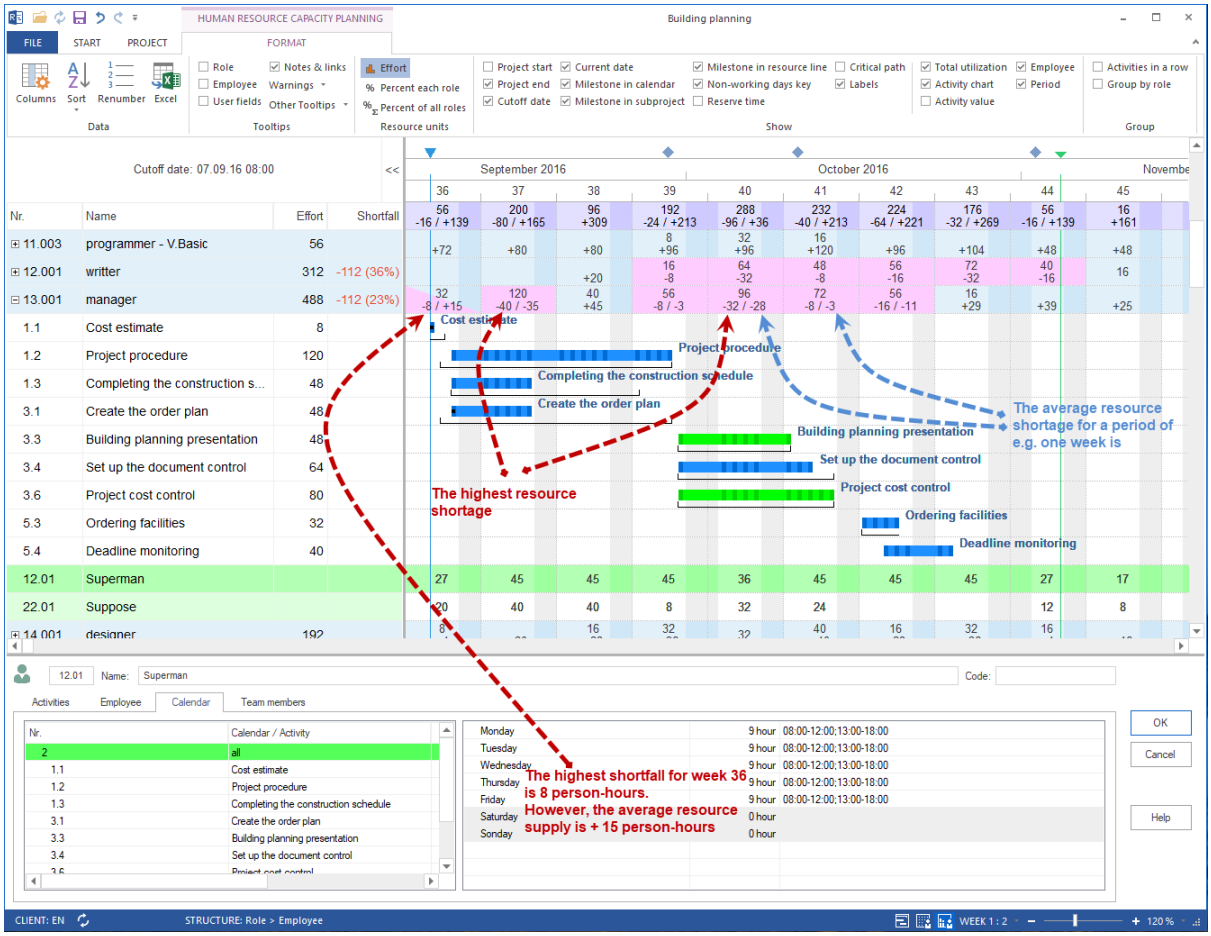
- *Project Planning*
- *Resources and Capacities*
- *Resource Assignment*
- *Setting Up and Operating Integration Server*
- *Best Practices*
- *Project Manager*

11.8 Which Role Fits?

Role	Typical question	Entry point
Project Manager	How do I plan and control my project reliably?	*Project Manager*
Resource Manager	Which employees, qualifications, and capacities are available?	*Resource Manager*
PMO	Which projects, standards, and priorities must be controlled together?	*PMO*
Executive Management	Which projects are feasible, critical, or prioritized?	*Executive Management*
IT and Administration	How are users, rights, data storage, and server operation managed?	*IT and Administration*
Construction Planner	How do I plan trades, waiting times, equipment, and capacities in a construction project?	*Entry Point for Construction Planners*
IT Project Manager	How do I plan sprints, specialists, and deliverables in an IT project?	*Entry Point for IT Project Managers*

11.9 Basic Principle

Rillsoft Project is not aimed only at individual project managers. Its strength comes from the interaction of project planning, resource planning, capacity checks, project control, portfolio work, and Integration Server.



The role-based entry points therefore link to the existing task articles. Content is not maintained twice. Each role receives a compact working path with the most important decisions and next articles.

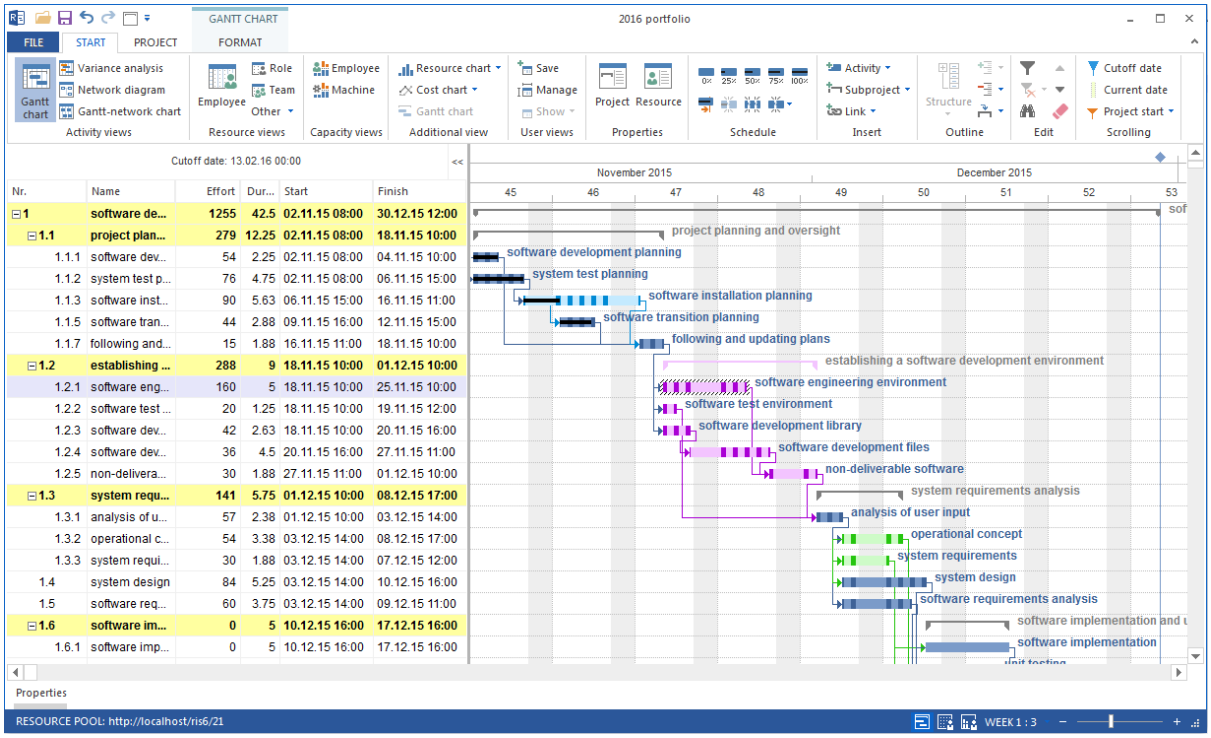
CHAPTER

TWELVE

EXPERT KNOWLEDGE

This section brings together advanced topics that go beyond the quick start, normal task workflows, and pure reference pages. The articles explain concepts, operating decisions, and typical risks for organisations that use Rillsoft Project with several projects, several planners, a shared resource pool, or Rillsoft Integration Server.

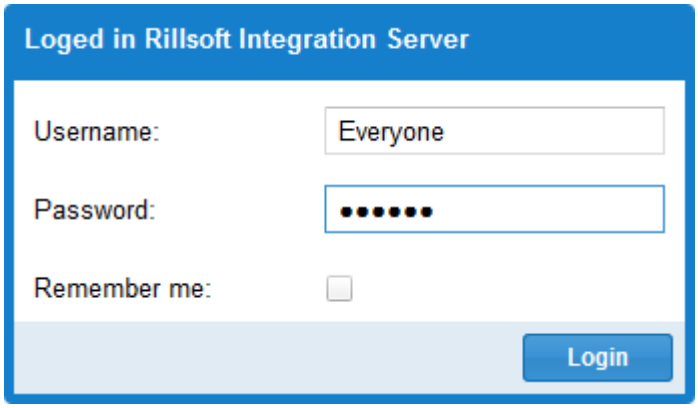
Rillsoft Project is designed for realistic project planning under limited resources: schedules, professional qualifications, capacity balancing, multi-project planning, and project controlling belong together. The expert articles therefore focus on how these functions work as a managed planning system, not just as individual commands.



12.1 Integration Server

Rillsoft Integration Server is the central operating layer for organisations that use Rillsoft Project beyond isolated local project files. It provides a central project database, multi-user operation, a shared resource pool, permissions, web access, time recording, vacation planning, and document management.

Use the Integration Server when project planning becomes an organisational process: several planners need the same resource base, project files must not circulate uncontrolled, portfolio decisions require current data, or employees report progress and absences through web functions.



12.1.1 Operating Models

Rillsoft Project can be used in three operating models:

Criterion	Standalone files	Integration Server	Rillsoft Cloud
Data storage	Local project files	Central on-premise database	Hosted server environment
Typical team size	One planner or small teams	Several planners and departments	Distributed teams without own server operation
Shared resource pool	Manual synchronisation	Central and controlled	Central and controlled
Multi-user operation	Not available	Available with locking and permissions	Available with locking and permissions
Web functions	Not available	Available on own infrastructure	Available as hosted service
IT responsibility	Local backup and file handling	Installation, database, backup, updates	Mainly access and user administration

Standalone operation is sufficient when one planner owns the project data and no central rights or web functions are required. Integration Server is the preferred model when data sovereignty, central administration, DMS, and multi-user planning are required on the organisation's own infrastructure. Rillsoft Cloud follows the same planning logic but removes the need to operate the server infrastructure internally.

12.1.2 Core Concepts

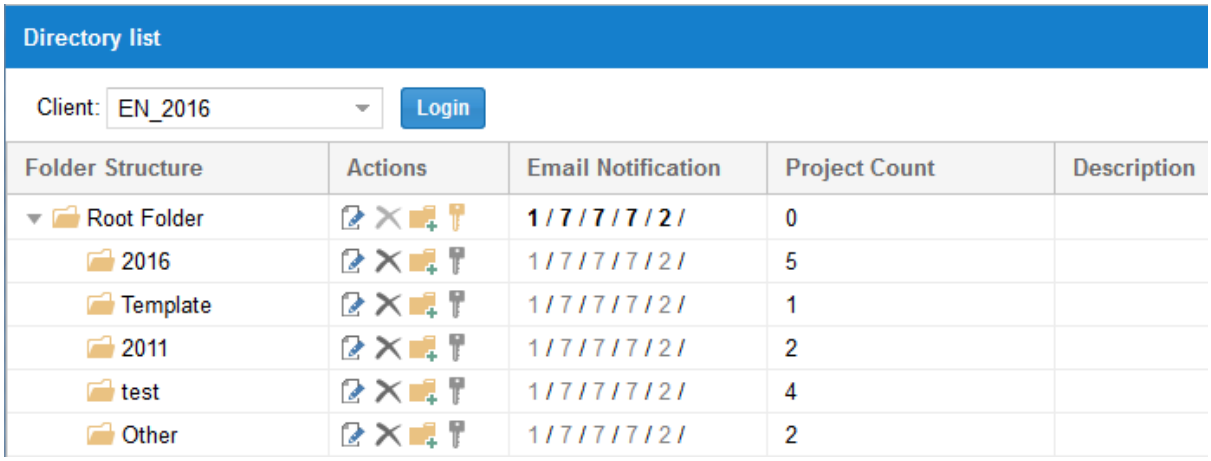
Client
The organisational base unit. A client has its own resource pool, directory structure, users, permissions, and projects.

Resource pool
The central source for employees, roles, teams, calendars, machines, and other shared resources. In multi-project planning, a reliable resource pool is the basis for meaningful capacity balancing.

Directory
A virtual structure for organising projects and portfolios. Directories can reflect departments, sites, project types, customers, phases, or PMO responsibilities.

User role
Defines what a user may generally do in the system, for example read the resource pool, edit documents, or administer users.

Directory role
Defines access to projects and documents inside a directory structure.



12.1.3 Why The Server Changes Planning

With local files, a project plan is often treated as the property of one planner. With Integration Server, project planning becomes shared data:

- resource demand from several projects is evaluated against the same resource supply
- project managers can work with controlled access instead of exchanging files
- project versions can be recovered when required
- DMS documents can be assigned to projects, subprojects, and activities
- project portfolios and summary projects can use current server data
- several project managers can plan related projects together in summary projects, see *Planning as a Team: Multi-User Work and Summary Projects*
- time recording, vacation, and progress data can flow into project controlling

This is especially relevant for Rillsoft Project's strength: capacity planning based on professional qualifications before concrete employee assignment. Central data makes bottlenecks, overloads, and cross-project dependencies visible earlier.

12.1.4 Typical Decision Points

Choose Integration Server when:

- several active projects compete for the same employees, roles, or machines
- project managers need controlled access to shared project data
- PMO or management need portfolio views based on current data
- document management, project versions, or server-side permissions are required
- employees need web access for time recording, vacation, or progress feedback

Keep standalone operation when:

- one project manager plans a small number of projects independently
- there is no requirement for shared resource data
- local file handling is sufficient and controlled
- no web modules or DMS processes are needed

12.1.5 Implementation Risks

The most common mistake is to install the server before the planning model is clear. Define these items before migrating active projects:

- client structure
- directory structure
- user and directory roles
- owner of the central resource pool
- rules for project versions and commit comments
- DMS folder structure and document responsibilities
- migration path for local project files

12.1.6 Related Topics

- *Setting Up and Operating Integration Server*
- *Multiproject Planning*
- *Planning as a Team: Multi-User Work and Summary Projects*
- *DMS*
- *IT and Administration*
- *Interfaces and Expert Functions*

12.2 Setting Up and Operating Integration Server

This article describes the operational setup and day-to-day operation of Rillsoft Integration Server. It is intended for administrators and IT owners who configure the server initially or set up new clients, users, and modules.

Conceptual introduction: *Integration Server*

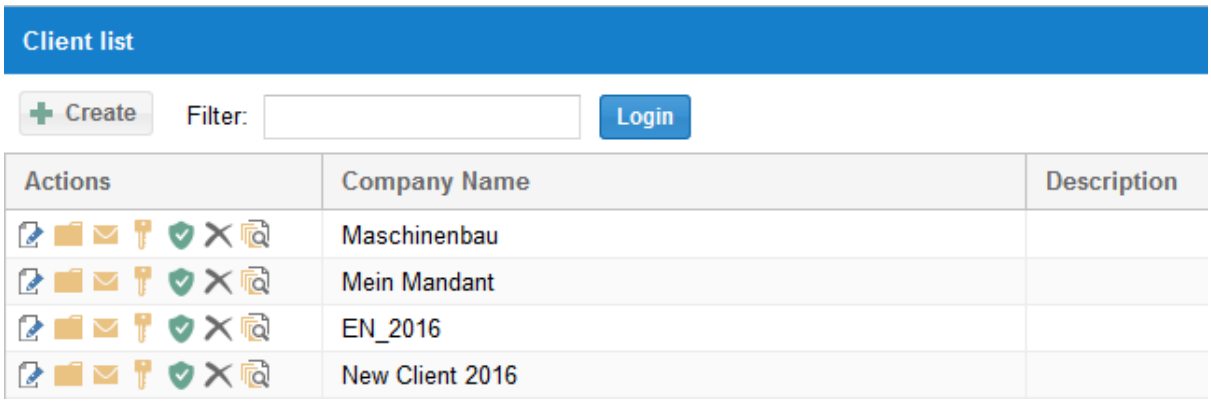
12.2.1 Set Up Clients

A client is the organisational base unit in Integration Server. Each client has its own resource pool, its own directory structure, and its own user assignments.

Basic rule: One resource pool belongs to one client. If several independent resource pools are required, for example for different sites, companies, or business units with separate personnel planning, several clients must be created accordingly.

Create a client:

Open: **Administration > Clients > New client**



Fields:

- client name
- description / notes

After creation, directories, user access, and email templates can be configured for the client.

Client sharing:

Every user needs explicit access for each client they are allowed to work with. Without client sharing, the user does not see the client and can open neither its resource pools nor its projects.

Manage client sharing on the matrix page **Administration > Client sharing** (users as rows, clients as columns), where a user is enabled for a client with an icon button. Alternatively, manage it per user under **Administration > Users > [user] > Client sharing**.

Note: Client sharing alone is not sufficient for access to the resource pool, projects, or portfolios. The user also needs the matching user roles and directory roles.

Resource pool versions:

Integration Server stores versions of the resource pool. Earlier resource pool versions can be displayed and restored in the client dialog. This helps with unintended changes.

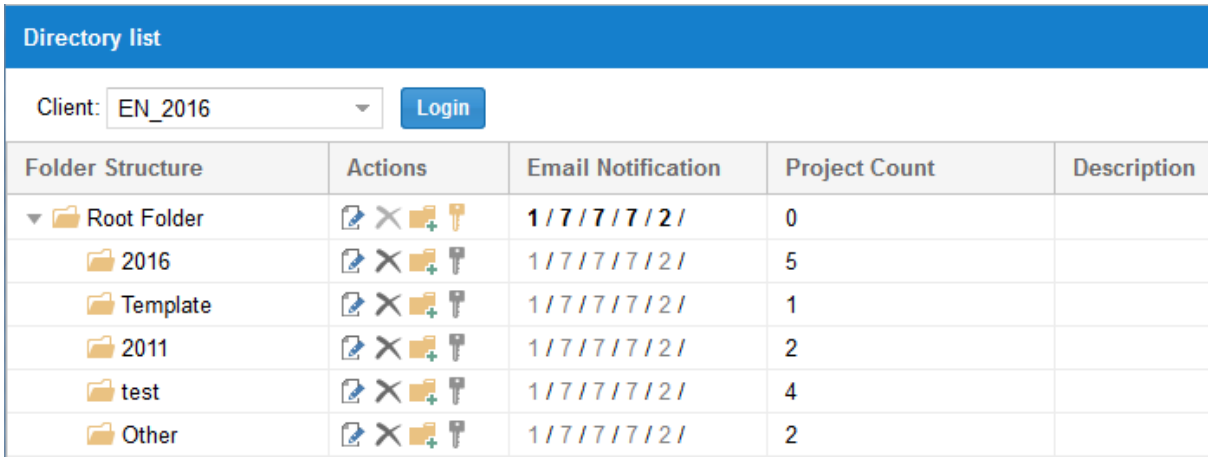
Select the resource pool in Rillsoft Project:

The resource pool of a client is selected in Rillsoft Project via **File > Resource pool > Rillsoft Integration Server > Select**, see *Create and Select a Resource Pool with Rillsoft Integration Server*.

12.2.2 Directories and Project Structure

Directories model the portfolio structure of a client. They are virtual structures that can be organised by professional criteria: department, project type, site, phase, or customer group.

Open: **Administration > Directories** or through the client dialog.



Create a directory:

1. Click **New subdirectory** in the required parent directory.
2. Enter name and description.
3. Assign access rights (directory roles).

Directories can be dragged to the required position.

Inherited access rights:

Access rights of a parent directory automatically apply to all subdirectories unless different rights have been set. A gray key in the directory dialog indicates inherited rights; a yellow key indicates directly assigned rights.

Recommendations for the directory structure:

- Follow the actual project landscape, not the organisation chart hierarchy.
- Create at most three to four directory levels to keep the structure manageable.
- Check regularly whether the directory structure still matches the project landscape.

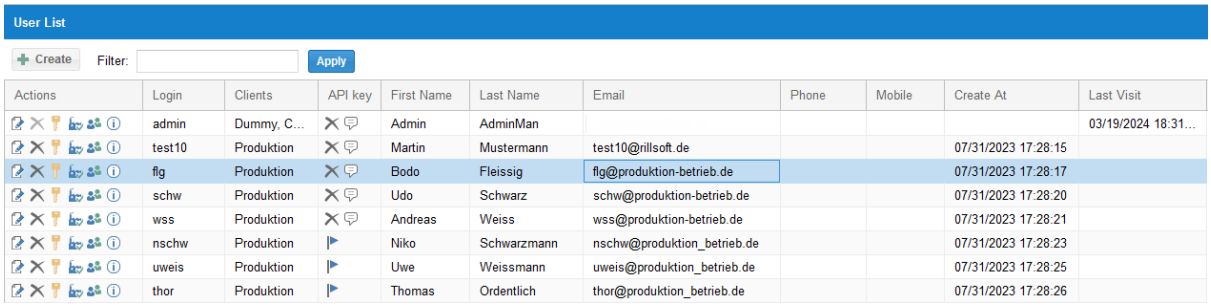
12.2.3 Create and Manage Users

Users are people who are allowed to work with Rillsoft Project through Integration Server. They can be set up across clients.

Open: **Administration > Users**

Create a user:

1. Click **New user**.
2. Enter name, user name, and password.
3. Assign user roles to the user.
4. Grant client sharing for all relevant clients.
5. Assign the matching employee resources to the user for feedback entries.



Actions	Login	Clients	API key	First Name	Last Name	Email	Phone	Mobile	Create At	Last Visit
	admin	Dummy, C...		Admin	AdminMan					03/19/2024 18:31...
	test10	Produktion		Martin	Mustermann	test10@rillsoft.de			07/31/2023 17:28:15	
	flg	Produktion		Bodo	Fleissig	flg@produktion-betrieb.de			07/31/2023 17:28:17	
	schw	Produktion		Udo	Schwarz	schw@produktion-betrieb.de			07/31/2023 17:28:20	
	wss	Produktion		Andreas	Weiss	wss@produktion-betrieb.de			07/31/2023 17:28:21	
	nschw	Produktion		Niko	Schwarzmann	nschw@produktion_betrieb.de			07/31/2023 17:28:23	
	uweis	Produktion		Uwe	Weissmann	uweis@produktion_betrieb.de			07/31/2023 17:28:25	
	thor	Produktion		Thomas	Ordentlich	thor@produktion_betrieb.de			07/31/2023 17:28:26	

Connect user and employee resource:

A user in Integration Server and an employee resource in the resource pool are two different objects. So that a user may enter feedback (time entries) for specific employees, the user must be assigned to those employees in the resource pool.

API access keys:

For every integration (iCalendar, Timeline, REST API), a user needs an API access key. Keys can be generated, displayed, and deleted under **Administration > Users**. A user can also receive the key by email.

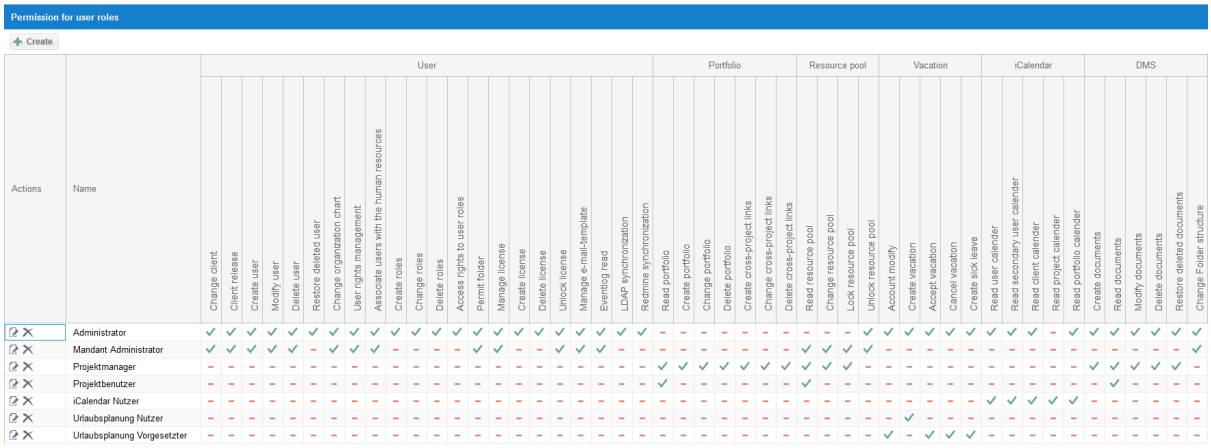
12.2.4 Permission Model: User Roles and Directory Roles

Integration Server separates two kinds of roles:

User roles control directory-independent rights: user management, portfolio, resource pool, and add-on modules. They apply across clients.

Directory roles control directory-dependent rights: work with projects in a specific directory, time entry, and email notifications.

The seven predefined user roles:



User role	Most important rights
Administrator	Full access to user management, all clients, and all functions. For the technical server administrator.
Client Administrator	User management and configuration within one client. For IT-side client maintenance.
Project Manager	Create, change, and delete portfolios; create cross-project links; read and change the resource pool. For senior project planners.
Project User	Read portfolios; read the resource pool. Minimal role for project work in Rillsoft Project with a server connection.
iCalendar User	Read iCalendar feeds. For users who synchronise project dates with Outlook, Google Calendar, or similar applications.
Vacation Planning User	Submit vacation requests and view their own vacation account.
Vacation Planning Supervisor	Approve vacation requests and view vacation plans of subordinate employees.

Directory roles (typical variants):

- **Root directory user:** read projects in the directory and enter feedback.
- **Root directory administrator:** read and write projects, accept feedback, and manage date changes and locks.

Custom user roles can be created under **Administration > User roles** when the predefined roles are not sufficient.

Minimum rights for Rillsoft Project users:

So that a user can access Integration Server from Rillsoft Project, the user needs at least:

- user role **Project User** (right: read resource pool)
- a directory role for the relevant directory

Without this minimum combination, the user cannot open a resource pool or any projects.

12.2.5 Organisation Chart

The organisation chart in Integration Server models the hierarchical structure of users. It does not model the project organisation, but the approval structure for feedback and vacation planning.

Open: **Administration > Organisation chart**

The organisation chart is used for three areas:

- **Feedback:** who may accept feedback for whom?
- **Vacation planning:** who approves vacation requests for whom?
- **Administration:** hierarchical user view for reports and the Timeline.

Users can be placed in the hierarchy by drag and drop.

Important: The organisation chart applies independently of directory rights. A user can have approval rights in the organisation chart without having administrator rights on project directories.

12.2.6 Feedback (Web-Based Time Entry)

The feedback module lets project members enter their working hours directly in the browser. This removes the manual entry in Rillsoft Project by the project manager.

Open: **Feedback > Calendar**

Display in the feedback calendar:

- blue: planned working times (from the project plan)
- yellow: reported feedback that has not been accepted yet
- green: accepted feedback

Enter completed hours (three ways):

1. Directly in the calendar view: click the cell of the required day and enter the hours.
2. Using a predefined percentage: choose a percentage (25%, 50%, 75%, 100%) in the action column.
3. Using the input form: click the pencil icon button for a detailed entry with notes, different times, and remaining effort.

Approval workflow:

1. The employee enters completed hours (status: reported).
2. The responsible user (according to the organisation chart) checks the report.
3. The responsible user accepts or rejects it.
4. Accepted hours are transferred to Rillsoft Project as actual effort.

Access rights for feedback:

- enter feedback: user role **Project User** + directory role **root directory user**

- accept feedback: directory role **root directory administrator** + user role **Project User** or **Project Manager**

12.2.7 Vacation Planning

The vacation planning module manages vacation requests, absences, and vacation accounts in the browser. It automatically checks overlaps with planned project work.

Submit a vacation request:

1. Open: **Vacation planning > Requests > New request**
2. Select the employee, enter start and end, and add vacation type and comment.
3. If the request overlaps planned activities, a warning icon appears in the action column.

Vacation types: recreational leave, illness, special leave, and other configurable absence types.

Accounts:

Every employee has a vacation account with annual leave and carry-over from the previous year. Accounts can be edited under **Vacation planning > Accounts**.

Group calendars:

Group calendars let employees view their colleagues' vacation plans. An employee can belong to several groups at the same time.

Approval:

Users with the role **Vacation Planning Supervisor** can approve, reject, or cancel vacation requests for employees subordinate to them in the organisation chart.

Access rights:

- submit vacation requests: user role **Vacation Planning User**
- approve vacation requests: user role **Vacation Planning Supervisor**

Synchronisation with the resource pool:

Approved absences can be transferred to the Rillsoft Project resource pool. There they appear as non-working days and are considered in capacity balancing.

12.2.8 Timeline

The Timeline shows tasks of all projects of a client or portfolio in a browser timeline view.

Open: **Timeline** in the Integration Server main menu.

Five Timeline types:

Timeline type	Content
User timeline	All tasks of the currently logged-in user, across projects per client.
Timeline of subordinate users	Tasks of all users subordinate to the user according to the organisation chart.
Client timeline	All tasks of the client from all projects.
Portfolio timeline	All tasks of a specific project portfolio.
Project timeline	All tasks of a single project.

The Timeline always shows the current planning state. It is a read function; changes to the plan are made in Rillsoft Project.

The browser timeline opens through the **Timeline** button in the action column.

12.2.9 iCalendar Integration

The iCalendar module provides project dates as a standard calendar feed (`.ics`). Project dates can thus be transferred to external calendar applications: Microsoft Outlook, Google Calendar, Apple iCal, Mozilla Thunderbird, and other ics-capable applications.

Five calendar types (analogous to the Timeline):

- user calendar, calendar of subordinate users, client calendar, portfolio calendar, and project calendar.

Prerequisites:

1. The user has the user role **iCalendar User**.
2. An **API access key** must be generated for every iCalendar user (under **Administration > Users**).

Configure iCalendar content:

In the client dialog under the client properties, you can define which project information is transferred into the calendar entries (project name, employees, notes, and so on).

Important: iCalendar always delivers the current planning state. The calendar feed is read-only; plan changes must be made in Rillsoft Project.

12.2.10 LDAP Connection

LDAP enables importing users from existing directory services such as Microsoft Active Directory. Existing user names and passwords can be managed centrally in Active Directory.

Open: the **LDAP** button in the administration area.

Workflow:

1. Open the LDAP login dialog and connect to the LDAP server.
2. The list of LDAP users is displayed.

3. Transfer the required users to Rillsoft by clicking the person-plus icon.
4. Transferred users can log in to Rillsoft with their existing Active Directory password.

Two LDAP functions:

- **User import:** transfer Active Directory users to Rillsoft once or regularly.
- **User login through AD:** transferred users authenticate through the LDAP server instead of a separate Rillsoft password.

Note: After the import, user roles and client sharing must still be configured manually. LDAP imports only the user master data, not the permission structure.

12.2.11 Email Notifications

Integration Server can automatically send emails to employees and users when specific events occur.

Configuration: **Administration > Directories**; in the **Action** column, click the sheet-with-pencil button and open the **Email notification** tab; define the periods per task type there.

Six notification types:

Notification type	Effect
Reminder of unfinished tasks (X days back)	Email to assigned employees when the task start lies in the period and progress is 0%, or the task finish lies in the period and progress is below 100%.
Reminder of upcoming tasks (X days ahead)	Email to employees with tasks starting in X days.
Notification about date changes (employees)	Email to employees when dates of their tasks were changed within X days.
Notification about date changes (users)	Email to users when dates of tasks of their subordinate employees were changed.
Notification about milestone date changes	Email to users when milestone dates were moved.
Notification about negative effort	Email to users when assigned employees have non-working days and no substitute resource is assigned on those days. Relevant and available only with due-date-oriented planning.

Important: With the first email dispatch, all tasks in the defined period are listed. Afterwards, only new events are reported; tasks that were already reported do not appear again.

Email templates for clients can be adapted under **Administration > Clients > [client] > Email templates**.

12.2.12 Migrate Projects Gradually

Do not move all local project files to the server in one step. A controlled migration usually works better:

1. Clean up the resource pool and roles.
2. Create clients, directories, and permissions.
3. Migrate a small pilot set of projects.
4. Check opening, saving, locking, versions, and portfolio views.
5. Validate capacity balancing and project controlling.
6. Migrate further projects in batches.

Keep the parallel phase short. If the same project exists both as a local file and as a server project, users can easily work on the wrong version.

12.2.13 Setup Checklist

For a complete Integration Server setup:

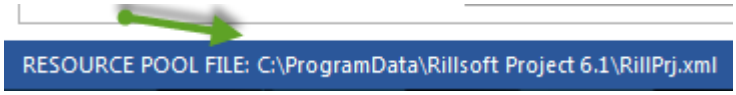
✓	Step
	Create and name clients.
	Create the directory structure and configure access rights.
	Check and adapt user roles (the predefined roles are usually sufficient).
	Create users, assign user roles, and grant client sharing.
	Build the organisation chart for feedback and vacation planning.
	Assign employee resources to users for feedback.
	Configure and test the feedback module (enter and accept a test feedback).
	Set up vacation planning (annual leave, vacation types, group calendars).
	Activate iCalendar: assign the user role and generate API keys.
	Email notifications: configure periods per directory and test them.
	Connect LDAP if Active Directory is used.
	Test the project connection from Rillsoft Project to the server.

12.2.14 Related Topics

- *Integration Server*
- *DMS*
- *IT and Administration*
- *Synchronize Resources*
- *Integration Server*

12.3 Working in Networks

To avoid conflicts between resources, all users in the network should access the same resource pool. After starting, Rillsoft Project connects to a resource pool. Its location is shown in the left corner of the status bar.



The file-based solution and the database-based solution (Rillsoft Project with the interface to Rillsoft Integration Server) differ here.

12.3.1 File-Based Solution

The resource pool is an XML file stored in the application folder.

For network work or a **floating license**, this file must be stored on a network path, for example `\\Server_Name\Rillsoft Project`, or start on a mapped drive, for example `R:\Rillsoft Project`. A local path such as `C:\Rillsoft Project` is not permitted for a floating license.

Switching from a local folder to a network folder (relevant only for a floating license)

If your resource pool file points to a local path, proceed as follows:

1. Use Windows Explorer to copy the local Rillsoft folder that contains your resource pool file to the clipboard.
2. Paste it into a network folder on the server.
3. Choose **File > Resource pool > File > Select**.
4. In the **Open** dialog, select the pasted Rillsoft folder on the server.
5. Select the resource pool file from the Rillsoft folder on the server.
6. Check in the left corner of the status bar that the resource pool file uses the correct path.

Rillsoft Project separates its file storage: program files are stored in the program folder, and all user data is stored in the user folder (data folder). During installation, full access rights for all users are set on the user folder. Users do not need write access to the program folder.

12.3.2 Database-Based Solution (Rillsoft Integration Server)

With the interface to Rillsoft Integration Server, the resource pool is stored in a central database.

This removes the need to manage network paths for the resource pool file. Multi-user operation, permissions, and central data storage are handled by the server.

12.3.3 Related Topics

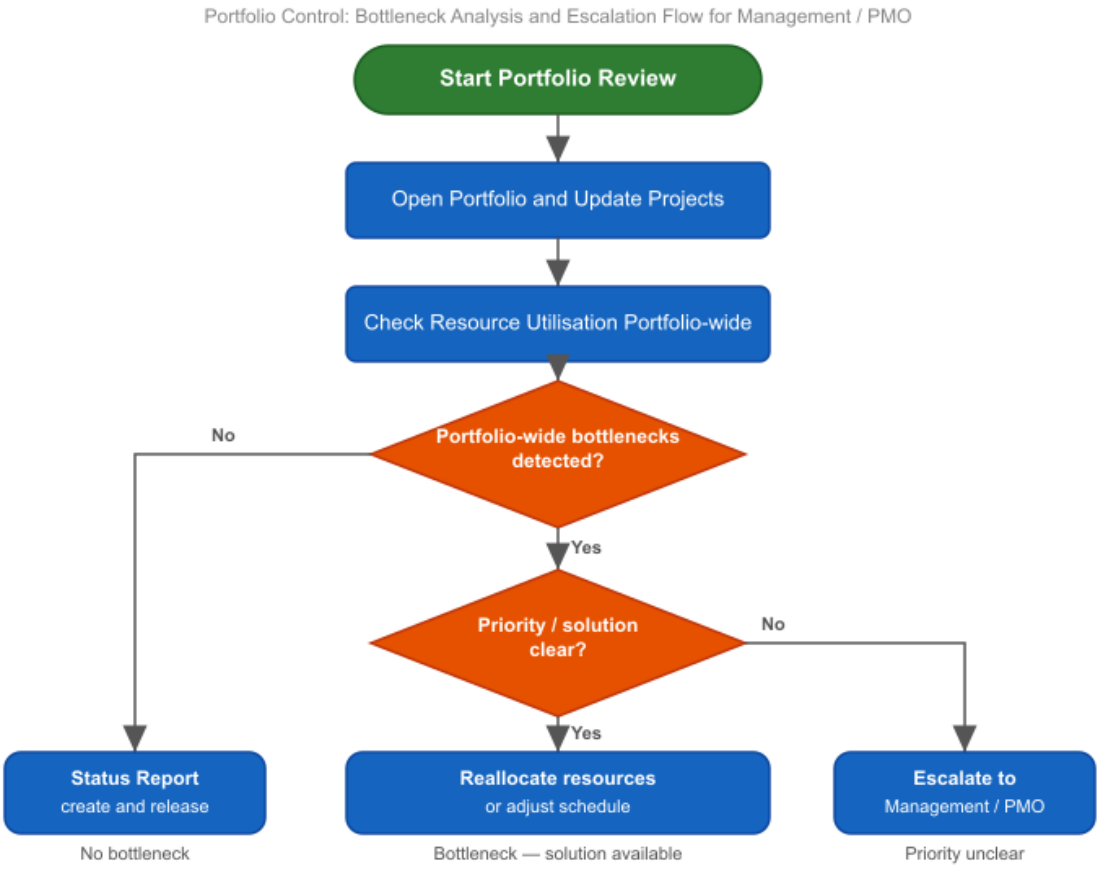
- *Integration Server*
- *Update the Resource Pool*
- *Derive Resource Supply From the Resource Pool*

- *Manage Resource Pool*

12.4 Multiproject Planning

Multiproject planning coordinates several projects that compete for the same resource pool, calendar horizon, priorities, and sometimes cross-project dependencies. In Rillsoft Project, this is more than displaying several Gantt charts together: the aim is to make the feasibility of parallel projects visible under limited resource capacity.

Rillsoft Project supports this with project portfolios, summary projects, cross-project links, capacity views, resource charts, baselines, and variance analysis.



12.4.1 Single Project, Summary Project, Or Portfolio

Use the right structure before analysing data.

Structure	Use when	Main risk
Single project	One project manager controls one project plan.	Resource conflicts with other projects remain hidden.
Summary project	Several subprojects form one larger project structure with common steering.	It may become too large if it is used as a portfolio replacement.
Project portfolio	Several independent projects should be analysed together for resources, dates, priorities, and dependencies.	It is only useful when project status, priorities, and resource data are maintained.

In standalone operation, file-based summary projects and local portfolios may be sufficient for small teams. With Rillsoft Integration Server or Rillsoft Cloud, project portfolios and summary projects can use centrally stored projects, permissions, and shared resource data.

How several project managers plan at the same time, with an example, locks, and a checklist: *Planning as a Team: Multi-User Work and Summary Projects*.

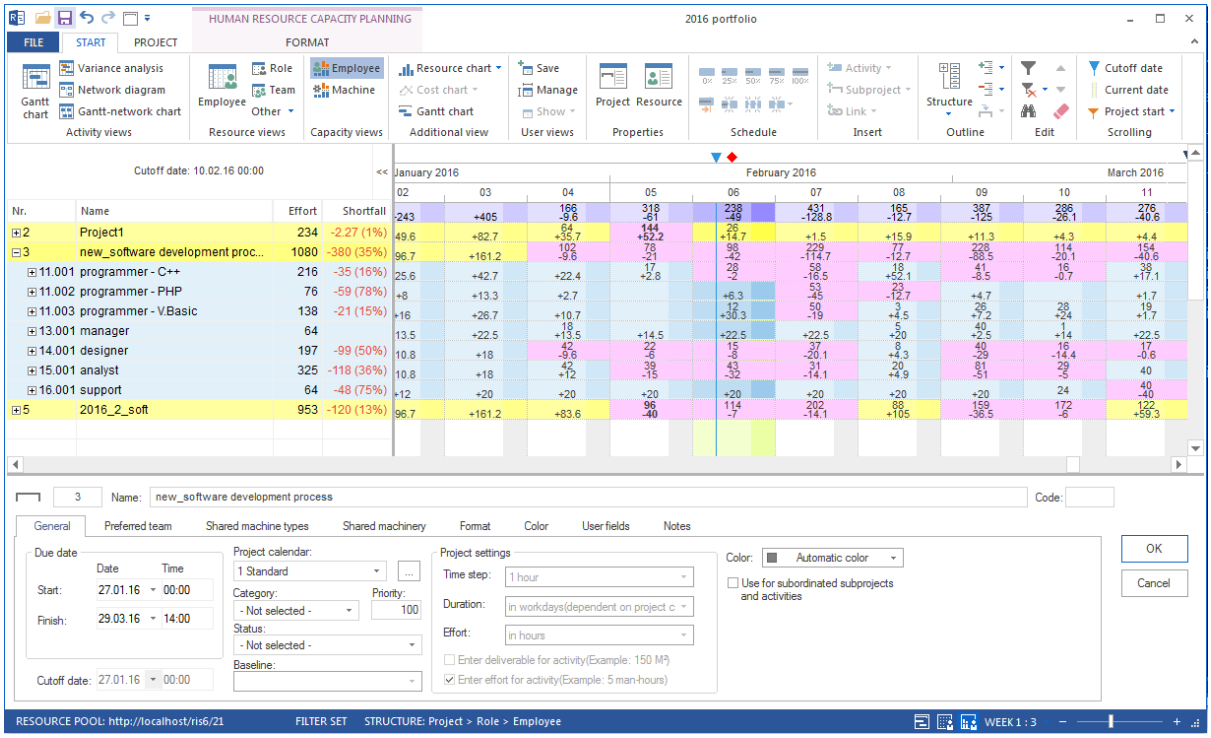
12.4.2 Resource Logic

The central question in multiproject planning is: Which projects are realistic with the available employees, qualifications, and machine capacity?

For reliable answers:

1. Maintain one shared resource pool.
2. Plan activities by roles or professional qualifications before assigning named employees.
3. Use capacity balancing to compare resource demand with resource supply.
4. Evaluate bottlenecks in the portfolio context, not only inside one project.
5. Assign named employees only after the capacity situation is understood.

This approach follows the Rillsoft planning model: resource demand can be made visible before concrete people are assigned. That is essential when several projects use the same scarce qualifications.



12.4.3 Cross-Project Dependencies

Cross-project links are relevant when an activity in one project depends on an activity in another project. In Rillsoft Project, cross-project links are used in portfolio work with Integration Server.

Typical examples:

- a design project must finish before manufacturing starts in another project
- a customer approval milestone affects several delivery projects
- a scarce test facility is shared between projects
- one project creates a deliverable used by another project

Cross-project links should be used deliberately. If every informal dependency is modelled as a link, the portfolio becomes hard to interpret. Model only dependencies that influence dates, capacity, or management decisions.

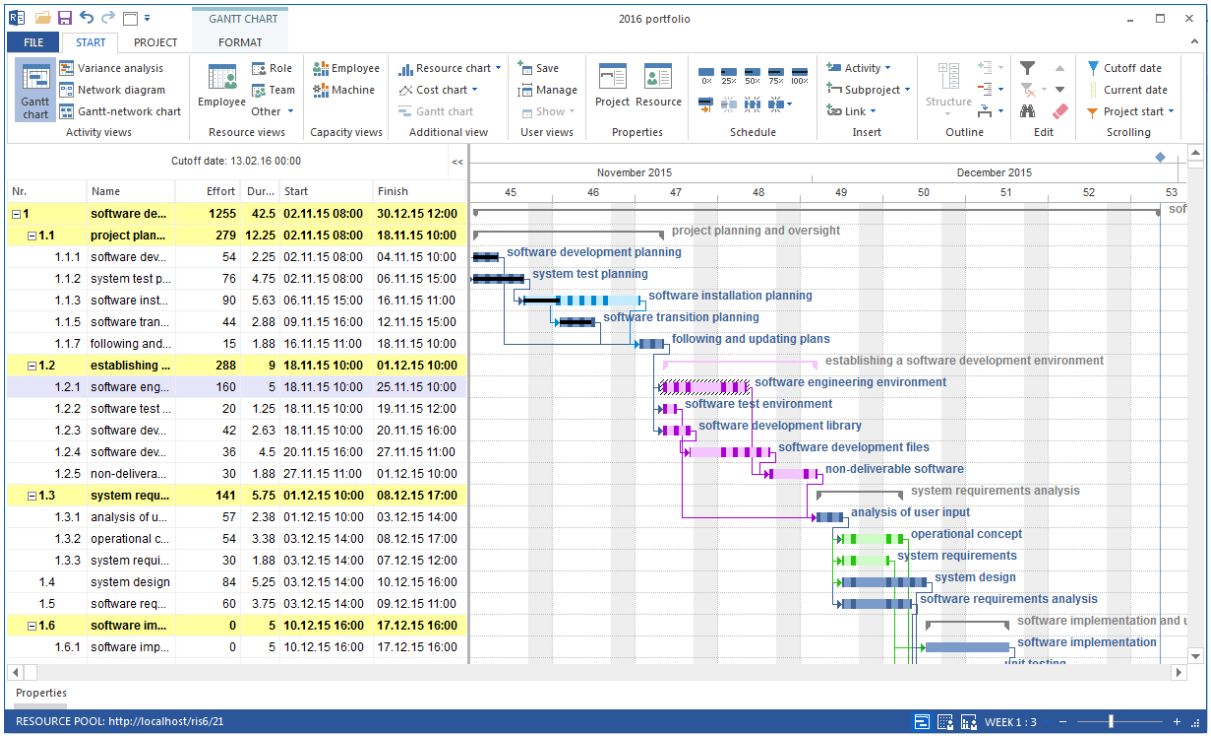
Important specifics:

- Successors are not always moved automatically.
- Negative intervals can arise when the successor is already planned before the predecessor finishes.
- Released and calculated delay must be checked against each other.
- Deviations can be checked under **Project > Rillsoft Integration Server > Cross-project links**; red marking indicates a difference between released and calculated delay.

12.4.4 Portfolio Steering Cycle

A practical multiproject steering cycle:

1. Update project status, priorities, and progress.
2. Reload server projects or portfolio data.
3. Check capacity balancing for key roles and bottleneck qualifications.
4. Review portfolio Gantt and cross-project links.
5. Simulate changes by excluding, postponing, or re-prioritising projects.
6. Document the decision and update the affected project plans.
7. Save or update baselines when a new approved plan is created.



12.4.5 Typical Mistakes

- A portfolio is used only as a visual list of projects.
- Project priorities are maintained but not used for resource decisions.
- Resource conflicts are reviewed only after employees have already been assigned.
- Each project uses a slightly different local resource pool.
- Cross-project links are created without ownership or follow-up.
- Summary projects are used where a portfolio decision process is needed.

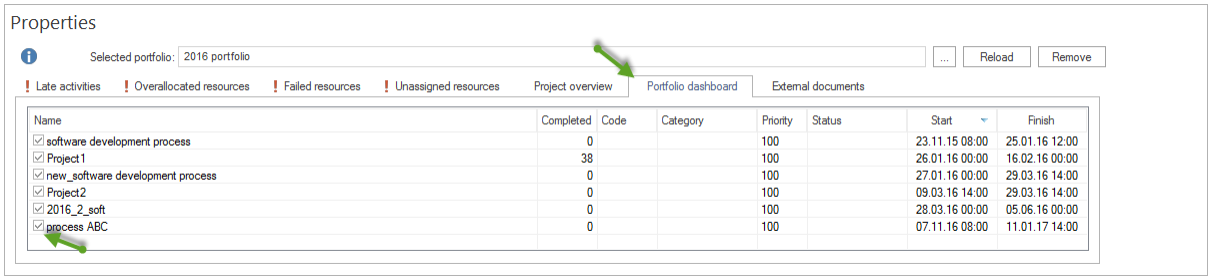
12.4.6 Related Topics

- *Portfolio Analysis*
- *Integration Server*
- *Planning as a Team: Multi-User Work and Summary Projects*
- *Project Portfolio and Multiproject Management*
- *Perform Capacity Balancing*
- *Individual Project, Summary Project, or Project Portfolio?*

12.5 Portfolio Analysis

Portfolio analysis evaluates several projects together and prepares decisions: Which projects are feasible? Which resources are scarce? Which priorities apply? Which risks result from dates, resource load, and cross-project dependencies?

In Rillsoft Project, portfolio analysis combines project status, priorities, capacity balancing, portfolio Gantt views, resource utilisation, baselines, and variance analysis.



12.5.1 Analysis Levels

Project status
: Which projects are planned, active, paused, critical, or completed?

Priority
: Which projects should receive resources first when conflicts occur?

Schedule
: Which projects overlap in a critical way or endanger dependent projects?

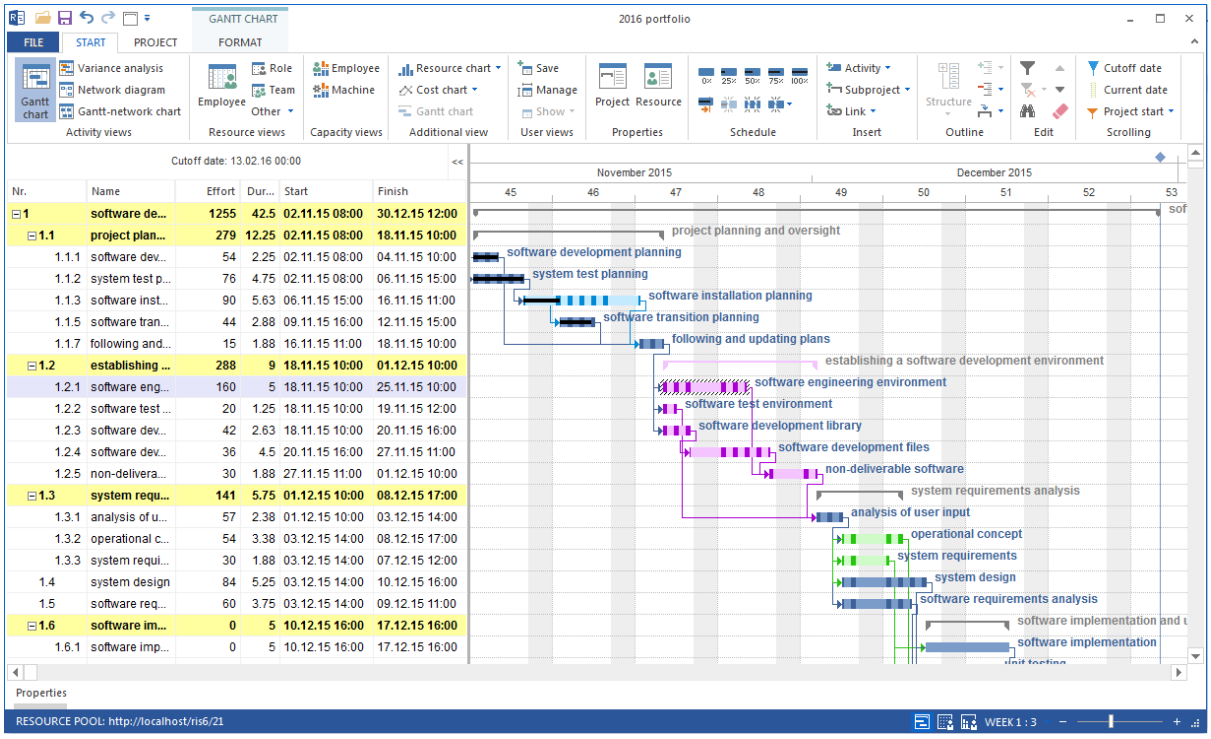
Resources
: Which employees, teams, roles, or professional qualifications are overloaded or under-supplied?

Dependencies
: Which cross-project links create delay, negative link distance, or decision needs?

Controlling
: Which projects deviate from the approved baseline in dates, effort, or cost?

12.5.2 Portfolio As A Decision System

A portfolio becomes valuable when it is used to compare alternatives, not only to display planned work.



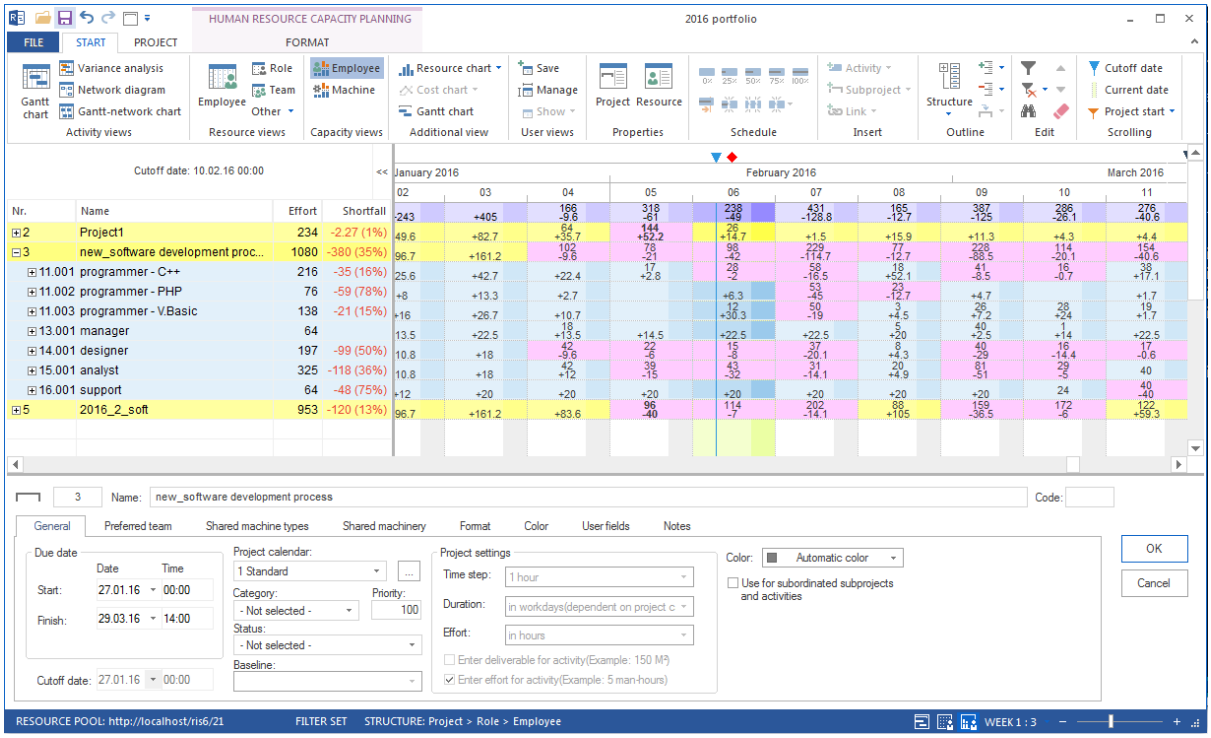
Typical questions:

- What happens if a low-priority project is postponed?
- Which resources become available if a project is removed from the calculation?
- Which professional qualification is the bottleneck in the next quarter?
- Which projects cannot run at the same time with the current resource pool?
- Which decision must be made by management or PMO?

12.5.3 Simulations

In portfolio work, projects can be included or excluded from capacity calculation to compare scenarios. Use this for focused simulations:

- temporarily remove a project from the calculation
- review the resource situation again
- compare the effect on bottleneck qualifications
- record the decision and the assumptions



12.5.4 Decision Brief

A useful portfolio analysis produces a decision brief, not just screenshots. Include:

- status and priority of affected projects
- critical dates and milestones
- affected resources or professional qualifications
- root cause of the bottleneck or delay
- possible alternatives
- expected effect of each alternative
- recommended decision

12.5.5 Connect Analysis With Baselines

Portfolio analysis should distinguish between an unapproved planning variant and an approved plan. Use baselines to preserve the approved reference plan for variance analysis. If a portfolio decision changes dates, resources, or scope, save a new baseline only after the change has been approved.

12.5.6 Typical Mistakes

- The portfolio is used only as a Gantt overview.
- Priorities are maintained but ignored during capacity decisions.
- Simulations are performed but not documented.
- Resource bottlenecks are evaluated without qualification-based demand.

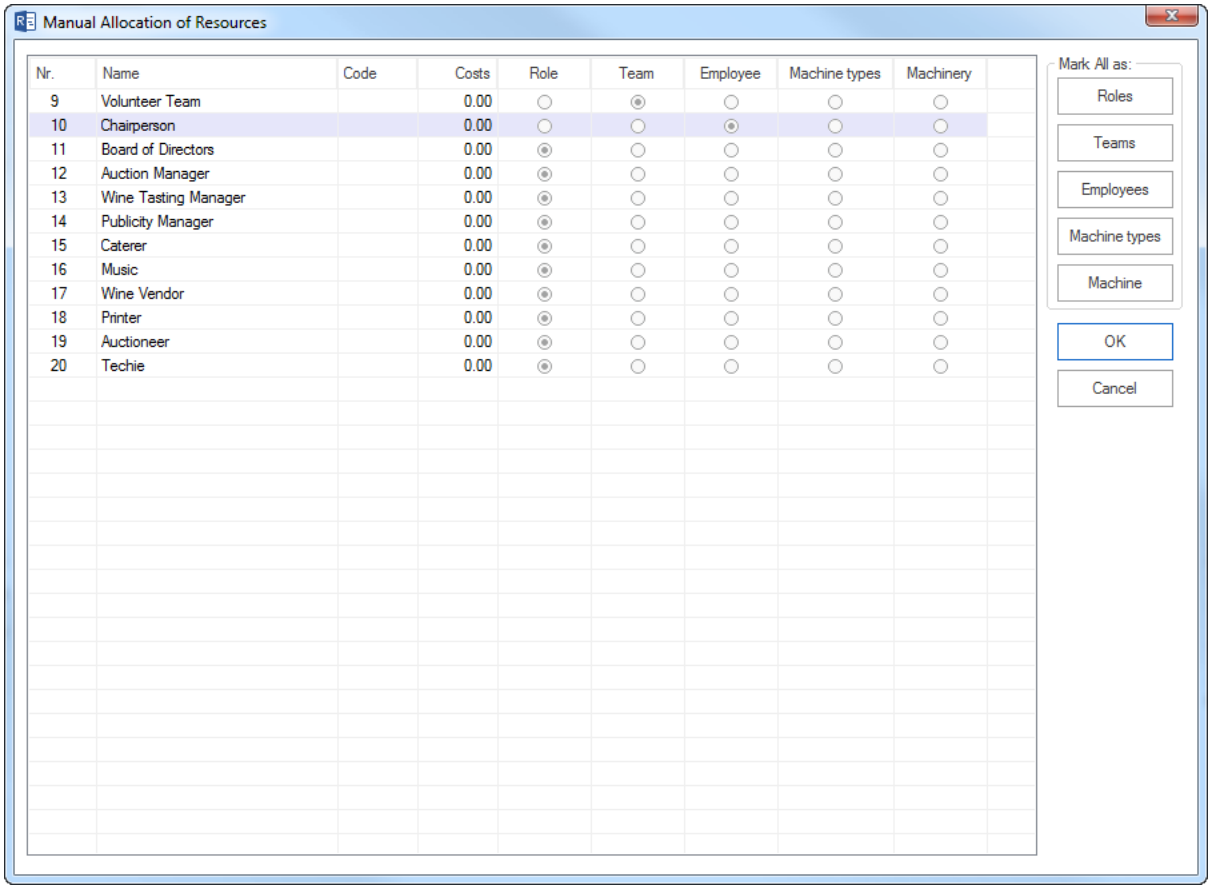
- Management receives data but no decision proposal.
- Baselines are updated before the decision is approved.

12.5.7 Related Topics

- *Multiproject Planning*
- *Best Practices*
- *Portfolio Analysis*
- *Checklist: Prepare Portfolio Review*
- *PMO*
- *Executive Management*

12.6 XML

XML is an important exchange format for project import, project export, and integration with other project management systems. For expert users, the key question is not only which menu item starts XML import or export, but how XML data is translated into the Rillsoft planning model.



12.6.1 Typical Use Cases

- import from Microsoft Project XML
- export to Microsoft Project XML
- export to Rillsoft XML
- XML for web publication
- data transfer to external systems or integration processes

12.6.2 Import From Microsoft Project XML

During import from Microsoft Project XML, resources from the imported file must be interpreted and mapped to Rillsoft Project resource types.

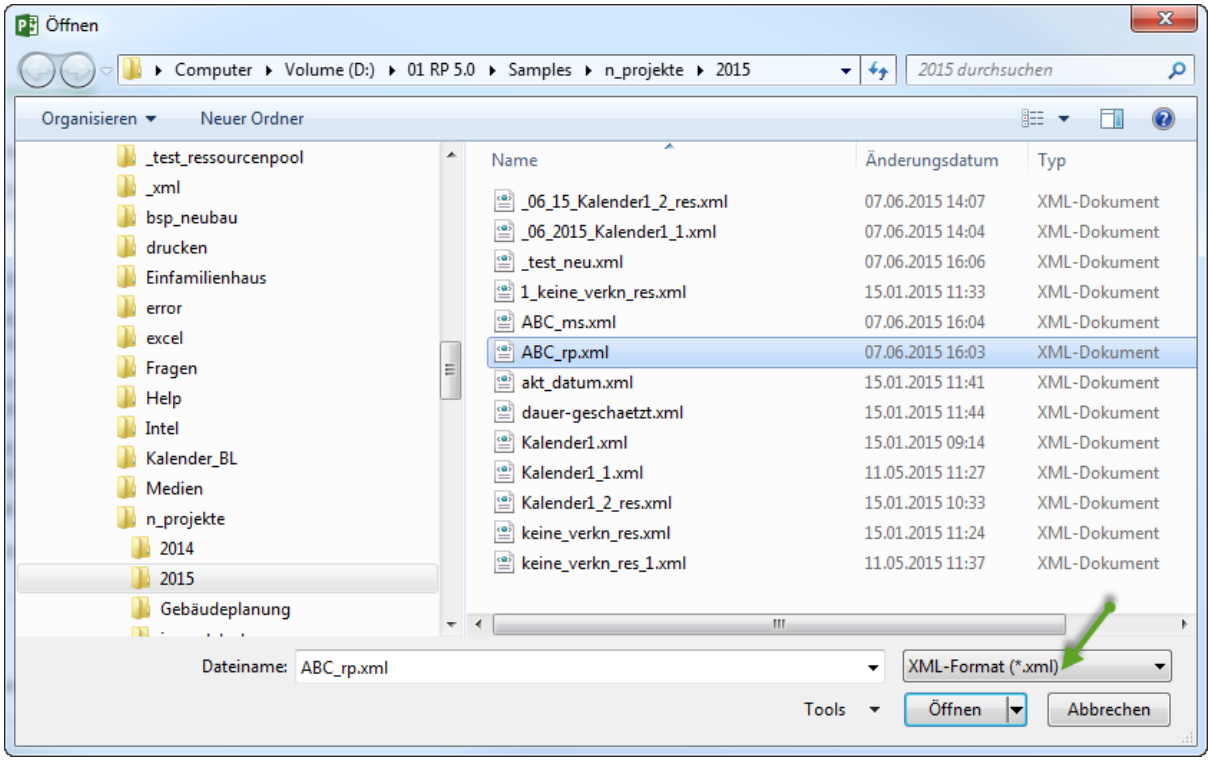
Possible mappings include:

- roles or professional qualifications
- teams
- employees
- machine types
- machinery

This mapping is a planning decision. A resource in the source system may represent resource demand, a named assignment, or a generic resource category. If all imported resources are treated as employees, later capacity balancing may produce misleading results.

12.6.3 Export To Microsoft Project XML

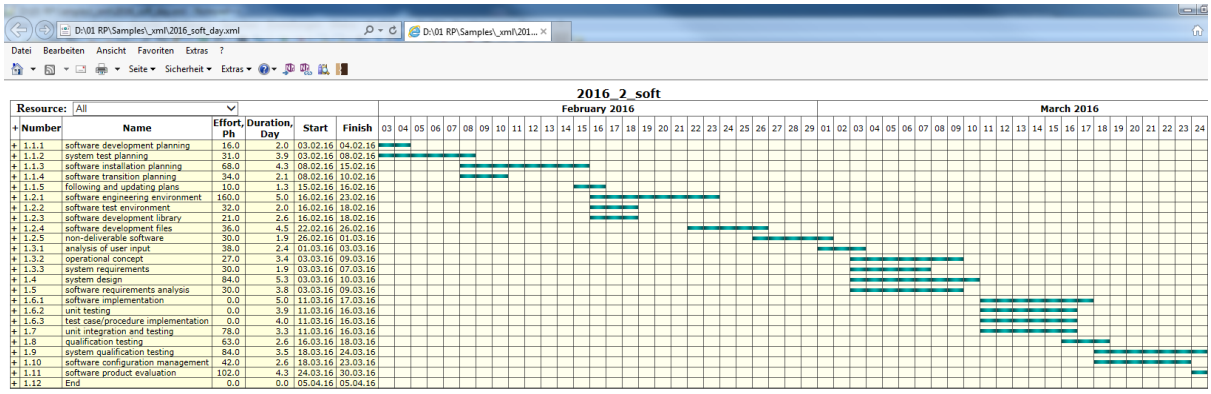
Export to Microsoft Project XML is useful when project plans must be handed to partners or other systems. Before exporting, clarify:



- which activities and subprojects should be transferred
- which resource information may be shared
- whether calendars and working days are meaningful for the recipient
- whether costs, notes, or user-defined fields are required
- whether the recipient works with roles, named employees, or machines

12.6.4 XML For Web

Rillsoft Project can export XML for web publication. This is useful when project data should be made available in an intranet or a separate web process.



Treat this as publication, not as backup. Check which project information is included and whether the target audience is allowed to see it.

12.6.5 Quality Check

After every XML import or export, verify:

1. project structure
2. activities, duration, start, and finish dates
3. links and link types
4. calendars and non-working days
5. resource types and assignments
6. capacity balancing
7. baseline or variance context, if relevant
8. opening and interpretation in the target system

12.6.6 Typical Mistakes

- Imported resources are all mapped as named employees.
- Role-based demand and employee assignments are mixed accidentally.
- Calendar logic from the source system does not match the Rillsoft plan.
- No capacity balancing is performed after import.
- Exported XML is not opened and checked in the target system.
- XML output is used as an uncontrolled publication channel.

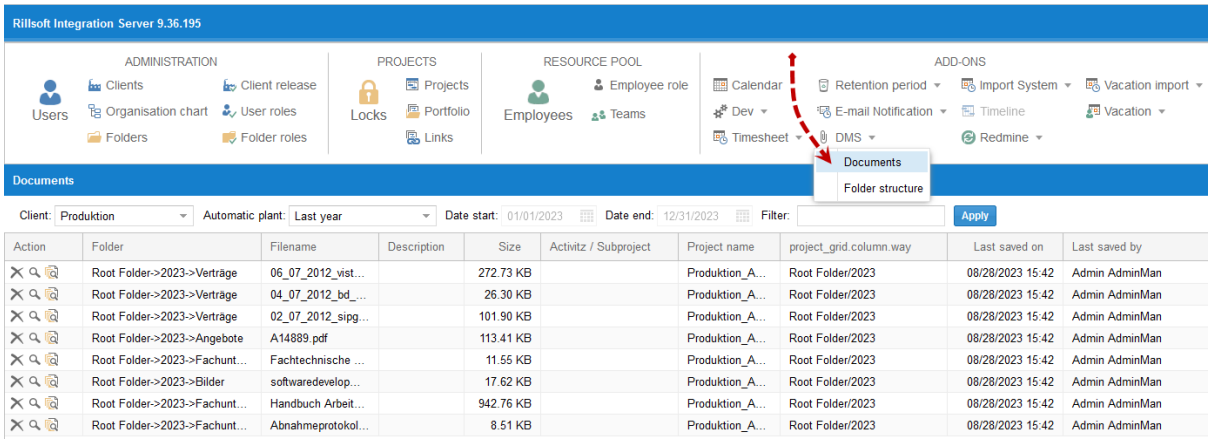
12.6.7 Related Topics

- *Advanced Import and Export*
- *Checklist: Check Data Before Import or Export*
- *XML*
- *Interfaces and Expert Functions*

12.7 DMS

DMS means document management in the context of Rillsoft Integration Server. It allows project-related documents to be stored centrally, versioned, and controlled by permissions.

DMS is available in the database-based Rillsoft solution with Rillsoft Integration Server or Rillsoft Cloud. It is useful when documents are part of project steering, approvals, progress reporting, or portfolio decisions.



12.7.1 When DMS Is Useful

Use DMS when:

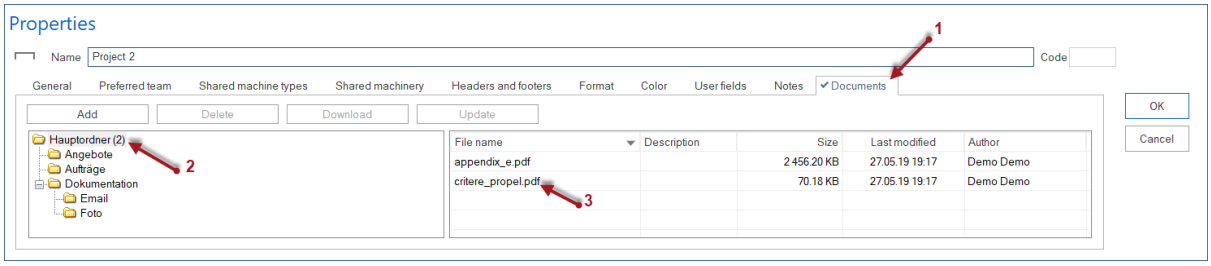
- project documents must be centrally available
- several roles work with the same project documents
- documents should be organised by project, activity, or directory
- access must be controlled by user and directory roles
- offers, drawings, status reports, approvals, or import/export files belong to project decisions

12.7.2 Typical Document Types

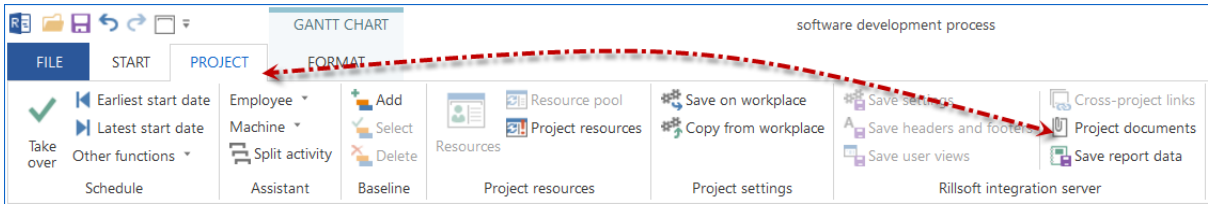
- project order
- offers and contracts
- technical drawings
- status reports
- meeting minutes
- approval documents
- import and export files
- decision records for portfolio reviews

12.7.3 DMS In Rillsoft Project

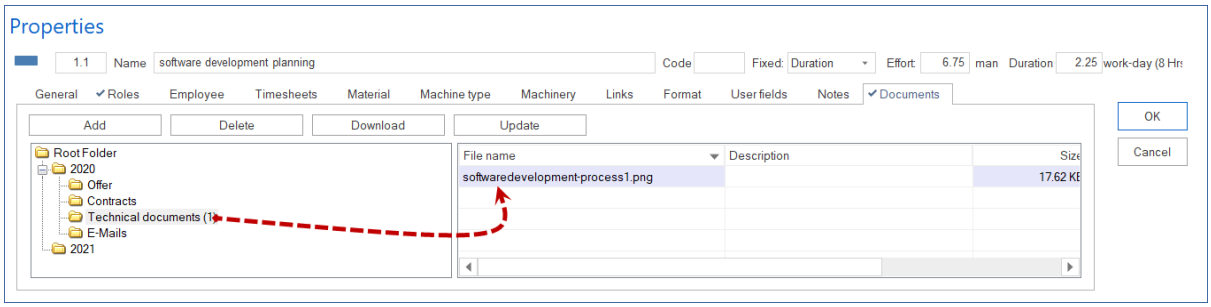
Documents can be assigned to projects and activities from Rillsoft Project.



Project documents can also be managed through the Rillsoft Integration Server document dialog.



For activity-level documents, use the Documents tab in the activity properties.

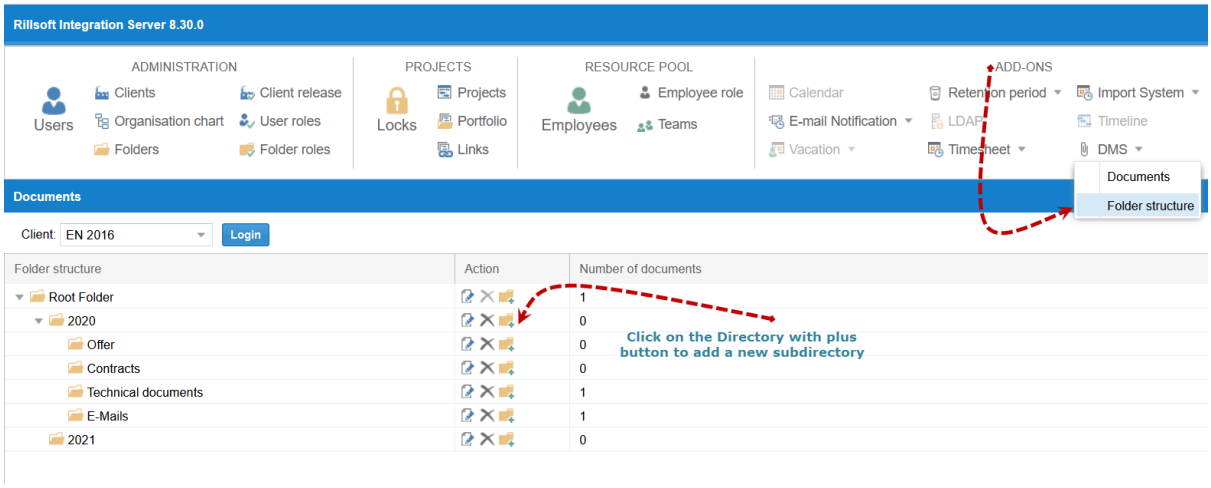


12.7.4 Implementation Principles

1. Align the document structure with the project or directory structure.
2. Define read, create, update, delete, and restore rights before rollout.
3. Name responsible owners for maintenance, approval, and archiving.
4. Define document naming rules.
5. Use DMS for project-related documents, not as a general file dump.
6. Decide how document versions should be reviewed and restored.

12.7.5 Folder Structure

The DMS folder structure is managed in Rillsoft Integration Server and applies to the client. A clear structure reduces duplicate filing and permission errors.



Examples:

- contract documents
- planning documents
- drawings
- approvals
- status reports
- import and export files
- archived decision documents

12.7.6 DMS And Project Control

DMS becomes especially useful when documents are connected with decisions:

- baseline approval
- status report
- portfolio decision
- change approval
- resource decision
- external customer approval

12.7.7 Typical Mistakes

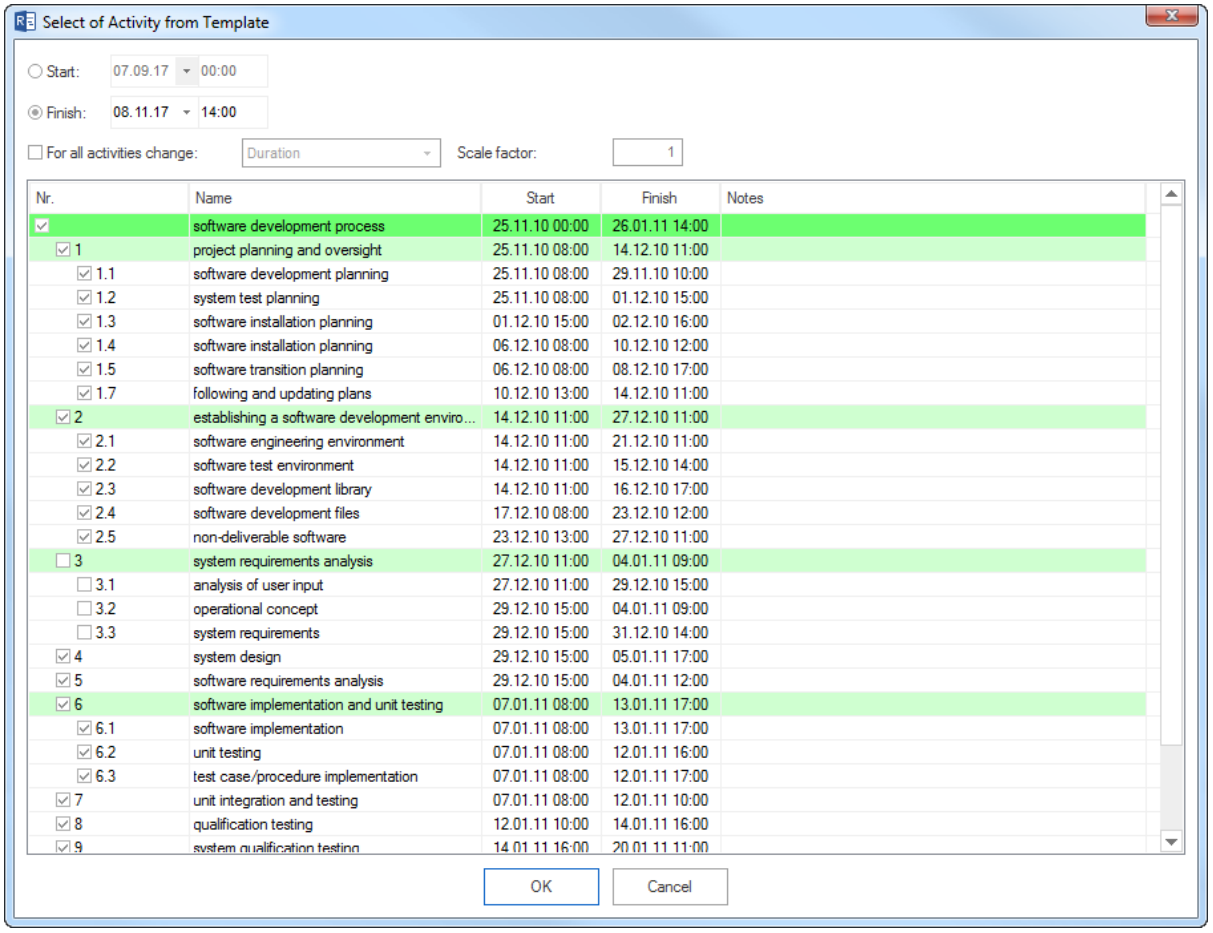
- DMS is introduced without a permission concept.
- Documents are stored both locally and on the server.
- Project directories and DMS folders do not match.
- Status reports are filed without date, cutoff date, or project version context.
- DMS rights are broader than project access rights.

12.7.8 Related Topics

- *Integration Server*
- *Setting Up and Operating Integration Server*
- *IT and Administration*
- *DMS*
- *Interfaces and Expert Functions*

12.8 Templates

Templates speed up recurring planning and protect standards. Expert use of templates does not start with the command to save a project as a template. It starts with the decision which project structures should be standardised.



12.8.1 What Is Suitable For Templates

Suitable:

- recurring project phases
- standard subprojects
- recurring activity groups
- standard milestones
- offer or order structures
- typical link chains and approval steps

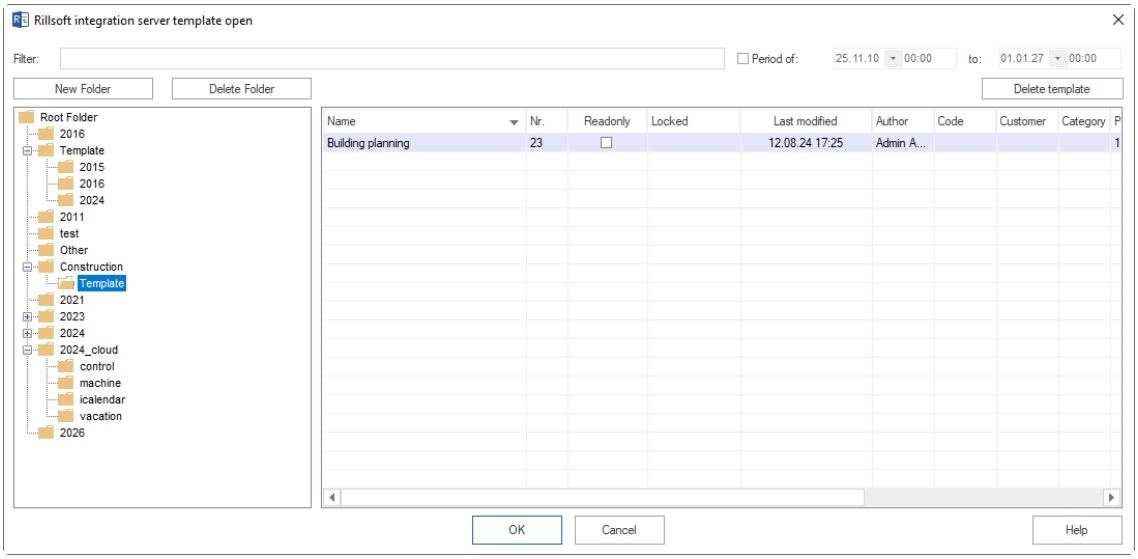
Not suitable:

- one-off special plans
- outdated resource or calendar data
- project plans with concrete employees that are not generally valid
- templates without an owner
- templates that contain unreviewed dates, costs, or notes

12.8.2 File Templates Or Server Templates

File templates
Suitable for individual project managers and local planning. They are quick to use but require manual control to avoid divergent local versions.

Integration Server templates
Suitable for organisations with several planners, PMO standards, central resource data, and controlled permissions.



12.8.3 Template Quality Check

Before using or publishing a template, check:

- Are activity names current and result-oriented?
- Are links technically and logically correct?
- Are roles or professional qualifications used instead of old named employee assignments?
- Does the template match the current resource pool?
- Are dates relative enough to be reused?
- Are costs, notes, user-defined fields, and calendars still valid?
- Does the template include only the level of detail needed for recurring work?

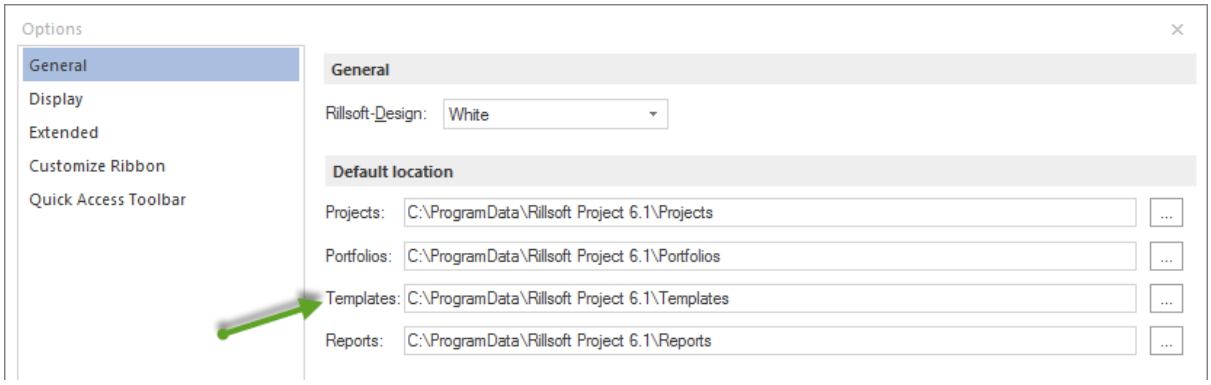
12.8.4 Saving A Project As Template

Before saving a project as a template, remove data that should not become part of the standard.

Recommended cleanup:

- remove concrete employee assignments when the template should be qualification-based
- remove obsolete progress values and actual values
- check baselines and delete those that do not belong to the template

- clean notes, external links, and documents
- verify calendars and non-working days



12.8.5 Governance

For central templates, define:

- business owner
- change process
- approval process
- versioning rules
- valid scope
- storage location
- review interval

12.8.6 Typical Mistakes

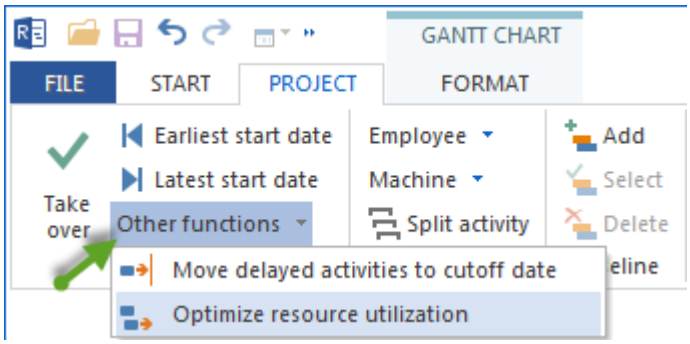
- Templates contain old named employee assignments.
- Local template copies develop in different directions.
- PMO standards are documented elsewhere but not built into templates.
- A template is inserted but not checked against current calendars, resources, and dates.
- Users treat a copied project as a template although it contains project- specific data.

12.8.7 Related Topics

- *Integration Server*
- *Best Practices*
- *PMO*
- *Templates*
- *Interfaces and Expert Functions*

12.9 Optimization

Optimisation in Rillsoft Project helps improve schedules and resource utilisation. It is not an automatic management decision. The result must be checked against project logic, fixed dates, critical path, resource bottlenecks, and portfolio priorities.



12.9.1 What Optimisation Can Do

Optimisation can support:

- better resource utilisation
- schedules that work towards a predefined finish date
- movement of activities within available free float
- conflict reduction in a project plan
- analysis of whether planning constraints are realistic

12.9.2 What Optimisation Cannot Replace

Optimisation does not replace:

- a clean project structure
- correct links and link types
- realistic activity durations
- maintained resource calendars
- current resource supply
- management decisions about priorities
- review of cross-project effects

12.9.3 Prerequisites

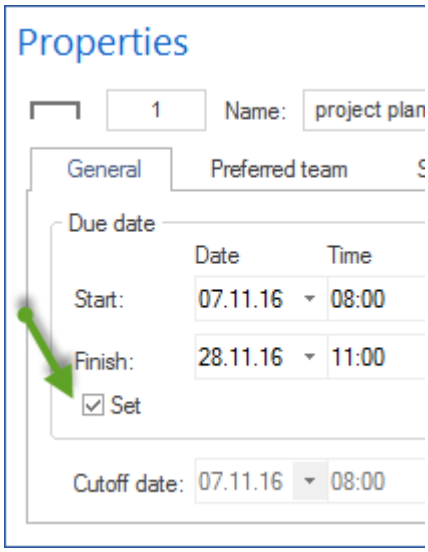
Before optimising, check:

- activities and subprojects are structured logically
- links represent real dependencies
- fixed dates are deliberately set

- resource demand is planned consistently
- employee calendars and non-working days are current
- the baseline situation is understood

12.9.4 Fixed Dates And Constraints

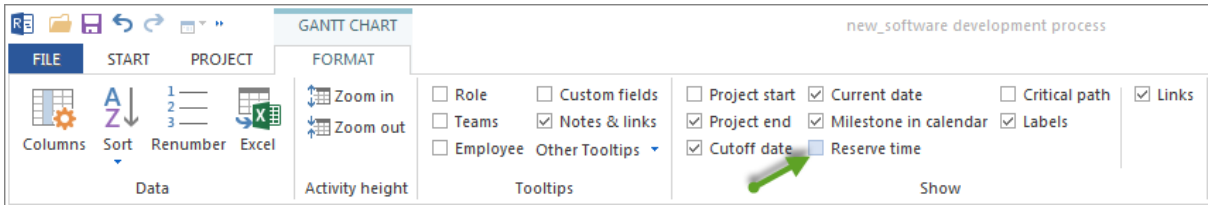
Use fixed dates only when they represent real constraints, for example a customer milestone, delivery date, or external approval. Fixed dates affect how optimisation can move activities.



If too many activities are fixed, optimisation cannot improve the plan meaningfully. If too few constraints are fixed, the result may be technically valid but organisationally unrealistic.

12.9.5 Free Float

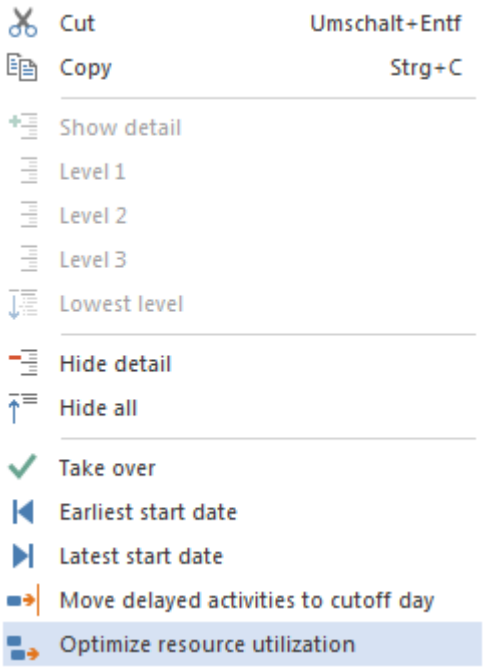
Free float helps you understand how far activities and subprojects can move before they reach the next fixed frame in the schedule; the calculation runs no earlier than the cutoff date. On subproject rows, the line shows the envelope of the contained activities, not a buffer of its own.



Use free float to evaluate whether an optimisation result still leaves enough planning flexibility.

12.9.6 Optimisation In A Single Project

In a single project, optimisation usually aims for a realistic schedule or better resource utilisation.



After optimisation, check:

- Which activities were moved?
- Did the critical path change?
- Are new resource bottlenecks created?
- Were fixed activities respected?
- Are business dependencies still plausible?

12.9.7 Optimisation In Portfolio Context

Local optimisation may improve one project while making another project worse. In a multi-project environment, review:

- total employee workload
- scarce professional qualifications
- project priorities
- cross-project links
- effect on bottleneck projects

12.9.8 Typical Mistakes

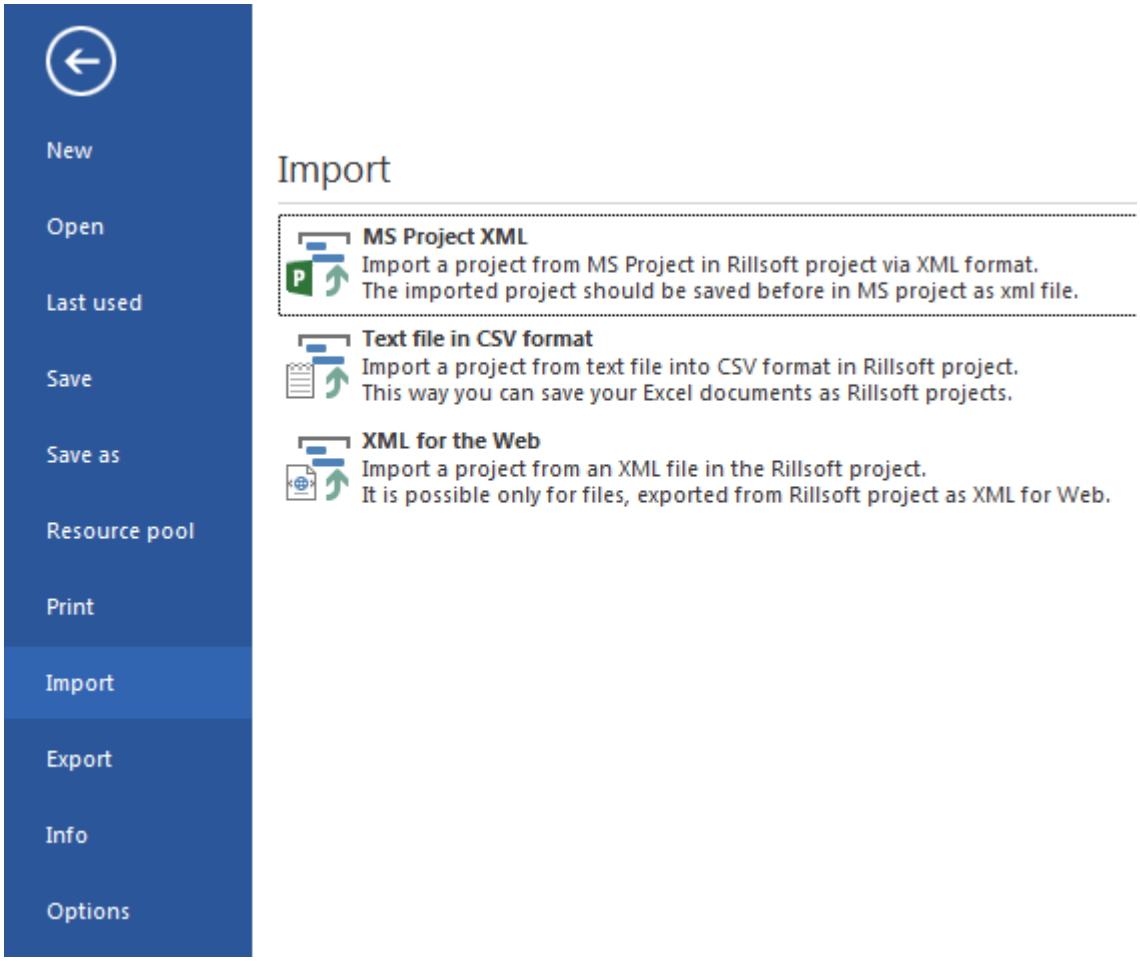
- Optimisation is applied to a poorly structured plan.
- The result is accepted without checking the critical path.
- Resources are optimised in a single project although portfolio conflicts exist.
- Fixed dates and business milestones are not reviewed.
- Optimisation is understood as an automatic decision.

12.9.9 Related Topics

- *Multiproject Planning*
- *Portfolio Analysis*
- *Project Planning*
- *Perform Capacity Balancing*
- *Optimization*
- *Interfaces and Expert Functions*

12.10 Advanced Import and Export

Import and export are more than file operations. They transport or change project structure, dates, resources, calendars, costs, and interface information. Advanced users therefore check the planning effect before and after every data exchange.



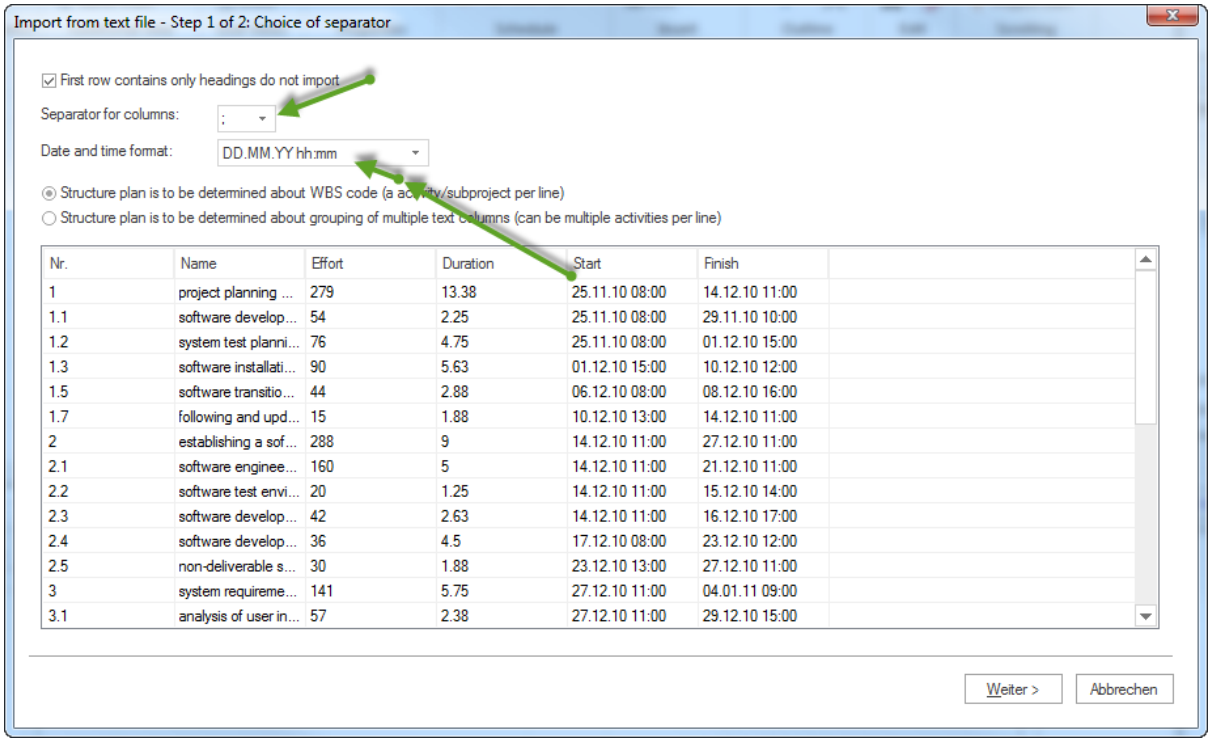
12.10.1 Typical Scenarios

- import a project from Microsoft Project
- import simple planning data from CSV
- import tender data from GAEB

- import external ERP or project structures through Integration Server
- export a project to Microsoft Project XML
- export view data to Excel
- provide calendar data through iCalendar
- exchange project or resource information with external systems
- publish selected project data as XML for web use

12.10.2 Prepare Import

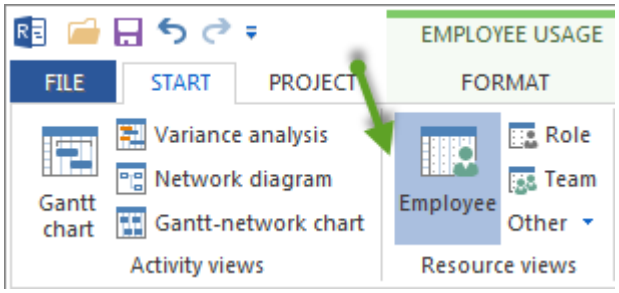
Clarify before importing:



- Which data source is used?
- Should the import create a new project or extend an existing plan?
- Which calendar logic does the source use?
- How should resources be interpreted: roles, teams, employees, machine types, or machinery?
- Do project structure, links, costs, or user-defined fields need cleanup after import?
- Does the import affect the central resource pool?

12.10.3 Prepare Export

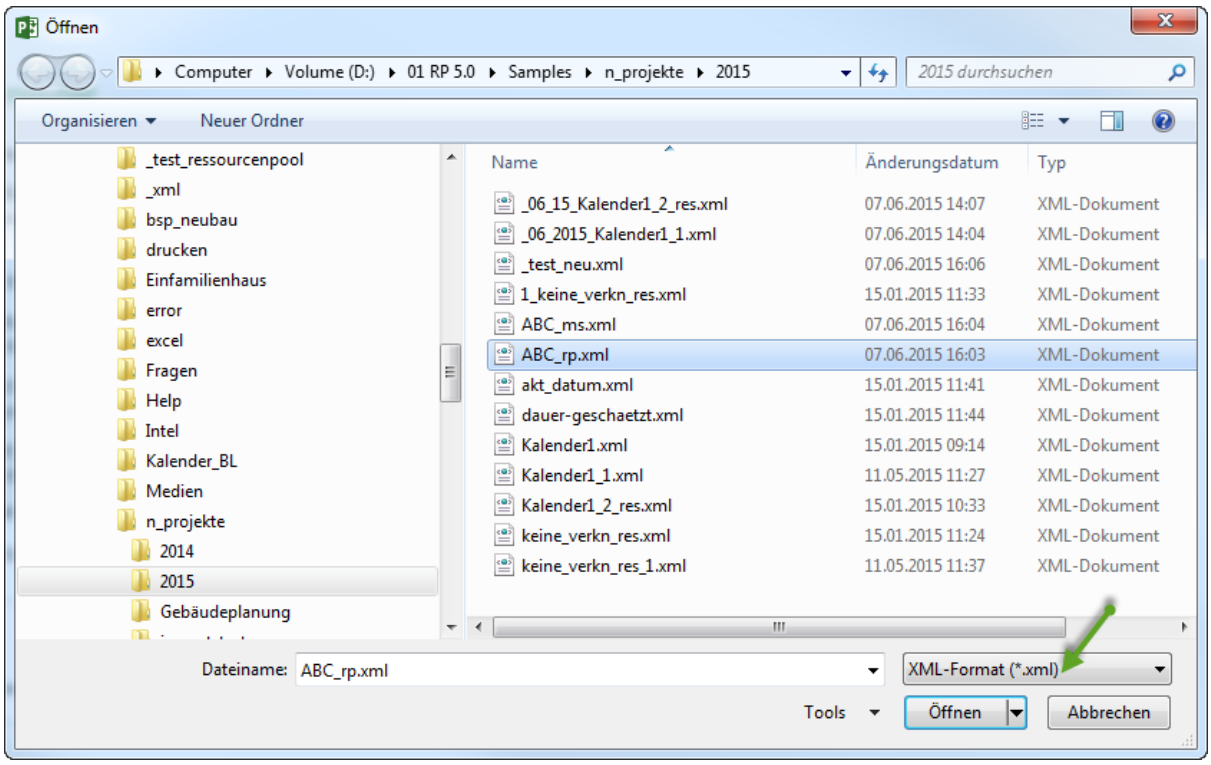
Clarify before exporting:



- Who is the recipient?
- Which format is required?
- Which data may be shared?
- Does the recipient work with roles, named employees, or resources?
- Is a current baseline or cutoff date relevant?
- Must the result be opened and checked in Excel, Microsoft Project, or another target system?

12.10.4 Quality Assurance

After import or export, verify:



1. The project opens.
2. The activity and subproject structure is complete.
3. Dates, durations, and links are plausible.
4. Resource types were interpreted correctly.
5. Calendars and non-working days are correct.

6. Capacity balancing does not show unexpected effects.
7. Costs and user-defined fields are present if required.
8. The exported file was opened in the target system.

12.10.5 Server And Permission Aspects

When using Rillsoft Integration Server or Rillsoft Cloud, also check:

- user rights for import, export, and project directories
- project locks and parallel editing
- central storage location
- DMS storage when documents are involved
- iCalendar access and API keys
- whether imported projects use the correct client and resource pool

12.10.6 Typical Mistakes

- Import is accepted without resource classification.
- CSV data contains wrong date formats or incomplete structure.
- Export is not tested in the target system.
- Excel output is misunderstood as backup.
- Server permissions are checked only after the export fails.
- Local files and server projects are mixed during migration.

12.10.7 Related Topics

- *XML*
- *Integration Server*
- *DMS*
- *Checklist: Check Data Before Import or Export*
- *Import*
- *Export*

12.11 Best Practices

This article describes proven practices for four critical decision points in project planning with Rillsoft Project: building a clean project structure, planning resource demand, preparing portfolio reviews, and saving baselines at the right time.

12.11.1 Build A Clean Project Structure

A clean project structure is the foundation for reliable scheduling, understandable capacity balancing, and meaningful variance analysis. Structural mistakes at the beginning create follow-up errors in every later planning phase.

Basic rule: structure before dates

Clarify the business structure before entering durations, dates, or resources. Detailed work does not improve a poorly structured plan.

Good project structure:

- Each subproject represents a coherent unit, such as phase, role group, deliverable, site, or department.
- Activity names describe a result or a completed piece of work.
- The structure is readable for project managers, resource managers, and management.
- Milestones mark real decision points, not every minor interim step.

Avoid common structure errors:

Error	Better approach
All activities on one level	Use subprojects for business sections.
Too many levels	Reduce levels and move excessive detail into subproject files.
Activity names such as “work on X”	Use result-oriented names such as “X approved”.
One activity for a six-month phase	Split phases into controllable activities.
Milestones for every activity	Use milestones for approvals, delivery dates, and phase transitions.

Links as a structure check:

If activities do not form a logical sequence after linking, or the critical path is hard to understand, the cause is often a structure problem. In that case, check the structure first before adjusting links.

12.11.2 Plan Role Demand Before Employee Assignment

The most common resource planning error is assigning employees before qualification-based demand is understood. This creates overloads that become visible too late and capacity decisions without a reliable basis.

Principle:

1. Activities first receive roles or professional qualifications, not names.
2. Capacity balancing shows whether enough qualified capacity is available.
3. Named employees are assigned only after capacity balancing.

This approach is especially useful when several projects compete for the same resource pool, when absences matter, or when the organisation needs to know whether projects are feasible before committing named people.

When direct assignment is sufficient:

- a small project with a few clearly assigned people
- the project manager knows availability directly
- no competition with other projects

After employee assignment, check:

- Does capacity balancing show shortfall or overload?
- Does the employee's qualification match the assigned role?
- Are working times and non-working days maintained?
- Is the assignment plausible in portfolio context?

12.11.3 Prepare Portfolio Reviews

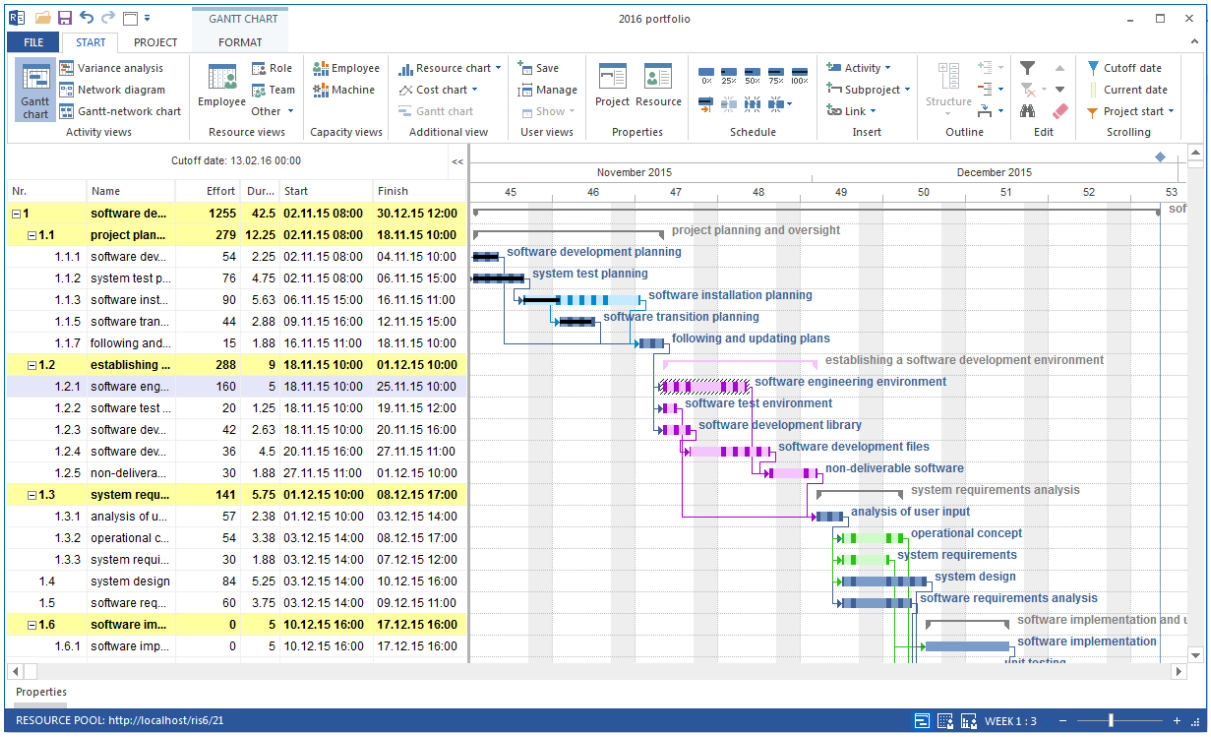
A portfolio review prepares decisions, not reports. A report shows the current state. A review should help decision makers change priorities, resources, or dates when needed.

Before the review, update:

- project status of all active projects
- project priorities
- baseline status and current progress
- resource utilisation in the portfolio horizon
- cross-project links and delays

Three core questions:

1. Is the portfolio feasible?
2. Which projects are at risk?
3. What must be decided?



Good review material contains the affected projects, the bottleneck qualification or resource, the timing, the available alternatives, and a recommended decision.

Create the decision basis from Rillsoft Project:

1. Open the portfolio and sort all projects by priority.
2. Check project-specific employee capacity balancing: which project uses which qualification most strongly?
3. Temporarily remove projects from the calculation for simulation and compare the resource situation.
4. Check dates and overlaps in the portfolio Gantt chart.
5. Prepare the result as screenshots or Excel output for the review.

Common review mistakes:

- The review takes place, but the data in the tool is not current.
- Status reports are presented, but no decisions are made.
- Resource bottlenecks are named but not connected with priorities.
- Simulation scenarios are discussed but not documented.

12.11.4 Save Baselines At The Right Time

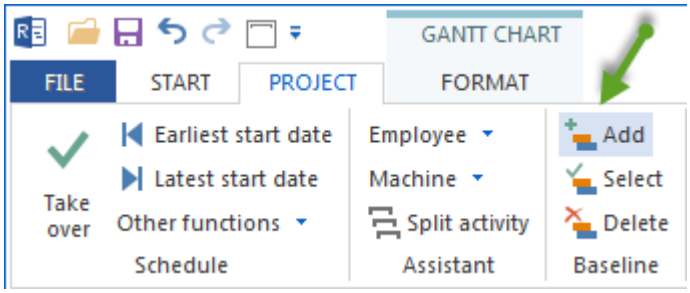
The baseline is the reference for variance analysis. The timing of the baseline determines the quality of every later comparison.

Saved too early
: The current plan is compared with an immature planning state. Variances are misleading.

Saved too late
: The reference is missing when changes already happened. A later baseline may reflect the current situation instead of the approved plan.

Save the baseline when:

- the schedule has been reviewed and approved
- resource demand and capacity balancing are complete
- important employee assignments are made
- costs, effort, and milestones are binding
- the project officially enters execution



Use multiple baselines deliberately:

- Baseline 1: original approved plan.
- Baseline 2: revised plan after an approved change.
- Baseline 3: plan after scope extension.

Each new baseline should document why it was saved.

What a baseline does not replace:

A baseline does not replace the documentation of plan changes. Record important changes additionally in the project log or status report; the baseline alone does not explain why the plan was changed.

12.11.5 Related Topics

- *Portfolio Analysis*
- *Practical Examples*
- *Project Planning*
- *Perform Capacity Balancing*
- *Save Baseline and Enter Progress*
- *Checklist: Prepare Portfolio Review*

12.12 Practical Examples

This article describes typical planning situations in Rillsoft Project and shows which planning approach, settings, and views are especially relevant.

12.12.1 Small Team: Direct Planning

Situation: A project with 5 to 15 people, clear responsibilities, and a manageable project structure. Most employees work on one project. Vacation and absence planning is handled by agreement or a simple external process.

Recommended approach:

1. Create the project, subprojects, and activities.
2. Add links and check the critical path.
3. Assign employees directly to activities.
4. Check employee workload in the personnel views.
5. Save a baseline and maintain progress.

For small teams, a simple resource pool with employees, calendars, and a few roles is often sufficient. Integration Server is not required unless central data, permissions, web functions, or DMS are needed.

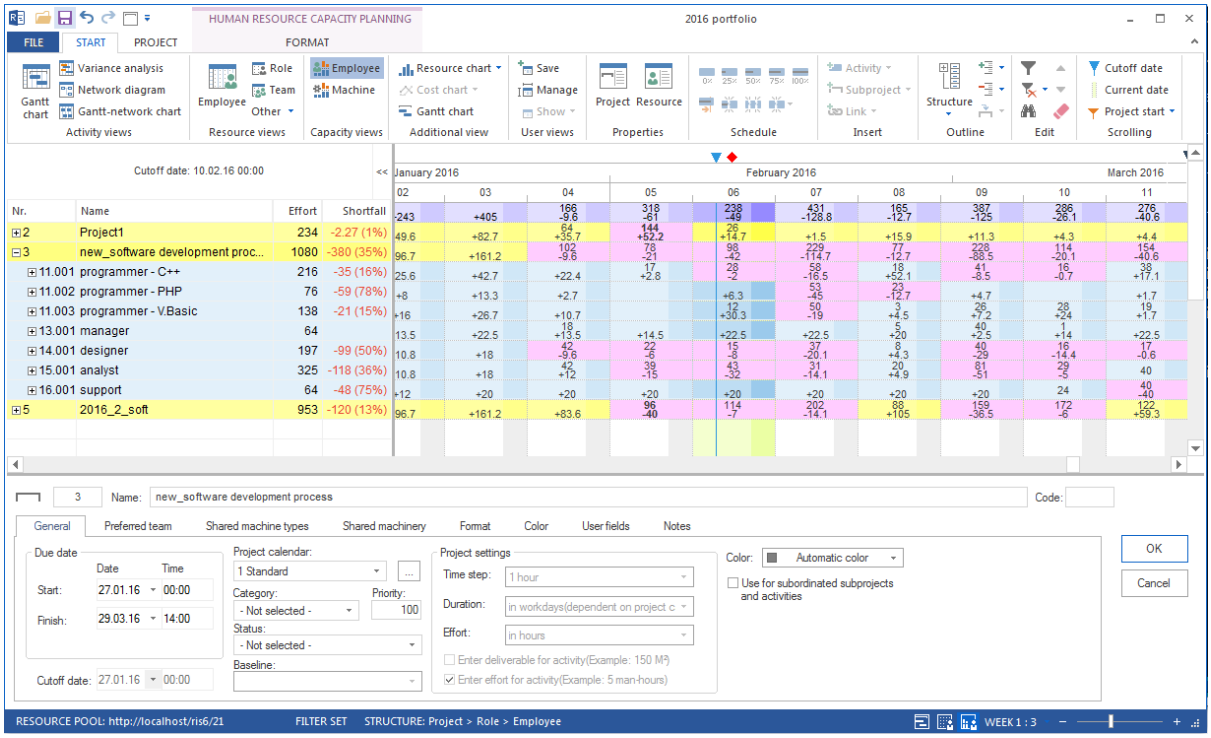
This approach reaches its limits when employees start working on several projects, overloads appear unexpectedly, qualification planning becomes important, or absences must be included reliably in capacity balancing.

12.12.2 Several Parallel Projects: Manage Resource Competition

Situation: Several projects use the same employee pool. Project managers see their own projects, but central resource control is difficult. Bottlenecks appear because the same qualified people are planned in several projects.

Recommended approach:

1. Maintain a shared resource pool.
2. Plan activities first with roles or professional qualifications.
3. Use capacity balancing to see which project demands which qualification.
4. Build a project portfolio with all active projects.
5. Review role utilisation before employee assignments become binding.



Without Integration Server, this can work for a small number of projects and planners with disciplined file handling. With more projects, more planners, or central permissions, Integration Server or Rillsoft Cloud is the stronger operating model.

12.12.3 Bottleneck Qualification: Control Scarce Capacity

Situation: A professional qualification is scarce, for example a specialist engineer, certified welder, test expert, or CAD specialist. Several projects need this qualification at the same time.

Goal: Make the bottleneck visible, prepare a decision, and adjust dates to real capacity.

Step 1: Make the bottleneck visible

- Plan affected activities with the bottleneck role.
- Open capacity balancing and identify shortfall.
- Use project-specific capacity views to see which project consumes capacity.

Step 2: Clarify priority

No bottleneck can be solved without a priority decision. Clarify:

- Which project has priority for this qualification?
- Which projects can wait without endangering critical dates?
- Are alternatives possible, such as external capacity or training?

Step 3: Adjust the plan

Move lower-priority activities, check capacity balancing again, and assign named employees according to the decision.

Step 4: Monitor continuously

Review the bottleneck qualification regularly. Changes in one project can affect the whole portfolio.

12.12.4 Server Or Cloud: Choose The Operating Model

Situation: The organisation grows or requirements for shared planning, central permissions, document management, or web access increase.

Choose standalone files when:

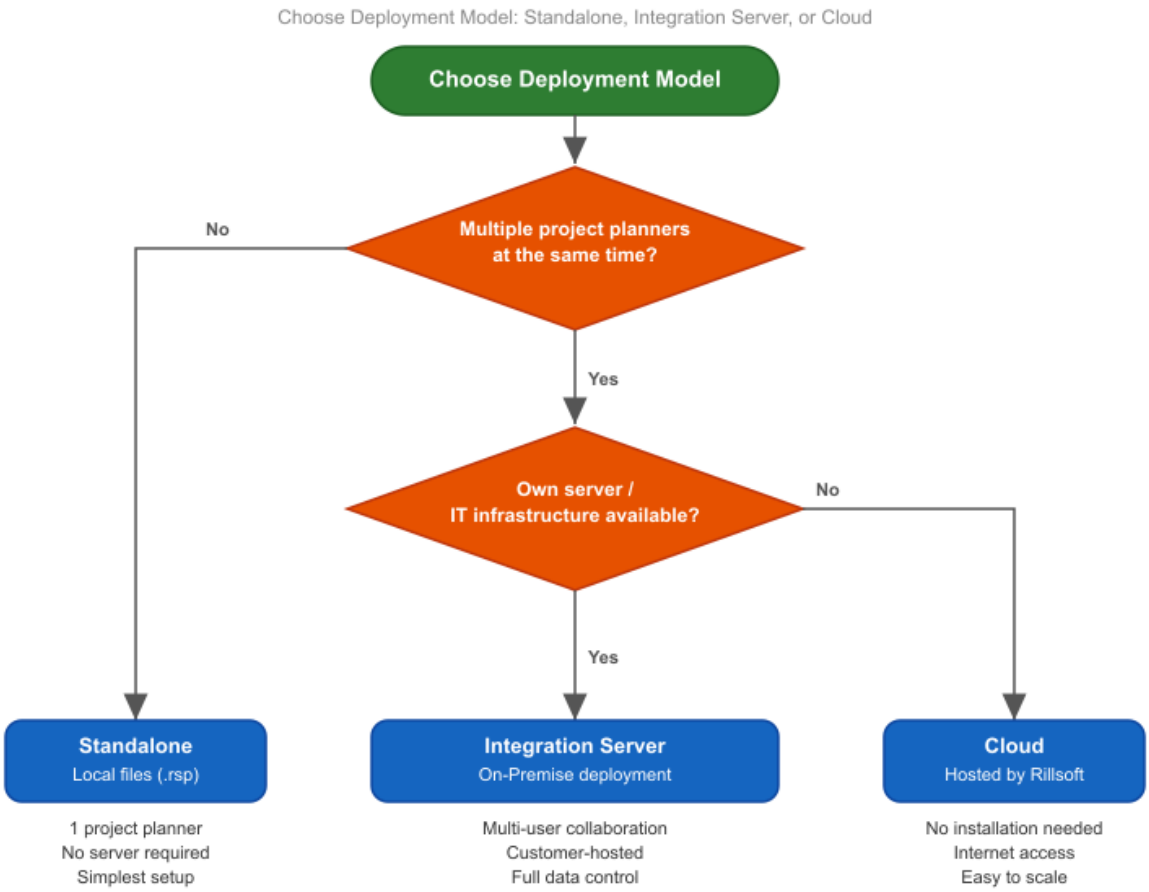
- one project manager or a small team plans independently
- no central permissions or web functions are required
- quick introduction without server operation is decisive

Choose Integration Server when:

- several project managers use the same resource pool
- central permissions, project versions, DMS, or auditability are required
- the organisation operates its own server infrastructure
- web functions such as time recording or vacation planning are needed

Choose Rillsoft Cloud when:

- own server infrastructure is not available or not wanted
- planners and employees work from different locations
- fast provisioning is more important than on-premise operation



12.12.5 Migration From Standalone To Server

The change from standalone files to Integration Server is possible, but it needs preparation:

1. Centralise and clean the resource pool.
2. Model directories and permissions before migrating projects.
3. Create users and roles.
4. Move projects gradually to central storage.
5. Keep parallel local and server operation as short as possible.

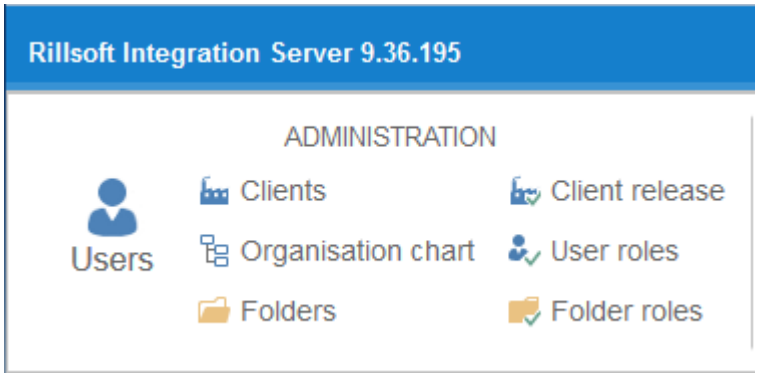
12.12.6 Related Topics

- *Integration Server*
- *Setting Up and Operating Integration Server*
- *Multiproject Planning*
- *Best Practices*
- *Perform Capacity Balancing*
- *Project Portfolio and Multiproject Management*

12.13 When Expert Knowledge Is Relevant

Use this section when:

- several project planners work with the same projects, resources, or portfolios
- file-based planning no longer provides reliable control over shared resource data
- cross-project links, central permissions, project versions, or shared data storage are required
- portfolio analysis must prepare decisions about priorities, capacity, and project feasibility
- import, export, XML, DMS, templates, or optimisation are part of a controlled organisational process



12.14 Difference From Reference Content

The reference system describes functions, dialogs, options, and objects in a compact form. Expert knowledge explains when and why these functions are used, which prerequisites apply, and what organisational consequences follow.

12.15 Related Areas

- *Project Portfolio and Multiproject Management*
- *Resources and Capacities*
- *IT and Administration*
- *Reference System*

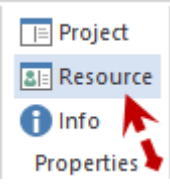
CHAPTER

THIRTEEN

REFERENCE SYSTEM

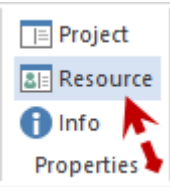
The reference system is the lookup layer of the Rillsoft Project help. It describes functions, objects, data structures, interfaces, and expert functions in a compact and systematic form.

Use the reference system when you need to look up a menu area, object, view, dialog, option, or interface. For guided workflows, use the task-oriented help and expert knowledge sections.



13.1 Function Reference

The function reference describes the most important operating areas of Rillsoft Project and related functions from Rillsoft Integration Server.



13.1.1 Menu Commands

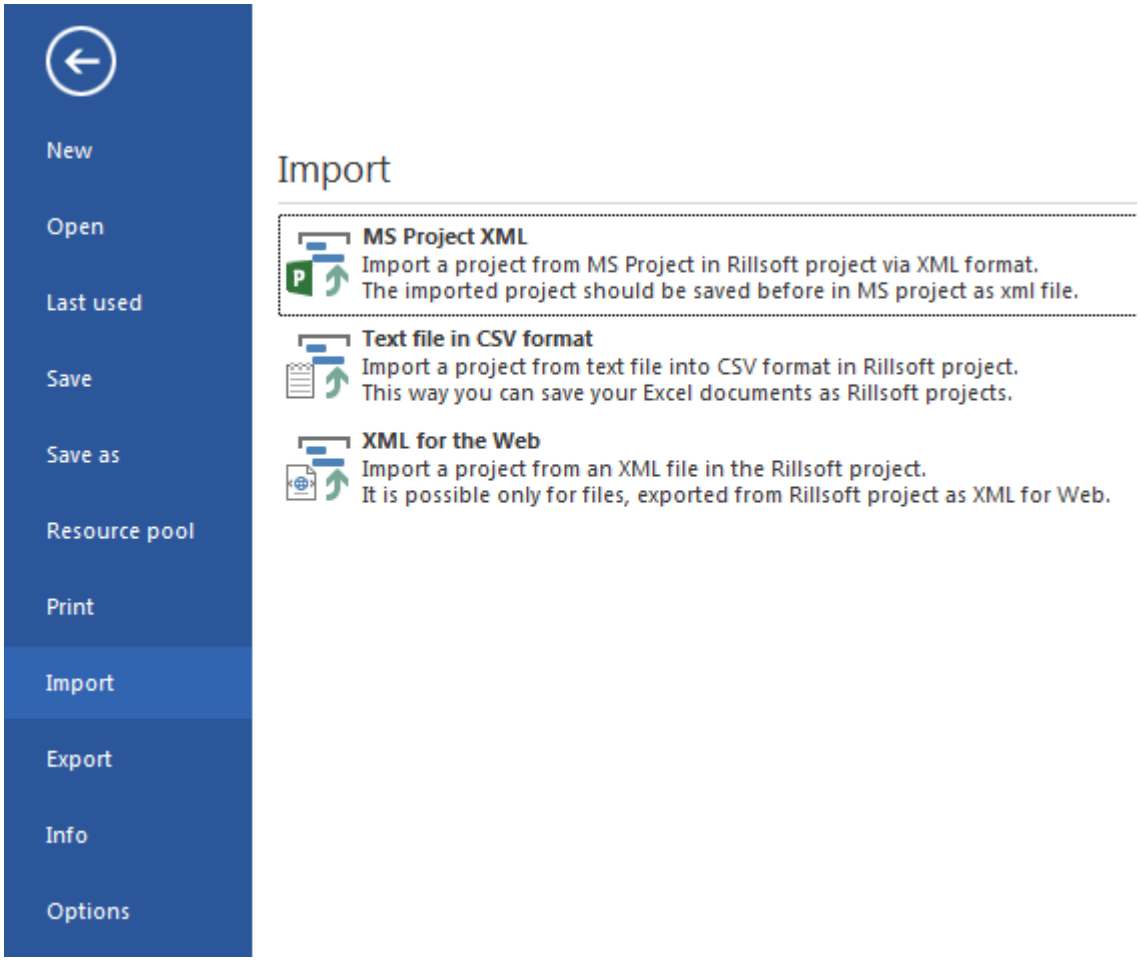
Menu commands start central actions in Rillsoft Project. Availability depends on the active view, operating model, and installed modules.

File

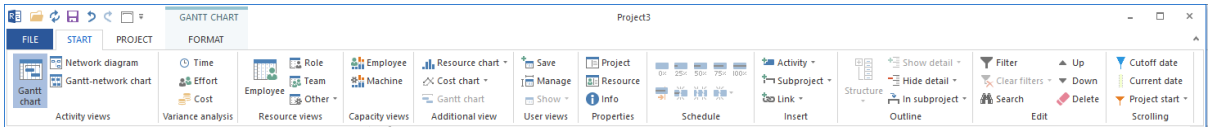
Typical commands:

- create, open, and save projects
- open a project portfolio or summary project
- create or select the resource pool, import it into Integration Server, or export it from there (see *Create and Select a Resource Pool with Rillsoft Integration Server*)

- import from MS Project XML, CSV, XML for web, or GAEB
- export to MS Project XML, XML, Excel, or iCalendar
- print and print preview

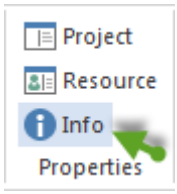


Start

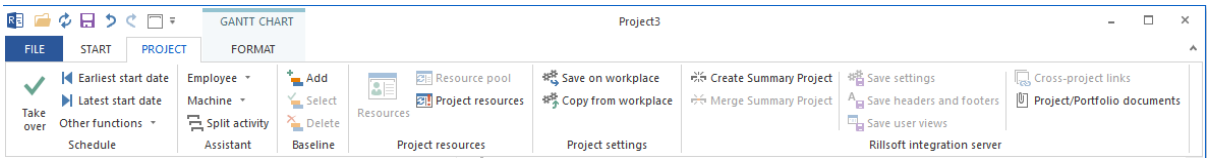


Typical commands:

- create activities, subprojects, and milestones
- link activities
- open project, activity, and resource properties
- show information about late activities, overallocated resources, failed resources, and unassigned resources
- control outline, grouping, filter, and search

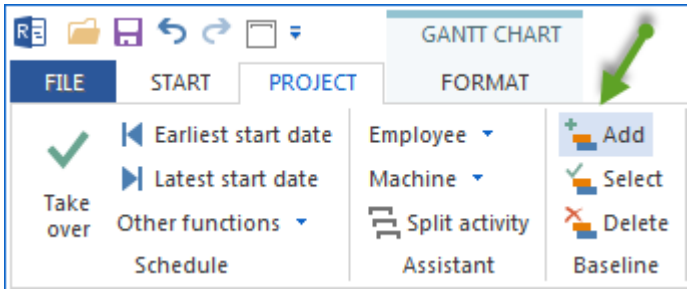


Project



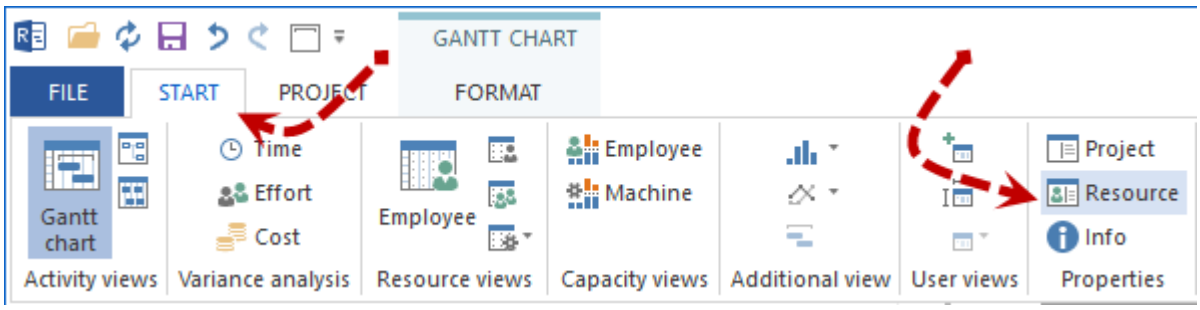
Typical commands:

- add, select, or manage baselines
- set cutoff date
- switch project resources to the shared resource pool
- start assistants, for example employee assignment
- use Integration Server functions and cross-project links



Resources (Groups in the Start Ribbon)

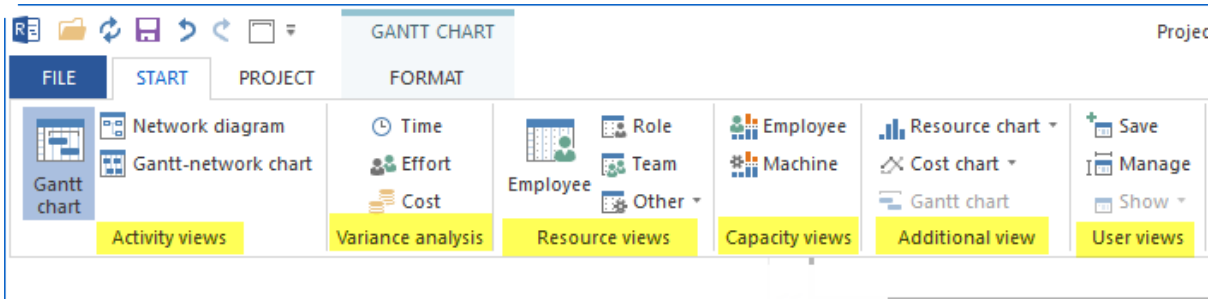
Resource management is organized in the start ribbon:



- Open the resource pool via Start > Properties > Resources
- Maintain roles and professional qualifications
- Manage employees, teams, materials, machine types, and machinery
- Check calendars, working hours, and days off

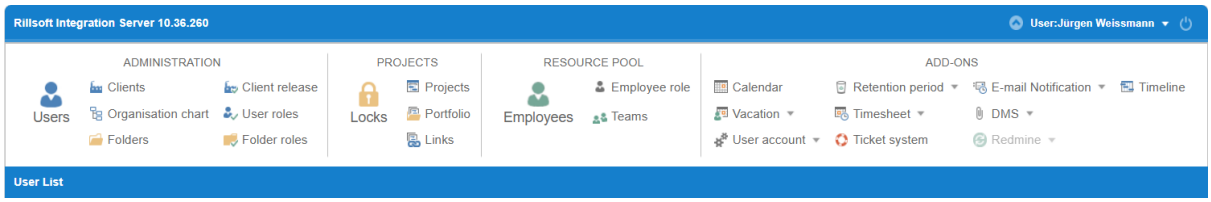
Views

View switching is available from the Start ribbon:



- activity views
- variance analysis
- resource views
- capacity views
- additional views
- user views
- filter and search
- view-specific Format tab for timescale, columns, and Excel output

Add-Ons



Depending on installation and operating model, add-ons can include iCalendar, DMS, time recording, vacation planning, or other Integration Server modules.

Related Topics

- *Views*
- *Print And Output*
- *Import*
- *Export*

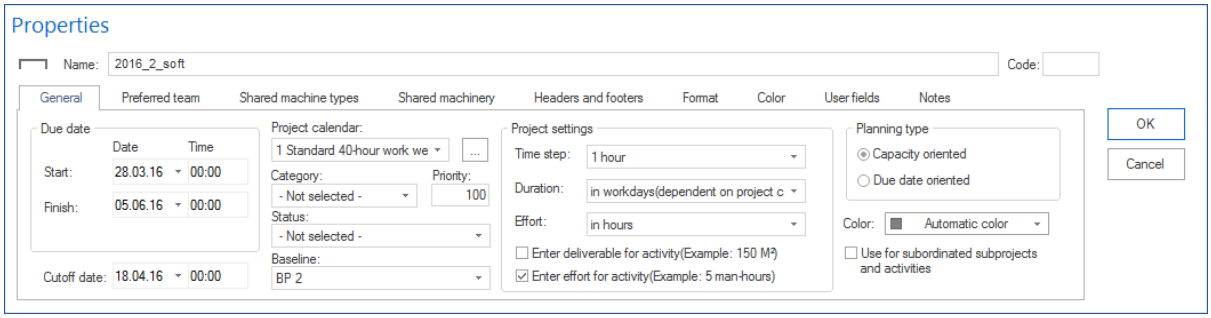
13.1.2 Dialogs

Dialogs bundle the properties and settings of projects, activities, resources, and server objects. This page describes all tabs of the most important property dialogs in Rillsoft Project.

- *Project Properties*
- *Activity Properties*
- *Information Dialogs*
- *Server Dialogs (Rillsoft Integration Server)*
- *Related Topics*

Project Properties

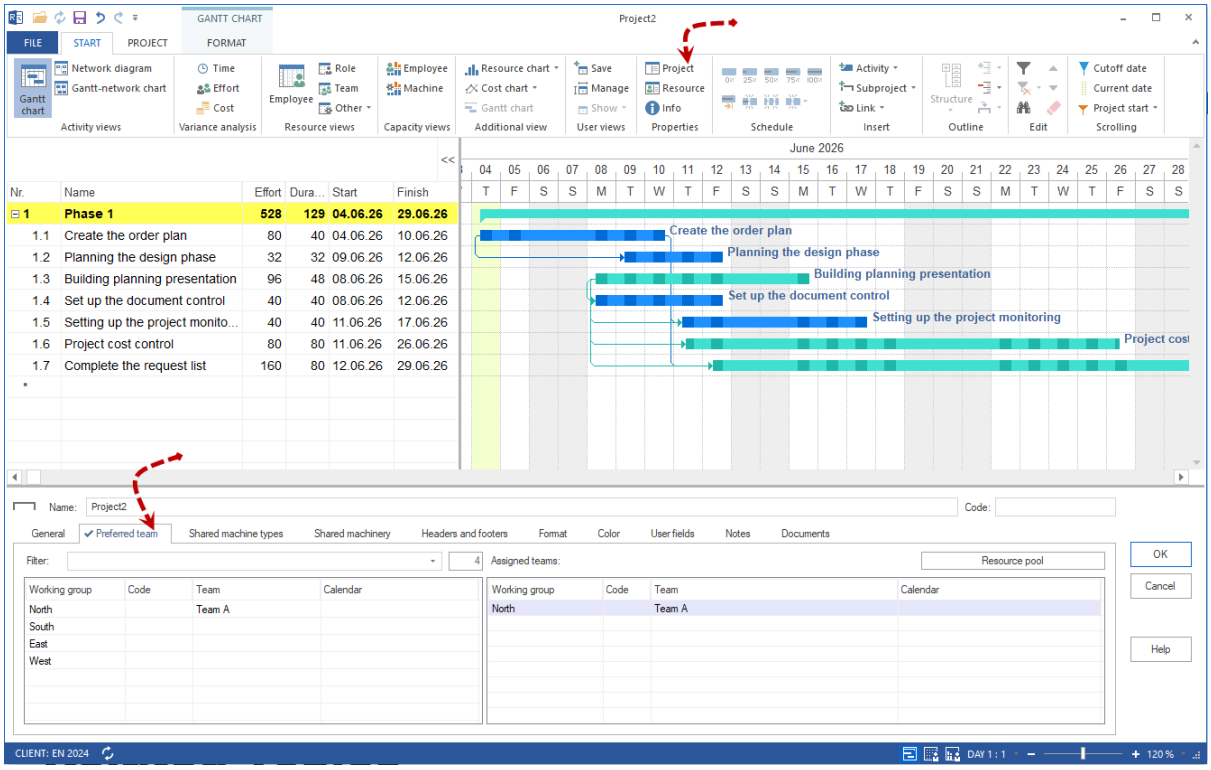
Open: **Start > Properties > Project**



General Tab

Field / option	Meaning
Name	Project name, freely selectable.
Code	Internal project code for synchronisation and filtering.
Start / Finish	Project period. The finish is not necessarily calculated from the activities — it can be set manually.
Cutoff date	Date of the last progress feedback. Only meaningful for running projects. For the initial plan, set it equal to the project start.
Project calendar	Calendar for scheduling the entire project. The button opens the calendar directly.
Category	Project category from the resource pool (**Start > Properties > Resources > Project categories**).
Priority	Value 1-1000. The higher the value, the more capacity the project receives during capacity balancing in the portfolio. Must not be 0.
Status	Project status from the resource pool (**Start > Properties > Resources > Project status**).
Customer	Project customer from the resource pool (**Start > Properties > Resources > Project customers**).
Baseline	Active baseline for the target/actual comparison. Requires a previously saved baseline.
Time step	Time interval for automatic rounding of dates and durations. The maximum value depends on the working times in the resource pool.
Duration (unit of measure)	Working days (project-calendar dependent) or working days (8-hour day).
Effort (unit of measure)	Person days (project-calendar dependent) or person days (8-hour day).
Enter work result for activity	Enables the Quantity and Unit fields in the activity properties (for example 150 m^3).
Record effort for activity	Enables effort entry in person days in the activity properties.
Capacity-oriented planning	Resources are not overloaded. May extend activity durations when employees have non-working days.
Due-date-oriented planning	The finish date is kept. On non-working days negative effort arises instead of an extension.
Colour	Bar colour for activities and subprojects of this project.
Use for subordinate subprojects and activities	All related activities receive the same colour.

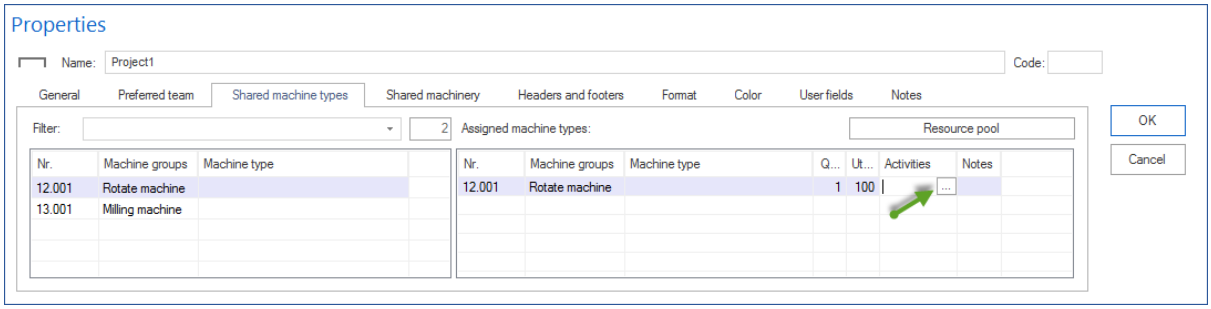
Preferred Teams Tab



Restricts capacity planning to specific teams. Only employees of the preferred teams are calculated as available for this project.

Double-clicking a team in the left table adds it to the preferred list.

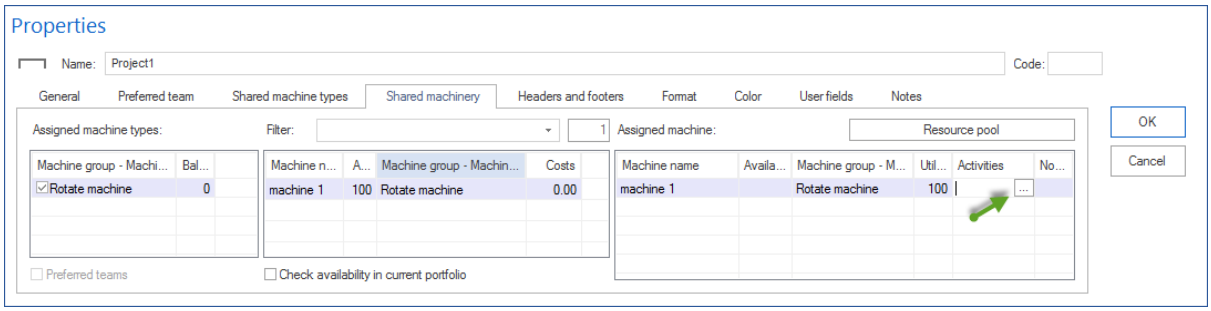
Shared Device Types Tab



Device types that are used by several activities at the same time without summing the quantity. Costs are calculated over the total usage time, not split per activity.

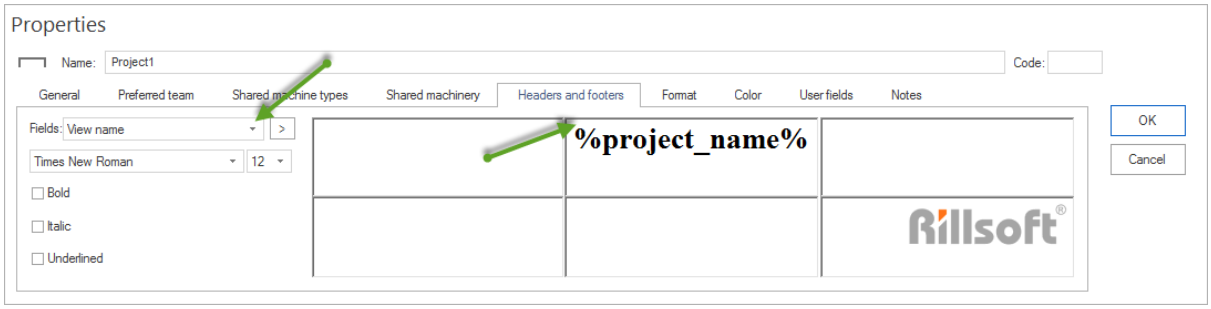
Fields: **Quantity**, **Utilisation**, **Activities** (selection of the activities that share the device type).

Shared Machine Types Tab



Analogous to device types. Machine types that, when several activities overlap in time, are not summed but shared.

Headers And Footers Tab

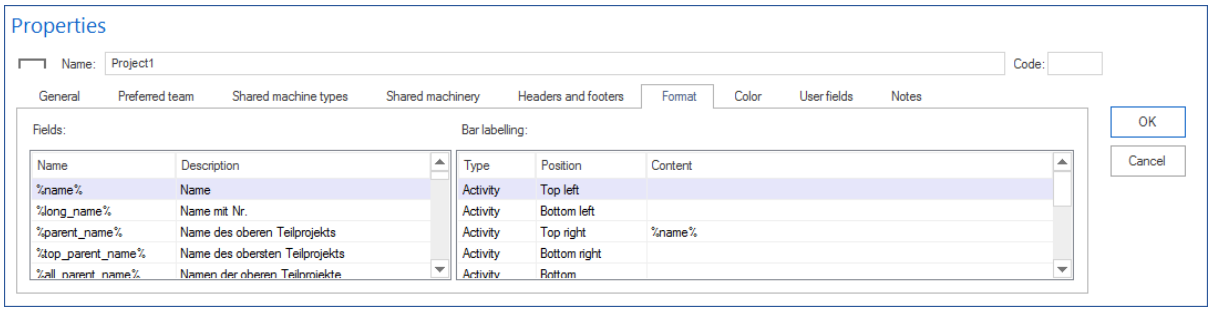


Defines the header and footer for the entire printout (not per page). Areas: Left-Top, Center-Top, Right-Top, Left-Bottom, Center-Bottom, Right-Bottom.

Available fields for header/footer (selection):

Field	Content
View Name	Name of the current view
Project Name / Code	Name and code of the project
Project Category / Project Status / Project Priority	Administrative data of the project
Project Start Date / Project Finish Date	Date data
Project Costs / Project Effort	Total costs and total effort
Project User-Defined Fields	Free-defined fields from the User-Defined Fields tab
Subproject Name / Subproject Start / Subproject Finish	For the subproject level
Cutoff Date / Cutoff Time	Date and time of the cutoff date
Last Save Date / Last Save Time	Date and time of the last save
Print Page / Page Number / Print Time	Page numbering and print timestamp

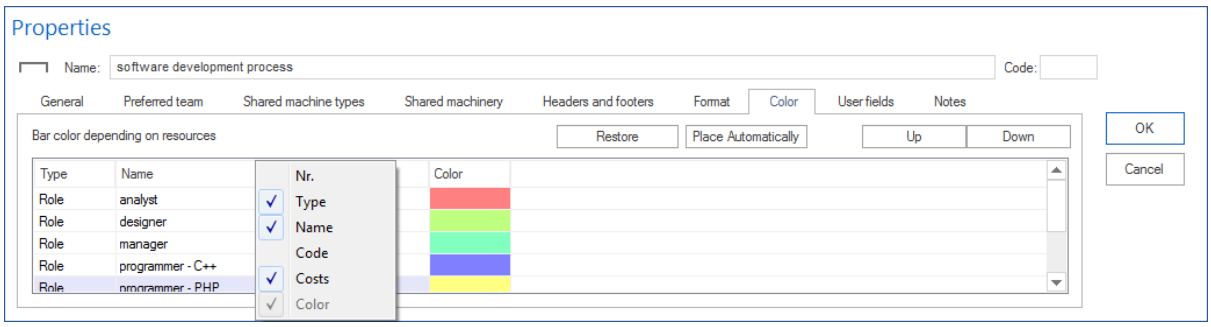
Format Tab



Bar labelling for activities and subprojects. The columns **Type** (activity or subproject), **Position** (left, right, top, inside), and **Content** (variables from the field list) define what is shown on the bars.

Double-clicking a field in the **Fields** area inserts the variable at the cursor position in the bar label.

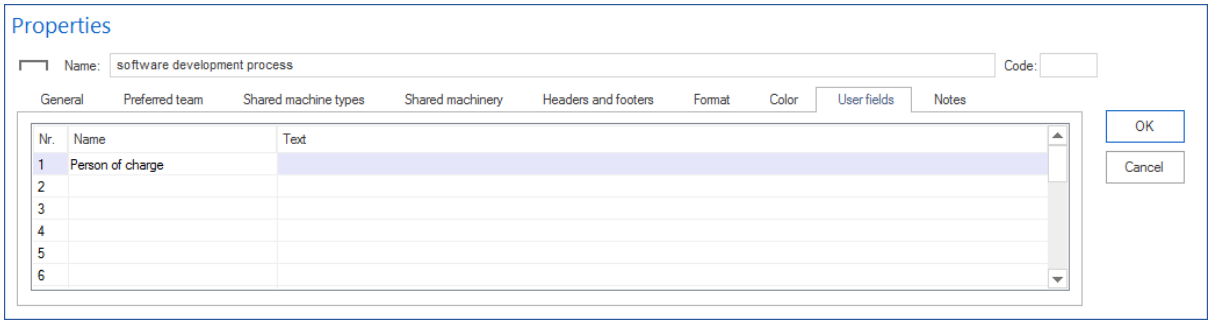
Colour Tab



Resource-dependent bar colour. The table lists all resources scheduled in the project (roles, teams, employees, machines) with the assigned colour.

- With several resources of different colours, the resource with the higher list position applies.
- **Move up / Move down** — adjust the priority of a resource for colour assignment.
- **Place Automatically** — distribute colours automatically.
- **Restore** — reset all colour rules.

User-Defined Fields Tab

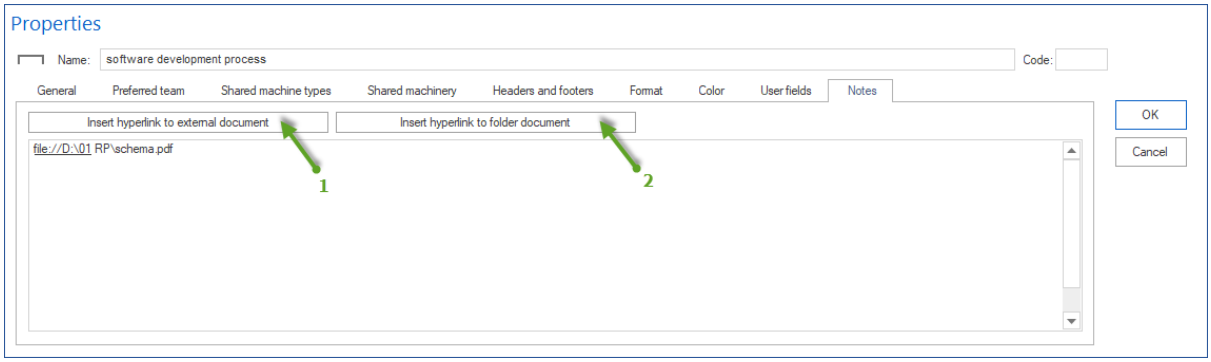


Free-definable fields that can be shown in table views and used in printouts.

- Column **Name** — field label.
- Column **Text** — free text or formula.

Formulas can contain project variables from the **Format > Fields** tab. Available calculation operations: `+`, `-`, `*`, `/`.

Notes Tab

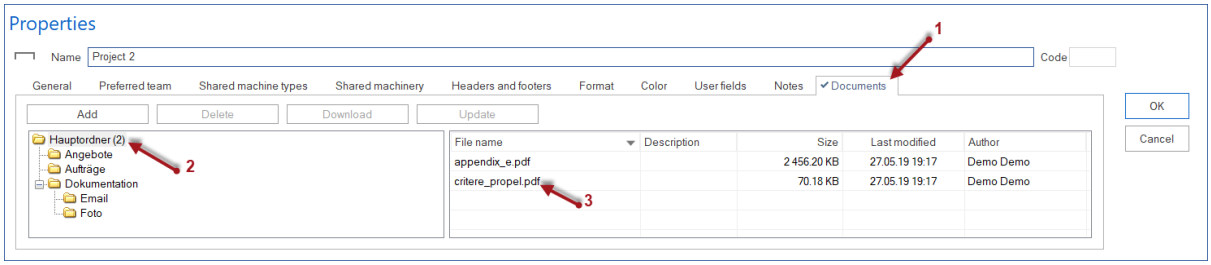


Free text, external links, and file references for the project.

Supported link prefixes: `http://`, `https://`, `mailto:`, `ftp://`, `news:`, `telnet:`, `file:`.

Buttons: **Insert hyperlink from external document**, **Insert hyperlink from external directory**.

Documents (DMS) Tab



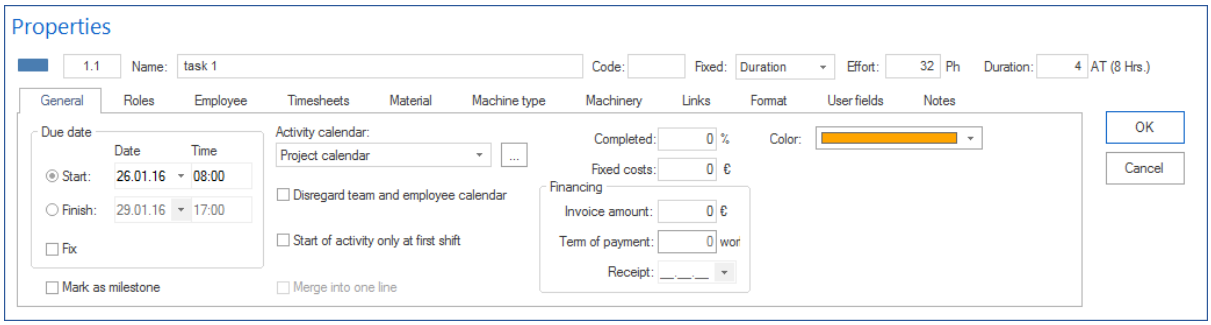
Only available with **Rillsoft Integration Server**. Shows the DMS directory structure on the left and the directory content on the right.

Actions: **Insert**, **Delete**, **Download**, **Refresh**. Documents can be dragged and dropped into the right-hand area.

Manage all project documents centrally: **Project > Rillsoft Integration Server > Project documents**.

Activity Properties

Open: double-click an activity, or select an activity (the properties appear at the bottom).



General Tab

Schedule area

Field / option	Meaning
Start (date + time)	Fixed start date. The finish is calculated automatically.
Finish (date + time)	Fixed finish date. The start is calculated automatically.
Fix	The date is not changed during automatic scheduling (for example optimisation, moving).
Mark as milestone	The duration is set to zero. Milestones appear as a diamond in the Gantt chart.

Activity calendar area

Field / option	Meaning
Activity calendar	Calendar for this activity if it differs from the project calendar.
Ignore team and employee calendars	The calendars of the assigned resources are ignored for this activity.
Start activity only at the start shift	The activity may only start at the beginning of a shift.
Display in one row	Several activities one after another in one row, independent of the hierarchy.

Effort type and calculation mode

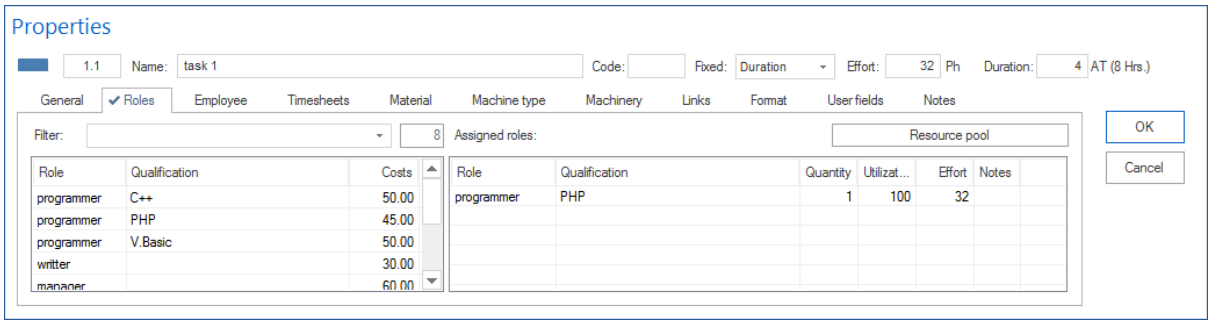
These fields appear only if **Record effort for activity** is enabled in the project properties.

Option	Calculation logic
Fixed duration	The duration stays constant. On resource changes the effort is recalculated.
Fixed effort	The effort stays constant. On resource changes the duration is recalculated.
Fixed effort & duration	Effort and duration stay constant. The quantity and utilisation of the resources are adjusted.

Financing area

Field	Meaning
Completed (%)	Progress of the activity in percent.
Fixed costs	Costs that are not represented through resources.
Invoice amount	Amount for the billing period.
Payment term	Due date in working days after the milestone is completed.
Payment receipt	Date of payment receipt (automatic at 100 % + payment term, correctable).
Colour	Individual bar colour for this activity.

Roles Tab



Assigns professional qualifications (roles) to the activity. Prerequisite for qualification-based capacity planning.

Left table — roles created in the resource pool

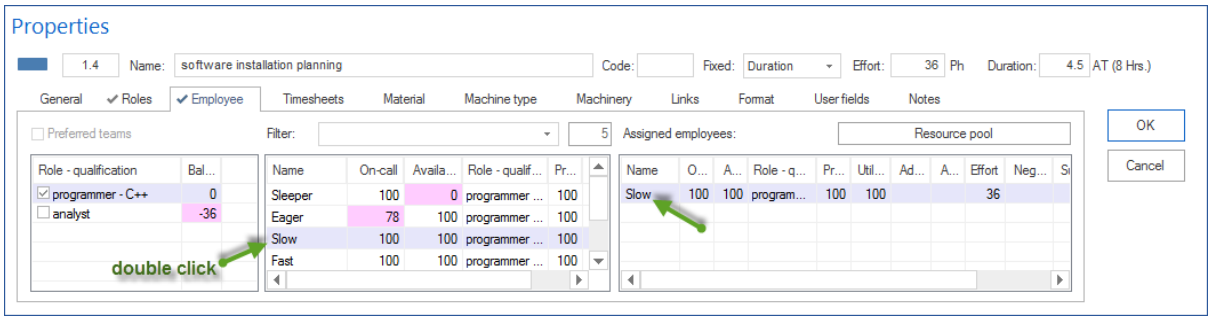
Filter field: search by role group and code. Entering `..` shows only roles already used in the project.

A double-click adds the role to the activity.

Right table — assigned roles

Column	Meaning
Quantity	Required number of employees of this role for the activity.
Utilisation (%)	Degree of utilisation of the role in this activity.
Effort	Effort that this role is to provide in the activity.
Notes	Role-related remark on the activity.

Employees Tab



Assigns concrete employees to the activity. Can be filtered on the basis of the assigned roles.

Filter options

- Activate the checkbox of a role — shows only employees with matching qualification.
- Field **Filter** — search by name or code. Entering `..` shows only project employees.
- **Preferred teams** — shows only employees from teams marked as preferred.

Middle table — available employees

Column	Meaning
On-call (%)	Possible work performance in the activity period, adjusted for non-working days. Highlighted in red when restricted — mouseover shows the detailed days.
Availability (%)	Possible performance adjusted for activities already assigned in the project.

A double-click assigns the employee.

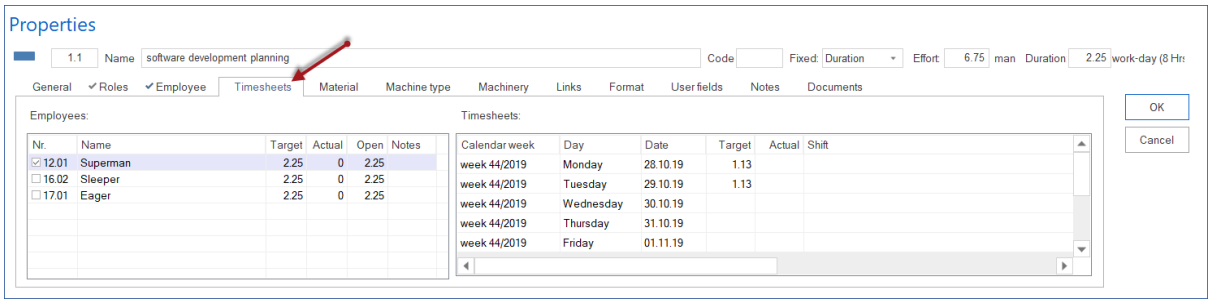
Right table — assigned employees

Column	Meaning
Productivity (%)	Work performance of the employee (pre-set from the resource pool, overwritable).
Utilisation (%)	Percentage of the employee's participation in the activity.
Additional utilization	Increased utilisation on other days due to non-working days (visible only with due-date-oriented planning).
Absence	Opens a calendar for defining activity-specific absence days.
Effort	Effort of the employee in the activity.
Negative effort	Difference between role effort and employee effort (only with due-date-oriented planning; red = the next employee takes over the substitution).
Substitution for	Shows for whom the employee is scheduled as a substitute.
Responsible	Marking as the activity owner.
Notes	Employee-related remark on the activity.

Distribute effort dynamically

Only with capacity-oriented planning and at least two employees of the same qualification. Distributes the effort across the available employees.

Timesheets Tab

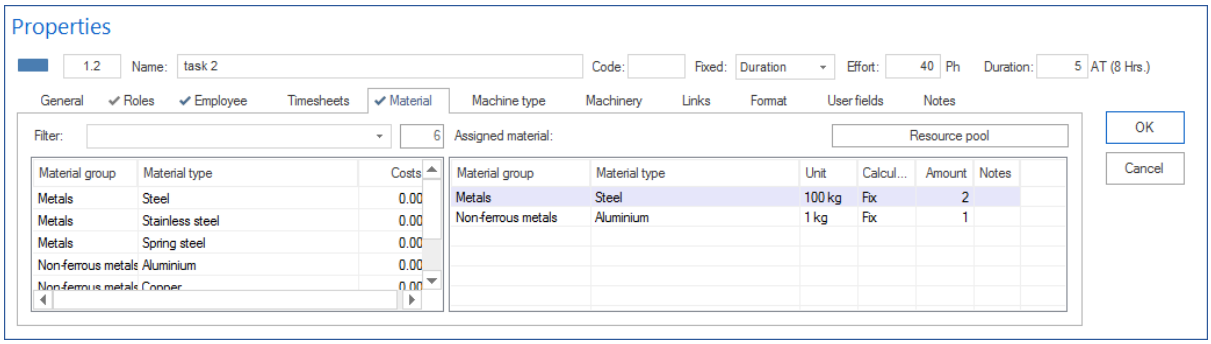


Read-only in Rillsoft Project. Feedback is entered through the Rillsoft Integration Server.

Employees table — all assigned employees with Target, Actual, and Open (effort).

Timesheets table — day-by-day display for the employee selected on the left, with calendar week, weekday, date, Target, Actual, and shift.

Material Tab



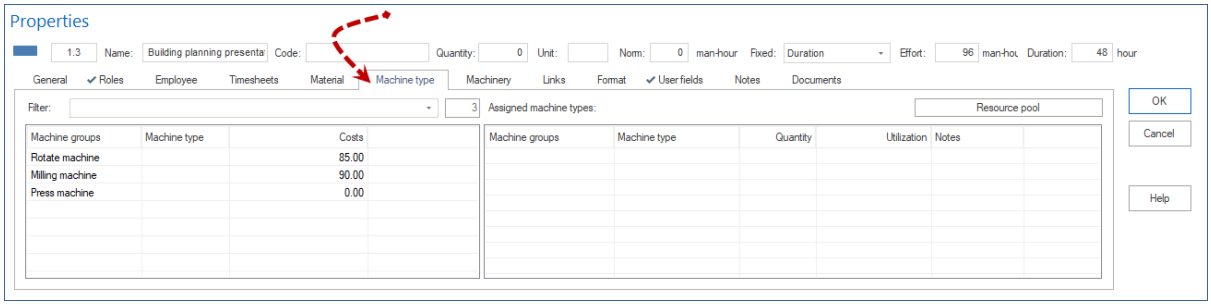
Assigns material (equipment) to the activity.

Left table — available material — filter search by material group, material type, and code. . . shows only project material. A double-click adds material.

Right table — assigned material

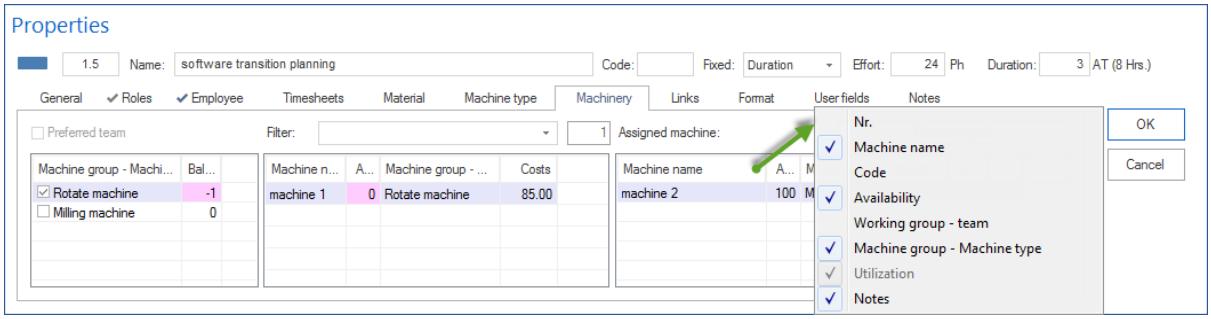
Column	Meaning
Calculation	Fixed / per hour / per man-hour / per quantity — determines the calculation basis of the material demand.
Quantity	Material quantity for the activity.
Notes	Material-related remark.

Devices Tab



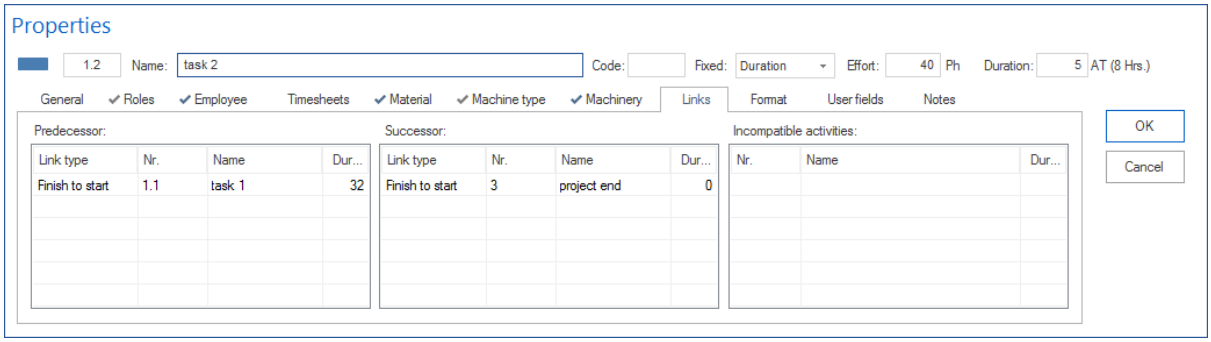
Assigns devices (device type + device name) to the activity. Structure analogous to the Material tab. Fields: device type, quantity, utilisation, effort, notes.

Machinery Tab



Assigns machinery to the activity. Structure analogous to Devices. Fields: machine type, machinery, quantity, utilisation, effort, notes.

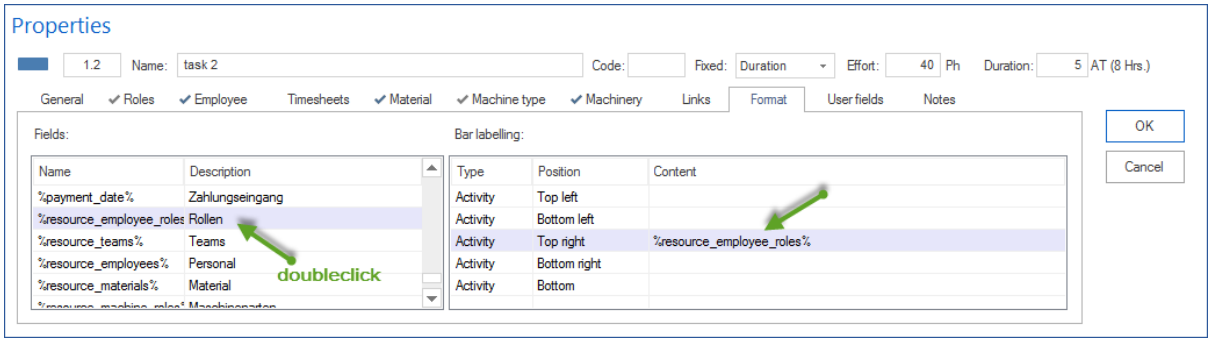
Links Tab



Overview of all links of this activity in three tables:

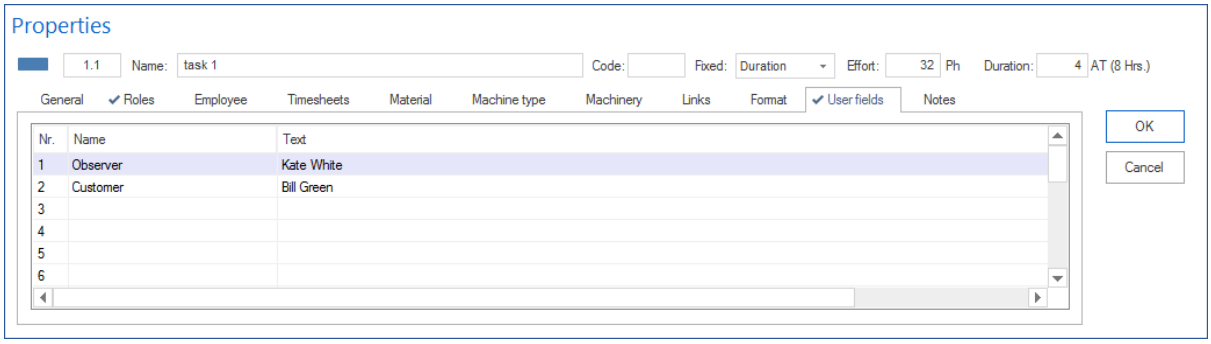
- **Predecessors** — type, number, and name of all predecessors.
- **Successors** — type, number, and name of all successors.
- **Incompatible activities** — activities that may not be carried out at the same time.

Format Tab



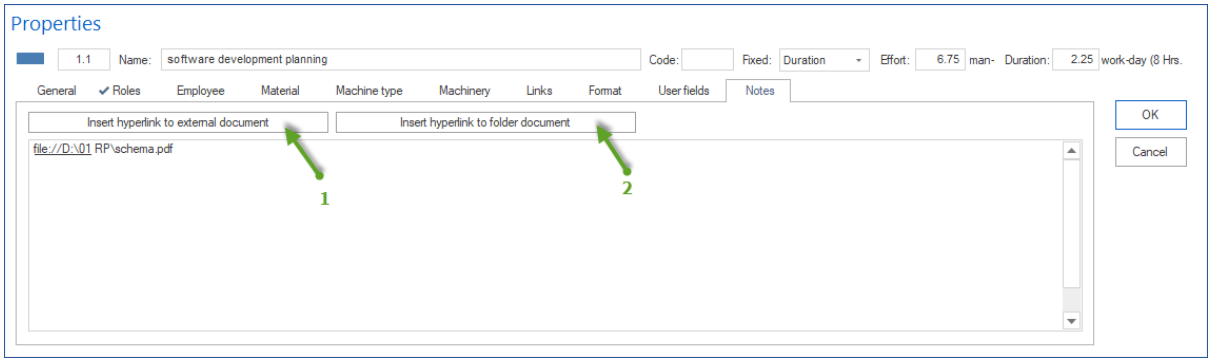
Activity-specific bar labelling (overrides the project format for this activity). Fields: type, position, content — analogous to the Format tab of the project properties.

User-Defined Fields Tab



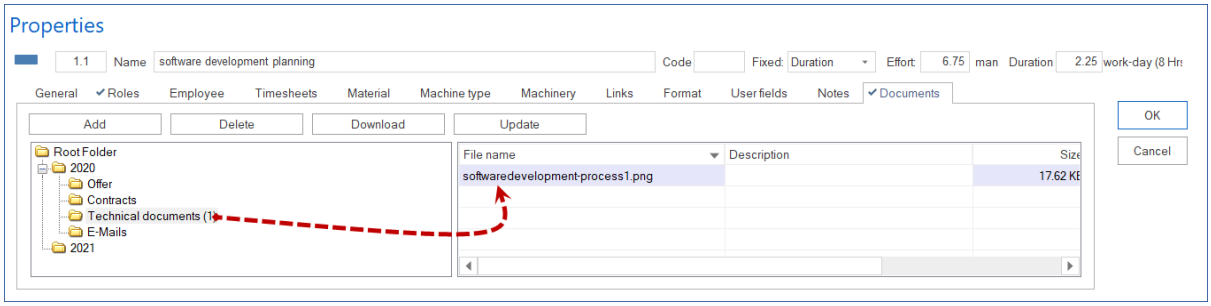
Activity-specific additional fields. Name and text value, as in the project properties.

Notes & Links Tab



Free text, external links (`http://`, `https://`, `file:`, `mailto:`, `ftp://`, `news:`, `telnet:`), and file references for the activity. Buttons for external documents and directories; alternatively the context menu.

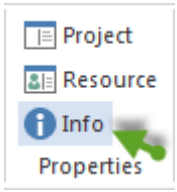
Documents (DMS) Tab



Only with Rillsoft Integration Server. Documents assigned to this activity. Actions: Insert, Delete, Download, Refresh.

Information Dialogs

Open: **Start > Properties > Info**



Shows check views for the current project state:

Tab	Content
Late activities	Activities whose finish is after the cutoff date.
Overallocated resources	Resources with more than 100 % utilisation in a period.
Failed resources	Resources that are scheduled in the project but no longer exist in the resource pool.
Unassigned resources	Activities without a resource assignment.
Partially assigned resources	Activities with role demand that is not fully covered by employees.
Portfolio dashboard	Overview of all projects in the open portfolio with key figures.
Consistency	Logical check of the project plan for contradictions.
Cross-project links	Deviations between released and calculated delays (summary project / portfolio only).

Server Dialogs (Rillsoft Integration Server)

When operating with the Rillsoft Integration Server, the following dialogs are added:

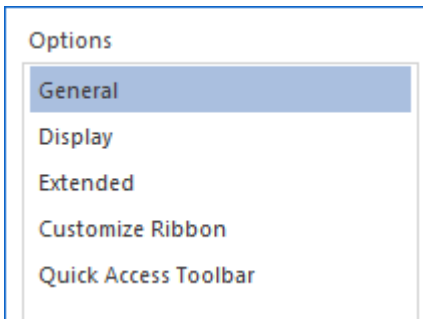
- **Summary project** — list of all summary projects, project assignment, locks, baseline option.
- **Project documents** — central management of all project documents with filter.
- **Cross-project links** — control and release of cross-project dependencies.
- **Select / synchronise resource pool** — comparison and reconciliation of project and pool resources.

Related Topics

- *Project*
- *Activity*
- *Resource*
- *Program Settings (File > Settings)*
- *Synchronize Resources*
- *Integration Server*

13.1.3 Program Settings (File > Settings)

The program settings control the behaviour, the display, and the interface connection of Rillsoft Project. Open the dialog through **File > Settings**.

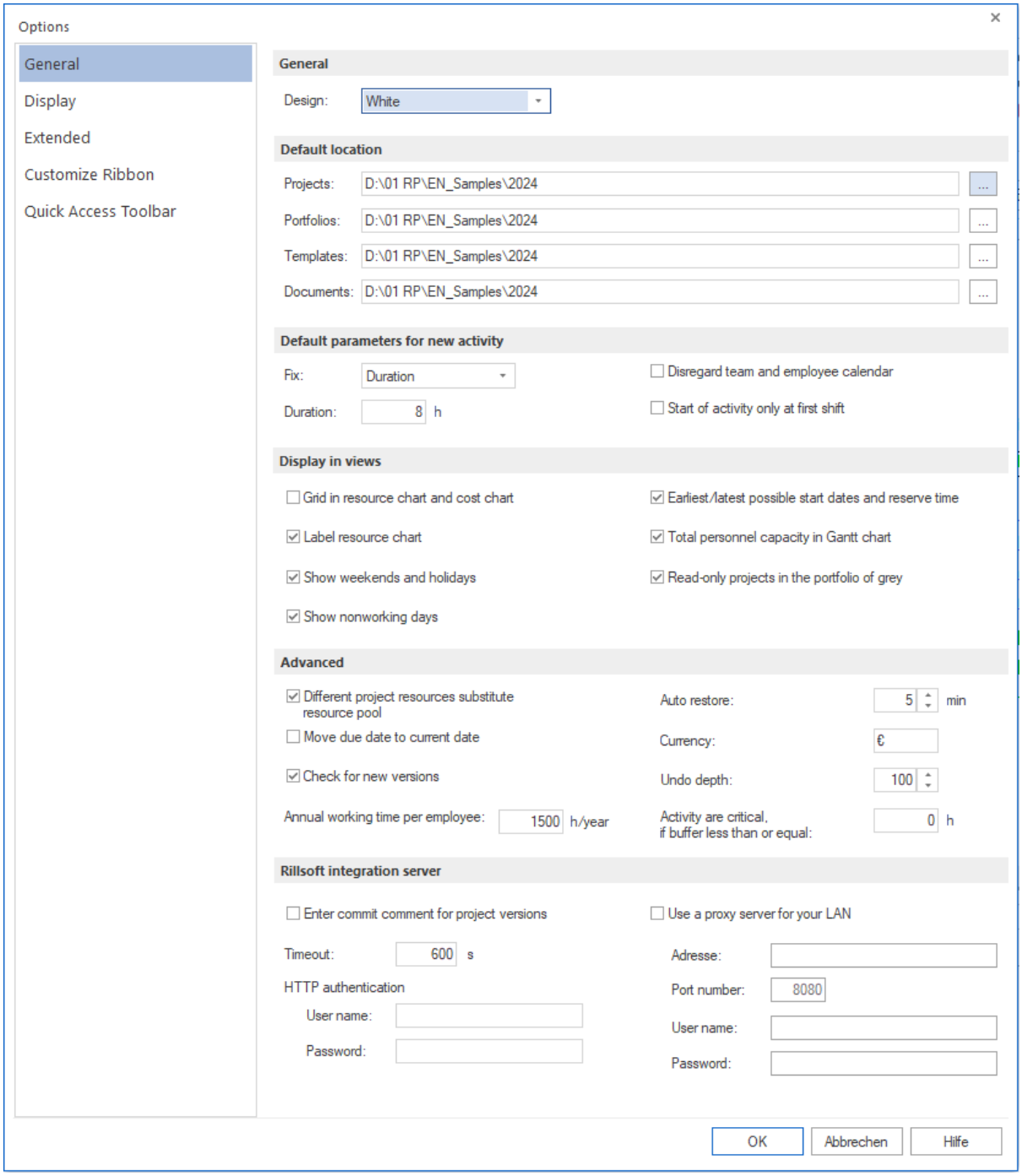


- *General Tab*
- *Display Tab*
- *Views And Properties Tab*
- *MCP Server Tab*
- *Customize Ribbon Tab*
- *Add Quick Access Tab*
- *Copy Settings From The Workplace*
- *Related Topics*

The dialog contains six tabs:

- **General** — default parameters, storage locations, display, advanced options, and project versions
- **Display** — colours, sizes, and fonts for diagrams and tables
- **Views and properties** — visibility of tabs in views and property windows
- **MCP server** — local MCP access for external tools and assistants
- **Customize ribbon** — user-defined tabs and groups in the ribbon
- **Add quick access** — quick access toolbar and keyboard shortcuts

General Tab



Rillsoft theme

Select the colour scheme for the program interface.

Default storage location

Defines default directories for file storage:

Field	Meaning
Projects	Default directory for project files
Portfolios	Default directory for portfolio files
Templates	Default directory for project templates
Documents	Default directory for reports and output documents

Note: With database-based work using Rillsoft Integration Server (RIS), projects are stored in virtual directories in the database. The virtual directory structure is defined in the RIS web interface.

Default parameters for a new activity

Defines how new activities are calculated by default:

Option	Behaviour
Fixed duration	The activity duration stays constant. Effort and resource utilisation are calculated. Recommended when the activity duration is known.
Fixed effort	The effort stays constant. Utilisation and activity duration are calculated. Recommended for qualification-based planning with known effort.
Duration	Default value for the duration of new activities.
Ignore team and employee calendars	Team and employee calendars are ignored for new activities.
Start activity only at the start shift	New activities may only start at the start shift.

Display in views

Controls which elements are visible in Gantt, resource, and cost diagrams:

Option	Effect
Show grid in resource diagram and cost diagram	Shows grid lines in resource and cost diagrams.
Label resource diagram	Labels resource bars with the current utilisation value.
Show weekends and holidays	Highlights weekends and holidays in diagrams.
Show non-working days	Shows employee sickness and vacation in diagrams.
Calculation of free float	Enables automatic calculation of earliest possible start, latest possible finish, and free float on project changes. When disabled, earliest and latest possible start and finish dates are not available in the table.
Total work capacity in the Gantt chart	Displays the total work capacity of all professional qualifications as a line in the resource diagram.
Grey out read-only projects in the portfolio	Shows read-only projects in the portfolio in grey.

Advanced options

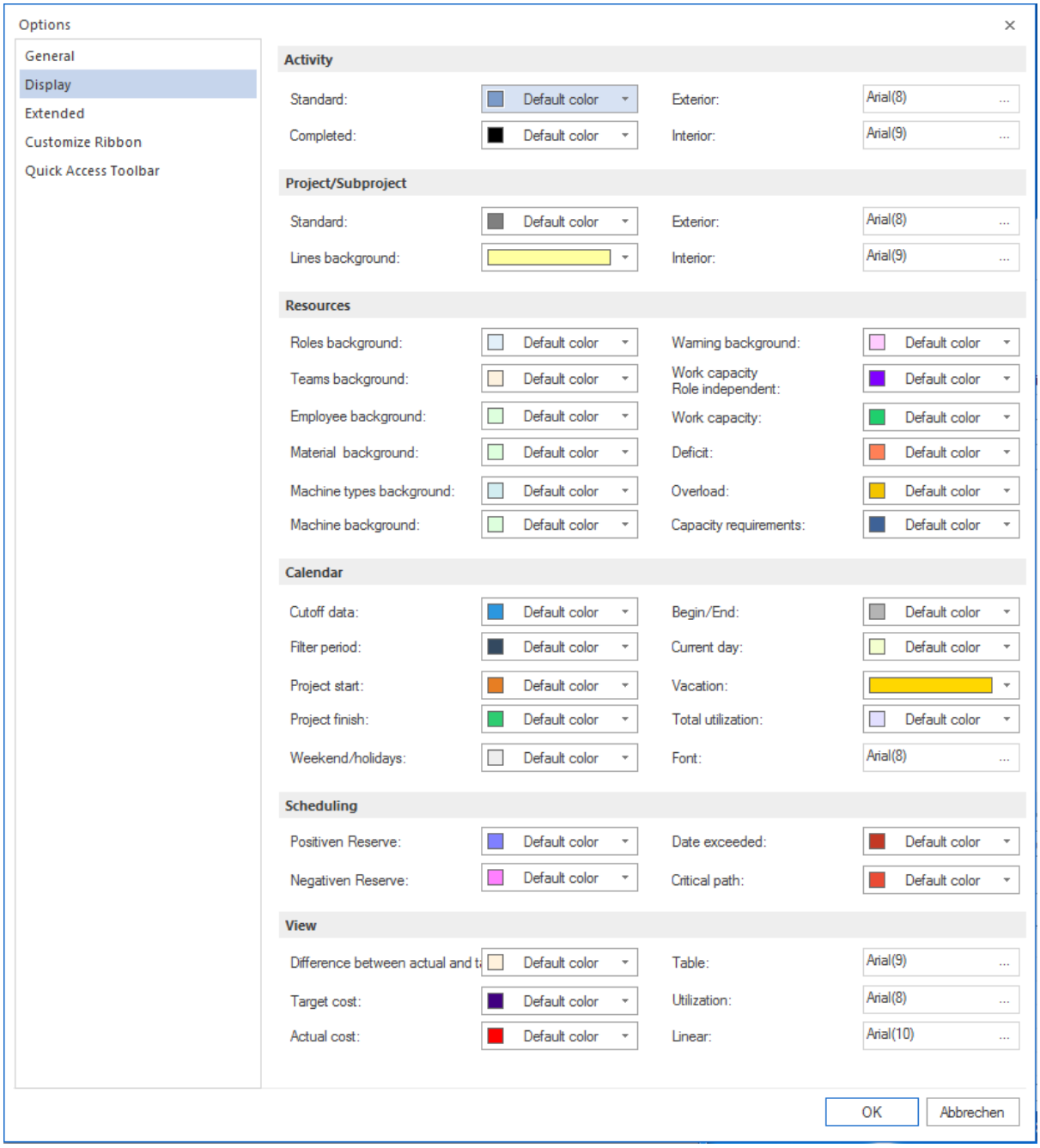
Option	Description
Automatically replace deviating project resources from the resource pool	Projects with deviating resources are automatically switched to the resource pool if the deviation only concerns new non-working days or cost changes. For deep resource differences, a manual switch is required.
Move cutoff date to current date	Automatically sets the cutoff date to the current date when a project is opened.
Auto recovery	Time interval for automatic project backup in minutes.
Check for new version	Checks at program start whether a newer version is available.
Annual working time per employee	Annual working time in hours for calculating the full-time equivalent (FTE) and resource capacity.
Currency	Currency code for cost calculation (for example EUR, USD).
Undo depth	Maximum number of steps that can be undone.
Activities are critical if buffer is less than or equal to	Threshold for classifying activities as critical. An activity is considered critical if its buffer does not exceed this value.

Project Versions

Field	Meaning
Record commit comment for project versions	Enables adding comments to each saved project version.

Note: There is no separate “Integration Server” settings page with RIS credentials and proxy server fields anymore. The connection to the Rillsoft Integration Server is not maintained through the program settings, but through the login dialog when opening a project or portfolio from the RIS (server address, user name, and password).

Display Tab

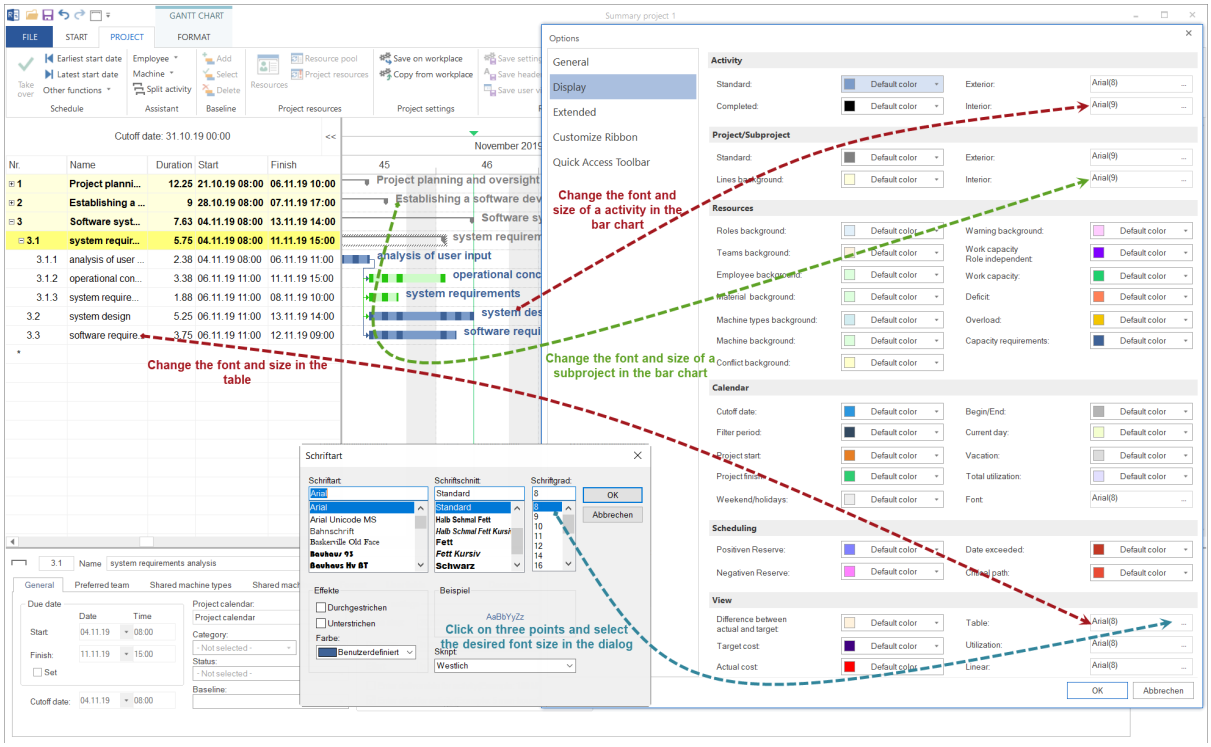


Controls colours and sizes for various display objects in the interface.

View

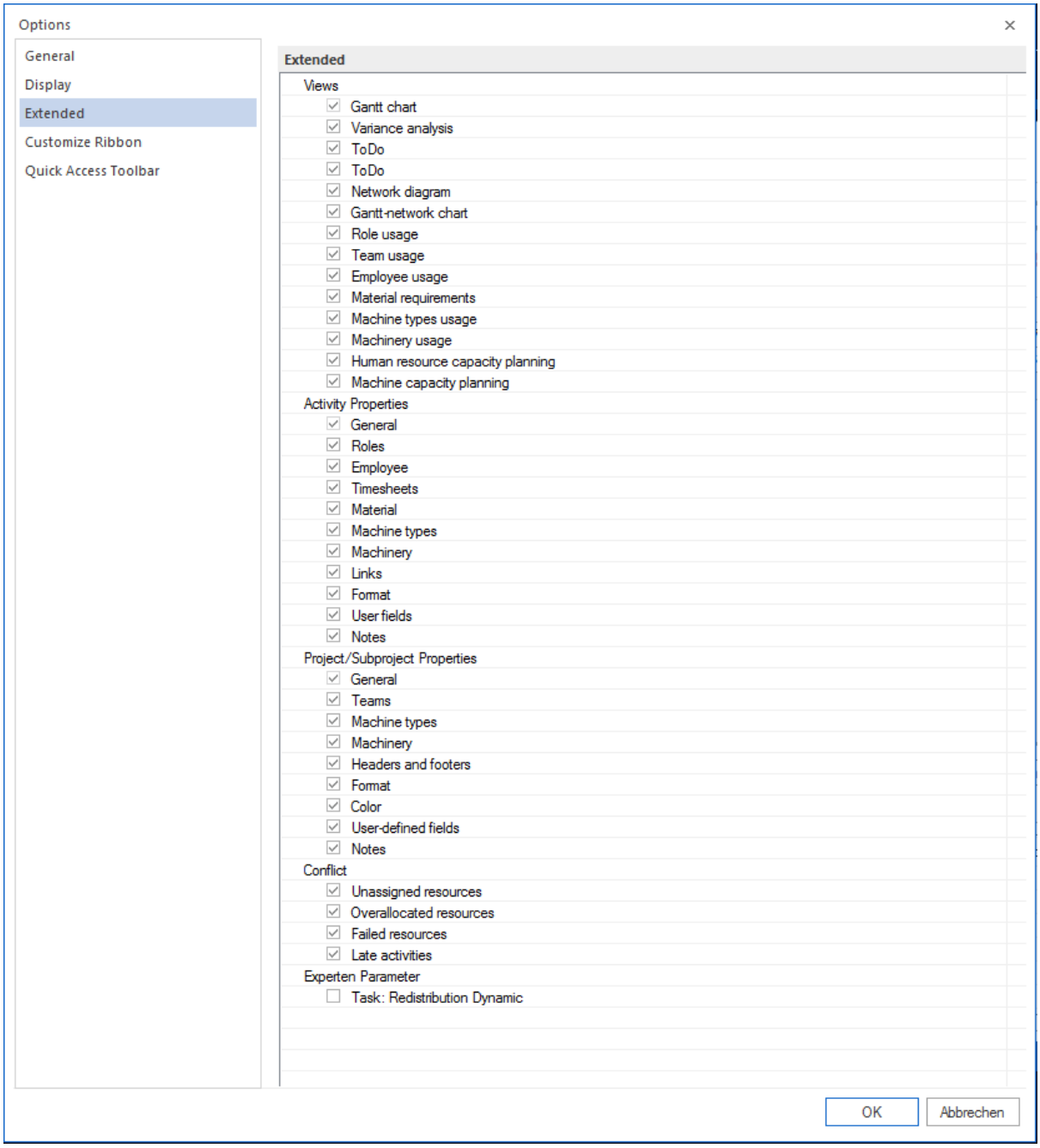
- **Ruler** — font size for the ruler in resource and bar diagrams on the left.

Change font and font size



You can adjust the font and font size separately for diagram areas and table areas. Click **File > Settings > Display** and select the desired options for font and font size.

Views And Properties Tab



Controls which tabs are shown in views and property windows:

Area	Meaning
Views	Selection of the views available in the view selection.
Activity properties	Tabs shown in the upper area of the activity properties window.
Project/subproject properties	Tabs shown in the upper area of the project properties window.
Conflict	Tabs shown in the upper area of the information window (info panel).

Tabs that are not needed can be hidden to reduce the interface to the essentials.

MCP Server Tab

Controls the local MCP server of Rillsoft Project. External tools and assistants can use this server to access Rillsoft Project functions when access is enabled in the program settings.

Server

Option	Meaning
Enable MCP server	Turns the local MCP server on or off.
Port	Defines the local port. Port **3928** is used by default.
Server address	The server can only be reached on this computer (**127.0.0.1**). The local address is shown in the dialog, for example **http://127.0.0.1:3928/mcp**.

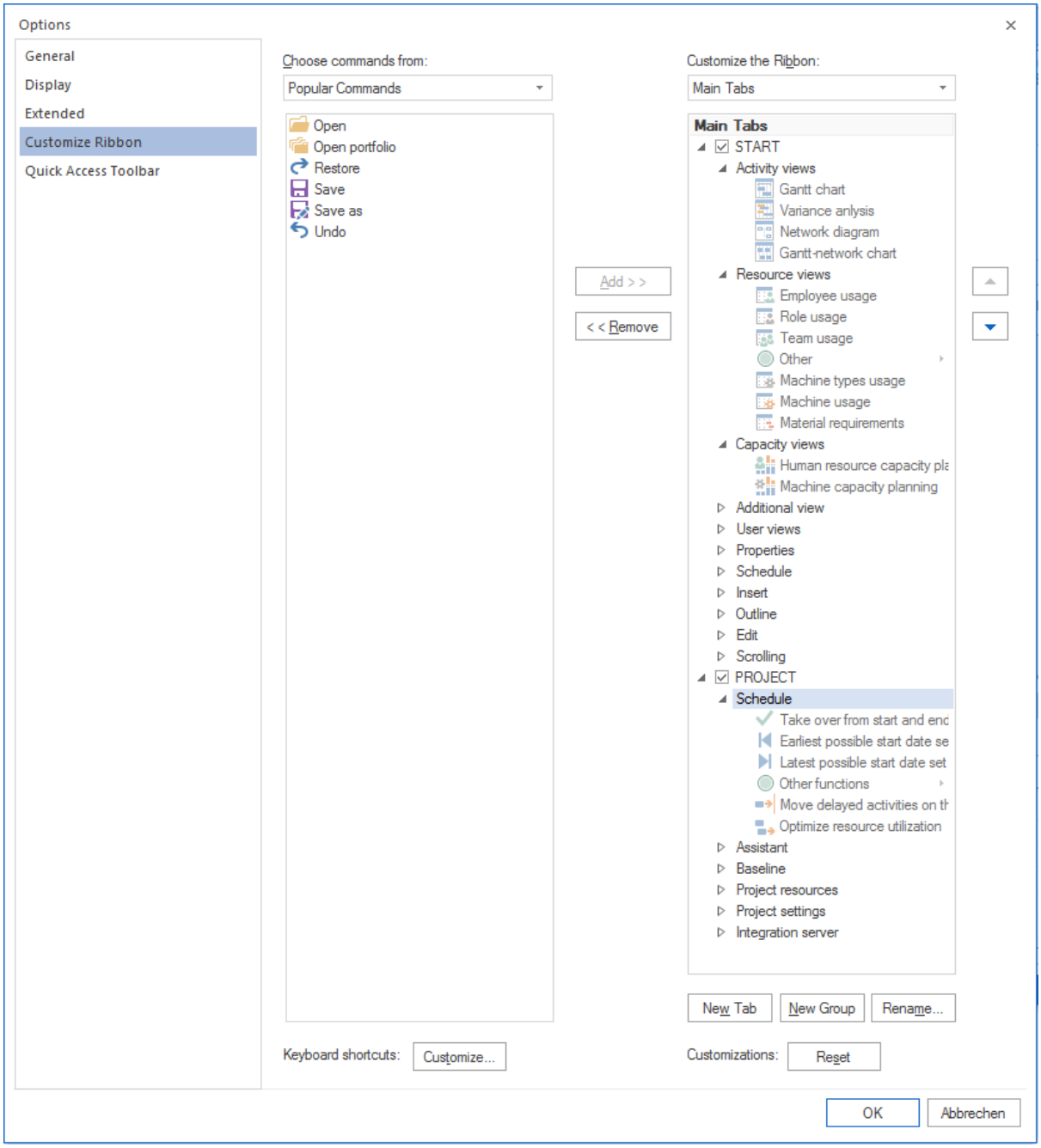
Access

Option	Meaning
Read-only access	Restricts MCP access to read operations.
API key	Optional access key for multi-user or terminal server environments. If the field is left empty, no key is used.
Generate new	Creates a new API key.

Note

The MCP server is intended for local access and runs on the port specified in the settings.

Customize Ribbon Tab

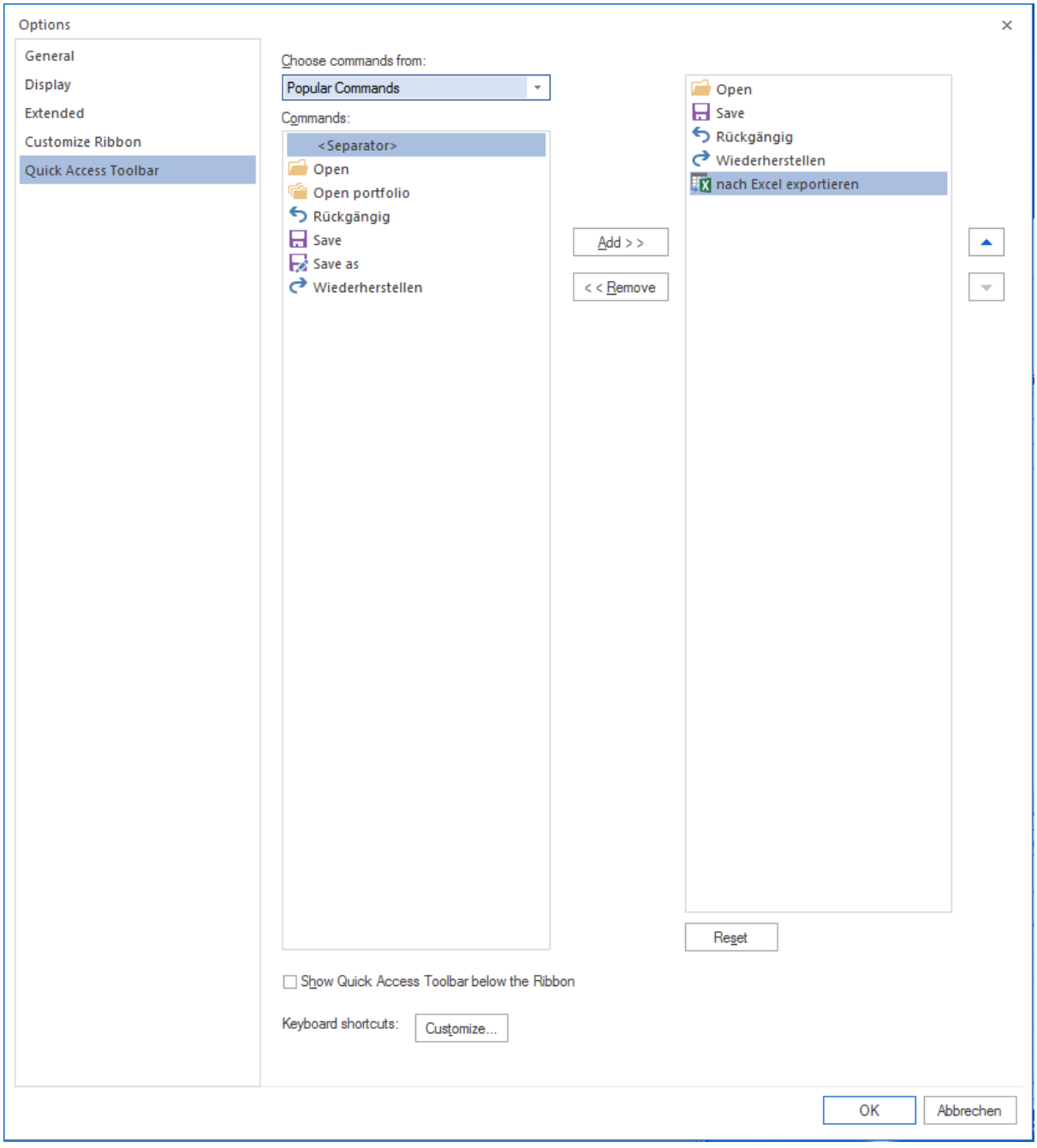


Allows the individual design of the ribbon:

- create user-defined tabs
- create user-defined groups within tabs
- combine frequently used commands in your own groups

Predefined tabs and groups are retained. User-defined elements are added in addition.

Add Quick Access Tab



Customises the quick access toolbar:

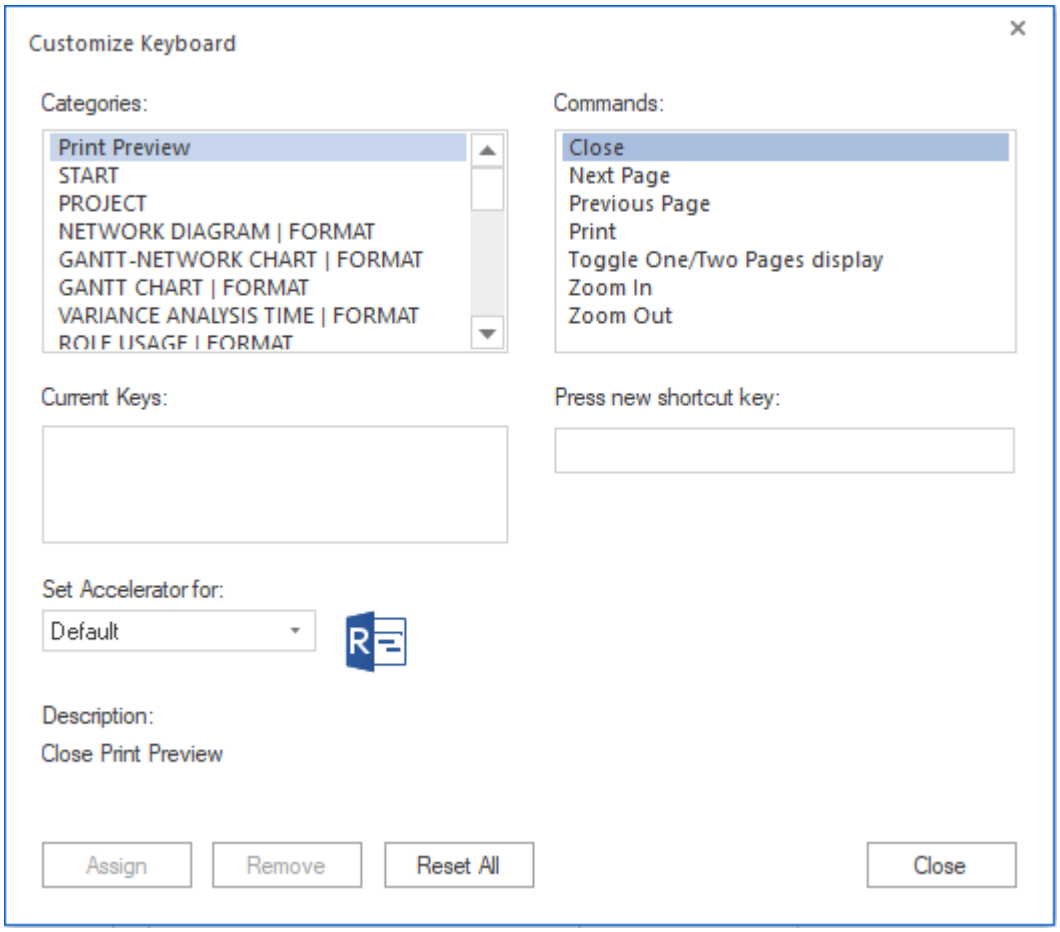
- add buttons for frequently used commands
- choose the position of the toolbar: **above** or **below** the ribbon

Note

Only commands can be added to the quick access toolbar. Other elements (gal-

leries, input fields) are not available.

Customize keyboard shortcuts



Custom keyboard shortcuts can be defined for frequently used commands.

Copy Settings From The Workplace

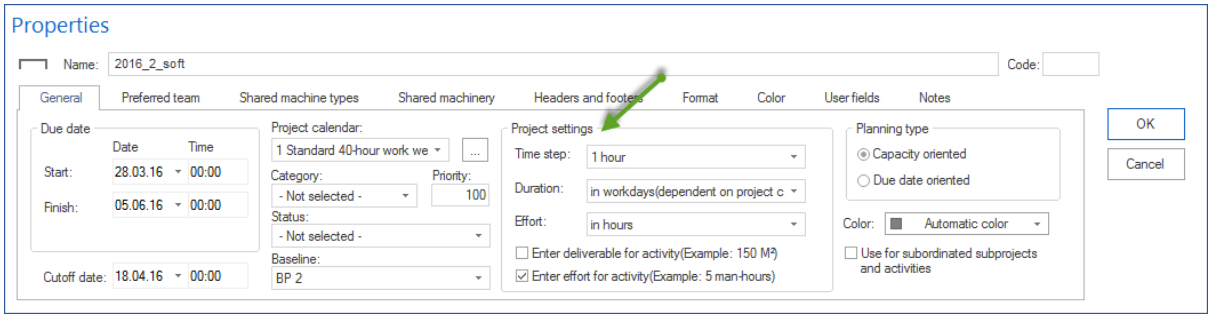
Independently of the program settings under **File > Settings**, you can save project-related default settings on the workplace and transfer them to other projects.

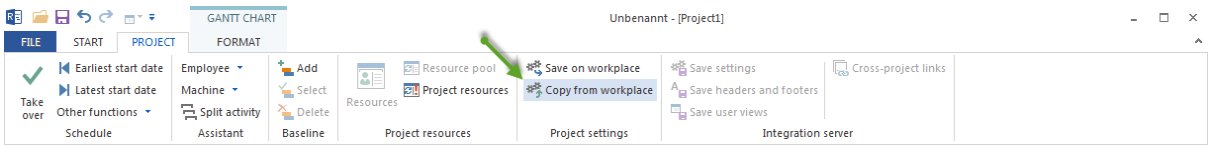
The following settings can be saved on the workplace and used as defaults for other projects:

- project properties, for example time units for duration and effort
- column layout in tables
- timescale display

Project properties are defined in the object properties window.

If the settings were saved on the workplace before, apply them to an open project with **Project > Project settings > Copy from workplace**.



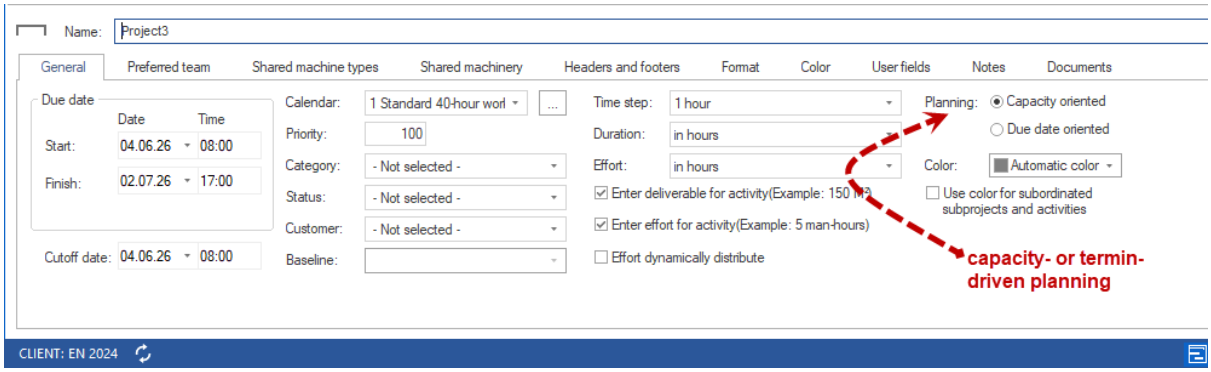


Related Topics

- *Dialogs*
- *Menu Commands*
- *Synchronize Resources*
- *Manage a Summary Project*

13.1.4 Options

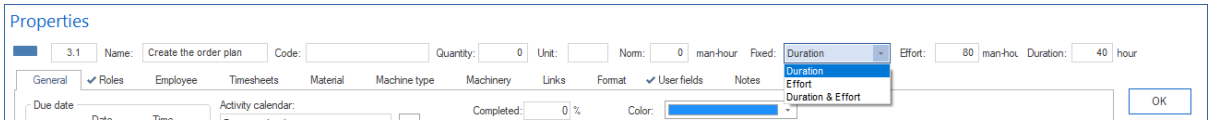
Options influence calculation, display, filtering, and output. Set them deliberately because they can change schedules, capacity results, or report presentation.



Planning Options

Important options include:

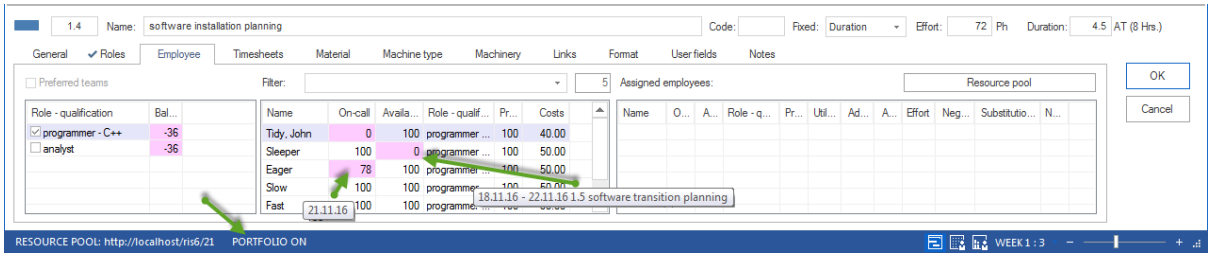
- capacity-oriented or due-date-oriented planning
- fixed duration, fixed effort, or fixed duration and effort
- forward or backward scheduling
- fixed dates
- set a milestone
- cutoff date for progress evaluation



Resource Options

Important options include:

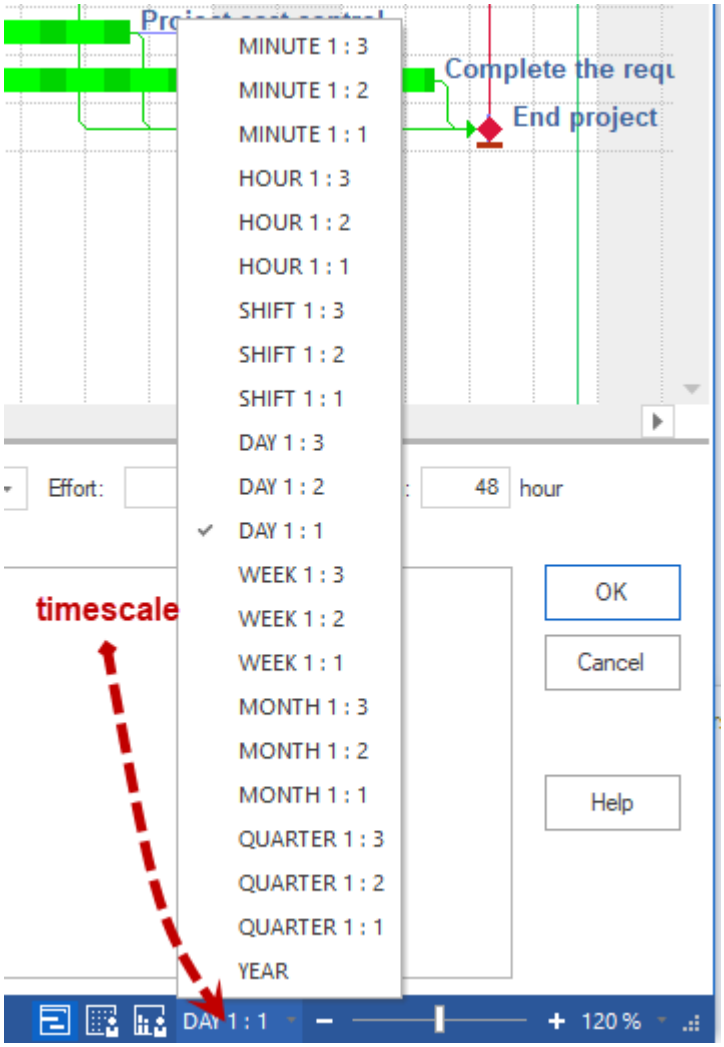
- offer only already planned resources for selection
- consider preferred teams
- show only used resources
- utilisation and effort per assignment
- calendars, non-working days, and employee availability



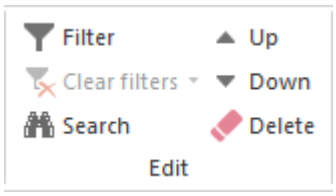
View Options

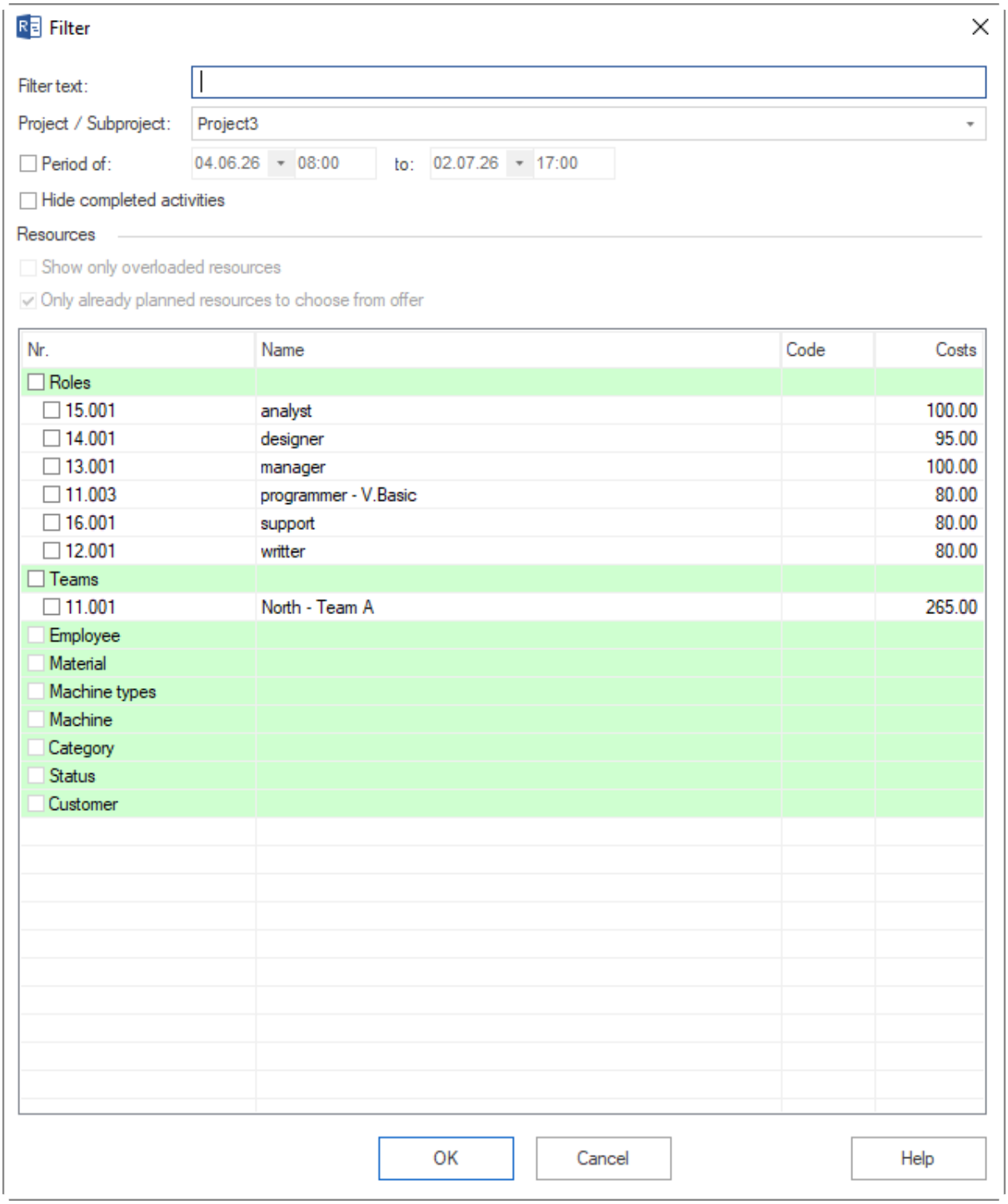
Important options include:

- timescale

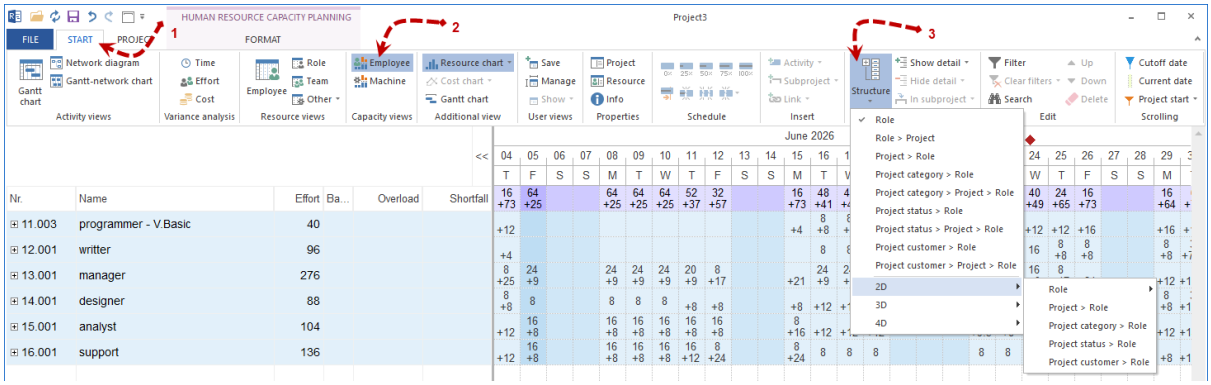

MINUTE 1 : 3
MINUTE 1 : 2
MINUTE 1 : 1
HOUR 1 : 3
HOUR 1 : 2
HOUR 1 : 1
SHIFT 1 : 3
SHIFT 1 : 2
SHIFT 1 : 1
DAY 1 : 3
DAY 1 : 2
DAY 1 : 1
WEEK 1 : 3
WEEK 1 : 2
WEEK 1 : 1
MONTH 1 : 3
MONTH 1 : 2
MONTH 1 : 1
QUARTER 1 : 3
QUARTER 1 : 2
QUARTER 1 : 1
YEAR
Complete the requ
End project
Effort:
48
hour
timescale
OK
Cancel
Help
120 %

- filters

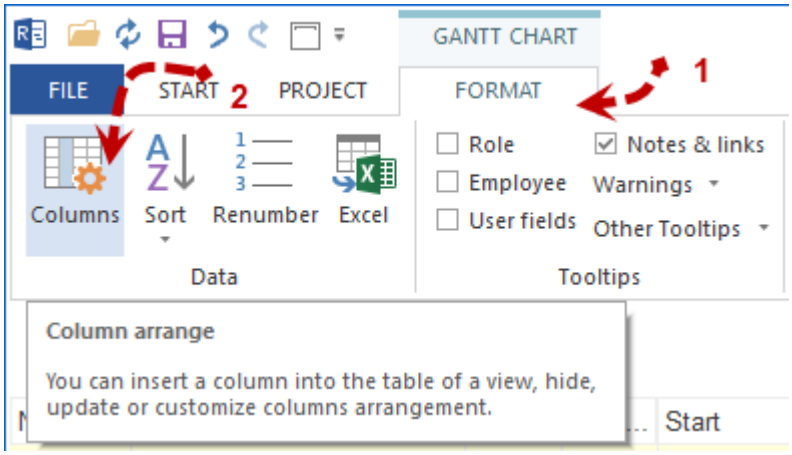

Filter
Up
Clear filters
Down
Search
Delete
Edit



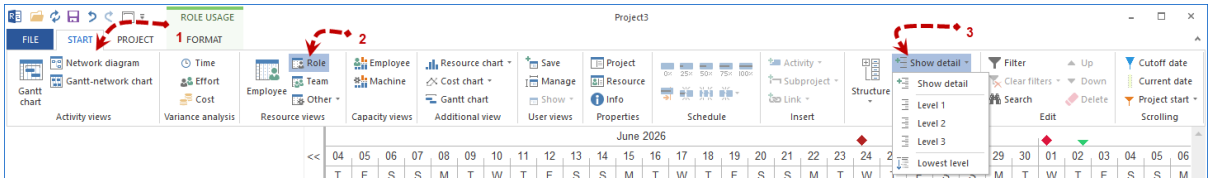
- grouping by employee, role, team, or project



- column selection



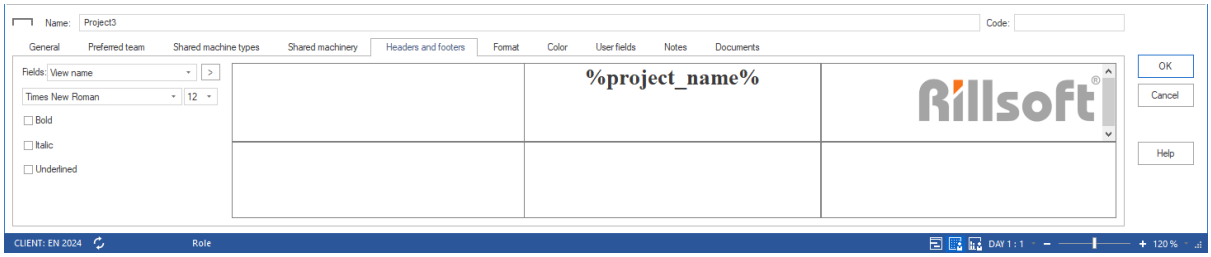
- outline detail level



Print And Output Options

Important options include:

- header and footer



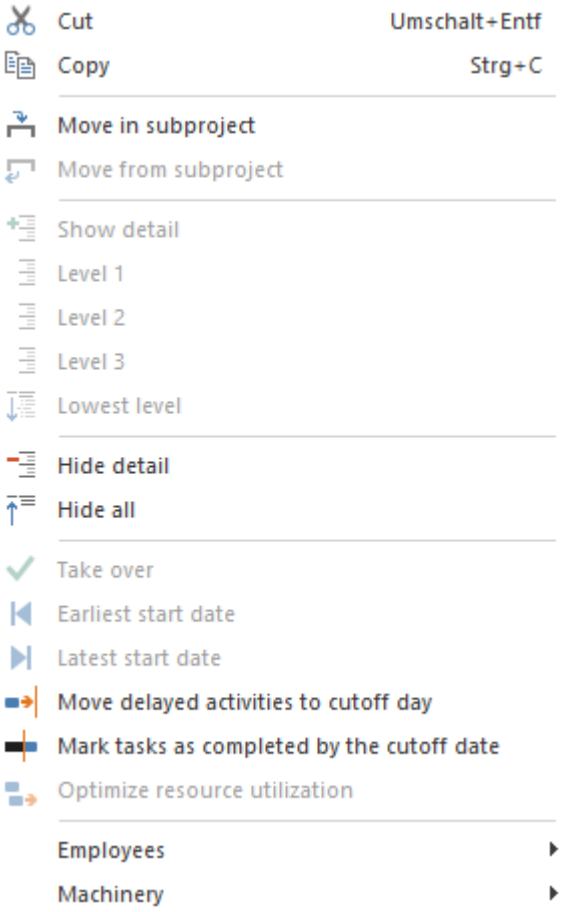
- print area
- font and display
- PDF printer
- Excel output of the current view

Related Topics

- *Views*
- *Customize Views: Filters, Format, Custom Views*
- *Print And Output*

13.1.5 Context Menus

Context menus provide commands that match the active view and selected object. They are useful for fast editing in the Gantt chart, network diagram, Gantt-network chart, and resource views.

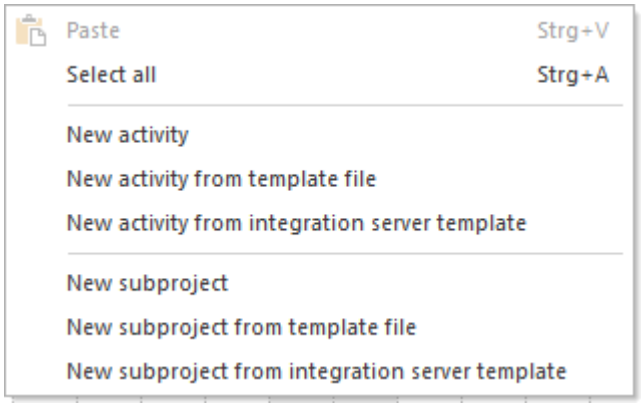


Gantt Chart

Typical commands:

- create a new activity
- create a new subproject
- insert an activity or subproject from a template
- cut, copy, and paste
- open properties
- edit or delete links

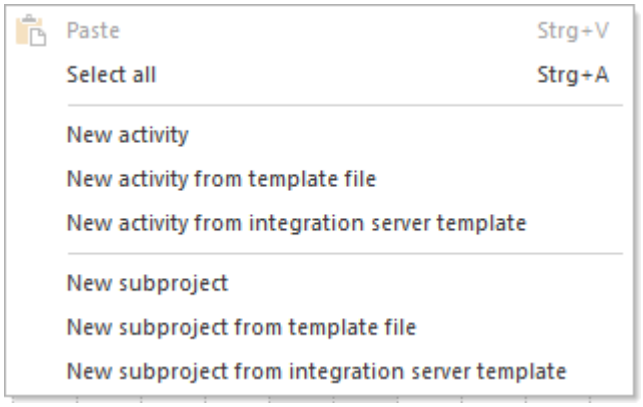
- optimise resource utilisation for a subproject



Network And Gantt-Network Chart

Typical commands:

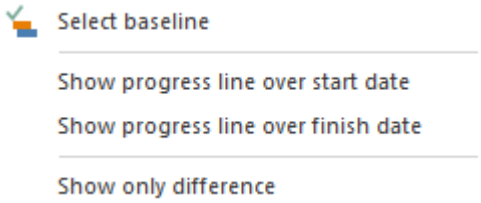
- create and edit activities
- create and edit subprojects
- expand or collapse outline levels
- use dates from contained activities
- set earliest or latest possible start dates
- create or delete links



Target/Actual Comparison

Typical context commands:

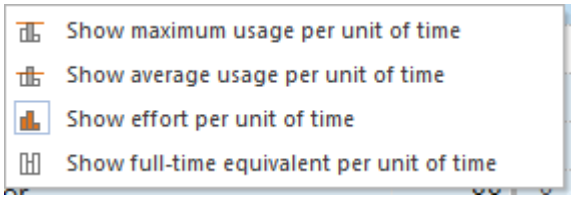
- Show progress line for start dates
- Show progress line for finish dates
- Show only differences



Resource Views

Typical commands for displaying resource utilization:

- Show maximum usage per unit of time
- Show average usage per unit of time
- Show effort per unit of time
- Show full-time equivalent per unit of time



Integration Server

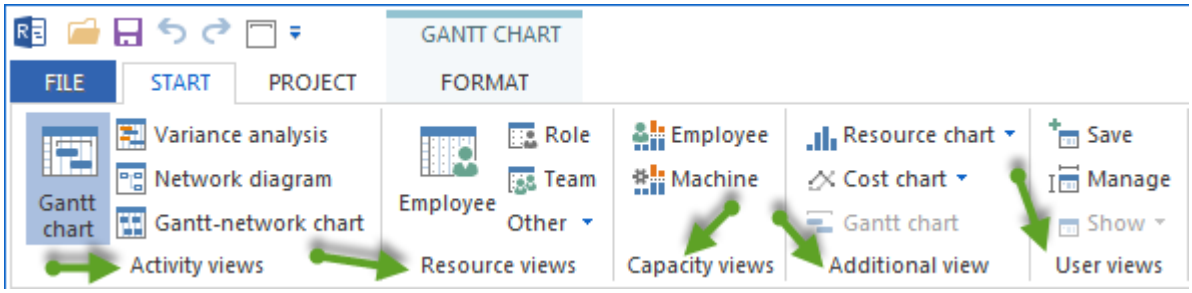
In server operation, additional context commands may be available, for example templates from Integration Server or functions for cross-project links.

Related Topics

- *Views*
- *Templates*
- *Integration Server*

13.1.6 Views

Views determine which project data is visible and how it is evaluated. Rillsoft Project connects scheduling, resource planning, capacity planning, and project controlling through several view types.



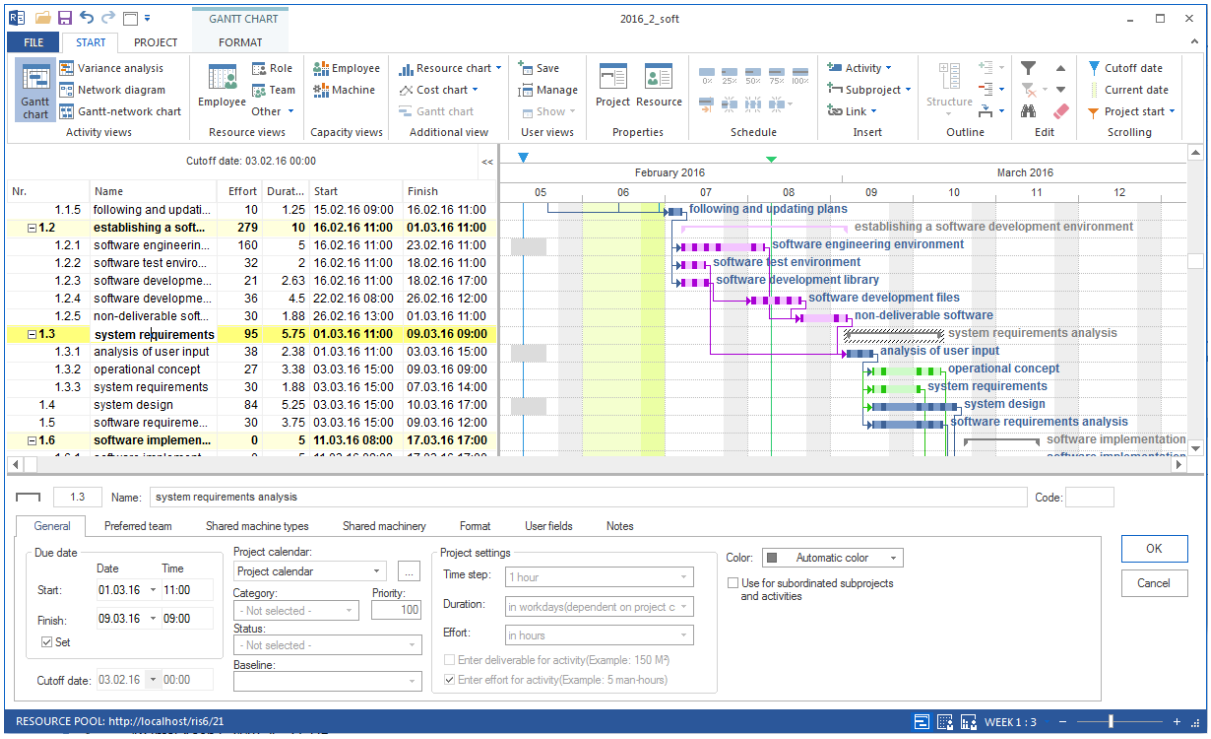
- *Activity Views*
- *Resource Views*
- *Capacity Views*
- *Portfolio Views*
- *Grouping And Filter*
- *Related Topics*

Activity Views

Activity views show dates, structures, and dependencies of activities and subprojects.

Gantt chart

The Gantt chart is the central view for scheduling and project control.



Areas of use:

- visualise the schedule
- display the project structure
- check free float
- check resource utilisation with filter support

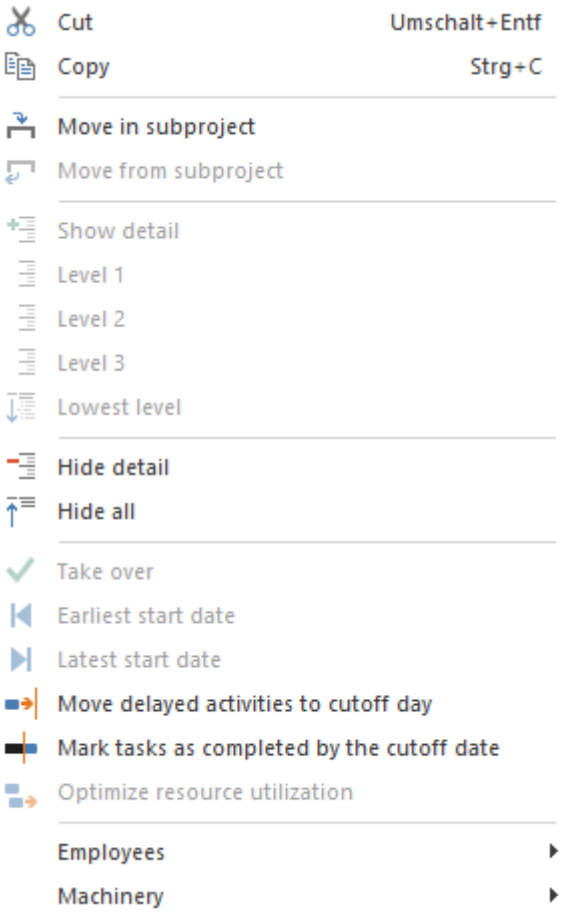
In the Gantt chart you can:

- create and edit activities and subprojects

- link activities (drag the arrow symbol at the bar end)
- edit the project structure via **Start > Outline** (move activities into subprojects, show/hide detail)
- change the timescale
- open the context menu by right-clicking

Context menu — activity table

Right-click an activity in the activity table:



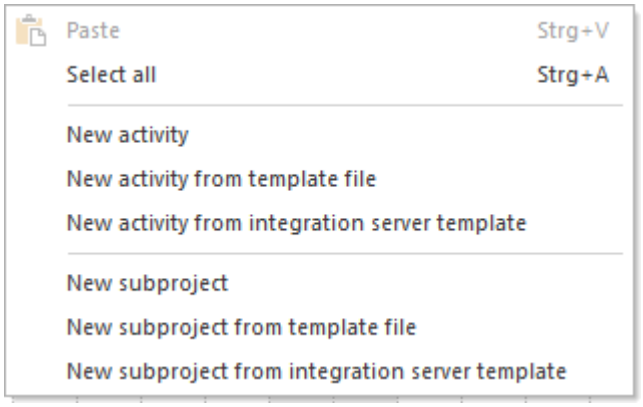
Command	Meaning
Cut	Cut the selected activity.
Copy	Copy the selected activity.
Adjust predecessor activities to the latest possible start date	Move all activities before the selected activity to the latest possible start date.
Adjust successor activities to the earliest possible start date	Move all activities after the selected activity to the earliest possible start date.
Completed	Enter the degree of completion of the activity.
Split	Split the activity into several parts.
Delete incoming/outgoing links	Remove all links of the selected activity.

Right-click a **subproject** in the activity table:

Command	Meaning
Cut / Copy	Cut or copy the subproject.
Show / Hide	Show or hide the detail depth of the subproject down to any outline level.
Adopt start and finish dates from activities	Set the subproject start to the start date of the first activity and the subproject finish to the finish date of the last activity.
Set earliest possible start dates	Move all activities in the subproject to the earliest possible start dates (only active with a fixed start and finish date).
Set latest possible start dates	Move all activities in the subproject to the latest possible start dates (only active with a fixed start and finish date).
Move delayed activities to the cutoff date	Move not-yet-completed activities that lie before the cutoff line to the cutoff date.
Optimise resource utilisation	Calculate an optimal assignment distribution to minimise over- and under-utilisation in the given period.

Context menu — chart area

Right-click the empty area of the Gantt chart:



Command	Meaning
Insert	Insert cut or copied activities / subprojects.
Select all	Select all activities and subprojects.
New activity	Create a new activity at the cursor position.
New activity from file template	Insert a saved file template at the cursor position.
New activity from Integration Server template	Insert an Integration Server template (only when connected to the Rillsoft Integration Server).
New subproject	Create a new subproject at the cursor position.
New subproject from file template	Insert a saved subproject template.
New subproject from Integration Server template	Insert an Integration Server template for subprojects (only with Integration Server).

Network diagram

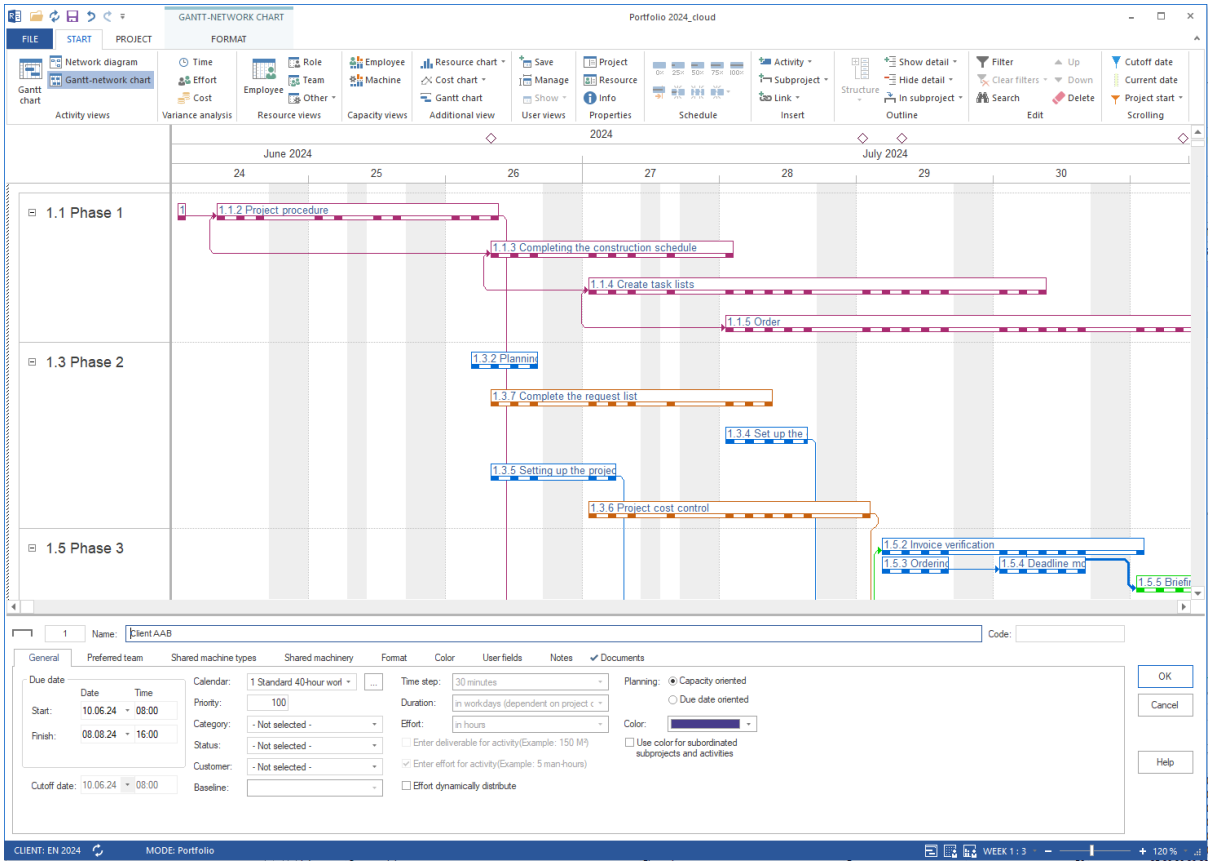
The network diagram shows the technological dependencies between activities as a node diagram.

Areas of use:

- display the logical structure and dependencies without a timescale
- visualise the critical path and buffers
- edit links directly

In the network diagram you can create and edit activities and subprojects and link activities. The subproject and chart-area context menus offer the same commands as in the Gantt chart.

Gantt-network chart

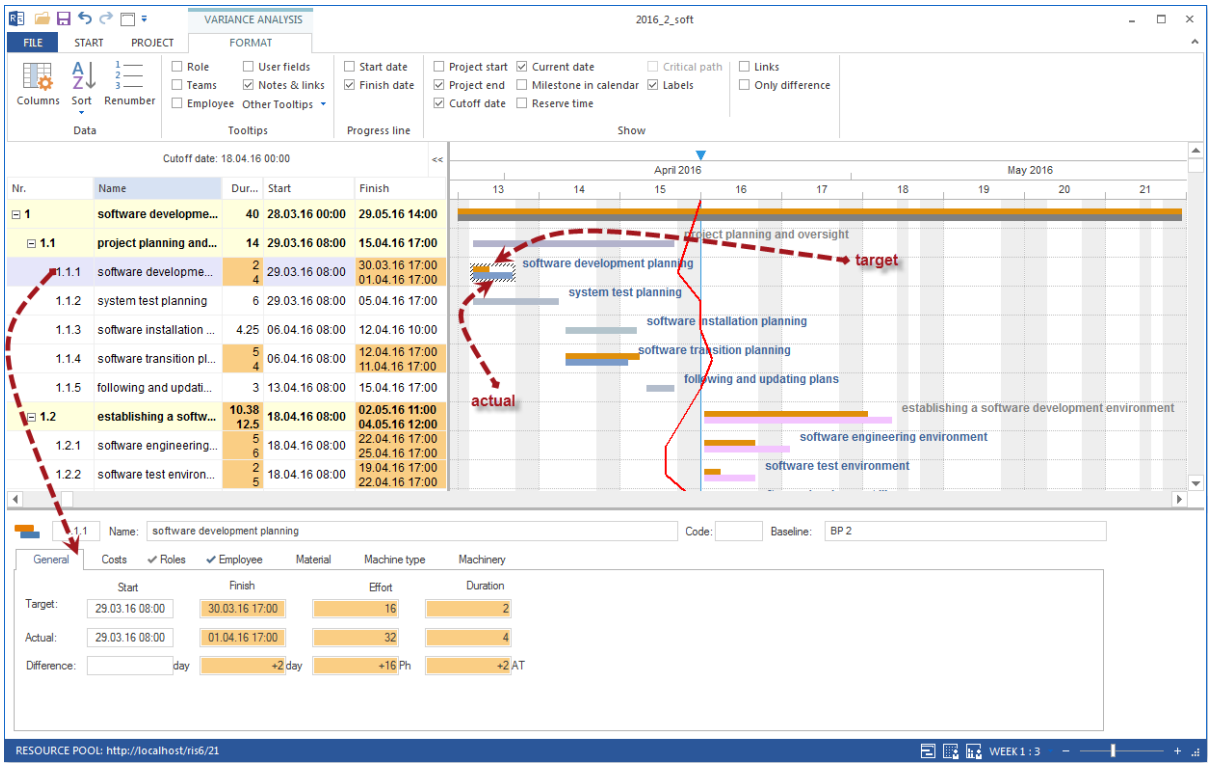


The Gantt-network chart combines the time axis of the Gantt chart with the link arrows of the network diagram.

Areas of use:

- make the time position and dependencies visible at the same time
- highlight the critical path

Variance analysis (target/actual comparison)

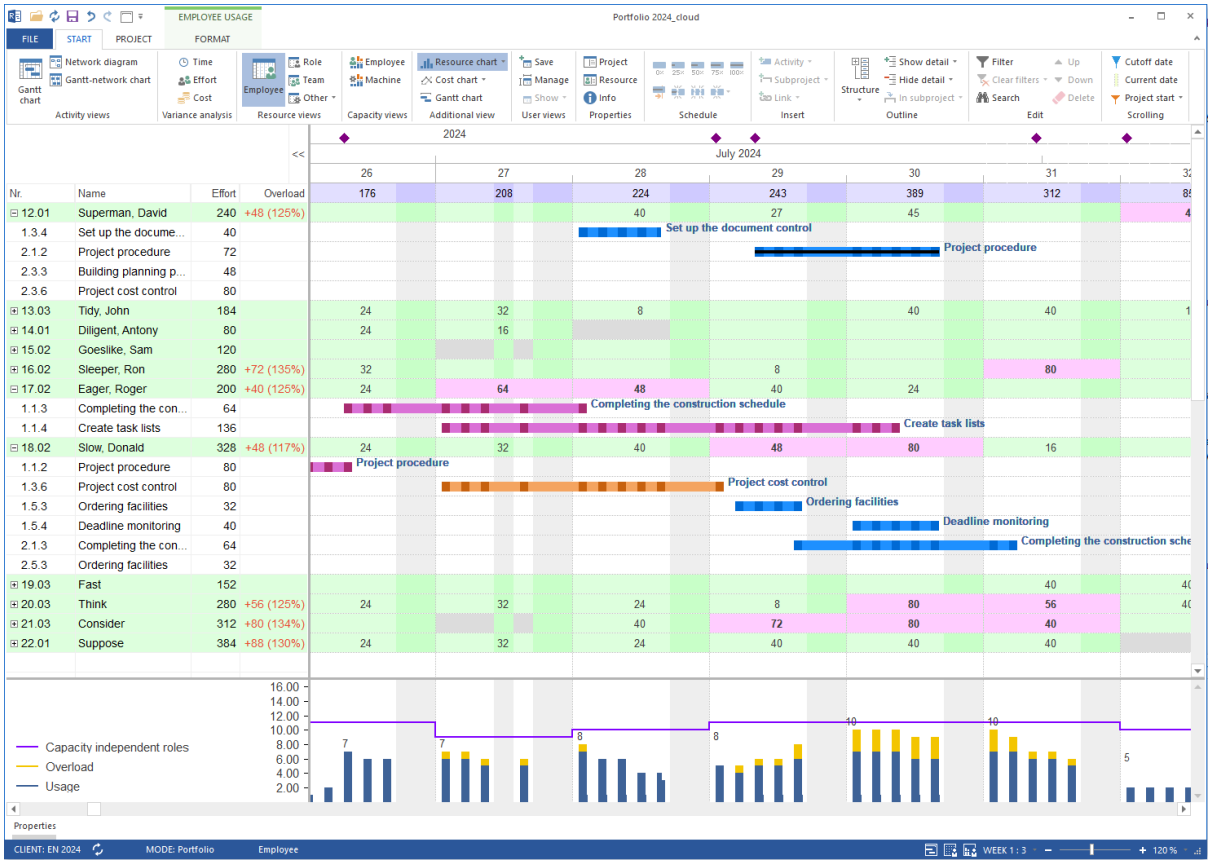


The target/actual views overlay the current plan with the saved baseline and show time, effort, and cost deviations. Full reference: *Target/Actual Comparison Views*.

Resource Views

Resource views show the utilisation and assignment of all resource types.

- **Employee** — utilisation of individual employees
- **Role** — demand and coverage by professional qualification
- **Team** — team utilisation
- **Material demand** — consumption of material resources
- **Machine type** — utilisation per machine type
- **Machinery** — utilisation of individual machines

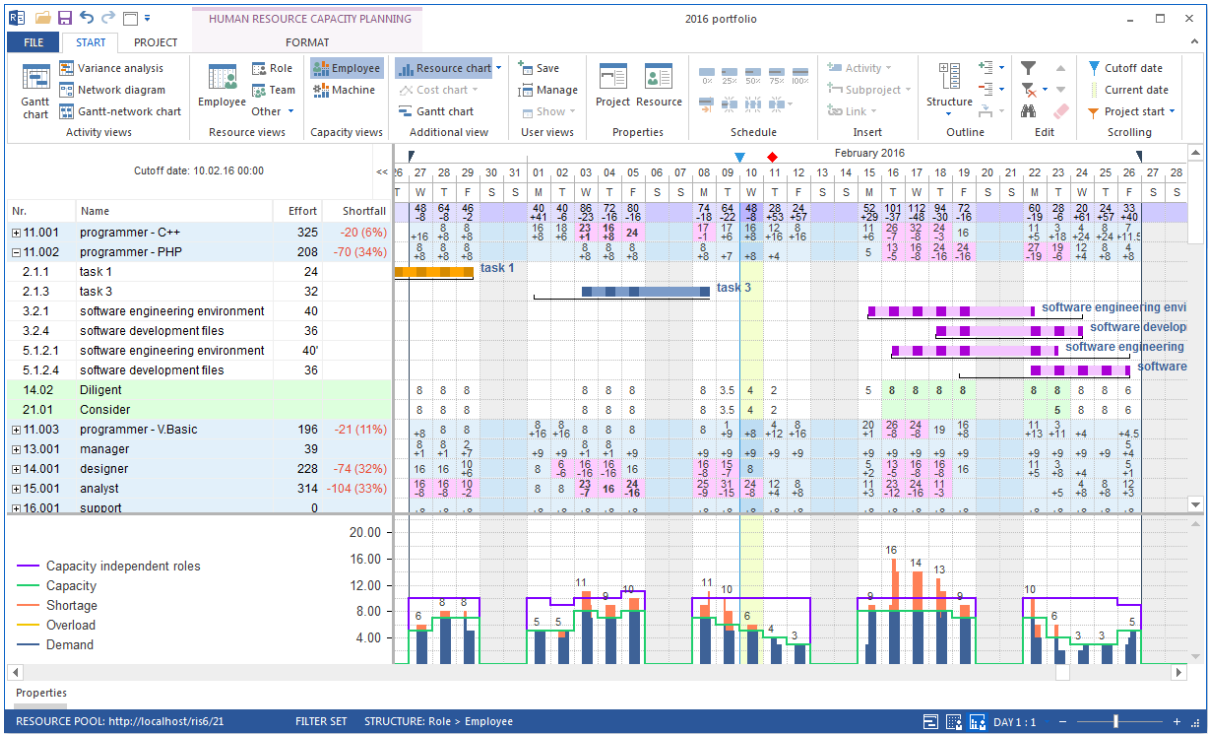


Full reference: *Resource View Variants*.

Capacity Views

Capacity views compare demand (roles) with available capacity.

- **Capacity balancing employees** — coverage check per qualification
- **Capacity balancing machines** — coverage check for equipment
- **Role utilisation** — standard view and variants (effort, FTE, per project)
- **Team utilisation** — standard and per project
- **Employee utilisation by project**



Full reference: *Capacity View Variants*.

Portfolio Views

In the project portfolio, the same views as in a single project are available: Gantt chart, capacity balancing, role utilisation, employee views, target/actual comparison.

In addition, the **portfolio dashboard** shows a compact status of all portfolio projects with dates, progress, and resource status. Full reference: *Portfolio View*.

Grouping And Filter

Many views can be grouped and filtered:

- **Grouping** (Start > Outline > Grouping): group the view by criteria such as project, role, team, employee, machine type, or category.
- **Filter**: restrict the view to specific resources, periods, or status.
- **Timescale**: choose the granularity (day, week, month, quarter).

Full reference: *Customize Views: Filters, Format, Custom Views*.

Related Topics

- *Customize Views: Filters, Format, Custom Views*
- *Portfolio View*
- *Group Resource Views*
- *Portfolio Analysis*
- *Perform Target/Actual Comparison*

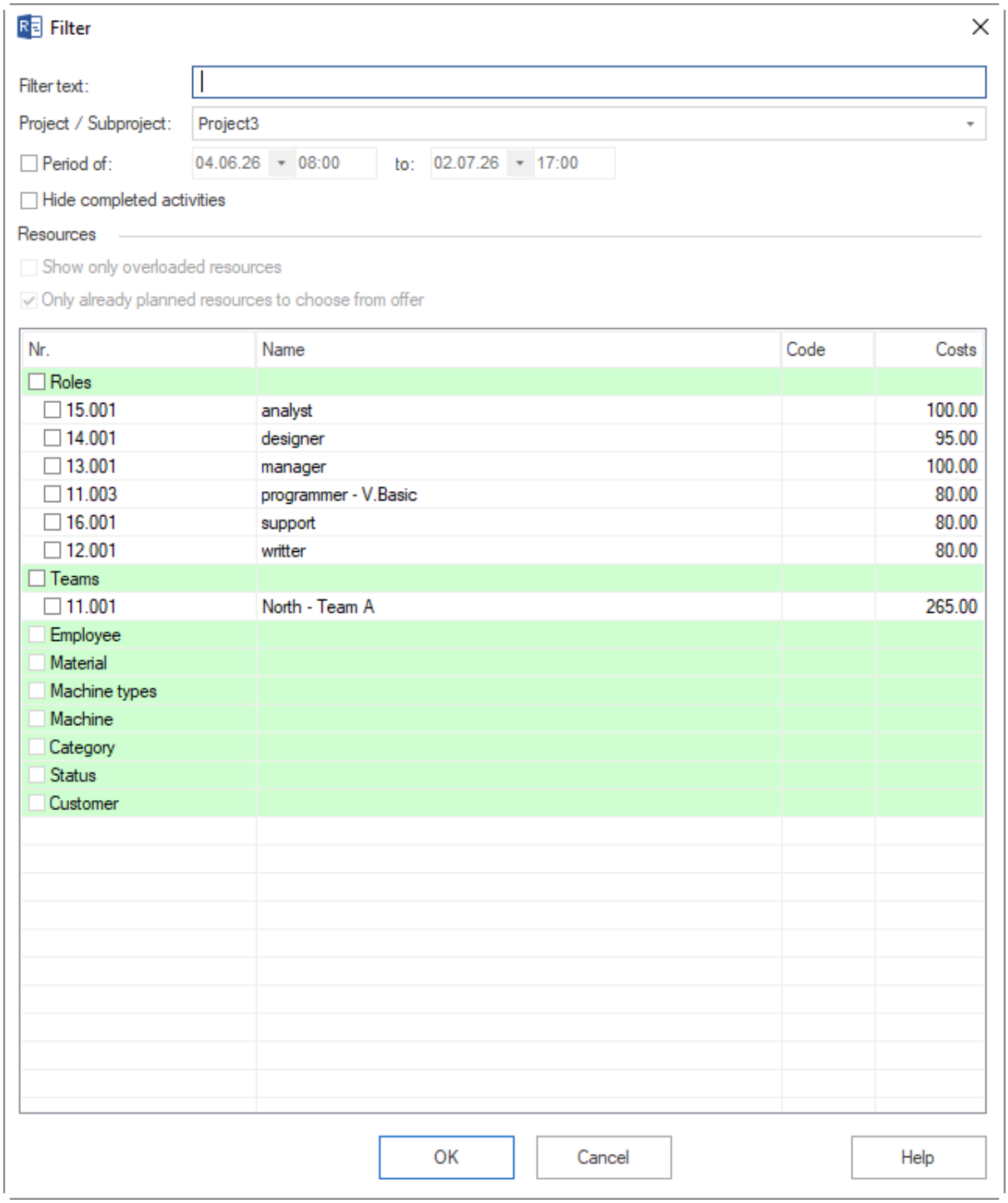
13.1.7 Customize Views: Filters, Format, Custom Views

This page describes how views in Rillsoft Project are filtered, formatted, combined with additional diagrams, and saved as custom views.

- *Filters*
- *Search*
- *Format Tab*
- *Custom Views*
- *Related Topics*

Filters

Filters control which activities, subprojects, and resources are visible in a view. The filter is opened via **Start > Edit > Filter**.



Select the desired filter options in the dialog and confirm with **OK**.

Free-text filter

Filters all views (except network diagram / bar network diagram) by:

- activity and subproject names
- code
- user-defined fields
- notes

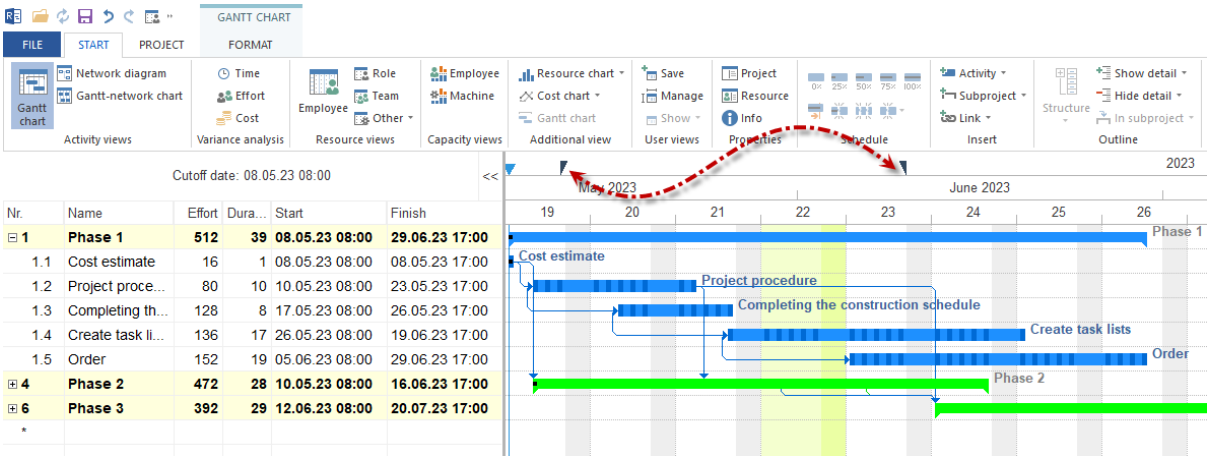
Search criteria can be combined, for example activity name and notes at the same time.

Subproject filter (project / subproject filter)

Shows activities and resources only for specific projects or subprojects. Usable in all views when subprojects are defined.

Reporting period filter (time filter)

Restricts the display to a specific period. Usable in: Gantt chart, target/actual comparison views, all resource views.



Alternatively: drag a period on the timescale with the left mouse button.

Hide completed activities

Hides finished activities. Usable in: bar chart, resource views.

In **capacity views** this filter causes resources from completed activities to be counted as free capacity.

Resource filter

Filter	Usable in
Show only overloaded resources Offer only already planned resources for selection	Resource views Employee, Machinery Role utilisation, team utilisation, employee utilisation, capacity balancing employees, material, machine types, machinery, capacity balancing machines

Note

In capacity views this filter refers primarily to roles. When the option is enabled, only roles that are already scheduled in the project or portfolio are shown.

Resource type filter

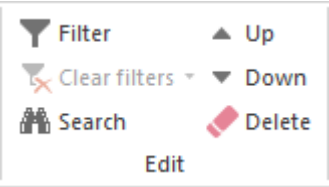
Filter	Usable in
Role filter	Bar chart, role utilisation
Team filter	Bar chart, team utilisation
Employee filter	Bar chart, resource views, capacity views
Material filter	Bar chart, material demand
Machine type filter	Bar chart, machine types view
Machinery filter	Bar chart, machinery view

Project master data filter

Filter	Usable in
Project categories	Bar chart, resource and capacity views (portfolio)
Project status	Bar chart, resource and capacity views (portfolio)
Project customers	Bar chart, resource and capacity views (portfolio)

Search

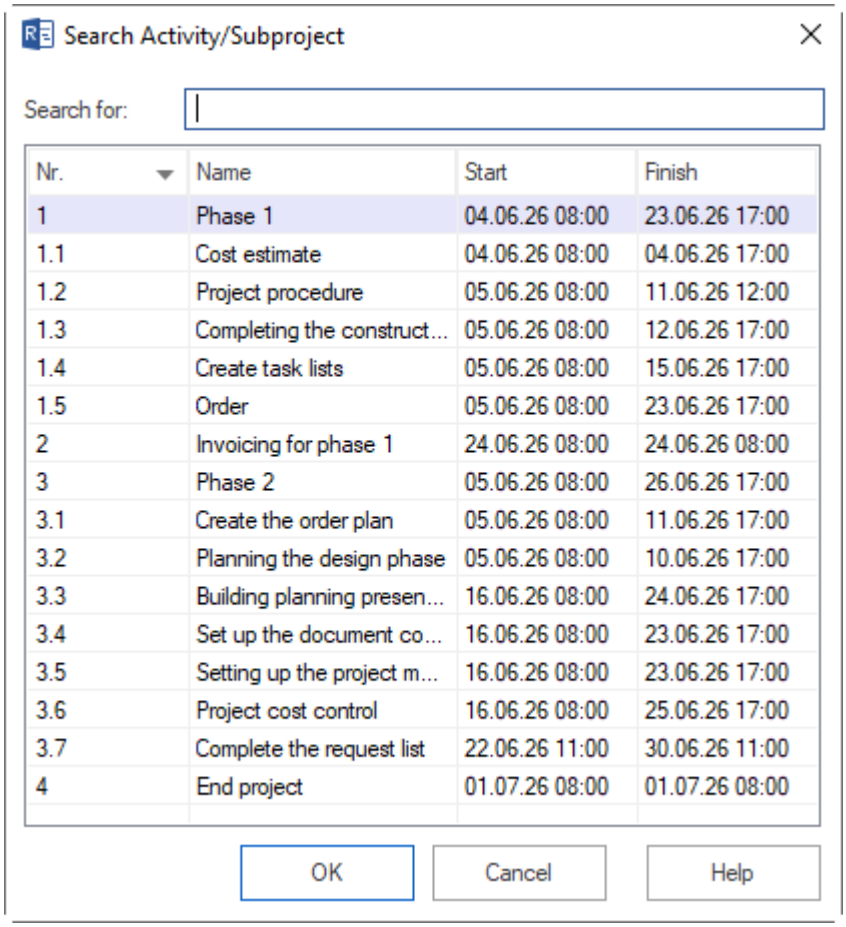
The search is opened via **Start > Edit > Search**.



In the **Search** dialog you can define criteria for the following fields:

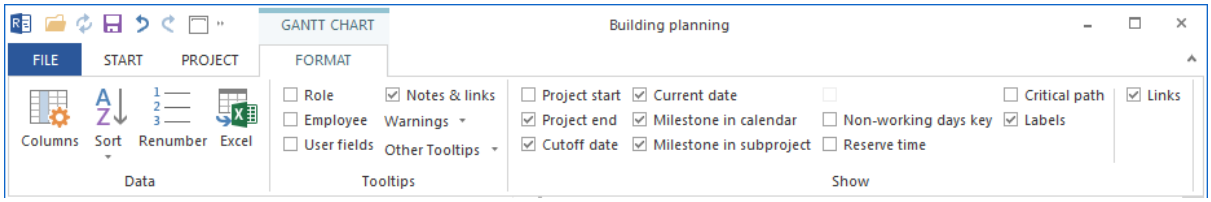
- activity and subproject names
- code
- user-defined fields
- notes

Search criteria can be combined. Unlike the free-text filter, the search shows hits individually and jumps to each hit in the view.



Format Tab

Every view contains a **Format** tab in the ribbon with view-specific display options.



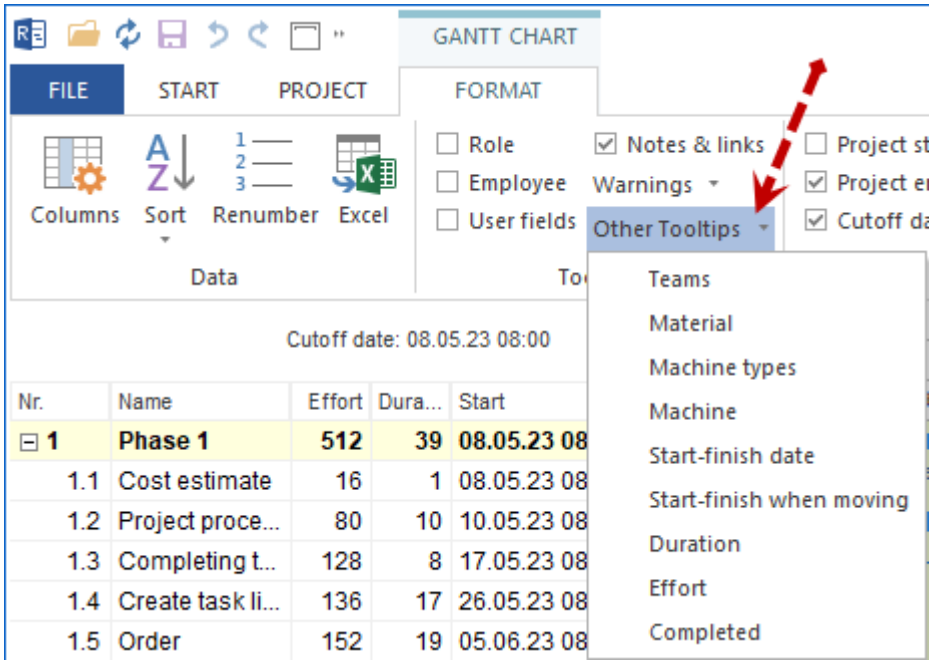
Data block

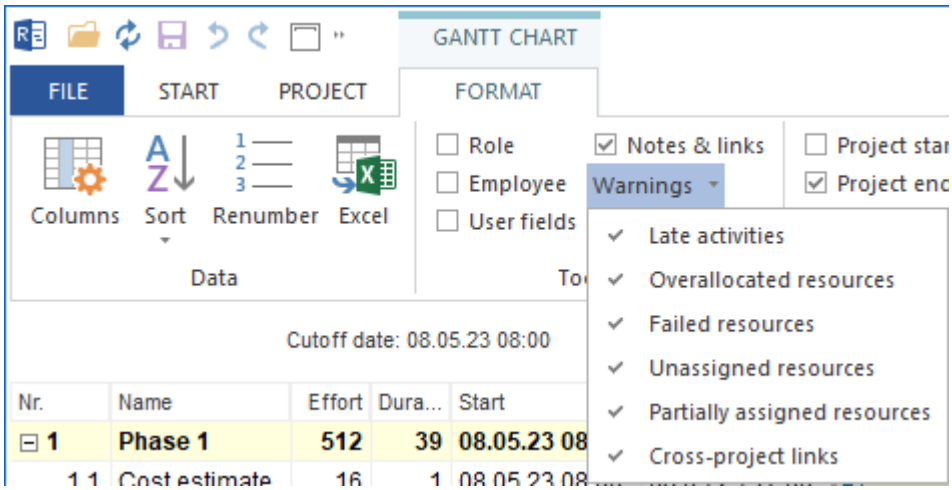
Option	Function
Columns	Adjust the column arrangement in the activity table
Sort	Sort the order of activities by start time, name, and so on
Number	Renumber activities and subprojects after plan editing
Excel	Export the current view with outline levels to MS Excel

Tooltips block

Selected options appear as a tooltip or warning when the cursor is moved over an activity bar.

Available tooltips: Role, Teams, Employee, Custom fields, Notes & links, Other tooltips.





Display block (for all views except network diagram and bar network diagram)

Option	Effect
Project start	Vertical line at the project start in the Gantt chart
Project finish	Vertical line at the project finish
Cutoff date	Vertical line at the cutoff date
Current date	Background colour for the area of the current date
Milestone in calendar	Show/hide milestones in the calendar bar
Milestone in subproject/project	Milestones on collapsed subproject bars
Non-working days abbreviation	Abbreviation for non-working days (for example V for vacation) in the chart
Free float	Earliest possible start and latest possible finish of the activity
Critical path	Activities of the critical path in red
Labels	Show/hide bar labels
Links	Show/hide link lines between activities

Display block (for resource views)

Option	Effect
Milestone in resource row	Show milestones on collapsed resource rows
Total utilisation	Summed utilisation per view in the title area of the chart
Activity bars	Show activity bars in resource views
Activity figures	Show resource effort per activity
Employee	Make employees visible in a capacity view
Period	Show free time windows in which activities can be moved

Display block (specific to the Employee view)

- **Shift calendar** — show the shift calendar of the employees with a background colour

Display block (specific to target/actual comparison Time)

- **Difference only** — show only activities and subprojects that deviate from the baseline

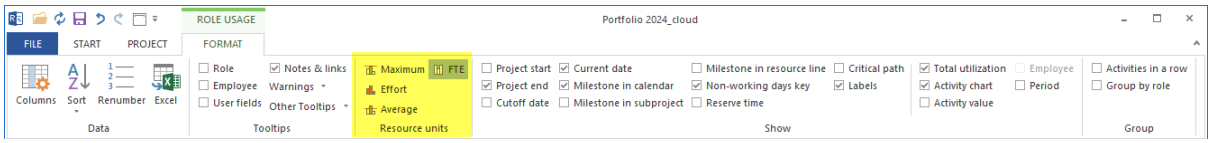
Display block (specific to target/actual comparison Effort/Costs)

- **Completed only** — compare only effort or cost values for activities with achieved progress

Resource units block (for employee utilisation)

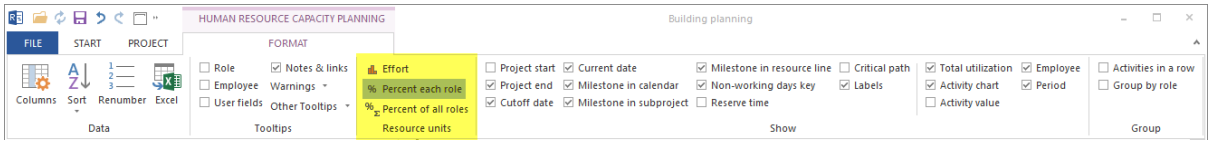
Option	Display
Maximum	Maximum employee resources required per time unit
Average	Average employee resources required per time unit
Effort	Planned effort in person hours or person days
Utilisation (percent)	Total utilisation of the employees in percent per time unit

For **role utilisation** the option **FTE** is additionally available: full-time equivalent as a share of the annual working time.



Resource units block (for capacity balancing employees)

- **Effort** — demand in person hours/days versus supply
- **Percentage per role** — degree of coverage of a qualification in percent
- **Percentage of all roles** — share of a qualification in the total demand



Target/actual comparison block (progress line, Time only)

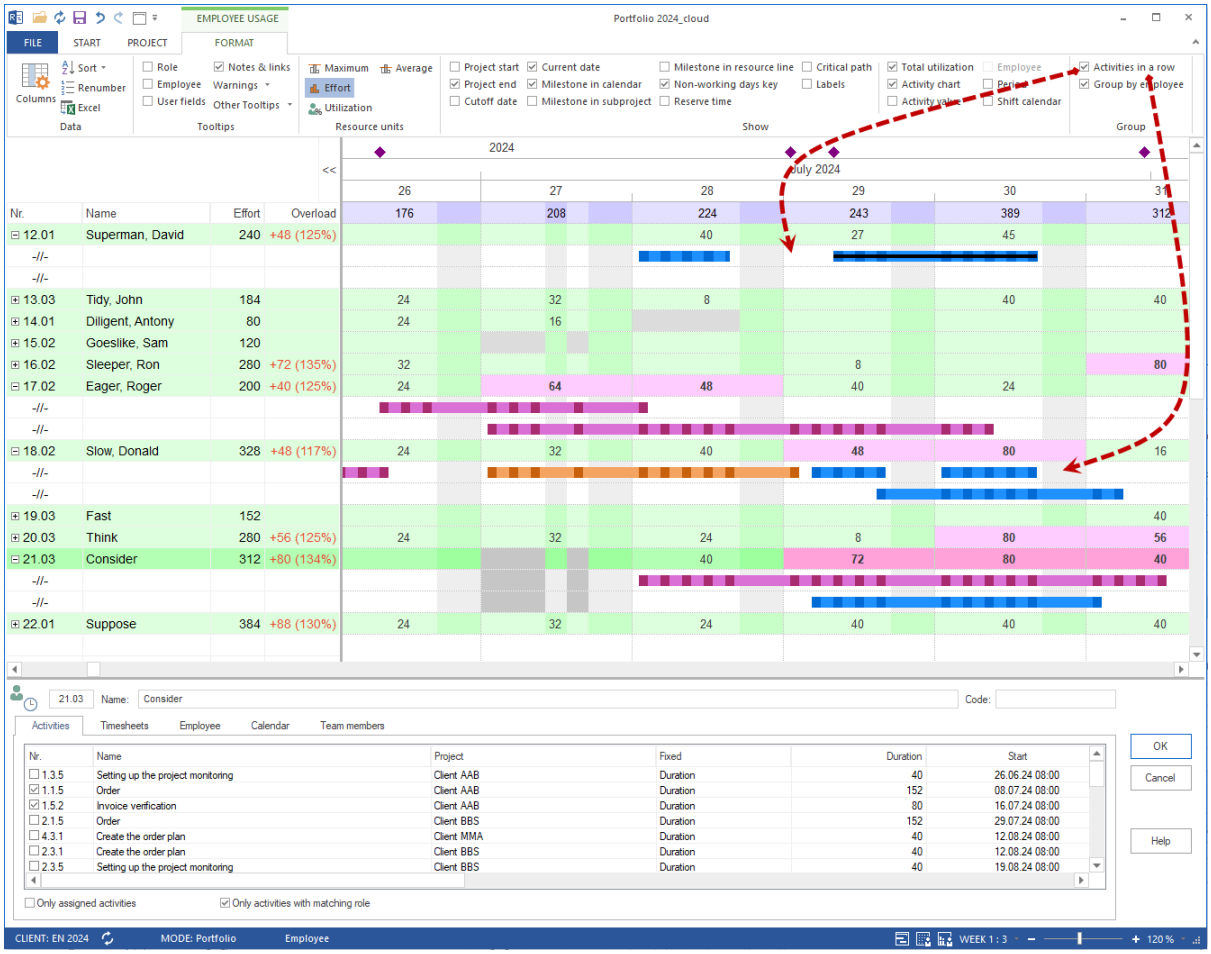
- **Start dates** — progress line at the start dates of the activities
- **Finish dates** — progress line at the finish dates of the activities

Target/actual comparison block (difference, for Effort and Costs)

- **Value** — baseline value and current value side by side
- **Difference** — baseline value and deviation

Group block

- **Activities in a row** — compressed display, useful with many activities
- **Combine employee** — combines all activities of an employee into one row, even with several qualifications or team memberships

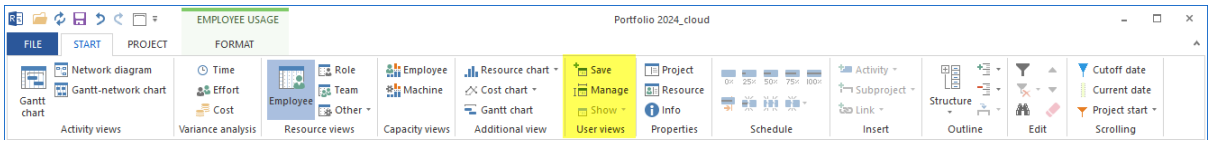


Custom Views

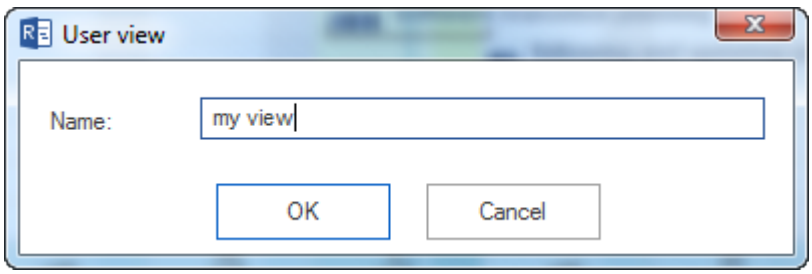
You can save a configured view including timescale, filter, and additional diagram as a custom view and call it up directly later.

Save a view

1. Configure a view with the desired settings (timescale, filter, additional diagram, format).
2. Click **Start > User views > Add**.



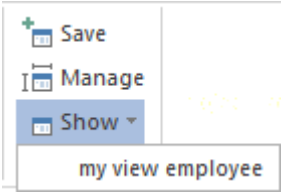
3. Enter a name for the view.



4. Choose:
   - **Save as new view** — creates a new custom view
   - **Update current view** — updates an already saved view
5. Confirm with **OK**.

Call up a view

Click **Start > User views > Show** and select the desired view.



Manage views

Click **Start > User views > Manage**. In the dialog you can:

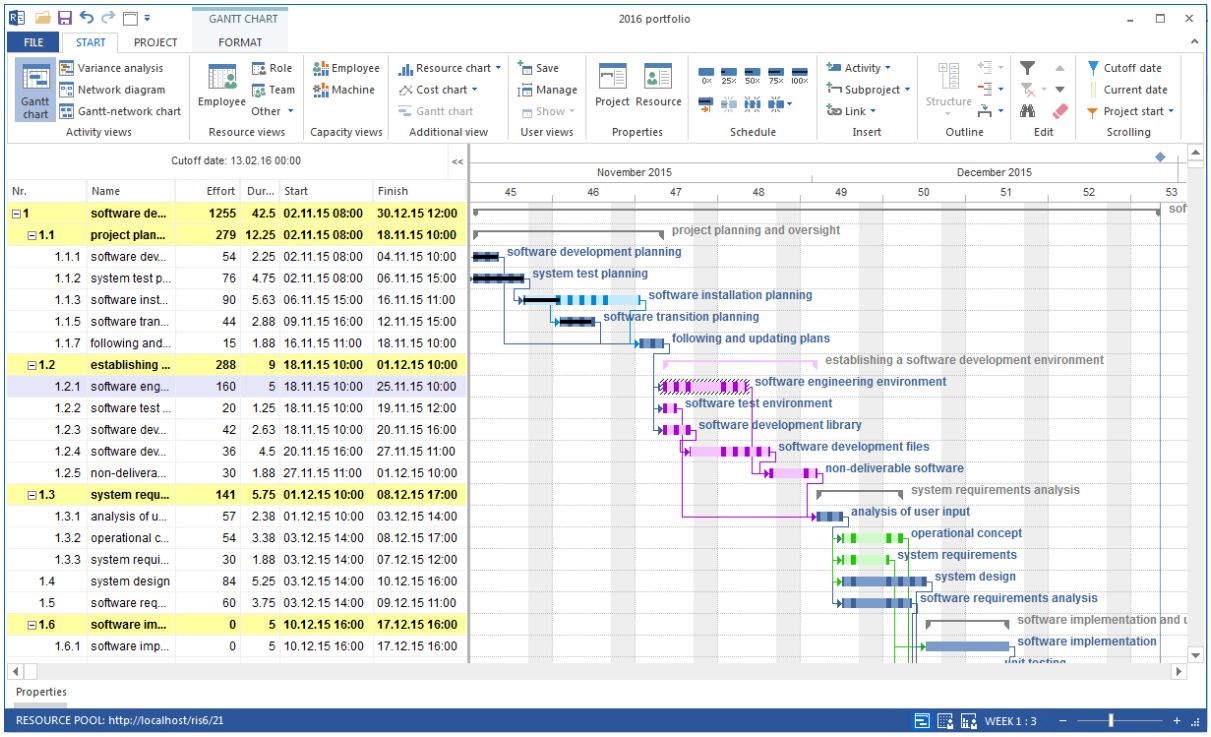
- change the order of the user views
- edit names
- delete user views

Related Topics

- *Views*
- *Capacity View Variants*
- *Target/Actual Comparison Views*
- *Group Resource Views*

13.1.8 Portfolio View

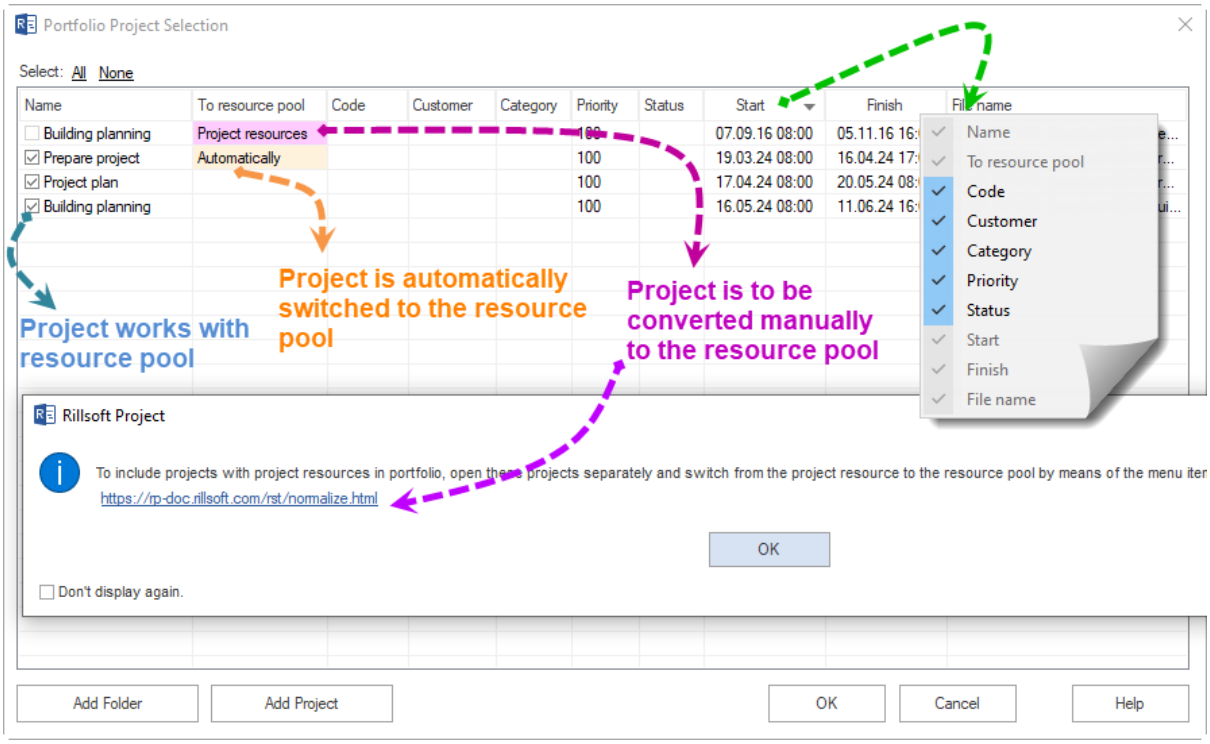
The portfolio view combines several projects in one common working environment. It supports cross-project scheduling, capacity planning, and resource optimisation.



- *“Portfolio Project Selection” Dialog*
- *Available Views In The Portfolio*
- *Portfolio Dashboard*
- *Open A Portfolio Through Rillsoft Integration Server*
- *Related Topics*

“Portfolio Project Selection” Dialog

The dialog appears when creating (**File > New project portfolio**) and when opening (**File > Open > Project portfolio**) a portfolio.



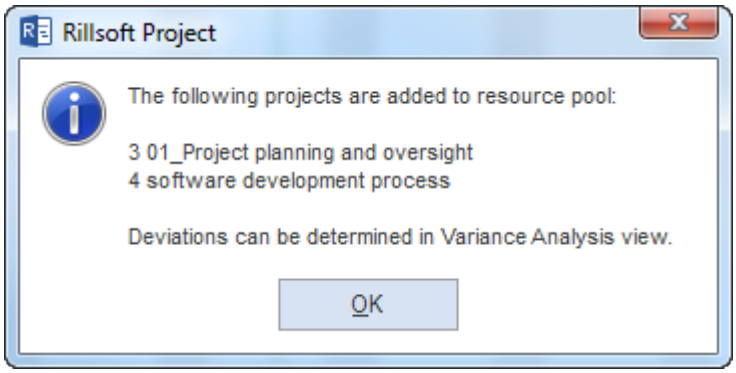
Prerequisite: only projects with a common resource pool can be included in a portfolio.

Columns in the dialog

Column	Meaning
Project name	Name of the project in the list.
To resource pool	Shows whether the project is compatible with the common resource pool. Colour coding: no background = compatible, yellow = minor deviation (for example new non-working days), red = significant deviation.
Code	Project abbreviation or internal project code.
Customers	Customer name assigned to the project.
Category	Project category (for example internal, external, investment).
Priority	Priority level of the project for portfolio planning.
Status	Project status (for example planned, active, completed).
Project start	Planned start date of the project.
Project finish	Planned finish date of the project.
File name	File name of the project file.

The order of the projects in the dialog is adopted as the display order in the portfolio. Click a column header to sort the list by that criterion.

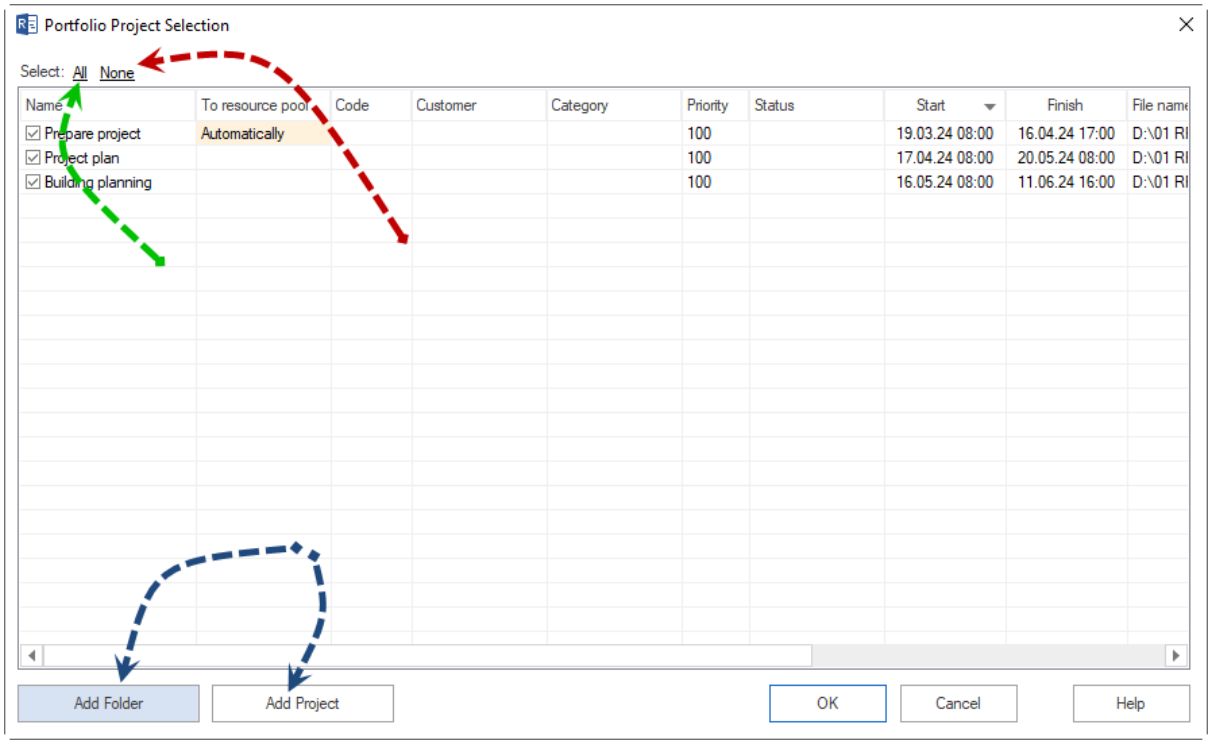
Resource pool status (“To resource pool” column)



Background colour	Meaning
no background	The project is fully compatible with the resource pool.
yellow	Minor deviation, for example new non-working days or cost changes. The project is automatically switched to the resource pool when opened (mode: automatic). Automatically
red	Significant resource deviation. The project must first be opened separately and adjusted manually via **Project > Project resources > To resource pool** before it can be included in the portfolio. Project resources

Buttons in the dialog

Button / link	Function
Add Folder	Searches a directory for project files and adds all found projects to the selection list.
Add Project	Adds a single project file to the selection list.
All (link)	Marks all compatible projects from the list for the portfolio.
None (link)	Removes all markings; no project is included in the portfolio.
Select all projects (button)	Corresponds to the **All** link — all compatible projects are selected.
Remove all projects (button)	Corresponds to the **None** link — all projects are deselected.



Available Views In The Portfolio

In the portfolio the same views as in a single project are available. In addition, the **portfolio dashboard** is available.

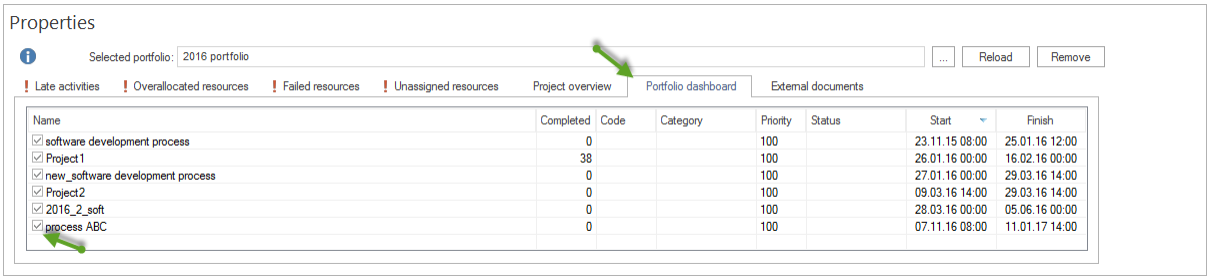
View	Use in the portfolio
Gantt chart	Shows all activities of all portfolio projects on a common time axis.
Capacity balancing employees	Displays role demand and available capacity across all portfolio projects.
Capacity balancing machines	Like capacity balancing employees, for machine types and machinery.
Role utilisation	Shows role utilisation across projects, also filterable per project.
Employee utilisation	Shows the utilisation of individual employees across all portfolio projects.
Target/actual comparison	Compares baseline and current plan for all portfolio projects.
Portfolio dashboard	Compact view of all portfolio projects with key figures (see below).

Note: new projects cannot be created in the portfolio. New projects must be created separately and then added to the portfolio.

Portfolio Dashboard

The portfolio dashboard is a tab in the project information dialog.

Open: Start > Properties > Info, **Portfolio dashboard** tab.



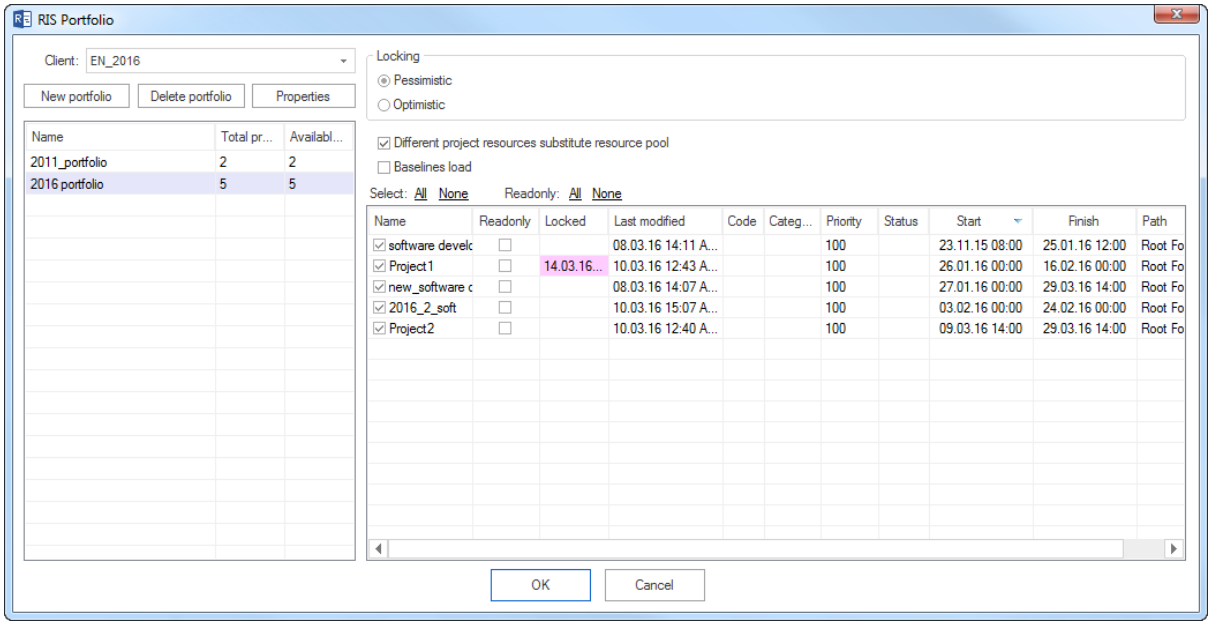
The portfolio dashboard shows all projects of the open portfolio with the following information:

Column	Content
Project name	Name of the project in the portfolio.
Category	Project category.
Status	Current project status.
Priority	Priority of the project.
Customer	Customer name assigned to the project.
Start	Planned start date.
Finish	Planned finish date.
Activated (checkbox)	Controls whether the project is included in the capacity calculation. Deactivated projects still appear in the portfolio but are not considered for resource availability.

Selected portfolio: the **Selected portfolio** field switches between several open portfolios in the dialog.

Simulation: showing and hiding projects via the checkbox is suitable for capacity simulations. Example: temporarily deactivate a project and check the resource situation without it.

Open A Portfolio Through Rillsoft Integration Server



When the Rillsoft Integration Server is set up, a portfolio can be opened directly from the server:

1. Click **File > Open > Project portfolio from Integration Server**.
2. Log in to the Rillsoft Integration Server.
3. Select the portfolio from the list.
4. Click **OK**.

In network operation, portfolios can be opened read-only when another user is already editing the portfolio.

Related Topics

- *Views*
- *Customize Views: Filters, Format, Custom Views*
- *Portfolio Analysis*
- *Build a Project Portfolio*
- *Portfolio Analysis*
- *Project Portfolio*

13.1.9 Print And Output

Print and output functions pass project information on as a report, PDF, Excel file, or export file.

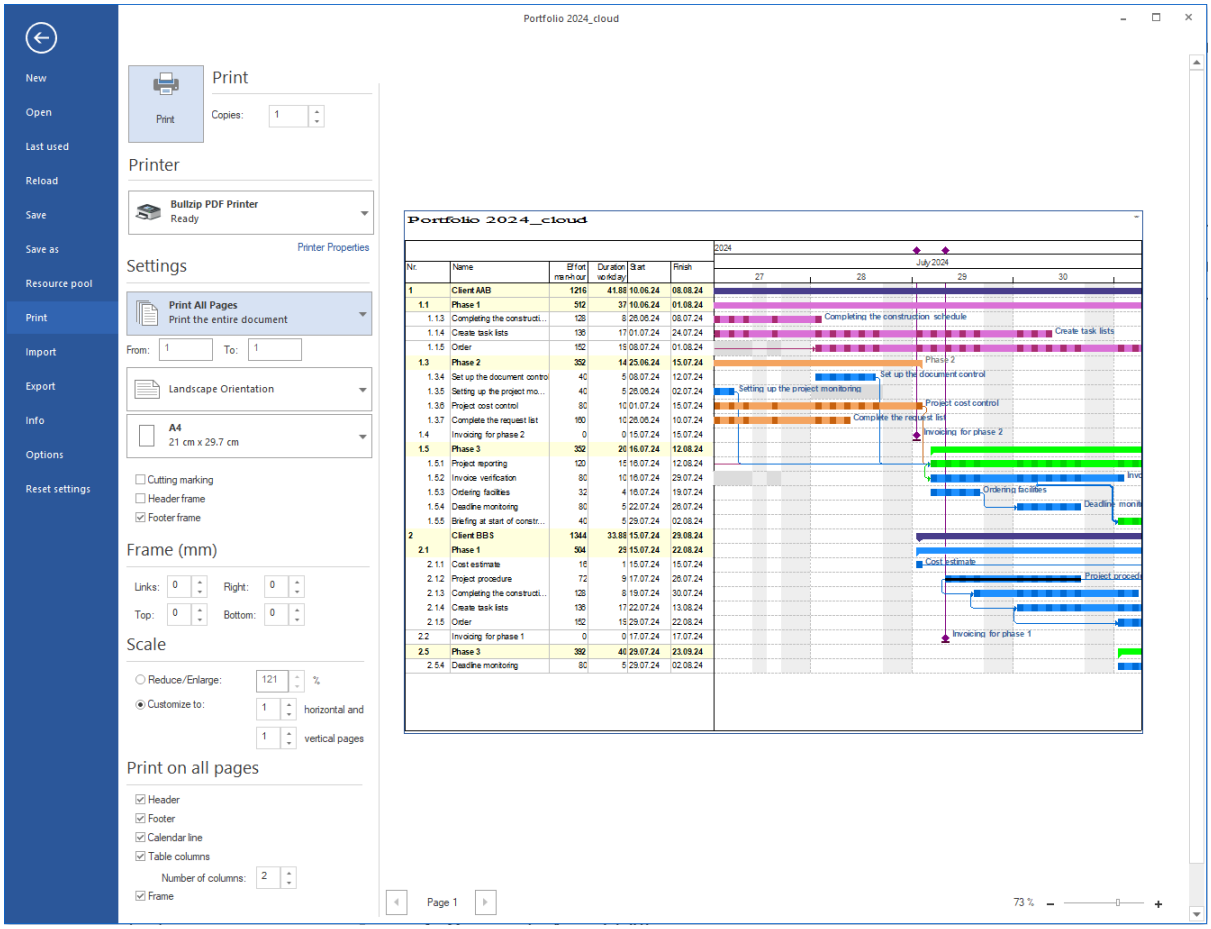
- *Print A View*
- *Typical Output Targets*
- *PDF Output*
- *Excel Output*
- *Reports*
- *Configure The Print View*
- *Print A Holiday Report*
- *Related Topics*

Print A View

A view can be printed when it contains the desired information.

Typical procedure:

1. Open a suitable view.
2. Check the header and footer.
3. Adjust the display, columns, and timescale.
4. Open **File > Print**.
5. Check the print preview.
6. Print, or output as PDF through a PDF printer.

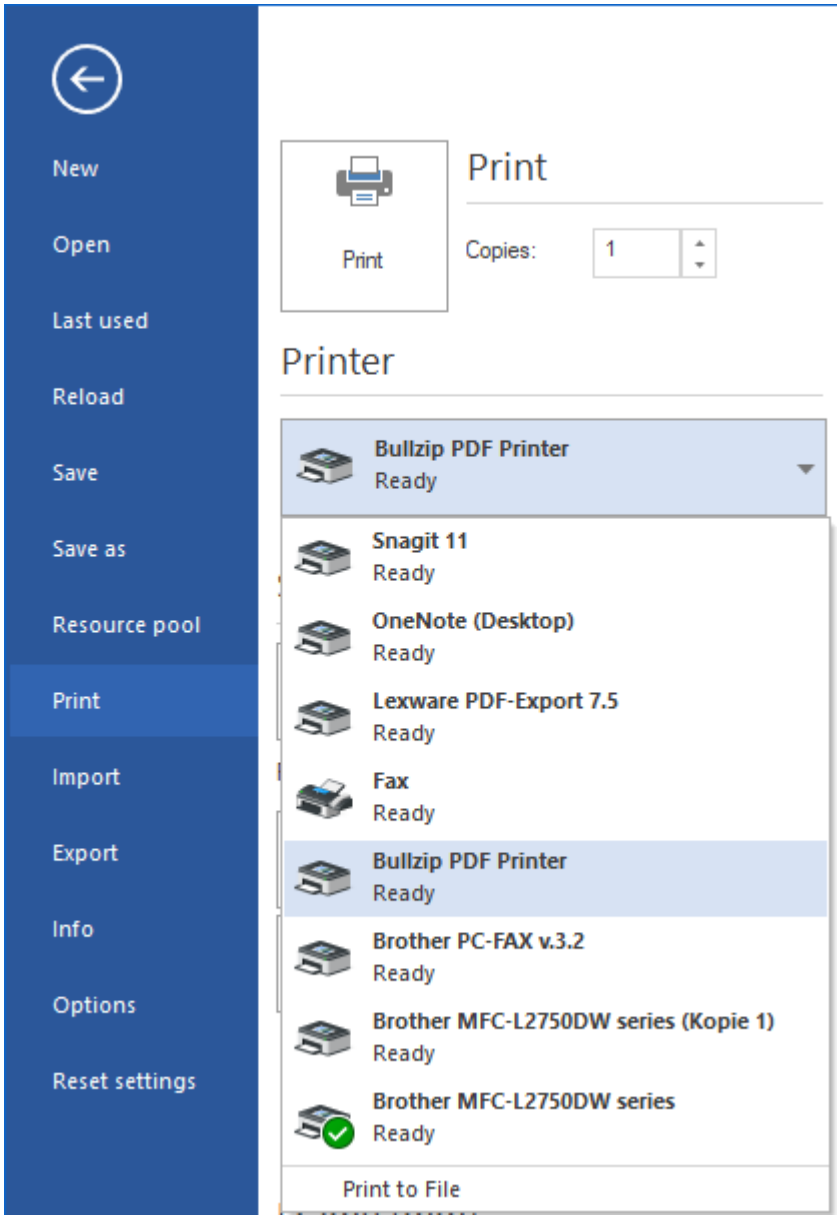


Typical Output Targets

- paper print
- PDF printer
- Excel export from the active view
- MS Project XML export
- XML export
- iCalendar output through Integration Server

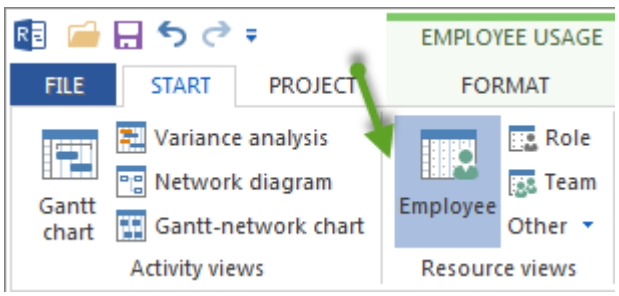
PDF Output

A PDF printer is used for a PDF file. Prepare the view as for printing and select the PDF printer in the print dialog.



Excel Output

Views can be output to Excel. Before the export, check filters, grouping, timescale, and visible columns.



Suitable views:

- activity views
- resource views

- capacity views
- portfolio evaluations

Reports

Reports should not just export data but support a decision. Therefore, before output check:

- target group
- time period
- project or portfolio
- relevant resources
- visible columns
- status, baseline, or cutoff date

Configure The Print View

The print view defines how the printout of a view appears on paper. You configure it in the **File > Print** dialog, which combines print settings and a preview window.

Page format:

Setting	Meaning
Paper format	A4, A3, or user-defined formats.
Orientation	Portrait or landscape.
Margins	Distance from the print content to the paper edge, configurable for all four sides.
Scaling	Reduce content by percentage or scale to a specific number of pages.

Header and footer:

The header and footer can contain fixed texts as well as dynamic fields:

- project name and project code
- date and time of the print output
- page number and total number of pages
- user-defined text

Open: in the **File > Print** dialog; pre-set permanently via the project properties, **Headers and footers** tab (**Start > Properties > Project**), so that all printouts of this project are labelled consistently.

Adjust the timescale:

In the print dialog the printed period can be restricted:

- only the visible period of the current view
- a freely definable date range

- the entire project period

Columns and display:

The printed columns correspond to the columns visible in the current view. Adjust the view before printing via the Format tab of the view (block **Data > Columns**, for example **Bar chart Format > Data > Columns**).

Print preview:

The print preview is part of the **File > Print** dialog and shows the result of the current settings before printing. In the same dialog you adjust the scaling (**Scale** area) and the print range (**Pages** area).

Print A Holiday Report

A holiday report shows the non-working days of the employees (vacation, sickness, other absences) for a period. It is created from the **Employee** resource view.

Prerequisite: the non-working days must be entered for the employees in the resource pool.

Procedure:

1. Create a project with a start and finish that define the report period (for example 01.01. to 31.12.).
2. Open the resource view via **Start > Resource views > Employee**.
3. Group the employee list via **Start > Outline > Grouping**, for example **Team > Employee**.
4. Set the timescale, for example **Day 1:1**.
5. Check the columns via the Format tab **Employee usage Format > Data > Columns**.
6. Open **Start > Edit > Filter** and disable the option **Offer only already planned resources for selection** so that all employees appear.
7. Choose **File > Print** and define the print settings.

Typical use:

- print absence overviews for team meetings or personnel planning
- output an annual calendar for resource pool employees as a reference
- use vacation overviews as an attachment for status or project reports

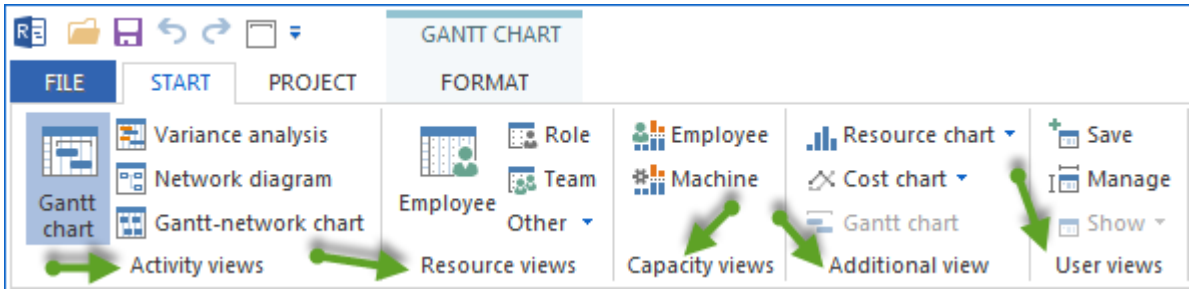
Note: absences must be maintained in the resource pool so that they appear in the holiday report. More on this: *Maintain Working Times and Non-Working Days*

Related Topics

- *Views*
- *Customize Views: Filters, Format, Custom Views*
- *Export*
- *Prepare a Status Report*

- *Maintain Working Times and Non-Working Days*

Use this section as a quick lookup for menus, dialogs, views, display options, and output functions.

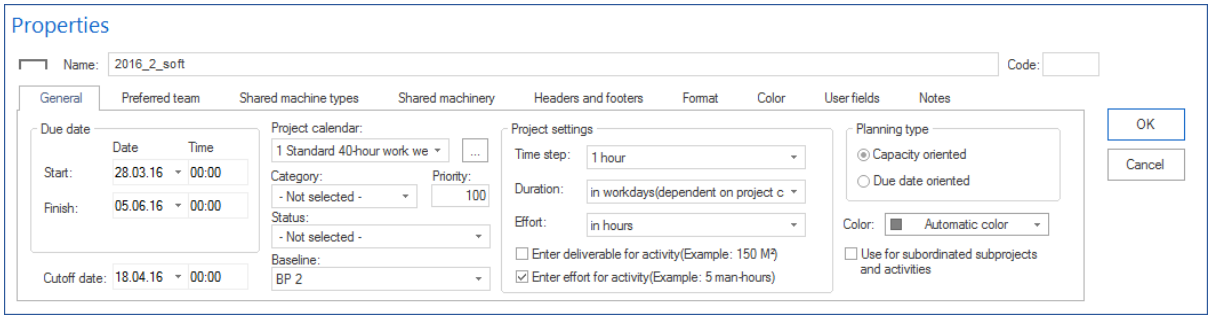


13.2 Data and Object Model

This section describes the central business objects in Rillsoft Project and their meaning for scheduling, resource planning, capacity balancing, project controlling, and portfolio management.

13.2.1 Project

A project is the central planning unit in Rillsoft Project. It contains activities, subprojects, dates, resource demand, assignments, costs, and control information.

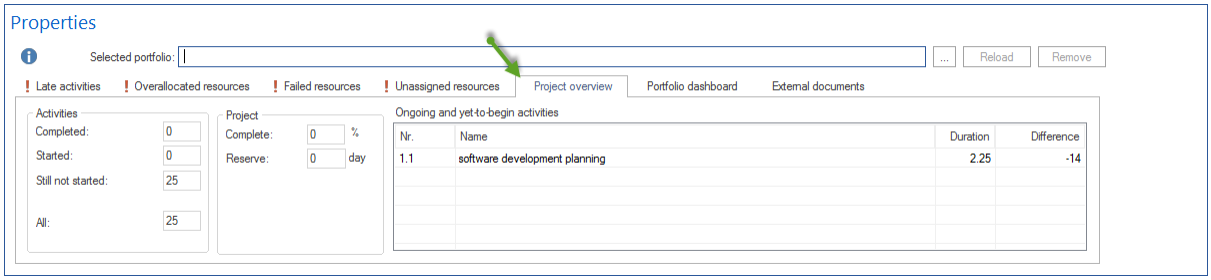


Important Properties

- name, code, and description
- start and finish date
- project calendar
- customer, category, status, and priority
- project manager or responsible person
- resource model: project resources or shared resource pool

Usage

A project is used for scheduling, resource planning, variance analysis, and output. In a project portfolio or summary project, it can be evaluated together with other projects.



Typical Errors

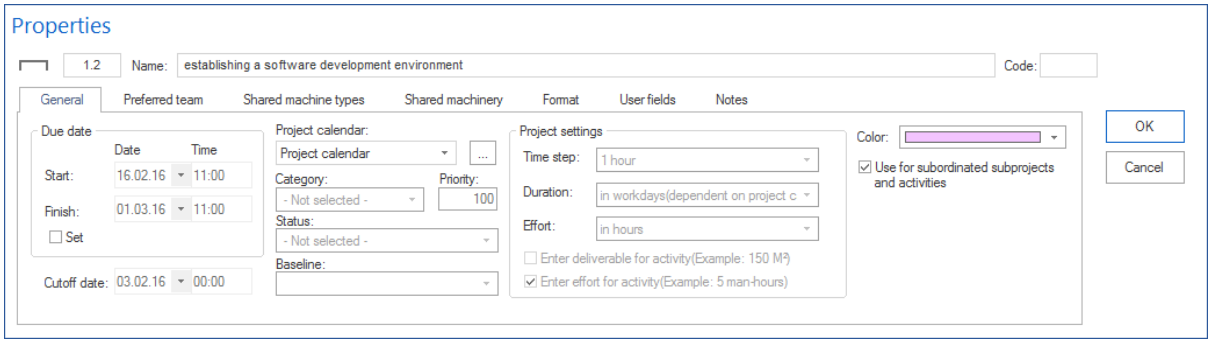
- project without a clear calendar
- local project resources instead of a shared resource pool
- missing status and priority values in portfolio work
- baseline saved only after major plan changes

Related Topics

- *Subproject*
- *Activity*
- *Resource Pool*
- *Project Portfolio*

13.2.2 Subproject

A subproject structures a project into coherent sections. It can contain activities and further subprojects.



Important Properties

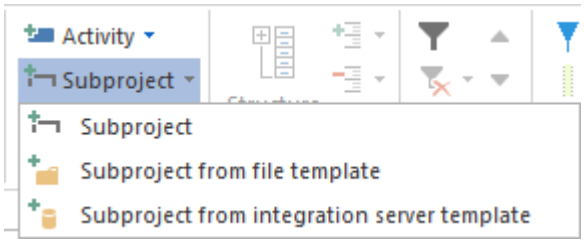
- name and structure position
- start and finish
- contained activities
- possible fixed dates
- resource or machine requirements inherited from the contained activities

Usage

Subprojects keep large project plans readable. They are suitable for phases, role groups, sites, lots, departments, or deliverables.

Typical Functions

- move activities into a subproject
- insert a subproject from a file or server template
- use start and finish dates from contained activities
- expand or collapse the subproject in Gantt chart or network diagram

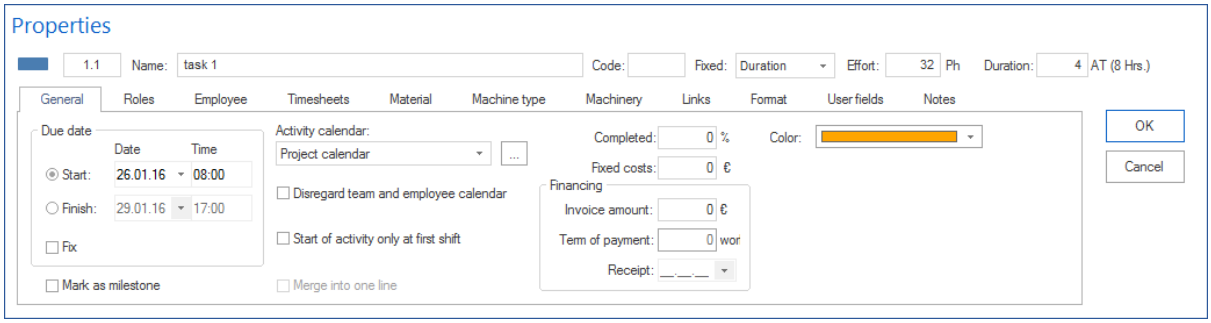


Related Topics

- *Project*
- *Activity*
- *Templates*

13.2.3 Activity

An activity is the schedulable work unit of a project. It describes a task or deliverable with date range, duration, effort, resource demand, and progress.



Important Properties

- name
- start and finish
- duration
- effort
- progress

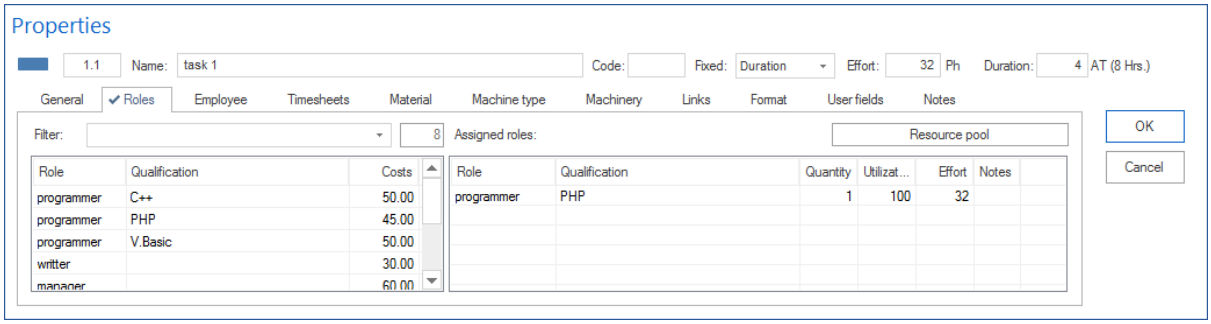
- links
- role demand, employees, teams, material, and machines
- costs and notes

Usage

Activities are the basis for scheduling, resource demand, capacity balancing, and variance analysis. An activity should be specific enough to be controlled and broad enough to avoid unnecessary micro-planning.

Planning Logic

Depending on the selected planning mode, duration, effort, or both can be kept fixed. Rillsoft Project calculates the dependent values by considering resources and calendars.



Related Topics

- *Link*
- *Resource*
- *Baseline*

13.2.4 Link

A link describes the logical relationship between two activities. It controls when a successor activity may start or finish.

Link Types

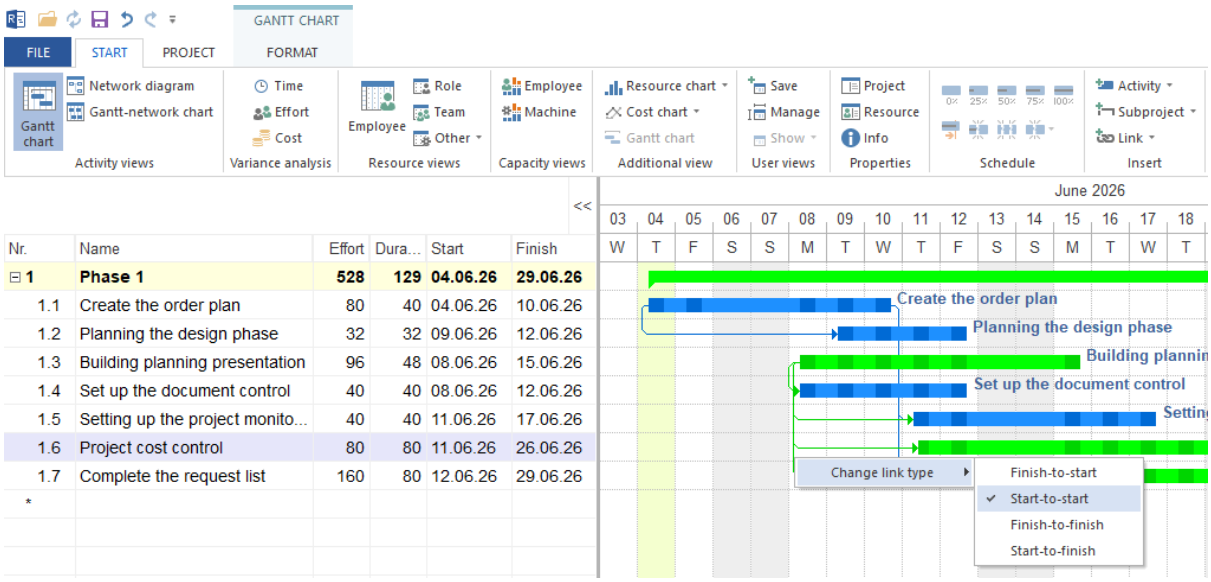
Type	Meaning
Finish-Start	The successor starts after the predecessor finishes.
Start-Start	The successor cannot start before the predecessor starts.
Finish-Finish	The successor cannot finish before the predecessor finishes.
Start-Finish	The successor cannot finish before the predecessor starts.
Incompatible activity group	Activities must not be performed at the same time.

Time Intervals

Intervals can be positive or negative. Positive values create waiting time. Negative values allow overlap.

Usage

Links can be created and edited in the Gantt chart, network diagram, and Gantt-network chart.

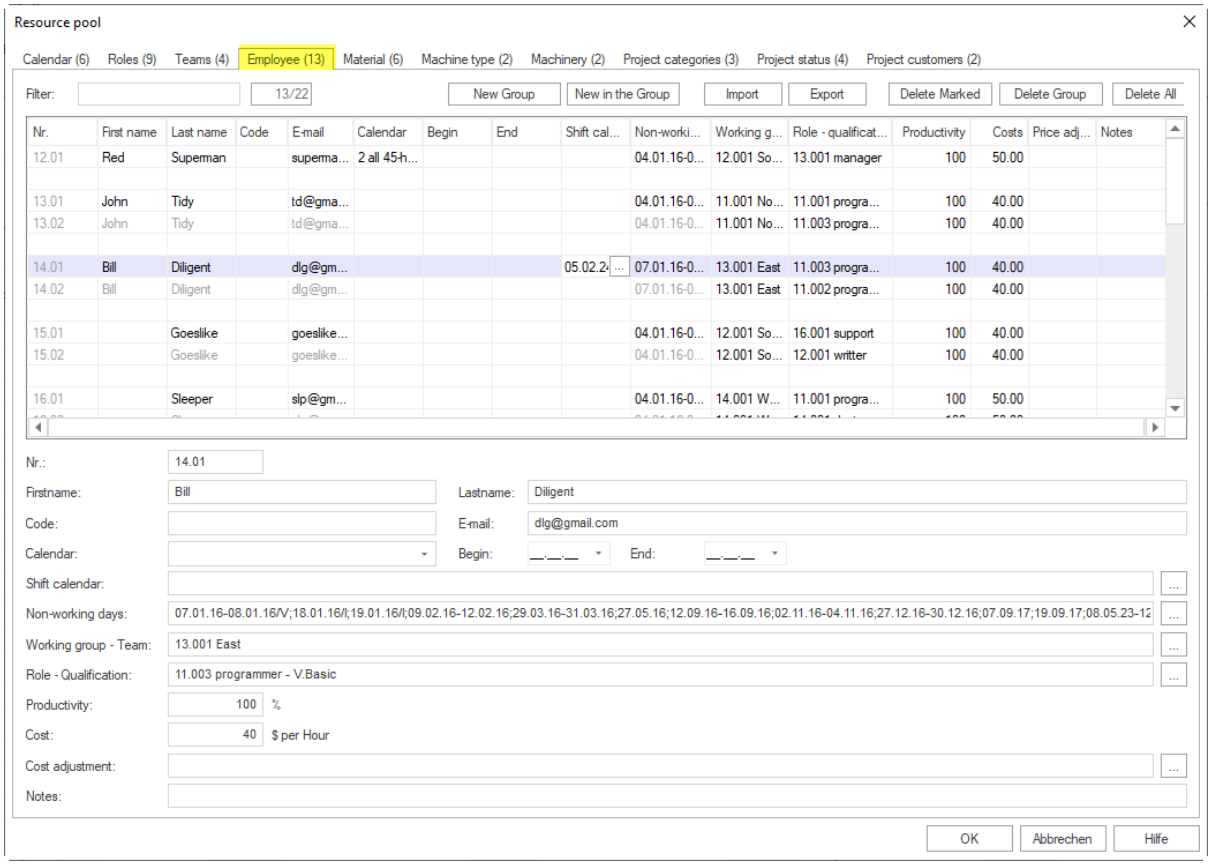


Related Topics

- *Activity*
- *Link Tasks*

13.2.5 Resource

A resource describes capacity or demand in a project. Rillsoft Project distinguishes employees, roles or professional qualifications, teams, material, machine types, and machinery.



Resource Types

- **Role / professional qualification** for planned workforce demand
- **Employee** for concrete personal capacity
- **Team** for organisational grouping
- **Material** for consumption or material demand
- **Machine type** for required equipment category
- **Machinery** for a concrete machine

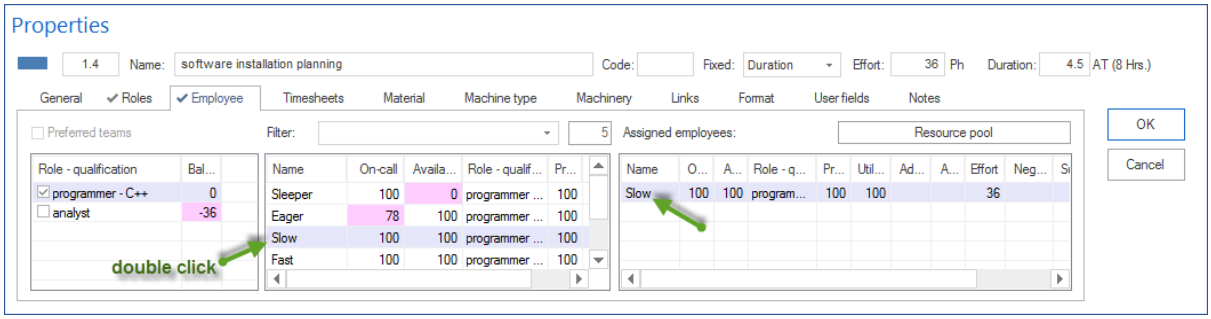
Important Properties

- name
- calendar and working time
- availability and non-working days
- costs
- qualifications and team assignment

- utilisation and effort during assignment

Usage

Resources are assigned to activities or provide supply for capacity balancing. Role demand can be planned before concrete employees are assigned.



Related Topics

- *Resource Pool*
- *Activity*
- *Resources and Capacities*

13.2.6 Resource Pool

The resource pool is the shared data basis for resource supply, capacity planning, and portfolio analysis. It contains employees, roles, teams, calendars, material, machines, project customers, categories, and status values.

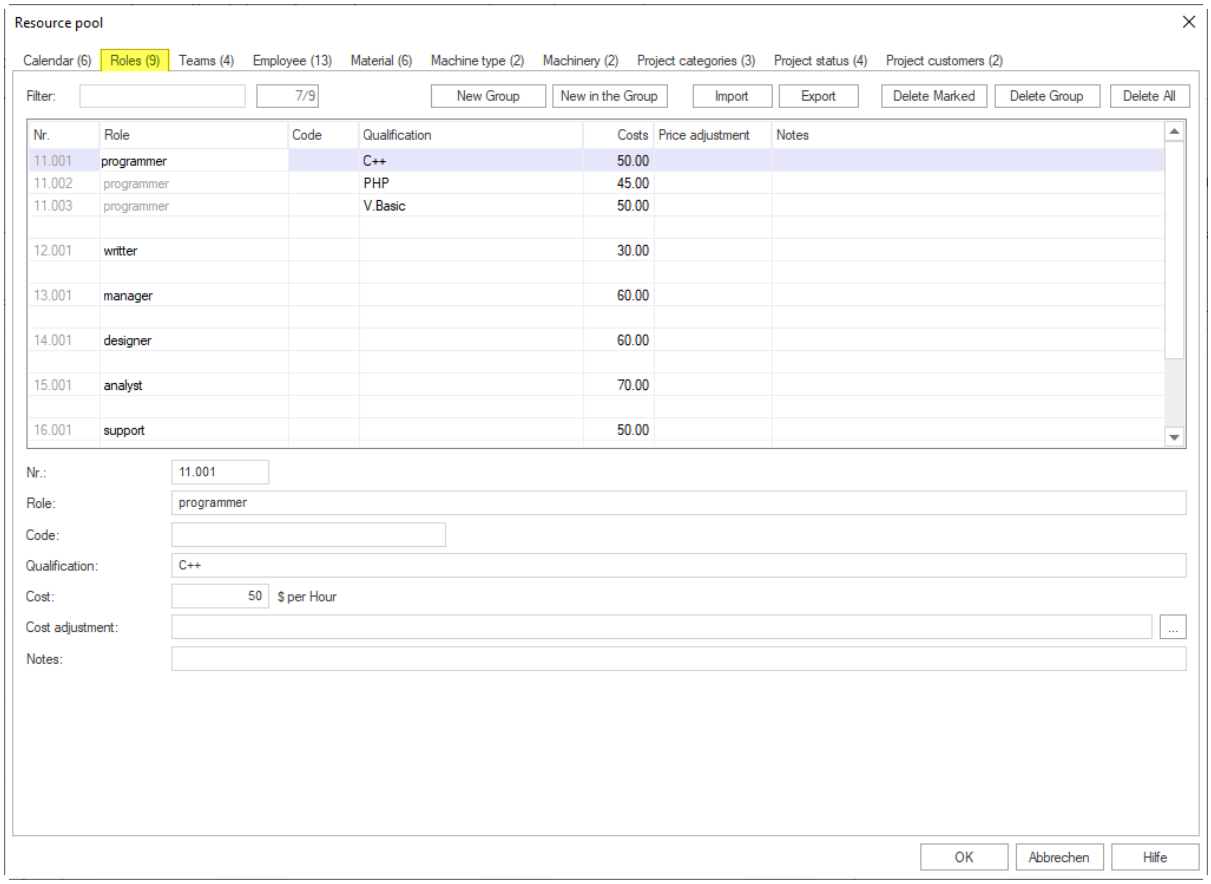
Contents

Typical contents:

- calendars
- roles or professional qualifications
- employees
- teams
- material
- machine types
- machinery
- project customers, project categories, and project status values

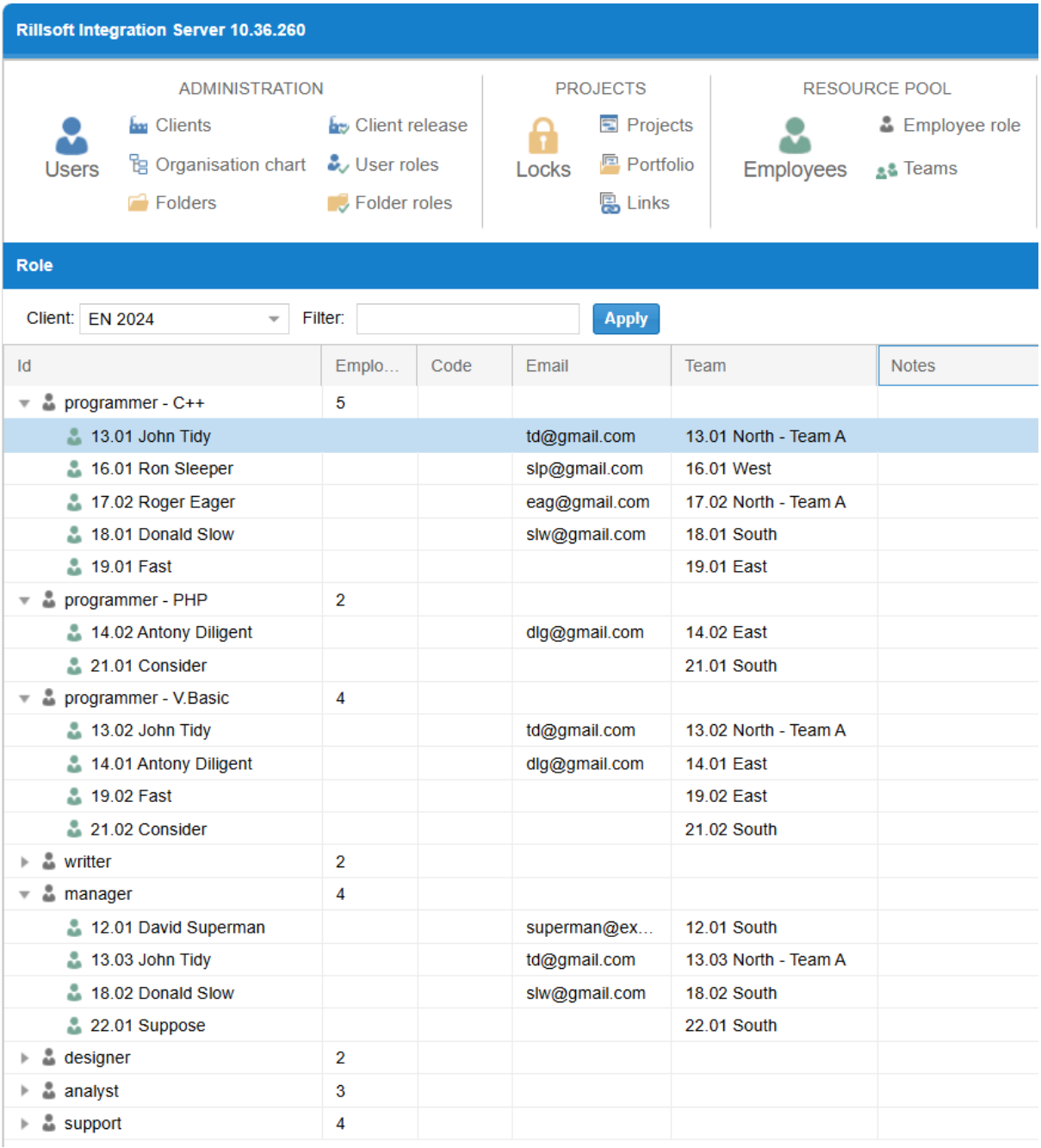
Usage

A shared resource pool enables cross-project capacity planning. Portfolios and summary projects only produce reliable utilisation values when the participating projects use the same resource pool.



Server Operation

With Rillsoft Integration Server or Rillsoft Cloud, the resource pool is managed centrally. Each client has exactly one resource pool; it is selected in Rillsoft Project via **File > Resource pool > Rillsoft Integration Server > Select**, see *Create and Select a Resource Pool with Rillsoft Integration Server*. Access can be controlled through user roles, for example reading, editing, locking, or unlocking the resource pool.



Related Topics

- *Resource*
- *Manage Resource Pool*
- *Project Portfolio*
- *Integration Server*

13.2.7 Manage Resource Pool

The resource pool dialog is opened through **Start > Properties > Resources**. It contains all tabs for maintaining calendars, roles, employees, teams, material, machine types, machinery, and project master data.

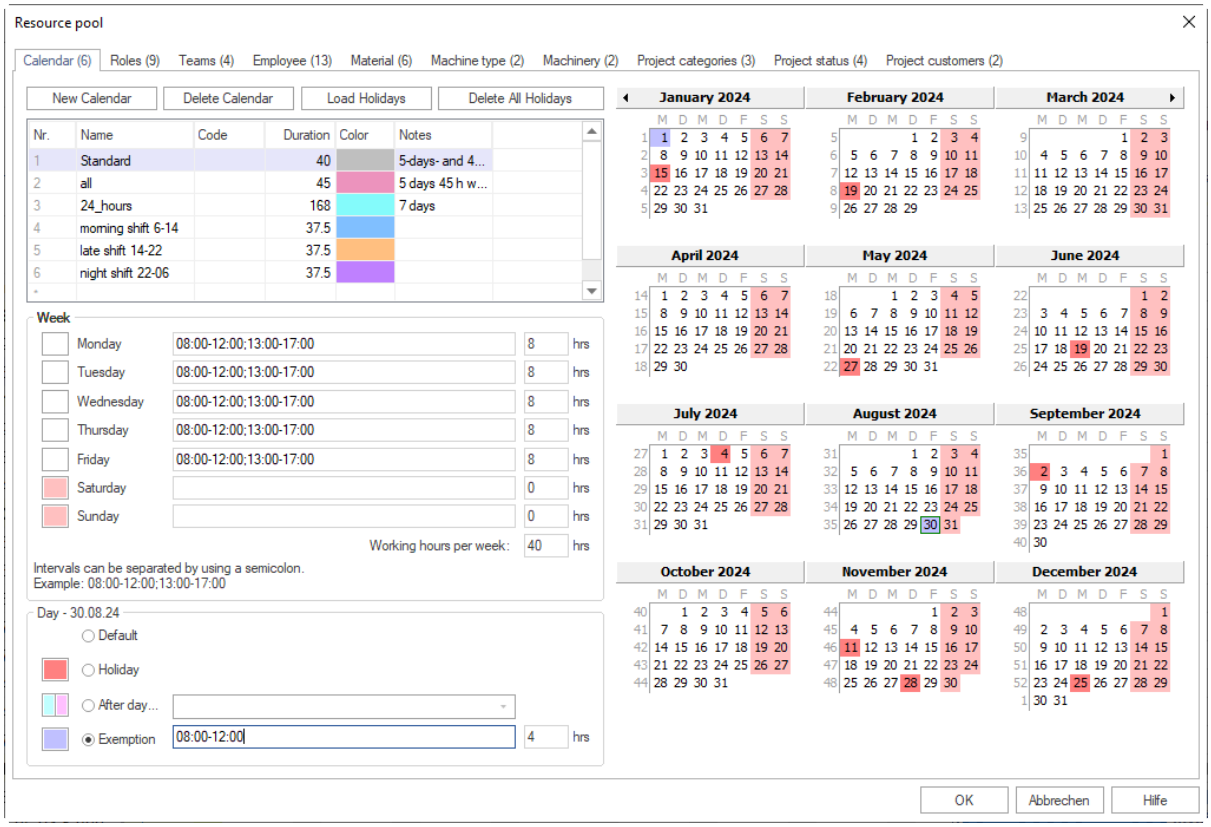
- *Tab Overview*
- *Calendar Tab*
- *Roles Tab*
- *Teams Tab*
- *Employee Tab*
- *Material Tab*
- *Machine Type Tab*
- *Machinery Tab*
- *Project Categories Tab*
- *Project Status Tab*
- *Project Customers Tab*
- *Filtering*
- *Related Topics*

Tab Overview

Tab	Content
Calendar	Working times, holidays, exceptions, shift models.
Roles	Professional qualifications with qualification levels and cost rates.
Employee	Employees with calendar, roles, non-working days, and team assignment.
Teams	Groups of employees with capacity and cost calculation.
Material	Consumable material with unit of measure and unit price.
Machine type	Types and groups of machines with unit price.
Machinery	Concrete individual machines assigned to a machine type and a team.
Project categories	Classifications for projects.
Project status	Status values for projects.
Project customers	Customers with address and contact data.

Import and export are available for most tabs through the **Import** and **Export** buttons. Fields are separated by the # character.

Calendar Tab



Calendars define the working days, working times, and holidays for projects, teams, and employees.

Create a calendar

1. Click **New calendar**, or enter a calendar name in the **Name** column of the row marked with *.
2. Optionally enter a unique code in the **Code** column.
3. Optionally select a colour in the **Colour** column for the display.

Define working times

4. In the **Week** area, define the working time for each weekday. Separate several intervals with a semicolon, for example `08:00-12:00; 13:00-17:00`.
5. In the **Day** area, define deviating daily rules:
   - **Standard** — resets a daily change to the weekday definition
   - **Holiday** — marks the day as a non-working holiday
   - **By day...** — applies the rules of another weekday
   - **Exceptions** — defines an individual working time for this day

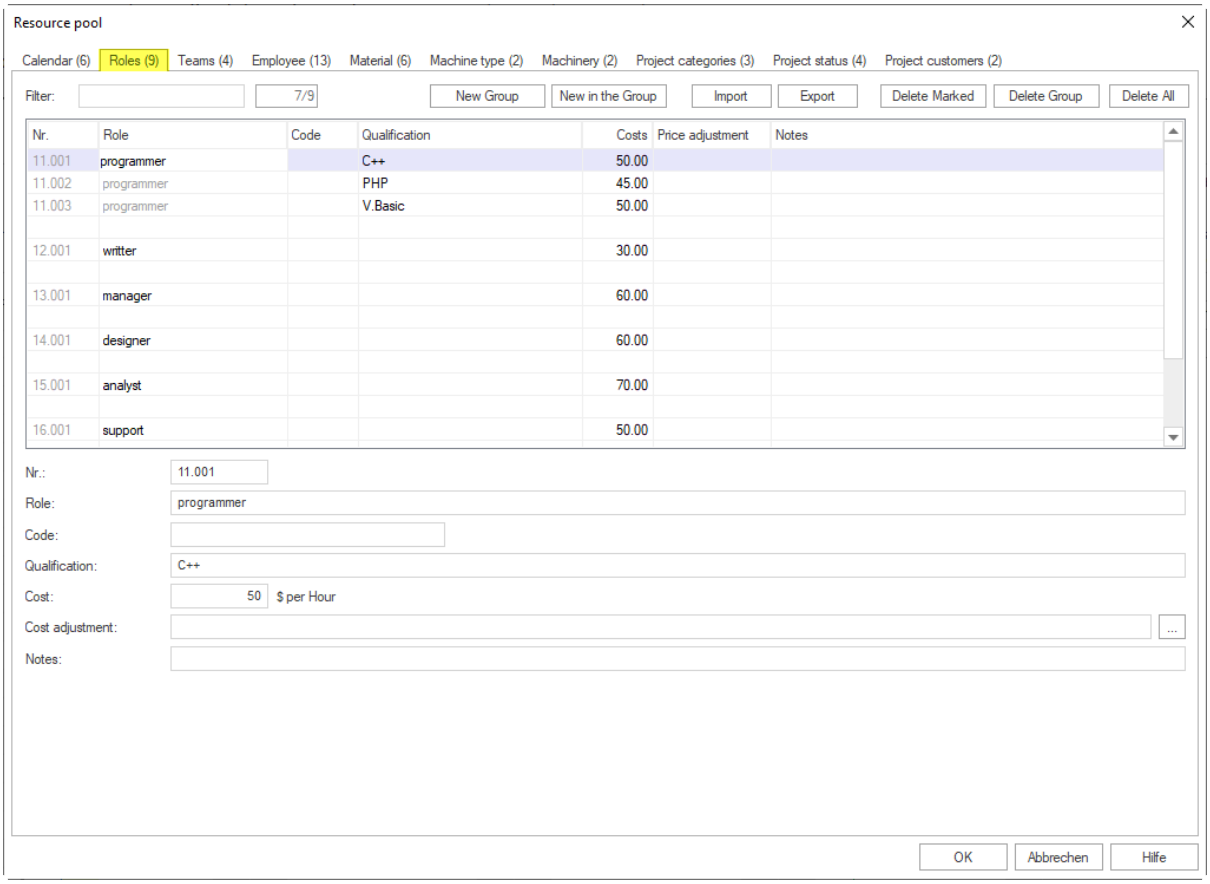
Load holidays

Click **Load holidays** to download statutory holidays from Rillsoft servers. In the dialog, select **Calendar** (for example DE-All federal states), then the desired year or individual days.

Note

An internet connection is required for the download. Holidays that have already been loaded can be removed via **delete all holidays**.

Roles Tab



Roles describe professional qualifications. In this help, roles are therefore referred to as **professional qualifications** (examples: designer, welder, installer, foreman).

Roles are organised in groups. Each group corresponds to a job title; the sub-entries are qualification levels (example: carpenter → foreman, master, journeyman, apprentice).

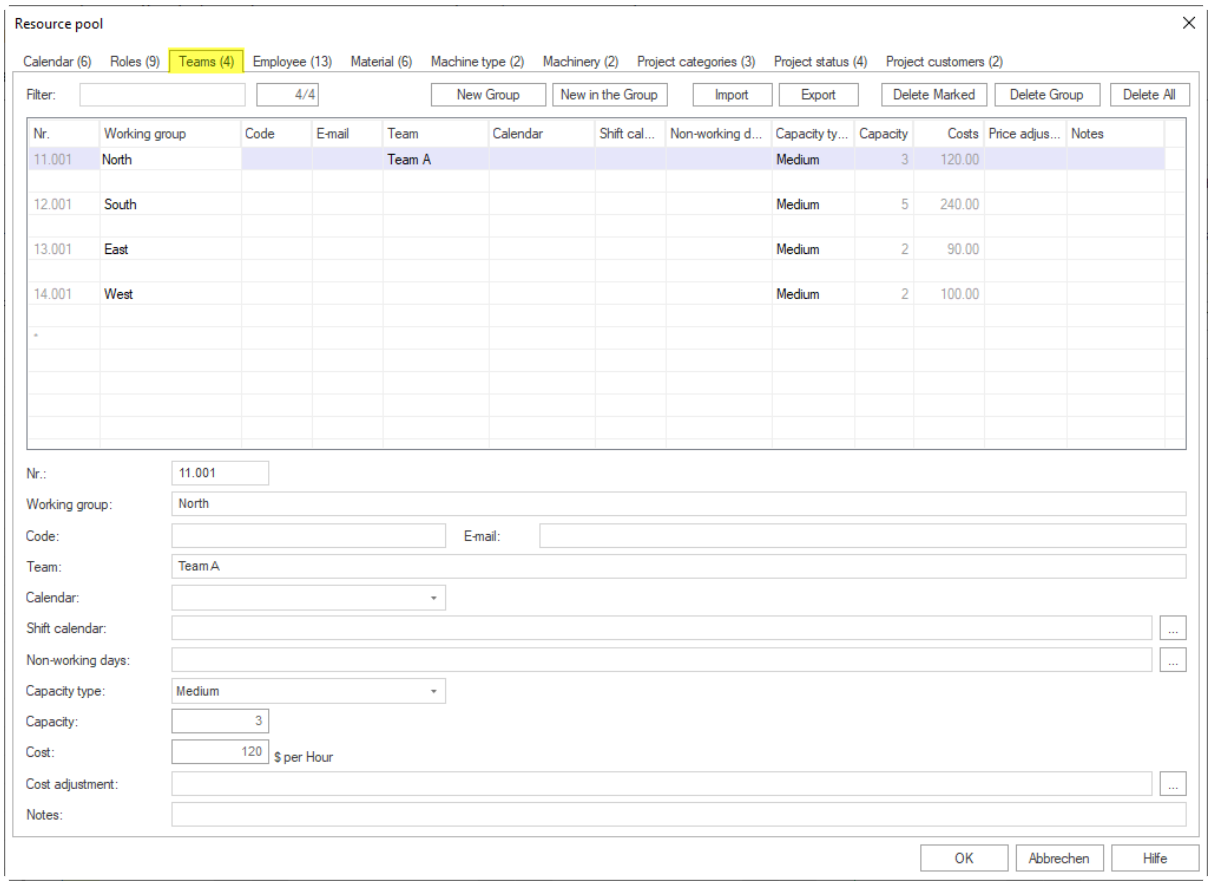
Create roles

1. Click **New group**, or enter a new group name in the **Role** column of the * row.
2. Enter the qualification level in the **Qualification** column. Enter further levels in the following rows — the group label is copied automatically.
3. Optionally enter a unique code for data exchange in the **Code** column.
4. Enter the cost per hour in the **Costs** field.
5. Optionally enter a date and a coefficient or new unit price for future cost changes in the **Cost adjustment** field.

6. Optionally enter a note in the **Notes** field.

Import/export fields: ID, Role (required), Code, Qualification (required), Costs, Cost adjustment, Notes.

Teams Tab



Teams group employees organisationally. Teams are organised in groups (team types) (example: tiler team → early shift team, late shift team).

Create teams

1. Click **New group**, or enter a new group name in the **Working group** column of the * row.
2. Enter the team name in the **Team** column. Enter further teams in the following rows — the group label is copied automatically.

> **Note**
>
> Group labels can only be changed in the first row of the group. The change is automatically transferred to all sub-teams.

3. Optionally enter a unique code in the **Code** column.
4. Optionally enter a team email address in the **E-mail** column.

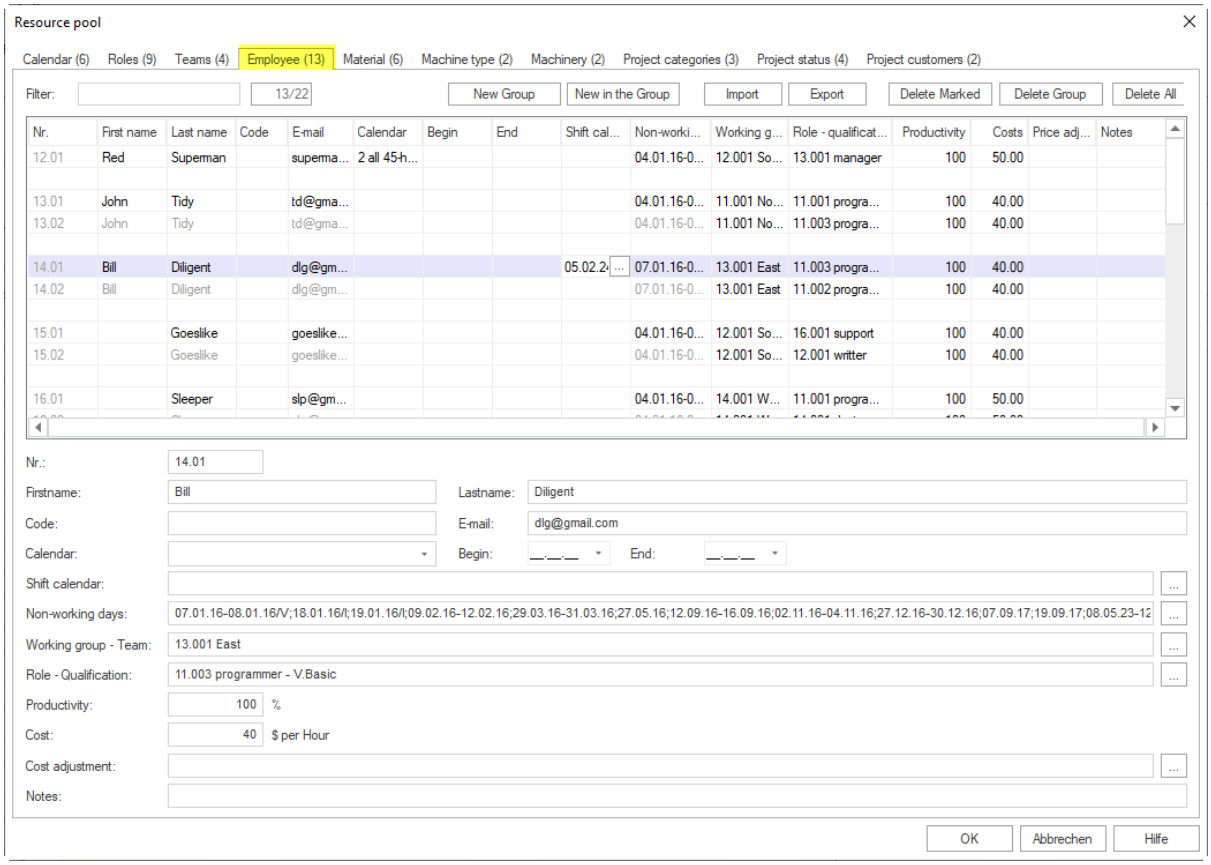
5. Optionally select a team calendar from the **Calendar** drop-down list. Without a calendar, the hierarchy applies: activity calendar → project calendar.
6. Optionally enter absence times of the team in the **Non-working days** field (example: `18.03.05-22.04.05; 25.05.05`).
7. Select in the **Capacity type** drop-down list how capacity and costs are calculated:

Option	Calculation
Fixed	Manual entry in Capacity and Costs. Only suitable if no concrete personnel is assigned.
Optimistic	Highest productivity and the corresponding cost rate of each team member.
Real	Real cost rate and corresponding productivity of each team member.
Medium	Averaged value from the productivity and cost rate of each team member.

8. Optionally enter a date and a new price or coefficient in the **Cost adjustment** field.
9. Optionally enter a note in the **Notes** field.

Import/export fields: ID, Working group (required), Code, E-mail, Team (required), Calendar, Non-working days, Capacity type, Capacity, Costs, Cost adjustment, Notes.

Employee Tab



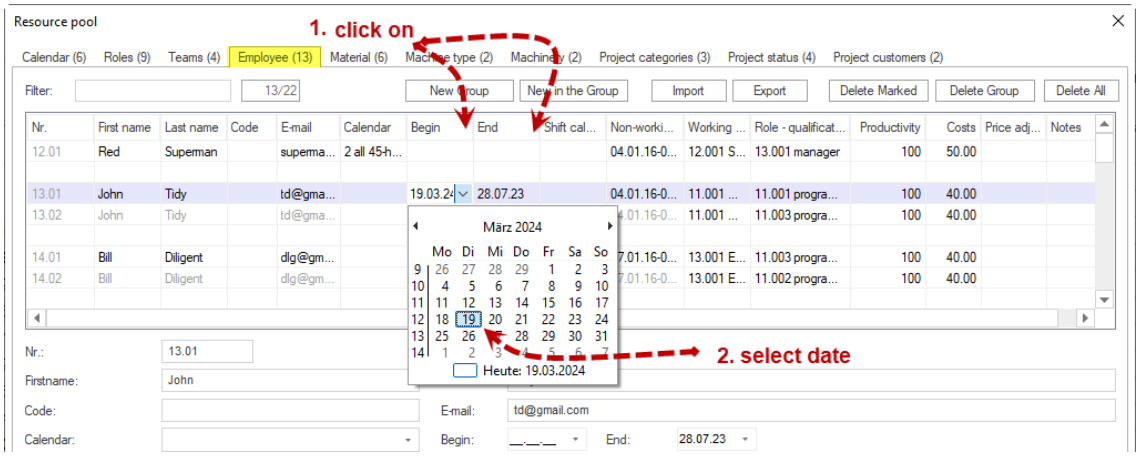
On the **Employee** tab, you maintain employees with calendar, entry and leaving dates, shift calendars, non-working days, team assignments, roles, productivity, and costs.

> **Note**
>
> Create the required teams, roles, and calendars before defining employees. These master data records are used in the drop-down lists on the **Employee** tab.

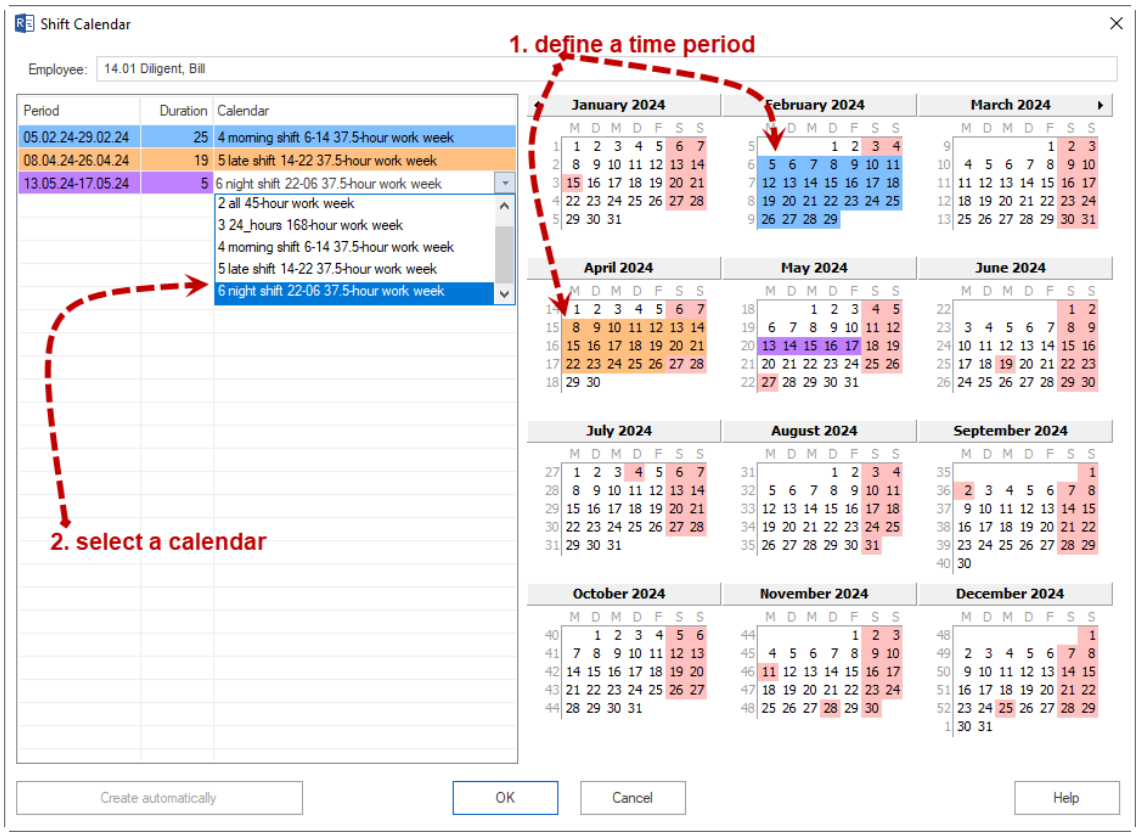
Create employees

1. Click **New group**, or enter a new employee in the * row.
2. Enter the employee name in the **First name** and **Last name** columns.
3. Optionally enter a unique code in the **Code** column for data exchange with other applications.
4. Optionally enter the employee email address in the **E-mail** column.
5. Optionally select a calendar from the **Calendar** drop-down list. If no calendar is selected, Rillsoft Project searches for a valid calendar in this order: team calendar -> activity calendar -> project calendar.
6. Optionally enter the date on which the employee entered the company in the **Begin** field.

7. Optionally enter the date on which the employee left the company in the **End** field.



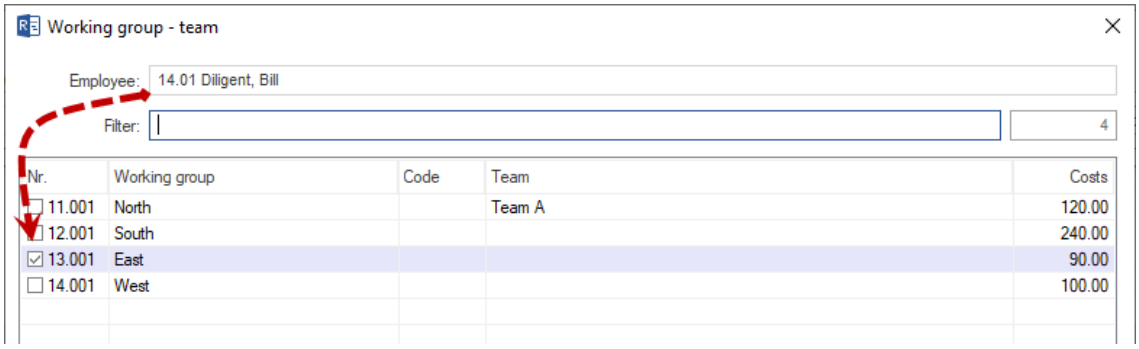
8. Click in the **Shift calendar** field if an employee works in different periods according to different calendars. First select the period with the left mouse button pressed, then select the required calendar for this period.



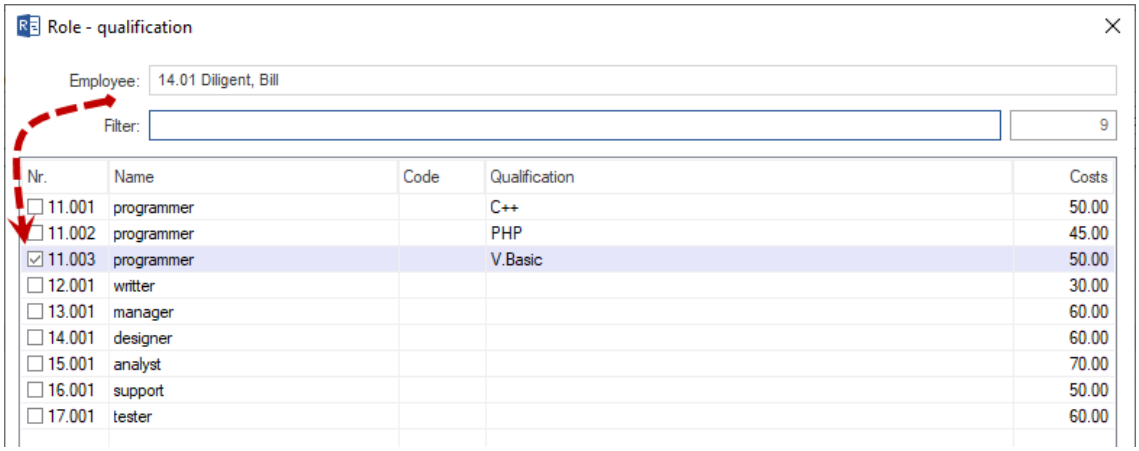
9. Optionally enter the employee's non-working days in the **Non-working days** field, for example job training, workshops, vacation, or illness (example: `18.03.05-22.04.05; 25.05.05; 08.06.05-17.06.05`).

> **Note**
>
> Employee non-working days are added to the non-working days defined for the assigned team.

10. Optionally select the team to which the employee belongs from the **Working group - Team** drop-down list.



11. Optionally select the role or qualification that the employee can perform from the **Role - Qualification** drop-down list.



12. Optionally enter a different value for the calculated productivity of the employee in percent in the **Productivity** field.
13. Optionally enter a different hourly rate in the **Costs** field.
14. Optionally enter a date and either a coefficient for the existing hourly rate or a new hourly rate in the **Cost adjustment** field.
15. Optionally enter a note in the **Notes** field.

Assign additional roles, teams, costs, and productivity

If an employee needs additional roles, team assignments, productivity values, or cost rates, enter the additional assignment in the row directly below the same employee.

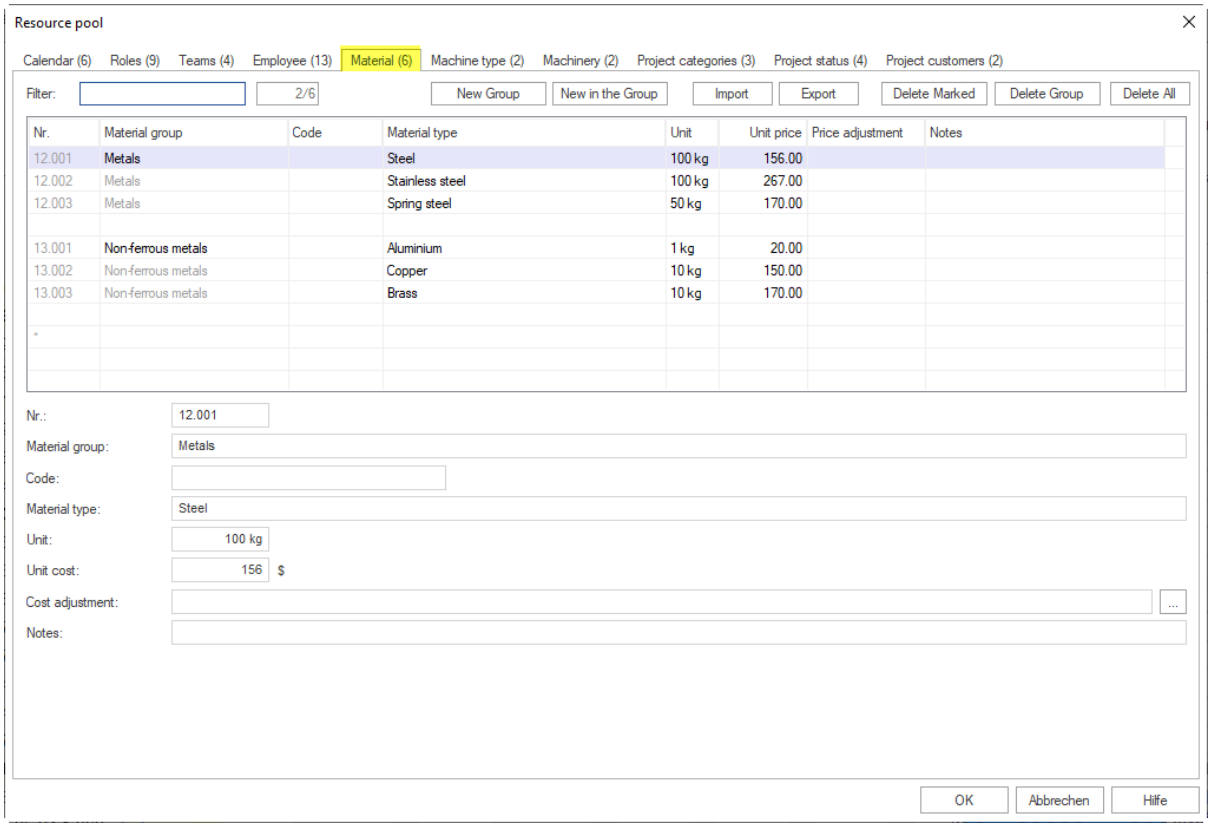
Warning

Do not create the same employee again in another * row. Use the following rows of the existing employee for additional assignments to avoid inconsistencies in project planning.

Import/export fields: ID, First name, Last name (required), Code, E-mail, Calendar, Begin, End, Non-working days, Team, Role, Productivity, Costs, Cost adjustment, Notes.

> **Note**
>
> For employee import, the txt file must contain exactly 14 # separators per line. A different number produces an error message. Missing values remain empty at the corresponding position.

Material Tab



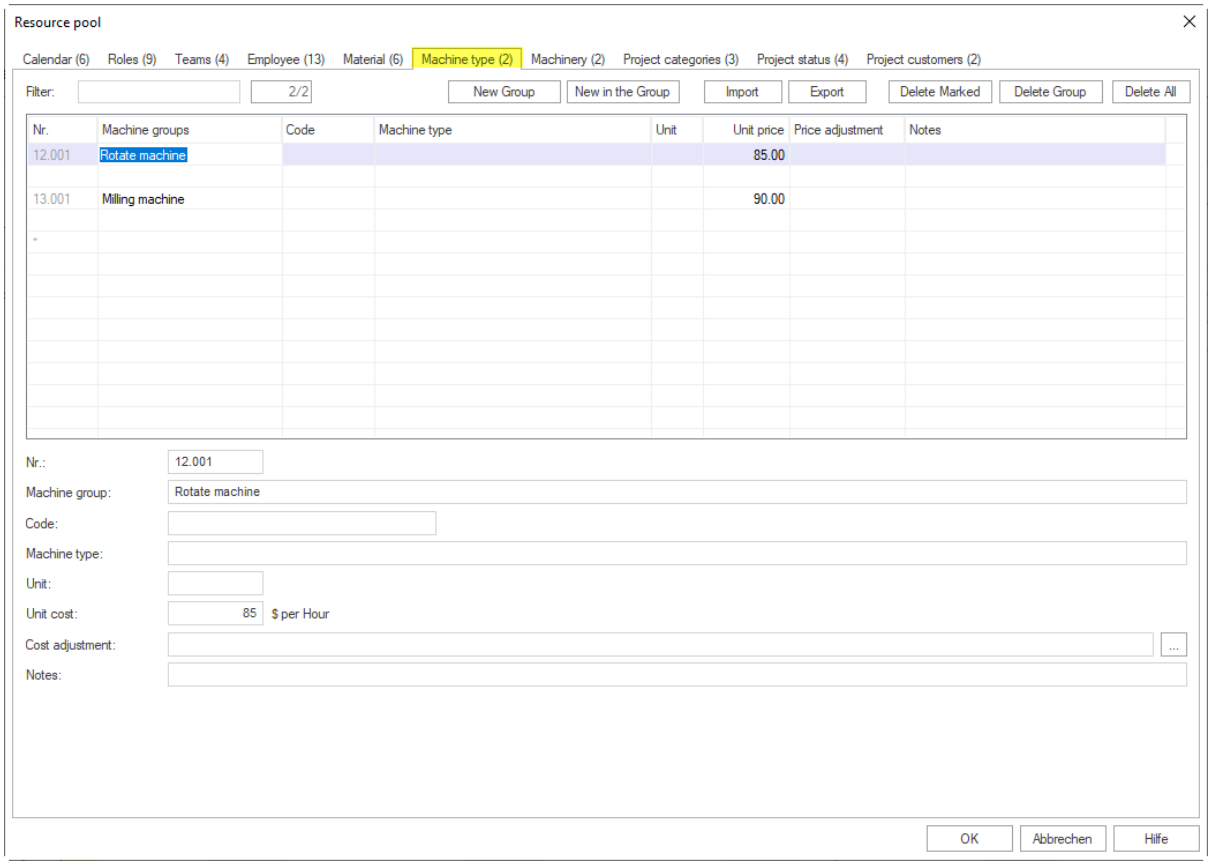
Material (consumable material) is organised in material groups (example: building-construction ready-mixed concrete → ready-mixed concrete BI: B 5 KS).

Create material

1. Click **New group**, or enter a new group name in the **Material group** column of the * row.
2. Enter the material type designation in the **Material type** column. Enter further types in the following rows.
3. Optionally enter a unique code in the **Code** column.
4. Enter the unit of measure in the **Unit** field (example: tonnes, m², piece).
5. Enter the cost per unit of measure in the **Unit price** field.
6. Optionally enter a date and a coefficient or new price in the **Price adjustment** field.
7. Optionally enter a note in the **Notes** field.

Import/export fields: ID, Material group (required), Code, Material type (required), Unit, Unit price, Price adjustment, Notes.

Machine Type Tab



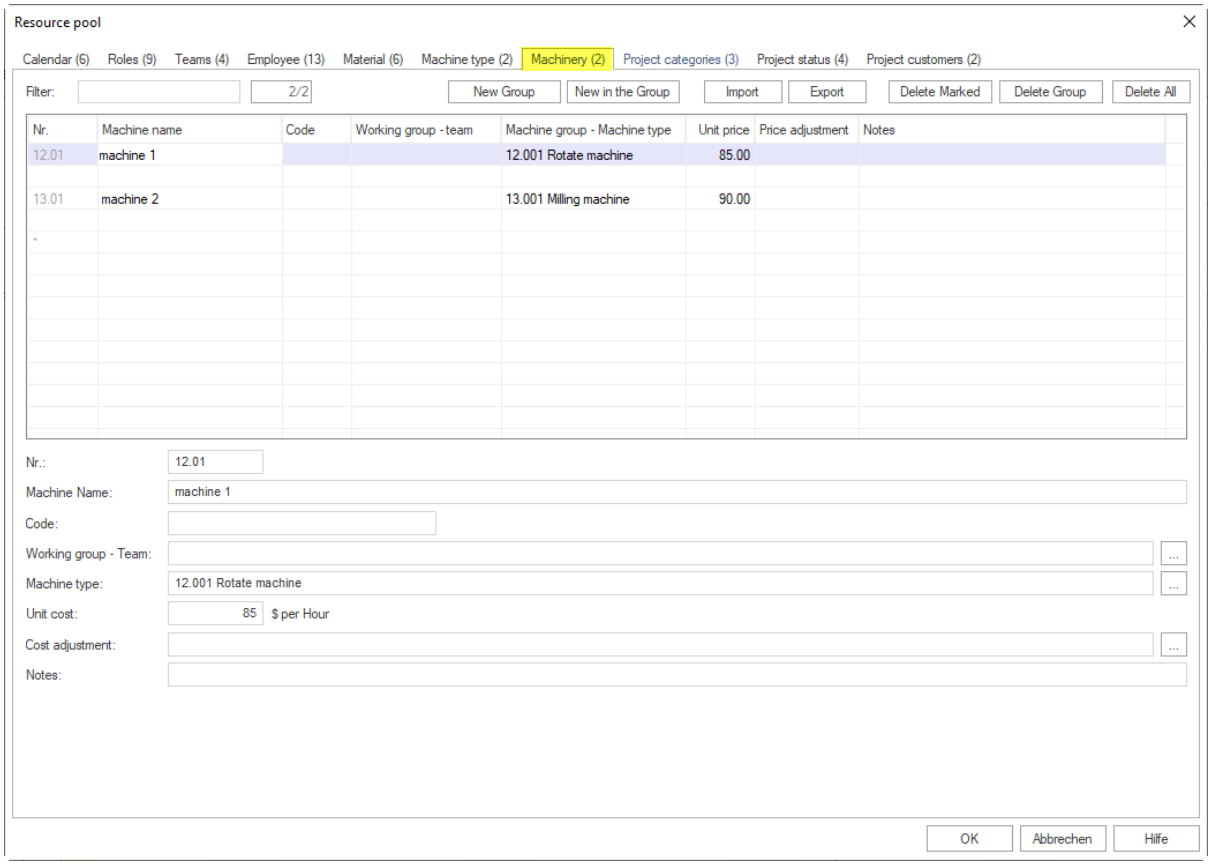
Machine types describe types and groups of machines or devices (example: mini cranes → mini crane type 10 t, mini crane type 100 t).

Create machine types

1. Click **New group**, or enter a new group name in the **Machine group** column of the * row.
2. Enter the machine type in the **Machine type** column. Enter further types in the following rows.
3. Optionally enter a unique code in the **Code** column.
4. Enter the unit of measure in the **Unit** field (example: piece).
5. Enter the cost per hour of the machine type in the **Unit price** field.
6. Optionally enter a date and a coefficient or new price in the **Price adjustment** field.
7. Optionally enter a note in the **Notes** field.

Import/export fields: ID, Machine group (required), Code, Machine type (required), Unit, Unit price, Price adjustment, Notes.

Machinery Tab



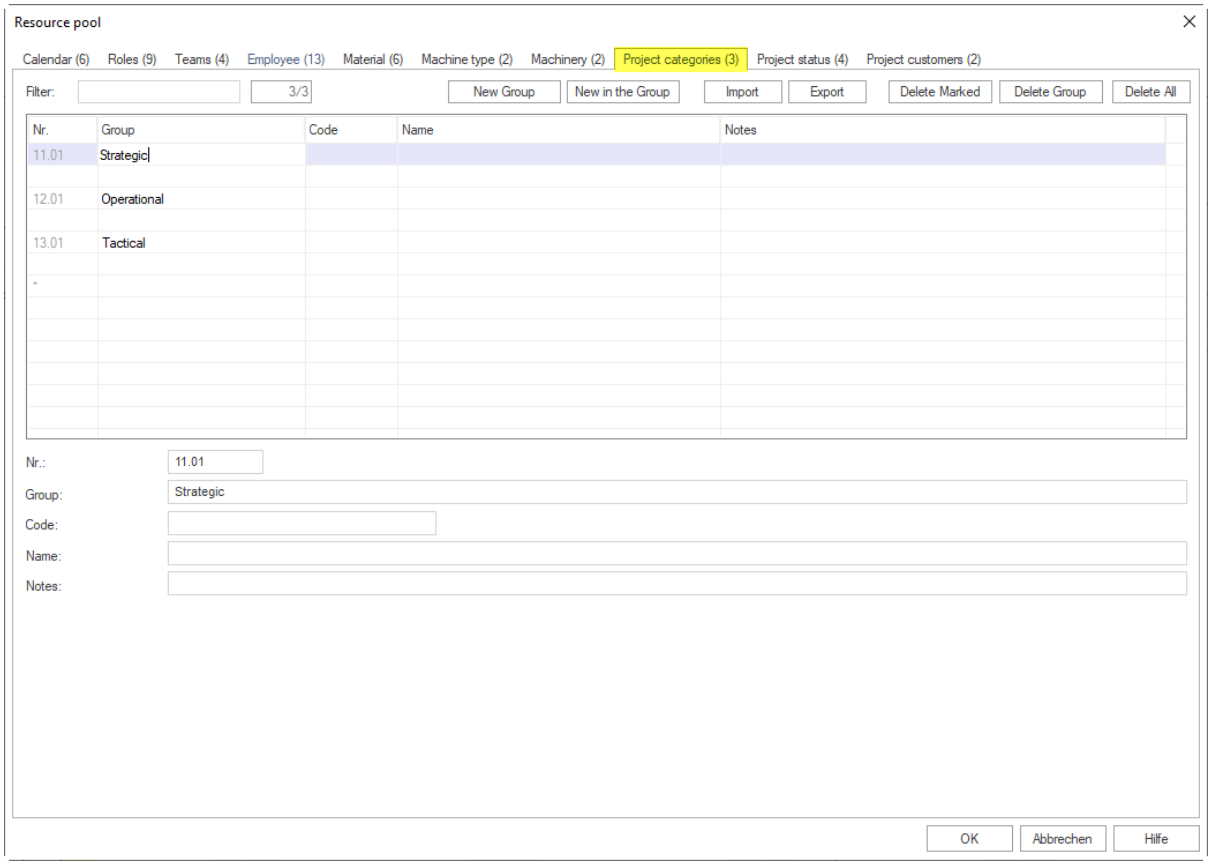
The **Machinery** tab contains concrete individual machines that are assigned to a machine type.

Create machines

1. Click **New group**, or enter a new name in the **Machine name** column of the * row.
2. Optionally enter a unique code in the **Code** column.
3. Optionally select the team this machine belongs to from the **Working group - Team** drop-down list.
4. Select the associated machine type from the **Machine group - Machine type** drop-down list.
5. Enter the cost per hour of the machine in the **Unit price** field.
6. Optionally enter a date and a coefficient or new price in the **Price adjustment** field.
7. Optionally enter a note in the **Notes** field.

Import/export fields: ID, Machine name (required), Code, Working group - Team, Machine group - Machine type (required), Unit, Unit price, Price adjustment, Notes.

Project Categories Tab

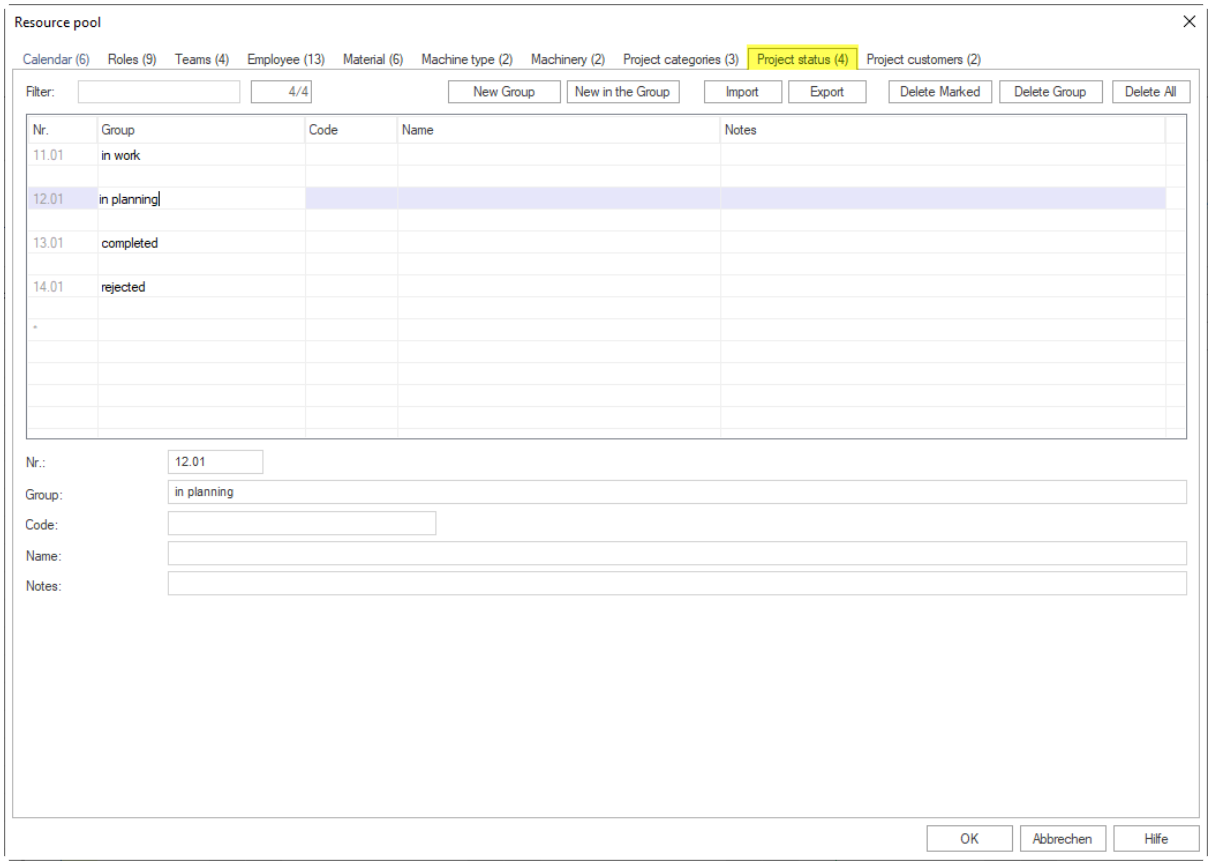


Project categories classify projects (example: building construction, infrastructure, maintenance).

Create project categories

1. Click **New group**, or enter a group name in the **Group** column of the * row.
2. Enter the category in the **Name** column. Enter further categories in the following rows.
3. Optionally enter a unique code in the **Code** column.
4. Optionally enter a note in the **Notes** field.

Project Status Tab

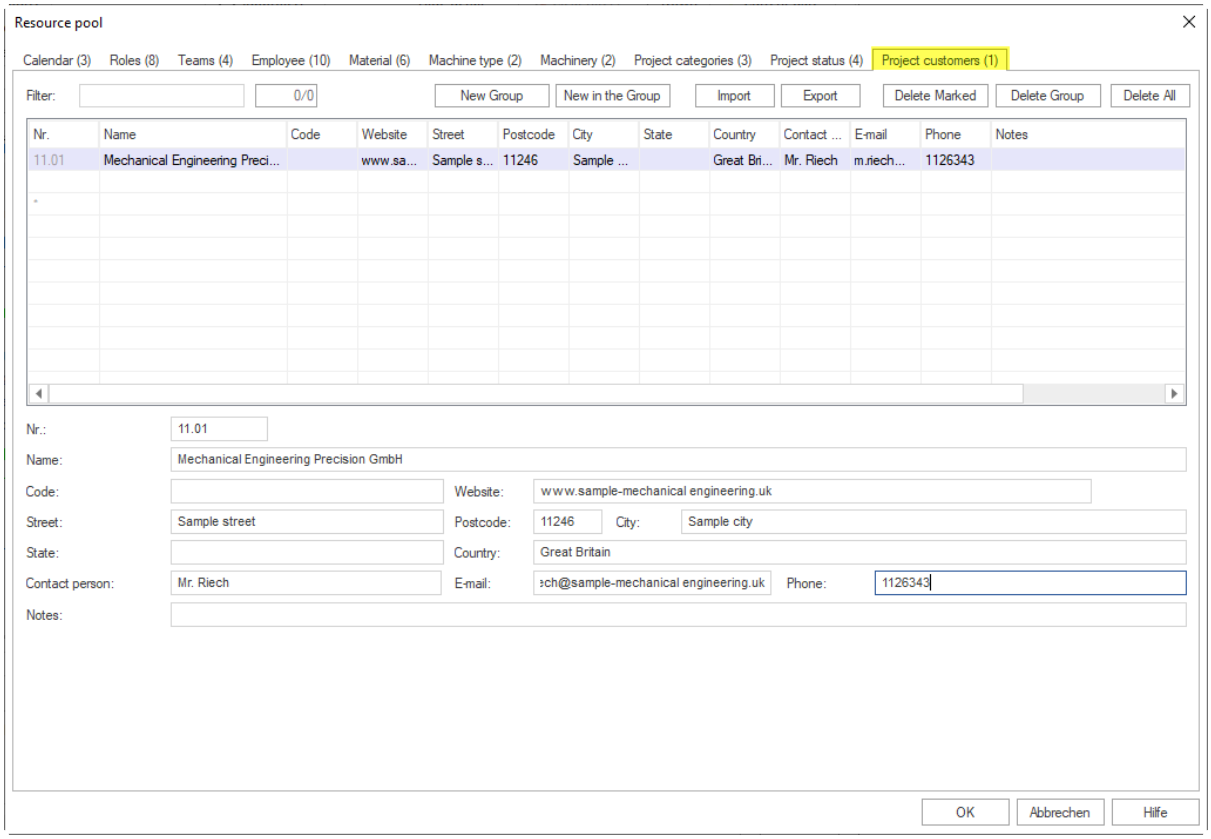


Project status values describe the processing state of a project (example: in planning, active, completed, archived).

Create project status

1. Click **New group**, or enter a group name in the **Group** column of the * row.
2. Enter the status value in the **Name** column. Enter further levels in the following rows.
3. Optionally enter a unique code in the **Code** column.
4. Optionally enter a note in the **Notes** field.

Project Customers Tab



Project customers manage clients and customers with their address and contact data.

Create project customers

1. Click **New group**, or enter a customer name in the **Name** column of the * row.
2. Enter contact data in the group columns: address, contact person, email, telephone.
3. Optionally enter a unique code in the **Code** column.
4. Optionally enter the URL in the **Website** column.
5. Add further branches or contact persons in the following rows — the customer name is copied automatically.

Available address fields: street, postal code, city, state, country.

Import/export fields: No., Name (required), Code, Street, Postal code, City, State, Country, Contact person, Email, Telephone, Notes.

> **Note**
>
> For the customer import, the txt file must contain exactly 11 # separators per line (number of columns minus 1). A different number produces an error message.

Filtering

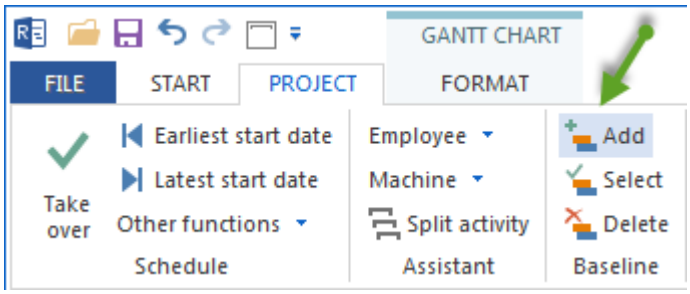
All tabs of the resource pool contain a **Filter** field. Enter a search term or part of it to search specifically for an entry.

Related Topics

- *Resource Pool*
- *Derive Resource Supply From the Resource Pool*
- *Maintain Working Times and Non-Working Days*
- *Synchronize Resources*

13.2.8 Baseline

A baseline is a saved reference state of a project. It is the basis for variance analysis, project controlling, and status reporting.



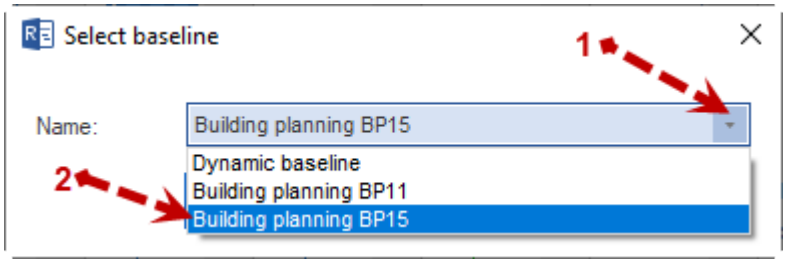
Contents

A baseline stores relevant plan values, for example:

- dates
- effort
- costs
- resource information
- working time and calendar context

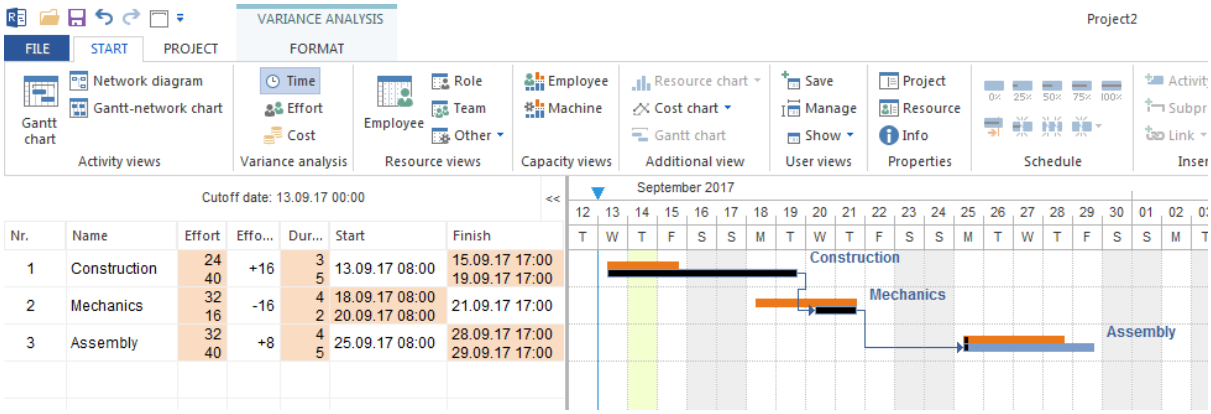
Usage

Baselines are used to compare current project values with an earlier approved planning state. Several baselines can document different planning states.



Dynamic Baseline

The dynamic baseline can use a suitable reference state per activity when several baselines exist. This is useful in longer projects with regular progress tracking and approved plan revisions.

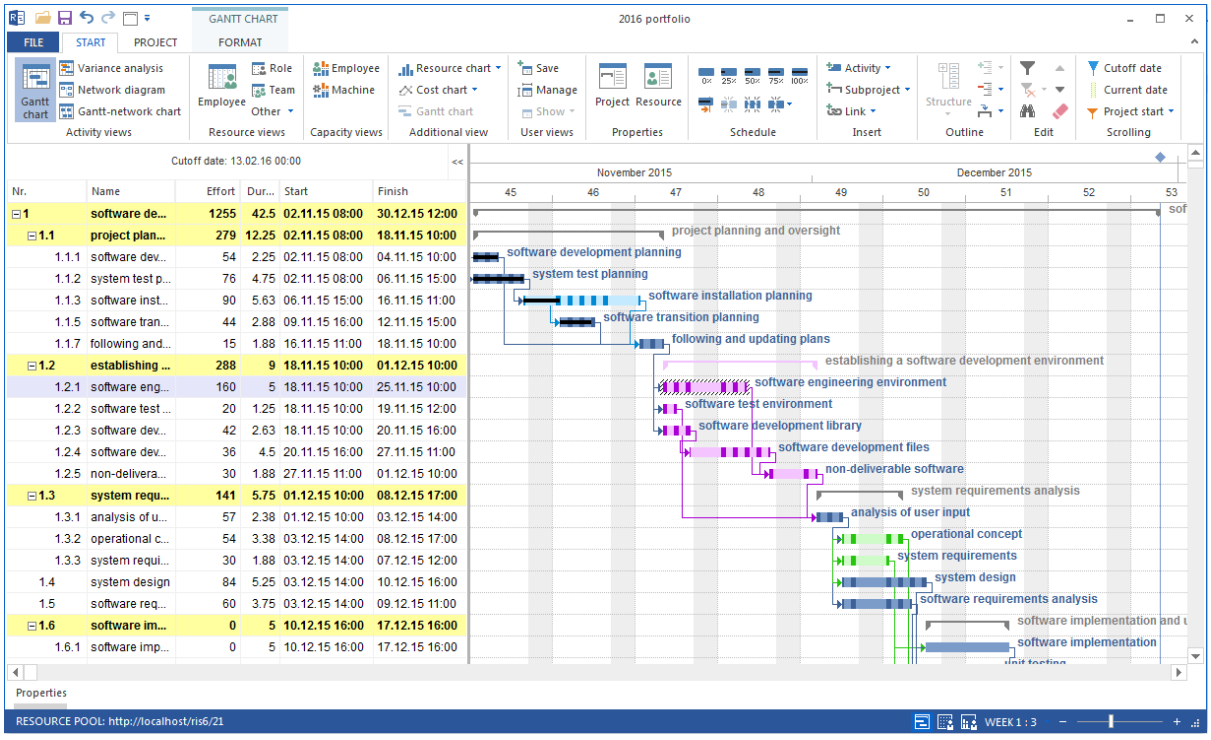


Related Topics

- *Project*
- *Save Baseline and Enter Progress*
- *Baseline or Dynamic Baseline?*

13.2.9 Project Portfolio

A project portfolio combines several projects in one view. It is used for cross-project analysis of dates, resources, priorities, status, and risks.



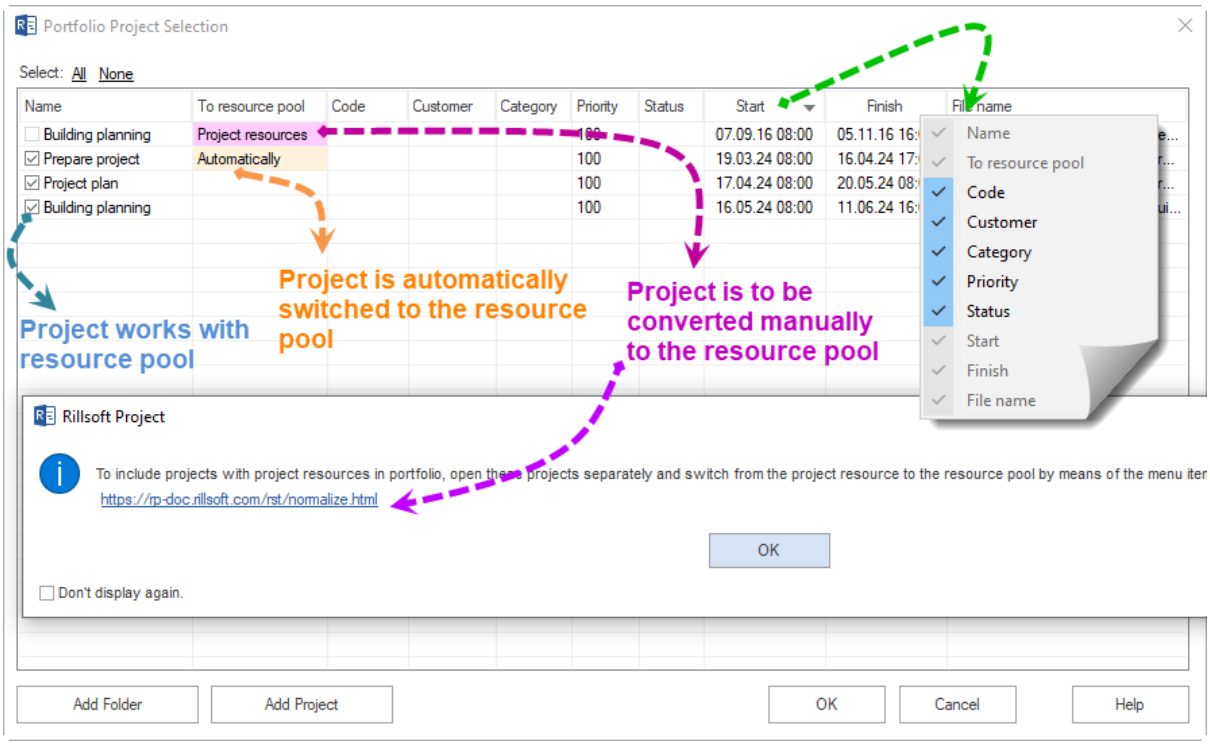
Prerequisites

- Projects are local files, server projects, or cloud projects.
- Projects use the same resource pool.
- Categories, status values, priorities, and customers are maintained consistently.

Usage

A portfolio is used for:

- cross-project resource planning
- capacity balancing across several projects
- portfolio dashboard
- project prioritisation
- simulations by including or excluding projects
- variance analysis in portfolio context



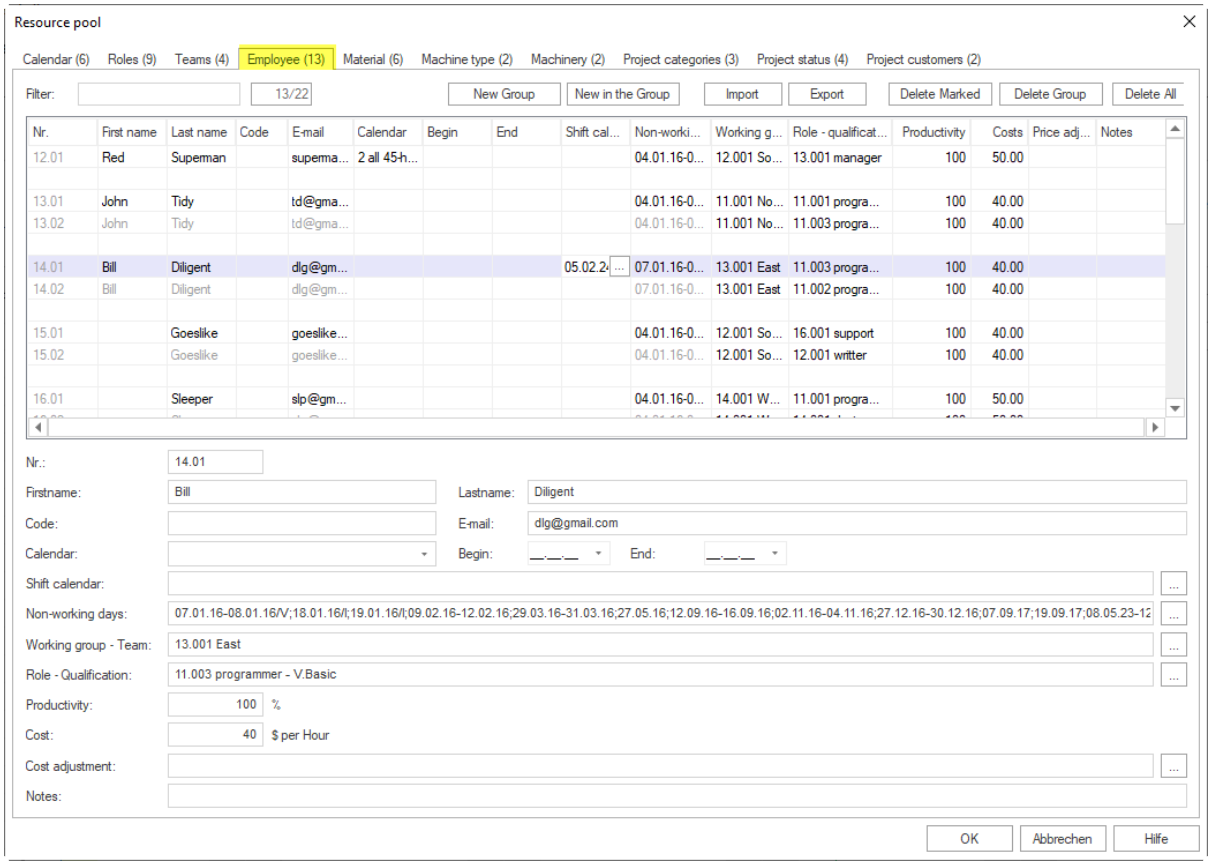
Difference From Summary Project

The portfolio is mainly used for common analysis and steering. The summary project is stronger for operational joint handling of several projects.

Related Topics

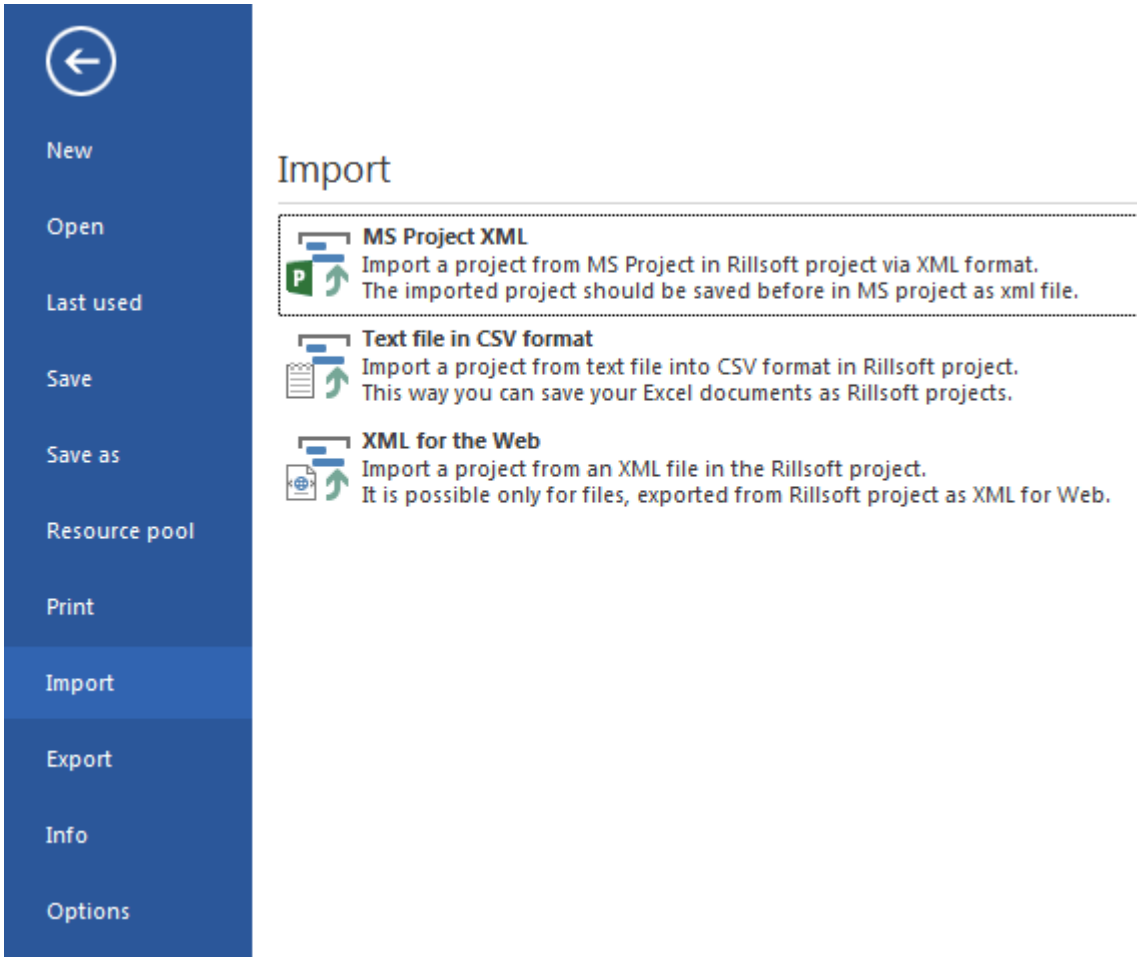
- *Project*
- *Resource Pool*
- *Portfolio View*
- *Project Portfolio and Multiproject Management*

The objects are connected: projects contain subprojects and activities. Activities are linked and require resources. The resource pool provides resource supply. Baselines and portfolios add controlling and multi-project evaluation.



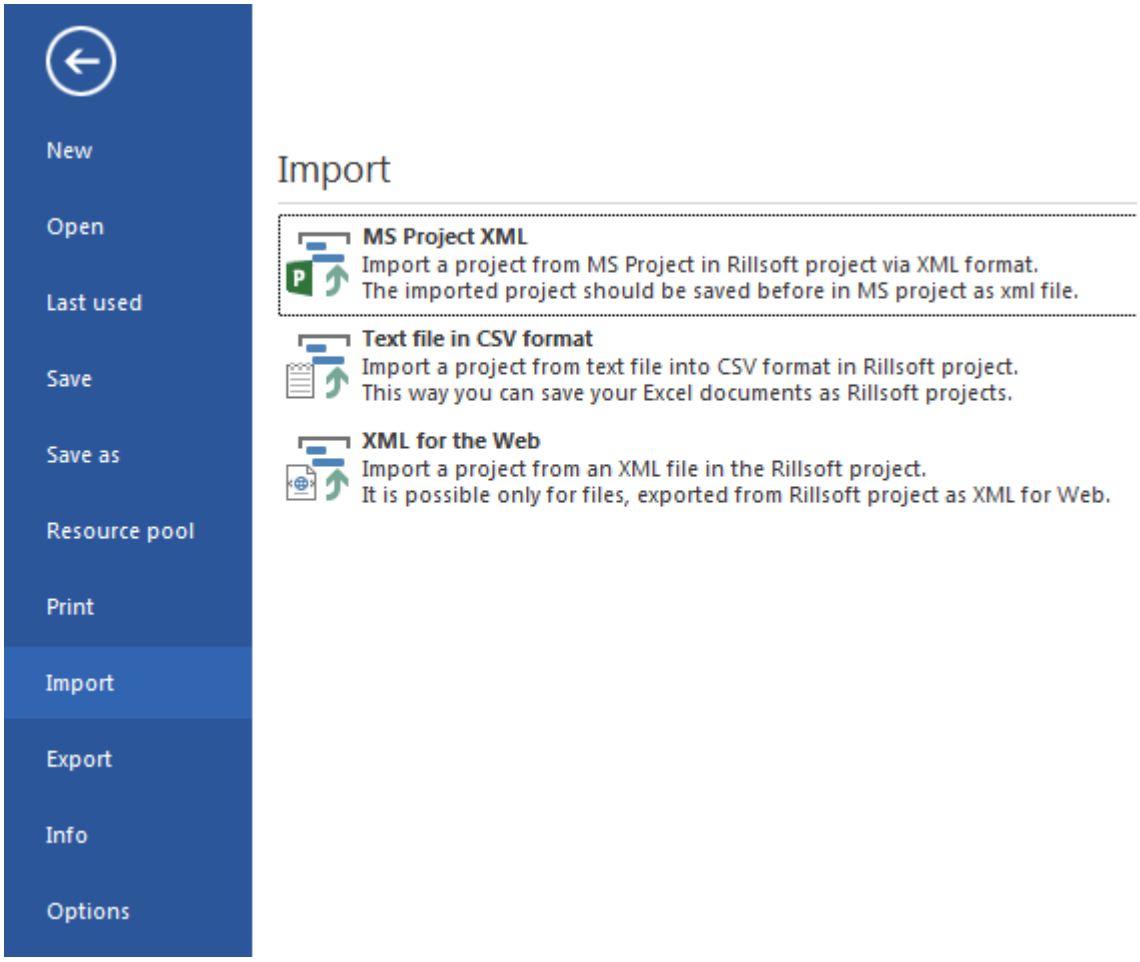
13.3 Interfaces and Expert Functions

This section describes advanced functions for data exchange, templates, optimisation, document management, and server operation.



13.3.1 Import

Rillsoft Project takes over project data from other sources through **File > Import**. Supported formats are MS Project XML, text files in CSV format, XML for web, and GAEB.



- *Supported Formats*
- *Import MS Project XML*
- *Import A Text File In CSV Format*
- *Import XML For Web*
- *Import GAEB*
- *Check After Import*
- *Related Topics*

Supported Formats

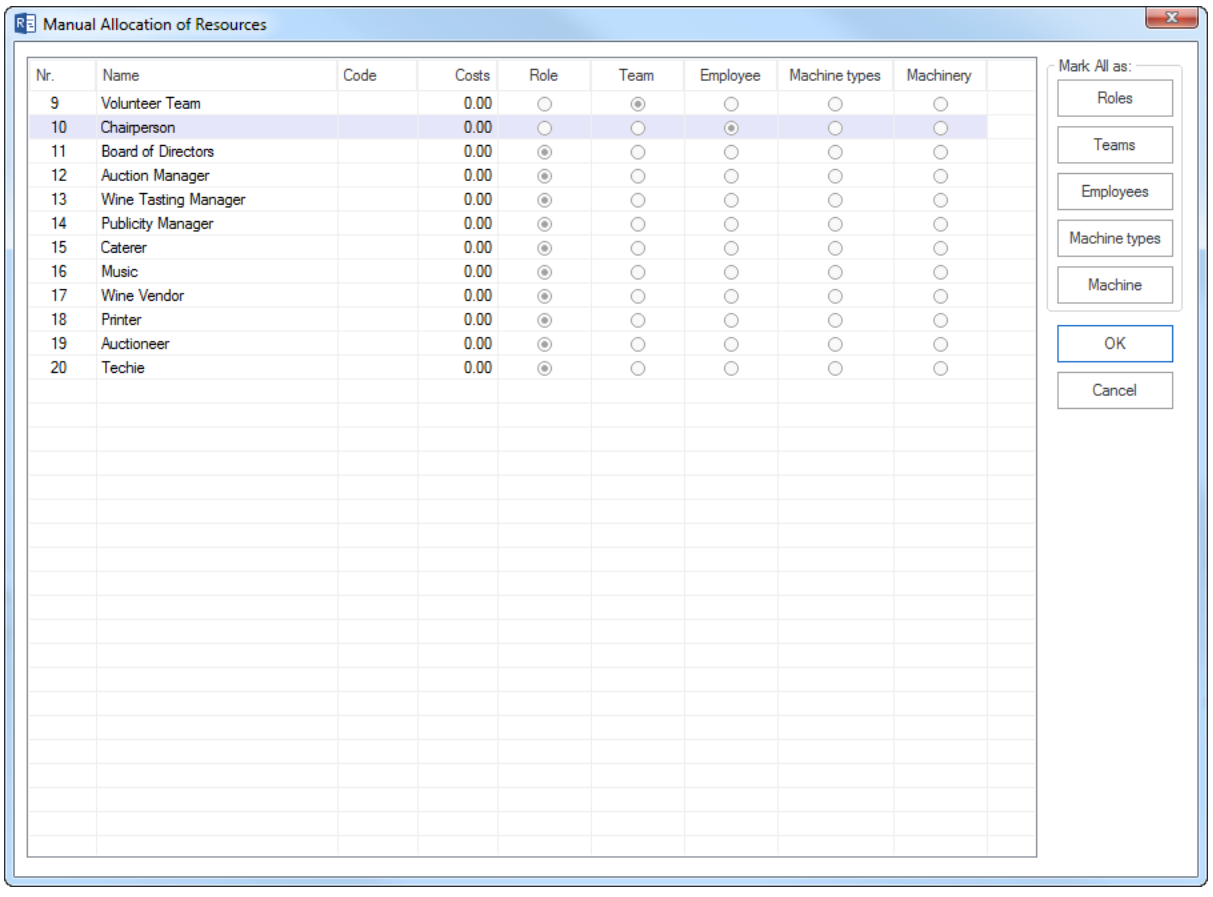
Format	Use
MS Project XML	Import of projects that were saved in MS Project in XML format. Resources are assigned to the resource types in Rillsoft Project during import.
Text file in CSV format	Import of simple planning data: project structure, names, start and finish dates, user-defined fields (up to 20).
XML for web	Import of XML files previously created via **File > Export > XML**.
GAEB	Import of tender data in GAEB 90, GAEB 2000, and GAEB DA XML format. Typical for construction and tendering contexts.

Import MS Project XML

Prerequisite: the MS Project project is available as an XML file (in MS Project: **File > Save as**, file type **XML format (*.xml)**).

Steps:

1. In Rillsoft Project, click **File > Import > MS Project XML**.
2. Select the XML file and click **Open**.
3. The **Manual Allocation of Resources** dialog shows the resources from the XML file. Assign each resource to a resource type.



Resource types in the assignment dialog:

Resource type	Meaning in Rillsoft Project
Roles	Professional qualifications entered as demand on the activity.
Teams	Groups of employees with shared capacity.
Employees	Concrete persons with their own calendar and availability.
Machine types	Types of equipment or machines.
Machinery	Individual machines or devices assigned to a machine type.

Assign all resources at once: click **Mark All as: Roles** (or another resource type) if all imported resources are to receive the same type.

4. Click **OK**.

Result: the project is open in Rillsoft Project. Check the project structure, resource assignments, and calendars after the import.

Import A Text File In CSV Format

The CSV format supports two variants for the project structure:

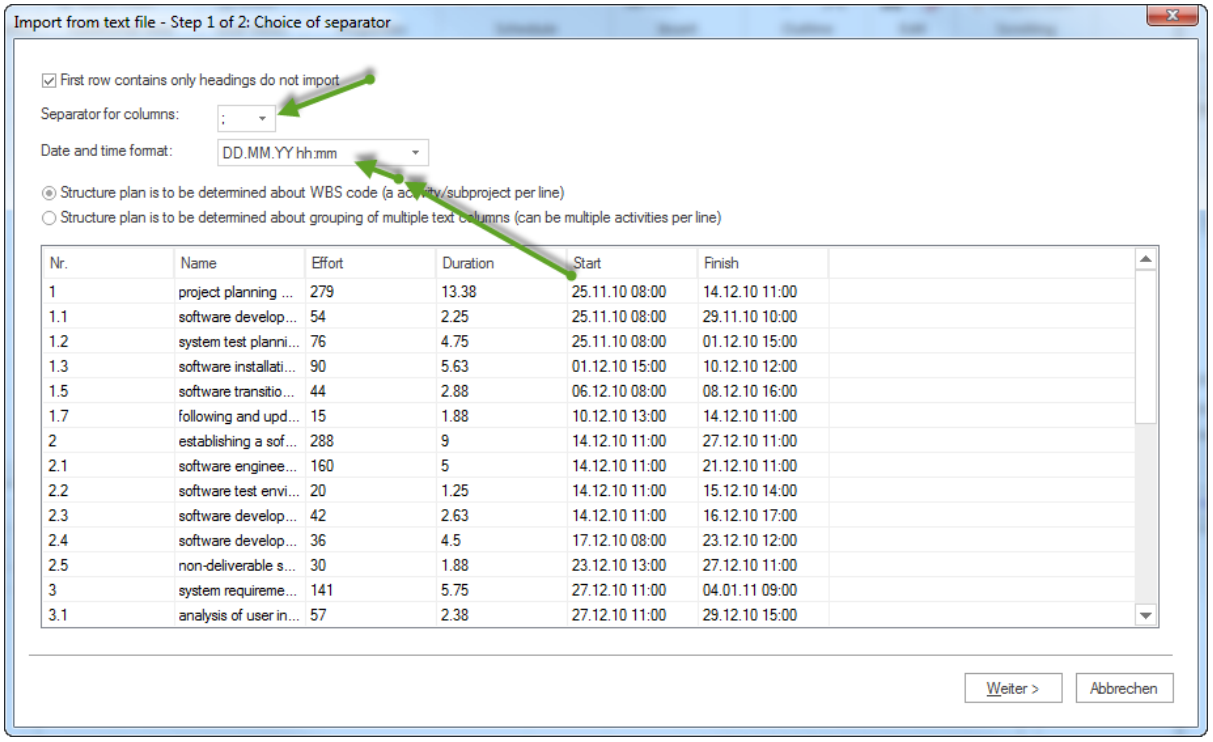
Variant	Structure
Variant 1 - WBS code	Each row contains one activity. The hierarchy is determined from a WBS code column (for example `1`, `1.1`, `1.2`).
Variant 2 - column grouping	Several activities per row. The hierarchy is created by several text columns (for example branch → service group → subgroup → activity).

Example variant 1 (WBS code):

```
WBS;Name;Start;Finish
1;Subproject A;25.08.2024 08:00;05.09.2024 17:00
1.1;Activity 1;25.08.2024 08:00;29.08.2024 17:00
1.2;Activity 2;28.08.2024 08:00;03.09.2024 17:00
```

Step 1 - import dialog:

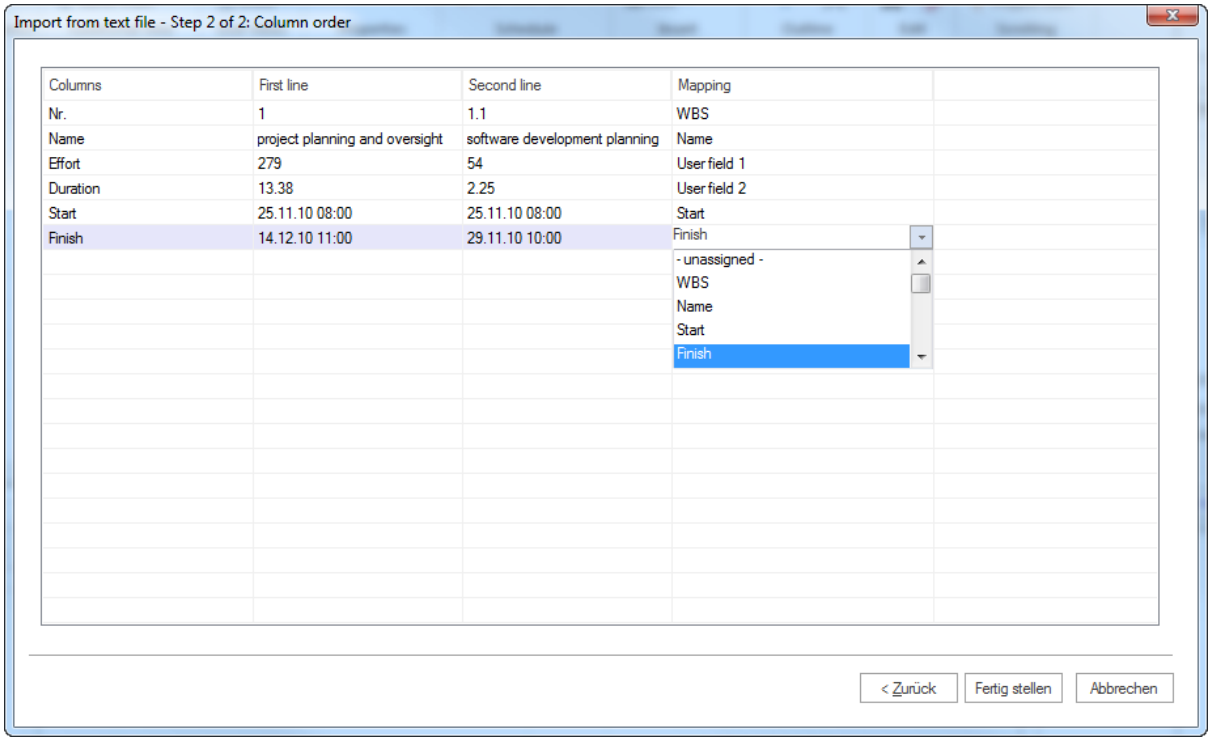
1. Click **File > Import > Text file in CSV format**.



Field / option	Meaning
First row contains only headings, do not import	Enable when the first row contains the column labels and should not be imported as an activity.
Separator for columns	Column separator in the CSV file (for example semicolon, comma, tab).
Date and time format	Format for date and time entries in the file (for example `DD.MM.YYYY HH:MM`).
Structure plan variant	Select variant 1 (WBS code) or variant 2 (column grouping).

2. Click **Next**.

Step 2 - column mapping:



1. In the **Assignment** column, assign a project property to each data column (for example column `Name` → property **Activity name**, column `Start` → **Start date**).
2. Click **Finish**.

Importable fields:

- project structure (subprojects, activities)
- names of the subprojects and activities
- start and finish dates
- user-defined fields (up to 20)

Import XML For Web

File > Import > XML for web reads files created via **File > Export > XML**. This path is used for exchange between Rillsoft Project installations or for archiving and restoring projects.

Steps:

1. Click **File > Import > XML for web**.
2. Select the XML file.
3. Click **Open**.

Import GAEB

File > Import > GAEB reads tenders in the formats GAEB 90, GAEB 2000, and GAEB DA XML. The imported items appear as activities in the Gantt chart.

Steps:

1. Click **File > Import > GAEB**.
2. Select the GAEB file.
3. Click **Open**.

Check After Import

Check the following points after every import:

Check point	What to check?
Project structure	Subprojects and activities in the correct hierarchy?
Dates and durations	Start and finish dates taken over correctly?
Resource types	Roles, teams, employees, machines assigned correctly?
Calendars	Working time and non-working days plausible?
Links	Dependencies between activities correct?
Capacity effect	Resource assignments have the correct effect on the utilisation?

Related Topics

- *Export*
- *XML*
- *Checklist: Check Data Before Import or Export*
- *Advanced Import and Export*

13.3.2 Export

Rillsoft Project passes project data on to other systems or formats. The export functions are available through **File > Export**, **View Format > Data > Excel**, and (with Integration Server) **Add-ons > iCalendar**.

- *Supported Formats*
- *Export MS Project XML*
- *Export To Excel*
- *Export iCalendar*
- *Export XML*
- *Check Before Export*

- *Related Topics*

Supported Formats

Format	Use
MS Project XML	Data exchange with Microsoft Project or systems that read the MS Project XML format.
XML	Rillsoft's own XML format for web publication or archiving (→ import with XML for web).
MS Excel	Tabular evaluations, further processing, and reports. Works for activity, resource, and capacity views.
iCalendar	Calendar subscription through Rillsoft Integration Server. Supplies MS Outlook, Apple Calendar, and similar clients with project tasks.
PDF	Print output as PDF through **File > Print** (→ *Print And Output*).

Export MS Project XML

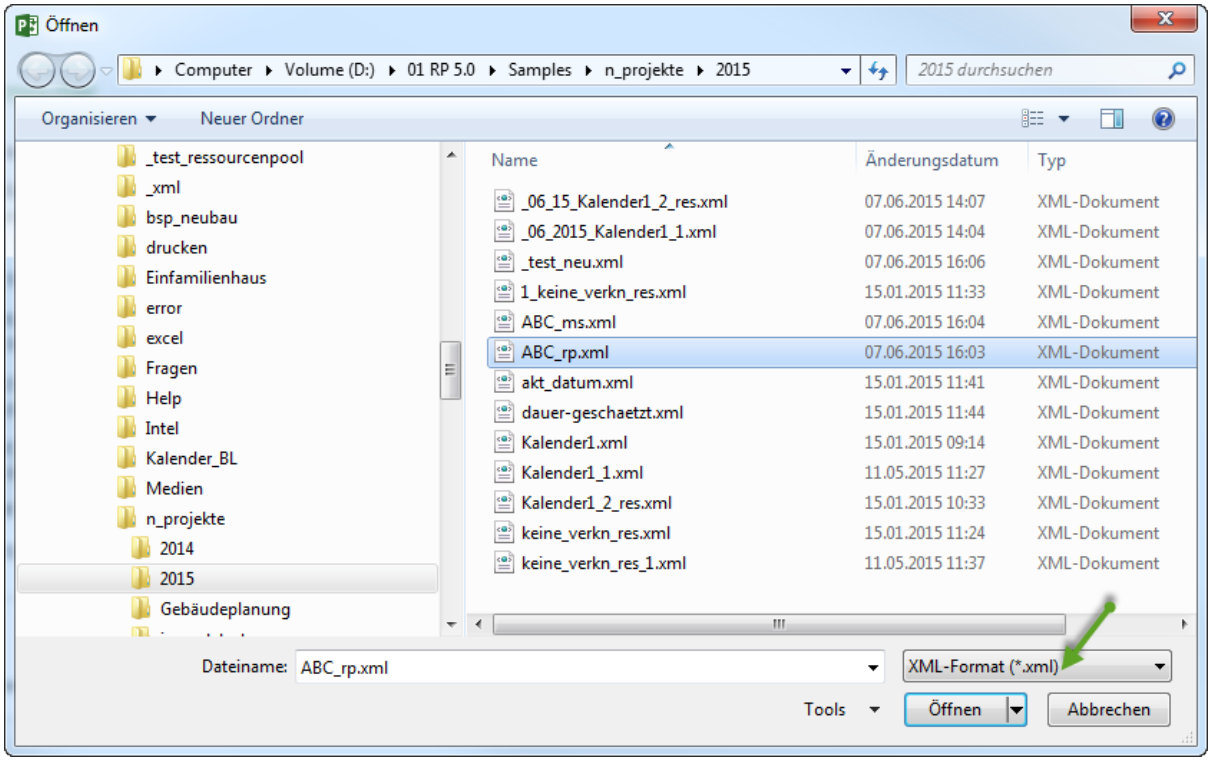
Goal: the Rillsoft project is available as an XML file that MS Project can open.

In Rillsoft Project:

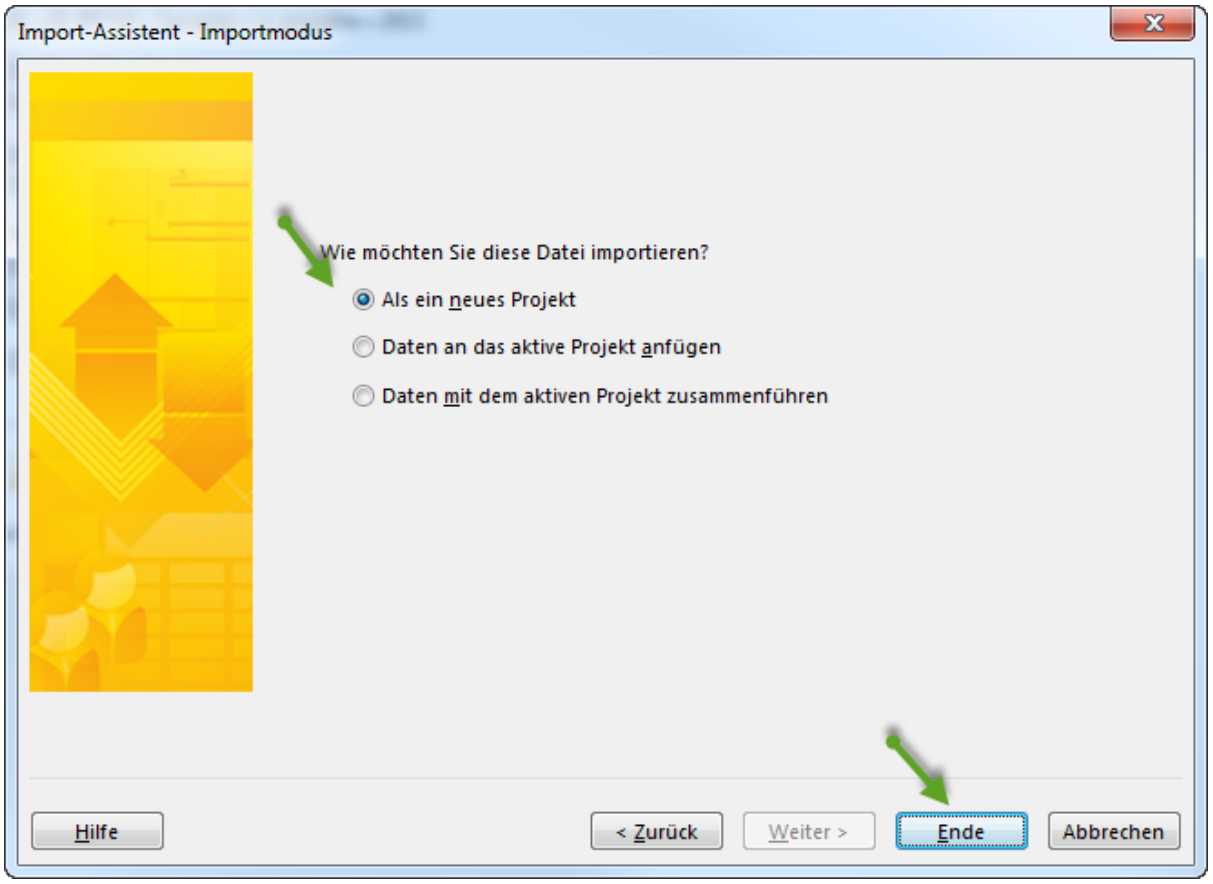
1. Click **File > Export > MS Project XML**.
2. Enter a file name.
3. Click **Save**.

In MS Project (open file):

1. Click **File > Open**.
2. In the file dialog, select the file type **XML format (*.xml)**.



3. Select the exported XML file and click **Open**.
4. In the **Import wizard**, select **As a new project** and click **Finish**.



Export To Excel

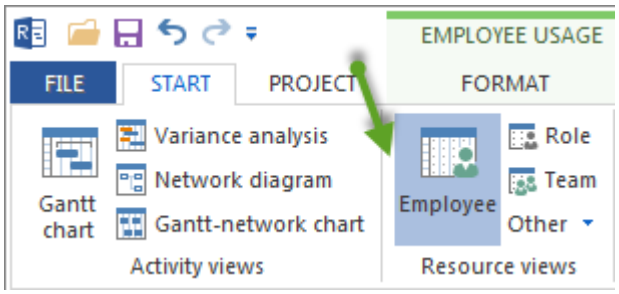
Which views can be exported to Excel:

View type	Exportable views
Activity views	Bar chart (Gantt)
Resource views	Employee, role, team, machine type, machinery, material demand
Capacity views	Capacity balancing employees, capacity balancing machines

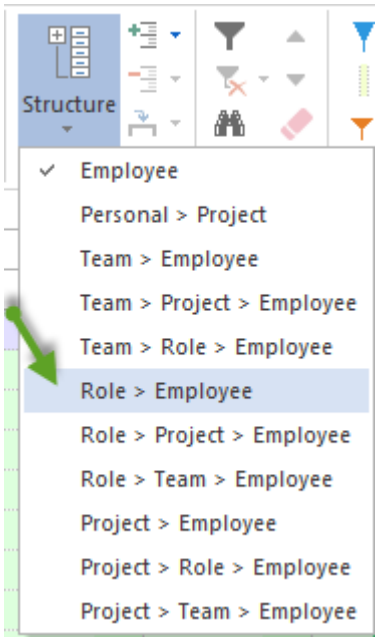
Tip: by enabling a filter before the export, the exported data can be restricted in time and by resource.

Steps:

1. Click the desired view, for example **Start > Resource views > Employee**.

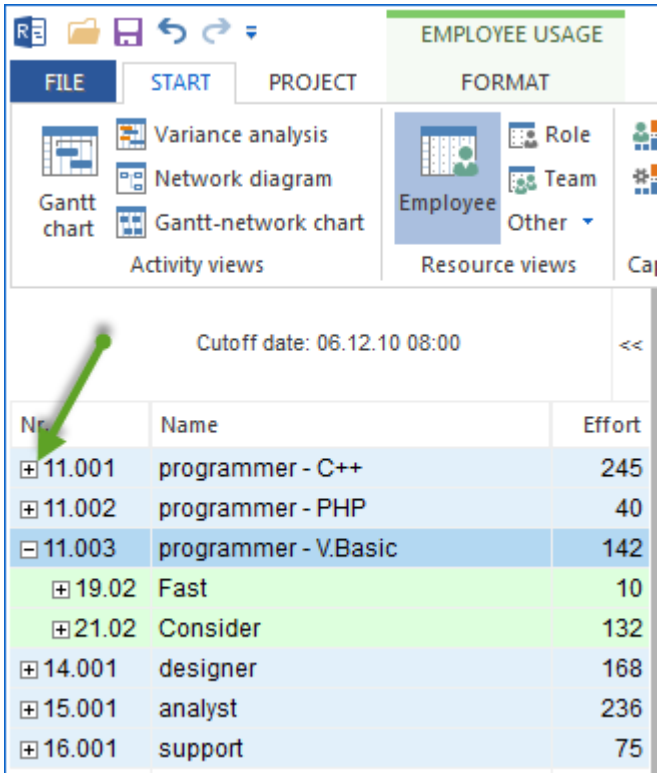


2. Structure the view via **Start > Outline > Grouping**, for example by **Project > Role > Employee**.

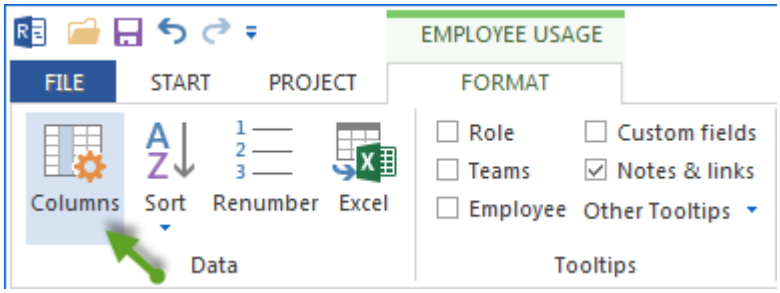


3. Set the timescale, for example **Week 1:2** for weeks with factor 2.

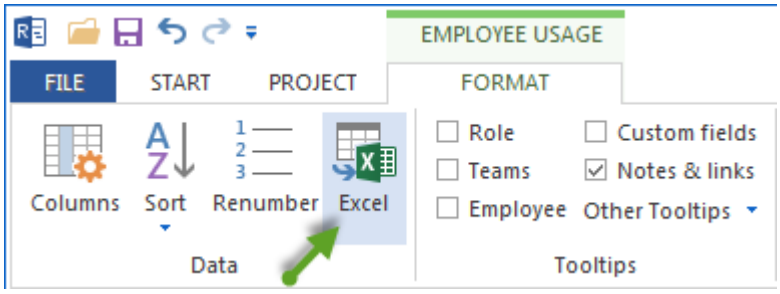
4. Show further detail with **+** if needed.



5. Check the columns via **View Format > Data > Columns** and switch off columns that are not needed.



6. Click **View Format > Data > Excel** and assign a file name.

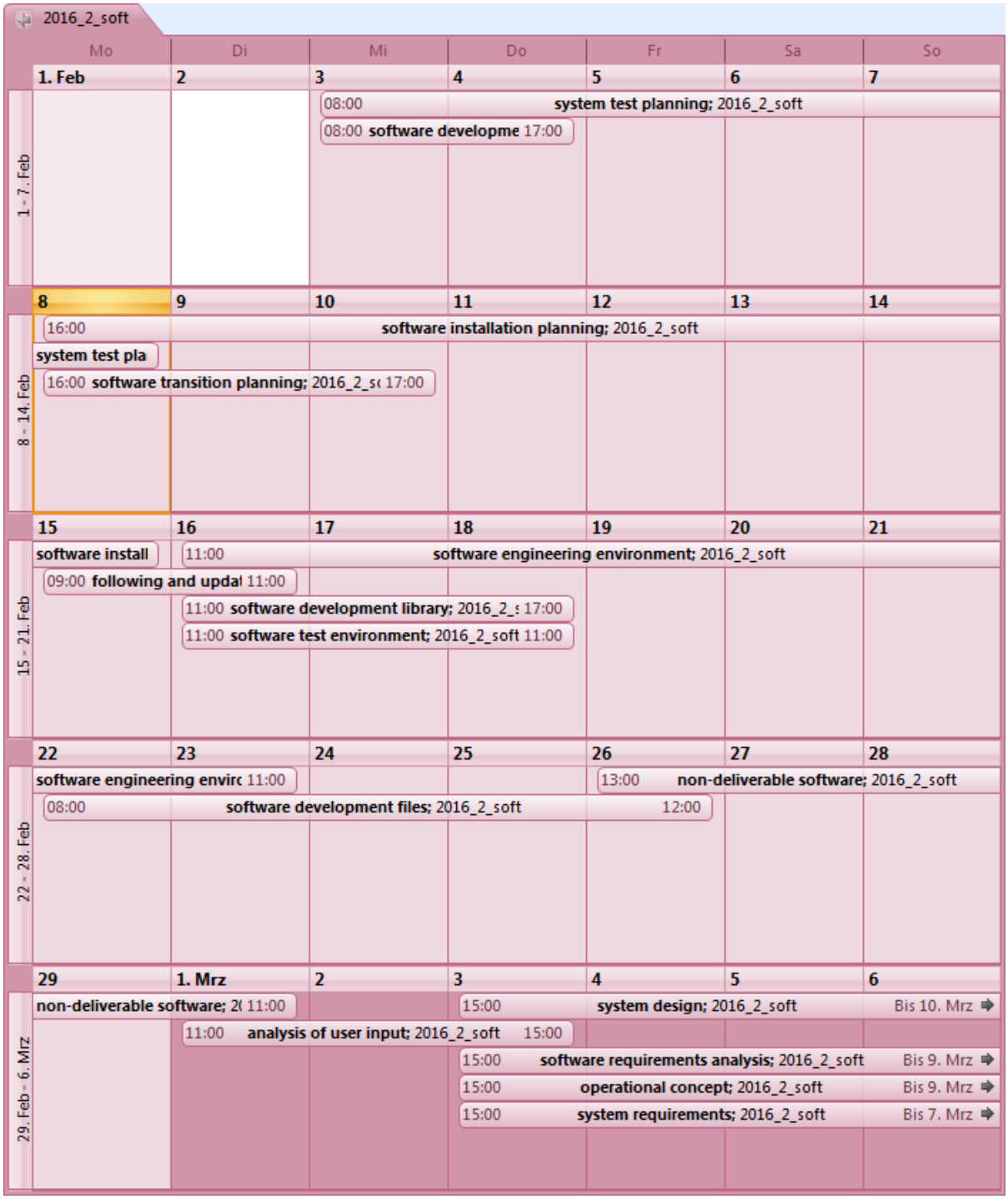


Alternative path: File > Export > MS Excel exports the last active view without further configuration.

Export iCalendar

Prerequisites:

- The Rillsoft Integration Server is set up and reachable.
- The user has the necessary access rights in the Integration Server.

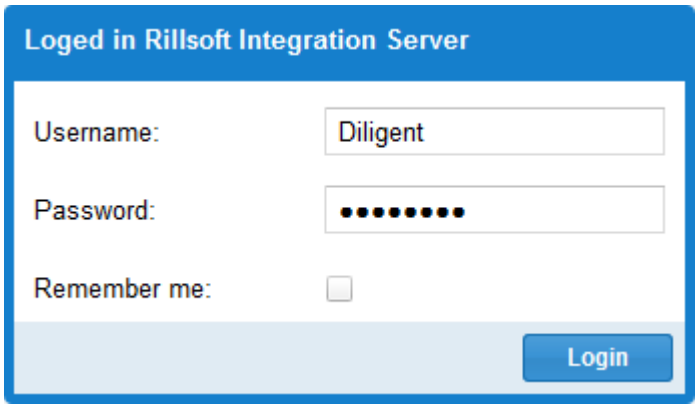


Available calendar types:

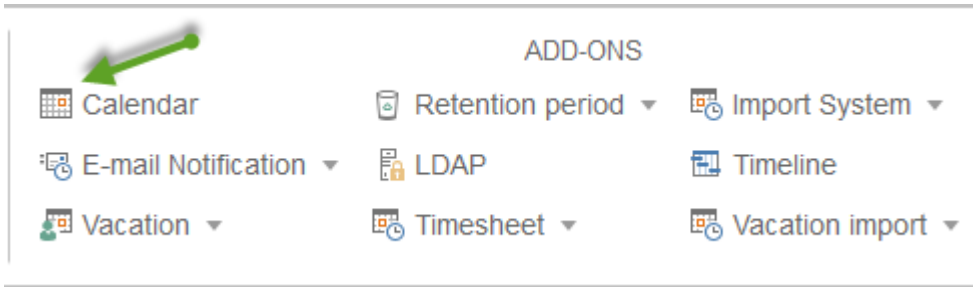
Calendar type	Content
User tasks	Activities assigned personally to the logged-in user.
Portfolio tasks	Activities from all projects of a portfolio.
Project tasks	Activities of a single project.

Steps:

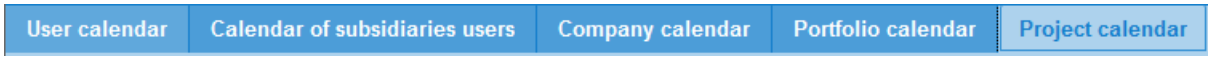
1. Log in to the Rillsoft Integration Server through the web interface.



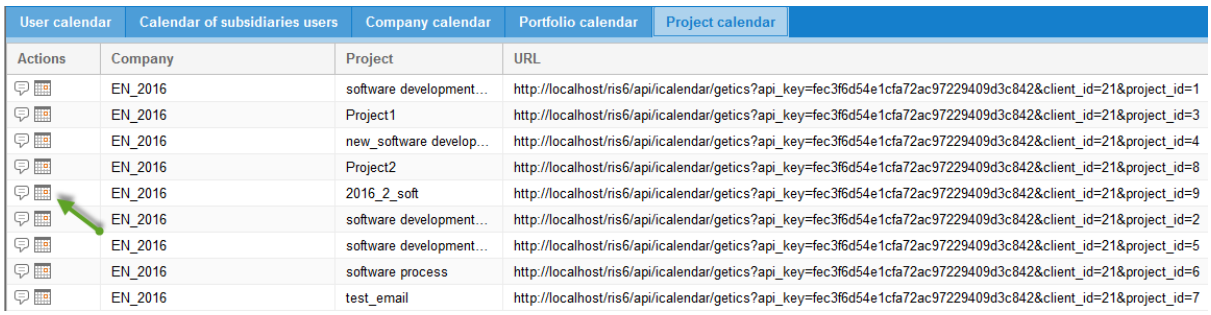
2. Click **Add-ons > iCalendar**.



3. Select the calendar type, for example **Project calendar**.



4. Select the project in the list and click the calendar button in the **Action** column.



Result: the browser opens an iCalendar link that you can add as a subscription in MS Outlook, Apple Calendar, or another iCal-capable client.

Export XML

File > Export > XML creates Rillsoft's own XML format. This file can be read back in via **File > Import > XML for web**. The format is suitable for archiving and transfer between Rillsoft Project installations.

1. Click **File > Export > XML**.
2. Enter a file name.
3. Click **Save**.

Check Before Export

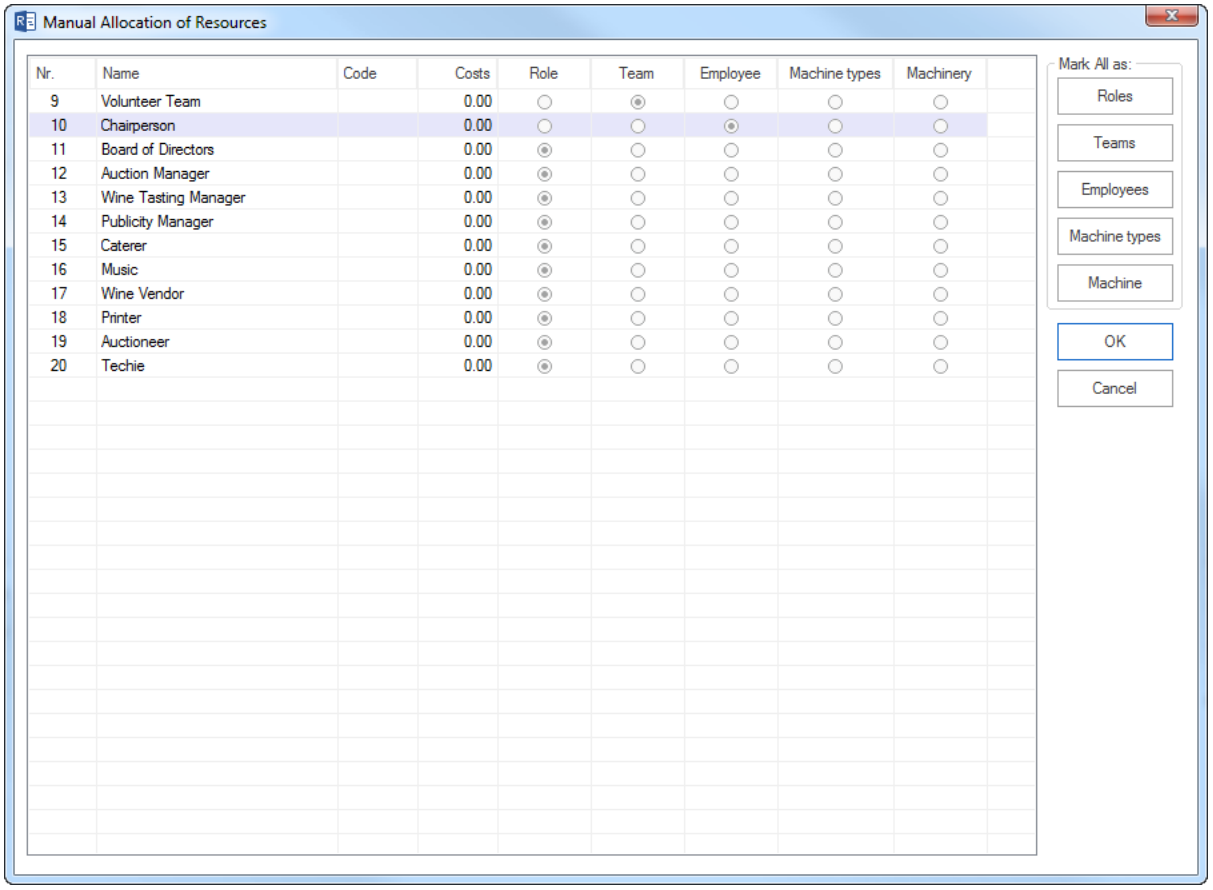
- recipient and required format
- visible confidential data
- current plan versus baseline comparison
- filters, columns, and time range
- opening the export in the target system

Related Topics

- *Import*
- *XML*
- *Print And Output*
- *Checklist: Check Data Before Import or Export*
- *Advanced Import and Export*

13.3.3 XML

XML is used for import, export, and data exchange with other project management systems.



Use Cases

- import from Microsoft Project XML
- export to Microsoft Project XML
- export to Rillsoft XML
- XML for web
- data transfer to external systems

Resource Assignment During Import

When importing from Microsoft Project XML, resources must be assigned to Rillsoft resource types:

- roles
- teams
- employees
- machine types
- machinery

This mapping determines whether the imported data becomes demand, concrete capacity, or equipment in Rillsoft Project.

Checkpoints

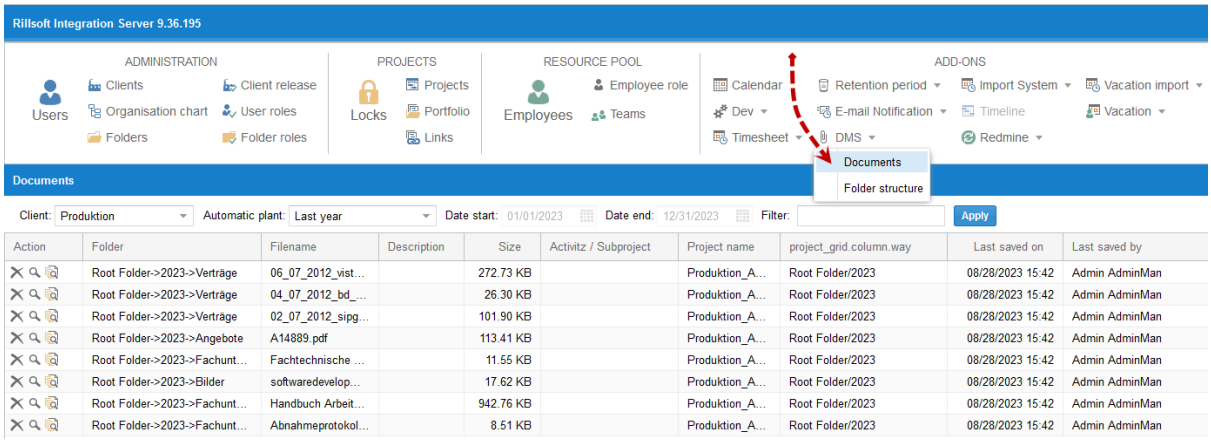
- dates and durations
- links
- resource classification
- calendars and working days
- user-defined fields
- need for resource pool synchronisation

Related Topics

- *Import*
- *Export*
- *XML*

13.3.4 DMS

DMS is document management in the context of Rillsoft Integration Server. It is used to manage documents and folder structures centrally.

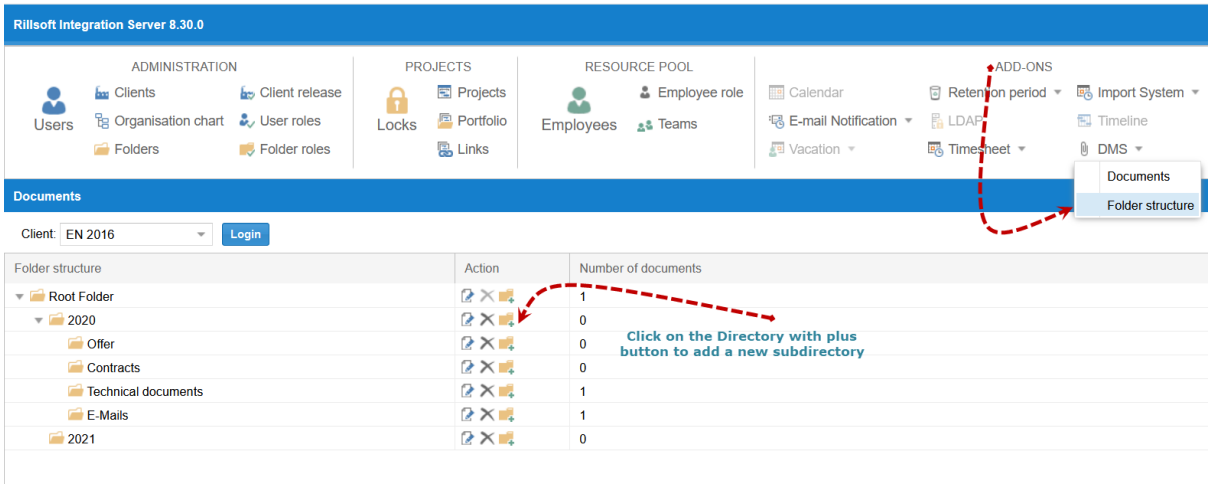


Typical Functions

- create documents
- read documents
- update documents
- delete documents
- restore documents
- manage folder structure
- assign documents to projects, subprojects, or activities

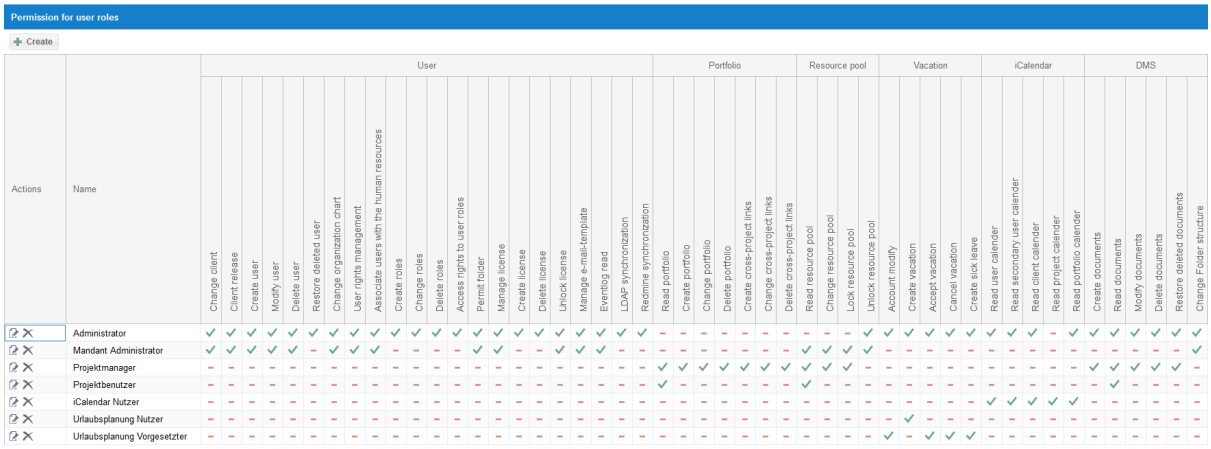
Usage

DMS is relevant when project documents must be stored centrally and controlled by permissions. Typical documents include drawings, offers, status reports, approvals, meeting minutes, and import/export files.



Permissions

Access to DMS functions is controlled by user roles and directory roles in Rillsoft Integration Server.

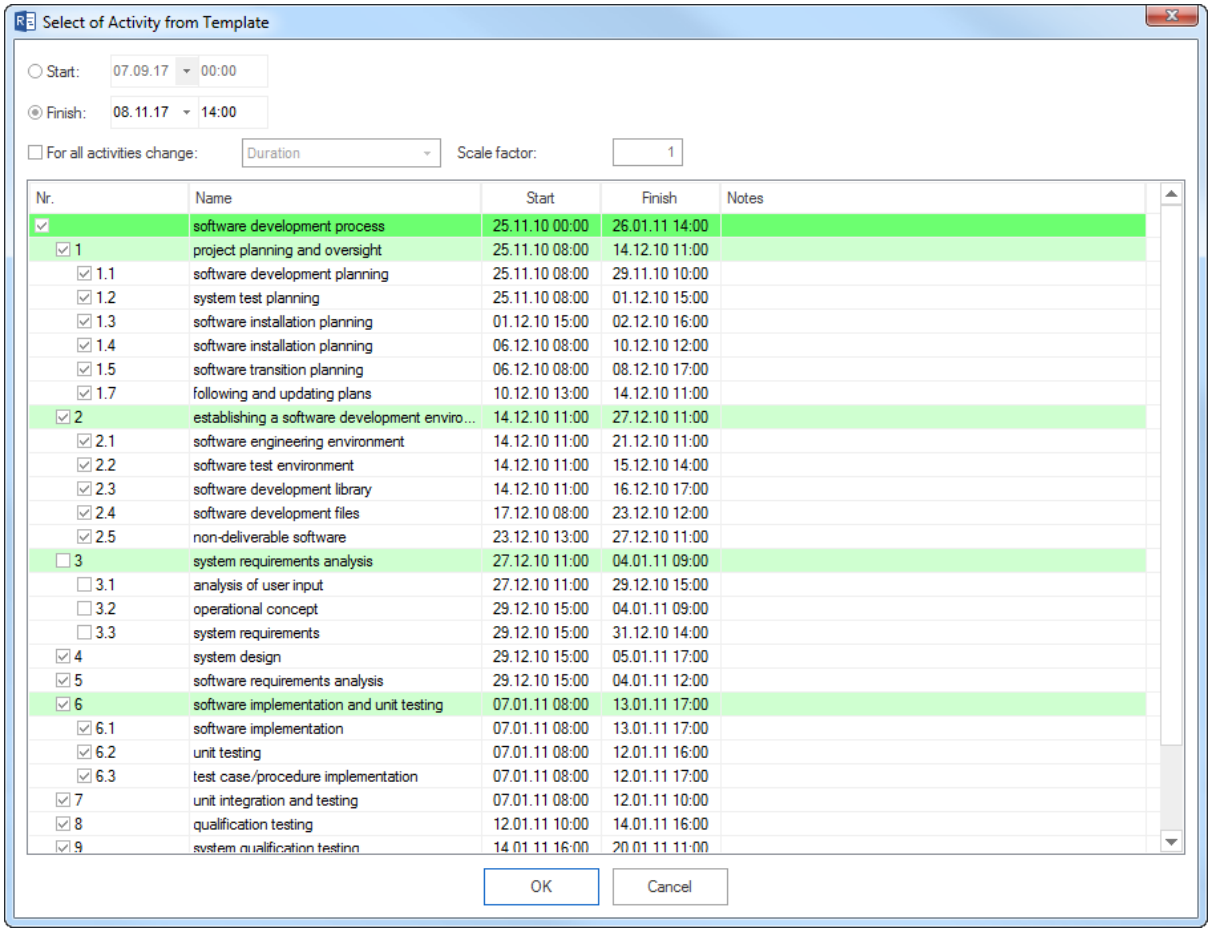


Related Topics

- *Integration Server*
- *DMS*
- *IT and Administration*

13.3.5 Templates

Templates speed up recurring planning. Activities, subprojects, or entire project structures can be saved as templates and reused later.

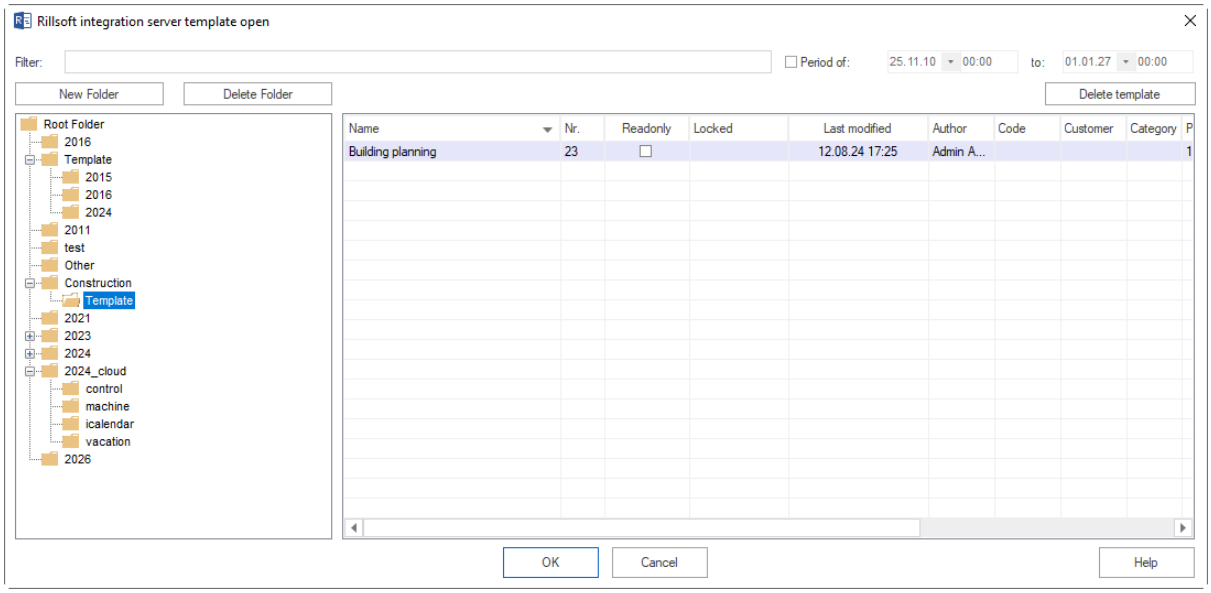


File Templates

File templates are used locally. They are suitable for individual planners or standalone operation.

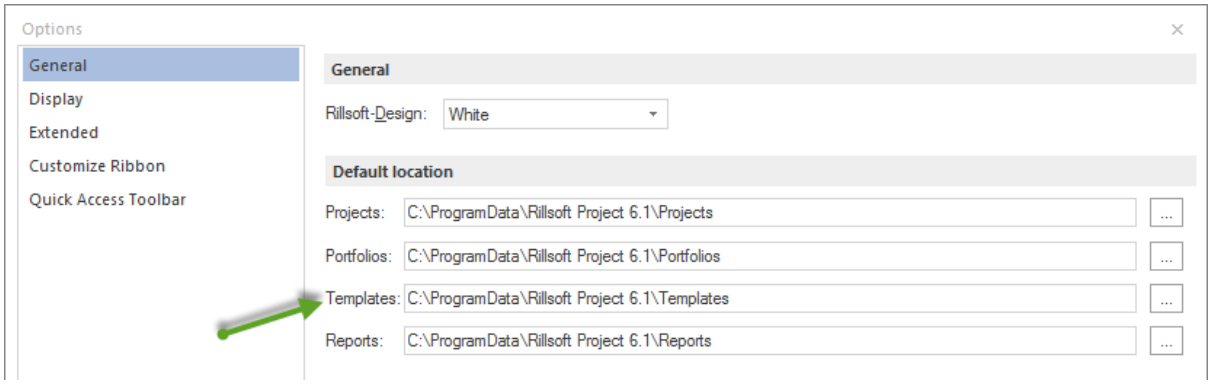
Integration Server Templates

In server operation, templates can be provided centrally so that several users work with the same standards.



Typical Uses

- recurring subprojects
- standard process flows
- offer or order structures
- project phases
- checklist-like activity groups



Checkpoints

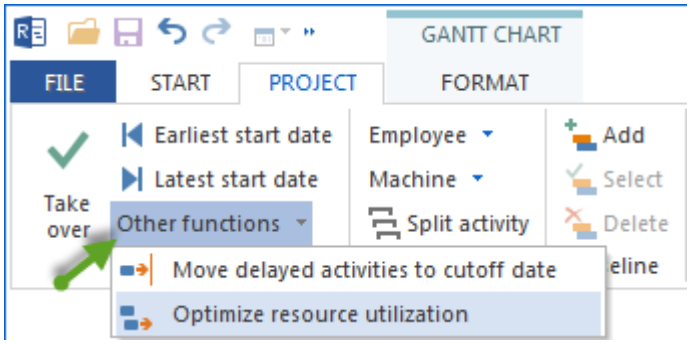
- template uses the correct resource pool
- dates are adjusted after insertion
- activities and subprojects are current
- role demand is still valid
- old employee assignments were removed if they are not intended

Related Topics

- *Subproject*
- *Integration Server*
- *Templates*

13.3.6 Optimization

Optimisation helps to balance dates and resources better under defined target conditions.



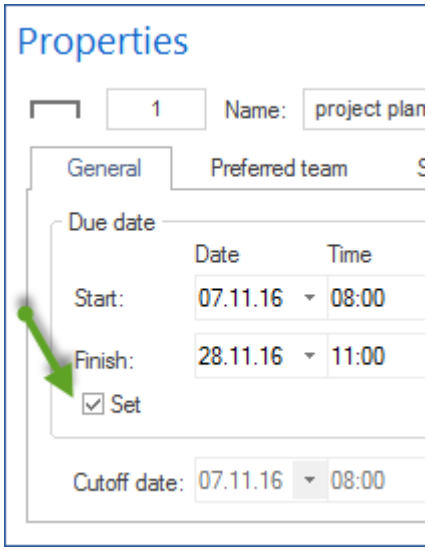
- *Typical Goals*
- *Prerequisites*
- *Limits*
- *Optimisation — Step By Step*
- *Influencing Factors Of The Optimisation*
- *Check Result*
- *Show Free Float*
- *Related Topics*

Typical Goals

- reach the project finish date
- smooth resource utilisation
- reduce overload
- position activities more favourably within a subproject
- make sensible use of available buffers

Prerequisites

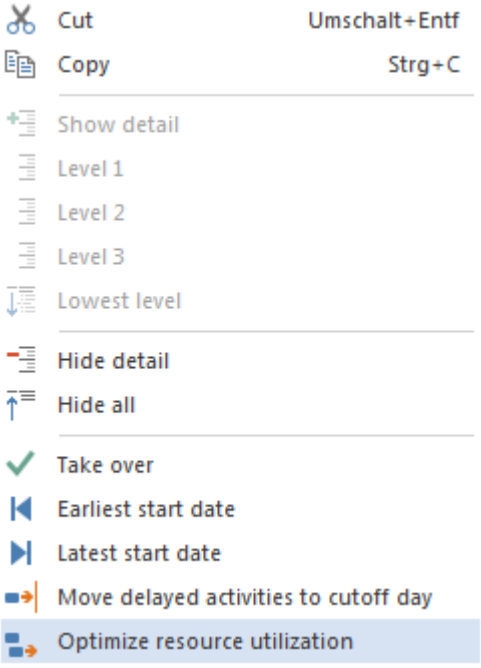
Optimisation is only useful when the basic plan is reliable:



- activities are formulated correctly
- links are correct
- resource demand is plausible
- calendars and non-working days are maintained
- fixed activities are set deliberately

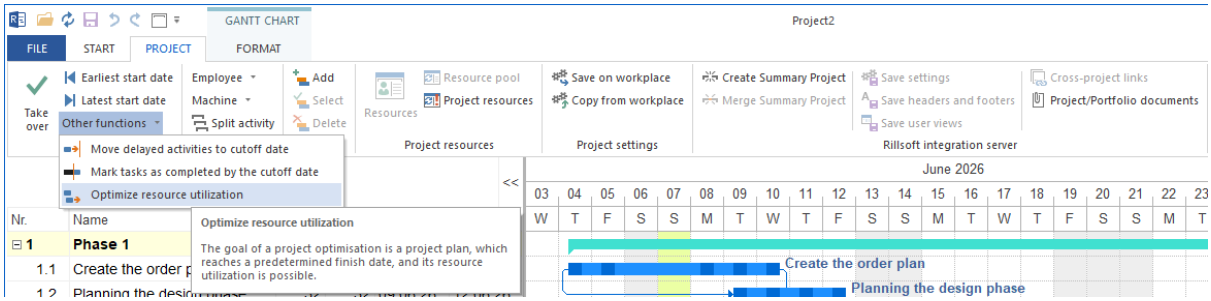
Limits

Optimisation does not replace a business decision. It cannot automatically make a poor plan correct. After every optimisation, check the schedule logic, resource effect, and critical path.



Optimisation — Step By Step

1. Make sure the schedule is technically checked and stable (links, durations, resource demand).
2. If required, set a target finish date in the project properties and fix activities whose dates must remain unchanged (activity properties, **General** tab, **Schedule** area, **Fix** option).
3. Click **Project > Schedule > Other functions > Optimize resource utilization**.



4. Rillsoft Project calculates the optimised plan and shows the result in the Gantt chart.
5. Check the result. If it does not fit, undo the optimisation with **Undo** (**Ctrl + Z**) and adjust dates, fixations, or priorities.

Optimise individual subprojects via the **Optimize resource utilization** command in the context menu of the subproject.

Influencing Factors Of The Optimisation

The optimisation evaluates the following settings from the project and activity properties:

Influencing factor	Meaning
Target finish date	Finish date set in the project properties that the optimisation aims for. Activities are arranged as early or as late as possible.
Even resource utilisation	Activities are moved within their buffer to reduce utilisation peaks.
Overloads	Activities are moved to resolve resource overloads — even if the finish date becomes later as a result.
Individual subproject	The **Optimize resource utilization** command in the context menu of a subproject optimises only that subproject; the rest of the plan remains unchanged.
Fix	Activities with the **Fix** option enabled (activity properties, **General** tab, **Schedule** area) are not moved.
Priority	Projects or activities with a higher priority are treated preferentially in conflicts.

Note: when optimising personnel resources, the hierarchy employee → team → role applies: if employees are assigned, the contained teams or roles are ignored

during optimisation.

Check Result

After the optimisation, always check:

- Did the critical path change?
- Did fixed activities remain in their position?
- Are new resource overloads created in other areas?
- Is the finish date realistic?
- Are all business dependencies still valid?

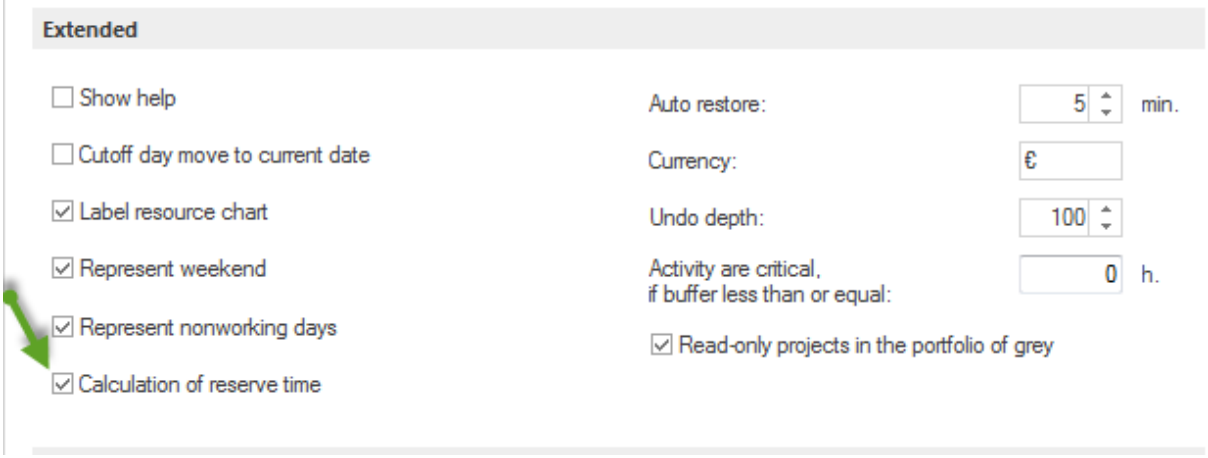
If the result is not acceptable: **Ctrl + Z** returns the plan to the state before the optimisation.

Show Free Float

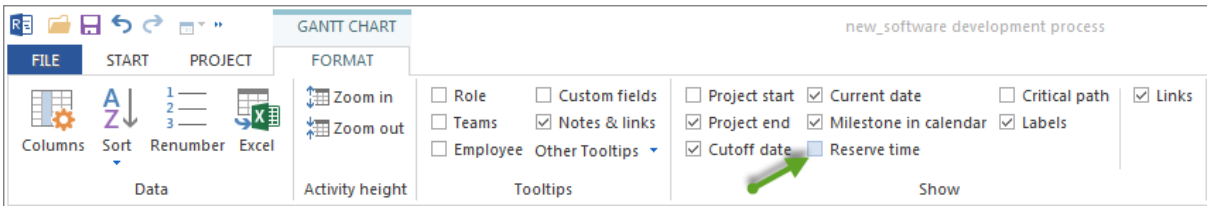
Free float gives an overview of the earliest possible start and the latest possible finish of the activities and subprojects in the Gantt chart. The calculation runs against the next fixed frame in the schedule and no earlier than the cutoff date; on subproject rows, the line shows the envelope of the contained activities, not a buffer of its own. This helps to assess the available planning flexibility before an optimisation or plan change.

To activate the free float display:

1. Select the **Calculation of free float** check box under **File > Settings > General > Extended**.
2. Confirm with **OK**.



3. Select **Gantt chart Format > Show > Free float**.



Note

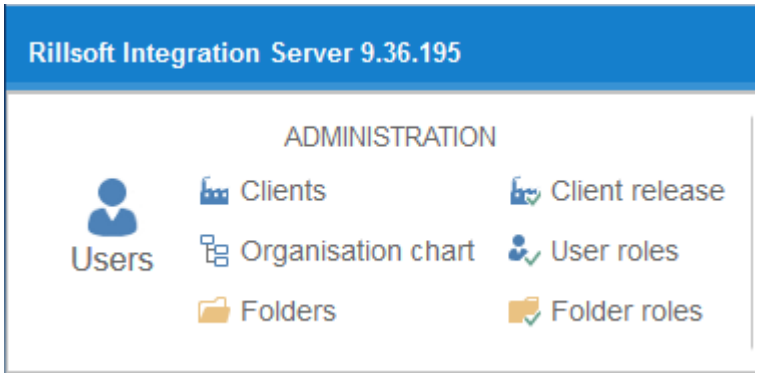
When **Calculation of free float** is disabled, the earliest and latest possible start and finish dates are not available in the activity table. See also *Customize Views: Filters, Format, Custom Views*.

Related Topics

- *Stabilize the Schedule*
- *Perform Capacity Balancing*
- *Optimization*

13.3.7 Integration Server

Rillsoft Integration Server extends Rillsoft Project with central data storage, multi-user operation, user and permission management, portfolios, resource pool management, and additional modules.



Operating Role

Integration Server is relevant when projects, resource pools, and portfolios must be managed centrally. It supports on-premise operation and is the basis for server-based workflows.

Important Areas

- user management
- user roles
- clients
- client access
- folders
- folder roles
- resource pool
- project portfolio
- cross-project links

- iCalendar
- vacation planning
- time recording
- DMS
- LDAP and email integration

User And Folder Roles

Rillsoft Integration Server uses two types of roles. They control different parts of access management:

- **User roles** are independent of folders. They control access to user management, portfolio work, the resource pool, DMS, iCalendar, Timeline, and vacation planning.
- **Folder roles** depend on client and folder. They control access to folders, projects, timesheets, email notifications, and project-related API access.

In addition, a user must have access to the relevant client. Without client access, the user cannot open or edit resource pools or projects of that client in Rillsoft Project.

The user's roles: Martin Mustermann

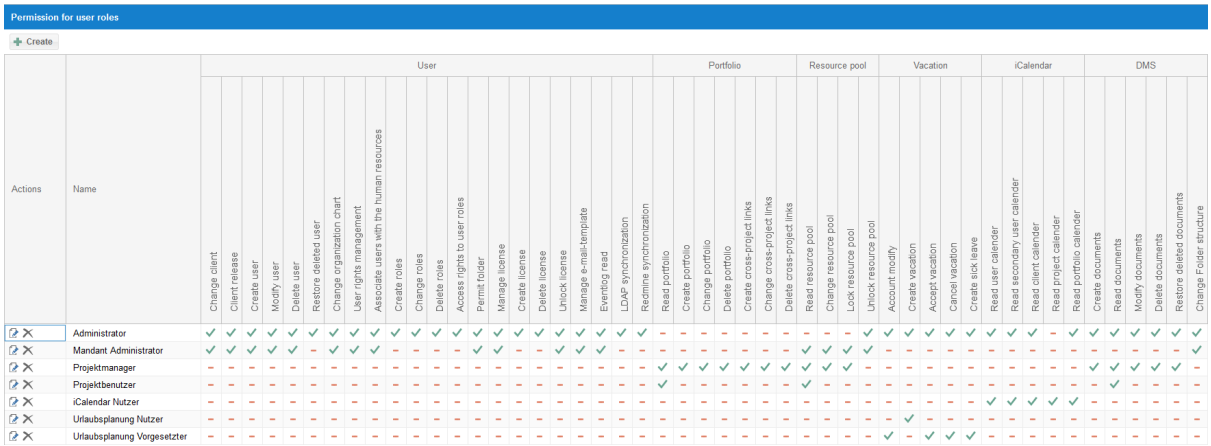
Client	User role							Folder role		
	Administrator	Mandant Administrator	Projektmanager	Projektbenutzer	iCalendar Nutzer	Urlaubsplanung Nutzer	Urlaubsplanung Vorgesetzter	Root-Verzeichnis Administrator	Root-Verzeichnis Manager	Root-Verzeichnis Benutzer
Produktion	–	✓	✓	–	✓	✓	✓	✓	✓	✓

User Roles

User roles are managed under **Administration > User roles**. They are not tied to a specific folder.

Predefined user roles can include **Administrator**, **Client Administrator**, **Project manager**, **Project user**, **iCalendar user**, **Vacation planning-user**, and **Vacation planning supervisor**.

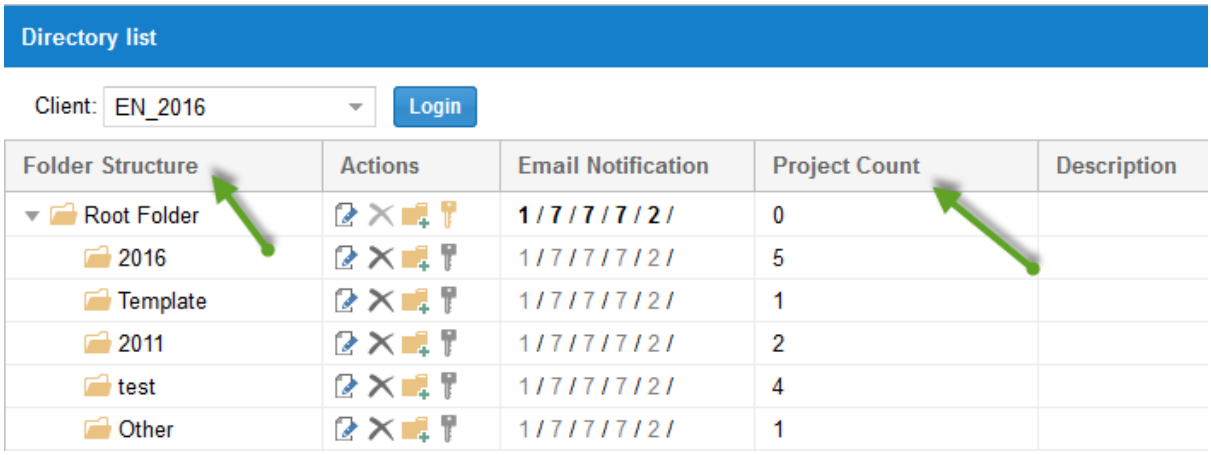
For working with Rillsoft Project, the minimum required right at user-role level is **Read resource pool**. Other user-role rights can include **Change resource pool**, **Read portfolio**, **Create portfolio**, and permissions for DMS, iCalendar, Timeline, and vacation planning.



Folder Roles

Folder roles are managed under **Administration > Folder roles**. They depend on client and folder.

The project landscape of a client is structured through folders. Folder roles define which folders and therefore which projects a user can work with, and which actions are permitted there.

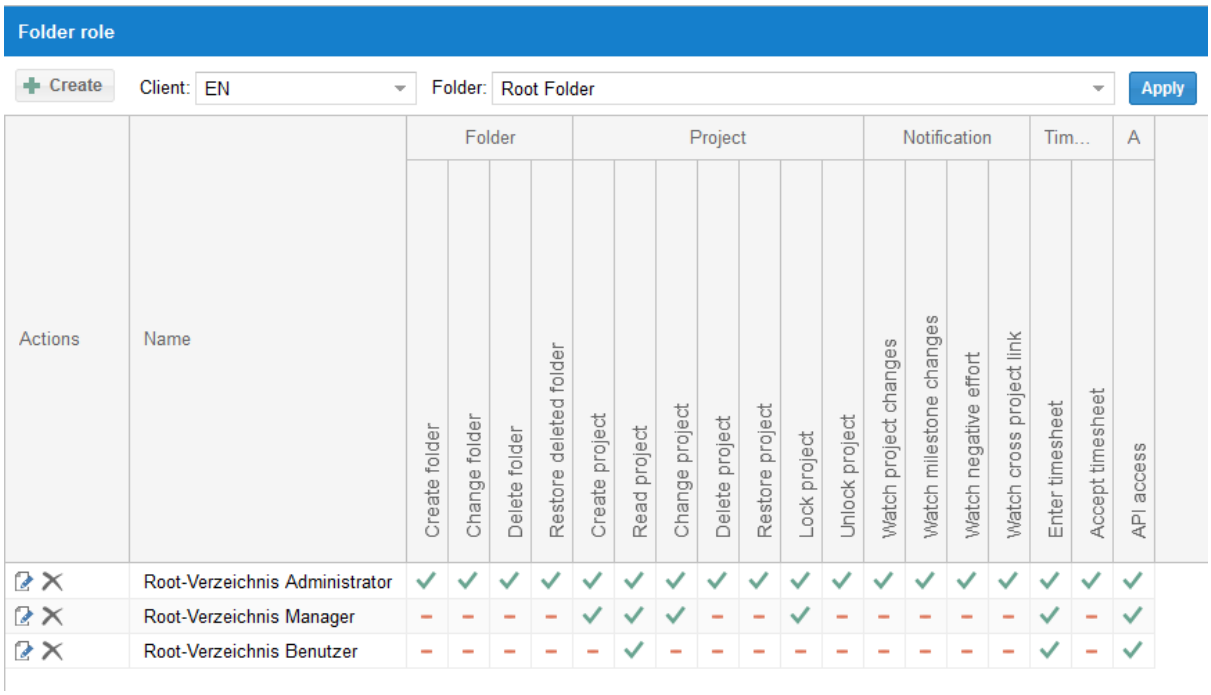


Typical folder-role rights include:

- create, change, delete, and restore folders
- create, read, change, delete, restore, lock, and unlock projects
- watch project changes, milestone changes, negative effort, and cross-project links
- enter and accept timesheets

- API access to project-related Integration Server modules in the browser

Root folder access rights are also valid for subfolders if no different rights are defined there.



Classify Rights For Rillsoft Project

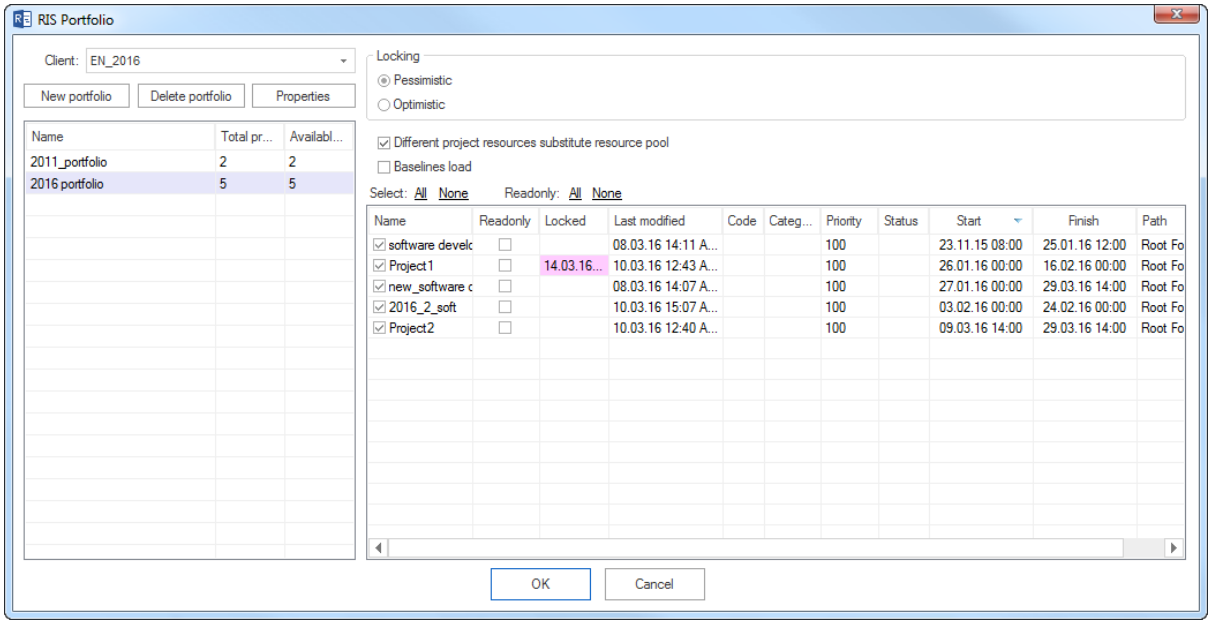
For project work through Integration Server, a user role alone is not enough. A user usually needs:

1. client access for the relevant client,
2. suitable user roles for folder-independent functions such as resource pool, portfolio, or additional modules,
3. suitable folder roles for the concrete folders and projects.

Example: A user can use portfolios and the resource pool through the **Project manager** user role. Whether the same user can read, change, or lock a specific project is additionally controlled by the folder role in the respective folder.

Cross-Project Functions

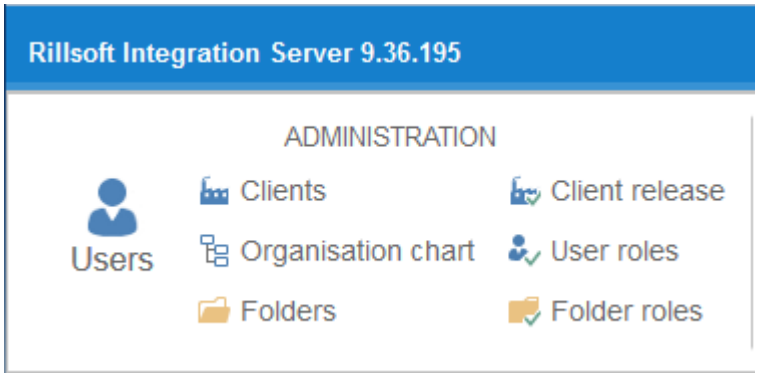
Some functions, for example cross-project links, are available in server operation and are not available in pure standalone operation with local files.



Related Topics

- *Integration Server*
- *IT and Administration*
- *Resource Pool*
- *Project Portfolio*

These functions are especially relevant for PMO, IT, administration, and project managers who work with several projects or external systems.



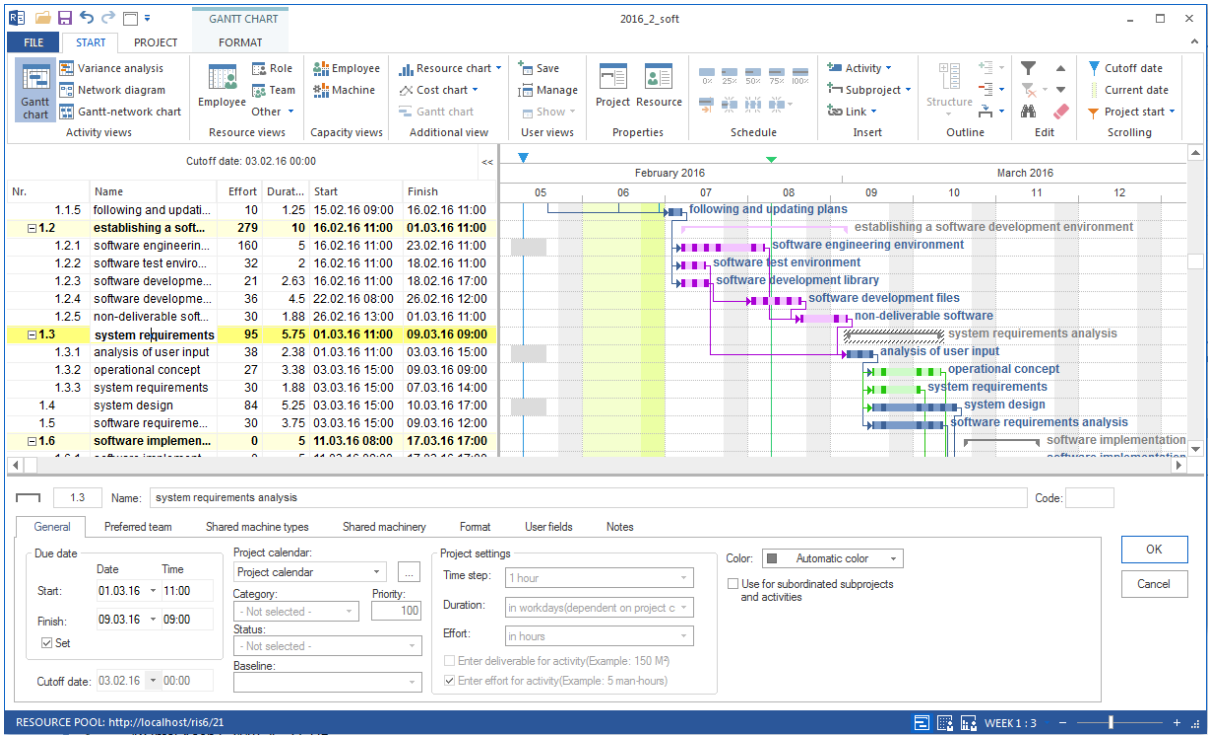
13.4 Structure

Function reference
Menu commands, dialogs, settings, options, context menus, views, and print and output functions.

Data and object model
Project, subproject, activity, link, resource, resource pool, baseline, and project portfolio.

Interfaces and expert functions

Import, export, XML, DMS, templates, optimisation, and Integration Server.



13.5 Note

This reference combines functions from Rillsoft Project, Rillsoft Integration Server, and public Rillsoft product information. It is intentionally concise: it explains what a function or object is, where it is used, and which related topics are relevant.

CHAPTER

FOURTEEN

SEARCH

CHAPTER

FIFTEEN

IMPRINT

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