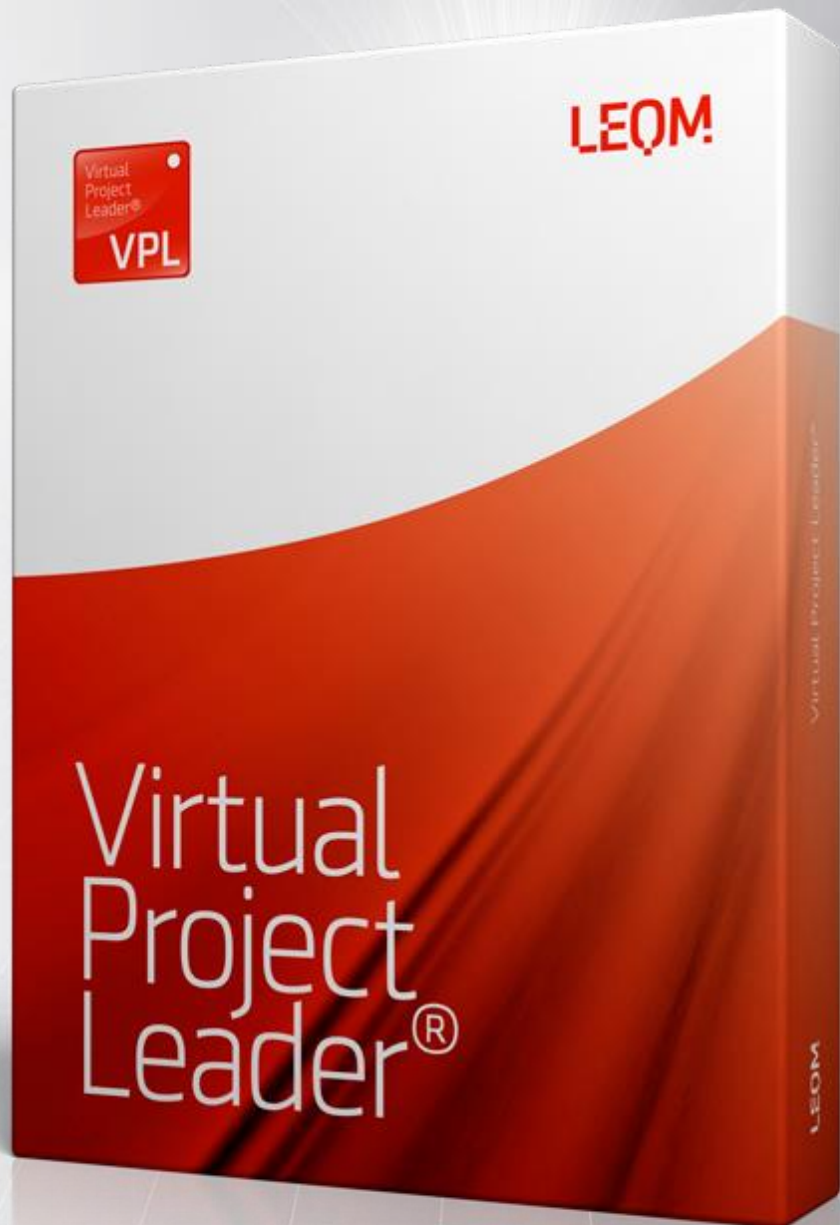


LEOM

Quick guide



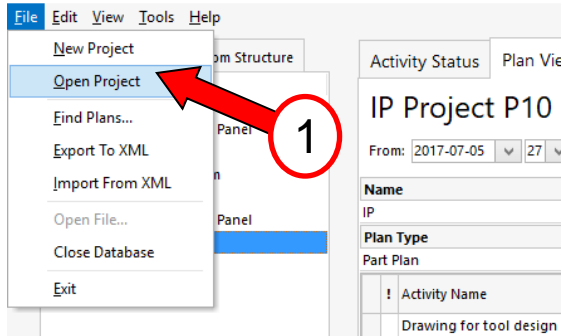
2017Q3

Content

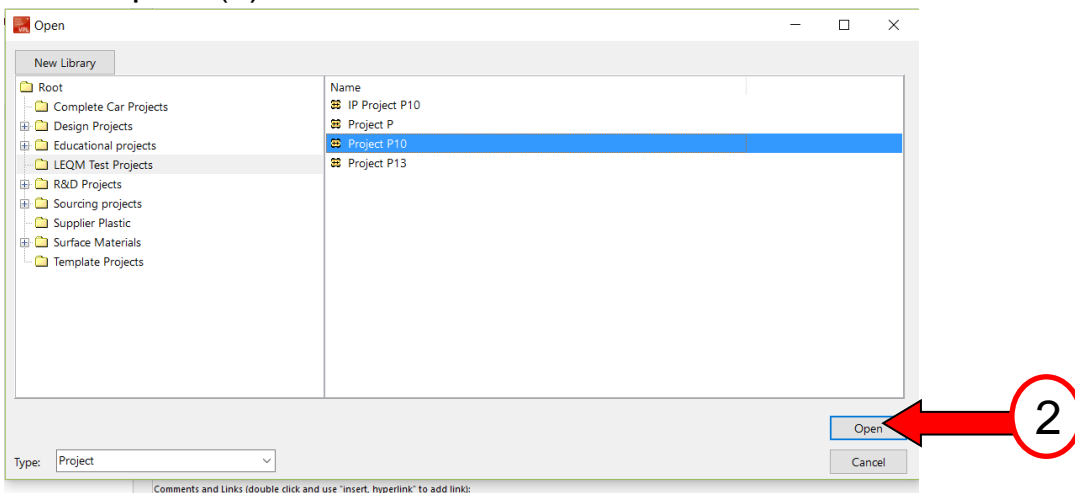
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Find and open your project

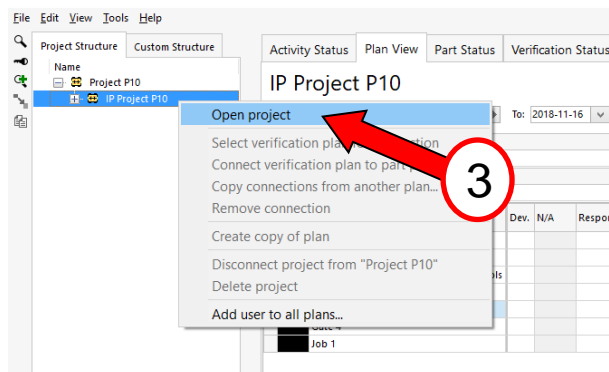
First locate your project. You start by selecting “File” and “Open Project” (1).



An *Open* window will then appear. To the left, click on suitable project folder and locate your LEQM project on the right hand side. Mark your project and click “Open” (2).



Now you are at the top level of the project. To find your specific project, you click on the plus symbol. When you find your project, select it, right-click and then select “Open project” from the popup menu.

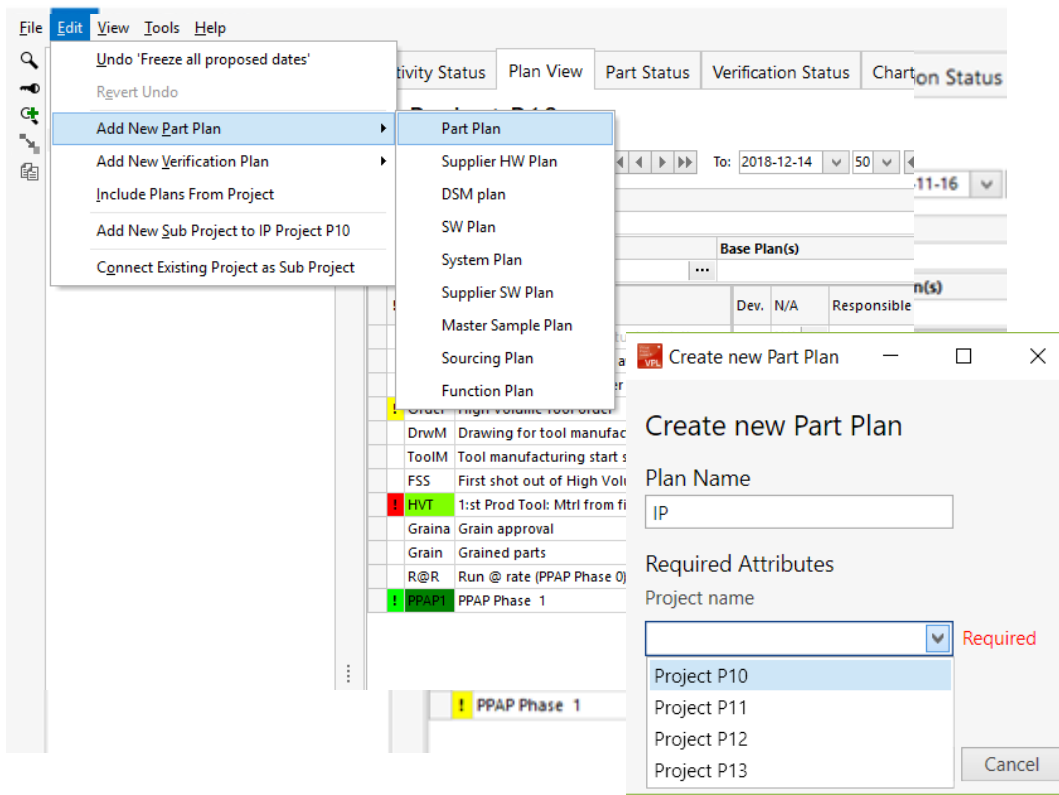


Create a part plan

To create a part plan, you could either get parts from your company's part database, if this is required, contact one of the LEQM key users at your company who will guide you - or you can also create a plan manually. To create a plan manually, choose "Edit", "Add New Part Plan", and then select "Part Plan".

A *Create new Part Plan* window will appear.

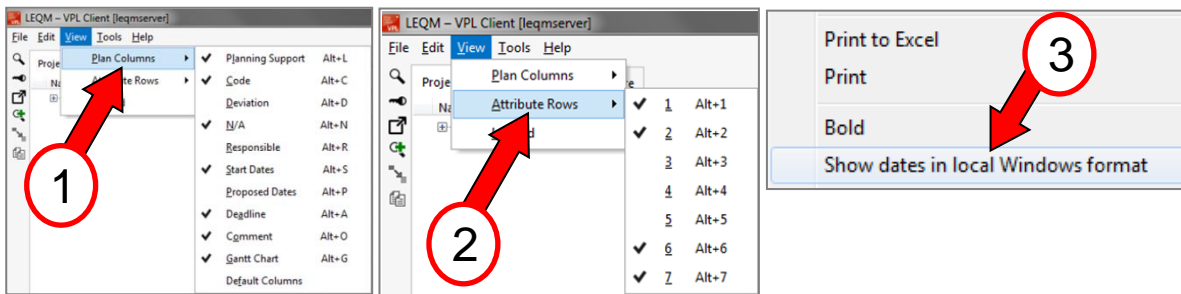
Fill in the required attributes, in this example; Plan Name and Project name, then click OK.



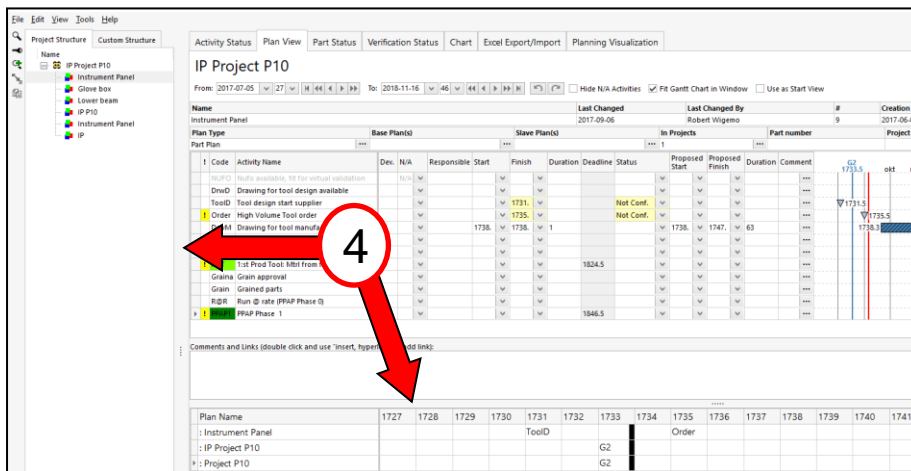
Customize your part plans

In the Plan View, plan columns can be hidden or displayed via “Plan columns” (1) under the View menu. Note the keyboard shortcuts! This setting is personal and valid for the current plan type. Consequently, a user can for example choose to have the Start date column visible in HW Plans and hidden in SW Plans.

Attribute rows can be hidden or displayed via “Attribute Rows” (2) under the View menu. Note the keyboard shortcuts! This setting is personal and valid for the current plan type.



To change the plan date format, right-click in a plan and select “Display dates in week format” or “Display dates in local Windows format” (3). This setting is personal and valid for all plan types.



The size of the structure pane to the left and the mini matrix in the lower part of the plan can be set by dragging or clicking on the splitter bars (4)

Plan view - Set dates

To set a date on an activity, use one of the three available methods;

- 1) Drag the activity code to the week of choice in the mini matrix below
- 2) Type the date in the Start or Finish columns. Mind the date format!
- 3) Click on the arrow button and select a date from a calendar.

The screenshot displays a project planning interface. At the top, a list of activities is shown with columns for Start, Duration, and Finish. Below this is a Gantt chart with a grid of weeks. A calendar pop-up is visible, showing the month of September 2014. Red annotations highlight four methods for setting dates: 1) Dragging an activity code (DR3) to a date in the Gantt chart; 2) Typing a date into the Start column; 3) Clicking a calendar icon to open a date picker; and 4) Copying a deadline value to the Finish column.

Note that when using Drag-and drop, the activity will be planned on the Friday of the chosen week.

A user can also choose to copy the activity deadlines (4) to the Finish column. To do so, right click in the plan and choose “Copy deadline date to finish date”.

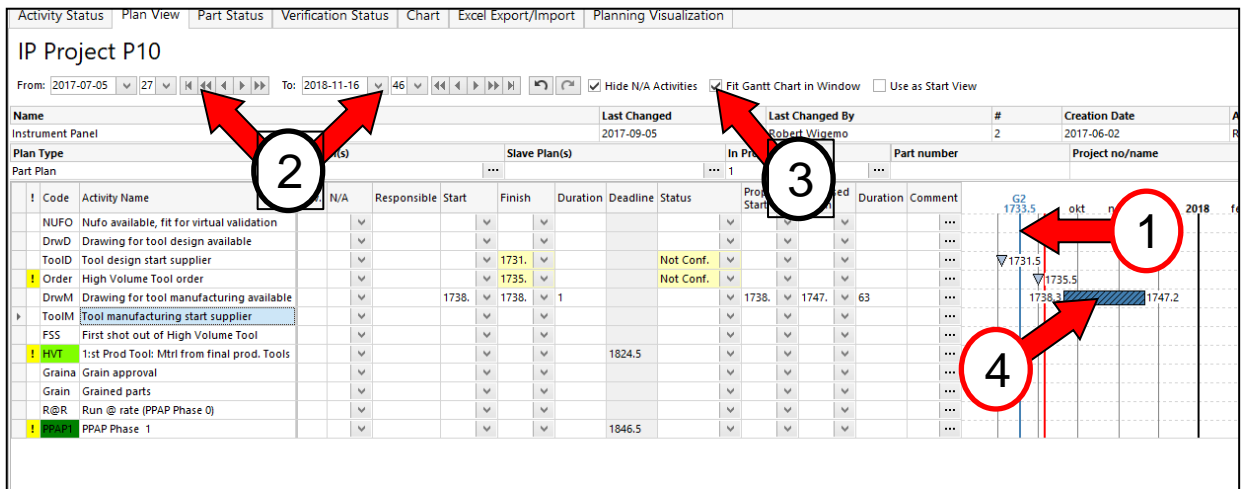
When planning using the Start (and duration) columns, the following rules apply:

- If a Start date is entered on an unplanned activity, the same date will be set on Finish and duration will be set to 1
- If a Start date is added to a Finish date, the duration is set acc to Finish date minus Start date
- If duration is entered to an activity with a Finish date, the Start date is set to Finish date minus duration
- If a Start date or a Finish date is modified, the duration is kept
- If the duration is modified, the user can choose whether to keep the start date or the Finish date

Plan view - Gantt chart

The planning is visualized in the plan Gantt chart. Project milestones are visible as vertical blue lines (1) and the displayed time span can be adjusted with the date buttons above (2).

To view the complete time span in the window check the box “Fit Gantt Chart in Window” (3). Note that the planning can be adjusted directly in the Gantt chart by moving and adjusting the triangles and bars (4).



Plan view - Copy activity data to other plans

Planning (dates, N/A and Status) and other activity data can be distributed from one plan to other plans. Right click on the plan you like to copy from, select "Copy activity data to other plans". A *Copy activity data* window will appear. First select what kind of data that should be copied (1). Then select the activities to copy from (2). Note the option "Select All". Finally select the plans the data should be copied to (3) and click OK.

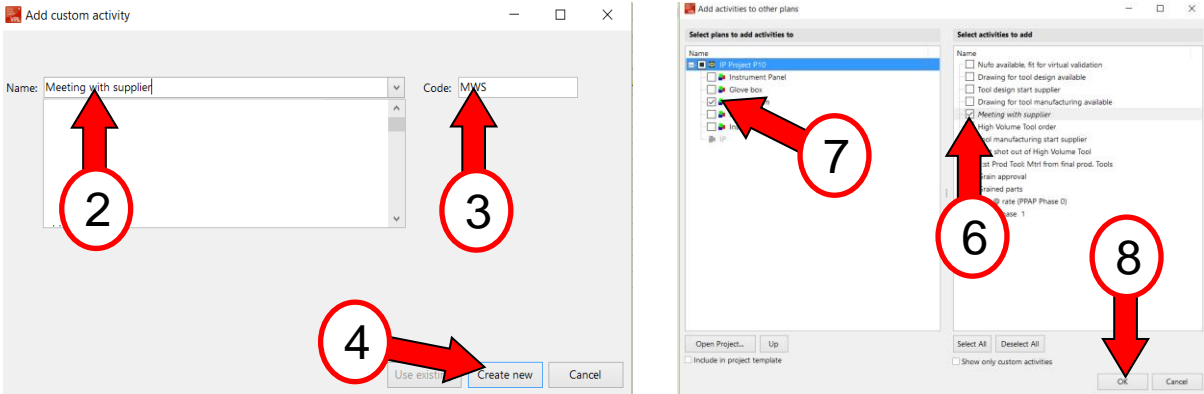
The screenshot shows the 'Copy activity data' dialog box. It is divided into three main sections:

- Select type of data to copy:** This section has three checkboxes: Dates, status and N/A, Responsible, and Comments. A red circle with the number '1' is around this section.
- Select activities to copy data from:** This is a table with columns: Code, Activity Name, Dev., N/A, Responsi..., Start, Finish, Durati..., Status, Proposed S..., Proposed F..., Duration, and Comme... A red circle with the number '2' is around the first column (Code), and a red arrow points to the 'DrwD' row.
- Select plans to copy data to:** This section has a table with columns: Name, Drawi..., Project no/n..., Resp PL, Group, Secti..., Project ..., Part nu..., and Part responsi... A red circle with the number '3' is around the first column (Name), and a red arrow points to the 'IP Project P10' row.

At the bottom of the dialog, there are buttons for 'Select All', 'Deselect All', and 'Show only custom activities'. At the very bottom, there are 'Open Project...', 'Up', 'OK', and 'Cancel' buttons.

Plan view - Insert custom activities

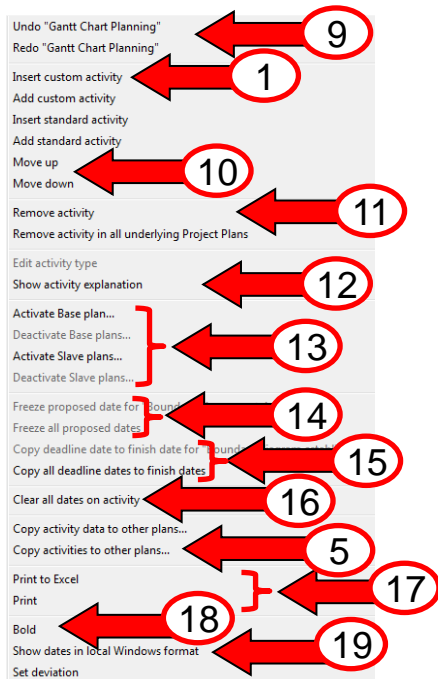
To insert a new activity into a plan (Custom activity), right click on the line in the plan where it should be placed and select “Insert custom activity” (1). Enter the activity name (2) and (optional) modify the auto generated activity code (3). Click Create new (4).



Custom activities can be distributed to other plans by right click - ”Copy activity to other plans” (5). Select which activities (6) should be copied to which plans (7). Click OK (8).

Plan view - The right click menu

By right clicking in a plan, a user can also



- Undo/Redo planning (9)
- Change the order of the activities (10)
- Remove a custom activity (11)
- View the activity explanation (12)
- Activate/Deactivate a base/slave plan (13)
- Freeze Proposed dates (14)
- Copy deadline dates to Finish column (15)
- Clear all planning on an activity (16)
- Print a plan to paper or to Excel (17)
- Highlight an activity in bold letters (18)
- Change the date format (19)

Plan view - Planning Support

In VPL, logic constraints can be created between a plan activity and a project deadline/milestone or to another plan activity. This could for example be that plan activity A should be completed 2 weeks before project deadline X, or that plan activity B should be completed before the start of plan activity C. The planning logic column (1) indicates whether the planning of an activity meets its logic constraint or not.

- Green color -> The logic constraint is met
- Yellow color -> The activity is not planned/Cannot validate
- Red color -> The logic constraint is not met

The screenshot shows the IP Project P10 Gantt chart. Callout 1 points to the exclamation mark icon in the Planning logic column. Callout 2 points to the puzzle piece icon in the top right corner. Callout 3 points to the puzzle piece icon in the top right corner of the Gantt chart area.

Code	Activity Name	Dev.	N/A	Responsible	Finish	Deadline	Status	Comment
NUFO	Nufo available, fit for virtual validation		N/A					
DrwD	Drawing for tool design available							
ToolD	Tool design start supplier				1731.		Not Conf.	
Order	High Volume Tool order				1735.		Not Conf.	
DrwM	Drawing for tool manufacturing available				1747.			
ToolM	Tool manufacturing start supplier							
FSS	First shot out of High Volume Tool							
HVT	1st Prod Tool: Mtrl from final prod. Tools				1825.	1824.5		
Graina	Grain approval							
Grain	Grained parts							
R@R	Run @ rate (PPAP Phase 0)							
PPAP	PPAP Phase 1				1845.	1846.5		

A click on an exclamation mark in the Planning logic column displays a short explanation of the logic constraint. A double click leads to the Planning support window (2). This view can also be accessed by clicking on the puzzle button (3).

The screenshot shows the Planning Support window. Callout 2 points to the puzzle piece icon in the top right corner.

Plan types: -- All --

Export to Excel Show only invalid Exclude completed activities Exclude approved deviations

Issue	Margin	Description
Invalid Planning (1)		
1st Prod Tool Mtrl has to be ready before Gate HVT	-7 days	
Cannot Validate (1)		
Tool order has to be ready before start of tool manufacturing		
Valid Planning (1)		
PPAP Phase 1 must be performed before Gate PPAP Phase 1	7 days	

Plan view - Planning Support/Critical path

In the Planning support window, the activities with a logic constraint are divided into three groups corresponding to the three statuses (Invalid, Cannot Validate & Valid). In addition to identifying the invalid planning, it is also useful to study the valid planning and especially when sorting on the column Margin. Then the planning that is valid but has a tight margin can be analyzed (1). This helps the user to identify the critical path of the project. Note the possibility to sort and filter the data (2).

Planning Support

Plan types: -- All -- Show only invalid Exclude completed activities Exclude approved deviations

Issue	Margin	Description
Invalid Planning (1)		
1st Prod Tool Mtrl has to be ready before Gate HVT	-7 days	
Cannot Validate (1)		
Tool order has to be ready before start of tool manufacturing		
Valid Planning (1)		
PPAP Phase 1 must be performed before Gate PPAP Phase 1	7 days	

Plan view - General rules and pointers

A) Confirm the planning by setting the status to OK when an activity has been successfully performed. If the activity has started, set the status to Ongoing. Unconfirmed dates are highlighted with yellow color.

B) Mark activities that are not applicable (and will not be performed) with an N/A

C) Enter a comment in a comment field when planned activities are late in relation to the project plan or when other important information should be communicated to other users

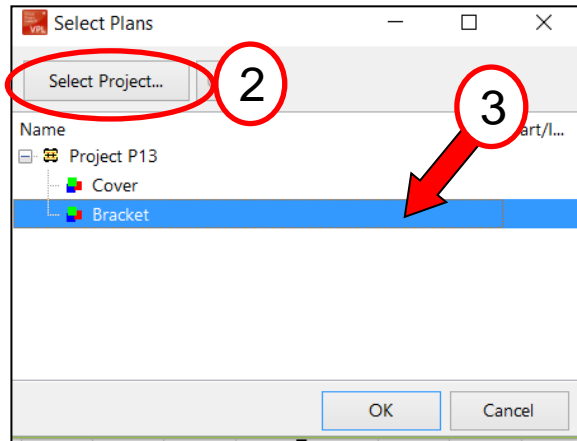
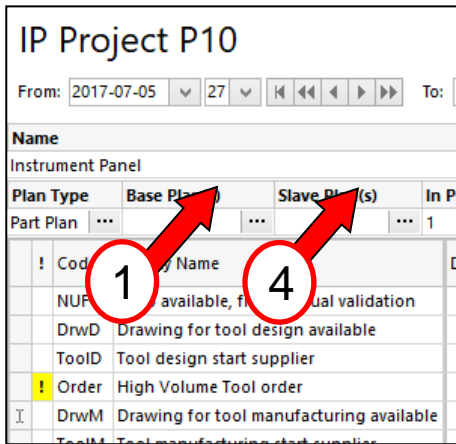
!	Code	Activity Name	Dev.	N/A	Responsible	Finish	Deadline	Status	Comment
	NUFO	Nufo available, fit for virtual validation							
	DrwD	Drawing for tool design available							
	ToolD	Tool design start supplier				1731		OK	
!	Order	High Volume Tool order				1735		Not Conf.	
I	DrwM	Drawing for tool manufacturing available				1745		In Progress	
	ToolM	Tool manufacturing start supplier							
	FSS	First shot out of High Volume Tool							
!	HVT	1st Prod Tool: Mtrl from ... Tools				1825	1824		
	Graina	Grain approval		N/A					
	Grain	Grained parts		N/A					
	R@R	Run @ rate (PPAP Phase 0)							
!	PPAP	PPAP Phase 1				1845	1846.5		

Comments and Links (double click and use "insert, hyperlink" to add link):

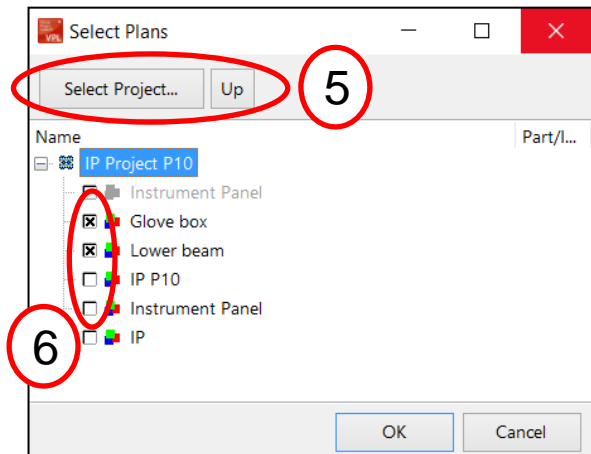
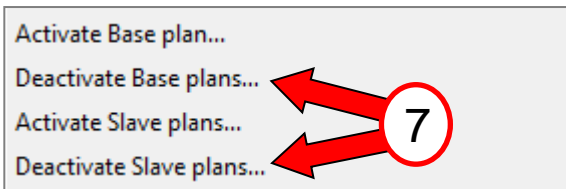
Plan view - Base- and Slave plans

Two or more plans can be connected to create a Base-Slave relation. A Base-Slave connection keeps the slave plan(s) automatically updated when the base plan is modified until the connection is removed.

To assign a Base plan to a plan, click on the attribute Base Plan (1). Locate the project (2) in which the Base plan is located, mark the plan (3) and click OK.



To assign Slave plans to a plan, click on the attribute Slave Plan (4). Locate the project (5) in which the slave plans are located, mark the plans (6) and click OK.

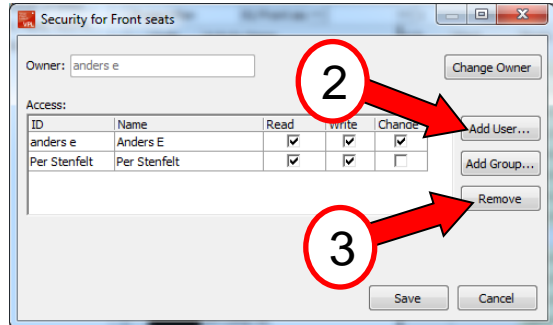
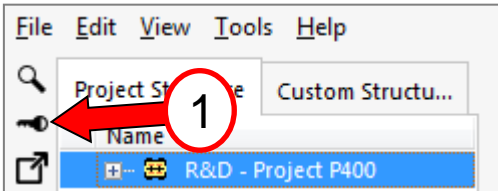


To deactivate a Base-Slave connection, right click in the plan and select "Deactivate Base plans..." or "Deactivate Slave plans..." (7).

Connecting two (or several) plans as Base-Slave can save a lot of time when keeping the planning updated. However, the user has to be sure that the plans should have identical planning on all activities before connecting.

Access rights

To edit the access rights for a plan, select the plan and click on the key symbol (1) in the left side toolbar. In the security window that appears, click “Add User” (2) to add a user to the access list. Click Remove (3) to remove a user. A user with Write rights is allowed to update the planning. Change-rights allows a user to edit the access settings.



If a user requires write access to a plan and none of the users with change rights are available, contact one of the LEQM key user at your company.

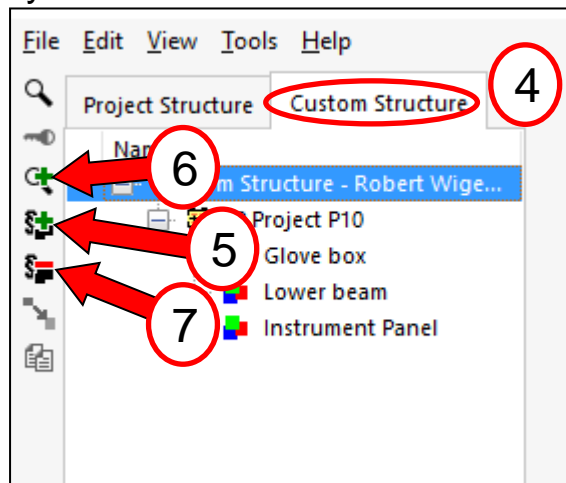
To add a user to all plans in a project, right click on any of the plans to the left and choose "Add User To All Plans". Find the user and click OK.

Custom Structure

A user can select plans in the database and put them in the personal Custom Structure (4) for easy access. No other users are affected by this and most of the VPL functionality is available also in Custom Structure.

To add plans to the Custom Structure, click on the button (5) in the toolbar. The button (6) allows the user to search the database for plans and then add them to the Custom structure.

To remove plans, click on the button with a red minus sign (7).



Activity Status

In the tab Activity Status (1) the plan activities are grouped into 11 different categories (2). These are:

- Not planned - activities without any planned date
- Not OK - activities with status Not OK
- Not confirmed - activities with an unconfirmed start- or finish date
- Invalid planning against project milestone - activities with planning that fails to meet a logic constraint set against a project milestone
- Invalid planning in plan - activities with planning that fails to meet a logic constraint set against another plan activity
- Proposed date - activities with dates planned in the proposed date columns
- Ongoing - activities with status Ongoing
- Due later - activities with start- or finish dates planned today (only unconfirmed) or later.
- Deviation agreed - activities with an approved deviation
- N/A - activities marked as Not applicable
- OK - activities with status OK

The screenshot shows the 'Activity Status' application interface. The 'Activity Status' tab is selected (1). The interface displays a list of activities grouped into 11 categories (2). The categories are: Not planned (66), Not OK (0), Not confirmed (2), Invalid planning against project milestone (1), Invalid planning in plan (0), Proposed date (0), In Progress (2), Upcoming (6), Deviation agreed (0), N/A (5), and OK (1). The 'Upcoming' group is expanded, showing activities with columns for Name, Order, Description, Start, and Finish. The interface includes a 'Plan type' filter (3), an 'Add Attribute Filter' button (4), a 'Select Visible Columns...' button (5), and an 'Export to Excel' button (6).

Plan Name	Order	Description	Start	Finish
Not planned (66)				
Not OK (0)				
Not confirmed (2)				
Instrument Panel	Order	High Volume Tool order		1735.5
Lower beam	NUFO	Nufo available, fit for virtual validation		1733.5
Invalid planning against project milestone (1)				
Invalid planning in plan (0)				
Proposed date (0)				
In Progress (2)				
Upcoming (6)				
Lower beam	DrwD	Drawing for tool design available	1740.7	1744.1
Instrument Panel	DrwM	Drawing for tool manufacturing available	1736.4	1745.3
Lower beam	HVT	1:st Prod Tool: Mtrif from final prod. Tools	1821.7	1824.5
Instrument Panel	HVT	1:st Prod Tool: Mtrif from final prod. Tools		1825.5
Lower beam	PPAP1	PPAP Phase 1	1842.4	1846.5
Instrument Panel	PPAP1	PPAP Phase 1		1845.5
Deviation agreed (0)				
N/A (5)				
OK (1)				

Set a plan type filter with drop down menu (3) and add attribute filters with button (4). With the button "Select Visible Columns" (5), a user can select which columns should be visible in the matrix. Print the matrix (only expanded groups) with button (6). Note that all settings and activated filters are saved if the application is restarted!

Part Status matrix

The Part Status matrix (1) is used to display plan data and planning status in a list format. By clicking on the button "Select Visible Columns" (2) it is possible to select which columns should be visualized in the matrix. The types of columns are Standard columns, Attribute columns and Activity columns.

The status matrix can be sorted based on the values in the columns by clicking on the column headers, e.g. part number or component owner (3). The order of the columns can also be adjusted by dragging the column headers sideways.

The screenshot shows the Part Status matrix interface. The main window title is "IP Project P10". The interface includes a menu bar (File, Edit, View, Tools, Help), a toolbar with buttons for "Add Attribute Filters...", "Select Visible Columns...", "Export to Excel", and "Print...". A filter bar contains fields for "Plan type:" (set to "--ALL--"), "Plan name:" (with a "Filter by name" input), "Resp PL", "Group" (set to "--ALL--"), and "Part responsible" (set to "--ALL--"). The main area is a table with columns: Plan Name, Plan Type, Project, Creation Date, Last Changed, Drawing for tool manufacturing, 1st Prod Tool: Mtrl from final prod., and PPAP Phase 1. The table contains several rows of data, including "Instrument Panel", "Glove box", "Lower beam", "IP P10", "Instrument Panel", "IP", and "IP Project P10". Red callouts 1-7 point to specific features: 1 points to the "Part Status" tab; 2 points to the "Select Visible Columns" button; 3 points to the "Plan Type" column header; 4 points to a cell in the "Drawing for tool manufacturing" column containing "1745.3 Not OK"; 5 points to the filter bar; 6 points to the "Add Attribute Filters..." button; and 7 points to the "Export to Excel" button.

Plan Name	Plan Type	Project	Creation Date	Last Changed	Drawing for tool manufacturing	1st Prod Tool: Mtrl from final prod.	PPAP Phase 1
Instrument Panel	Plan	IP Project P10	2017-06-02	2017-09-07	1745.3 In Prog...	1825.5	1845.5
Glove box	Part Plan	IP Project P10	2017-06-02	2017-09-07	1735.4 OK		
Lower beam	Part Plan	IP Project P10	2017-06-02	2017-09-07	1745.3 Not OK	1824.5	1846.5
IP P10	Part Plan	IP Project P10	2017-08-25	2017-09-05			
Instrument Panel	Part Plan	IP Project P10	2017-08-25	2017-09-05			
IP	Part Plan	IP Project P10	2017-08-31	2017-09-05			
IP Project P10	Project Plan		2017-06-02	2017-06-1		1824.5	

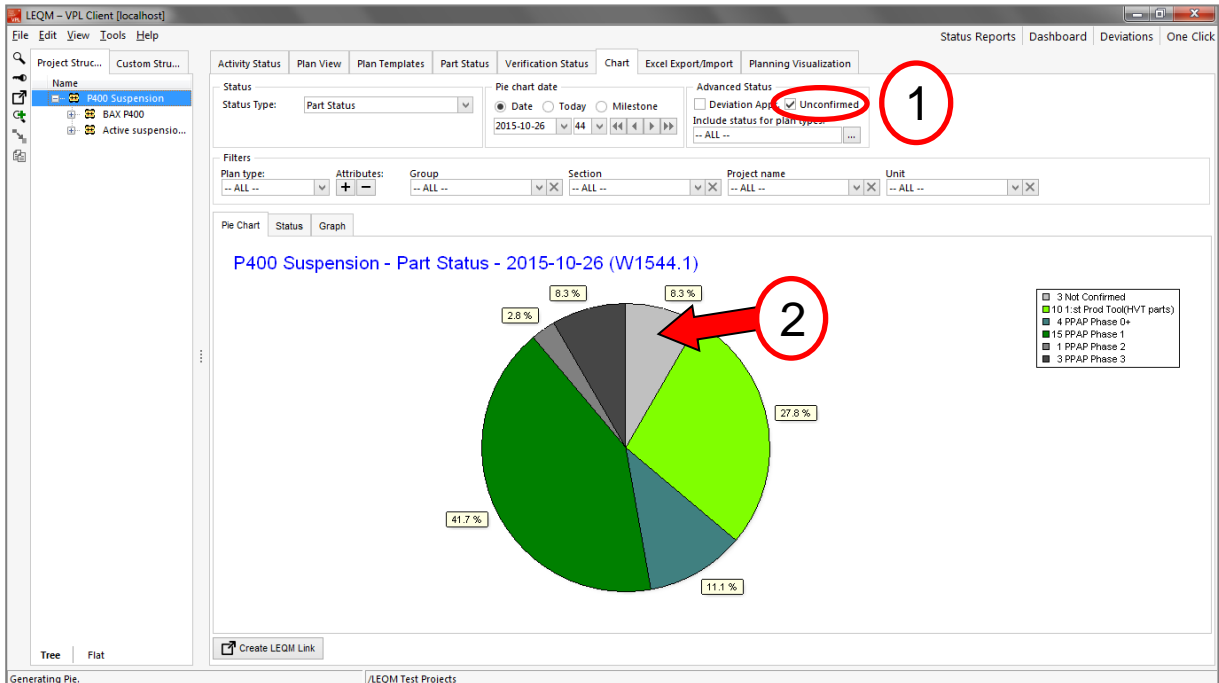
The information in the Activity columns can be edited directly in the status matrix. To do so, double click in a cell (4) and type the date in format YYWW.D. After the date, and OK, Not OK or Ongoing status can be added. Note that editing in an Activity column cell is only possible when the user has Read/Write access in the current plan and when the activity is not slave connected.

The data in the status matrix can be filtered by plan type or attribute data (5). Add and remove attribute filters with the button "Add Attribute Filters" (6).

To export a matrix to Excel, click on the button "Export to Excel" (7).

Chart - Part- and Verification Status (cont.)

The Pie chart displays the status at a given date. Most functionality, including the date settings, the filter options etc., are the same as for the graph diagram. By clicking on a pie sector, the plans it contains will be displayed in a status list.



Confirmation level

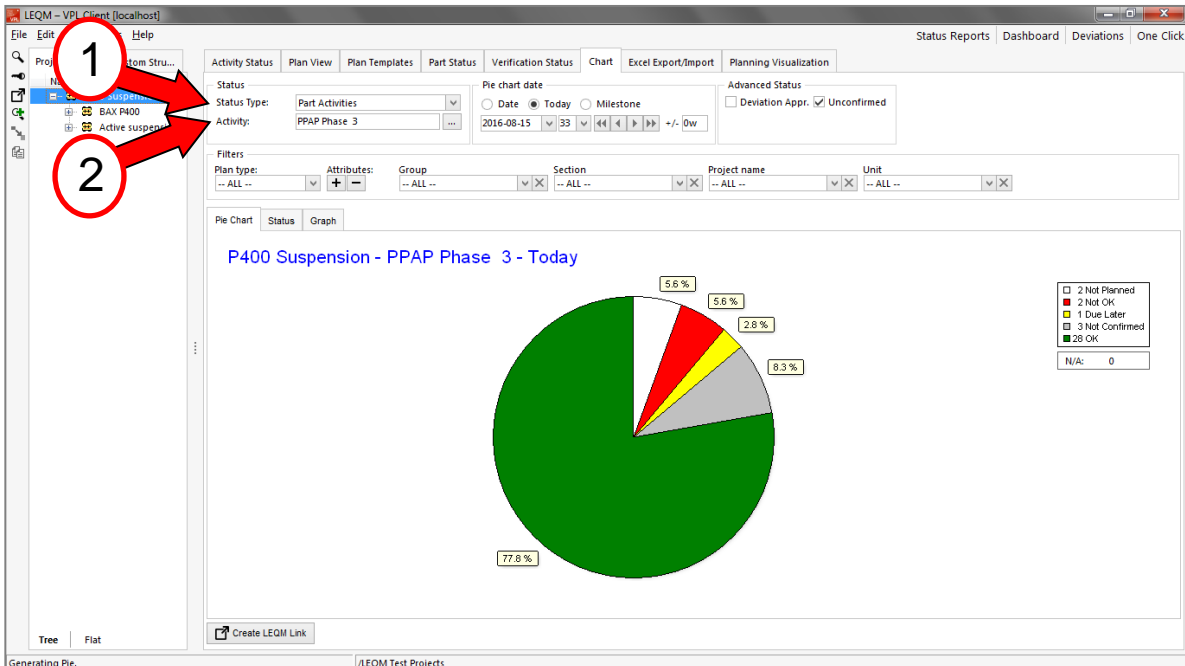
If the Unconfirmed check box (1) is activated, a grey sector (2) containing the unconfirmed plans will appear in the pie diagram. A plan is considered unconfirmed if it contains one or more planned activities whose start- or due date is passed (compared to the selected pie date) while the status is not marked Ongoing/OK. Unconfirmed plans should be avoided when possible!

Chart - Part- and Verification Activities

By selecting "Part Activities" or "Verification Activities" in the drop down menu "Status Type" (1) it is possible to analyze the planning of an individual activity from the part- or verification plans. Choose an activity in the drop down menu "Activity" (2).

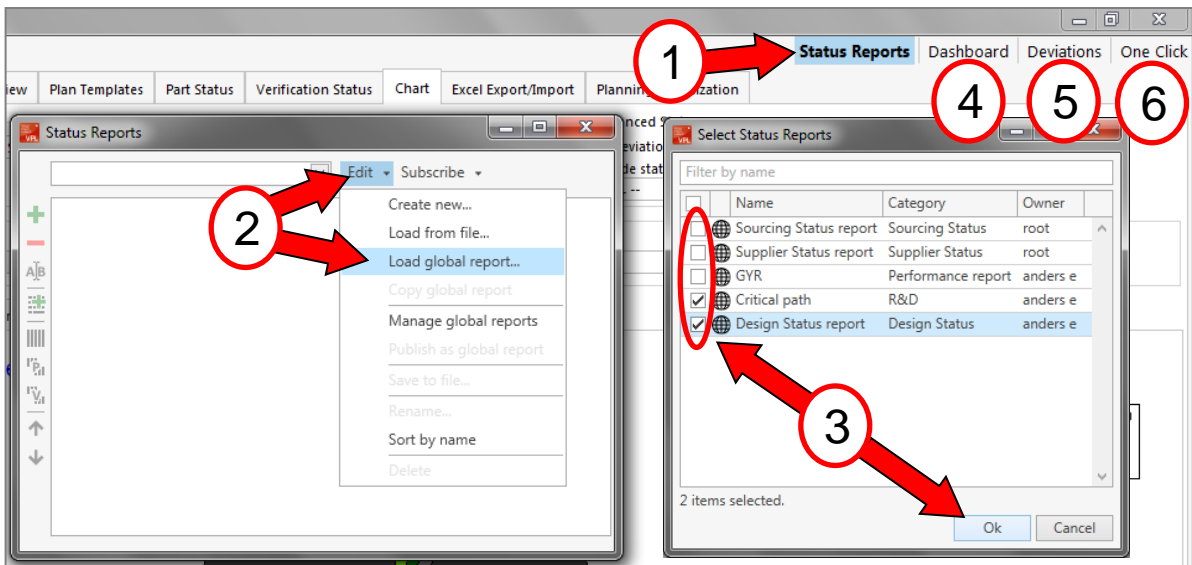
In the Part Activities diagram below, showing the status for the activity PPAP Phase 3, the date is set to "Today" and the "Unconfirmed" check box is selected. The following analysis can be made:

- 28 parts have confirmed a successfully completed PPAP Phase 3 (Green)
- 3 parts are over due/unconfirmed. (planned to be completed but not yet confirmed) (Grey)
- 2 parts have completed the PPAP Phase 3 activity but with a Not OK result (Red)
- 1 part has the PPAP Phase 3 activity planned in the future (Yellow)
- 2 parts have no plan for PPAP Phase 3 (White)

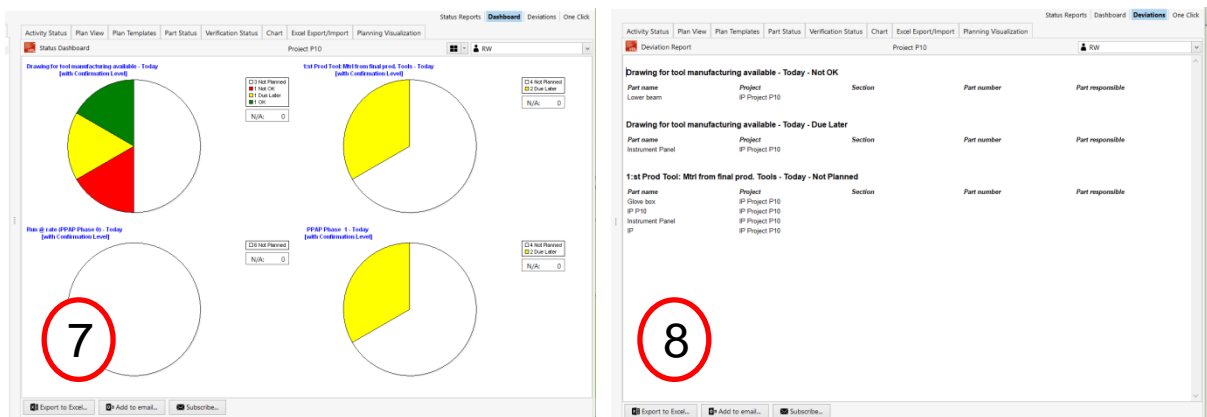


Status reports

In VPL, status reports containing pie- and graph diagrams and also deviations can be created. The reports can be personal custom reports, created by individual users, or global reports, created and published by an LEQM VPL administrator. To add a global report to the report library, click on the “Status Reports” button (1) followed by “Edit”/“Load global report” (2). Select the global report that should be added and click OK (3).

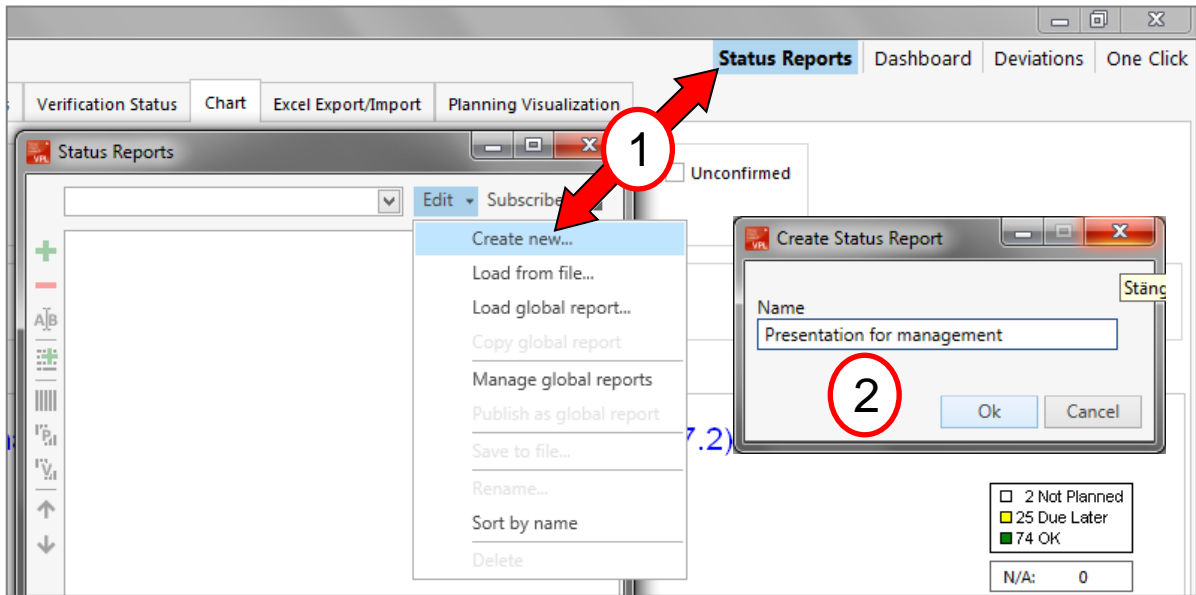


To view only the diagrams in the report (7), click on the Dashboard button (4), to see the list of deviations (8), click on “Deviations” (5) and to see both diagrams and deviations together, click on the “One Click” button (6).

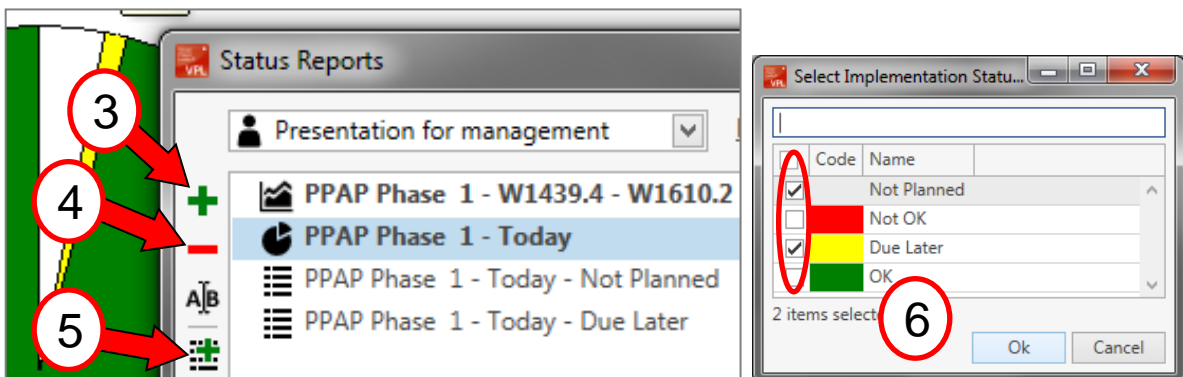


Status reports (cont.)

To create a personal VPL report, click on the “Status Reports” button followed by “Edit”/“Create new” (1). Name your setting and click OK (2).

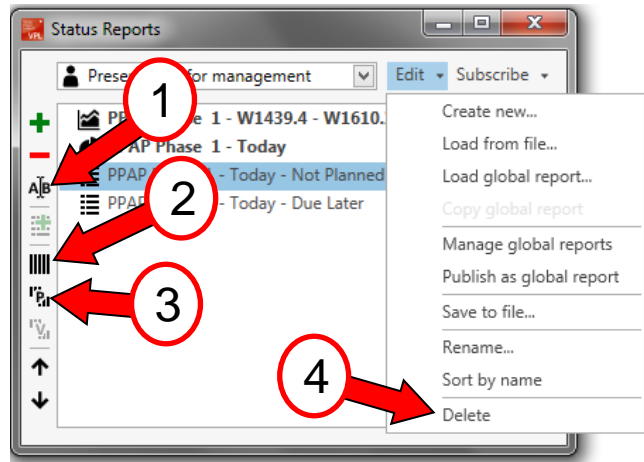


An empty report is now created. To add pies- or graphs to the report, set up the diagrams and click on the green plus sign in the toolbar (3). To remove a diagram, click on the red minus sign (4). The content of a pie sector, e.g. Not Planned, can be added to a deviation report. To add statuses/pie sectors to the deviation report, select the pie diagram in the list and click on “Create Deviation reports” in the toolbar (5). Select requested types of deviations (6) and click OK.

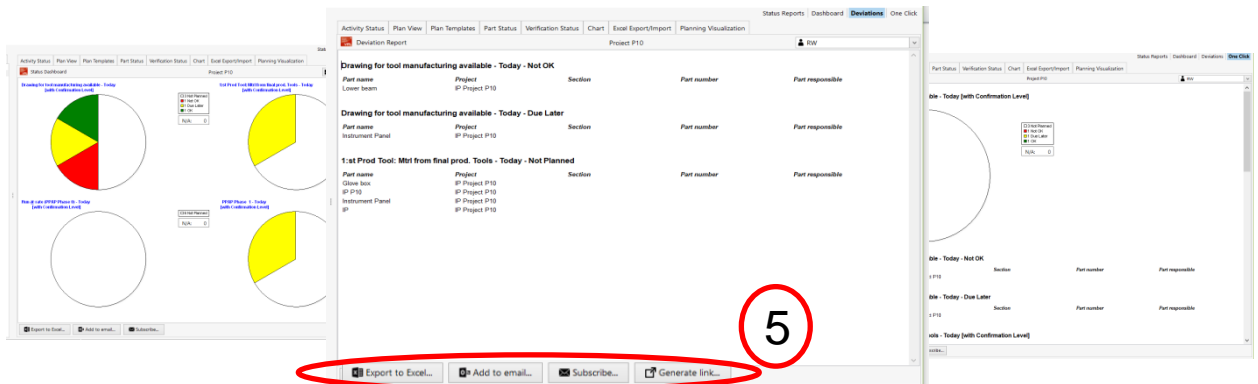


Status reports (cont.)

In the Status Reports setup window, it is also possible to rename a diagram or deviation (1), add columns with attribute data to the Deviation reports (2) and also to copy these attribute columns to all deviations (3). To delete a custom report or remove a global report from the report library, click Delete/Remove (4) under the Edit menu.



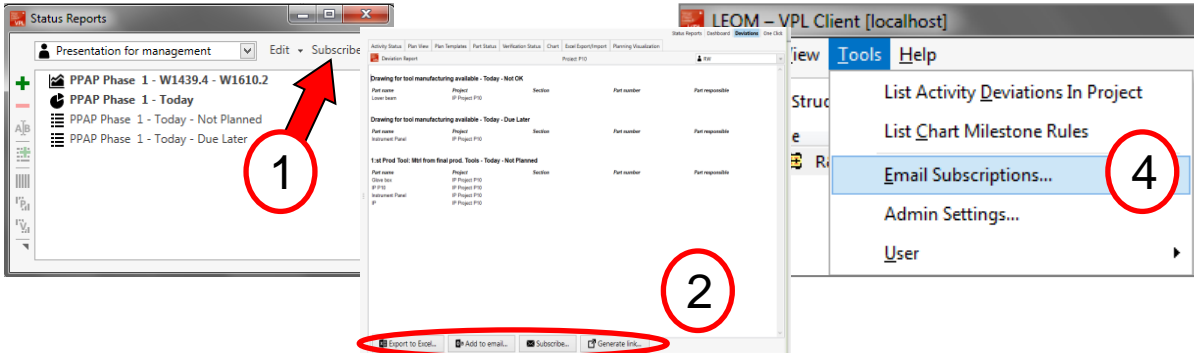
The Dashboard, Deviation report and One Click report always show current, live status for the project selected in the project tree. The same report can be used in several different projects if it is created wisely. Avoid dates as pie- and graph start/stop dates as they are normally connected to one specific project. Instead, try to use project milestones or "Today" as dates.



In the area below the displayed report (5), the current Dashboard, Deviation report or One Click report can be exported to Excel, added to an email or added to a subscription (see next page). It is also possible to generate a link that can be shared with other users. By clicking on this link, VPL will start up and the current report will be displayed. The report will also be added to the report library of the receiver.

Status reports - Email subscriptions

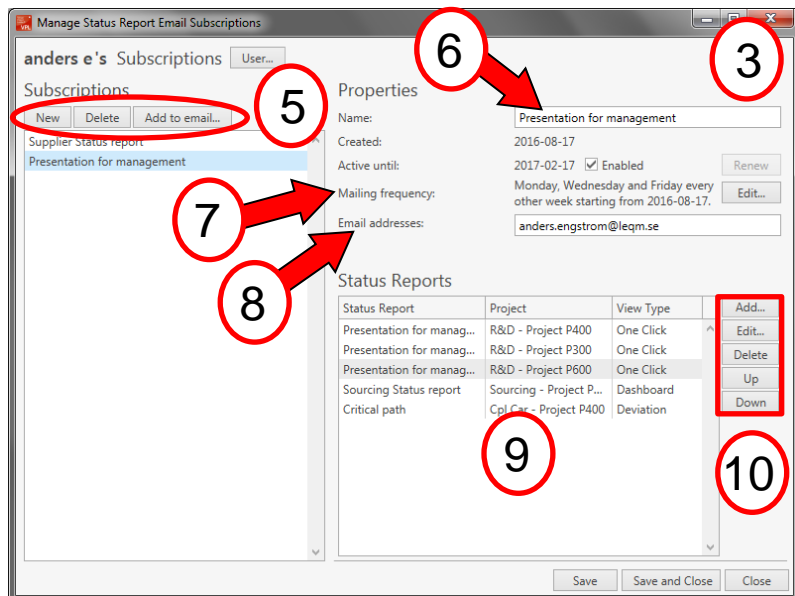
When a user has created a report, or loaded a global report, it is possible to activate an automatic email subscription of this report. To create and manage subscriptions, click "Subscribe" in the "Status Reports" window (1) or under a displayed report (2). The subscription window (3) can also be accessed under the "Tools" menu (4).



On the left side of the subscription window, all subscriptions of the current user are listed (5). A subscription can be created, deleted or added to an email with the buttons (5). On the right side of the window, the subscription selected in the list can be modified. Edit the name in the field (6) and set up the mailing frequency in the field (7).

The email addresses of the receivers of the report should be listed in the field (8). Separate addresses with a semicolon.

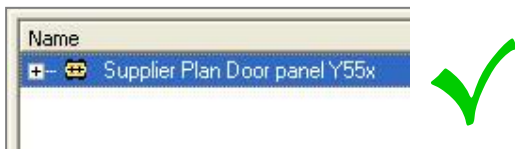
In the area "Status Reports" (9), the reports that are included in the current subscription are listed. Add, Edit and Delete with the buttons (10). Note that one report can be listed several times covering different projects.



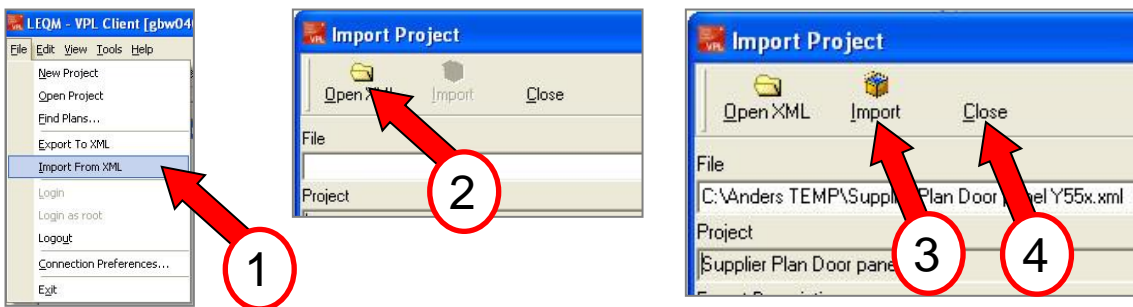
Import Supplier XML

To be able to import an XML file, a user needs to have write access in all plans in the receiving supplier plan project, otherwise the import is denied. If the user has write access to several projects, extra care has to be taken so that the correct project is imported in the correct place.

Save the received XML file in an appropriate folder. Open the corresponding VPL Supplier plan project. NOTE! The supplier plan project must be opened before import. It is not enough to just mark the project in the project tree to the left.



Choose “Import From XML” under the File menu (1). Click on “Open XML” (2) and open the saved XML file. Import (3). After import click close (4). At import, a change log is created in the library where the XML file is located.

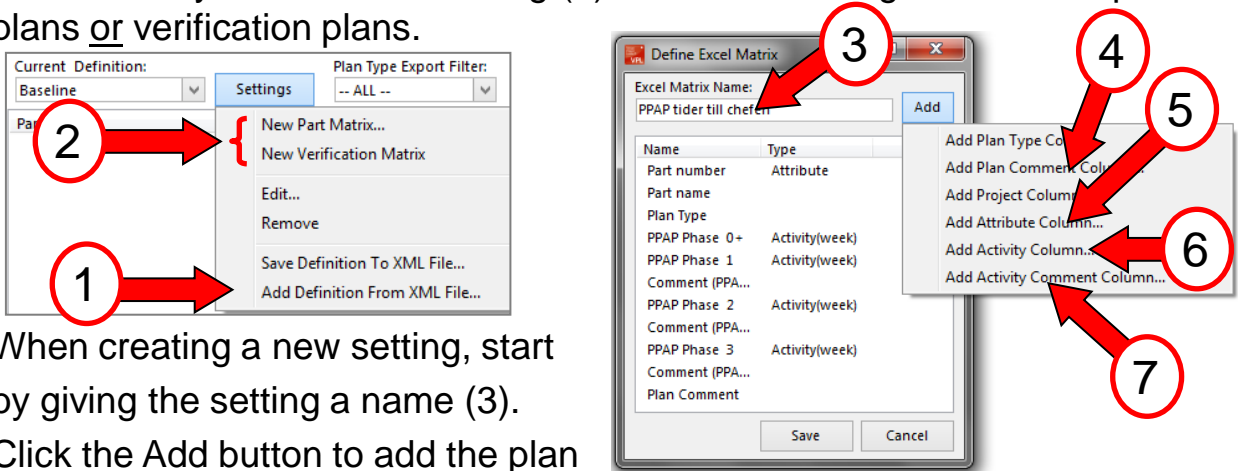


Checklist after import:

- Check the Part- and Verification Status matrices if there are any open plans (attribute “Plan Status”). Go through the open plans and after having analyzed the consequences of the suggested changes, inform the supplier if you accept them or not.
- Check confirmation level. Generally it is not acceptable with unconfirmed planning in an VPL report.
- If found necessary, look through the change log to get detailed information about the import.

Excel Export/Import

To create your own Excel setting, go to the tab “Excel Export/Import” and click Settings. Choose either to import an existing Excel setting (1) or to create your own new setting (2). An Excel setting can include part plans or verification plans.

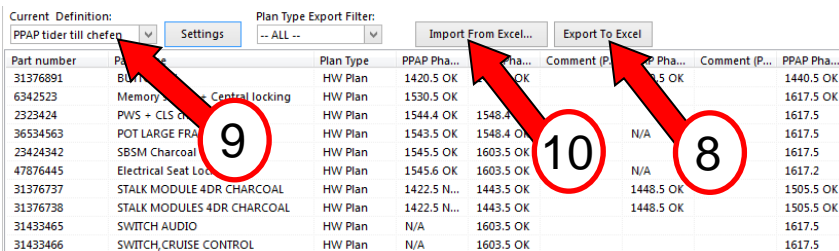


When creating a new setting, start by giving the setting a name (3).

Click the Add button to add the plan comment field (4), attributes (5), activities (6) and activity comments (7) to the setting. Save the setting by clicking on Save.

By right clicking on an attribute- or an activity headline, one can remove it from the Excel setting or move them up and down in the list. By right clicking on an activity, the date format can be changed from week to date.

Export the data to an Excel document via the button "Export to Excel" (8). To import an Excel sheet, first make sure the Excel setting that corresponds to the Excel file is selected (9). Click Import from Excel (10).



Note that for a successful import, the dates in the Excel sheet must remain in the format YYWW.D or YYYY-MM-DD. New columns, rows or comments must also not be added in the Excel document!