

Steel Projects PLM[©]



V1.10/11



Table des matières

Introduction	6
Technical Support.....	7
Steel-Projects.....	8
Installation.....	10
General tools & Navigation.....	11
Steel Projects PLM - Modules	16
Project	17
Import.....	18
Module - Project Manager.....	20
Selection Window & Select function	29
Phases & Phase Builder	32
Drawing Module.....	35
Part Preview Window	35
Copy Function	37
Template Project	38
View and edit	40
Creating Manual Projects.....	51
Shop Drawings	55
Print Reports	58
Project	59
Fabrication Job	62
Module - Section Nesting.....	69
Report.....	81
Automatic Section Nesting.....	81
Bar Order Change	85
Manual Section Nesting	86
Butt Welded Beams	88
Production Time Input	89
Module - Plate Nesting	90
Workstation.....	102
Nester.....	106
Pathfinder	110
DocViewer.....	116
Offcuts import	120
Offcuts Manager	121
Standard Gaps.....	121
Report.....	122
Automatic Plate Nesting	123
Import	127
Export.....	129
Production Time Input	130
Remaining Parts	130
Filter	130
Tips & Tricks	131
Resource Editor	131

Module - Production Manager	135
Control	136
Feedback Gathering	137
Connections	137
Raw Data	137
Fabrication Manual Input.....	137
Export.....	138
Reports	138
Refresh	138
Focus	138
Part Checking	138
Document Manager.....	143
Revision Management	149
Data.....	156
Material Grade	156
Material Type.....	160
Treatment	161
Painting.....	163
Profiles.....	165
Folding Parameters	169
Standard Flats	170
Customer	171
Country	172
Exact Profile \ Material Grade.....	172
Products.....	174
Toolings	176
Standard Toolings	178
Profile Groups.....	179
Workstations	184
General Options.....	Erreur ! Signet non défini.
Tooling.....	186
Parameters.....	186
Cut Parameters.....	190
Hole Parameters	191
Automatic Import From Ficep Machine	192
Export.....	193
Profile	194
Production Workflow	195
Sites and Departments Management.....	198
Project Manager Data.....	202
Import.....	202
DXF \ DWG Import.....	204
Tekla XML Import	212
DSTV Import	227
Export.....	237
Typology	238



Profile / Material Grade	239
Execution Classes.....	240
Auto Mark.....	241
Milling	247
Employees.....	247
Employee Management	249
Welders Management.....	250
Nesting Data.....	252
Deliverable Lengths.....	253
Scrap	255
Deliverable Dimensions	257
Material Code	259
Material Code / Thickness.....	261
Plate Scrap	262
Offcuts Manager	262
Import Stock	265
Export Stock.....	268
Warehouse	268
Fabrication Job Data.....	268
Import Fabrication Job	269
Export Fabrication Job.....	269
Dispatch To Simulation.....	269
Feedback Data.....	270
Import.....	271
Export	271
Production Import.....	271
Dashboard.....	271
Widgets.....	273
Feedback Type	276
Shipping Data	278
Package Types.....	278
Vehicle Classes	280
Vehicles.....	281
Configuration	282
Shop Drawing	282
Lists	286
Reports Management	287
Configuration.....	287
General Configuration	288
Company Configuration.....	294
Local Settings	298
Company.....	300
Users	301
User Groups	303
Users Manager.....	306
Utilities	306



Contract Restore	306
Project Backup.....	307
Backup	308
Lists	308
Translator.....	310
Update	313
Customer FTP.....	315
Lock.....	316
Database Administration.....	317
Services Management	319
Source Data Import.....	319
Check Data Integrity	320
Drawing module.....	320
Getting started with the drawing module	325

Introduction

Steel Projects PLM[©]



"This product includes software developed by devDept Software S.a.s. (<http://www.devdept.com>)."

Technical Documentation And User Guide. version 1.11.x

Steel Projects is recognised as one of the world's leading software development companies for the steel fabrication industry.

Our market leading Windows based modular PLM software has provided tremendous time and cost savings to fabricators for many years.

Steel Projects provides structural steel fabricators an integrated and modular software solution. Its modules automate and secure the link between the drawing office and the workshop.

A Microsoft Windows environment ensures a user-friendly interface and allows for quick and efficient implementation.

The real-time information feedback provided can be used to create reports on the efficiency of individual machines or the overall workshop. This data is invaluable to be able to manage revisions, time scheduling, stock control, purchasing, nesting, cost analysis and to be able to capitalise on CNC machinery.

Technical Support

Our expertise and experience allow us to provide solutions tailored to your needs, and to assist you in efficiently using your software.

Steel Projects SMART Program (Software Maintenance, Assistance and Remote Training Program):

- ✓ **Technical assistance and support**
- ✓ **Software upgrades and improvements**
- ✓ **Remote training sessions**



When you invest in our software, you are investing in years of experience, code writing, research and development. You are investing in the product as it exists today. However, our product is never 'finished': We are always developing new features, enhancing the user experience, and researching new technology. To keep up with this continuous improvement, we offer you our SMART program.

Features

Technical Assistance & Support:

Unlimited telephone and email support

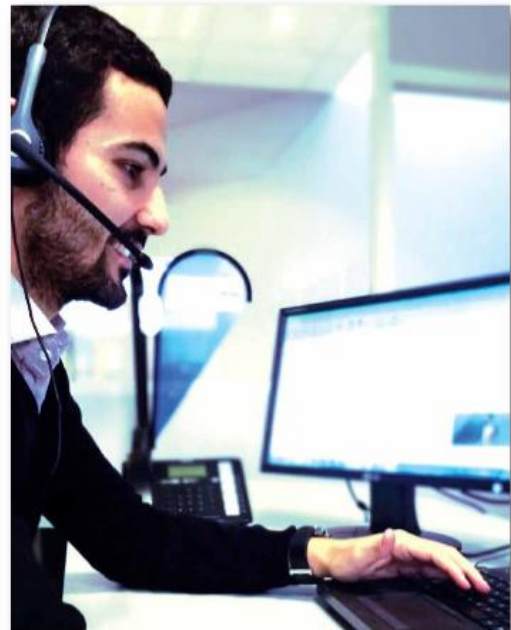
- Coverage for up to 18 hours¹ of every working day
- Both phone and email support is distributed across our global software experts
- All support calls generate a ticket that is tracked to completion
- Includes Remote Access Support which allows our technicians to remotely access your desktop and provide technical assistance

Software Upgrades and Improvements

- New version releases and upgrades²
- Fixes and improvements to existing features

Remote Training Sessions

- Quick fix online training sessions as available



Benefits

- ✓ **Assistance whenever you need it**
- ✓ **Choose how you get help
(emails, phone calls)**
- ✓ **Always be up to date with the latest
version of our software²**
- ✓ **Continually improve your Steel Projects
PLM software skills**
- ✓ **High quality support for a low
annual investment**

¹ Time zone coverage ranges from Pacific Standard Time (PST) in the USA to Central European Standard Time (CEST).

² Only valid within a 'generation' of software release. i.e. Upgrading from the 'WIN' Generation to the 'PLM' Generation of Steel Projects software is not included in the SMART program. Also, each version of WinNEST requires purchase of the actual upgrade.

Our SMART Program helps ensure you are using our solutions to the maximum of their - and your - capabilities :

PRODUCT AREA/MODULE	Parts Manager	Project Manager	Production Manager
PROJECT PLANNING & PREPARATION			
Integrated Drawing Package - create, edit parts	S	S	S
Assembly Management		S	S
2D/3D visualization	S	S	S
Revision Management		S	S
Import CAD	O	O	O
Import BIM	O	O	O
MATERIAL PLANNING			
Manual/Basic Linear Nesting	S	S	S
Automatic Profile Nesting	O	O	O
Fully Integrated Plate Nesting	O	O	O
PRODUCTION PLANNING			
Production Manager Viewer			O
Part Checking and Validation		S	S
Workflow Management			S
Workstation Management			S
Fabrication Job Creation	S	S	S
Production Analysis		S	S
Automatic and/or Manual Production Feedback			S
Production Forecasting			S
MIS & ERP Interface		O	O
Stock and Purchasing Interface	O	O	O
4D link with BIM/3D Models			O
CNC AUTOMATION			
Automatic Post Processing	O	O	O
Automatic Handling/Routing			O
Export CAM data	S	S	S
Export DSTV, DXF...	O	O	O
TRANSPORTATION MANAGEMENT			
Shipping		O	O

S=Standard; O=Optional

Steel-Projects

About Steel Projects

Steel Projects specializes in developing solutions that enable steel fabricators to:

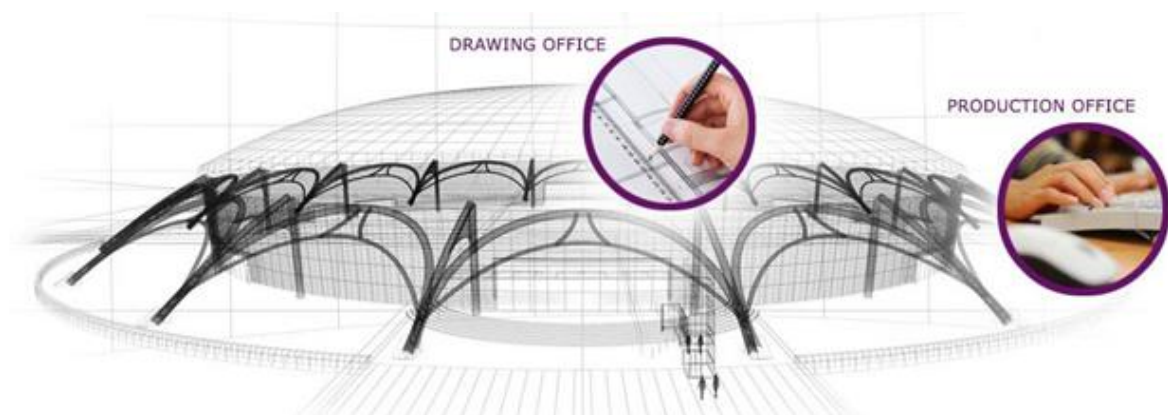
- Plan and schedule fabrication before it begins
- Get reliable, accurate and up to date information from the detailing office
- Create an integrated shop linking material handling, equipment and workstations
- Manage change seamlessly
- Adjust production on the fly to maximize equipment utilization or avoid bottlenecks
- Easily track and record progress and share it as needed with clients

Enjoy the peace of mind that comes with knowing your shop is maximizing use of its resources and operating as efficiently as it can be; with improved material flow and increased man-hour efficiencies.

Steel Projects has been at the forefront of steel fabrication software for over 20 years and our solutions are used in more than 90 countries.



Our mission is to manage, automate and optimize the work-flow from the CAD model through production and to site erection.

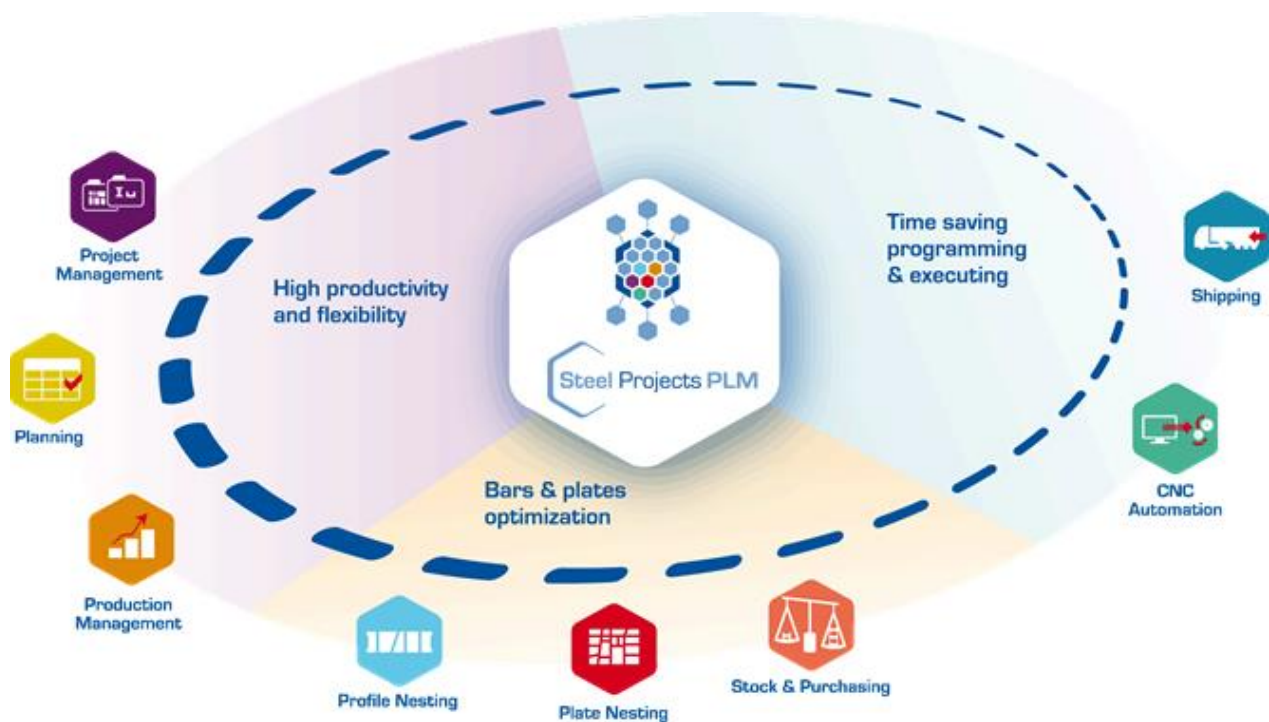


Steel Projects solutions consists of easy to uses modules that control all the aspects of Production life-cycle management (PLM).

With our strategy "Intelligent Fabrication" combining both machines and software we work side by side with FICEP all around the world.

We also work with many other machine manufacturers upon request, ensuring that everyone can receive the best in steel fabrication software.

Our innovative software solutions allow for increased production by managing projects, optimising processes, tracking stock, and with real time production feedback.



Installation

Steel Projects PLM uses Microsoft SQL 2012, 2014, and 2016 and it's required to be installed on a company server (multi-client installation) or local machine (Standalone install)


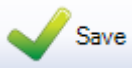

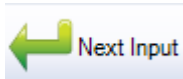
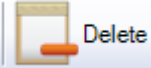


Once the database is installed and configured, Steel Projects PLM can then be installed, and connected to the database with an automatic connection wizard.

The program requires a shared BASE folder on the server in order to run.

General tools & Navigation

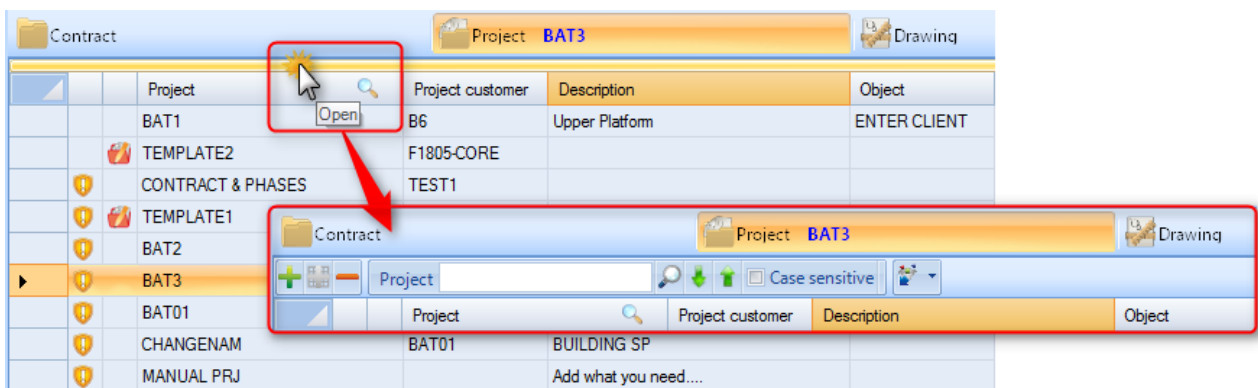
Icons and Software Short-cuts

You will find these items in various windows of the program:

- New  [Ctrl+N]
- Confirm  [Ctrl+S]
- Cancel  [Ctrl+Z]
- Next input  [Ctrl+O]
- Delete  [Ctrl+D]
- Open a list 
 - Press [F3] When the cursor is inside the text-box. You can also Double click the mouse
- Quit  [Ctrl+Q]

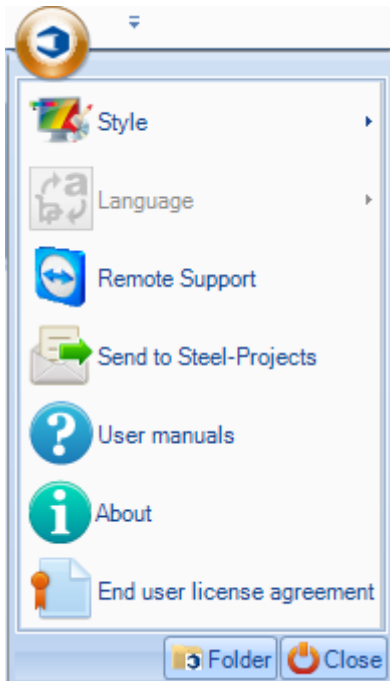
Grid tools bar

For all grids in SPPLM you can open the tools bar:



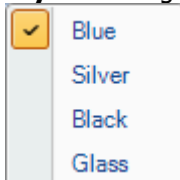
Ribbon Menu

The ribbon menu is always available in the top left hand corner of the screen



From here you can do the following

Style - Change the colours of SP PLM



Language - Change the default language. Translations are set from the [translation tool-bar](#)



Remote Support - To allow a Steel Projects Support Engineer to connect remotely to your pc you need to give ID and password.



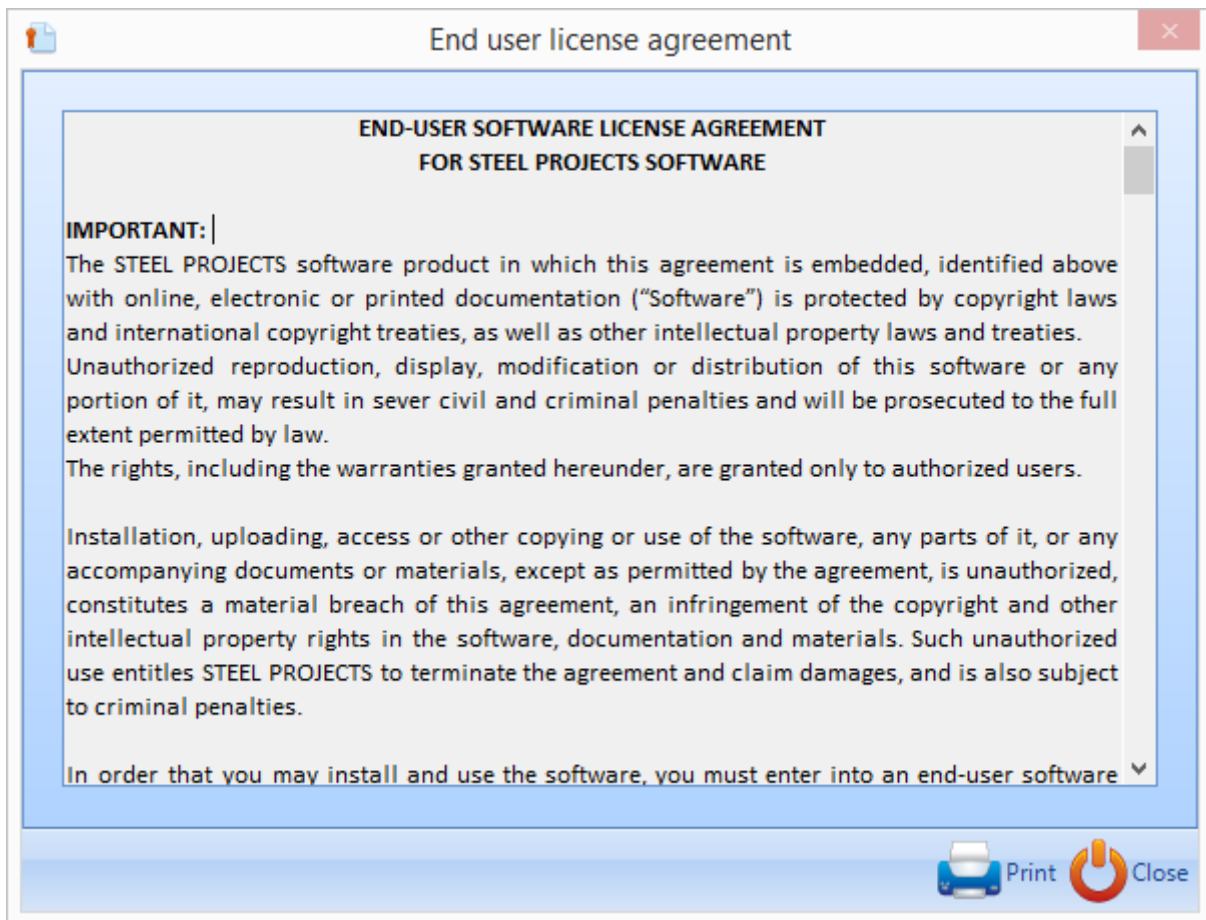
Send to Steel Projects - Short-cut to send an email to Steel Projects Support

User Manuals - Access to the manuals

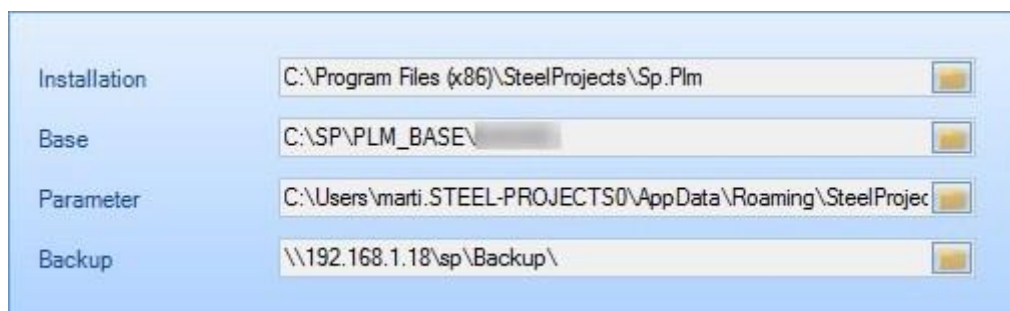
About - System information



End user license agreement - Open the agreement license

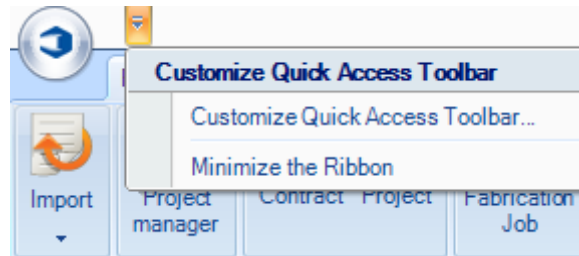


Folder - Give you the main folders information.

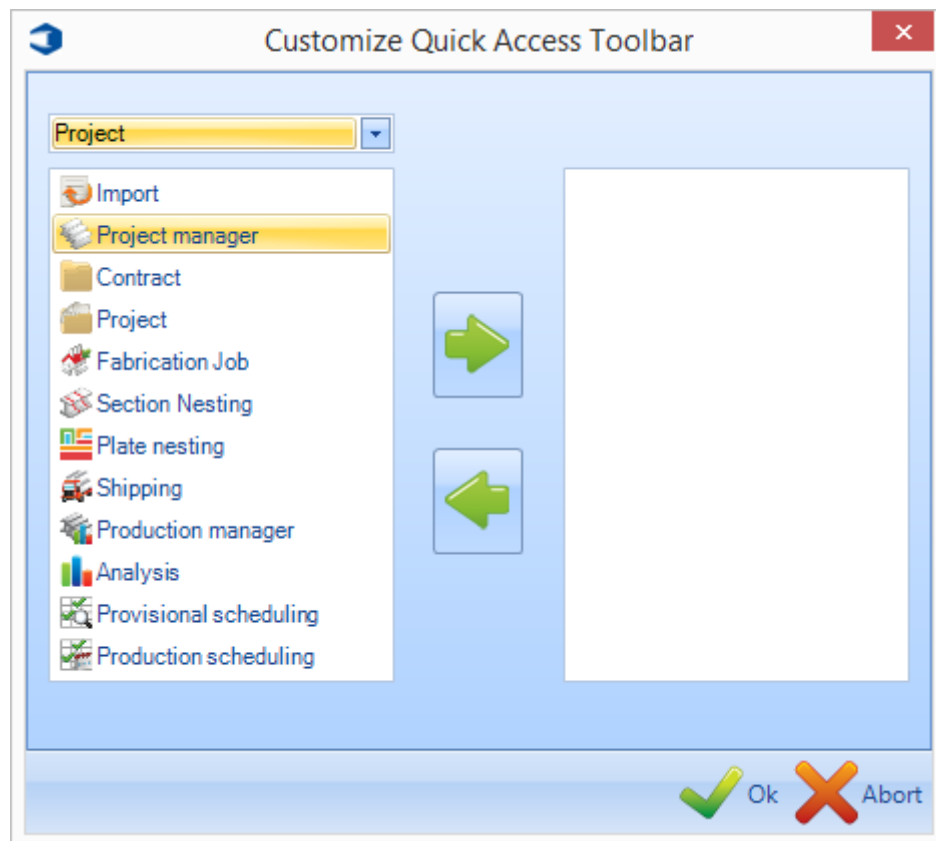


Quick Access Tool-bar

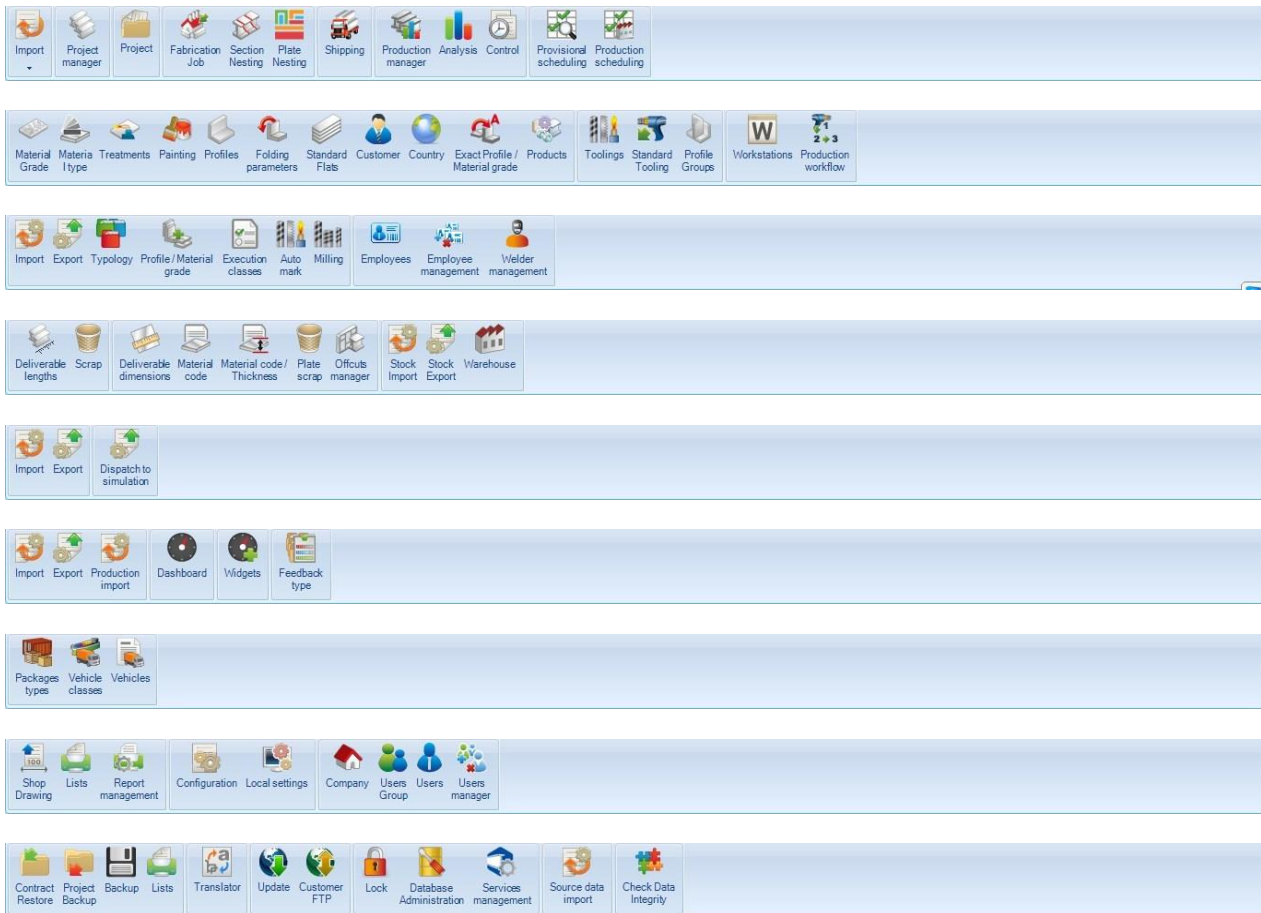
The quick access tool-bar is located at the top of the screen



By customising it, you can add various tool-bar icons to it for quick access by selecting them from the left menu, sending them to right and pressing confirm



Steel Projects PLM - Modules



Project

Import



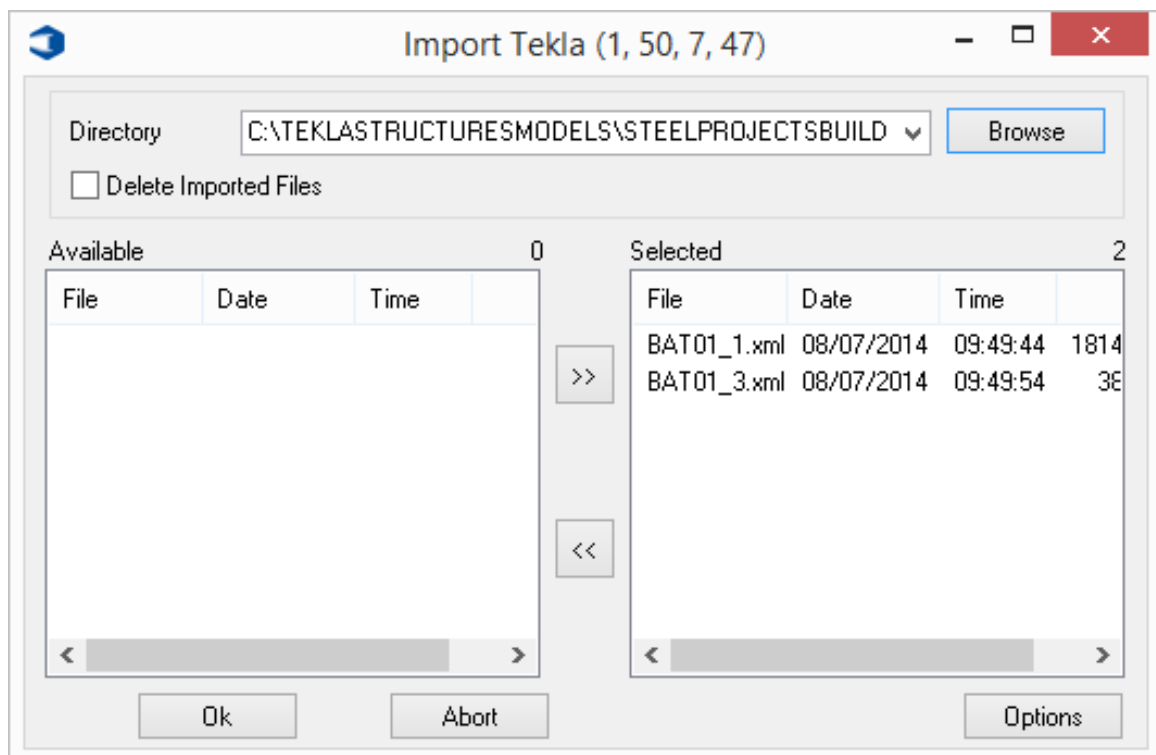
The Import CAD files entry point

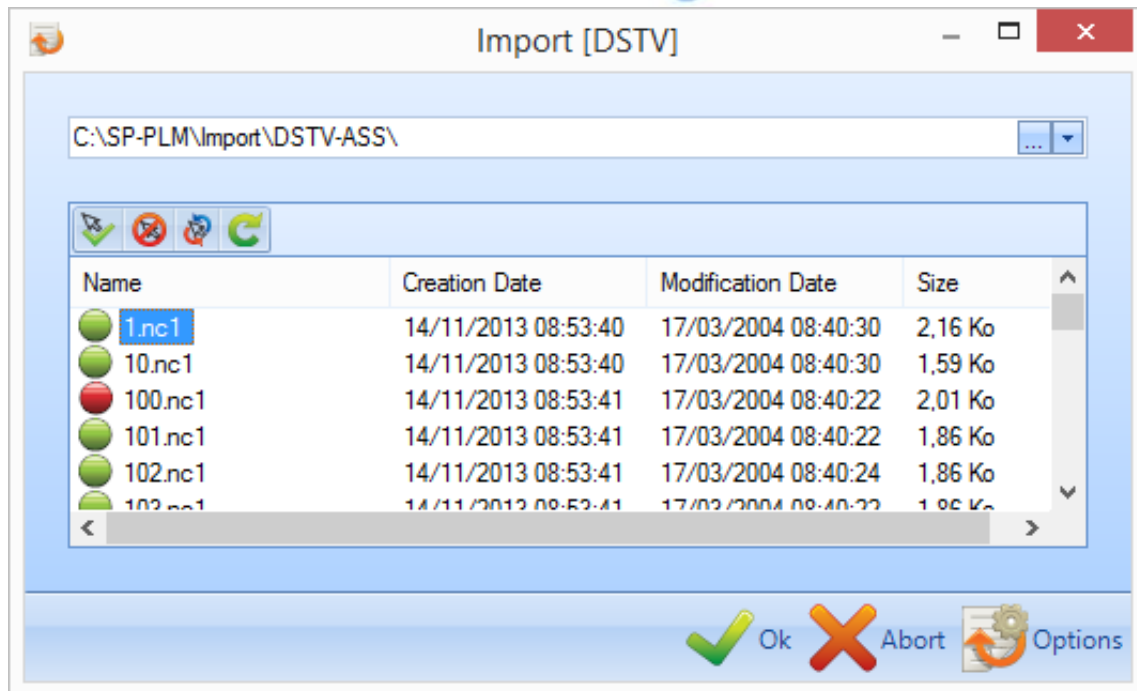
Import parts from a variety of third party software using the imports you have set-up in your [Project Manager Import](#) options

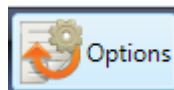
this can be done from the main screen of PLM, or from inside the project Manager.

Press the drop down arrow under the import tab, and it will show the available imports. Click on the the required one to open a new import window.

The window will show all of the files that are available in the default import folder.




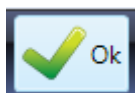


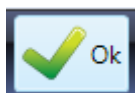
You can press on  to view and change the import options from this screen

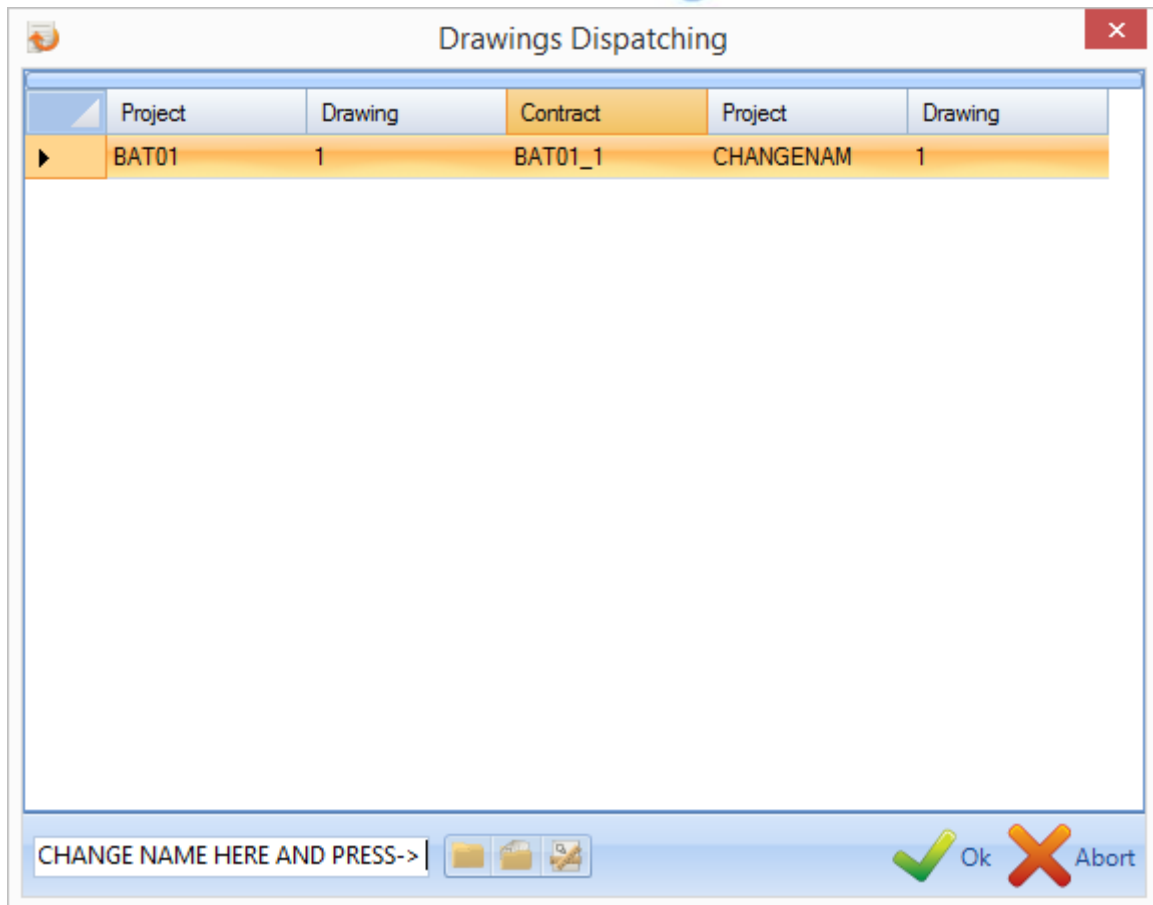
Parts selected or with green circles will be imported into the system when you press OK. Red ones will be ignored.



Double click, or select parts that you don't want to import and press  to un-select them

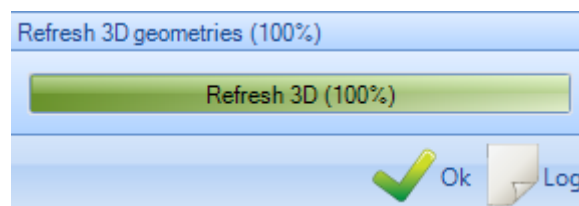


Press  when you have the required parts selected (green), and the import process will start.



If the Drawings Dispatching option is selected you can change the Contract Name, Projects Name or Drawing Name.

To continue select [OK]



The program will refresh the 3D information press [OK] to continue.

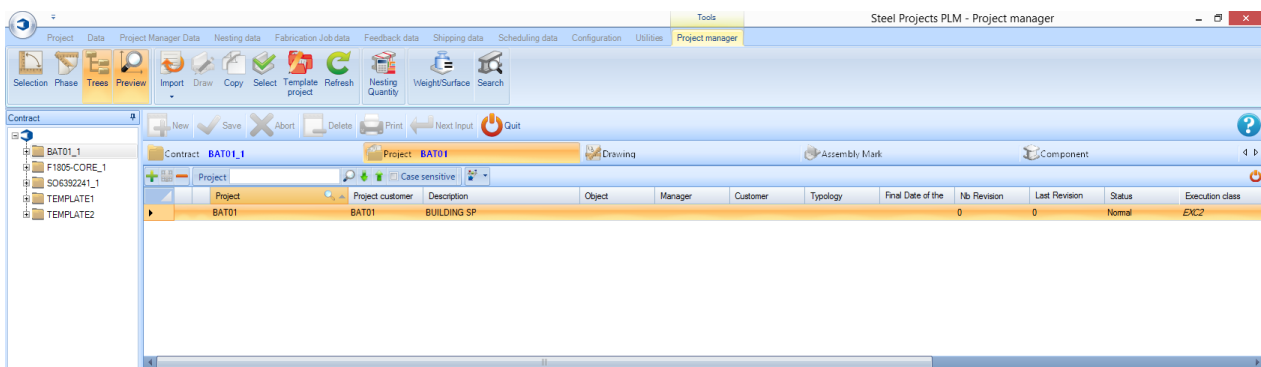
Windows will confirm the project(s) imported.

Module - Project Manager



The main module to manage your projects

The project manager module in SPPLM is the "heart of our PLM solution". Its main use is to manage your Projects, [import CAD files](#) from other packages, [manually draw or edit parts](#), assign grades, tooling, treatments, profile groups and other database information. It is also used to make selections of components to send to production and other advanced tools.



Layout

The main window is divided into 6 areas:

- 1 Short-cuts bar
- 2 Actions bar
- 3 Your contract and all the sub division are displayed here
- 4 Your contract and all the sub division are displayed here in tree view mode.
- 5 It is the part selection windows, where you can select parts to:
 - Send to production
 - Create Fabrication Job
 - Print a list of shop drawing
- 6 Here you can have 2D or 3D preview for component (Assembly if TEKLA import with WinSCRIBE option)

Steel Projects PLM - Project manager

Tools: Project manager

Project Data Project Manager Data Nesting data Fabrication Job data Feedback data Shipping data Scheduling data Configuration Utilities

Selection Phase Trees Preview Import Draw Copy Select Phase builder Template Refresh Nesting Quantity Weight/Surface Search

Contract

Contract Phase

Project BAT3 Drawing Assembly Mark Component V8

Component Case sensitive: 6 elements

Component	Quantity	Nesting Quantity	Profile	Length	Width	Material Grade	Final Painting	Treatment	Group	Description
VP1	8		PLT15	260.84	90.00	S235JRG2			PLATES	VOILE
V9	8		PLT10	334.60	81.00	S235JRG2			PLATES	VOILE
V8	24		PLT10	201.60	50.00	S235JRG2			PLATES	VOILE
V7	2		PLT10	182.00	65.00	S235JRG2			PLATES	VOILE
V6	8		PLT10	333.60	101.50	S235JRG2			PLATES	VOILE
V5	8		PLT10	346.30	309.80	S235JRG2			PLATES	VOILE

Selection

Project	Job	Drawing	Assembly Mark	Quantity	Component	Preassembly	Profile	Quantity	Length	Width	Treatment	Material Grade	Final Painting	Group
BAT1		1	B6	1	M3		UB203*133*25	1	3800.00			S275JR		SECT
BAT1		1	B9	9	M20		PFC200*90*30	1	539.90			S275JR		SECT
BAT1		1	B8	1	M19		UB152*89*16	1	1290.35			S275JR		SECT
BAT1		1	B8	1	M18		UB152*89*16	1	2380.70			S275JR		SECT
BAT1		1	B8	1	M16		UC203*203*46	2	2647.30			S275JR		SECT
BAT1		1	B8	1	M7		UB203*133*25	1	3800.00			S275JR		SECT
BAT1		1	B8	1	M8		UB203*133*25	1	3800.00			S275JR		SECT
BAT1		1	B7	1	M16		UC203*203*46	2	2647.30			S275JR		SECT

Parts Messages

Preview

2D preview

3D preview

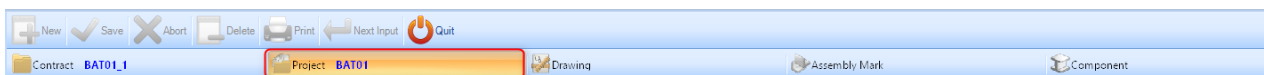
Project Manager Navigation

The Project Manager is laid out with the standard tool-bars at the top, and then a hierarchical layout of your Projects, drawings (Phases\Loads), Assemblies and Components. The default view shows a list of all of your Projects (if you have any otherwise the screen is blank)

The hierarchical filters are shown in Blue next to the tab name

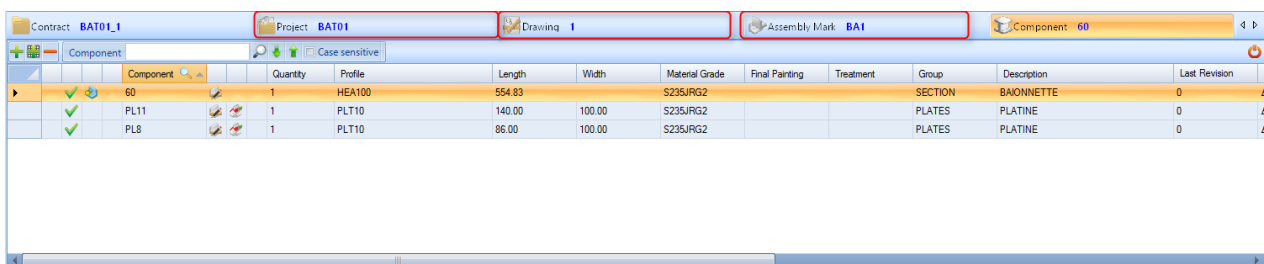
To view all the Components in a Project, click on the relevant Project from the Project tab, and then click on the Component tab

As you can see in this example, we have selected the Project called BAT01 and are viewing the components inside this Project



To view only the components inside a drawing or assembly, select the Project and then the required part for the contract from those tabs. in this example we have selected to view the parts in Assembly Mark

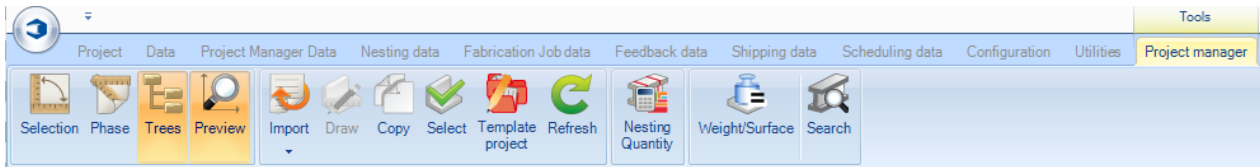
BA1



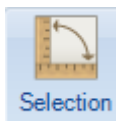
The screenshot shows the 'Component' tab selected, displaying a table of components for Project BAT01. The table has columns for Component, Quantity, Profile, Length, Width, Material Grade, Final Painting, Treatment, Group, Description, and Last Revision. The 'Component' column is highlighted with a red box, and the 'Assembly Mark' column is highlighted with a blue box.

Component	Quantity	Profile	Length	Width	Material Grade	Final Painting	Treatment	Group	Description	Last Revision
60	1	HEA100	554.83		S235JRG2			SECTION	BAIONNETTE	0
PL11	1	PLT10	140.00	100.00	S235JRG2			PLATES	PLATINE	0
PL8	1	PLT10	86.00	100.00	S235JRG2			PLATES	PLATINE	0

Project Manager ToolBars



Selection



Open the [Selection Window](#)

You can then drag items into the Window to process for section nesting, creating a fabrication job, view drawings or create reports. The selection Window opens automatically if you drag an item anywhere on the screen.

Trees



The trees window shows the hierarchical structure in a tree menu. You can navigate around your Projects and make selections from this window instead of the main window

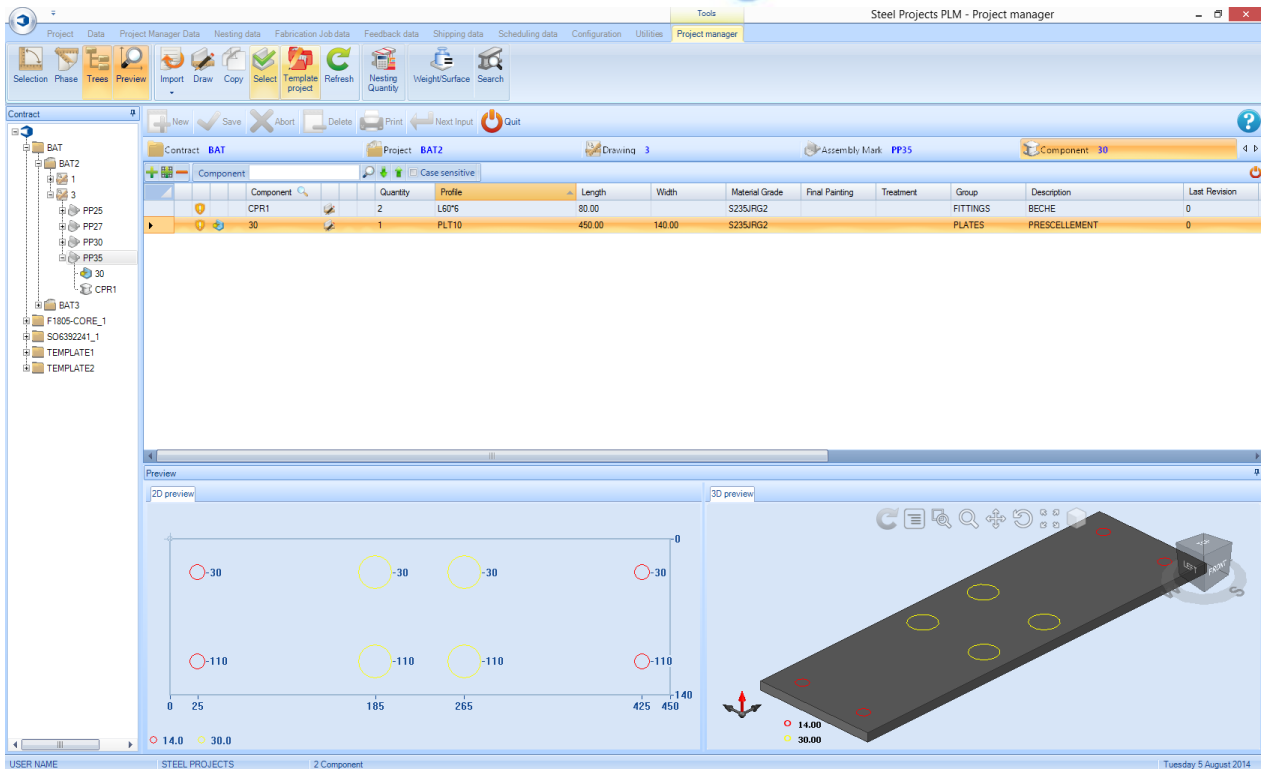
Preview



Open the [Preview Window](#)

If you have a valid Component or Assembly selected, you will see a view of the part in 2D or 3D. To activate 3D view you need to have it enabled in your [Local Settings](#). You can also change the way the item is displayed with these options

You can change the 2D display options in the [Shop Drawings](#) configuration



Import



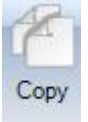
[Import data](#) into your Project Manager by pressing the arrow to view your [configured Imports](#)

Draw



Open the [Drawing Module](#) to add or modify tooling details of your components such as drilling, cutting and marking

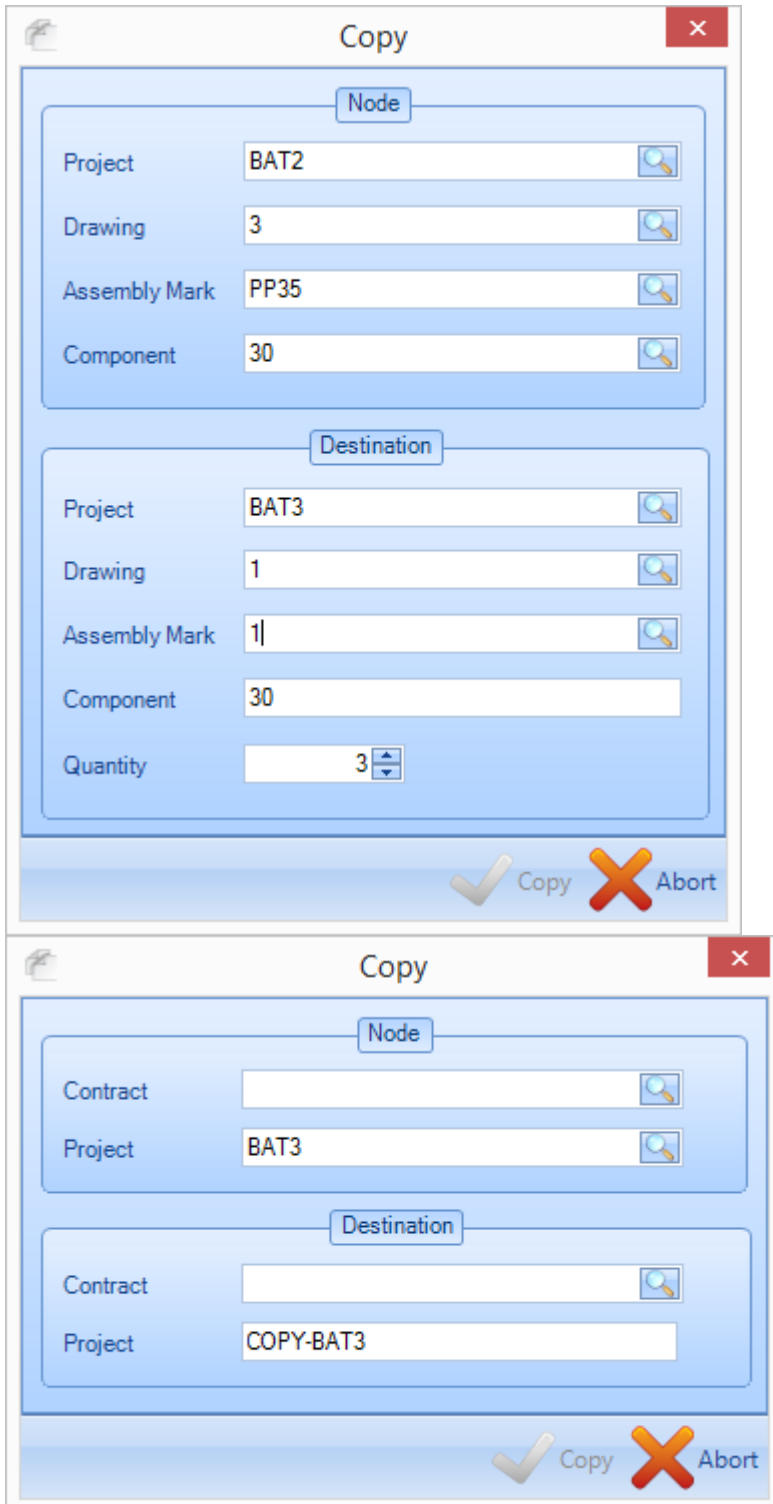
Copy



Copy a project, Drawing, Assembly or Component into another place in the Project Manager. If the item you copy has lower hierarchal items, these will also be copied. For example, if you copy a Project, all of the sub drawings, Assemblies and Components will be copied. if you Copy a Component, then that will be the only item copied.

Select the desired item in the main window and either the Copy button, right click -Copy, or press the keyboard shortcut Ctrl + C

this will open the Copy options. the node shows the item that is to be copied, the destination shows where it is to be copied to.



Copy

Node

Project: BAT2

Drawing: 3

Assembly Mark: PP35

Component: 30

Destination

Project: BAT3

Drawing: 1

Assembly Mark: 1|

Component: 30

Quantity: 3

Copy Abort

Copy

Node

Contract:

Project: BAT3

Destination

Contract:

Project: COPY-BAT3

Copy Abort

You can modify the destination selections to rename them by typing or double click in the windows to choose existing locations. press OK and the items will be copied

Open [Copy Function](#) to have more information.

Select



You can use the Select icon to multi select items and open and send them to the [selection window](#).

Template Project



You can assign any of your Projects as templates. When you do this, the items inside them can be copied over to other projects quickly.

For more information, [Template Project](#)

Refresh



Refresh the screen

Weight/Surface

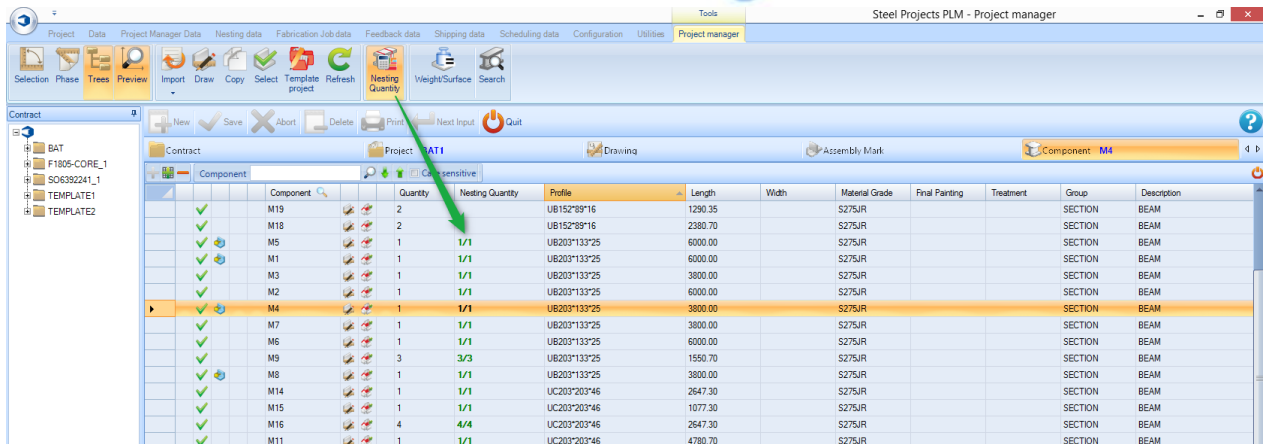


You can recalculate weight and surface values if profile or material grade parameters as changed.

Nesting Quantity



When this icon has been selected, it activates an extra column in the main components window so you can visualise in the Project manager the parts and quantities that have already been nested in the [Section Nesting Module](#)

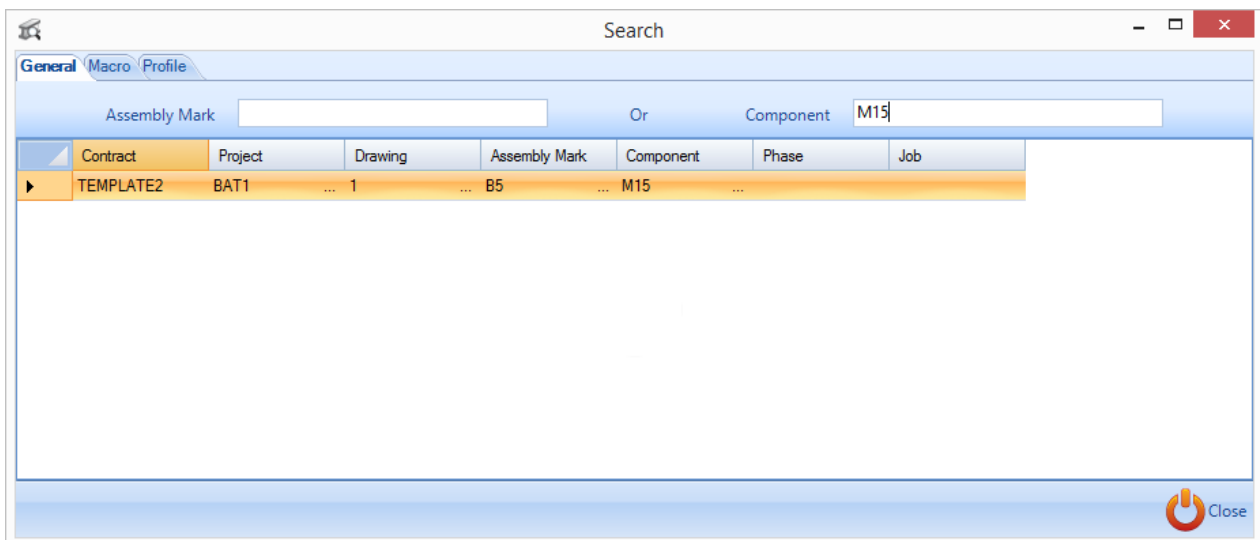


Search



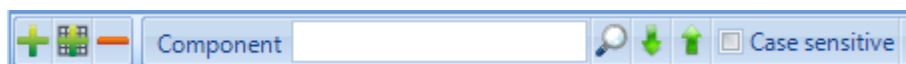
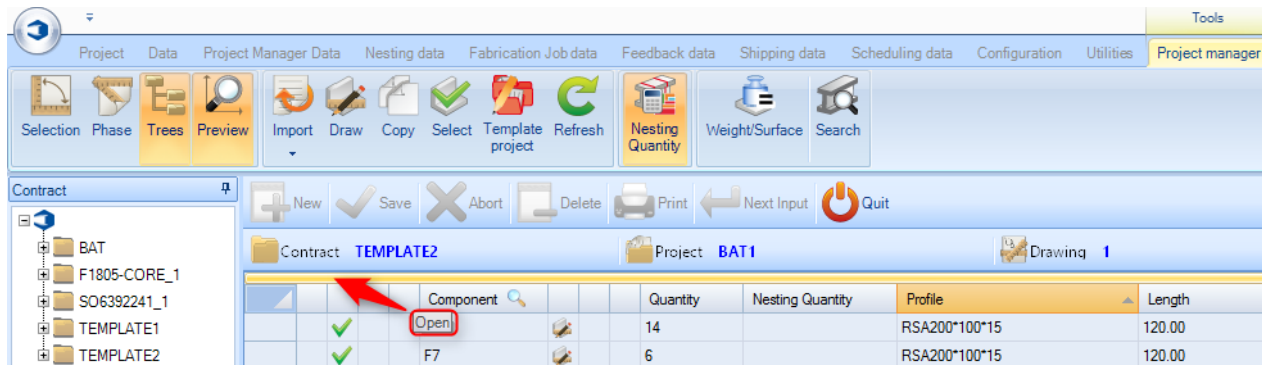
Search for an Assembly or Component using the search tool. You need to type the name in the left or right window and press enter to search. All the results that match up will be shown in the window. Double click on one of the entries and it will take you to that item in the Project Manager


You can search Macro with the second tab window and Profile with the third tab window.




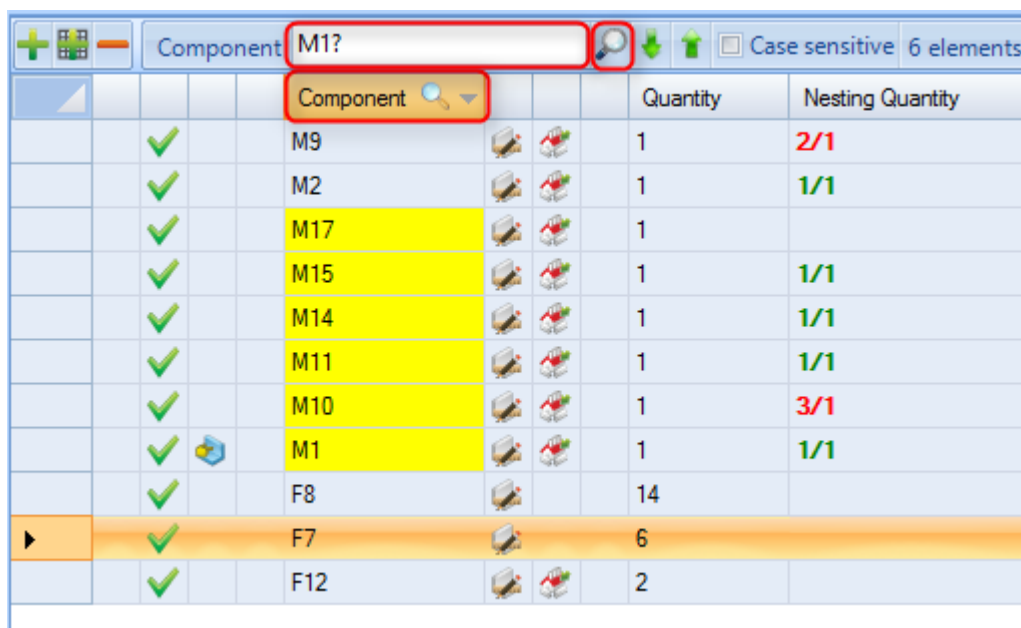
Top Tool-bar

In order to see this tool bar, you must either click the bar to expand, or press Ctrl+B



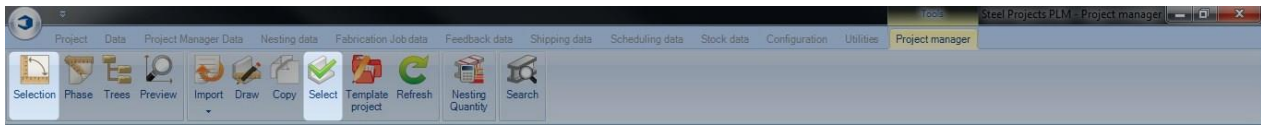
 Create a new hierarchy depending on which tab you are in - Project, Drawing - Assembly - Component

 Delete the current selection



Search the current tab. Change the search column by right clicking on the column header and replace any characters by [?]. In this case the goal is to search all part starting by M1.

Selection Window & Select function

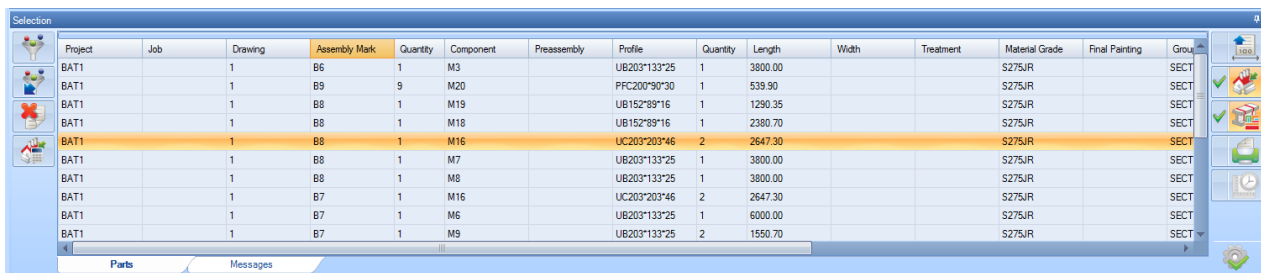


Select part to send to production or print list

The selection window in the Project manager is the tool to move parts to the next stages of the software - export them to production, generate shop drawings and reports

You can open the selection window using the top icon, or if you make a selection of parts and drag them with the mouse the window will open automatically.

You can also make a multi-selection in the grid then press the Select button to "move" the items to the Selection section.



The aim of the tool is to drag the projects or components that you want to process together into the window, use the filters on the left side to filter out any unwanted parts, choose what you want to do with the selection on the right side, and then press the Action Button to process



: Set the filter criteria



: Apply or remove the filter



: Reset the selection. All of the selected parts are removed from the grid.



: Prepare [shop drawings](#) of the parts



: Create a [Fabrication Job](#)



: Automatically create nest using the Section Nesting Module



: Export the parts with the Project Manager exports (Not allowed if you have the Production manager)



: Open the [Reports Window](#)



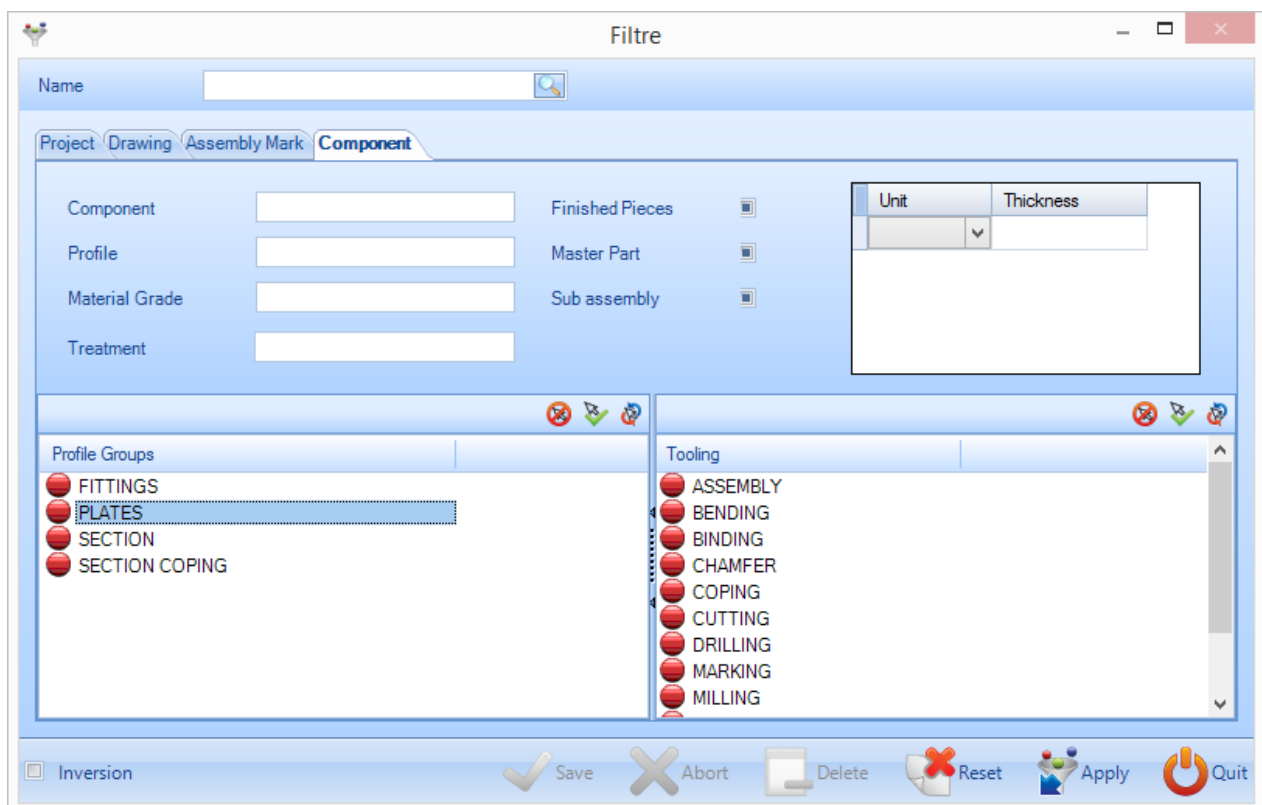
Action Button - press this to apply the actions you have selected

The Selection Filter

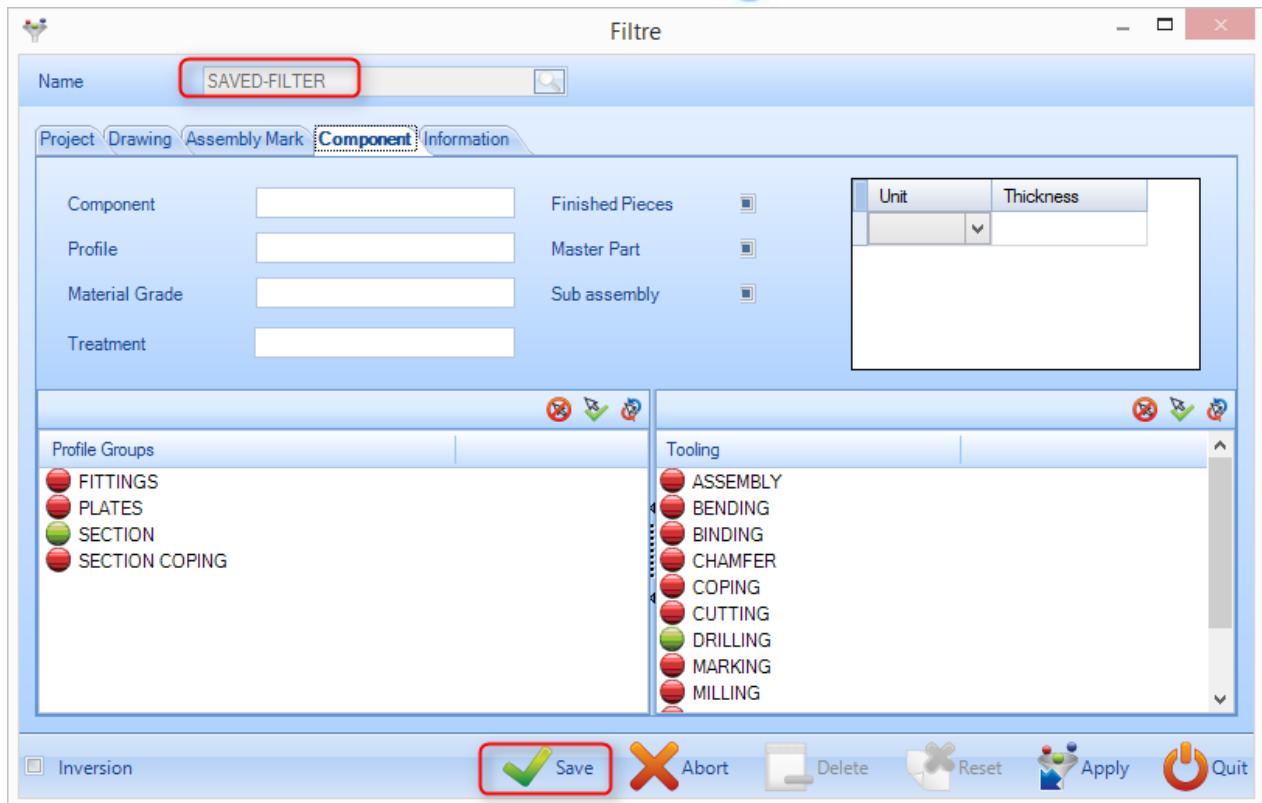
Once parts are selected, it is possible to setup a filter to refine a selection. The exact options of the filter are determined by your profile group and tooling set-up.

You can create specific filter your selection by phase, assembly or component (By name, profile, material, treatment or thickness)

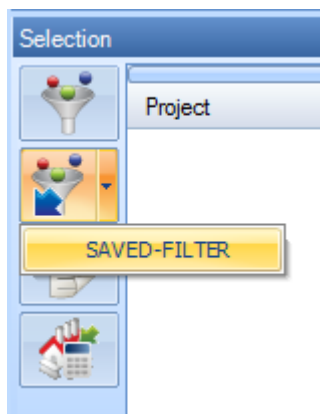
You can also filter by specific profile groups or toolings using the same windows. To set these filters click on the red button to the left to turn them green (green meaning that it is selected). Now only parts belonging to the green profile groups or toolings will be visible in the selection window



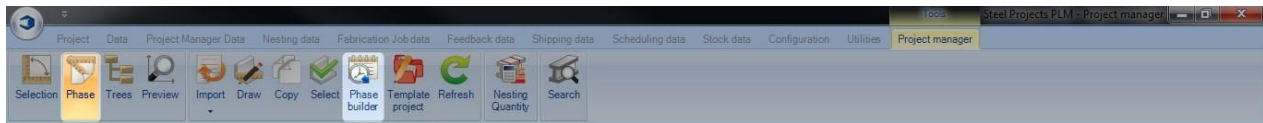
You can save specific filters by typing the name in the top window, and then pressing save



The saved filters will be available from a drop down list under the filter icon in the selection window




Phases & Phase Builder

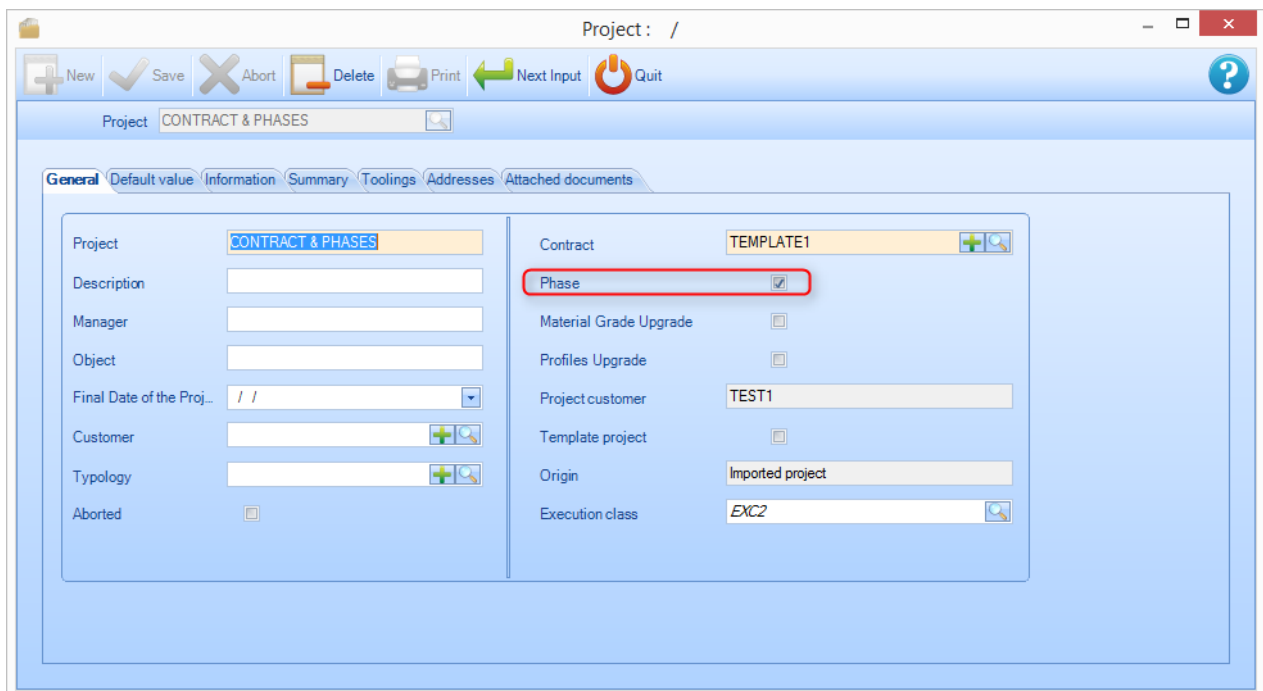


As an option you can organise your contract by phase of production

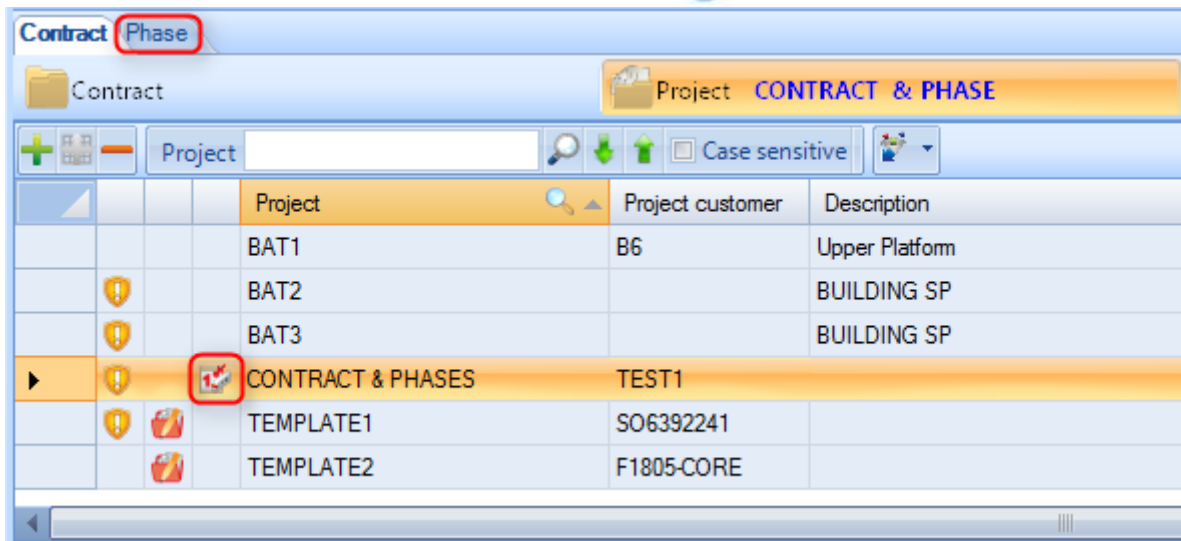
The phase builder allows you to organise your projects into phases and loads

To use this facility you first need to activate "jobs management" in the [company configuration settings](#)

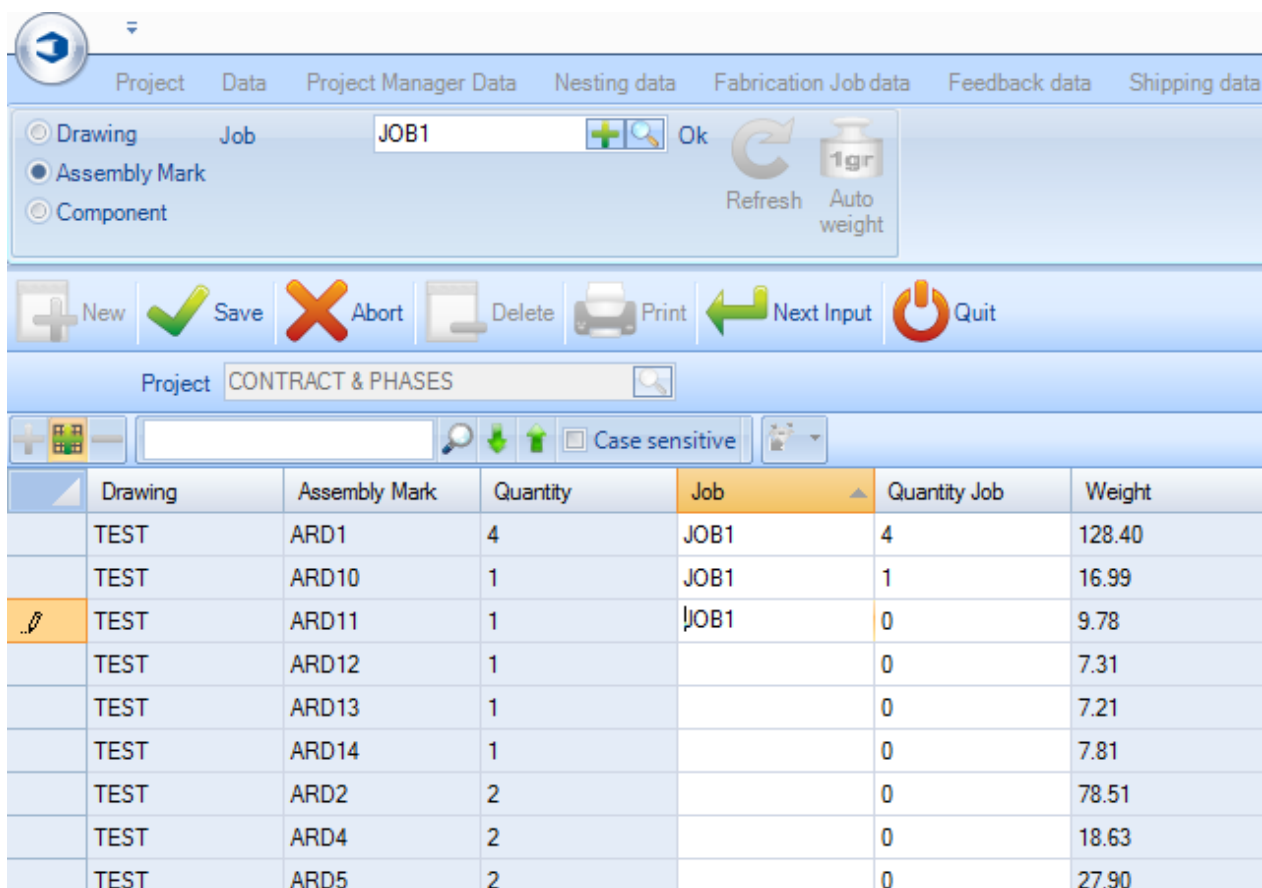
To make a Project a phased project, open the project options and check the option, a phased project will have the following icon. 



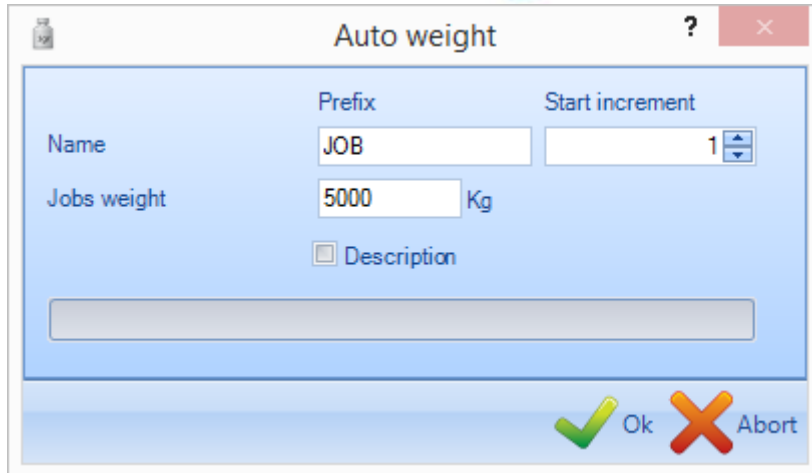
Pressing the phase button will activate a tab called phase



When you click the phase builder button a new window will open. This will allow you to build your phases by drawing, assembly or component.



If you press the auto weight button you can get the system to create your phases automatically to the assigned weight. This is useful for creating loads by trailer weights etc.



Auto weight

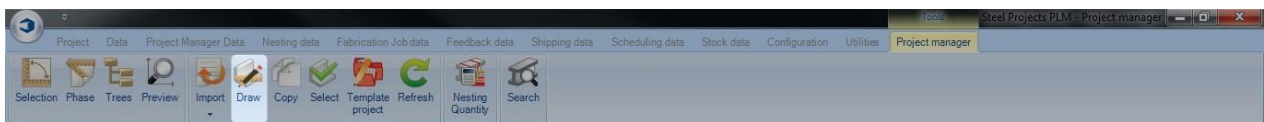
Name: Prefix: Start increment:

Jobs weight: Kg

☐ Description

Ok Abort

Drawing Module



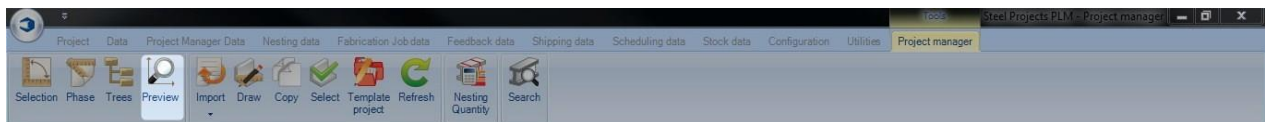
Open the drawing module to modify or create a part

The drawing module in Steel Project PLM allows the user to create and/or edit the parts that then can be processed in the workshop.

For more information: [Drawing module](#)

Created with the Personal Edition of HelpNDoc: [Write EPub books for the iPad](#)

Part Preview Window




You can have a 2D or 3D preview

The part preview window lets you view the current selected part in a 2D or 3D view

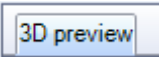
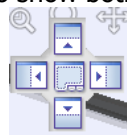
To activate the 3D view you need to first activate it in the [local settings](#)

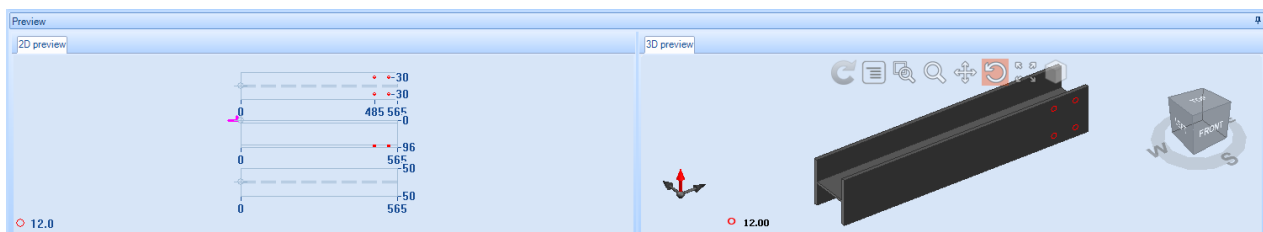
The way the parts are represented can be set in Shop Drawing - Representation option, and in local settings - 3D settings



Press the  button to activate the preview window. This will default to open at the bottom of the screen, you can drag and drop the window to other sections of the screen.

The default view shows the current selection in either 2D or 3D. If you want to show both views in the same

window you can drag the top of the view ribbon tab  until the  icon appears, and then drag it to the left or the right to activate both displays

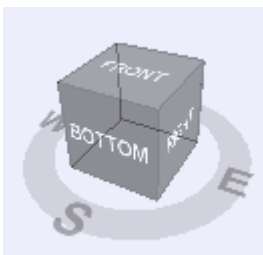


The 2D view shows a graphic of the part with the tooling, dimensions, coping macros all shown

Double clicking in the window, will open the part up in the [Drawing Module](#)

The 3D view can be set to show different views by changing the View and Modelling options

The view angle can be changed by using the box icon. Simply click and rotate the box to change the view of the part



The icons at the top of the 3D view are used to change the view of the 3D part as well, they do the following.



- Refresh the default 3D view



- Show or hide the Menu



- Zoom window - create a window to zoom the window to fit to



- Zoom in and out of the part



- Pan around the part keeping the default rotation



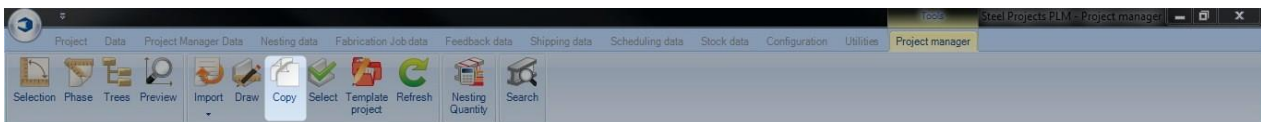
- Rotate around the part by clicking a point and using the mouse to move around this point



- Zoom Fit - Show the part to the extremities of the window with the current view

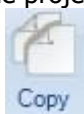
You can open the full screen view of the part by pressing Shift+F

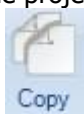
Copy Function



Copy a contract, drawing, assembly or part

It is possible to copy projects, or parts of a project, to another one inside project manager. If you do this it will copy all of parts and the lower hierarchical levels, including all of the component tooling and outlines. To copy a project simply select the project from the main list and either press Ctrl + C, choose Copy from



the right click menu, or press the  icon on the tool bar

This opens the copy window. Choose the name of the new project in the destination window, press OK and then you will have a second identical project in the project list

Copy

Node

Contract

Project

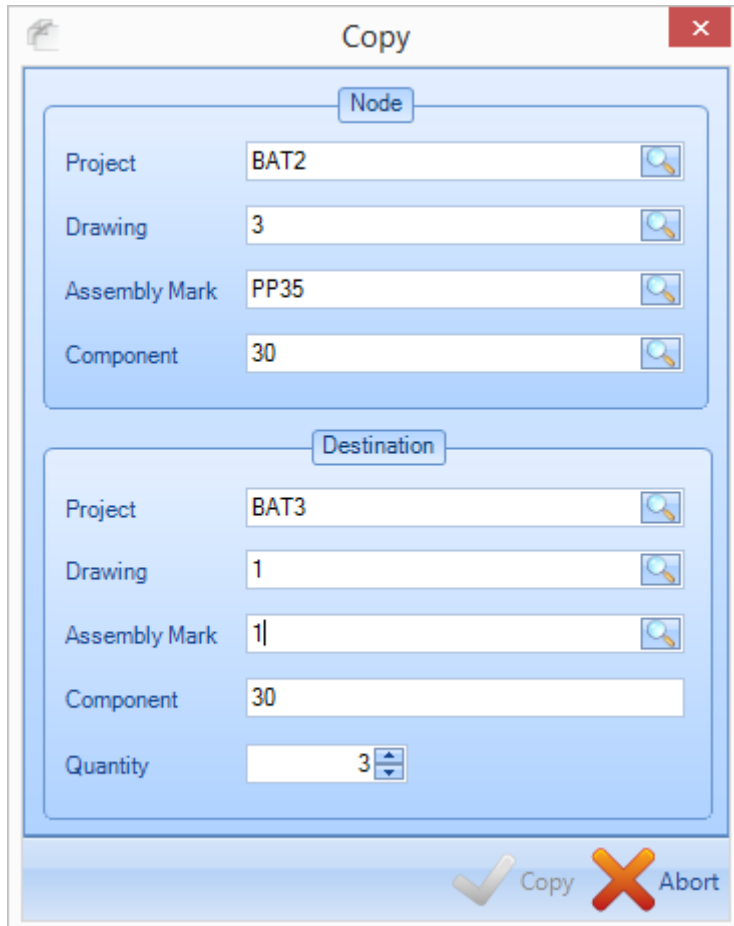
Destination

Contract

Project

You can also copy Drawings and Assemblies in a similar way

To copy individual components, also use the same method as above but the copy window gives you the extra options to be able to copy it to specific levels of a project. this can be the same one you are in now or a different one. Double click in the window to see a list of all the available options



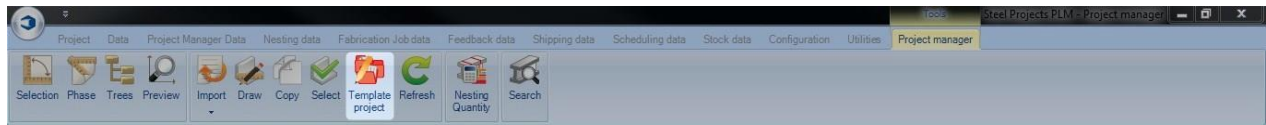
The image shows a 'Copy' dialog box with a title bar containing a maximize icon, the text 'Copy', and a close button (X). The dialog is divided into two main sections: 'Node' and 'Destination'. The 'Node' section contains four text input fields with search icons: 'Project' (BAT2), 'Drawing' (3), 'Assembly Mark' (PP35), and 'Component' (30). The 'Destination' section contains five text input fields with search icons: 'Project' (BAT3), 'Drawing' (1), 'Assembly Mark' (1), 'Component' (30), and 'Quantity' (3). At the bottom right, there are two buttons: 'Copy' with a checkmark icon and 'Abort' with a red X icon.

Node	
Project	BAT2
Drawing	3
Assembly Mark	PP35
Component	30

Destination	
Project	BAT3
Drawing	1
Assembly Mark	1
Component	30
Quantity	3

Copy Abort

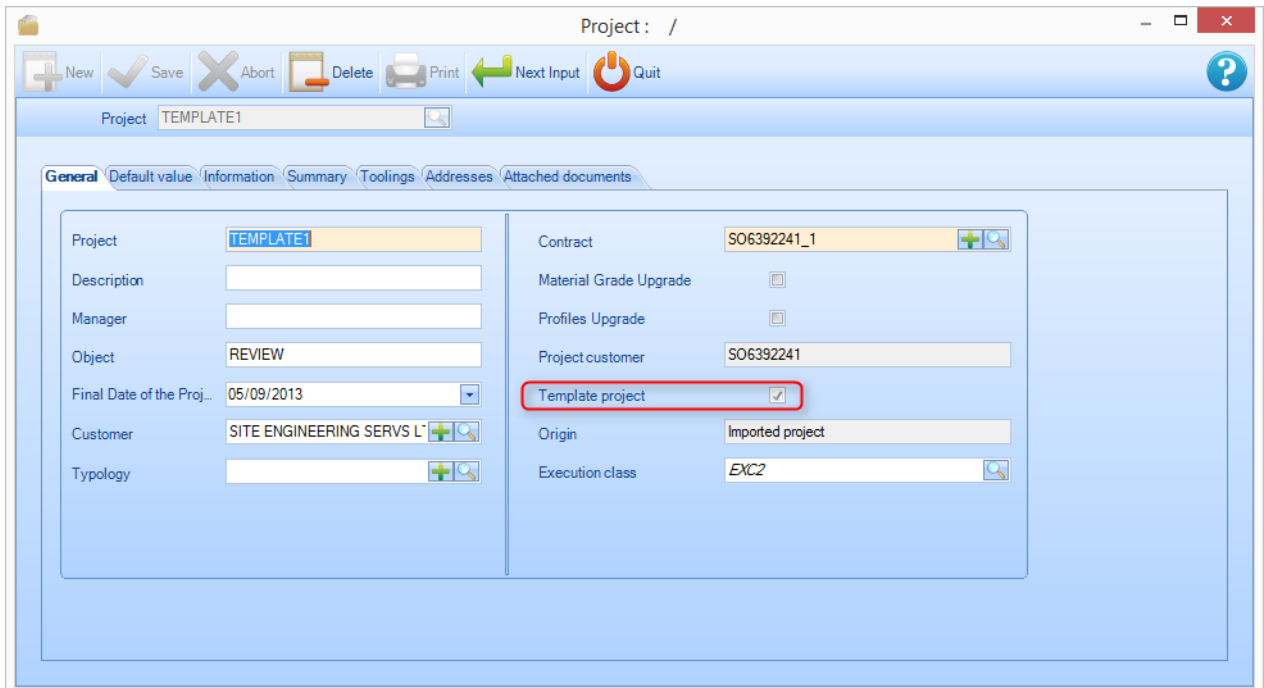
Template Project



Define project as template and use it to create a new one

You can assign any of your Projects as templates. When you do this, the items inside them can be copied over to other projects quickly.

to assign a Project as a template, double click on it in the Project list to bring up the option page, and select the Template project box.



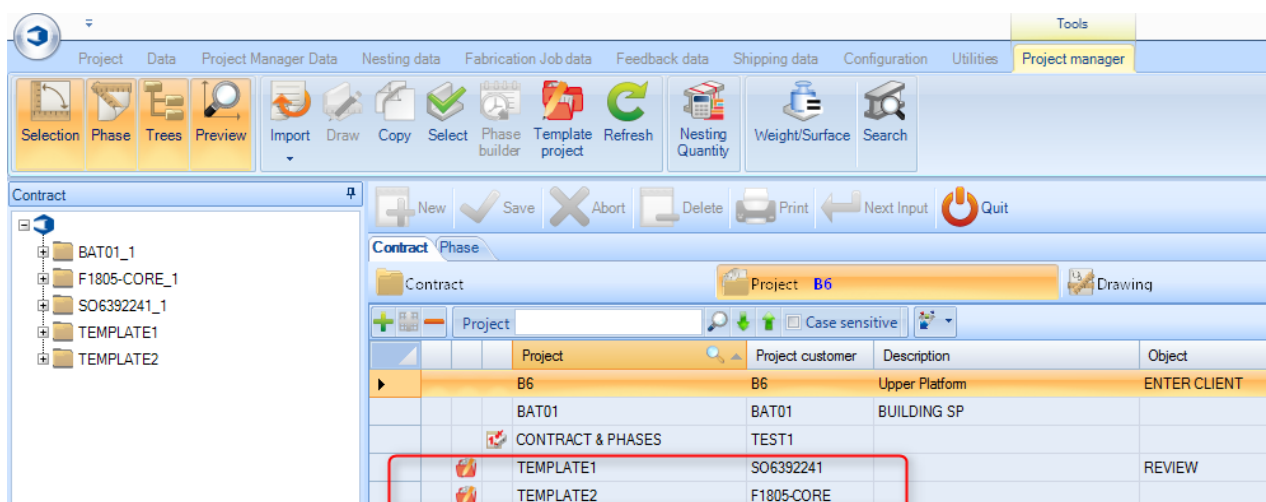
Project: /

Project: TEMPLATE1

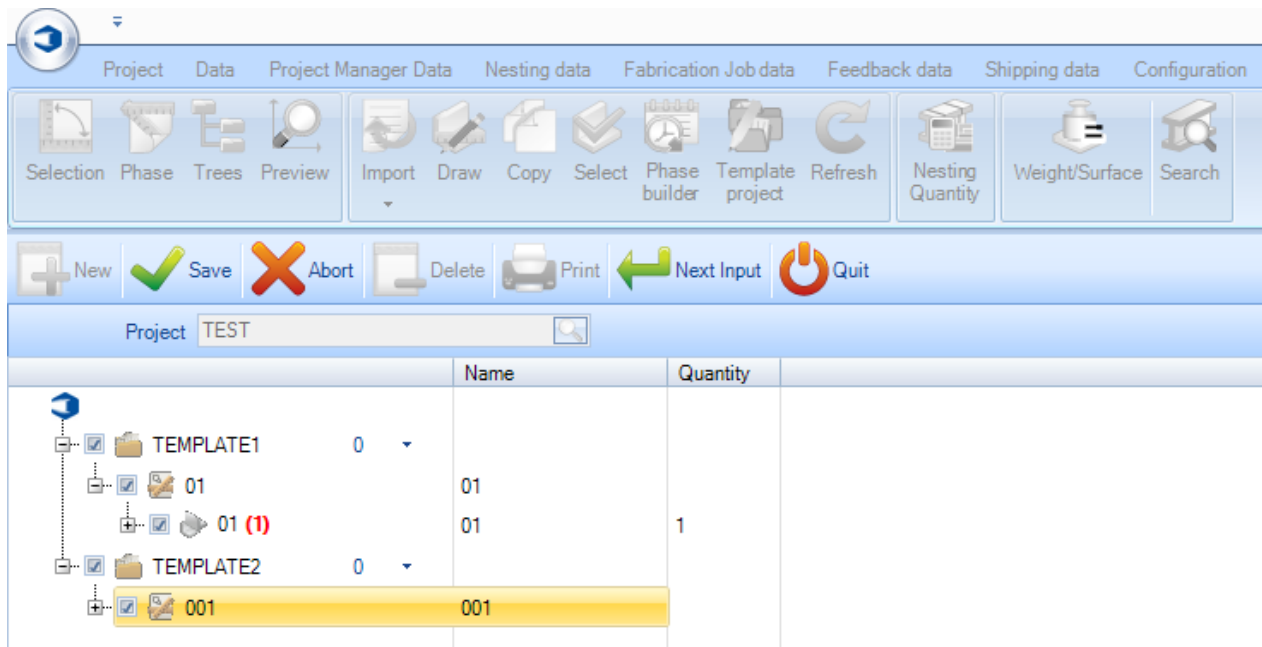
General | Default value | Information | Summary | Toolings | Addresses | Attached documents

Project	TEMPLATE1	Contract	SO6392241_1
Description		Material Grade Upgrade	<input type="checkbox"/>
Manager		Profiles Upgrade	<input type="checkbox"/>
Object	REVIEW	Project customer	SO6392241
Final Date of the Proj..	05/09/2013	Template project	<input checked="" type="checkbox"/>
Customer	SITE ENGINEERING SERV L	Origin	Imported project
Typology		Execution class	EXC2

In the list, the Project will now have a briefcase icon next to it to show it is a template



To copy the items in a template project to another project, simply press the icon in the tool-bar, double click in the Project window and select the Project you want to copy to.



View and edit

You can access the options, view and edit parameters and data of Projects, Drawings, Assemblies and Components by double clicking on them in the main lists.

Project Options

General:

View and change the general project information.

Project - The project name

Description - Description of the project

Manager - Manual field to specify the project manager

Object - Extra description field

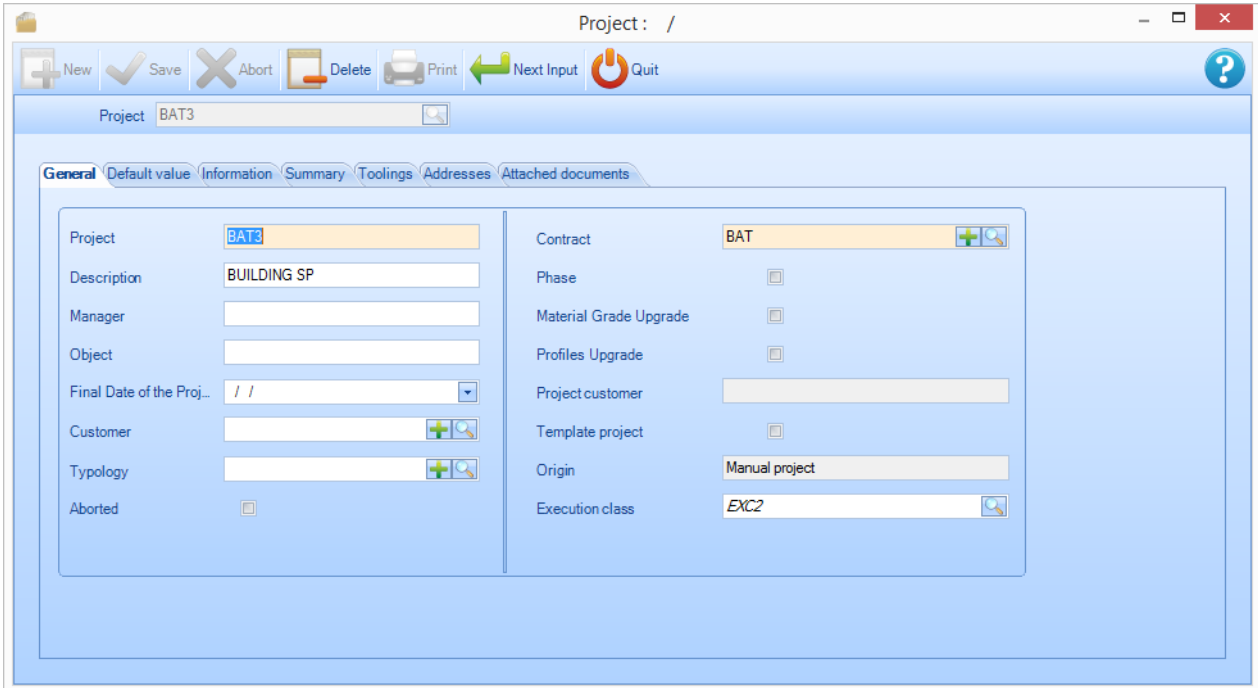
Final Date of the Project - Press the drop down option to choose a final delivery date from the calendar

Customer - Double click to bring up your [customer list](#)

Typology - Allows you to choose a [project typology](#)

Template Project - Set this contract as a template (see above)

Origin - States if the project was created by importing files or manually by a user



Project: /

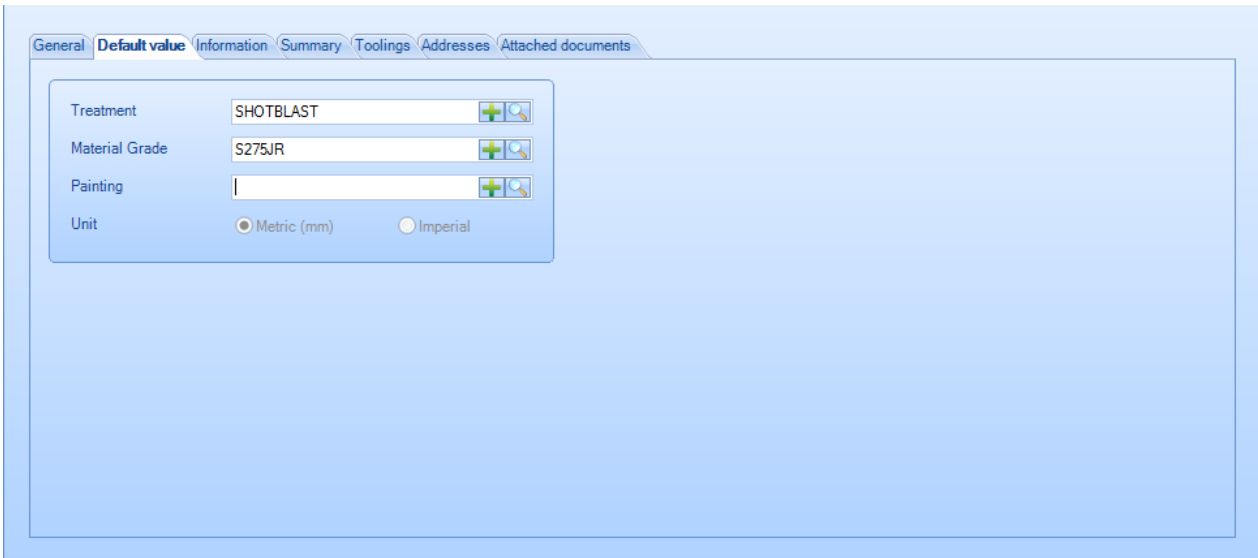
Project BAT3

General | Default value | Information | Summary | Toolings | Addresses | Attached documents

Project	BAT3	Contract	BAT
Description	BUILDING SP	Phase	<input type="checkbox"/>
Manager		Material Grade Upgrade	<input type="checkbox"/>
Object		Profiles Upgrade	<input type="checkbox"/>
Final Date of the Proj..	/ /	Project customer	
Customer		Template project	<input type="checkbox"/>
Typology		Origin	Manual project
Aborted	<input type="checkbox"/>	Execution class	EXC2

Default Value:

Allows you to specify default values for parts in this project that are added manually



General | **Default value** | Information | Summary | Toolings | Addresses | Attached documents

Treatment	SHOTBLAST
Material Grade	S275JR
Painting	
Unit	<input checked="" type="radio"/> Metric (mm) <input type="radio"/> Imperial

Information:

Shows information on the creation and modification information, weights, and number of assemblies and components

General Default value **Information** Summary Toolings Addresses Attached documents

Comment

Weight 123507.18 Kg
Surface 1887.58 m²
Weight coef for galva 1.00

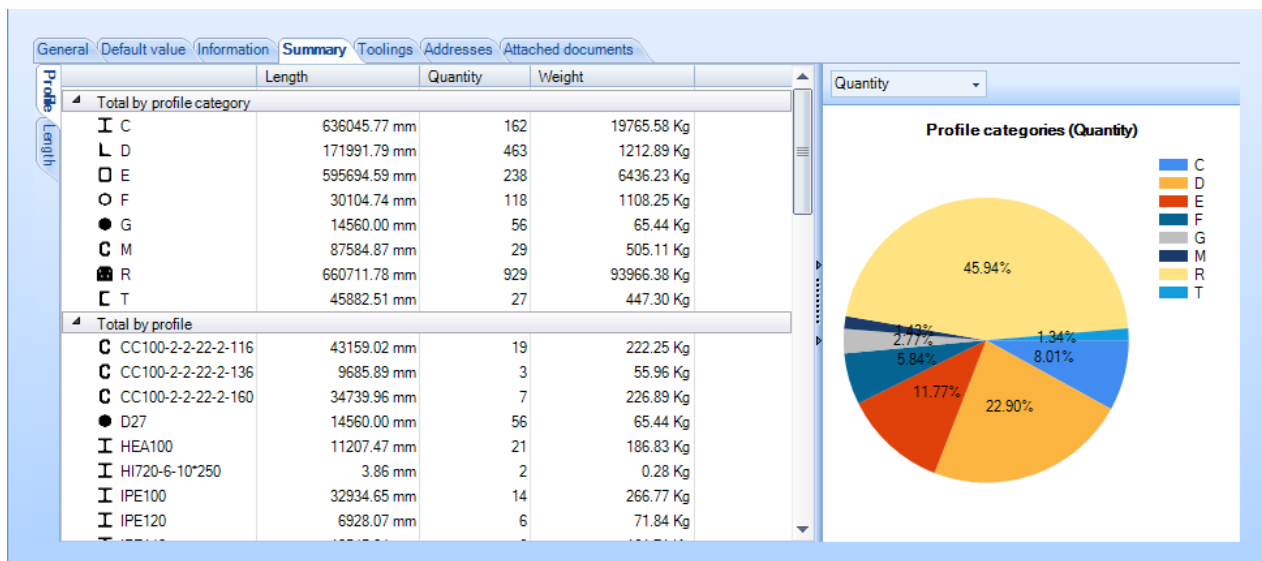
Created on 29/07/2014 10:11:07 By NAME
Modified on 05/08/2014 15:24:50 By NAME

	Quantity	Number of definition
Component	2022	333
Assembly Mark	888	203
Sub assembly	0	0

Status
■ Purchase
■ To Produce

Summary:

Shows a summary of the project by profile and category. Click on the tab on the left to switch between profiles and lengths



Toolings:

A summary of the total amount of toolings in the project





General Default value Information Summary **Toolings** Addresses Attached documents

Tooling	Quantity	1	2	3	4	Distribution
BENDING	26	0	0	0	0	
COPING	79	8810.09	9067.1	325	80	
CUTTING	84	0	0	0	0	
DRILLING	6890	0	0	0	0	
OUTLINE	4749	929	0	0	0	
SCRIBING	1451	201	107780.15	100	81216.33	

Addresses

A list of addresses you can define for your project

General Default value Information Summary **Addresses** Attached documents

Label

Description

Address 1 eMail


Address 2 Telephone N°

Zip Code Fax

State / Region Contact

City

Country



Attached Documents:

Use the [Document Manager](#) to attach documents to the project

General Default value Information Summary Toolings Addresses **Attached documents**

Operations

Part Options

Change the part name, quantity, profile etc from the double click list. The screen also shows a summary of the part creation and modification information, weight and surface area.

Component : / BAT3 / ... / ... /

New Save Abort Delete Print Next Input Quit

Project BAT3 Component S07

Information Toolings Preview Sub assembly Profile Drilling Attached documents

Comment

Created on 29/07/2014 10:11:07 By NAME

Modified on 05/08/2014 15:32:58 By NAME

Weight 155.7181 Kg Surface 4.6741 m²

Node

Project Version

Part

Component S07

Quantity 1

Profile IPE240

Unit ☒ Metric (mm) ☐ Imperial

Length 5070.60 mm

Width 0.00 mm

Group SECTION COPING

Description SOLIVE

Material Grade S275JRG2

Treatment

Painting

Execution class EXC2

Toolings:

Lists the number of different toolings in the part

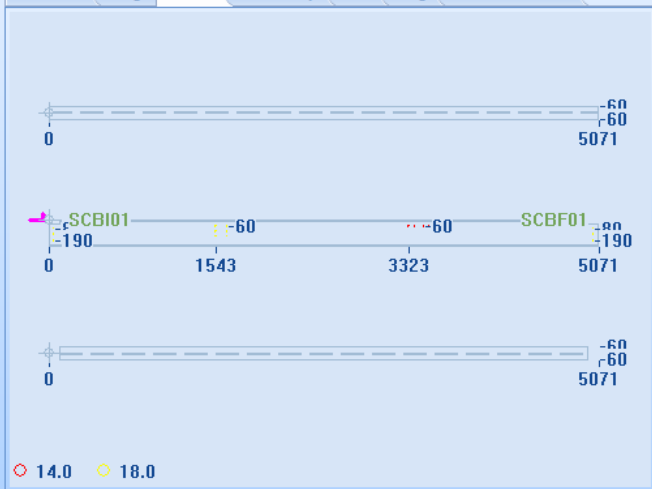
Component	S07
Quantity	1
Profile	IPE240
Unit	<input checked="" type="radio"/> Metric (mm) <input type="radio"/> Imperial
Length	5070.60 mm
Width	0.00 mm
Group	SECTION COPING
Description	SOLVE
Material Grade	S275JRG2
Treatment	
Painting	
Execution class	EXC2

Information	Toolings	Preview	Sub assembly	Profile	Drilling	Attached documents
Tooling	Quantity	1	2	3	4	Description
DRILLING	19	0	0	0	0	
COPING	2	266.6	240	10	0	

Preview:

Shows a preview of the part. Double click on the preview to open the part in the [Drawing Module](#)

Component	S07
Quantity	1
Profile	IPE240
Unit	<input checked="" type="radio"/> Metric (mm) <input type="radio"/> Imperial
Length	5070.60 mm
Width	0.00 mm
Group	SECTION COPING
Description	SOLVE
Material Grade	S275JRG2
Treatment	
Painting	
Execution class	EXC2

Information	Toolings	Preview	Sub assembly	Profile	Drilling	Attached documents
						

Sub assembly:

If the component is define by Sub-assemblies (Break down part) you can see the composition.

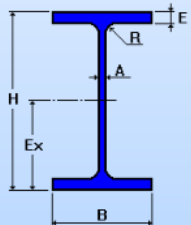
Component	S06
Quantity	1
Profile	IPE240
Unit	<input checked="" type="radio"/> Metric (mm) <input type="radio"/> Imperial
Length	4990.00 mm
Width	0.00 mm
Group	SECTION COPING
Description	SOLIVE
Material Grade	S275JRG2
Treatment	
Painting	
Execution class	EXC2

Information	Toolings	Preview	Sub assembly	Profile	Drilling	Attached documents
Component	Quantity	Profile	Length			
S06_2	1	PLT9.8	4990.0			
S06_1	1	PLT9.8	4892.7			
S06_0	1	PLT6.2	4990.0			

Profile:

Information on the profile of the part.

Component	S06
Quantity	1
Profile	IPE240
Unit	<input checked="" type="radio"/> Metric (mm) <input type="radio"/> Imperial
Length	4990.00 mm
Width	0.00 mm
Group	SECTION COPING
Description	SOLIVE
Material Grade	S275JRG2
Treatment	
Painting	
Execution class	EXC2

Information	Toolings	Preview	Sub assembly	Profile	Drilling	Attached documents
<p> $H = 240.00$ $B = 120.00$ $A = 6.20$ $E = 9.80$ $R = 15.00$ $Ex = 0.00$ $Tr = 0.00$ $Tr1 = 0.00$ </p> 						

Drilling:

Allows you to change the critical reference point for all the parts in a given face.

Component: <input type="text" value="S06"/> Quantity: <input type="text" value="1"/> <hr/> Profile: <input type="text" value="IPE240"/> Unit: <input checked="" type="radio"/> Metric (mm) <input type="radio"/> Imperial Length: <input type="text" value="4990.00"/> mm Width: <input type="text" value="0.00"/> mm Group: <input type="text" value="SECTION COPING"/> <hr/> Description: <input type="text" value="SOLIVE"/> <hr/> Material Grade: <input type="text" value="S275JRG2"/> Treatment: <input type="text"/> Painting: <input type="text"/> <hr/> Execution class: <input type="text" value="EXC2"/>	<div>Information Toolings Preview Sub assembly Profile Drilling Attached documents</div> <div> <div>Web</div> <div> <input type="radio"/> <input checked="" type="radio"/> Top <input type="radio"/> Centre Line <input type="radio"/> Bottom </div> </div> <div> <div>Top Flange</div> <div> <input checked="" type="radio"/> <input type="radio"/> Top <input type="radio"/> Centre Line <input type="radio"/> Bottom </div> </div> <div> <div>Bottom Flange</div> <div> <input checked="" type="radio"/> <input type="radio"/> Top <input type="radio"/> Centre Line <input type="radio"/> Bottom </div> </div> <div> <div>Back Web</div> <div> <input checked="" type="radio"/> <input type="radio"/> Top <input type="radio"/> Centre Line <input type="radio"/> Bottom </div> </div>
--	---

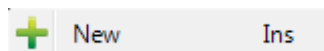
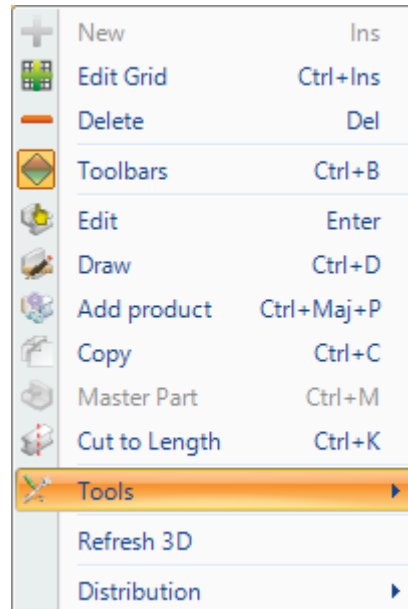
Attached Documents:

Attach documents to a part using the [Document Manager](#)

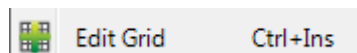
Component: <input type="text" value="S06"/> Quantity: <input type="text" value="1"/> <hr/> Profile: <input type="text" value="IPE240"/> Unit: <input checked="" type="radio"/> Metric (mm) <input type="radio"/> Imperial Length: <input type="text" value="4990.00"/> mm Width: <input type="text" value="0.00"/> mm Group: <input type="text" value="SECTION COPING"/> <hr/> Description: <input type="text" value="SOLIVE"/> <hr/> Material Grade: <input type="text" value="S275JRG2"/> Treatment: <input type="text"/> Painting: <input type="text"/> <hr/> Execution class: <input type="text" value="EXC2"/>	<div>Information Toolings Preview Sub assembly Profile Drilling Attached documents</div> <div> <div>Operations</div> </div>
--	--

Right Click Menu

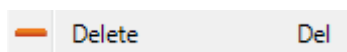
Further options can be found from the right click menu by right clicking on specific Projects, Drawings, Assemblies and components



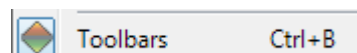
Create a new Project, Drawing, Assembly or Component. See [creating a manual project](#)



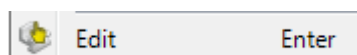
Allows you to make changes to the information on the screen you are in by modifying the grid instead of going into the individual EDIT OPTIONS - INFORMATION window. This option can also be selected from the hidden tool bar



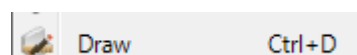
Delete the current selection



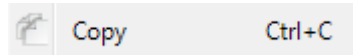
View or hide the hidden tool bar



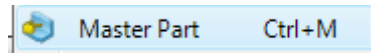
open the EDIT OPTIONS - INFORMATION for the selection. If you have multiple selections then you can edit all of them at the same time. for example, if you wanted to change the material grade of a full assembly at the same time, select all of the parts in the assembly with Shift & left click, then right click - edit



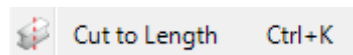
Open the [Drawing Module](#) to modify the drawing of the part you have selected



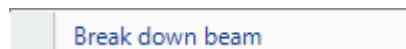
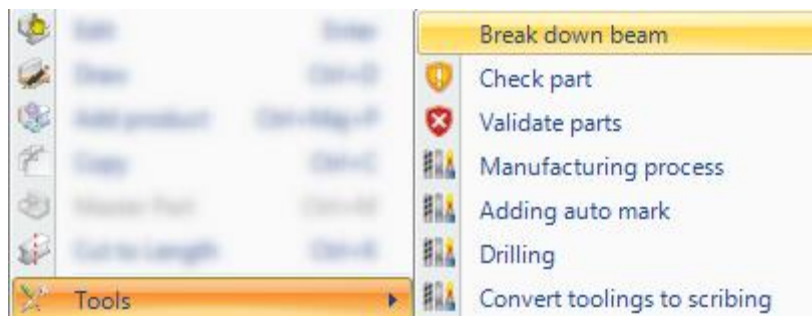
[Copy the Project or Part](#)



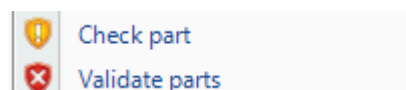
Define the master part of the assembly. This is usually the main beam of an assembly and the other parts that are associated with the main part. This is automatically defined on creation or import but this function allows you to manually define it.



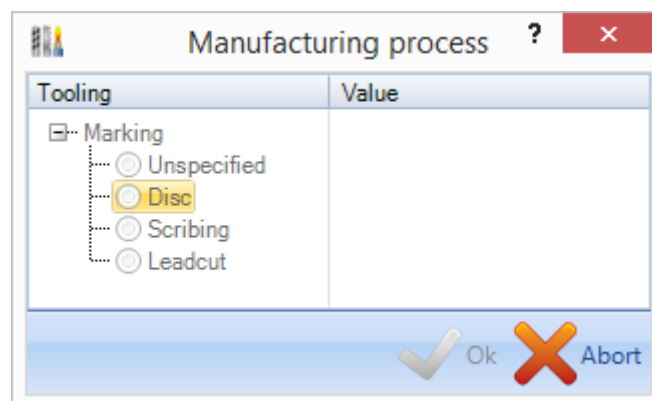
This sets the selected part or parts as cut to length, so they will not be nested into bars in the section nesting module, and when they are sent to the machine they will include no cut information. This is useful if you have the correct size bars and would like to just just send them to machines for extra tooling such as drilling



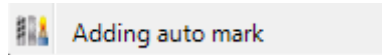
Break down beam: Convert beam to flats.



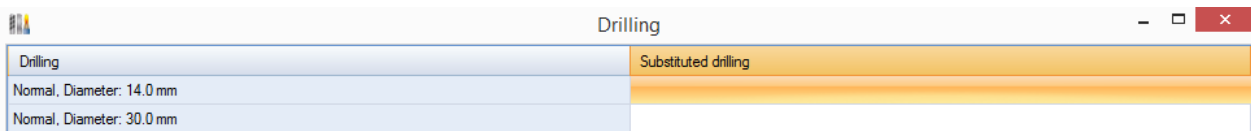
[Check the selected parts](#) for feasibility on your machines or force part(s) as valid one(s).



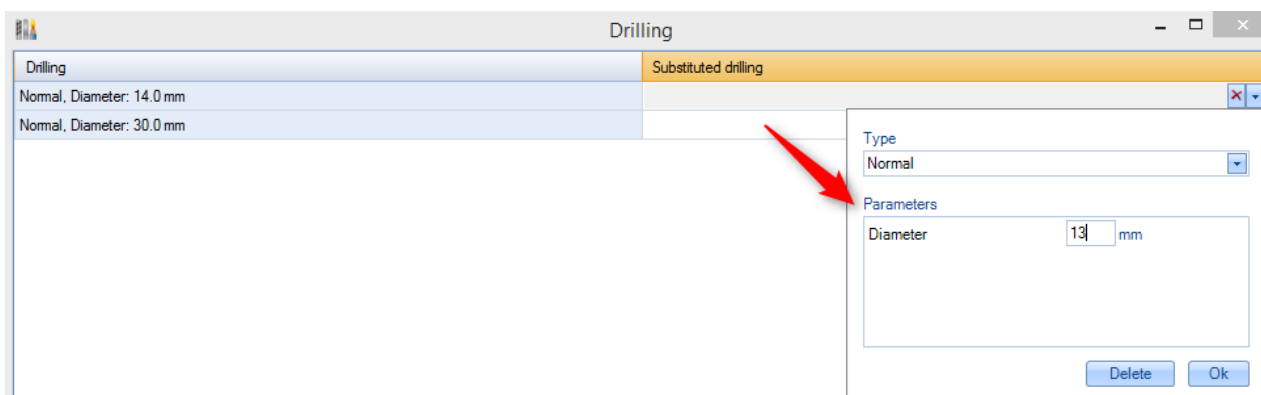
Allows you to specify the tool used to mark the part if there is more than one tool type..



Allows you to determine in the software if the part or group of parts is to be marked on the machine. This function requires you to activate the associated option on the WinCN or Dstv export options for it to work.



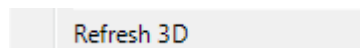
Drilling will substitute a diameter or change the type or drill the propriety for parts selection.



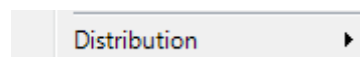
You need to double click in the line to open the property box.



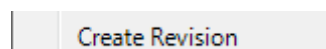
Convert parts that have been defined as flat to plates, or plates to flats. this is a manual override of the [Standard Flats](#) settings and allows you to change if the part is to be done on a linear or plate machine



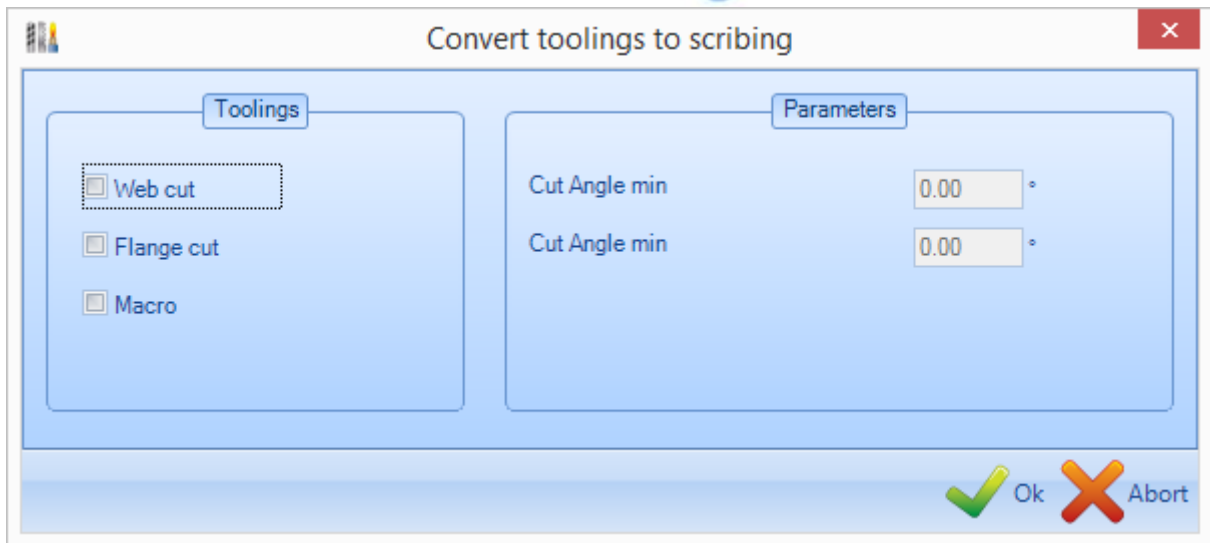
Refresh the 3D view of the parts



This lets you see the distribution of a part in a project, and also lets you see if the part is nested in a particular nest. if it is you can click on it and it will take you into the nesting number.



Manually create a [revision number](#) for the Project.



Allows you to Convert toolings to scribing [Convert toolings to scribing](#)

Creating Manual Projects

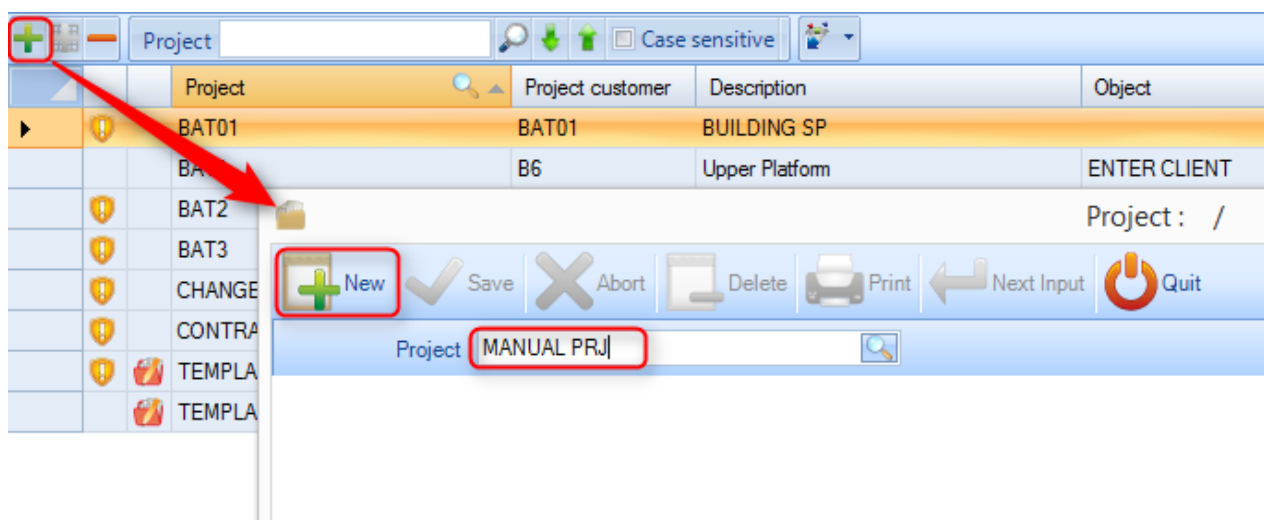
You can import your contract but also create from zero with all subdivisions.

As well as being able to import projects from third party CAD\CAM systems, you can create projects manually using the project manager, add the required project hierarchy, and add component and component drawings

Creating A Project

From the Projects list in project manager, press new  **New** on the top tool bar or right click menu,  on the hidden tool bar, or press INS short cut on the keyboard

Enter the name of the new project in the window and press New



You can then add all of the project parameter and set all of the required parameters in the Project Options window.

Project : /

New Save Abort Delete Print Next Input Quit

Project: MANUAL PRJ

General | Default value | Information | Summary | Toolings | Addresses | Attached documents

Project	MANUAL PRJ	Contract	
Description	Add what you need....	Phase	<input checked="" type="checkbox"/>
Manager		Material Grade Upgrade	<input type="checkbox"/>
Object		Profiles Upgrade	<input type="checkbox"/>
Final Date of the Proj..	/ /	Project customer	
Customer		Template project	<input type="checkbox"/>
Typology		Origin	Manual project
		Execution class	EXC2

Press OK to save and you will then have a new project in the project list.



If you have the [configuration option](#) setting for Auto next tab set, you will automatically go into the Project - Drawing screen. If not, then click on the Project in the list and press the Drawing tab

General | STEEL PROJECTS

- General
- Standard Flats
- Project manager
 - Auto next tab** ☒
 - Clear selection on action ☒
 - Job Assembly Mark
 - Automatic Master Part Name
 - Check automatic master part ☒
 - Manual Group ☐
 - Tooling filter ☐
 - Print before Shop drawing ☐
- Draw
- Import
- Export
- Nesting
- Products
- Workshop feedback

Creating Drawings

Every Project must have at least 1 Drawing. you can use Drawings to act as Phases or Loads, in order to split your project up into sub-sections.



To create a drawing press new  New on the top tool bar or right click menu,  on the hidden tool bar, or press INS short cut on the keyboard

You can then give the drawing a name and change the drawing options.

For a single level project just call the drawing 1 and then press next input

Creating Assembly Marks

Every Project must have at least 1 Assembly. You can use Assemblies Marks to group together components that make up a single fabricated piece

To create a drawing press new  New on the top tool bar or right click menu,  on the hidden tool bar, or press INS short cut on the keyboard

You can then give the Assembly a name and change the Assembly options, including the quantity. if you change the quantity the total number of components in the project will be multiplied by assembly quantity



For a single level project just call the drawing 1 and then press next input

Creating Components

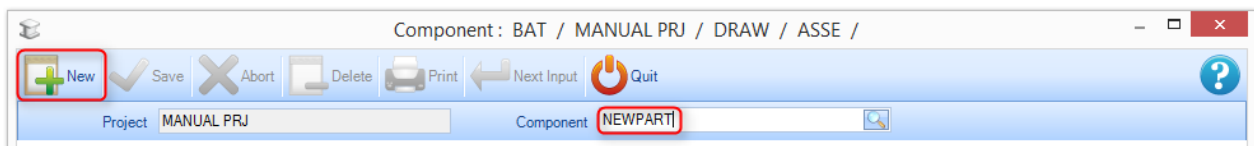
You can then use the same method to add components to the relevant drawings and assemblies

Ensure that you have a Drawing and Assembly selected and that the selections are stated in blue text next to the relevant tabs (NOTE to reset a tab filter, right click on the tab)



To create a component, press new  New on the top tool bar or right click menu,  on the hidden tool bar, or press INS short cut on the keyboard

Type the name of the component and press new



Add the relevant details in the component options menu

Component : BAT / MANUAL PRJ / DRAW / ASSE /

New Save Abort Delete Print Next Input Quit

Project: MANUAL PRJ Component: NEWPART

Component: **NEWPART**
 Quantity: 1
 Profile: **UC152*152*23**
 Unit: ☒ Metric (mm) ☐ Imperial
 Length: **5000.00** mm
 Width: 0.00 mm
 Group: SECTION
 Description:
 Material Grade: **S275JR**
 Treatment:
 Painting:
 Execution class: EXC2

Information Toolings Preview Sub assembly Profile Drilling Attached documents

Comment

Created on: 01/01/0001 00:00:00 By:
 Modified on: 01/01/0001 00:00:00 By:
 Weight: 114.8000 Kg Surface: 4.4450 m²

Node

Project: Version:
Part:

It is critical that you add at a minimum the following details -

- **Profile** - type the profile name or double click in the window to open up the profile list. Start typing the name and the available options are shown

Component : BAT / MANUAL PRJ / DRAW / ASSE /

New Save Abort Delete Print Next Input Quit

Project: MANUAL PRJ Component: NEWPART

Component: **NEWPART**
 Quantity: 1
 Profile: **UC152*152*23**
 Unit: ☒ Metric (mm) ☐ Imperial
 Length: 5000.00 mm
 Width: 0.00 mm
 Group: SECTION
 Description:
 Material Grade: **S275JR**
 Treatment:
 Painting:
 Execution class: EXC2

Information Toolings Preview Sub assembly Profile Drilling Attached documents

Profile

ID	Category	Profile	Description	Creation Date	Modification Date
350	C	UB762*267*173		07/08/2013 10:22	07/08/2013 10:22
351	C	UB762*267*197		07/08/2013 10:22	07/08/2013 10:22
352	C	UB838*292*176		07/08/2013 10:22	07/08/2013 10:22
353	C	UB838*292*194		07/08/2013 10:22	07/08/2013 10:22
354	C	UB838*292*226		07/08/2013 10:22	07/08/2013 10:22
355	C	UB914*305*201		07/08/2013 10:22	07/08/2013 10:22
356	C	UB914*305*224		07/08/2013 10:22	07/08/2013 10:22
357	C	UB914*305*253		07/08/2013 10:22	07/08/2013 10:22
358	C	UB914*305*289		07/08/2013 10:22	07/08/2013 10:22
359	C	UB914*419*343		07/08/2013 10:22	07/08/2013 10:22
360	C	UB914*419*388		07/08/2013 10:22	07/08/2013 10:22
361	C	UC152*152*23		07/08/2013 10:22	07/08/2013 10:22
362	C	UC152*152*30		07/08/2013 10:22	07/08/2013 10:22

Ok Abort

- **Length** - Add a length of the part in mm or imperial units
- **Width** - (Only for plate PLT profiles) - Add a width of the part in mm or imperial units
- **Material grade** - Double click in the window to show a list of your available [material grades](#)

All of the other options are optional, and some are filled in automatically when you have set these fields.

In order to add tooling to the part, you need to use the [Drawing Module](#)

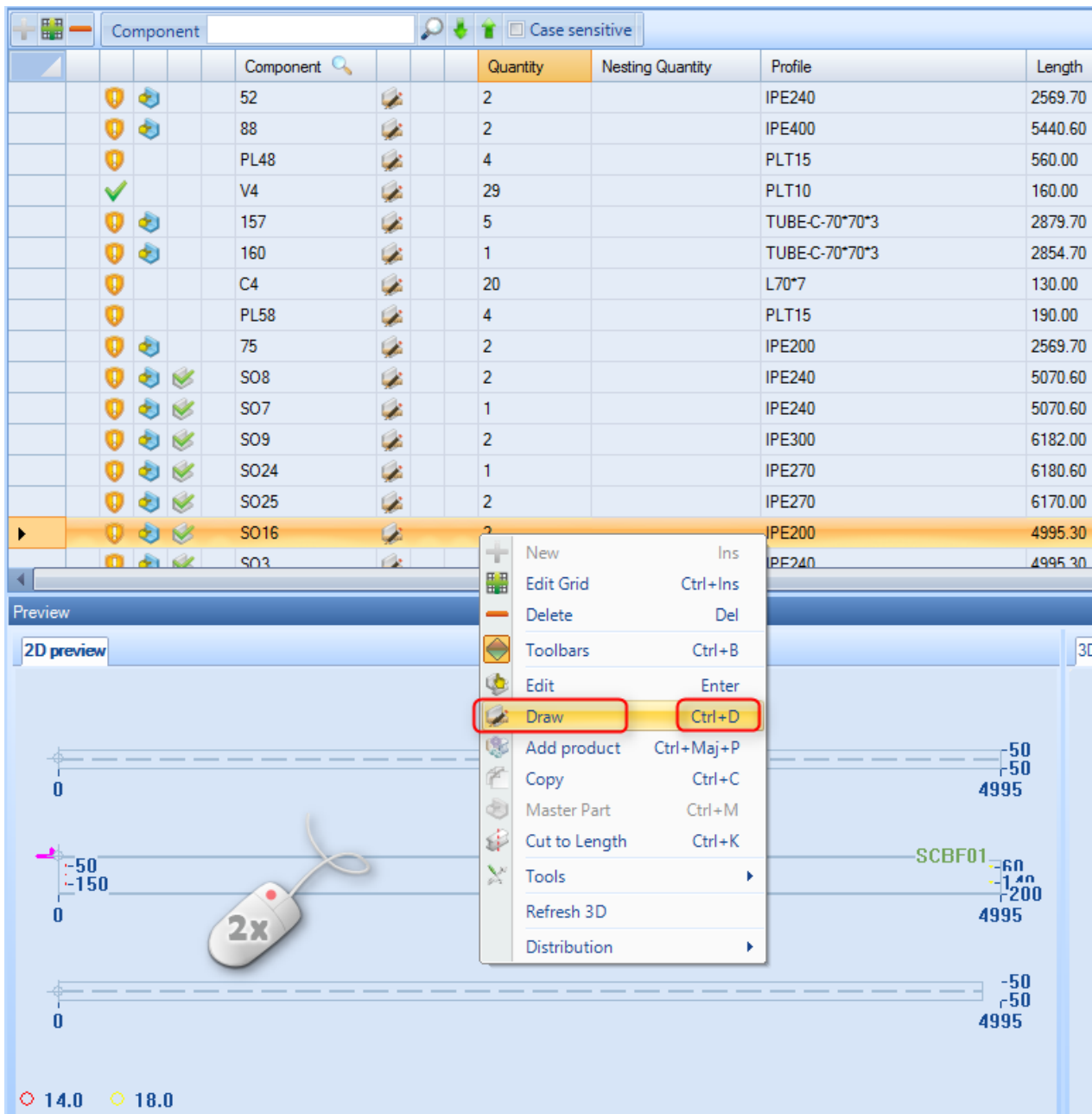
Shop Drawings

Print and configure shop drawing

You can print out shop drawings for your components using the parameters you have set up in the [shop drawing configurations](#)

Single Shop Drawing

To view or print out a single shop drawing, open the part in the [Drawing module](#) with [Draw] , Ctrl+D or double click in the draw 2d or 3D preview.

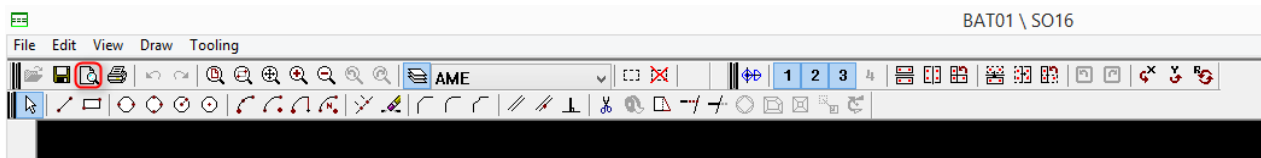


The screenshot displays the Steel Projects PLM software interface. At the top, there is a toolbar with icons for adding, deleting, and editing components, along with a search bar and a 'Case sensitive' checkbox. Below this is a table listing components with columns for Component, Quantity, Nesting Quantity, Profile, and Length.


Component	Quantity	Nesting Quantity	Profile	Length
52	2		IPE240	2569.70
88	2		IPE400	5440.60
PL48	4		PLT15	560.00
V4	29		PLT10	160.00
157	5		TUBE-C-70*70*3	2879.70
160	1		TUBE-C-70*70*3	2854.70
C4	20		L70*7	130.00
PL58	4		PLT15	190.00
75	2		IPE200	2569.70
SO8	2		IPE240	5070.60
SO7	1		IPE240	5070.60
SO9	2		IPE300	6182.00
SO24	1		IPE270	6180.60
SO25	2		IPE270	6170.00
SO16	2		IPE200	4995.30
SO3	2		IPE240	4995.30

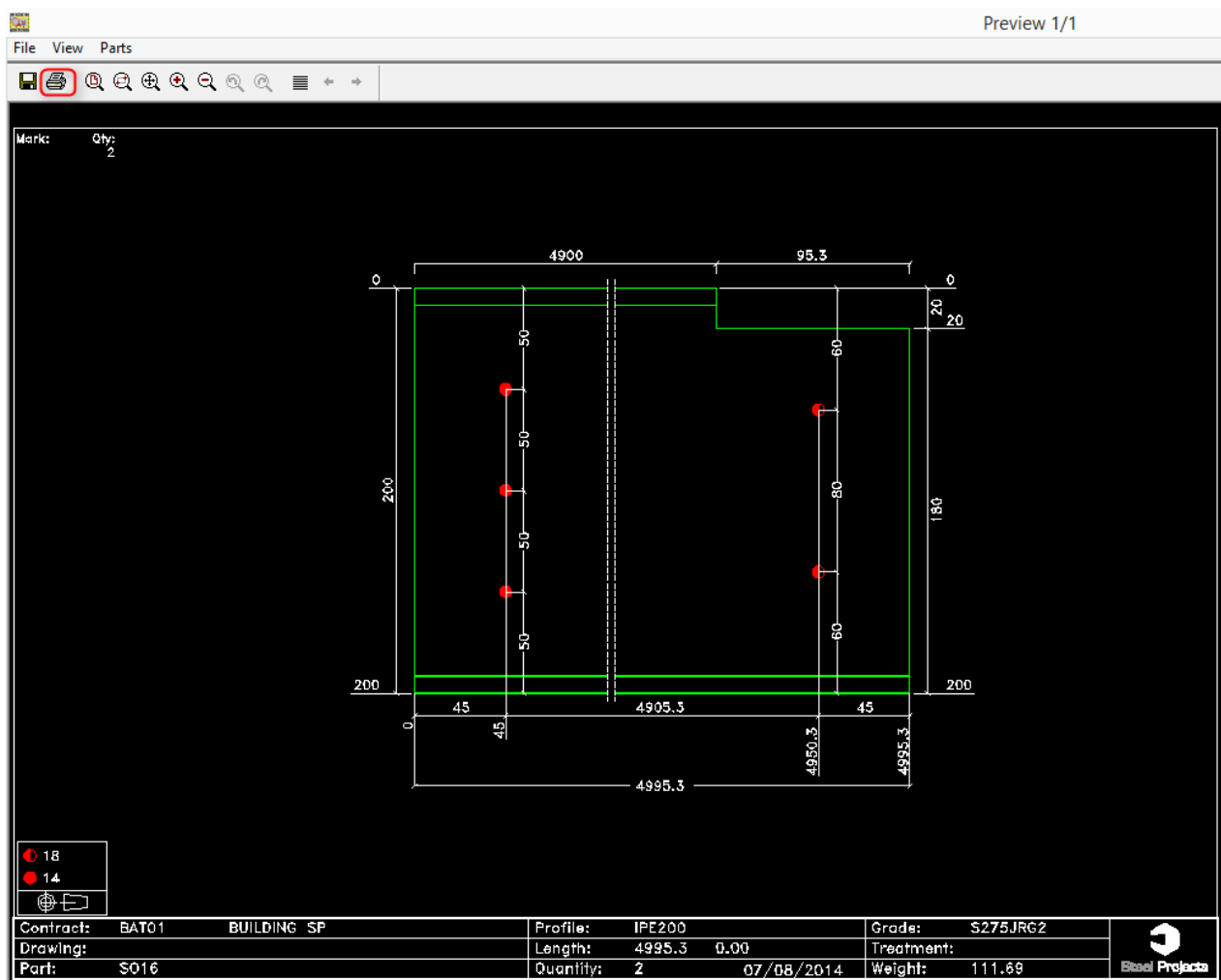
Below the table is a 'Preview' section with a '2D preview' tab. A context menu is open over the 'Draw' button in the 2D preview window, showing options like 'New', 'Edit Grid', 'Delete', 'Toolbars', 'Edit', 'Draw', 'Add product', 'Copy', 'Master Part', 'Cut to Length', 'Tools', 'Refresh 3D', and 'Distribution'. The 'Draw' option is highlighted with a red box, and its keyboard shortcut 'Ctrl+D' is also highlighted.

Press the  button in the toolbar, press Ctrl+P or go to the menu file - preview



This will open the shop drawing preview window.

press Print  to send it to the configured printer

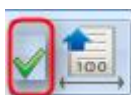


Multiple Drawings

To view or print multiple component drawings at the same time, drag the required parts into the [selection window](#)

Project	Job	Drawing	Assembly Mark	Quantity	Component	Preassembly	Profile	Quantity	Length	Width	Treatment	Material Grade	Final Painting	Group
BAT01		1	SO24	1	SO24		IPE270	1	6180.60			S275JRG2		SECT
BAT01		1	SO25	2	SO25		IPE270	1	6170.00			S275JRG2		SECT
BAT01		1	SO9	2	SO9		IPE300	1	6182.00			S275JRG2		SECT
BAT01		1	SO8	2	SO8		IPE240	1	5070.60			S275JRG2		SECT
BAT01		1	SO7	1	SO7		IPE240	1	5070.60			S275JRG2		SECT

Set any required filters if you want to filter the selection down

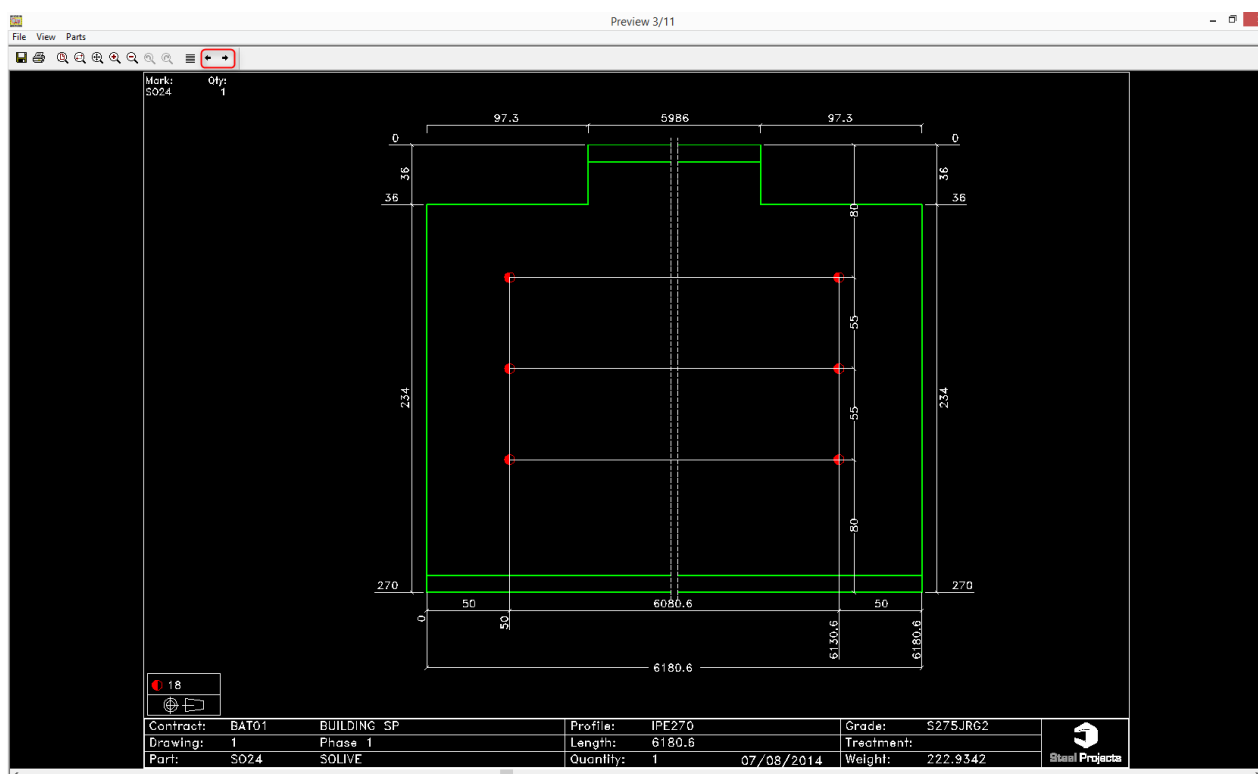


Ensure the shop drawings icon is ticked and then press Action

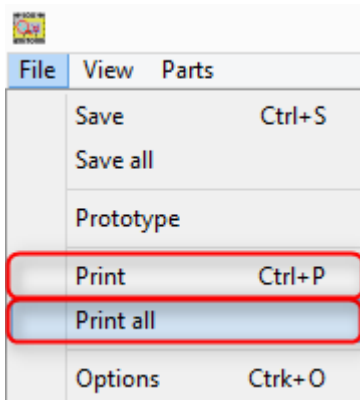


This will open all the selected parts in the drawing preview window

Use the arrow keys to view different components



Print All to print all the documents in one go, print will print the current view.



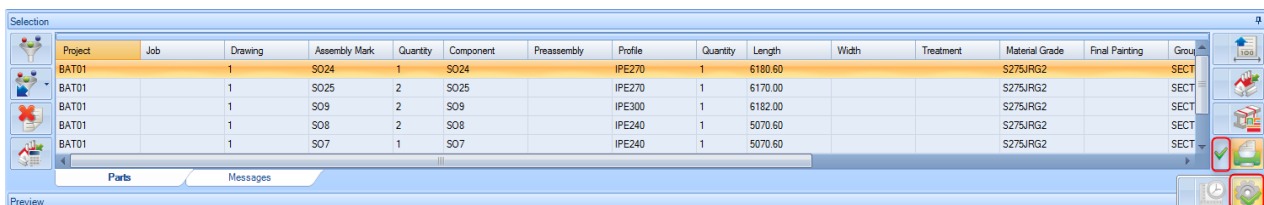
Print Reports

Print parts, assemblies list

You can print out reports for your components and all items from your projects.

Multiple selection

To view or print multiple component reports at the same time, drag the required parts into the [selection window](#)



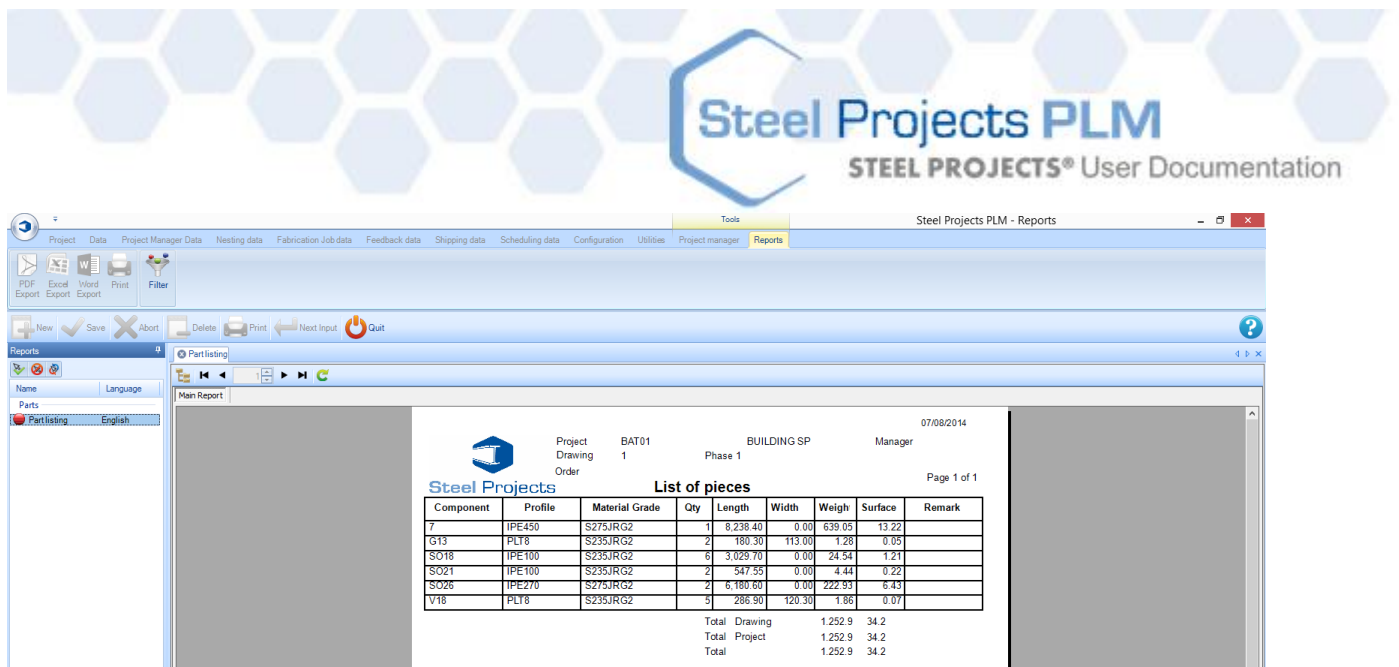
Set any required filters if you want to filter the selection down.



Ensure the shop reports icon is ticked and then press Action



This will open report module.



Created with the Personal Edition of HelpNDoc: [Free help authoring environment](#)

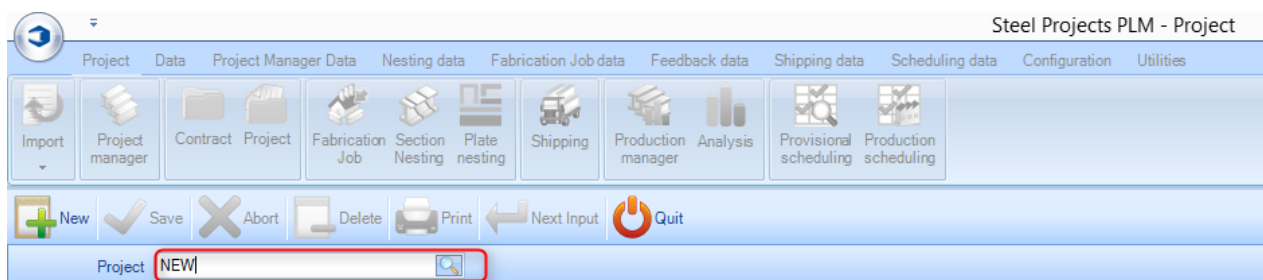
Project



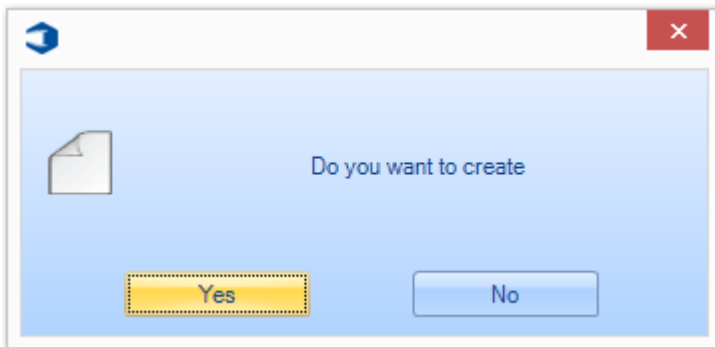
Create or edit a Project

The project tab allows you to view and create new projects and view or modify your existing projects options, without needing to go into the Project Manager module

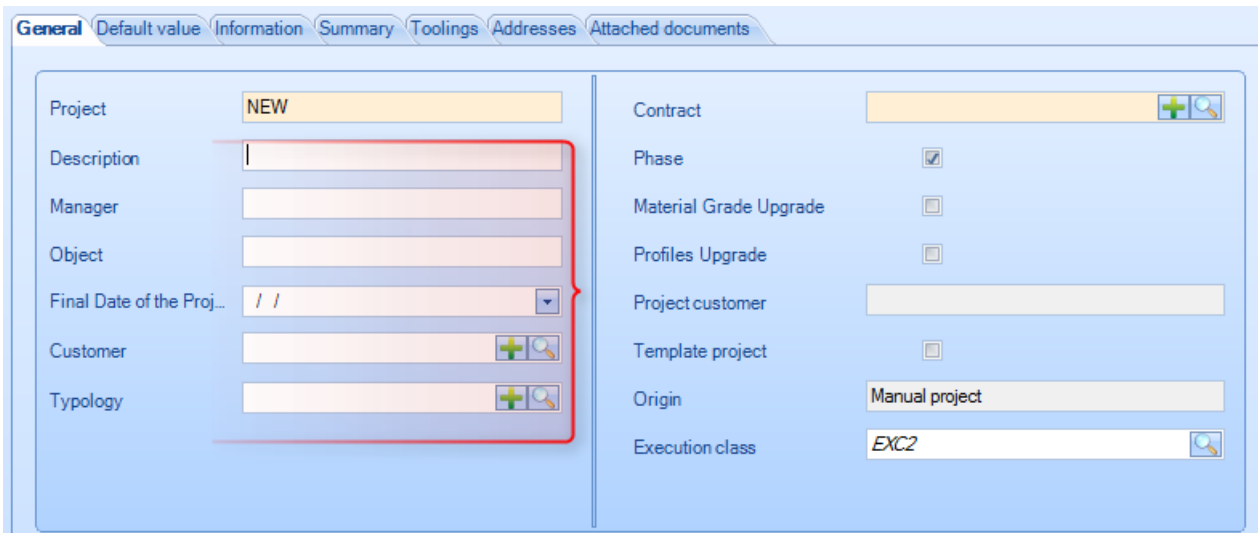
Type the name of the new project you want to create, and press NEW or [TAB]



Confirm with [OK]



You can then add the required project options the instructions for this are the same as in the [Project Manager](#)



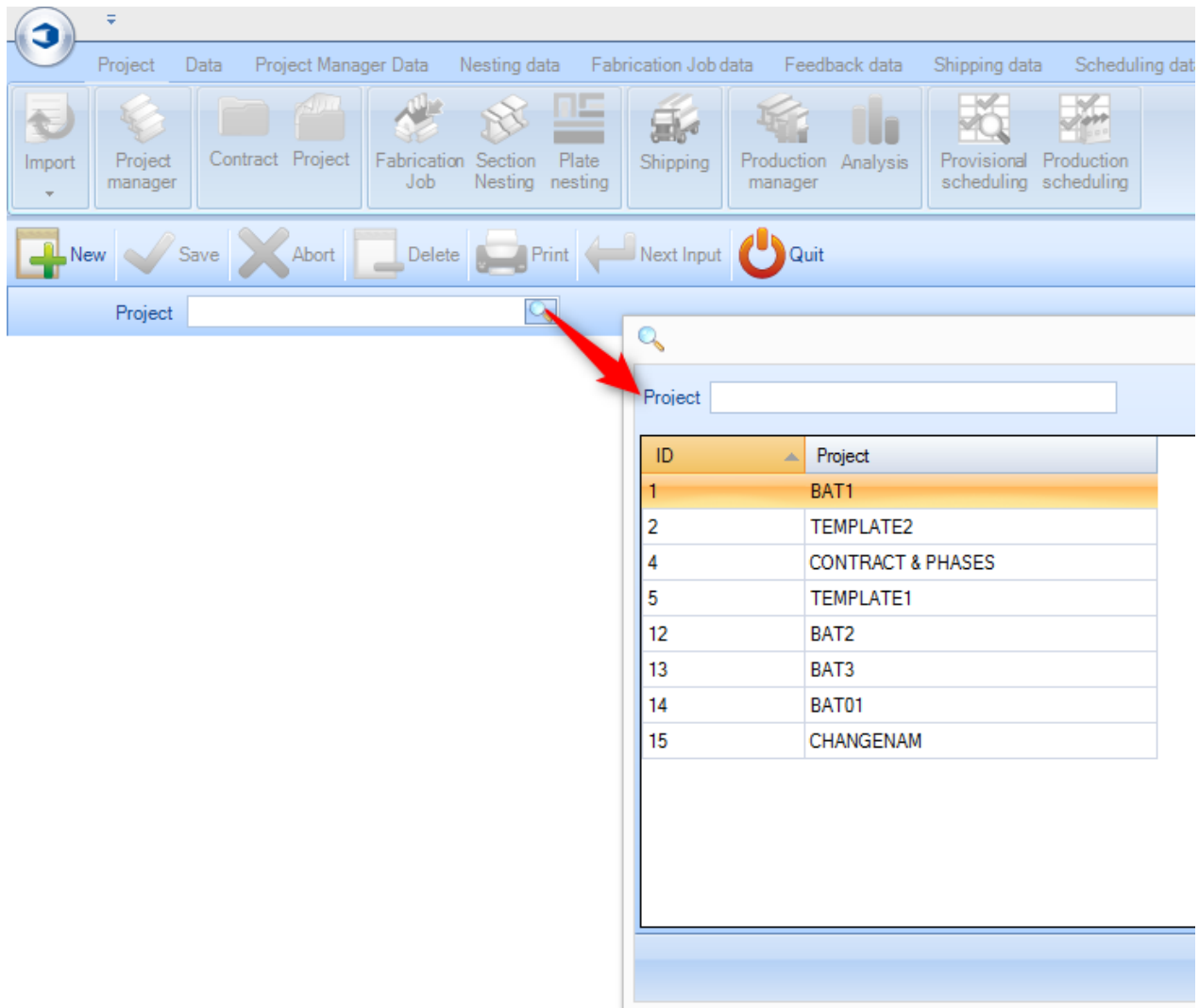
General		Default value	Information	Summary	Toolings	Addresses	Attached documents
Project	NEW						
Description							
Manager							
Object							
Final Date of the Proj...	/ /						
Customer							
Typology							
Contract							
Phase	<input checked="" type="checkbox"/>						
Material Grade Upgrade	<input type="checkbox"/>						
Profiles Upgrade	<input type="checkbox"/>						
Project customer							
Template project	<input type="checkbox"/>						
Origin	Manual project						
Execution class	EXC2						

To add further details to the Project you need to do this in the Project Manager module

View Or Modify Existing Project

Double click in the Project box to open up a list of your existing projects.

Choose the required one from the list, or type in the new window to filter the selection. Press OK



You can then modify and save any of the details, or click on the Summary tab to see a summary of the project without needing to go into the Project Manager module

General | Default value | Information | Summary | Toolings | Addresses | Attached documents

Project	BAT1	Contract	TEMPLATE2
Description	Upper Platform	Phase	<input type="checkbox"/>
Manager		Material Grade Upgrade	<input type="checkbox"/>
Object	ENTER CLIENT	Profiles Upgrade	<input type="checkbox"/>
Final Date of the Proj...	/ /	Project customer	B6
Customer	SES E	Template project	<input type="checkbox"/>
Typology		Origin	Tekla Structures
Aborted	<input type="checkbox"/>	Execution class	EXC2

Fabrication Job



Open the Fabrication Job list

The Fabrication Job screen shows a list of all the jobs \ nestings you have already created and allows you to view, edit and resend them to production. You can create a fabrication job by selecting parts and sending them to the [selection window](#) in either the Project Manager or production manager modules

A fabrication job is described as / group of parts consisting of the same or multiple projects which you want to nest and send to production at the same time.

The functionality of the screen is different depending on whether you have the Production Management Module or not. If you have this module you can also monitor the production status of your jobs and manage the factory workflow.

Fabrication Job Screen With No Production Management - Backup and manage your section nestings

Fabrication Job Screen With Production Management - [Send to production](#), workflow management, tooling time calculation, piece time feedback

Fabrication Job Navigation

The Fabrication Job screen is viewed in a tabbed format, with the default view showing a list of your current jobs. you can select a specific job and tab into the components window to show a list of the components in the job, and the optimise cutting window which shows the details of your nesting results

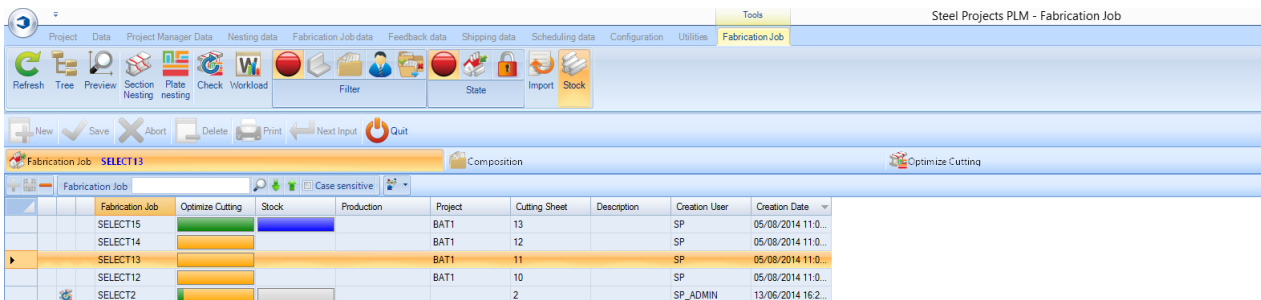
Fabrication Job

The fabrication job tab lists all of the jobs you have already created and shows the details of them.

The optimise cutting bar lets you visualise the amount of parts in the job that have already been nested. red - unnested, orange - pending, green nested

Production bar indicates the parts production status. see [production manager](#)

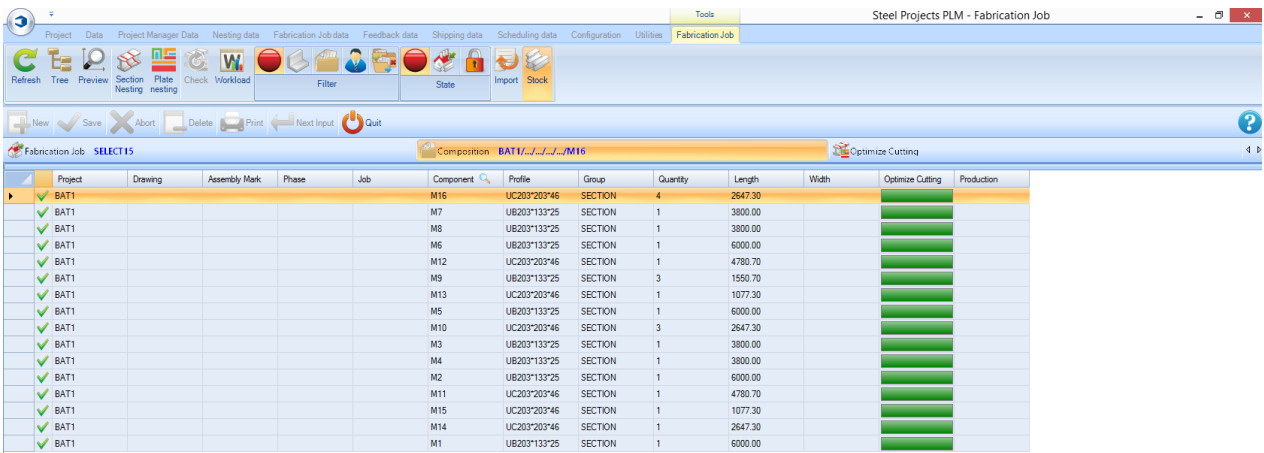
If any parts are in a section nesting then the number\`s are indicated in the cutting sheet column



Fabrication Job	Optimize Cutting	Stock	Production	Project	Cutting Sheet	Description	Creation User	Creation Date
SELECT15	Green	Blue		BAT1	13		SP	05/08/2014 11:0...
SELECT14	Orange			BAT1	12		SP	05/08/2014 11:0...
SELECT13	Orange			BAT1	11		SP	05/08/2014 11:0...
SELECT12	Orange			BAT1	10		SP	05/08/2014 11:0...
SELECT2	Orange				2		SP_ADMIN	13/06/2014 16:2...

Composition

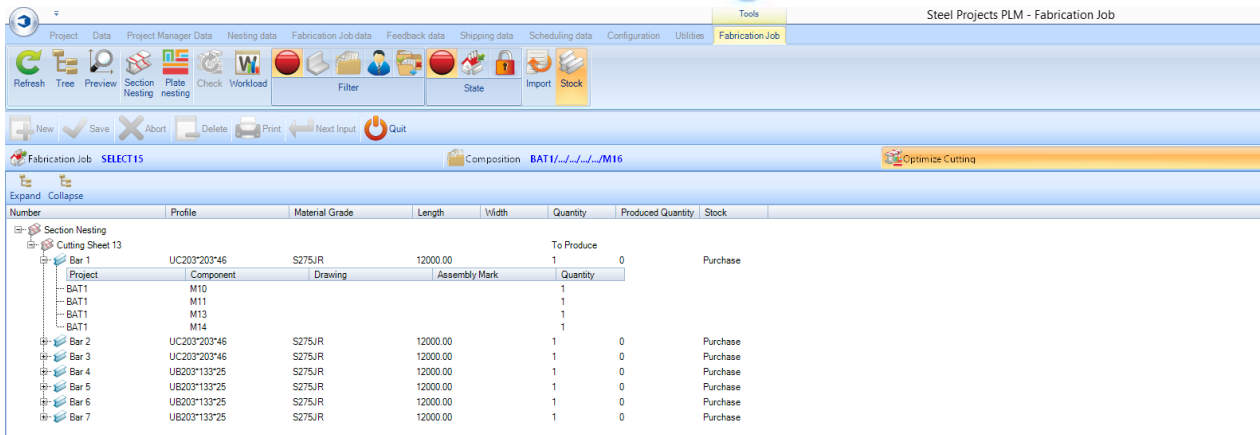
if you click on a particular fabrication job, then on the composition tab, it lists all of the parts that are part of that job. The optimise cutting and production tabs are also active in this tab and show the details of the individual parts



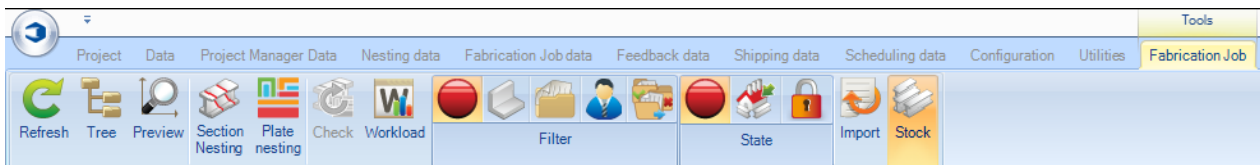
Project	Drawing	Assembly Mark	Phase	Job	Component	Profile	Group	Quantity	Length	Width	Optimize Cutting	Production
BAT1					M16	UC203*203*46	SECTION	4	2647.30		Green	
BAT1					M7	UR203*133*25	SECTION	1	3800.00		Green	
BAT1					M8	UR203*133*25	SECTION	1	3800.00		Green	
BAT1					M6	UR203*133*25	SECTION	1	6000.00		Green	
BAT1					M12	UC203*203*46	SECTION	1	4780.70		Green	
BAT1					M9	UR203*133*25	SECTION	3	1550.70		Green	
BAT1					M13	UC203*203*46	SECTION	1	1077.30		Green	
BAT1					M5	UR203*133*25	SECTION	1	6000.00		Green	
BAT1					M10	UC203*203*46	SECTION	3	2647.30		Green	
BAT1					M3	UR203*133*25	SECTION	1	3800.00		Green	
BAT1					M4	UR203*133*25	SECTION	1	3800.00		Green	
BAT1					M2	UR203*133*25	SECTION	1	6000.00		Green	
BAT1					M11	UC203*203*46	SECTION	1	4780.70		Green	
BAT1					M15	UC203*203*46	SECTION	1	1077.30		Green	
BAT1					M14	UC203*203*46	SECTION	1	2647.30		Green	
BAT1					M1	UR203*133*25	SECTION	1	6000.00		Green	

Optimise Cutting

The optimise cutting tab shows a summary of all of the section nests that are part of this job. Any parts that have not been nested are listed as "not processed"



Fabrication Job Tool-bars



Refresh the screen



Activate the tree menu window



When on the Composition tab you can see a preview of the components



Creates a new section nesting for all of the unnested linear parts in the selected fabrication job



Creates a new plate nesting for all of the unnested flat parts in the selected fabrication job



If there has been a change to any of the parts in the fabrication job, pressing this will let the system check for potential issues with the routing.



Allows you to create [send to production](#) all of the unnested parts in all your different jobs



Filter for the list : Not-any, Profile, Project, Customer, Status



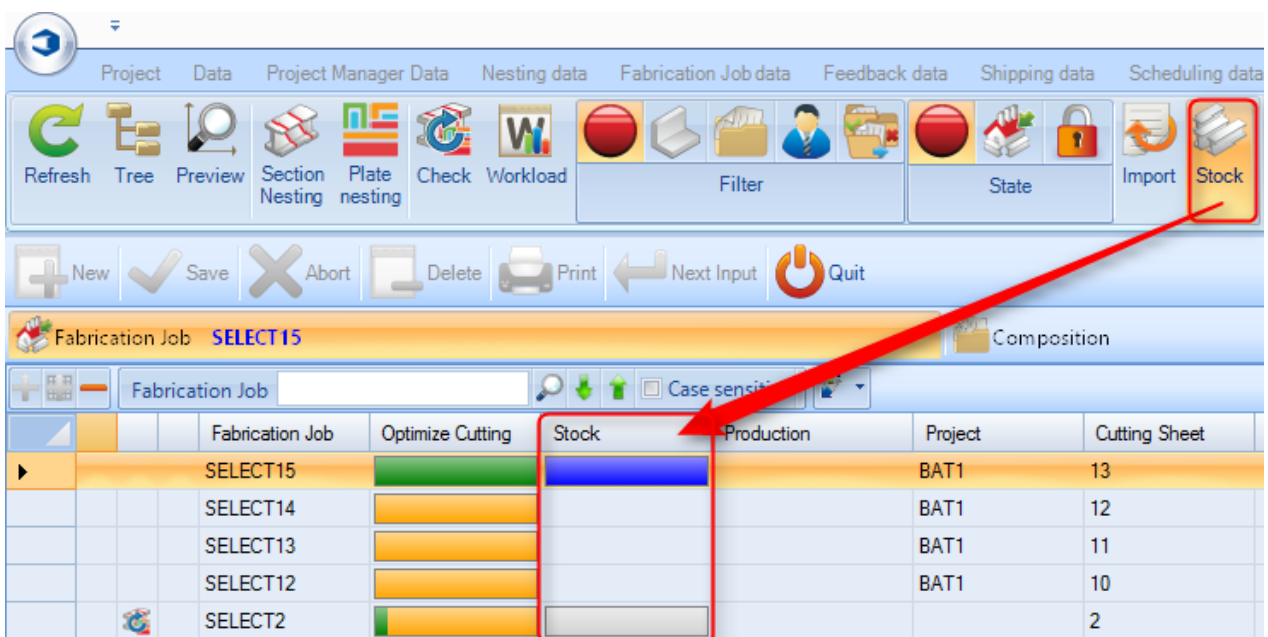
Filter for the list : Not-any, Pending, Finished



Create a fabrication job selection using a [configured import](#)



Add a column to the Job grid in order to see the Stock status.



The screenshot shows the software interface with a toolbar at the top containing icons for Refresh, Tree, Preview, Section Nesting, Plate nesting, Check, Workload, Filter, State, Import, and Stock. Below the toolbar is a menu bar with options like Project, Data, Project Manager Data, Nesting data, Fabrication Job data, Feedback data, Shipping data, and Scheduling data. The main area displays a 'Fabrication Job' grid with columns for Fabrication Job, Optimize Cutting, Stock, Production, Project, and Cutting Sheet. The 'Stock' column is highlighted, and a red arrow points to it from the 'Stock' icon in the toolbar.

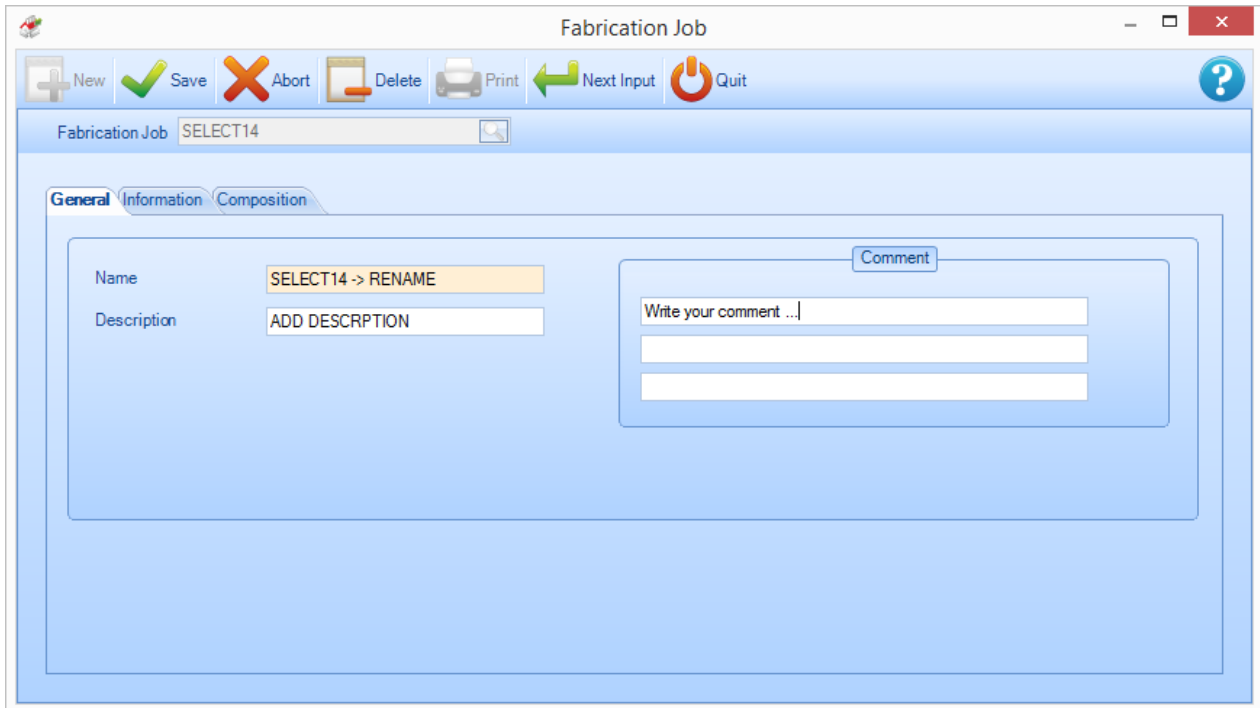
	Fabrication Job	Optimize Cutting	Stock	Production	Project	Cutting Sheet
▶	SELECT15				BAT1	13
	SELECT14				BAT1	12
	SELECT13				BAT1	11
	SELECT12				BAT1	10
	SELECT2					2

Fabrication Job Edit Options

If you double click on a fabrication job in the main list it opens up the edit options screen

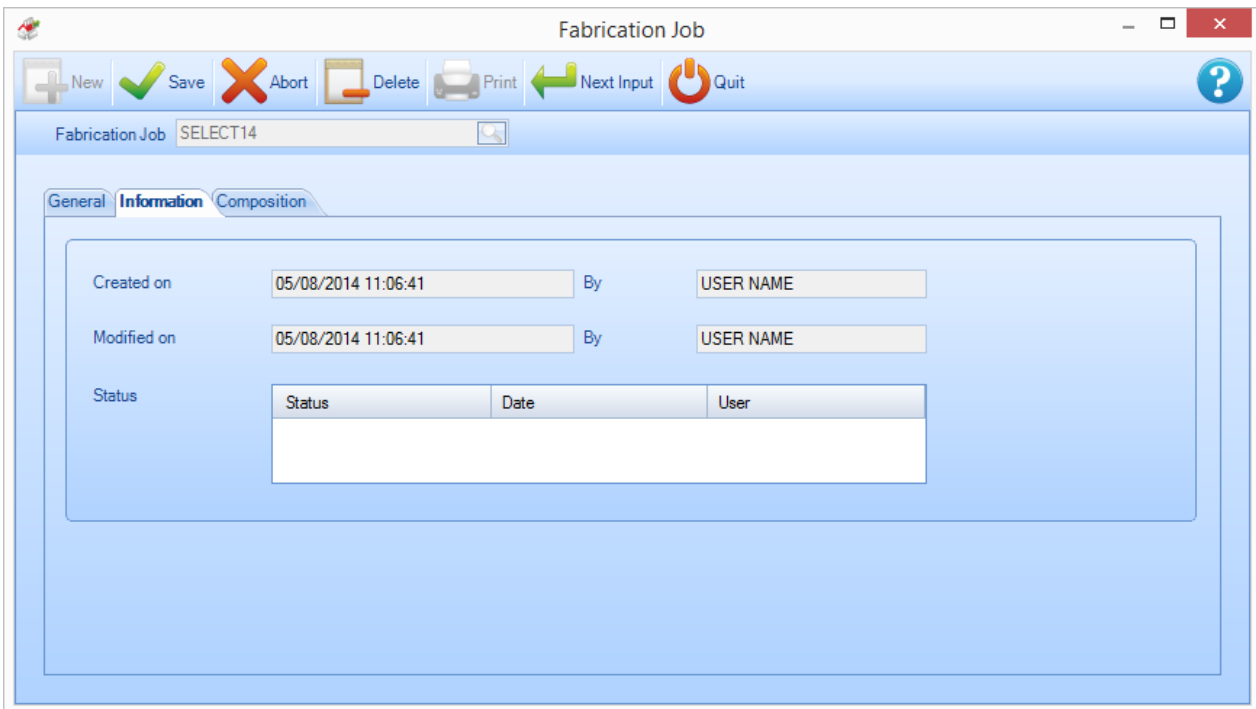
General

Change the name of the job, or add a description or comment



The screenshot shows a software window titled "Fabrication Job". The window has a standard Windows-style title bar with minimize, maximize, and close buttons. Below the title bar is a toolbar with icons and labels for "New", "Save", "Abort", "Delete", "Print", "Next Input", and "Quit". A "Fabrication Job" dropdown menu is set to "SELECT14". Below the toolbar are three tabs: "General", "Information", and "Composition". The "General" tab is active and contains a form with two main sections. The left section has labels "Name" and "Description". The "Name" field contains the text "SELECT14 -> RENAME" and has a yellow highlight. The "Description" field contains the text "ADD DESCRIPTION". The right section is titled "Comment" and contains a text area with the placeholder text "Write your comment ...".

Information



Fabrication Job SELECT14

General **Information** Composition

Created on 05/08/2014 11:06:41 By USER NAME

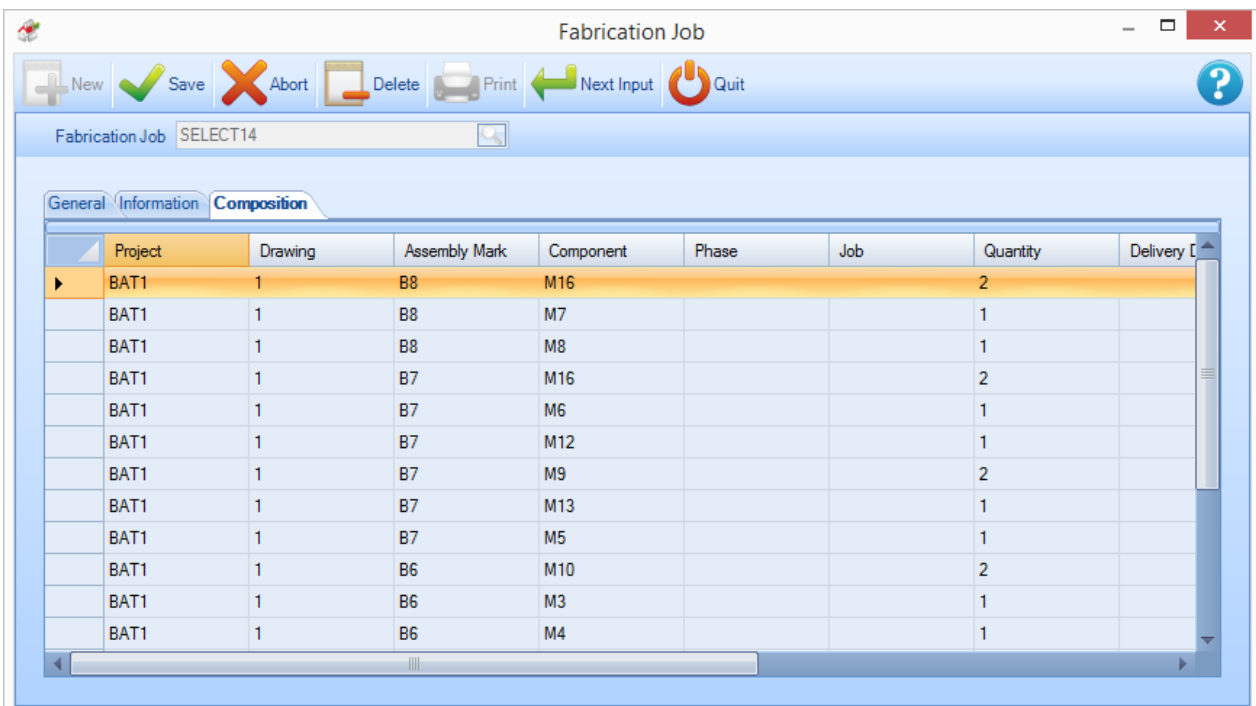
Modified on 05/08/2014 11:06:41 By USER NAME

Status	Date	User

Shows information on the time and user who created and last modified the job

Composition

Shows a list of the components that make up the fabrication job




Fabrication Job SELECT14

General Information **Composition**

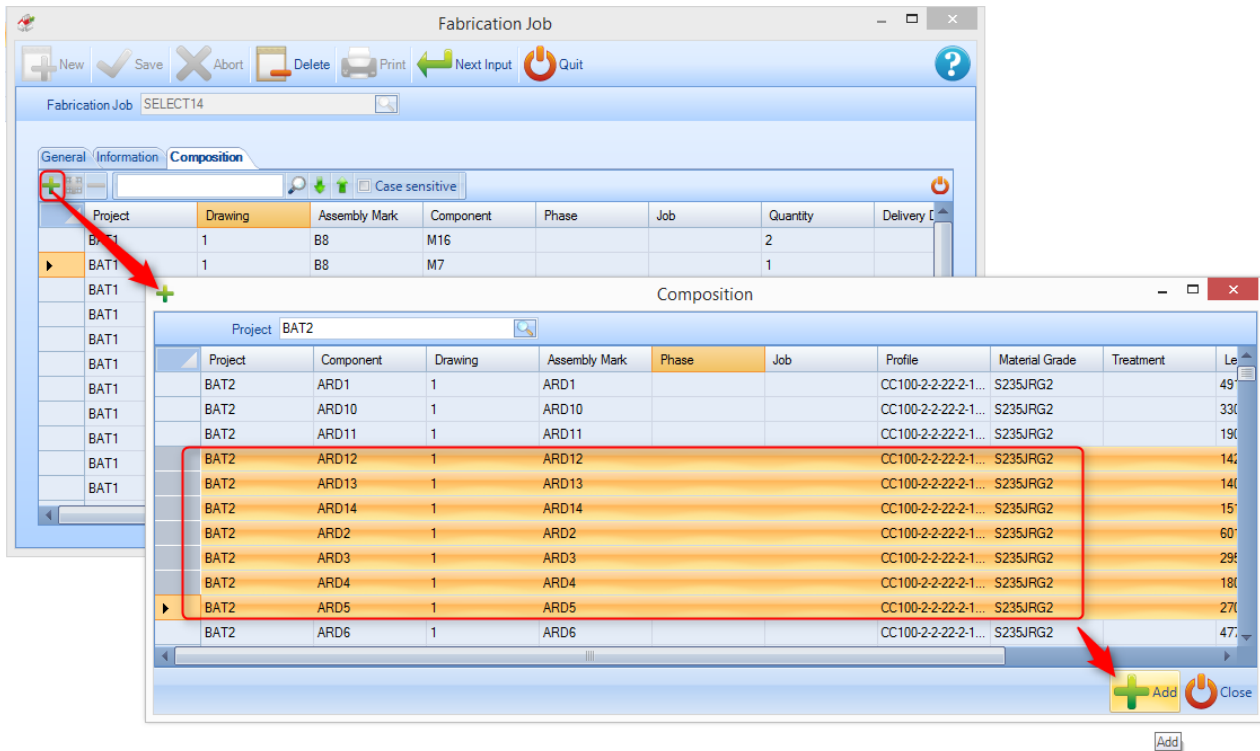
Project	Drawing	Assembly Mark	Component	Phase	Job	Quantity	Delivery L
BAT1	1	B8	M16			2	
BAT1	1	B8	M7			1	
BAT1	1	B8	M8			1	
BAT1	1	B7	M16			2	
BAT1	1	B7	M6			1	
BAT1	1	B7	M12			1	
BAT1	1	B7	M9			2	
BAT1	1	B7	M13			1	
BAT1	1	B7	M5			1	
BAT1	1	B6	M10			2	
BAT1	1	B6	M3			1	
BAT1	1	B6	M4			1	

It is also possible to add extra components from your existing projects to the fabrication job from this screen.

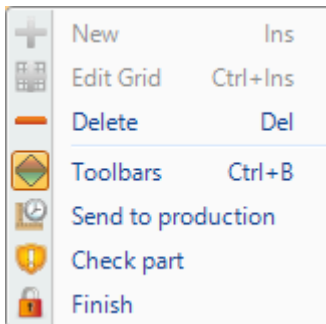


To do this, press the  icon. This opens a window to select a Project name. Either type the name in the window or double click to bring up a list

This shows a list of all the available components. to add one, select it in the list and press ADD



Fabrication Job Right Click Menu



- **+ New** - Add extra components
- **Edit** - Insert data directly in the grid
- **Delete** - Delete the fabrication job and all the information inside it
- **Toolbars** - Show \ hide the hidden toolbar
- **Send to Production** - If you have the production manager, use this option to progress to the [Send to Production](#) screen
- **Check part** - run the [Part Checking](#) option on the parts
- **Finish** - Define the Job as Finish

Module - Section Nesting



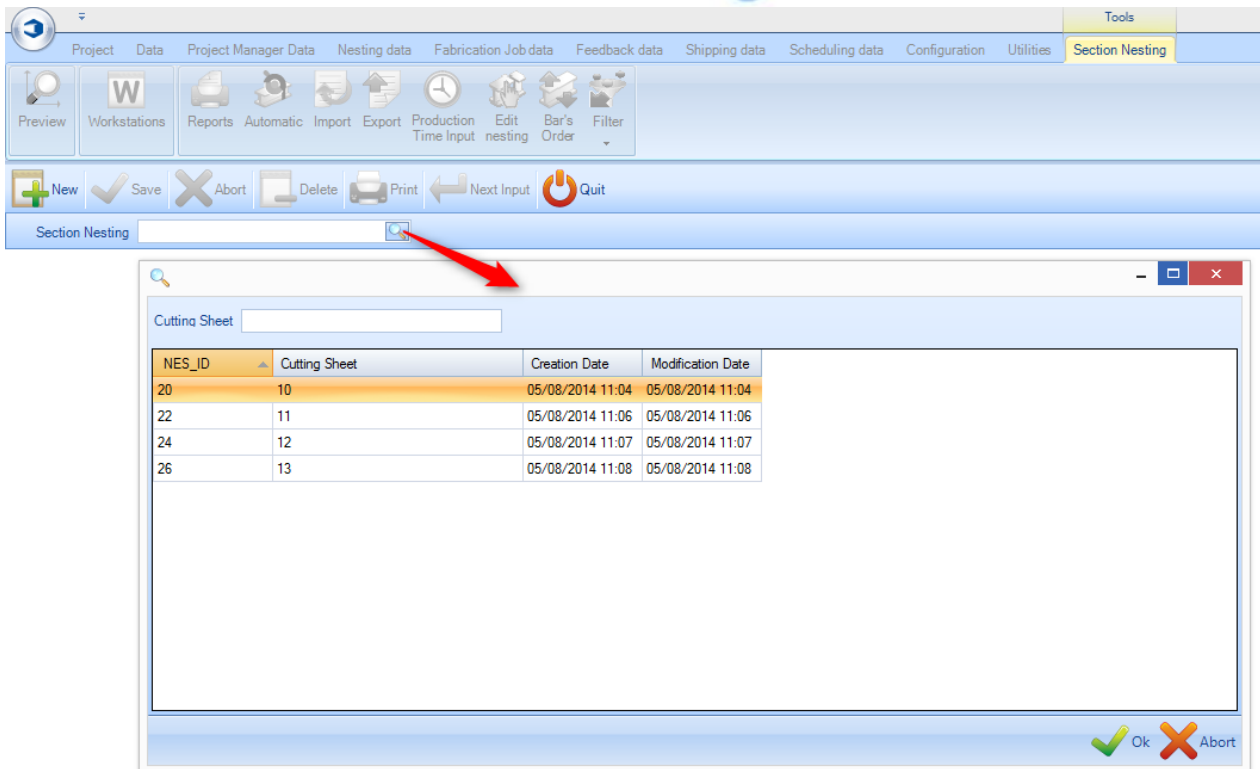
The main module to optimize your bar nesting

The section nesting module allows you to nest your components into linear bars for streamlined purchasing and production process

The module uses the parameters set in the [Nesting Data](#) options

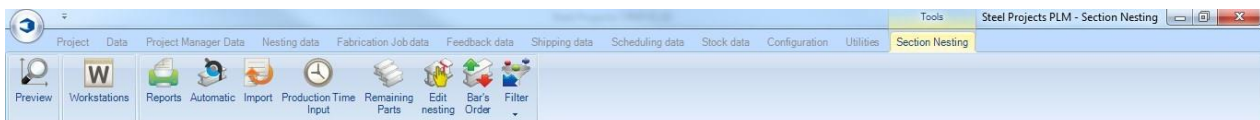
To create a new section nesting you would not normally do it by first accessing this menu. New nests are normally created either in the [Project Manager](#), by dragging the required parts into the [selection window](#) and activating the section nesting option and pressing action, or from the [Production Manager](#) in the [Send To Production](#) screen

Use this menu to view and modify existing section nests. To do this either type the nesting sheet number, or double click in the window and choose the nest from the window and press OK.

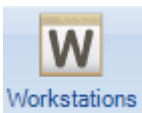


This will open up the section nesting module. Alternatively, this module will open automatically if you process with the Project Manager or Send to Production screens

Section Nesting ToolBars



Opens bar / Part , 2D /3D Preview



Opens a short-cut to the [Workstation configuration](#)



Create bar lists and nesting reports with the [Reports Window](#)



Automatically nests the components into Stock, remnants and purchased bars using [Automatic Section Nesting](#)



Import Stock bars using a configured [Stock Import](#)



Allows to input the actual production time spent to produce each bar (Available with the ProductionManager module).



Activates a filter to display only the parts to be nested



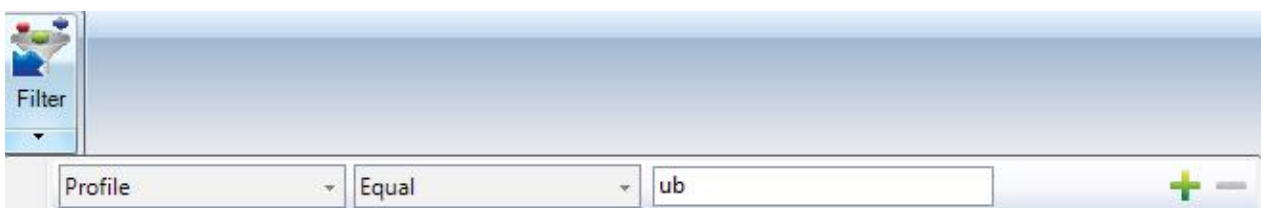
Edit the nesting using the [Manual Nesting](#)



Change the bar order and create bundles for automatic handling systems



Export the bars to production (Only for part & project manager)

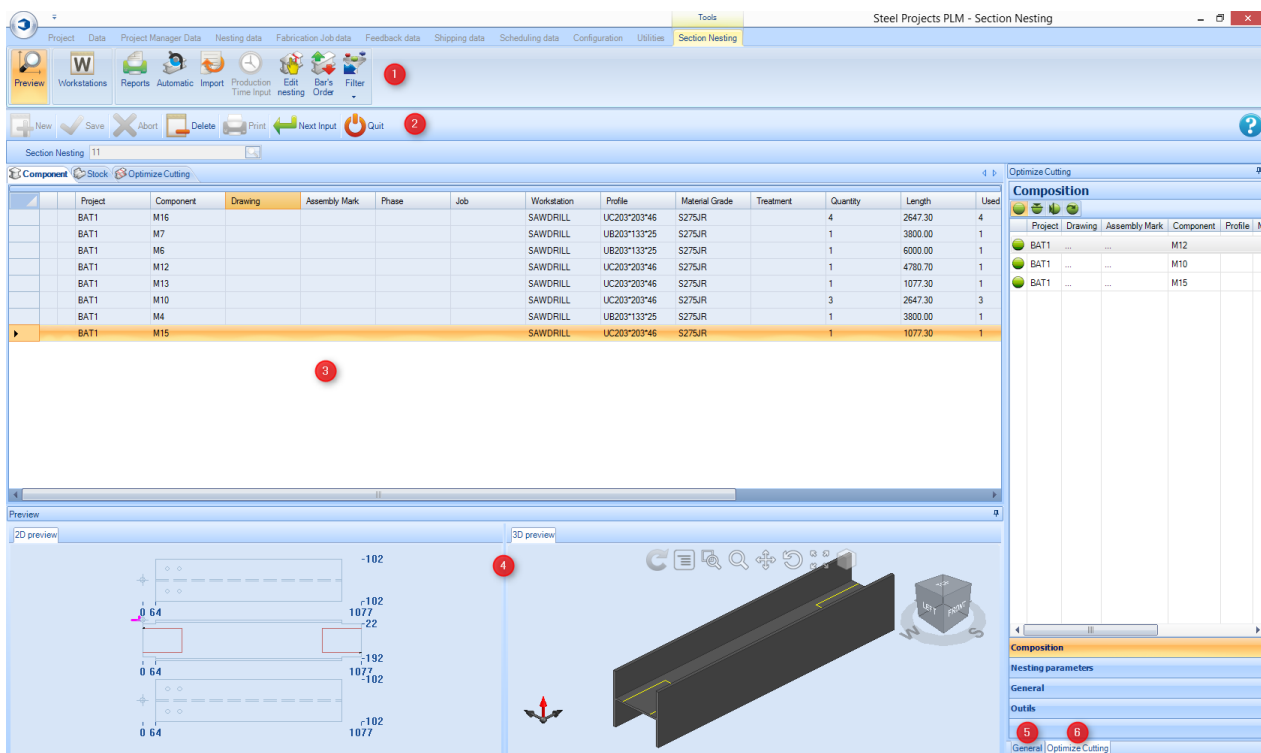


Set a filter to only view certain information in the main window

Section Nesting Layout

The module uses a similar multi window, tabbed format layout to the Projects Manager.

- 1 Short-cuts bar
- 2 Actions bar
- 3 Main Window , your components, stock and bars are displayed.
- 4 Here you can have 2D or 3D preview for component or bar
- 5 This tab shows a general summary of the section nesting results
- 6 The optimise cutting window shows specific information for each nested bar.



Main Window

The main window consists of three tabs.

Component - This lists all of the components that have been included in the section nesting. You can see all the details brought from the Project Manager, including the project, workstation, and quantity details.

Project	Component	Drawing	Assembly Mark	Phase	Job	Workstation	Profile	Material Grade	Treatment	Quantity	Length
BAT1	M16					SAWDRILL	UC203*203*46	S275JR		4	2647.30
BAT1	M7					SAWDRILL	UB203*133*25	S275JR		1	3800.00
BAT1	M6					SAWDRILL	UB203*133*25	S275JR		1	6000.00
BAT1	M12					SAWDRILL	UC203*203*46	S275JR		1	4780.70
BAT1	M13					SAWDRILL	UC203*203*46	S275JR		1	1077.30
BAT1	M10					SAWDRILL	UC203*203*46	S275JR		3	2647.30
BAT1	M4					SAWDRILL	UB203*133*25	S275JR		1	3800.00
BAT1	M15					SAWDRILL	UC203*203*46	S275JR		1	1077.30

If you double click on one of the components it opens up the component options and you CANNOT make modifications here but having to go back to the Project Manager.

Component

New Save Abort Delete Print Next Input Quit

Project BAT1 Component M13

Component M13

Quantity 1

Profile UC203*203*46

Unit ☒ Metric (mm) ☐ Imperial

Length 1077.30 mm

Width 0.00 mm

Group SECTION

Description BEAM

Material Grade S275JR

Treatment

Painting

Execution class EXC2

Information Toolings Preview Sub assembly Profile Drilling Attached documents

Comment

Created on 02/09/2013 14:51:57 By TEKLA XML

Modified on 13/06/2014 16:14:00 By SP_ADMIN

Weight 49.6635 Kg Surface 1.2808 m²

Node

Project Version

Part

Stock - The stock list will be blank to start with. You can add your stock to the list to use this in the nesting, or if you leave this blank the nester will only use purchased lengths using the best possible [deliverable lengths](#)

Profile	Material Grade	Treatment	Length	Quantity	Used quantity	Storage location	Warehouse	Casting	Comment 1	Comment 2
UC203*203*46	S275JR		12000.00	4	3					
UC203*203*46	S275JR		12100.00	1	0					
UB203*133*25	S275JR		12000.00	2	2					

Optimise Cutting - this tab shows the results of the nesting

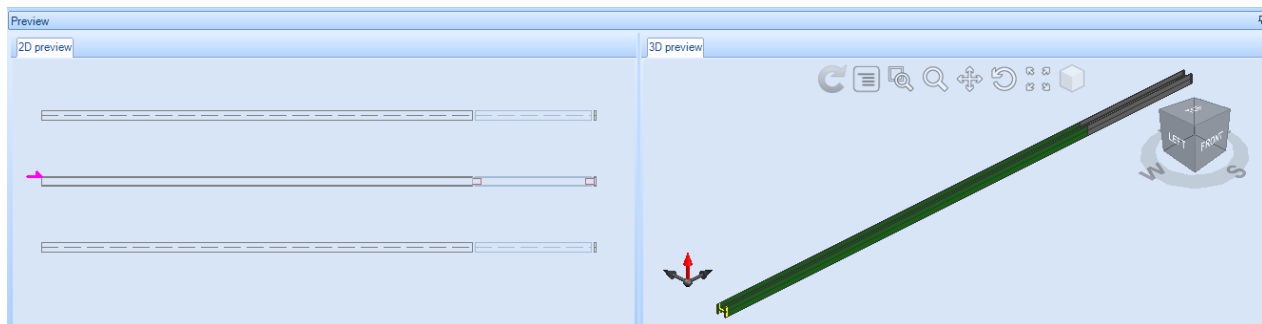
Component Stock Optimize Cutting											
	Bar N°	Profile	Material Grade	Treatment	Workstation	Quantity	Length	Remnant (mm)	Remnant (%)	Scrap (mm)	
▶	1	UC203*203*46	S275JR		SAWDRILL	1	12000.00	836.400	6.97		
	BAT1/.../M12					1	4780.70				
	BAT1/.../M10					2	2647.30				
	BAT1/.../M15					1	1077.30				
+	2	UC203*203*46	S275JR		SAWDRILL	1	12000.00	320.300	2.67		
+	3	UC203*203*46	S275JR		SAWDRILL	1	12000.00	9348.300	77.90		
+	4	UB203*133*25	S275JR		SAWDRILL	1	12000.00	2193.400	18.28		
+	5	UB203*133*25	S275JR		SAWDRILL	1	12000.00	8195.600	68.30		

Preview

This window shows a preview of the part or bar, depending on your selection in the main window.

To show a 3D view you need to have the option activated in your local configuration settings

The functionality of the window is the same as the project manager part [preview window](#)



General Information

This tab shows a general summary of the section nesting results



General				
Statut	To Produce			
	Quantity	Length	Remnant length	Scrap length
Total	5	60000.00 mm	20894.00 mm (34....	0.00 mm (0.00%)
Total by profile category				
I	5	60000.00 mm	20894.00 mm (34....	0.00 mm (0.00%)
Total by profile				
I UC203*203*...	3	36000.00 mm	10505.00 mm (29....	0.00 mm (0.00%)
I UB203*133*...	2	24000.00 mm	10389.00 mm (43....	0.00 mm (0.00%)
Total by bar type				
Stock	3	36000.00 mm	10505.00 mm (29....	0.00 mm (0.00%)
Purchase	2	24000.00 mm	10389.00 mm (43....	0.00 mm (0.00%)


Optimise Cutting

The optimise cutting window shows specific information for each nested bar

General - The general tab shows you general information on the nested bar that you have selected. The forecast time is only shown if you have the Production Manager module activated

The remnant identity is generated automatically by SPPLM, this can be used to mark you remnant to keep traceability

General	
Quantity	<input type="text" value="1"/>
Comment	<input type="text"/>
Workstation	<input type="text" value="SAWDRILL"/> 
Forecast time	<input type="text" value=""/>
Profile	<input type="text" value="UC203*203*46"/> 
Material Grade	<input type="text" value="S275JR"/>
Treatment	<input type="text"/>
Length	<input type="text" value="12000.00"/> mm
Warehouse	<input type="text"/>
Storage location	<input type="text"/>

Composition - This tab shows you the parts that are nested in the currently selected bar. You can change the order in the bar by manually dragging the parts order. And you can view and change part rotation by using the  functions

[illegible]

Nesting Parameters - This tab shows the parameters that have been assigned to the bar. They come from the [workstation configuration](#), but can be manually overridden in the bar by changing them here.

Nesting parameters

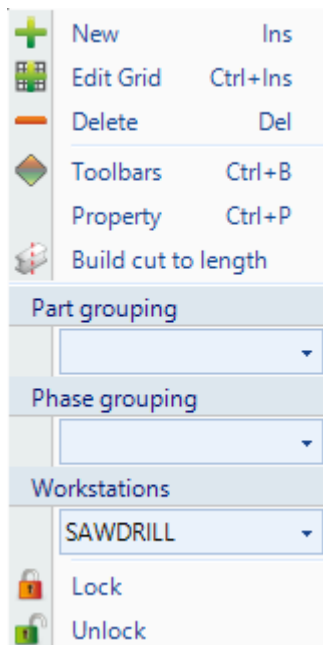
First Cut	<input type="text" value="40.00"/>	mm
Saw/Disk Thickness	<input type="text" value="2.20"/>	mm
Distance Cuts Not //	<input type="text" value="40.00"/>	mm
End Bar Scrap	<input type="text" value="40.00"/>	mm
Add saw/disk thickness if first cut	<input checked="" type="checkbox"/>	
Remnant	<input type="text" value="Pincher scrap"/>	
Optimise flange cut	<input type="checkbox"/>	
Maximum Scrap	<input type="text" value="0.00"/>	mm



Right Click Menu

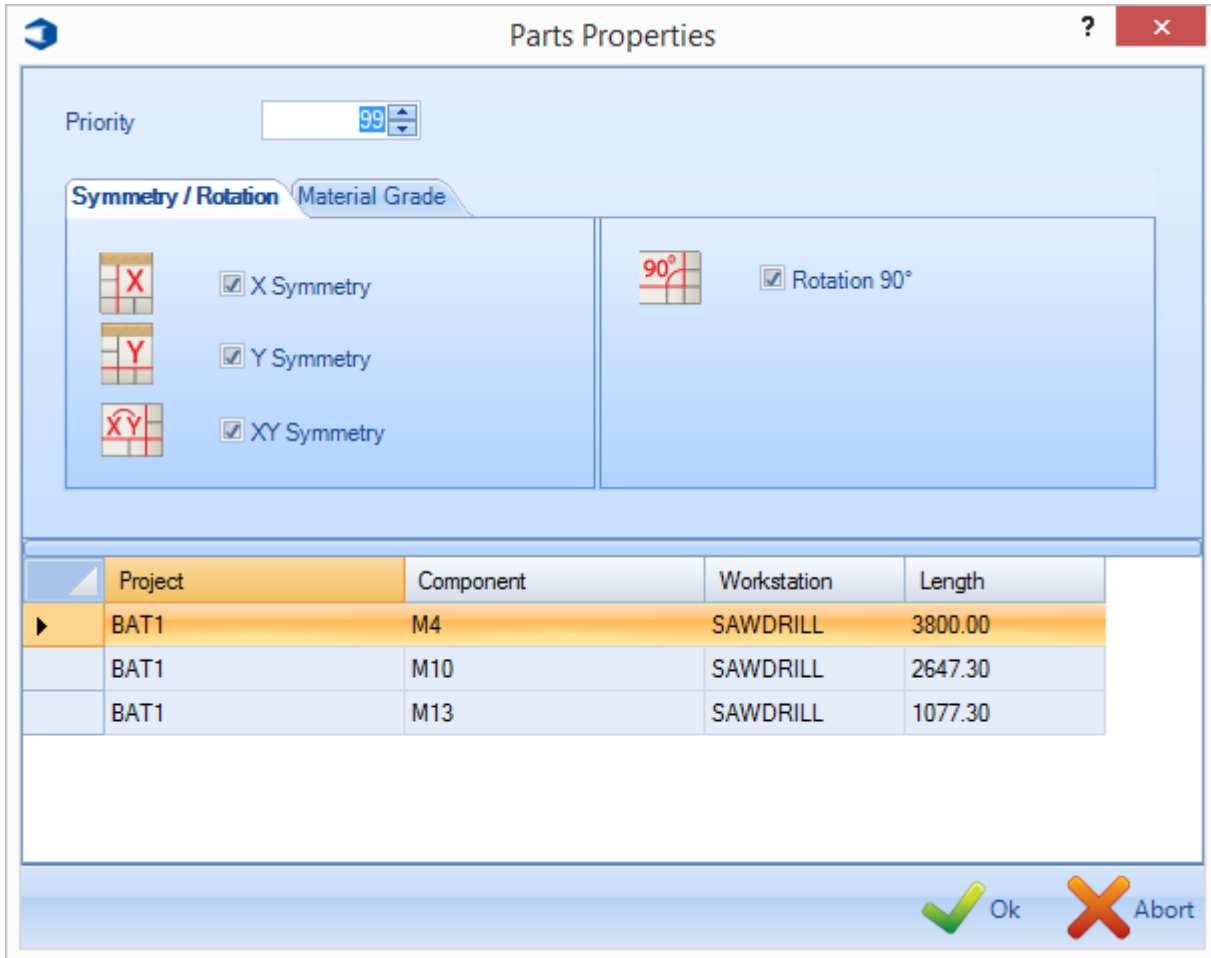
There are some extra options for the main window tabs accessible from the right mouse click menu

Component



- **New** - Add a new default part with no tooling
- **Edit Grid** - Modify the components options in the grid instead of in their individual options pages
- **Delete** - Delete the current selection from this section nesting sheet

- **Toolbars** - view \ hide the hidden toolbar
- **Property** - Open up an additional properties page which allows you to set individual options for each component. You can override the available symmetries and rotations, and give the part a priority. The automatic nester will put parts with a higher priority (with 1 being the highest) earlier in the nesting results



The **Parts Properties** dialog box is shown. It features a **Priority** spinner set to 99. Below are two tabs: **Symmetry / Rotation** and **Material Grade**. The **Symmetry / Rotation** tab contains three symmetry options (X, Y, XY) and one rotation option (90°), all of which are checked. Below the tabs is a table with the following data:







Project	Component	Workstation	Length
BAT1	M4	SAWDRILL	3800.00
BAT1	M10	SAWDRILL	2647.30
BAT1	M13	SAWDRILL	1077.30

At the bottom right are **Ok** and **Abort** buttons.

Build Cut to Length - When this option is selected, the component will not be nested into a separate stock bar, but sent cut to length. If you add a stock bar into the stock list with same length, this will be used. if not, you will get a list of cut to length bars in your purchasing list. Cut to length parts are sent to the machine with no cutting tooling or front or end bar scrap.

Lock \ Unlock - Temporarily Lock parts so they are not available to the automatic section nesting. this is useful if you want to nest some components earlier in the order, or separate to some other components in the same sheet.

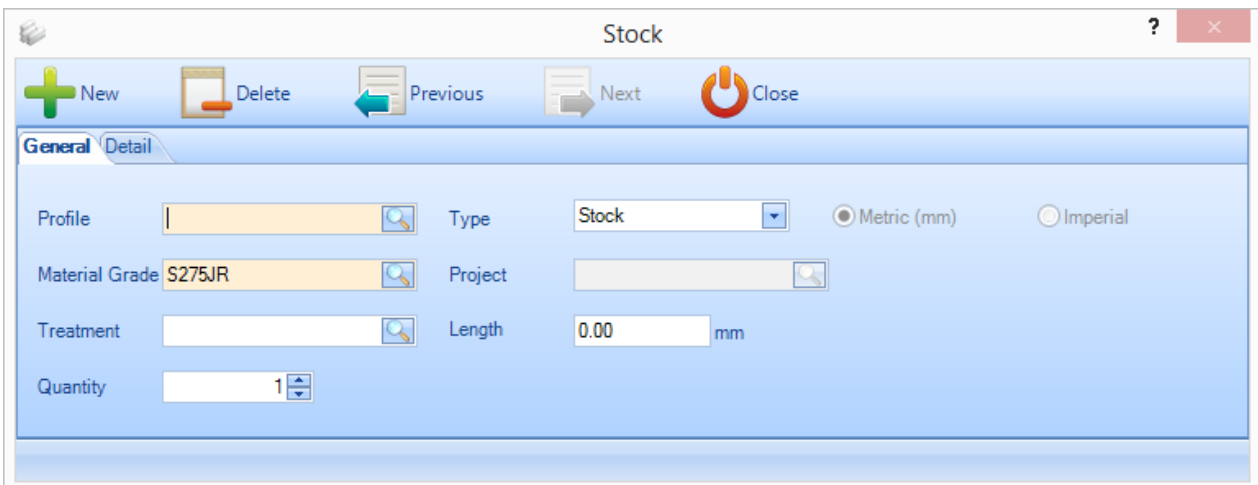
Stock

	New	Ins
	Edit Grid	Ctrl+Ins
	Delete	Del
	Toolbars	Ctrl+B
	Edit	
	Build butt welding	
	Duplicate	Ctrl+Maj+D
	Lock	Ctrl+L
	Unlock	Ctrl+U

- **New** - Add some stock bars into your stock list to be available for the nester to use. Select the required details by either typing in the windows, or double clicking will show a list of available ones.

The critical parameters that are needed as a minimum are the profile, material grade and length

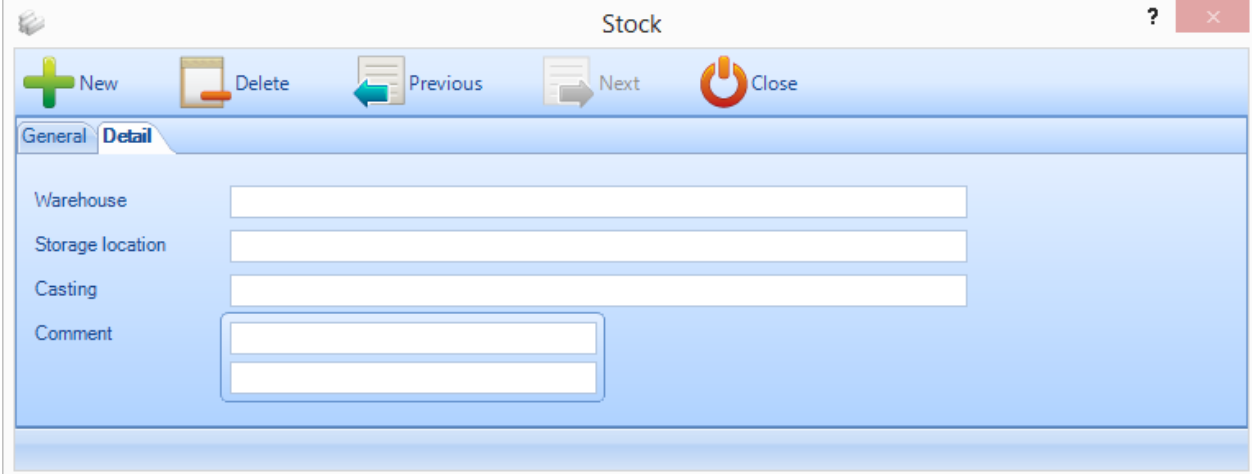
the default type of bar are stock bars, but you can give it a different type such as a remnant or purchased bar. These types are used by the automatic nester to use different priorities



The screenshot shows the 'Stock' window with the 'General' tab selected. The window has a title bar with a question mark and a close button. Below the title bar is a toolbar with icons for 'New', 'Delete', 'Previous', 'Next', and 'Close'. The main area contains the following fields:

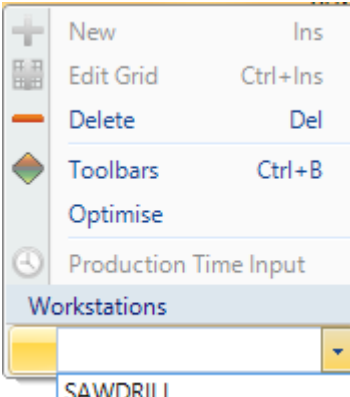
- Profile:** A text input field with a magnifying glass icon.
- Material Grade:** A text input field containing 'S275JR' with a magnifying glass icon.
- Treatment:** A text input field with a magnifying glass icon.
- Quantity:** A numeric input field with a spinner, currently set to '1'.
- Type:** A dropdown menu set to 'Stock'.
- Project:** A text input field with a magnifying glass icon.
- Length:** A text input field containing '0.00' followed by 'mm'.
- Units:** Radio buttons for 'Metric (mm)' (selected) and 'Imperial'.

On the detail page you can also add extra information for use for traceability and advanced nesting by loading bay or storage location.



- **Edit Grid** - Add more bars or modify the existing ones by using the grid format instead of individual options pages
- **Delete** - Delete the current selection
- **Toolbars** - View or hied the hidden toolbar
- **Edit** - Modify the bar in the options window
- **Build Butt Welding** - Join two or more bars together to form a connected bar. See [Butt Welded Beams](#)
- **Duplicate** - Add an identical bar to the current selection the list
- **Lock \ Unlock** - Temporarily Lock bars so they are not available to the automatic section nesting. this is useful if you want to nest some components earlier in the order, or separate to some other components in the same sheet.

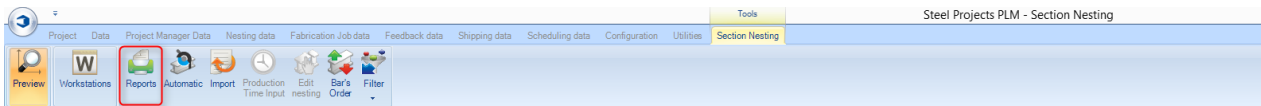
Bar



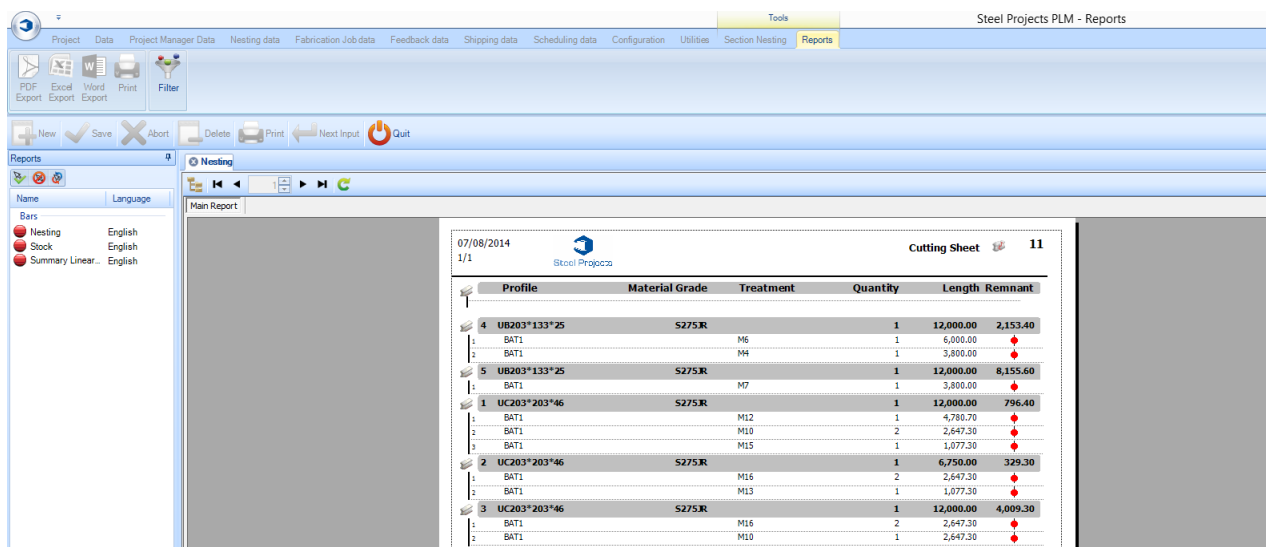
- **Delete** - Delete the current selection
- **Toolbars** - View or hie the hidden toolbar

- **Optimise** - Optimise the current bar
- **Workstations** - Change the machine for the current bar

Report

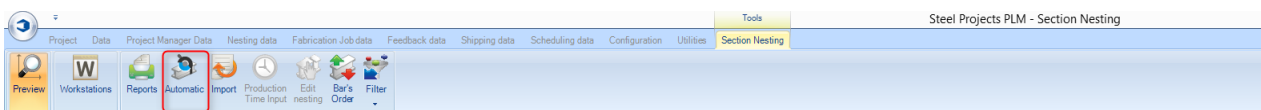


Pressing the Reports option will open the reports module.

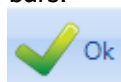


Created with the Personal Edition of HelpNDoc: [Free HTML Help documentation generator](#)

Automatic Section Nesting

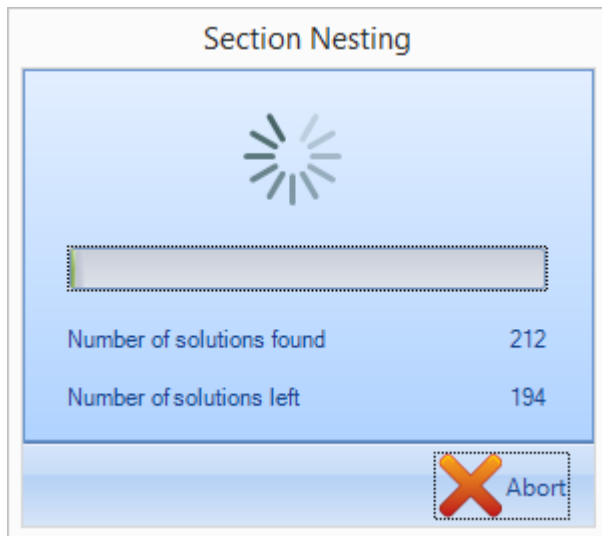


Pressing the **Automatic** icon will open the automatic nesting options screen. This tool will nest your components into your available stock \ purchasable lengths, with powerful algorithms prioritising either minimising scrap, remnants, or number of bars.



To use the automatic nester, simply press **Ok** and it will use the options you have set up to nest the parts to the available bars.

You will have this window

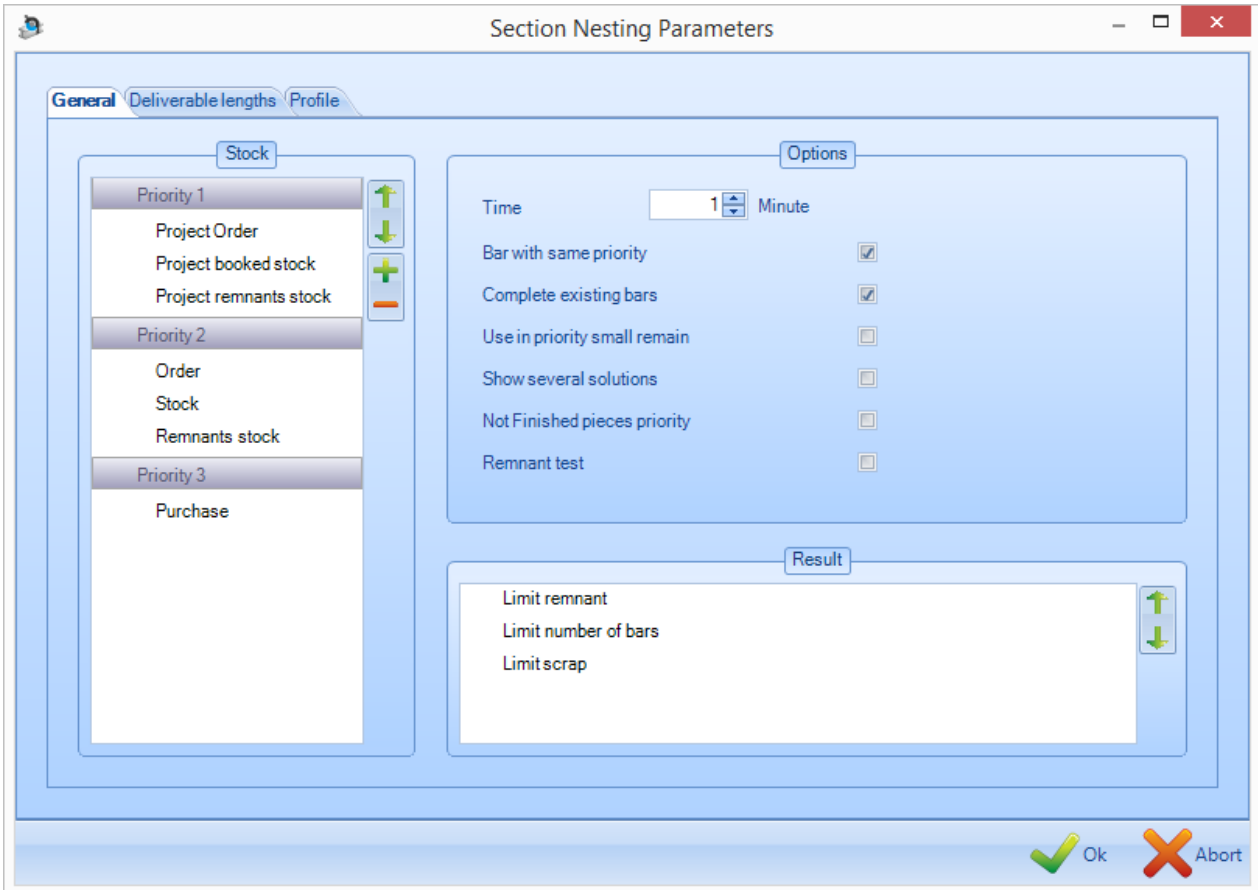


When the progress bar completes you will see the created bars in the Optimize Cutting tab.

Component Stock Optimize Cutting											
		Bar N°	Profile	Material Grade	Treatment	Workstation	Quantity	Length	Remnant (mm)	Remnant (%)	Scrap (mm)
		1	UC203*203*46	S275JR		SAWDRILL	1	12000.00	836.400	6.97	
		2	UC203*203*46	S275JR		SAWDRILL	1	12000.00	320.300	2.67	
		3	UC203*203*46	S275JR		SAWDRILL	1	12000.00	9348.300	77.90	
		4	UB203*133*25	S275JR		SAWDRILL	1	12000.00	2193.400	18.28	
		5	UB203*133*25	S275JR		SAWDRILL	1	12000.00	8195.600	68.30	

Section Nesting Options

General



Section Nesting Parameters

General | Deliverable lengths | Profile

Stock

Priority 1

- Project Order
- Project booked stock
- Project remnants stock

Priority 2

- Order
- Stock
- Remnants stock

Priority 3

- Purchase

Options

Time: 1 Minute

- Bar with same priority ☒
- Complete existing bars ☒
- Use in priority small remain ☐
- Show several solutions ☐
- Not Finished pieces priority ☐
- Remnant test ☐

Result

- Limit remnant
- Limit number of bars
- Limit scrap

Ok Abort

Stock

Different priorities can be set for different types of stock bar.

If remnant stock is set at a higher priority than Stock, offcuts will always be nested before stock bars, if they are available. If Stock is above purchasing, all of the added stock bars will be maximised before bars are suggested for purchasing

To change the priority, simply click on the type of bar and use the up and down arrows to move to a different priority

Result

This option will allow you to change the preference of the nesting algorithm.

If limit remnant is selected first, then the nester will try and limit the total amount of remaining material left in a bar.

Limit number of bars will try and limit the number of bars used in a trade-off for scrap for less material handling.

Limit scrap will take into consideration the set maximum scrap and trade off waste for recoverable stock

Options

Time – Select a time (min of 1 minute) for the nester to calculate more permutations for a better nest

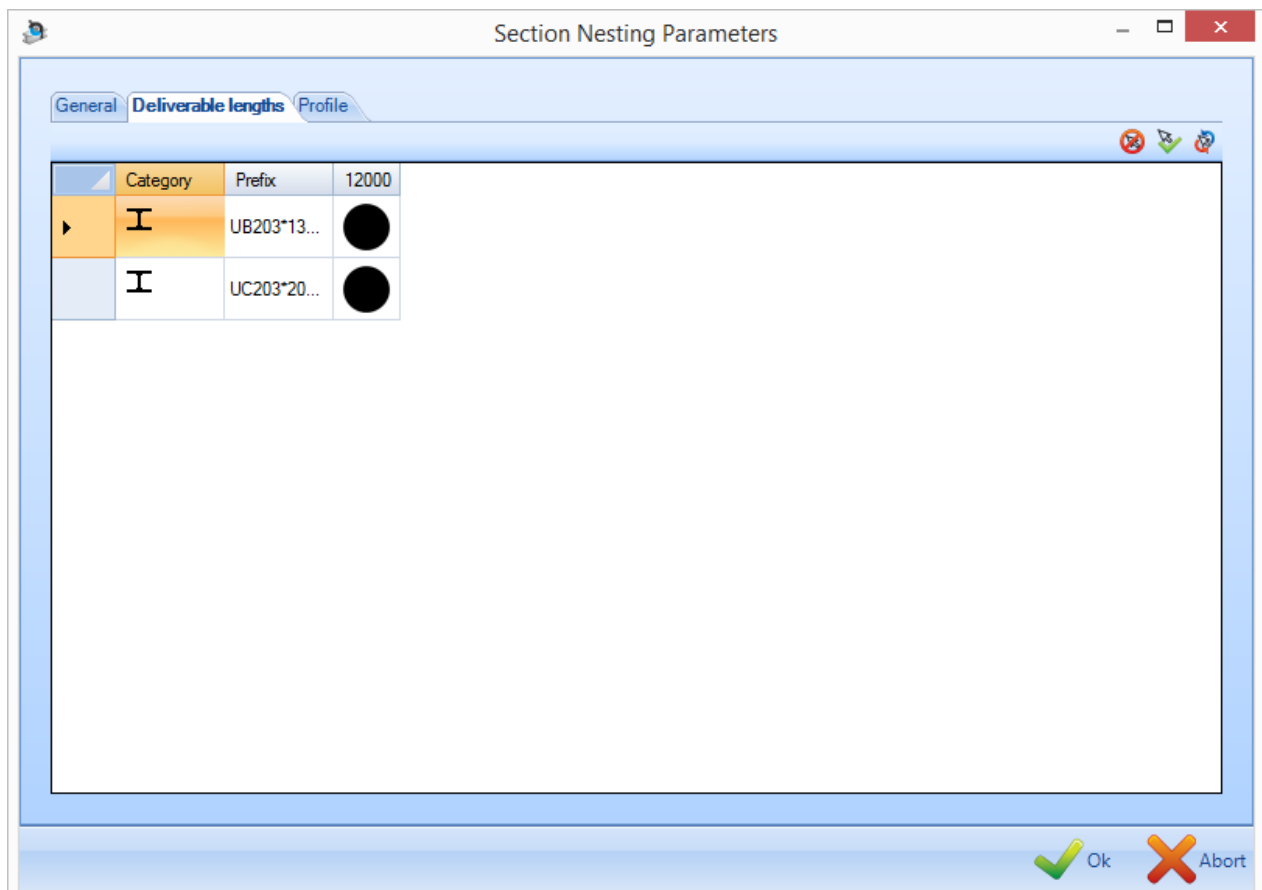
Bar with same priority – Force the nester to only nest parts with the same priority together. If the option is not checked, the lowest priority will initially be nested, but the bars can be supplemented with higher-priority items.

Show several Solutions. This option only works if a time has been set. At the end of the nesting process it will display on the screen three options with different results of scrap, remnant and number of bars

Deliverable Lengths

This tab shows you the [deliverable lengths](#) you have set up, and allows you to enable \ restrict their availability for the automatic nesting.

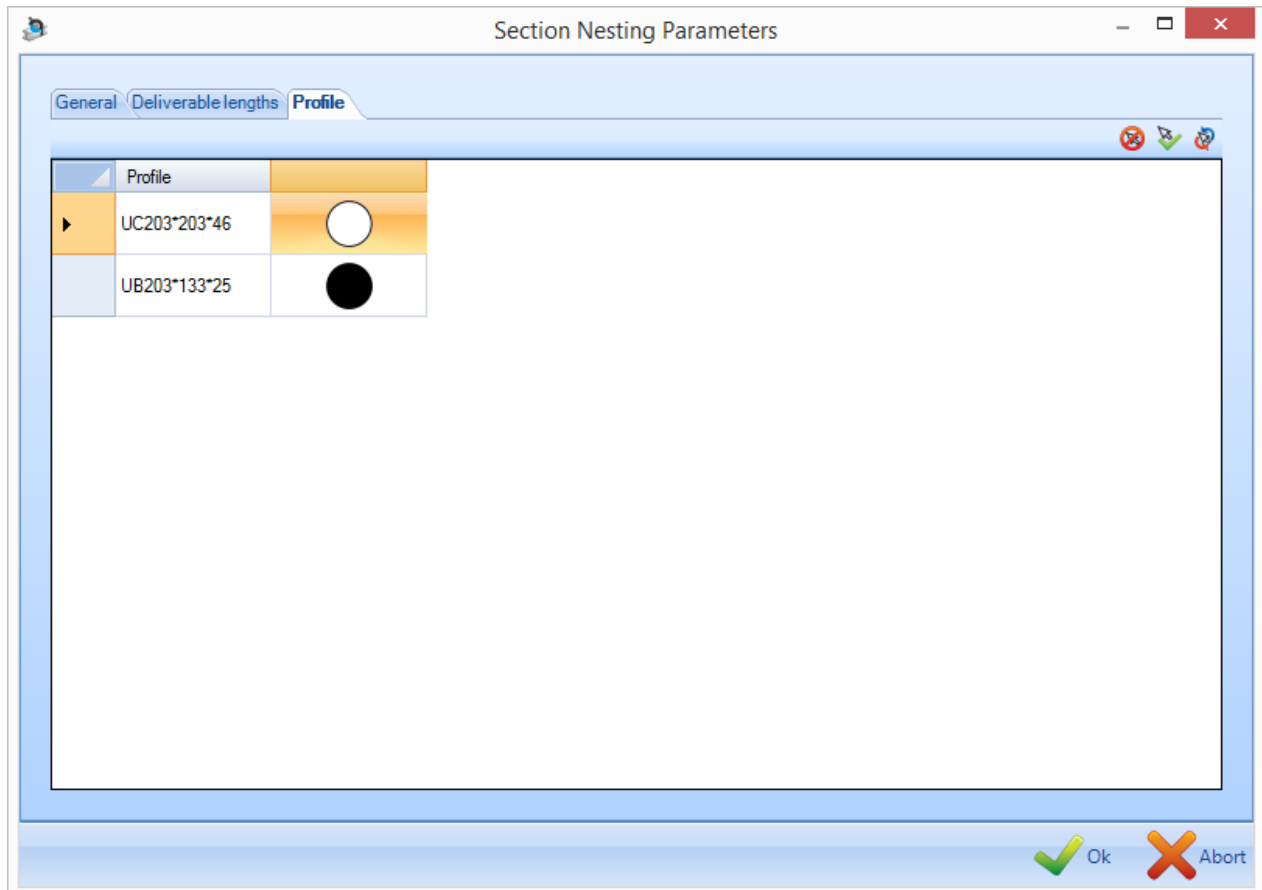
If the length is represented with a black circle then it is available. if you double click the circle it changes to a white circle, and is then unavailable



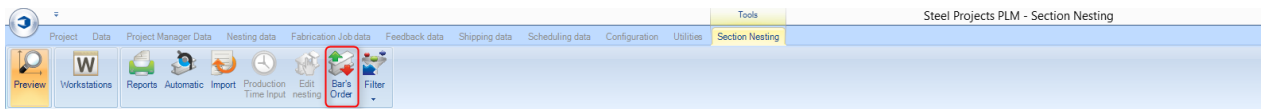
Profile

This tab shows you the profiles you have in your selection and allows you to enable or not the nesting for each ones.

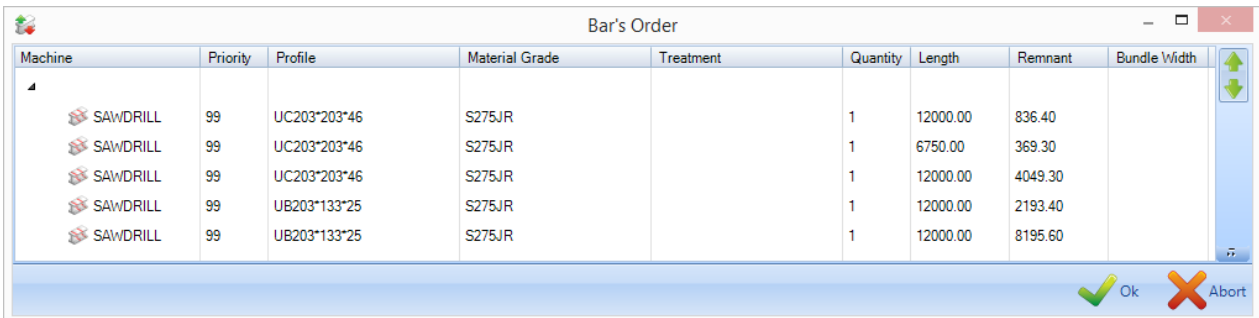
If the profile is represented with a black circle, then it is available. if you double click the circle it changes to a white circle, and is then unselected.



Bar Order Change



When you have finished either a manual or an automatic nest, you can change the order of the bars.




Machine	Priority	Profile	Material Grade	Treatment	Quantity	Length	Remnant	Bundle Width
SAWDRILL	99	UC203*203*46	S275JR		1	12000.00	836.40	
SAWDRILL	99	UC203*203*46	S275JR		1	6750.00	369.30	
SAWDRILL	99	UC203*203*46	S275JR		1	12000.00	4049.30	
SAWDRILL	99	UB203*133*25	S275JR		1	12000.00	2193.40	
SAWDRILL	99	UB203*133*25	S275JR		1	12000.00	8195.60	

To change the order, either drag and drop the bars in the list to the required order, or click on particular



bars and use the arrow icons on the right of the window

If you have an automatic system that has the ability to work with bundles of bars, press the  icon and the system will automatically bundle together bars with similar profiles, treatments, painting etc, using the rules you have set up in your work-flow.

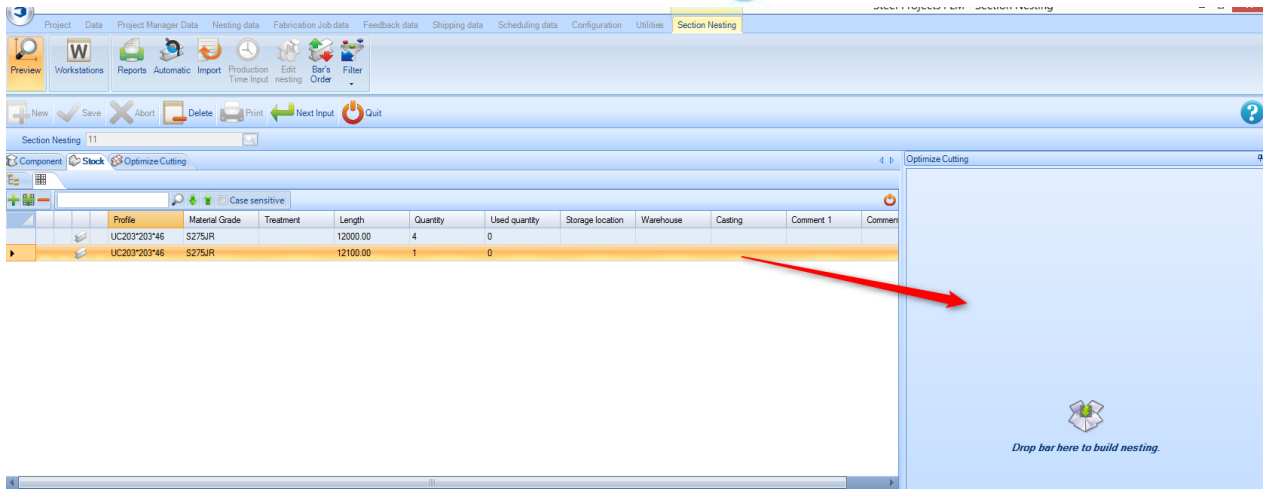
Manual Section Nesting

It is possible to create manual nests instead of using the automatic nesting.

This is useful if you need to cut specific components in a specific order out of specific bars

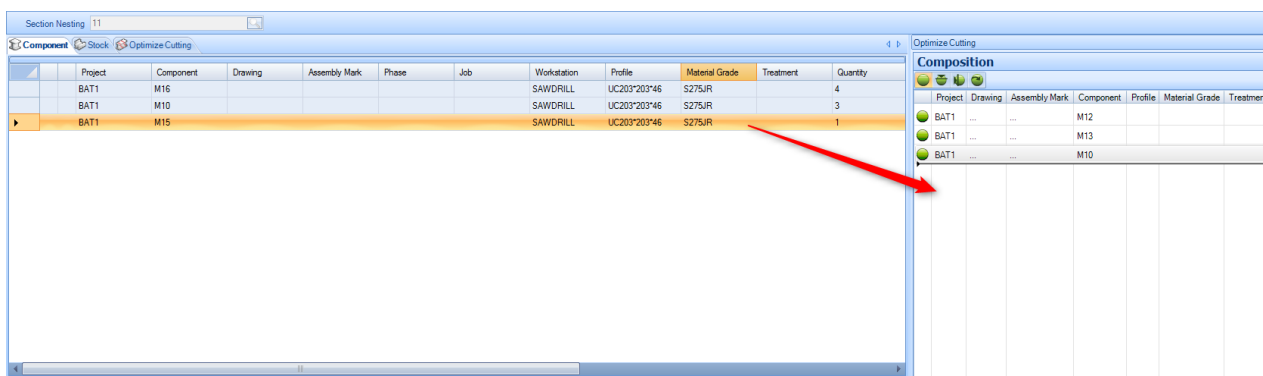
To begin, add some stock bars in the Stock tab of the main window

Drag and drop one of the bars from this list to the optimise cutting window. You will see that the icon changes to show that the bar is now in the window



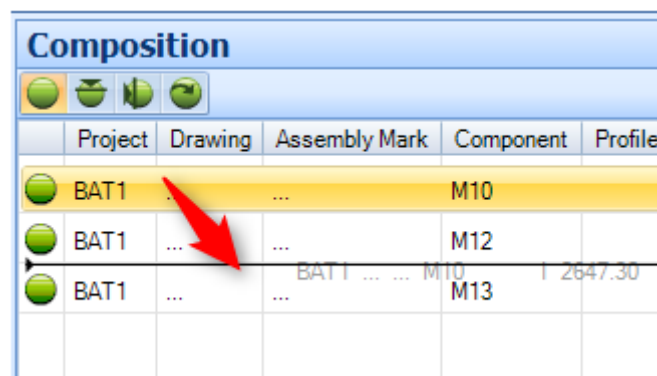
Then switch to the main window component tab. only the components with the same profile as the bar you just selected will be available

To add one or more of the components into the bar, drag and drop them from the main window to the optimise cutting window



You will see the graphic and options of the bar change to match the manual modifications

Change the order of the parts in the bar by dragging and dropping them in the list in the optimise cutting window.



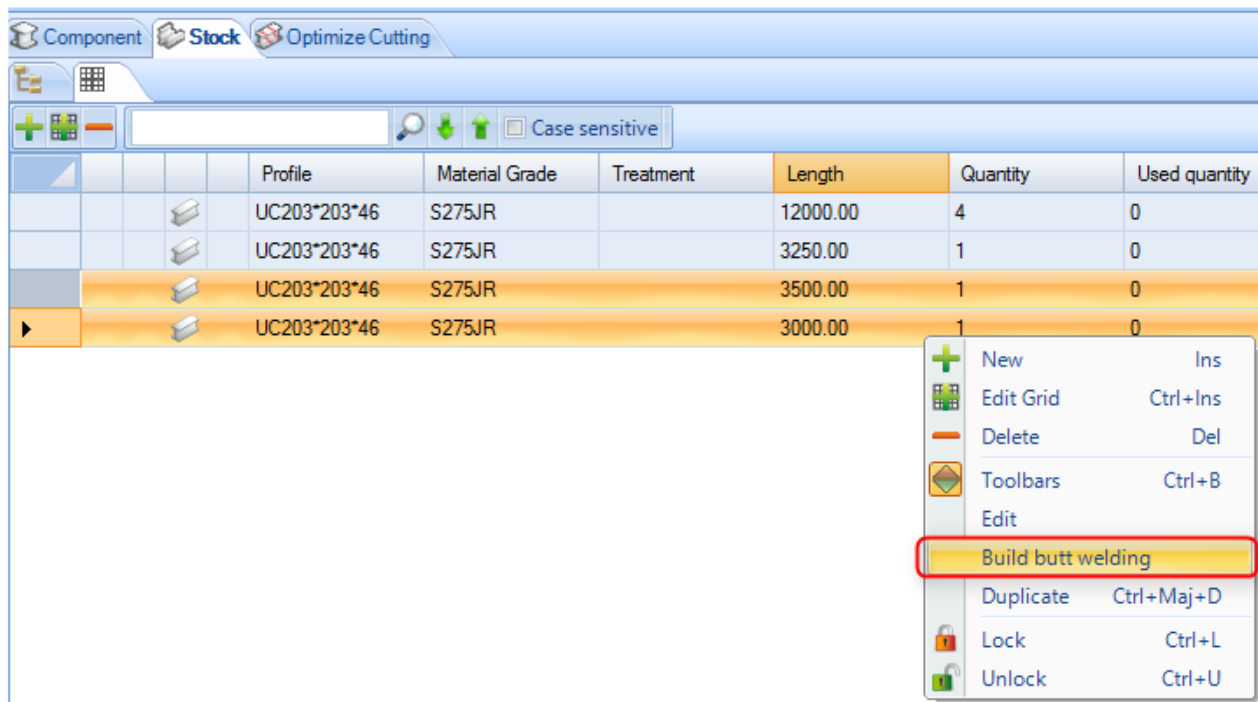
You can add rotations to the parts by using the  buttons

When you have built your bar, press the save button and then move to the Stock tab, and drag another bar into the Optimise cutting window and repeat the same process

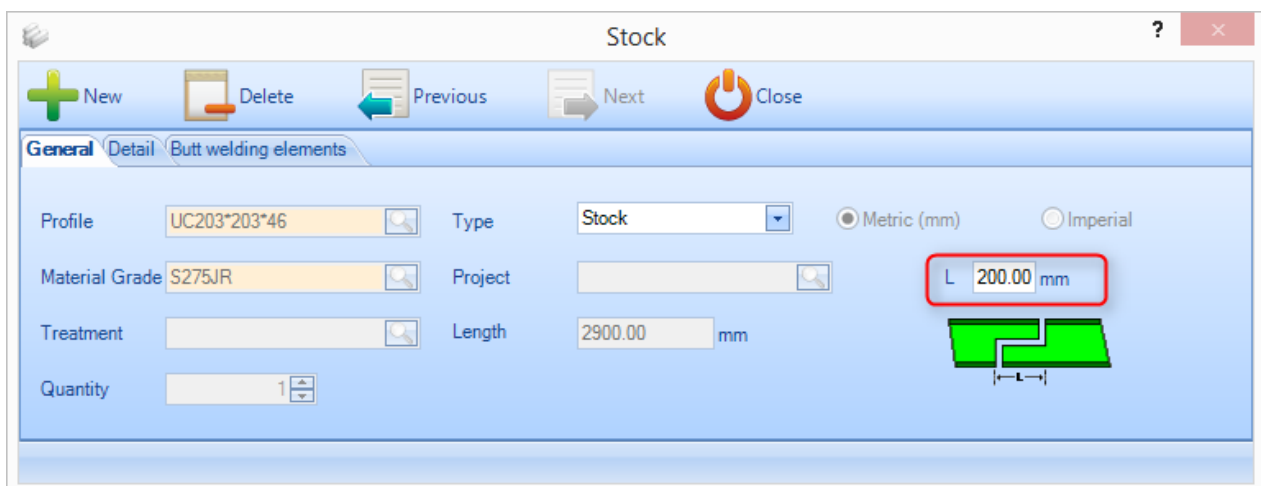
Butt Welded Beams

Pressing the build butt Welding option in the stock right click menu allows you to use the currently selected bar as bar of a larger butt welded bar.

In the Stock list select stock bars and right-click to open the menu.



You will have this window to define the way to weld both bars.



Detail give you the possibility to add extra information.

General **Detail** Butt welding elements

Warehouse

Storage location

Casting







Comment

From this list you can select the stock bars you will use to create the butt welded beam. the list on the left shows the available bars. Drag and drop the required bars to the right side window to make up the element.

General **Detail** Butt welding elements

Profile	Material Grade	Treatment	Length	Quantity		Profile	Material Grade	Treatment	Length	
UC203*203*46	S275JR		12000.00	4		UC203*203*46	S275JR		3000.00	
UC203*203*46	S275JR		3250.00	1						
UC203*203*46	S275JR		3500.00	1						
UC203*203*46	S275JR		3000.00	0						

When you save the bar you will see that the bar icon and total length has changed and you can see a sub list of the bars that make up the butt welded bar



		UC203*203*46	S275JR	6750.00	1
		UC203*203...	S275JR	3500.00	1
		UC203*203...	S275JR	3250.00	1

When you do an automatic nest the total length will be used as a standard available bar, but you can keep the full traceability of the different elements to it in the system.

Production Time Input

Production Time Input

When you click on the Production time input button, you can type the actual production time for each bar

 The fabrication job of the nesting must not be "unchecked"  in order to proceed.

Module - Plate Nesting



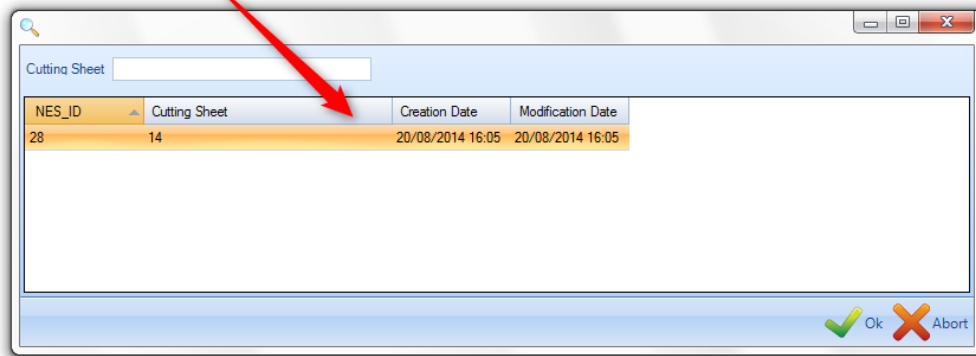
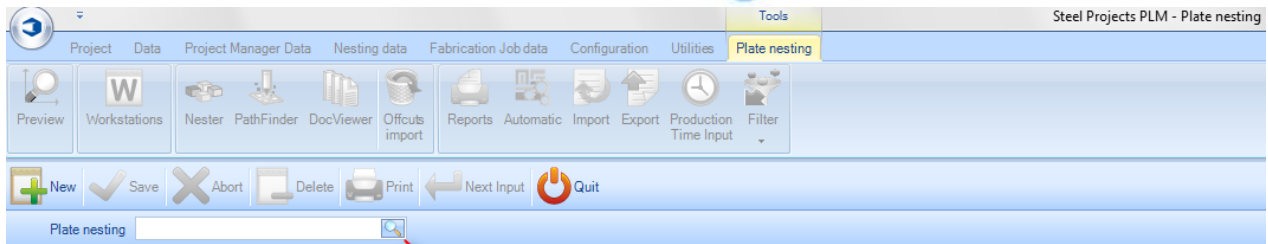
The main module to optimize your plate nesting

The plate nesting module allows you to nest your components into plates for streamlined purchasing and production process

The module uses the parameters set in the [Nesting Data](#) options

To create a new plate nesting you would not normally do it by first accessing this menu. New nests are normally created either in the [Project Manager](#), by dragging the required parts into the [selection window](#) and activating the plate nesting option and pressing action, or from the [Production Manager](#) in the [Send To Production](#) screen

Use can use this menu to view and modify existing plate nests. To do this either type the nesting sheet number, or double click in the window and choose the nest from the window and press OK.

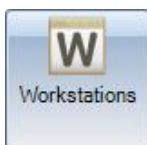


This will open up the plate nesting module. Alternatively, this module will open automatically if you process with the Project Manager or Send to Production screens

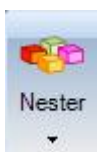
Plate Nesting Toolbar



Opens the [Part preview window](#)



Opens a short-cut to the [Workstation configuration](#)



Opens Nester module to manually define the plate nesting.



Opens Pathfinder module to define cutting sequences, create bridges between parts, generate CNC program, etc...



Opens DocViewer module to generate and print the plate nesting report



Import Offcuts with same thickness and material type from previous nesting



Create piece lists and nesting reports with the [Reports Window](#)



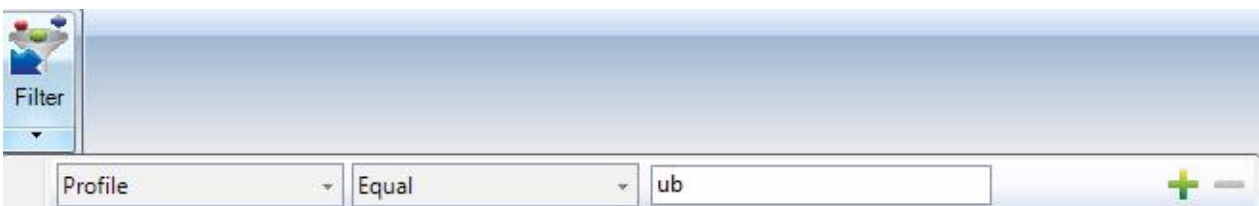
Automatically nest the components into Stock, remnants and purchased plates using [Automatic Plate Nesting](#)



Import Stock plates using a configured [Stock Import](#)



Export the plates to production. Can be done from Plate nesting or from Send To Production depending on options

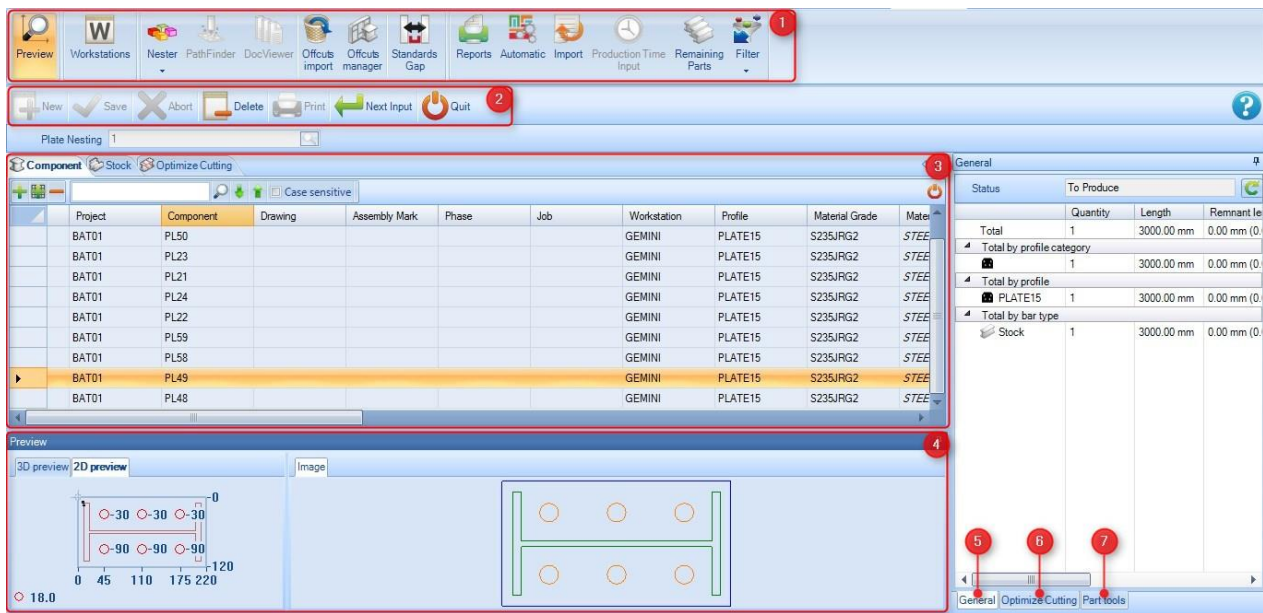


Sets a filter to only view certain information in the main window

Plate Nesting Layout

The module uses a similar multi window, tabbed format layout to the Projects Manager.

- 1 - Short-cuts bar
- 2 - Actions bar
- 3 - Main Window , your components, stock and plates are displayed.
- 4 - Here you can have 2D or 3D preview for component or plate
- 5 - This tab shows a general summary of the plate nesting results
- 6 - The optimise cutting window shows specific information for each nested plate.
- 7 - Summary of the tools used in the selected component.



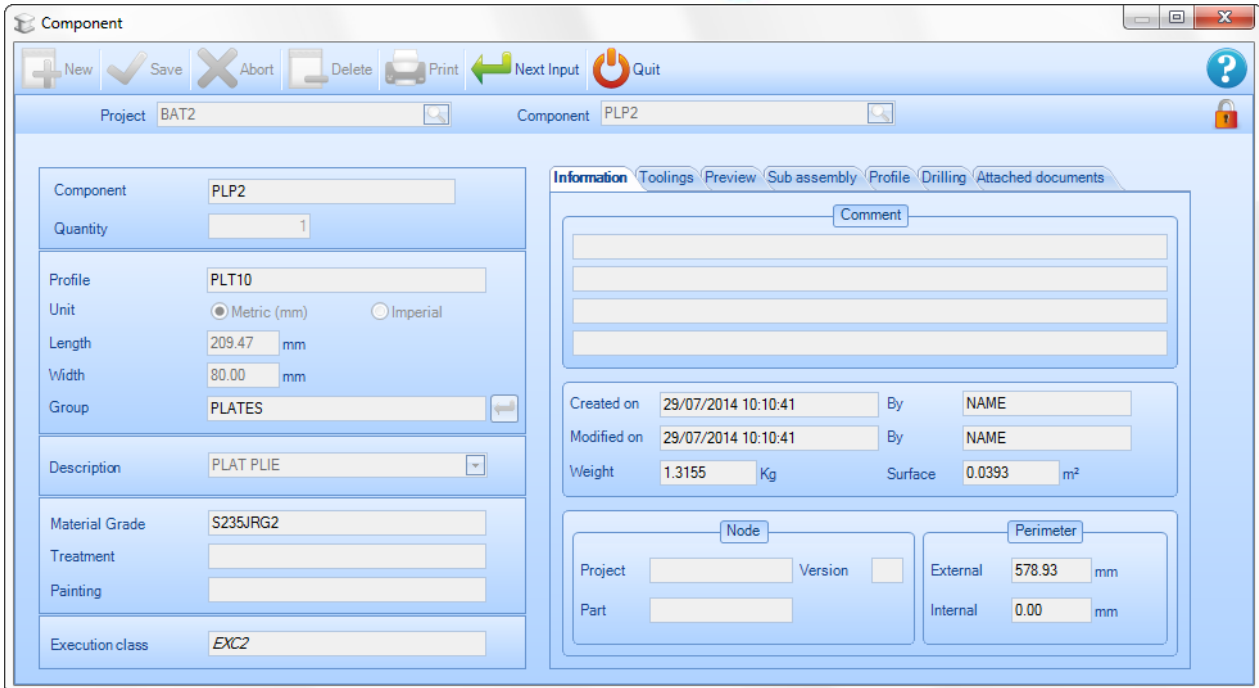
Main Window

The main window consists of three tabs.

Component - This lists all of the components that have been included in the plate nesting. You can see all the details brought from the Project Manager, including the project, workstation, and quantity details.

Project	Component	Assembly Mark	Phase	Job	Workstation	Profile	Material Grade	Material code	Treatment	Quantity	Length
BAT2	GT6				GEMINI	PLT10	S235JRG2	STEEL		1	729.60
BAT2	PL2				GEMINI	PLT10	S235JRG2	STEEL		15	170.00
BAT2	PLP2				GEMINI	PLT10	S235JRG2	STEEL		1	209.47
BAT2	V5				GEMINI	PLT10	S235JRG2	STEEL		8	346.30
BAT2	AL2				GEMINI	PLT10	S235JRG2	STEEL		4	8850.00
BAT2	PLP1				GEMINI	PLT10	S235JRG2	STEEL		1	209.47
BAT2	V2				GEMINI	PLT10	S235JRG2	STEEL		4	333.60
BAT2	PL37				GEMINI	PLT10	S235JRG2	STEEL		14	186.07
BAT2	PL43				GEMINI	PLT10	S235JRG2	STEEL		4	150.00
BAT2	V4				GEMINI	PLT10	S235JRG2	STEEL		29	160.00
BAT2	PL44				GEMINI	PLT10	S235JRG2	STEEL		2	190.00

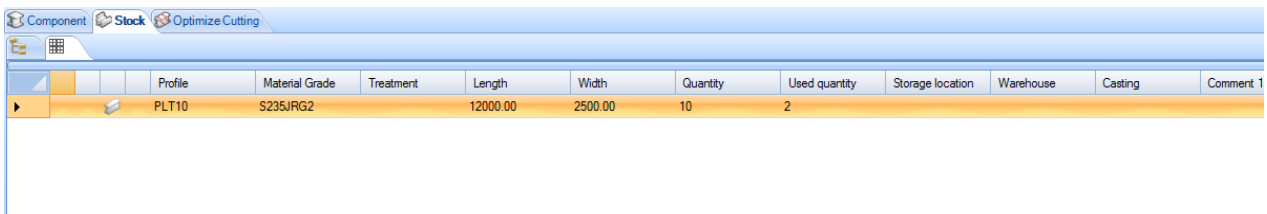
If you double click on one of the components it opens up the component options and you can make modifications here instead of having to go back to the Project Manager.



If you need to add more components, right click in an empty area and select new. Then, add the parts from this screen.

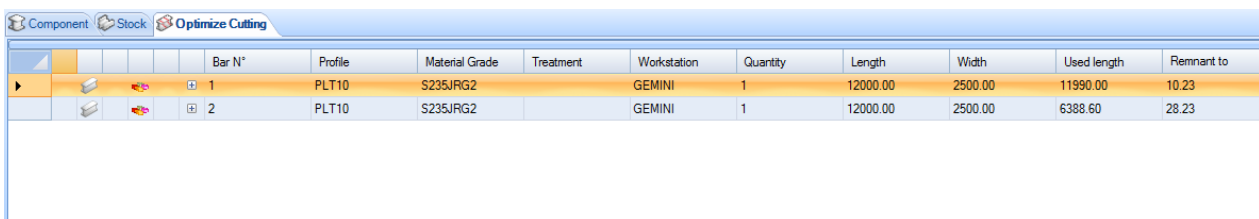
The parts must have been previously added in the fabrication job, as seen [here](#).

Stock - The stock list will be blank to start with. You can add your stock to the list to use this in the nesting, or if you leave this blank the nester will only use purchased lengths using the best possible **commercial dimension**.



Profile	Material Grade	Treatment	Length	Width	Quantity	Used quantity	Storage location	Warehouse	Casting	Comment 1
PLT10	S235JRG2		12000.00	2500.00	10	2				

Optimise Cutting - this tab shows the results of the nesting



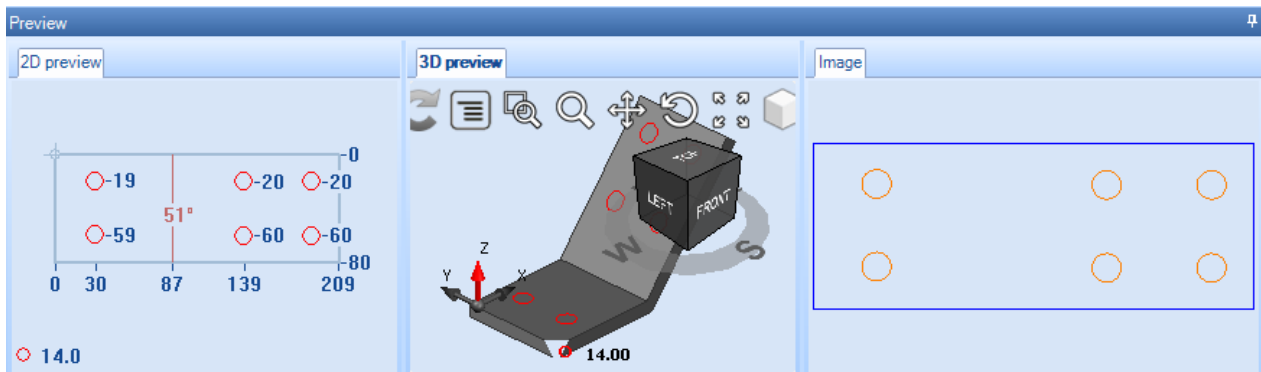
Bar N°	Profile	Material Grade	Treatment	Workstation	Quantity	Length	Width	Used length	Remnant to
1	PLT10	S235JRG2		GEMINI	1	12000.00	2500.00	11990.00	10.23
2	PLT10	S235JRG2		GEMINI	1	12000.00	2500.00	6388.60	28.23

Preview

This window shows a preview of the part or plate, depending on your selection in the main window.

To show a 3D view you need to have the option activated in your local configuration settings

The functionality of the window is the same as the project manager part [preview window](#)



3 - General Information

This tab shows a general summary of the section nesting results

General				
Statut	To Produce			
	Quantity	Length	Remnant length	Scrap length
Total	2	24000.00 mm	0.00 mm (0.00%)	0.00 mm (0.00%)
▾ Total by profile category				
🔍	2	24000.00 mm	0.00 mm (0.00%)	0.00 mm (0.00%)
▾ Total by profile				
🔍 PLT10	2	24000.00 mm	0.00 mm (0.00%)	0.00 mm (0.00%)
▾ Total by bar type				
🔍 Stock	2	24000.00 mm	0.00 mm (0.00%)	0.00 mm (0.00%)

4 - Optimise Cutting

The optimise cutting window shows specific information for each nested bar

General - The general tab shows you general information on the nested plate that you have selected. The forecast time is only shown if you have the Production Manager module activated

The remnant identity is generated automatically by SPPLM, this can be used to mark you remnant to keep traceability

General

Comment

Workstation

Profile

Material Grade

Treatment

Length

mm

Width













mm

Warehouse

Storage location

Remnant Identity

Composition - This tab shows you the parts that are nested in the currently selected plate.

Composition						
	Project	Drawing	Assembly Mark	Component	Profile	Material Grade
	BAT2	...	...	GT6		
	BAT2	...	...	PLP2		
	BAT2	...	...	V5		
	BAT2	...	...	AL2		
	BAT2	...	...	PL10		
	BAT2	...	...	G4		
	BAT2	...	...	GT5		
	BAT2	...	...	PL11		
	BAT2	...	...	GT3		
	BAT2	...	...	GT2		
	BAT2	...	...	G3		
	BAT2	...	...	PL10		

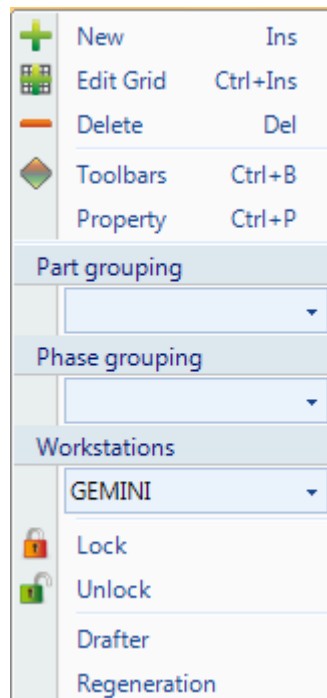
Tools - This tab list the tools that are going to be used by the machine once the nesting has been generated. Tools used will vary depending on how the workstation has been configured.

Outils			
		Quantite	Nom
Drilling	Diameter=12.00mm	1	DRILL12-TS33
Drilling	Diameter=14.00mm	1	DRILL14-TS33
Drilling	Diameter=18.00mm	1	DRILL18-TS33
Drilling	Diameter=30.00mm	1	DRILL30-TS33

Right Click Menu

There are some extra options for the main window tabs accessible from the right mouse click menu

Component



New - Add a new default part with no tooling

Edit Grid - Modify the components options in the grid instead of in their individual options pages

Delete - Delete the current selection from this section nesting sheet




Toolbars - view \ hide the hidden toolbar



Property - Open up an additional properties page which allows you to set individual options for each component. You can override the available symmetries and rotations, and give the part a priority. The automatic nester will put parts with a higher priority (with 1 being the highest) earlier in the nesting results

Parts Properties

Priority

Symmetry / Rotation | Edge Gap | Material Grade

 ☒ X Symmetry
  ☒ Y Symmetry
  ☒ XY Symmetry

 ☒ Rotation 90°
  ☒ Any Rotation

Project	Component	Workstation	Length
BAT2	GT6	GEMINI	729.60

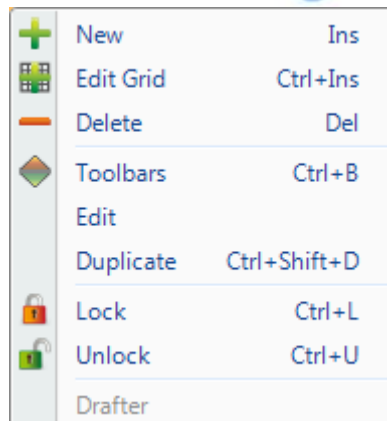
Ok Abort

Lock \ Unlock - Temporarily Lock parts so they are not available to the automatic section nesting. this is useful if you want to nest some components earlier in the order, or separate to some other components in the same sheet.

Drafter - Opens the Drafter module from Actcut to view the *.dpr file for the selected part. Dpr file is automatically created when part is sent to Plate Nesting.

Regeneration - Regenerate the *.dpr file for the selected part. If workstation configuration is changed once parts are sent to Plate Nesting, dpr files need to be regenerated

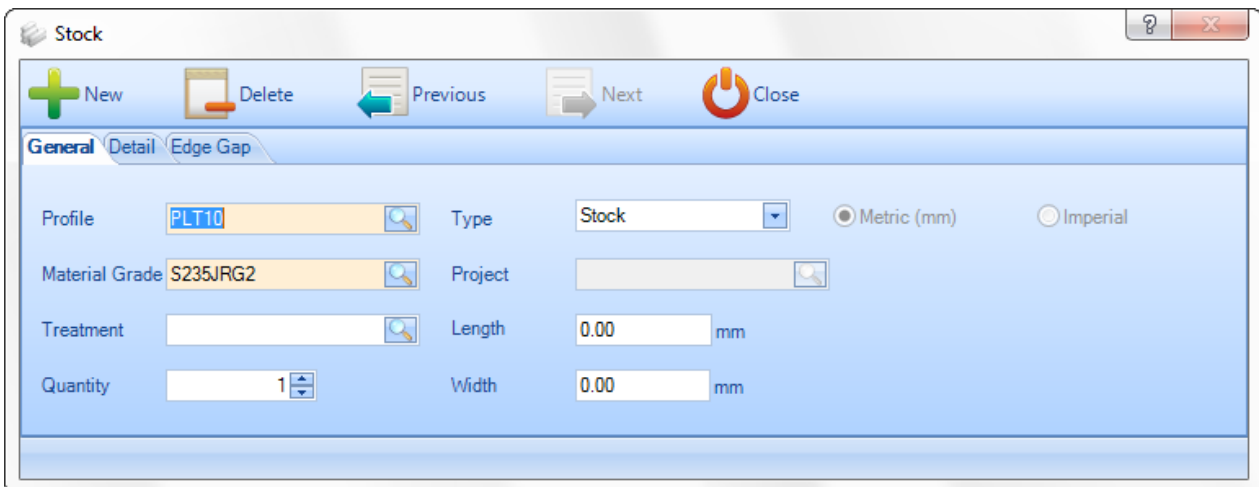
Stock








New - Add some stock plates into your stock list to be available for the nester to use. Select the required details by either typing in the windows, or double clicking will show a list of available ones.

The critical parameters that are needed as a minimum are the profile, material grade, length and width



the default type of plate is Stock, but you can give it a different type such as a Remnant or Purchase. These types are used by the automatic nester to use different priorities






Stock


 New
  Delete
  Previous
  Next
  Close

General | Detail | Edge Gap

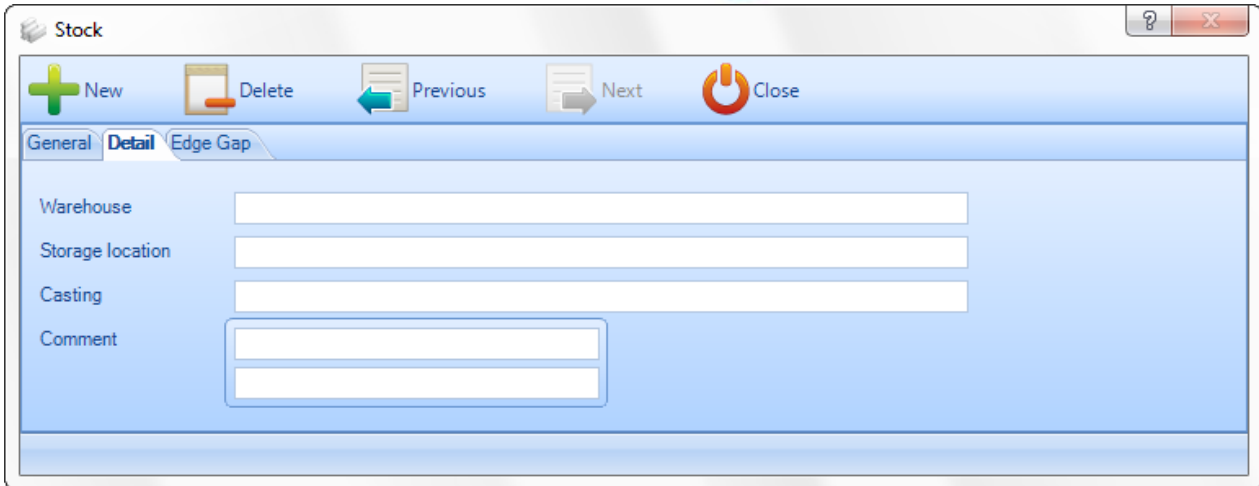
Profile: 
 Type: 
☒ Metric (mm) ☐ Imperial

Material Grade: 
 Project: 

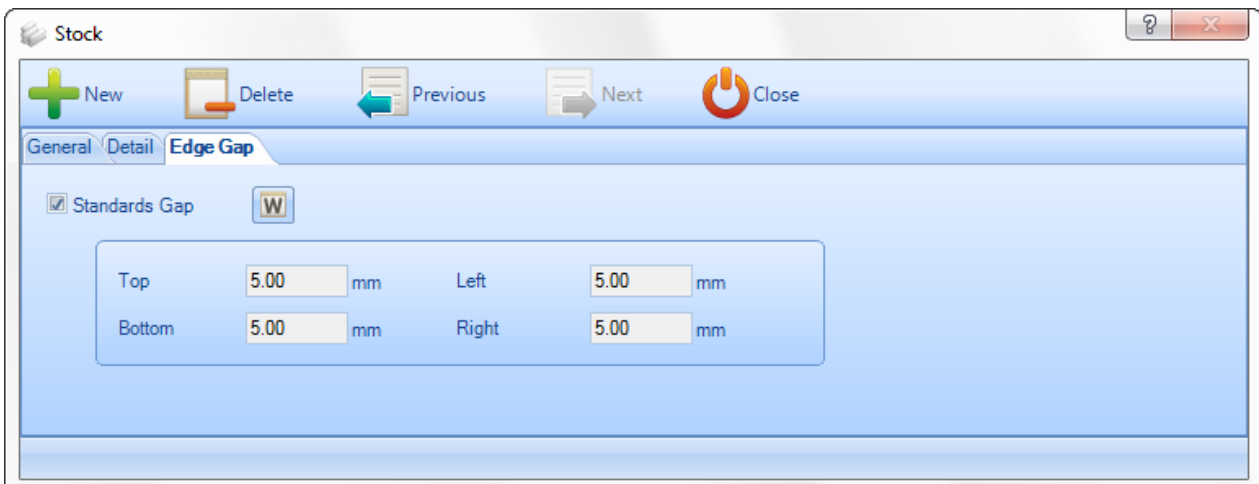
Treatment: 
 Length: mm

Quantity: 
 Width: mm

On the detail page you can also add extra information for use for traceability and advanced nesting by loading bay or storage location.



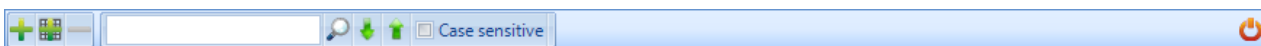
On the Edge Gap page, you can modify active gaps that will be used for the plate you are creating



Edit Grid - Add more plates or modify the existing ones by using the grid format instead of individual options pages

Delete - Delete the current selection

Toolbars - View/hide the hidden toolbar

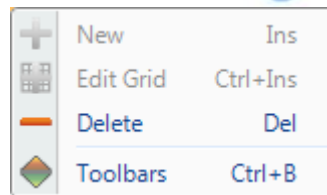


Edit - Modify the plate in the options window

Duplicate - Add an identical plate to the current stock list

Lock \ Unlock - Temporarily Lock plate so they are not available to the automatic plate nesting.

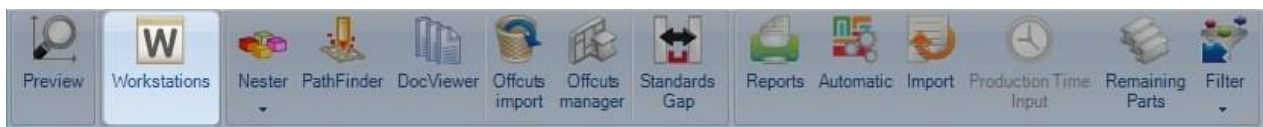
Plate



Delete - Delete the current selection

Toolbars - View/hide the hidden toolbar

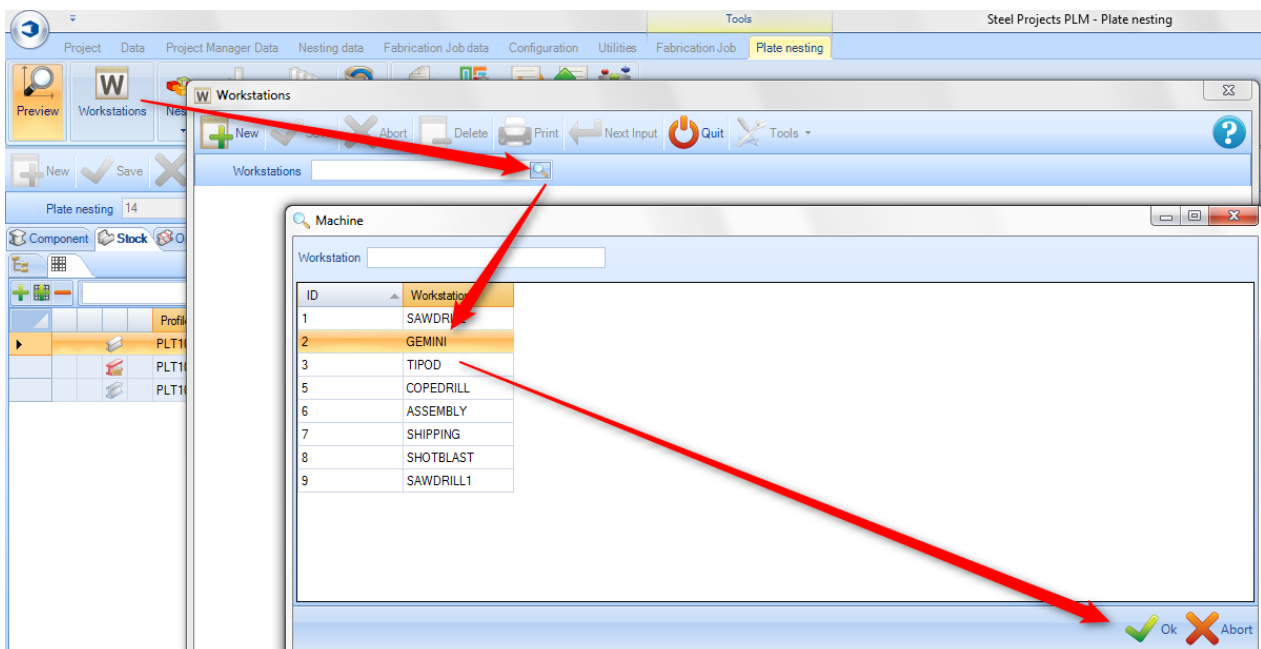
Workstation



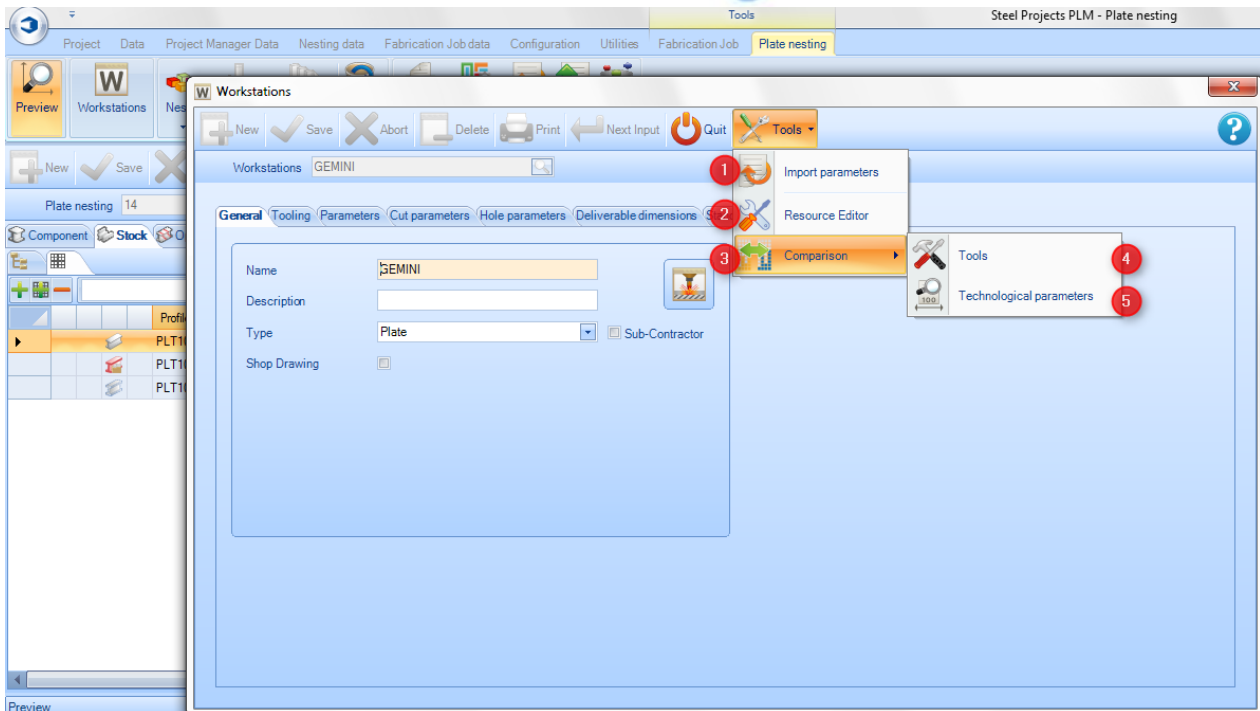
In order to modify some machine parameters before nesting, it is also possible to access the resource editor from the plate module.



Pressing the **Workstations** icon will open the workstations menu where we can find the machine parameters:



On the machine parameters window, it is possible to access Resource Editor and comparison in order to modify and update many nesting parameters:



1

Import parameters - Import machine parameters file

2

Resource Editor - Access the machine and nesting parameters manager

3

Comparison - Access a updater menu in order to compare or import or update the resource editor data into SP.PLM

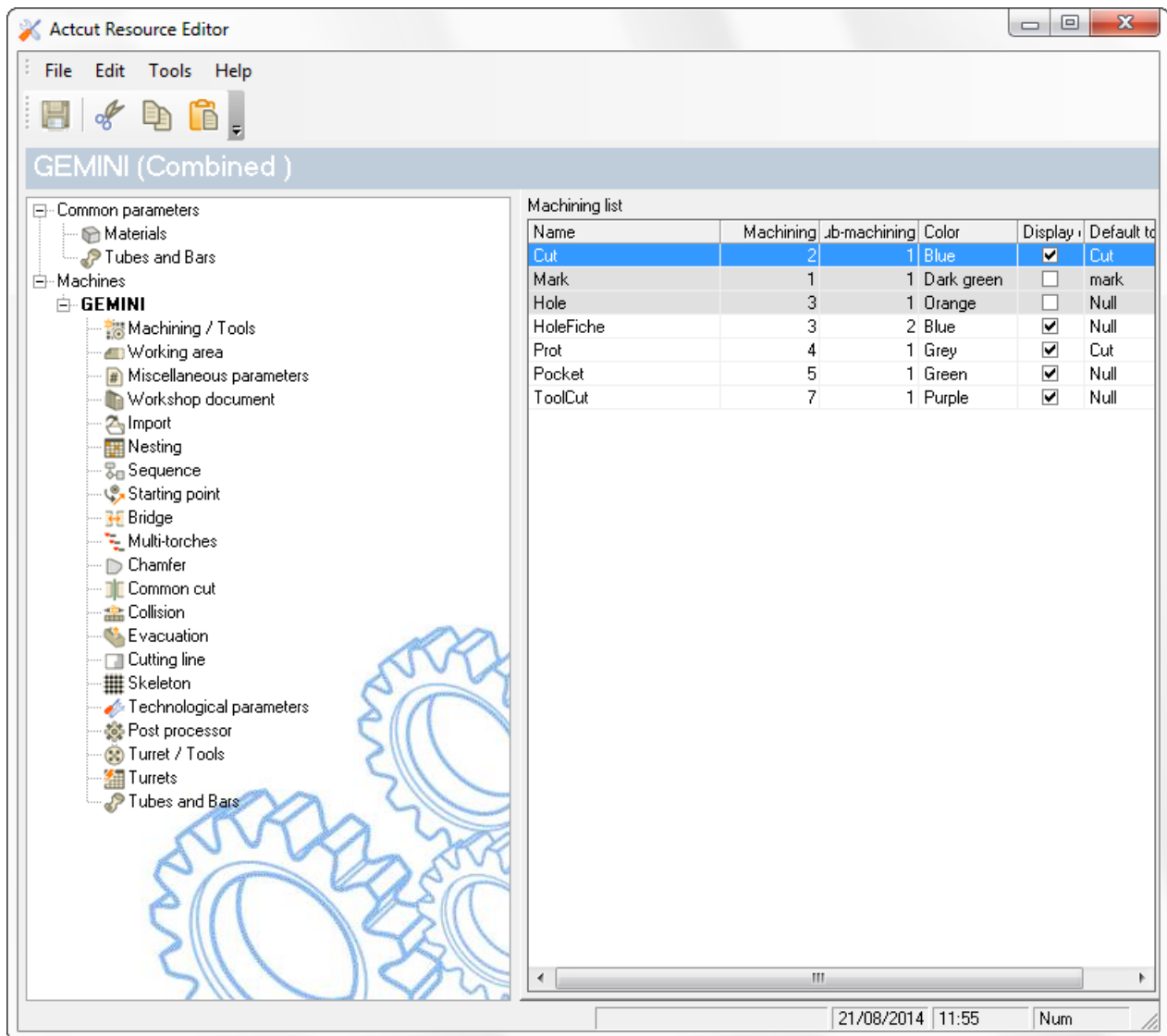
4

Tools - Access the updater menu which compares the available tools in Resource Editor and SP.PLM

5

Technological parameters - Access the updater menu which compares the available thickness and gaps in Resource Editor and SP.PLM

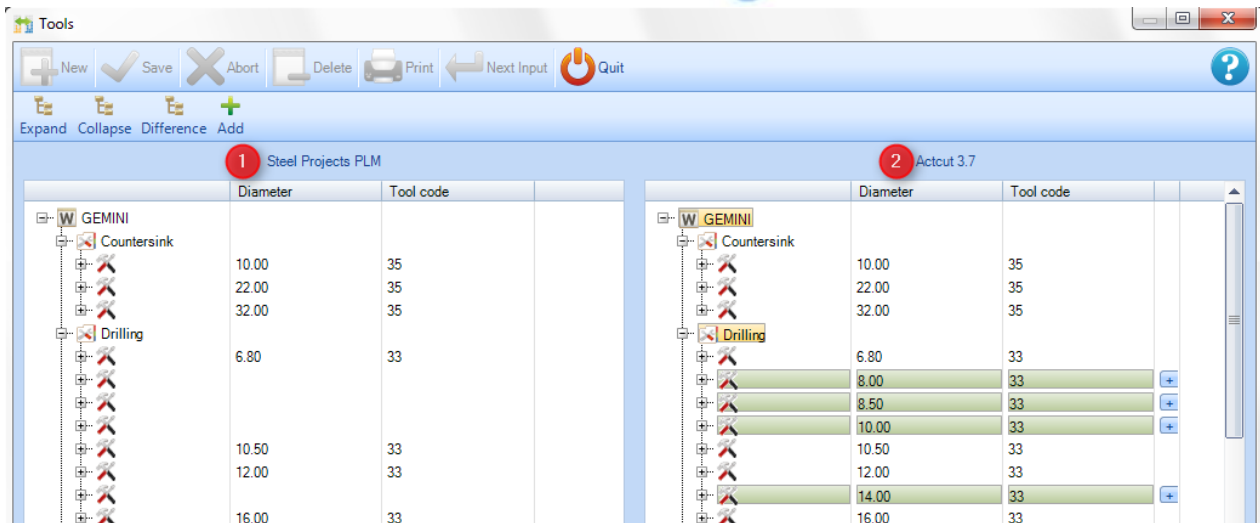
Resource Editor Window



Click Resource Editor to access more information

Tools window

When accessing the tools window it is possible to compare to tools on 1 SP.PL.M and 2 Resource Editor



The tools that the software has found in the Resource Editor and are not present in SP.PLM are represented with green color.



By clicking the **Add** icon you can automatically add this tools into SP.PLM. Then you have to press



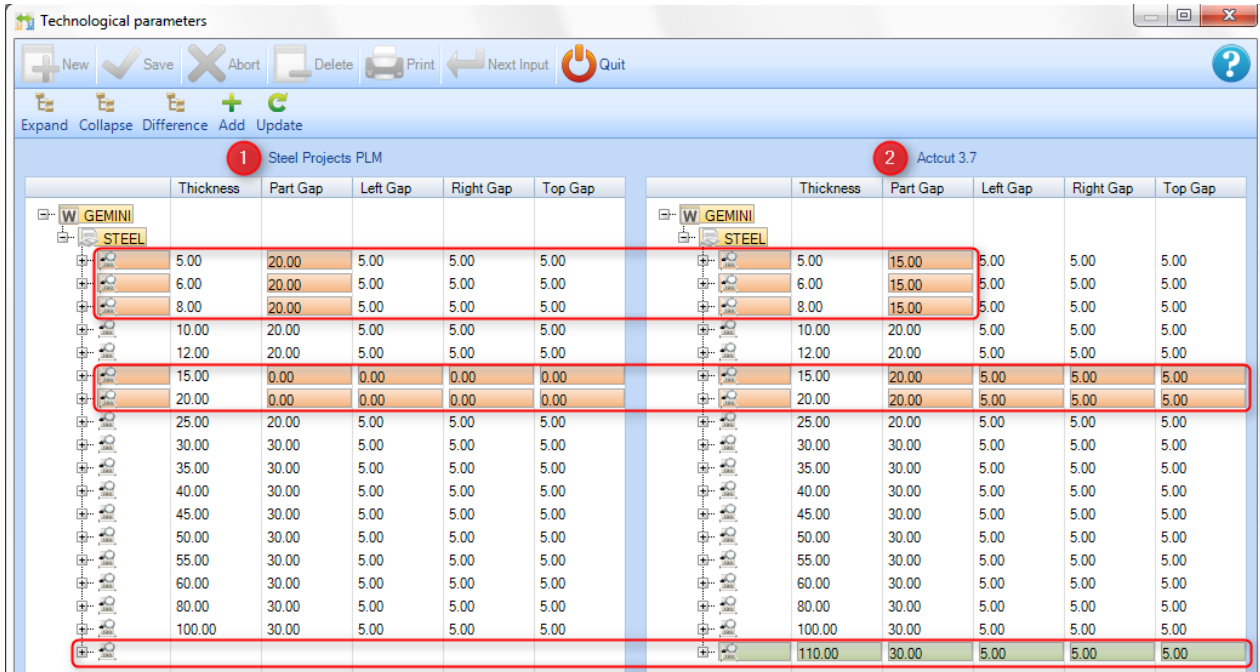
Ok to validate before closing the window.

Technological parameters window

Same rules as tool comparison.



SP.PLM and

Resource Editor





Steel Projects PLM						Actcut 3.7					
	Thickness	Part Gap	Left Gap	Right Gap	Top Gap		Thickness	Part Gap	Left Gap	Right Gap	Top Gap
W GEMINI						W GEMINI					
STEEL						STEEL					
	5.00	20.00	5.00	5.00	5.00		5.00	15.00	5.00	5.00	5.00
	6.00	20.00	5.00	5.00	5.00		6.00	15.00	5.00	5.00	5.00
	8.00	20.00	5.00	5.00	5.00		8.00	15.00	5.00	5.00	5.00
	10.00	20.00	5.00	5.00	5.00		10.00	20.00	5.00	5.00	5.00
	12.00	20.00	5.00	5.00	5.00		12.00	20.00	5.00	5.00	5.00
	15.00	0.00	0.00	0.00	0.00		15.00	20.00	5.00	5.00	5.00
	20.00	0.00	0.00	0.00	0.00		20.00	20.00	5.00	5.00	5.00
	25.00	20.00	5.00	5.00	5.00		25.00	20.00	5.00	5.00	5.00
	30.00	30.00	5.00	5.00	5.00		30.00	30.00	5.00	5.00	5.00
	35.00	30.00	5.00	5.00	5.00		35.00	30.00	5.00	5.00	5.00
	40.00	30.00	5.00	5.00	5.00		40.00	30.00	5.00	5.00	5.00
	45.00	30.00	5.00	5.00	5.00		45.00	30.00	5.00	5.00	5.00
	50.00	30.00	5.00	5.00	5.00		50.00	30.00	5.00	5.00	5.00
	55.00	30.00	5.00	5.00	5.00		55.00	30.00	5.00	5.00	5.00
	60.00	30.00	5.00	5.00	5.00		60.00	30.00	5.00	5.00	5.00
	80.00	30.00	5.00	5.00	5.00		80.00	30.00	5.00	5.00	5.00
	100.00	30.00	5.00	5.00	5.00		100.00	30.00	5.00	5.00	5.00
							110.00	30.00	5.00	5.00	5.00

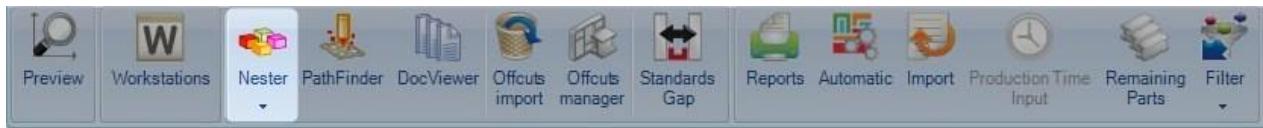
The thickness which values are different are represented in red color.

By clicking the  icon you can automatically update this values into SP.PLM. Then you have to press  to validate before closing the window.

The thickness that software has found in Resource Editor and are not present in SP.PLM are represented with green color.

By clicking the  icon you can automatically add this tools into SP.PLM. Then you have to press  to validate before closing the window.

Nester



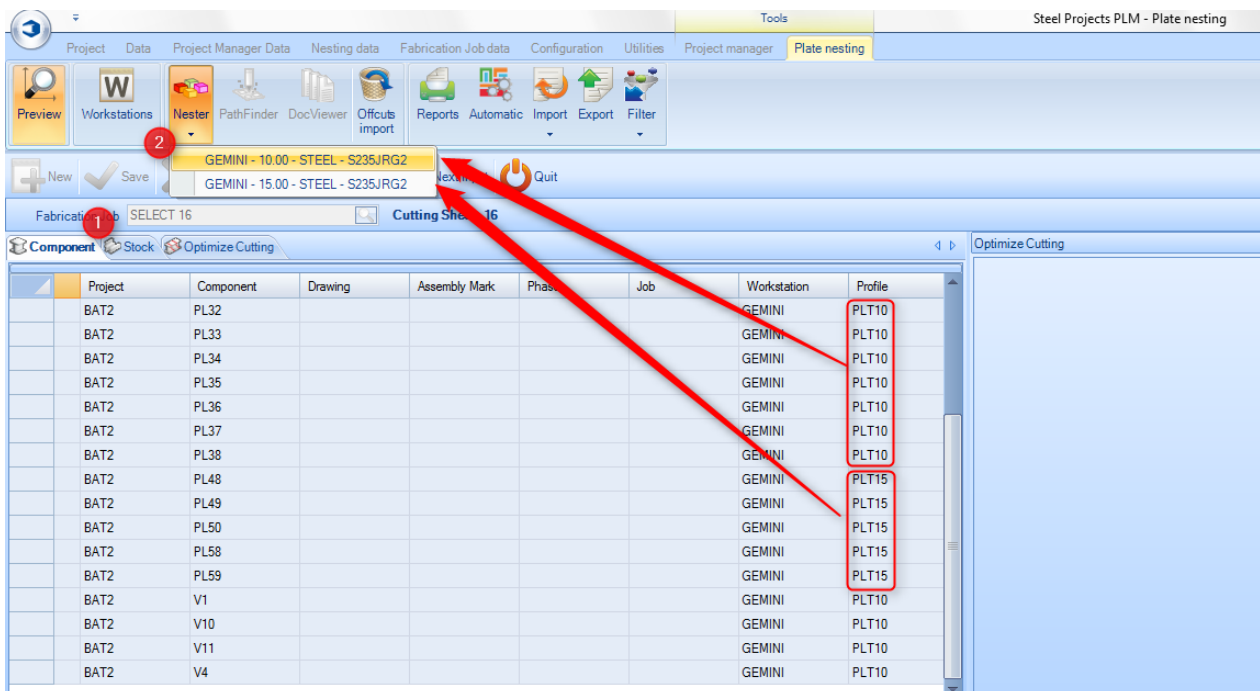
Nester: the 1st step for manual plate nesting



Pressing the  icon will automatically open the Nester module.

It is possible to send many different parts to the Plate Nesting module, different thickness and different material grades will be managed separately as well as it is not possible to manage the whole parts into one plate.

In this case, the software will offer us many different nesting possibilities and we may choose the one we want to nest.



1

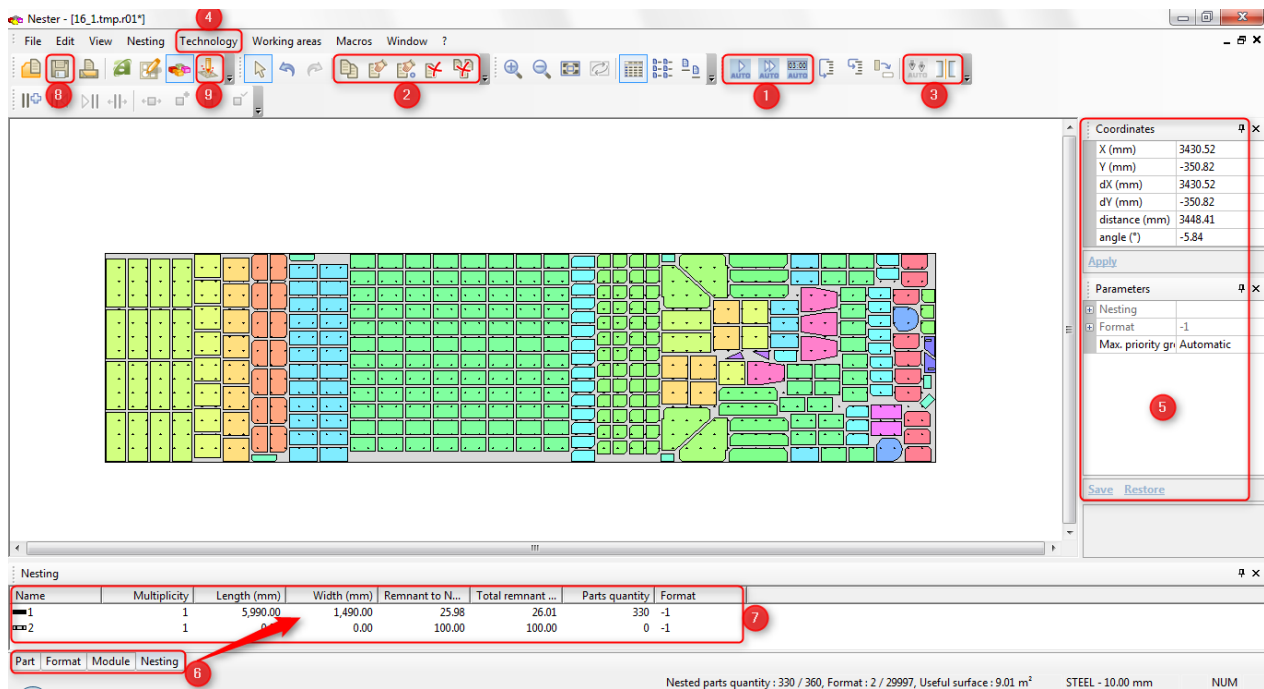
Check component and stock before starting

2

If there are various thickness's and/or grades, select a nesting to start Nester

Selecting a nesting will open the Nester module.

Nester: description



- 1 Automatic positioning parts options
- 2 Manual positioning parts options
- 3 Double torch and common cut options
- 4 Menu for managing cutting lines
- 5 Coordinates and parameters menu
- 6 Under-tabs
- 7 Under-tabs screen menu
- 8 Save icon
- 9 Go directly to pathfinder (without going back to SP.PLM)



By clicking the icons, it is possible to position parts automatically into 1 plate, automatically into all the necessary plates and automatic positioning with a limit of time for calculation.



By using these icons, it is possible to select to part we want, to move, to copy, delete one part, delete all (in one plate) or positioning with precision.

1° rotation	1 (Pave num.)
5° rotation	5 (Pave num.)
30° rotation	T
45° rotation	Q
90° rotation	9 (Pave num.)
Reverse rotation	- (Pave num.)


These are the short cuts to rotate parts when selected.

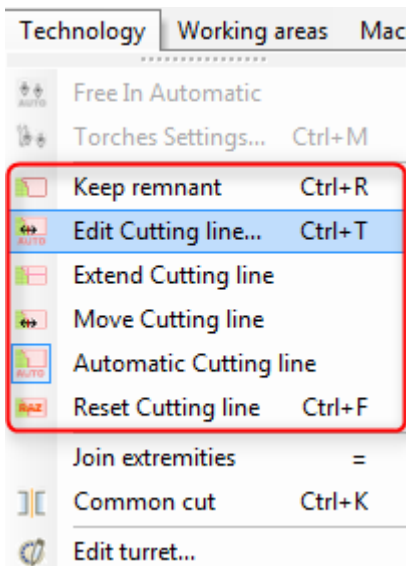


Double torch mode or common cut mode icons, they may be selected before positioning parts (automatic or manual)

Name	Multiplicity	Length (mm)	Width (mm)	Remnant to N...	Total remnant ...	Parts quantity	Format
Part 1	1	5,990.00	1,490.00	25.98	26.01	330	-1
Part 2	1	0.00	0.00	100.00	100.00	0	-1
Part 3	1	0.00	0.00	100.00	100.00	0	-1

By clicking on the tabs it is possible to see the available options

- Part: we see remaining parts to nest
- Format: we can take a new format by double clicking on the  icon
- Nesting: we see the different plates already nested (also by double clicking on them)



Remnant (cutting line) is automatically added if possible, it can be removed, modified or reset by using the "Technology" options



Save icon, when Nester completed, click save and close or close de window and save

After closing the Nester module, the result is available in optimize cutting tab as following:

Steel Projects PLM - Plate nesting

Project Data Project Manager Data Nesting data Fabrication Job data Configuration Utilities Project manager **Plate nesting**

Preview Workstations Nester PathFinder DocViewer Offcuts import Reports Automatic Import Export Filter

New Save Abort Delete Print Next Input Quit

Fabrication Job SELECT 16 Cutting Sheet 16

Component Stock **Optimize Cutting**

Bar N°	Profile	Material Grade	Treatment	Workstation	Quantity	Length
1	PLT10	S235JRG2		GEMINI	1	6000.00

Optimize Cutting

General

Quantity

Comment

Workstation

Profile

Material Grade

Treatment

Length mm

Width mm

Warehouse

Storage location

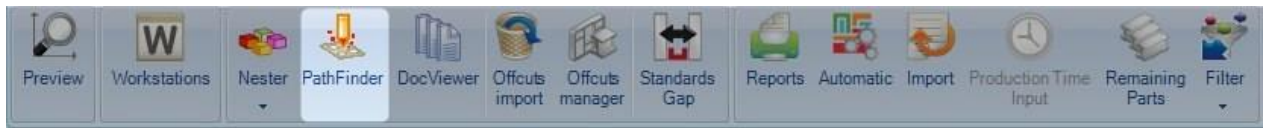
Composition

General

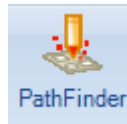
Outils

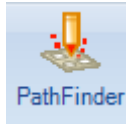
General Optimize Cutting

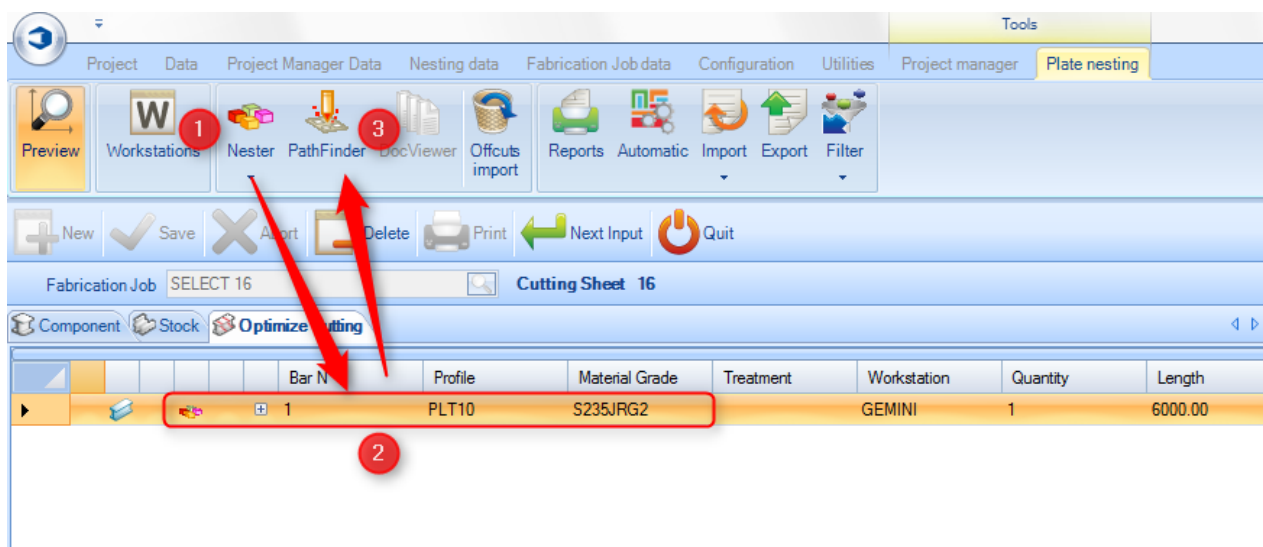
Pathfinder



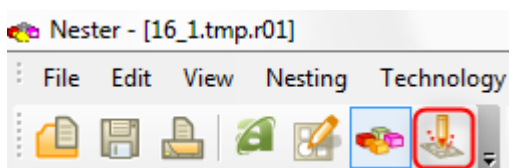
Pathfinder: the 2nd step for manual plate nesting

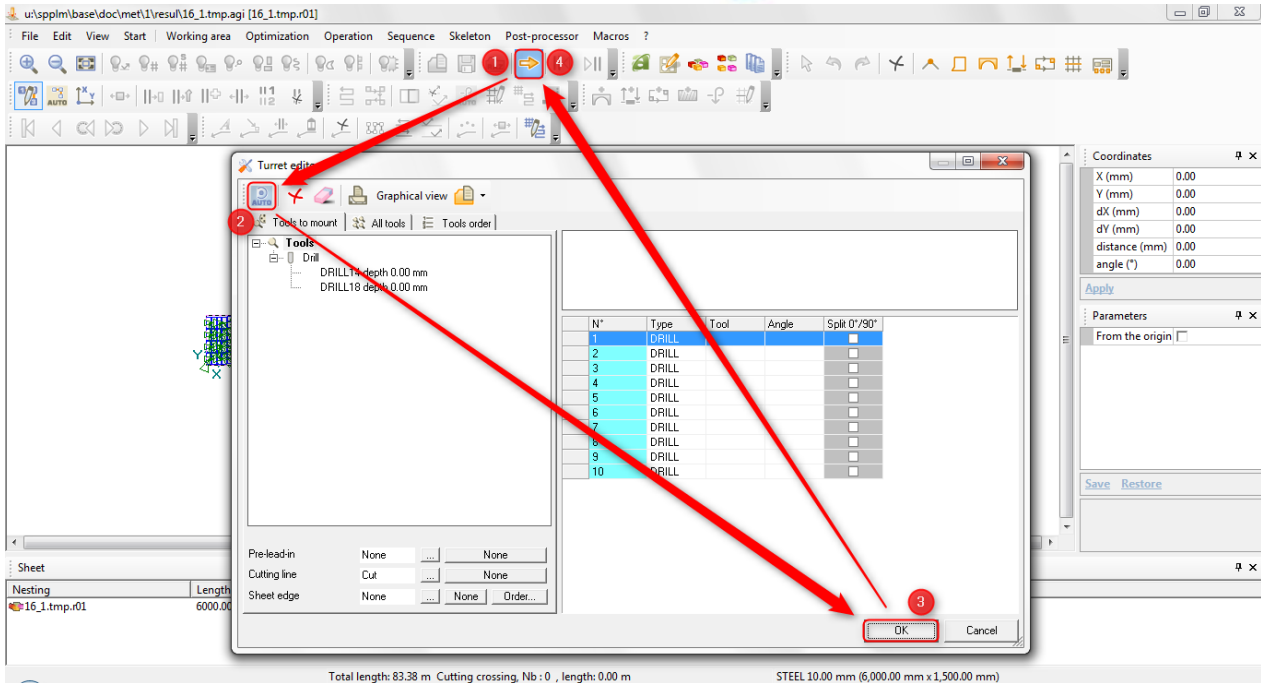


Selecting an optimized cutting and pressing the  icon will automatically open the Nester module.

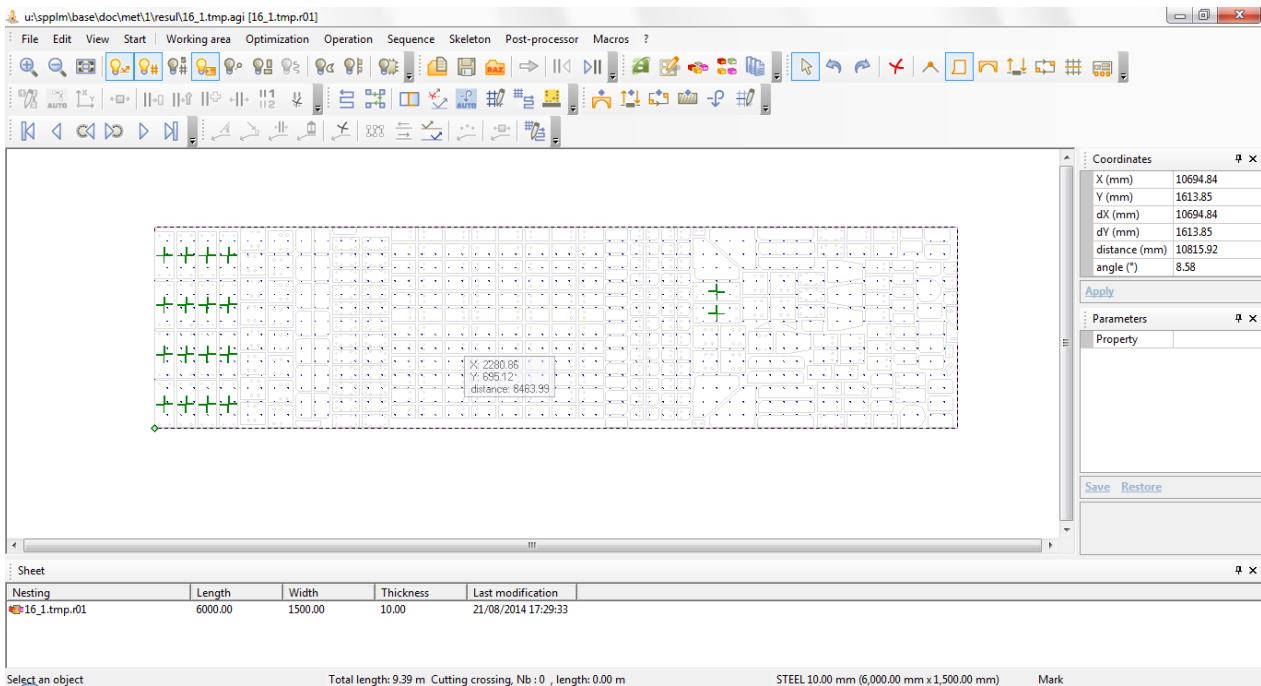


It is also possible to open Pathfinder from Nester by clicking the  icon





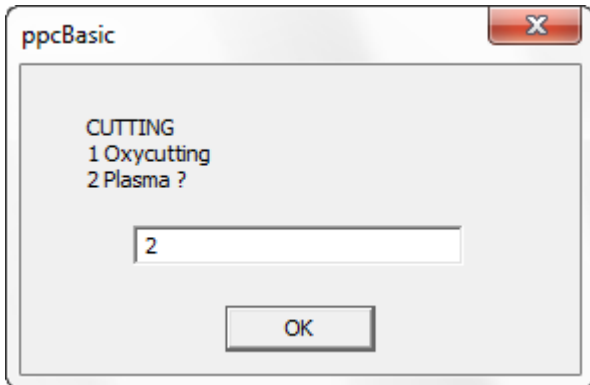
- 1 Check component, tools, and stock before starting
- 2 If many possibilities, select a Auto to start Nester



Selecting a nesting will open the Nester module.



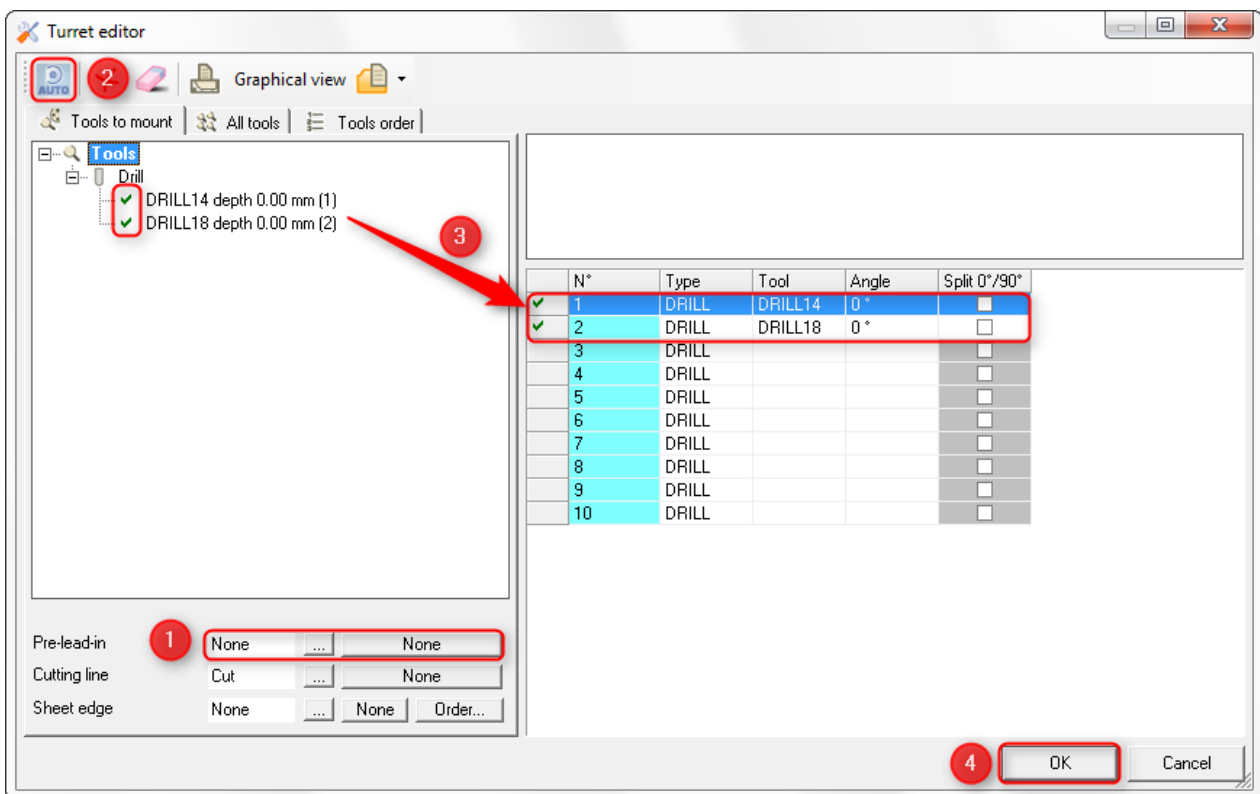
Save icon, when Pathfinder has finished, click save



select next plate to complete pathfinder, or close

This window will appear. Select your cutting mode and

Turret: description



1

Automatic positioning parts options

2

Manual positioning parts options

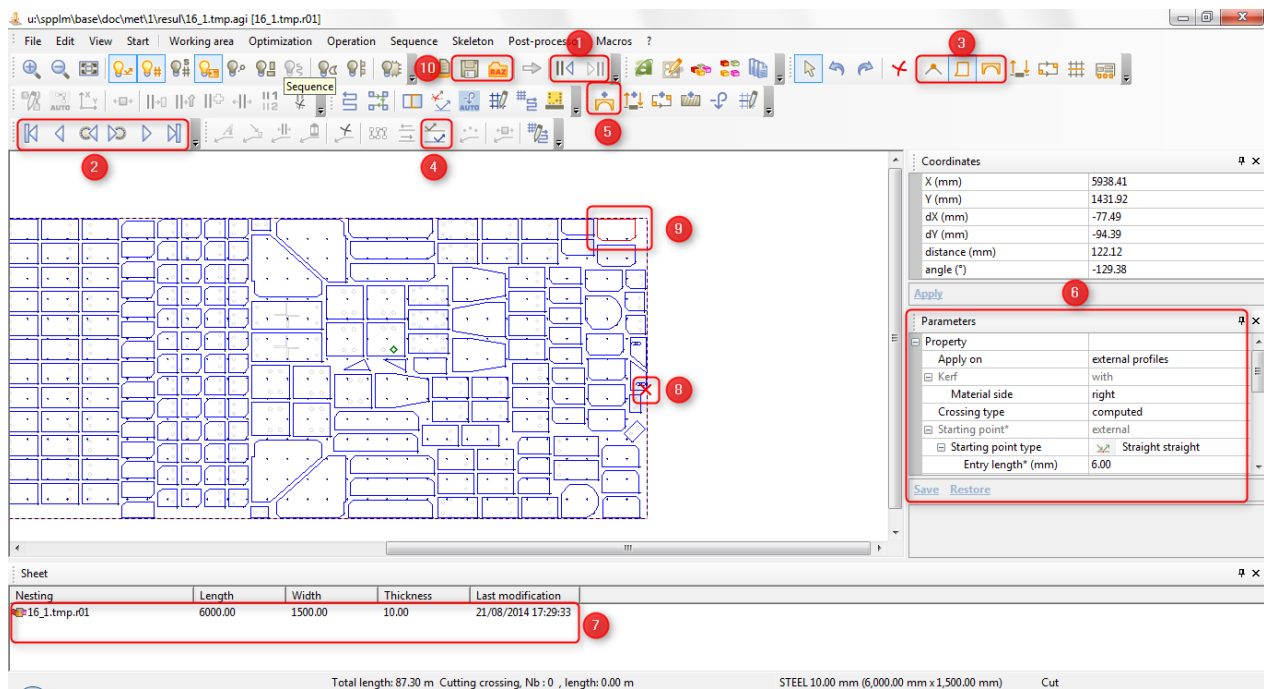
3

Double torch and common cut options

4

Menu for managing cutting lines

Pathfinder: description



- 1 Automatic positioning parts options
- 2 Manual positioning parts options
- 3 Double torch and common cut options
- 4 Menu for managing cutting lines
- 5 Coordinates and parameters menu
- 6 Under-tabs
- 7 Under-tabs screen menu
- 8 Save icon
- 9 Go directly to pathfinder (without going back to SP.PLM)

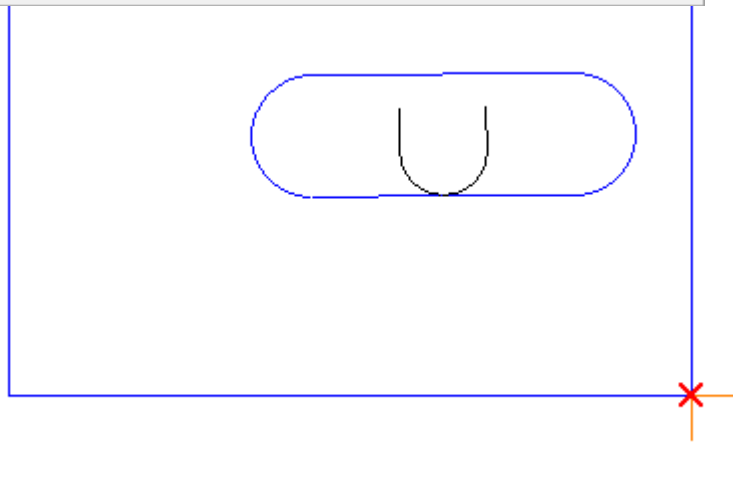




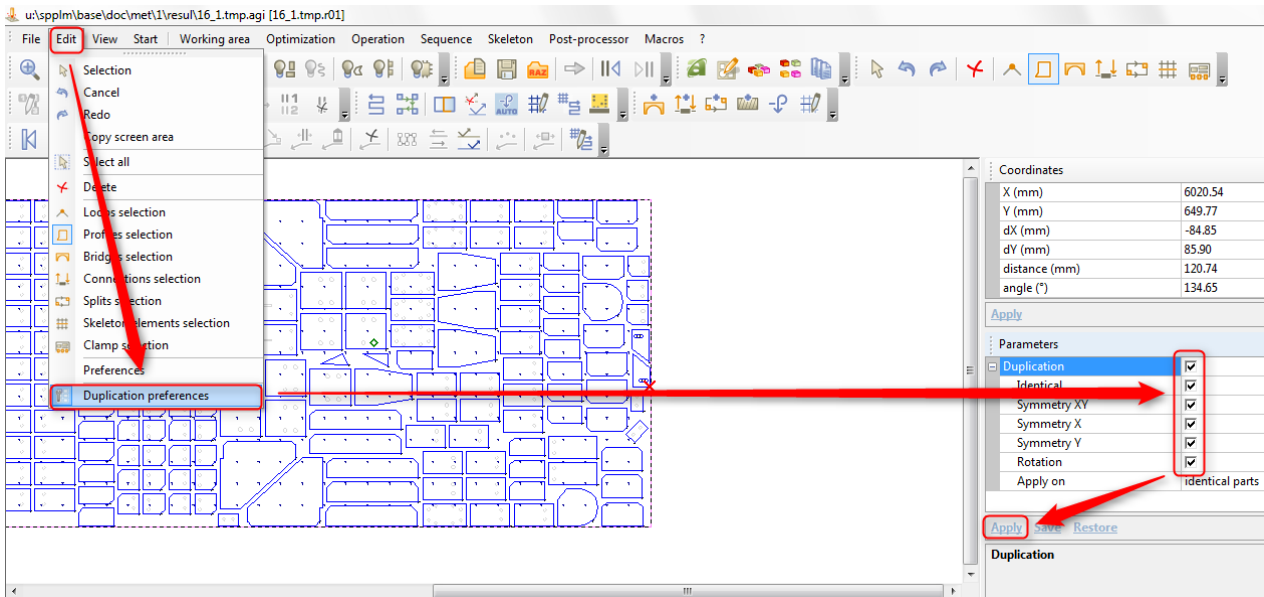
Parameters ⌵ ×

Property	
Apply on	external profiles
<input checked="" type="checkbox"/> Kerf	with
Material side	right
Crossing type	computed
<input checked="" type="checkbox"/> Starting point*	external
<input checked="" type="checkbox"/> Starting point type	Straight straight
Entry length* (mm)	6.00

[Save](#)
[Restore](#)



Duplication parameters



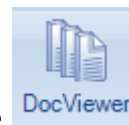
Remnant (cutting line) is automatically added if possible, it can be removed, modified or reset by using the "Technology" options

Created with the Personal Edition of HelpNDoc: [Single source CHM, PDF, DOC and HTML Help creation](#)

DocViewer

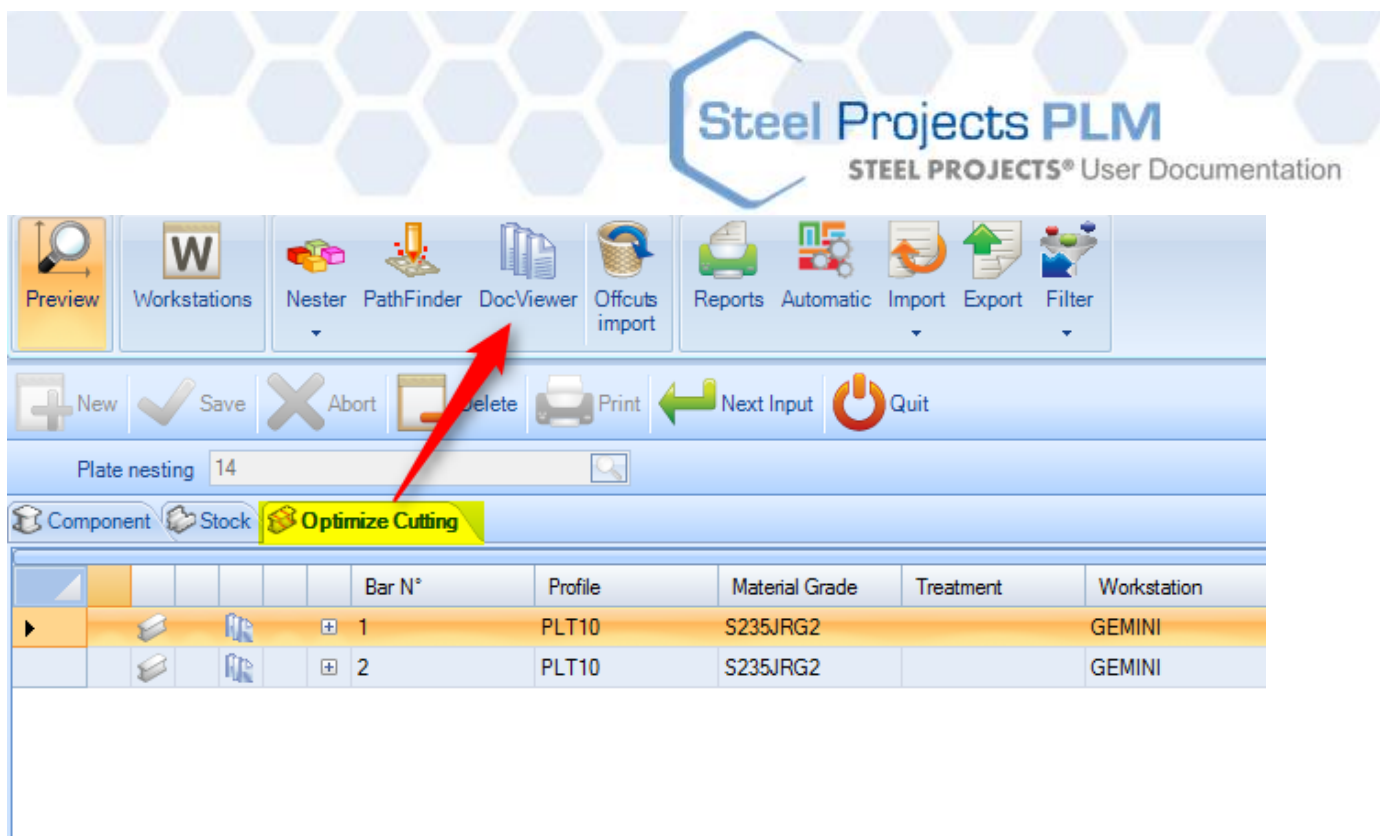


DocViewer: the 3th step for manual plate nesting



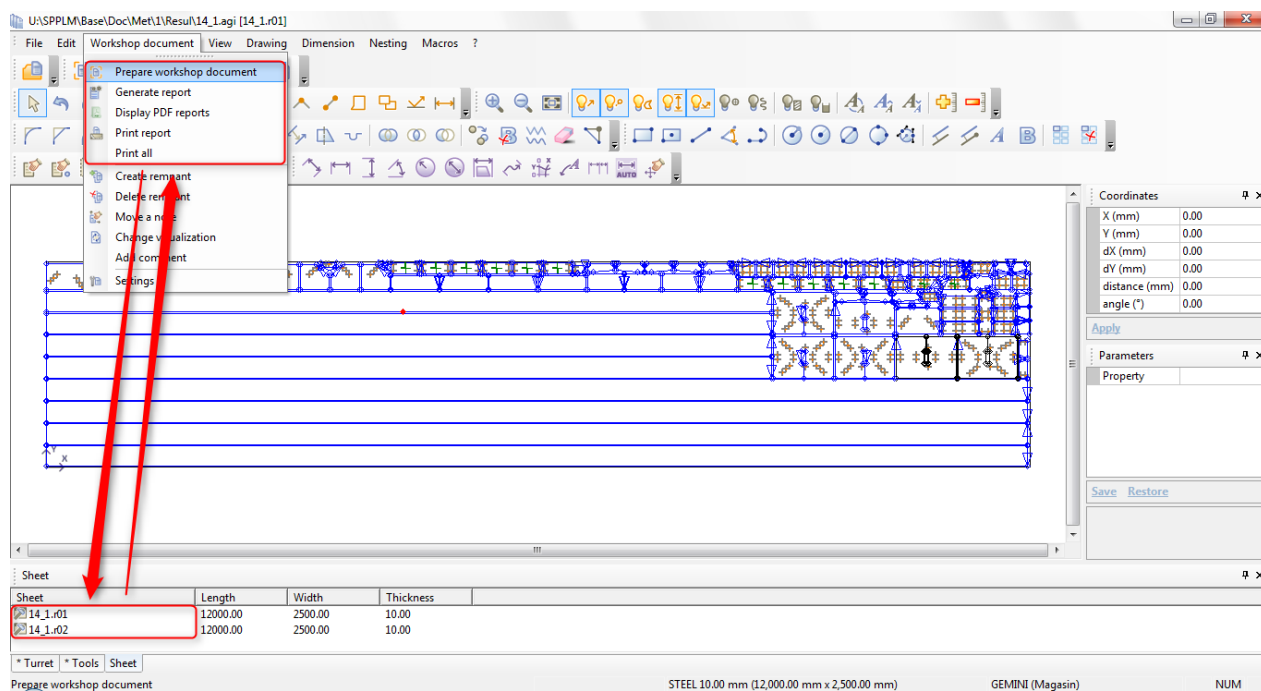
After completing Nester and Pathfinder, by pressing the DocViewer icon you will access to the DocViewer module. The icon is only available when Nester and pathfinder completed

(Optimize cutting tab must be also selected)



When DocViewer module window appears, you should select one of the following options to view or print one or more reports (for one or more plates).

Depending the selected option, the process may be repeat after selecting a different plate on the bottom left window.



The machine report is accessible (may take time to generate) via the pdf viewer.



Report description

14_1_02.pdf - Adobe Reader

Fichier Edition Affichage Fenêtre Aide

1 / 5 69.5%

Outils Commentaire

alma 14_1-02.FNC

Nesting name 14_1.R02
Machine GEMINI

NC program no. 14
Nesting no. 2 / 2

Dimensions 12000 X 2500 X 10 mm
Weight 2355.0 kg
Identifier 11
Material
Remnant

Useful dims. 6460 X 2500 mm
Multiplicity 1
Total waste 62.07 %
Front Remnant 29.38 %
EFFICIENCY

Rapid crossings 521.628 m 00:04:29
length
Nb markings 14
Marking length 3.360 m 00:01:07
Nb starting points 238 00:24:16
Cutting length 372.149 m 03:06:04
Nb pos/neg bridges 0 / 0
Nibbling length 0.000 m 00:00:00
Nb punches (nib) 1174 00:00:00
Nb tool changes 4 00:01:00
Nb repositionings 0 00:00:00
Nb trap doors 0 00:00:00
Nb stops 0 00:00:00
Machining time 03:36:56

MACHINING TIME

CLAMPS

Name	Dimensions	Angle	Position
DRILL12-TS33	12 X 8 mm	0.0	2/0/0
DRILL14-TS33	14 X 8 mm	0.0	2/0/0
DRILL18-TS33	18 X 8 mm	0.0	2/0/0
SCREWING	8 X 8 mm	0.0	2/0/0

TOOLS

14_102_01.dpr

PARTS LIST

No.	Name	Qty	Reference	Dimensions	Surface	Weight
1	9048255b- ce9f-4422-b614- fe4efcd3a99	3	BAT2 PL2	170 X 200 mm	0.034 m²	2.7 kg
2	8eae802-3300-478a-1- ba5c-2404372b9053	1	BA12 PL2	209 X 80 mm	0.037 m²	1.3 kg
3	09ae956e- c38d-4bb2-8734- f638e46533e	8	BAT2 V5	346 X 310 mm	0.076 m²	6.0 kg
4	e06e502a-8f14-4572-1- 5cc0e146-6a87-4366-4	1	BA12 PL3	209 X 80 mm	0.037 m²	1.3 kg
5	72e29724- f11f-4d6d-989e-0a30	14	BAT2 V2	334 X 102 mm	0.031 m²	2.4 kg
6	ed0dc29f-331c-4d6c-8-1	1	BA12 PL37	186 X 166 mm	0.031 m²	2.4 kg
7	8208e6c051- 92b-46c7-5841-41a1-28	1	BA12 PL3	150 X 150 mm	0.022 m²	1.8 kg
8	1835d7f1-6a9c-4d8d-2	2	BAT2 V4	160 X 80 mm	0.013 m²	1.0 kg
9	a945-1f0e9d909e	2	BAT2 PL44	190 X 111 mm	0.021 m²	1.7 kg
10	68a24c1-5181-4611-2	2	BA12 PL1	190 X 100 mm	0.019 m²	1.5 kg
11	6cc03641-1180-437e-11	1	BA12 PL38	186 X 166 mm	0.031 m²	2.4 kg
12	9ae2c369-3123-436f-1	1	BA12 GY4	730 X 600 mm	0.219 m²	17.2 kg
13	a971-29d0847d68dc 07f03880-b54c-445f-12- a8fa-033ae772e50	1	BA12 PL36	186 X 117 mm	0.021 m²	1.7 kg

Aug 21, 2014 3:16 PM

- 1 Put your own logo (more information here)
- 2 Nesting name, file name and machine name
- 3 Stock data
- 4 Estimated time
- 5 Necessary tools the operator needs to prepare before executing the nesting on the machine
- 6 Name of the created offcut (if created)
- 7 Part list and description

The second page of the report will offer parts preview.

14_1_02.pdf - Adobe Reader

Fichier Edition Affichage Fenêtre Aide

3 / 5 69.5%

Outils Commentaire

alma 14_1-02.FNC

Nesting name Machine 14_1.R02 GEMINI NC program no. 14 Nesting no. 2 / 2

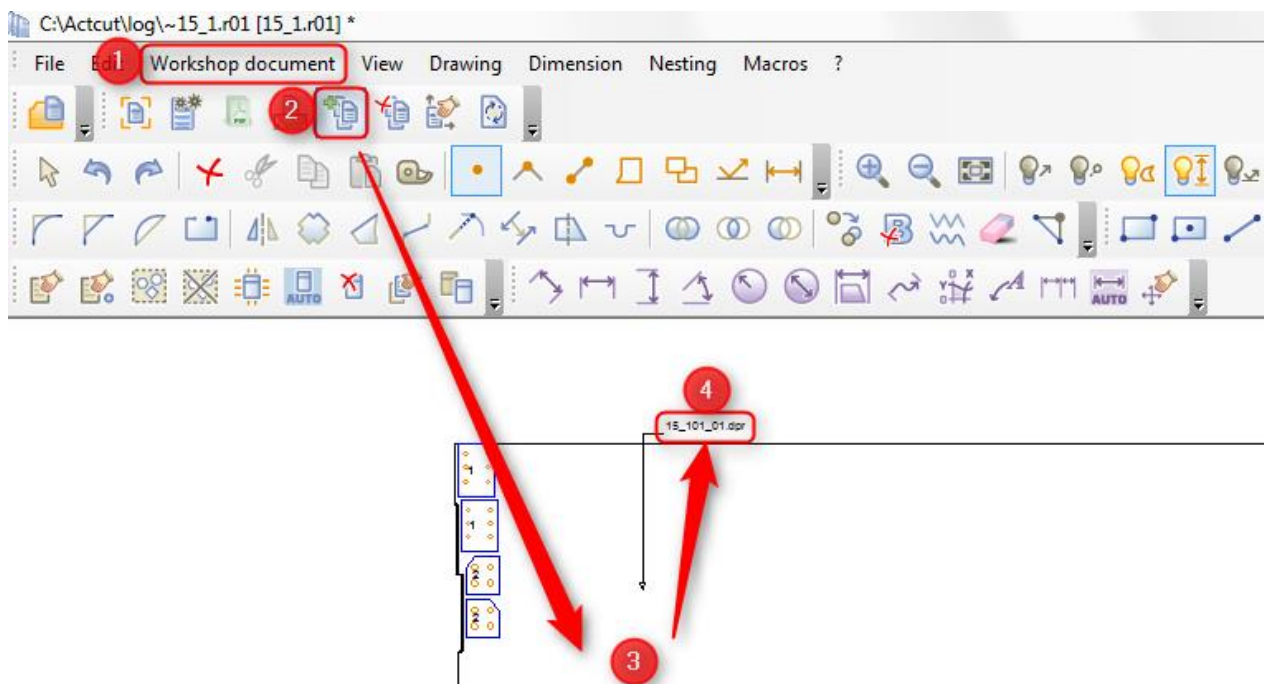
PARTS DETAILS			PARTS DETAILS			PARTS DETAILS		
Name: 9b48259b-ca9f-4422-b614-f4e4cf3ad9	Reference: BAT2 PL2	No. 1 Qty 1 Dimensions 170 X 200 mm Perimeter 540 mm Surface 0.034 m² Weight 2.7 kg Time 00:00:27	Name: 94cc3db1-d9c0-47ad-9e04-6448ba2c840	Reference: BAT2 PL41	No. 18 Qty 1 Dimensions 572 X 80 mm Perimeter 2538 mm Surface 0.023 m² Weight 1.8 kg Time 00:00:44	Name: d55dad5-4dbd-42ba-ba72-cfb0639552a	Reference: BAT2 PL13	No. 35 Qty 1 Dimensions 90 X 55 mm Perimeter 290 mm Surface 0.005 m² Weight 0.4 kg Time 00:00:18
Name: 8a0e8f02-3300-478a-befc-240437b09053	Reference: BAT2 PL2	No. 2 Qty 2 Dimensions 209 X 50 mm Perimeter 579 mm Surface 0.017 m² Weight 1.3 kg Time 00:00:21	Name: 0027e134-a952-4804-97c5-d96aa3123d4c	Reference: BAT2 Q77	No. 19 Qty 1 Dimensions 730 X 375 mm Perimeter 2657 mm Surface 0.266 m² Weight 20.9 kg Time 00:01:47	Name: aab97265-6d17-429f-8a2c-48e133833864	Reference: BAT2 PL29	No. 36 Qty 2 Dimensions 292 X 153 mm Perimeter 1078 mm Surface 0.027 m² Weight 2.1 kg Time 00:00:39
Name: bbe9050e-c38d-4bb2-8734-f4c9bc4e539c	Reference: BAT2 V5	No. 3 Qty 8 Dimensions 346 X 310 mm Perimeter 1147 mm Surface 0.076 m² Weight 6.0 kg Time 00:00:41	Name: f478e758-9d56-45ba-a22e-1690d7270a7	Reference: BAT2 PL6	No. 20 Qty 10 Dimensions 170 X 91 mm Perimeter 522 mm Surface 0.012 m² Weight 1.2 kg Time 00:00:19	Name: 5c58ad4-0817-40d3-ae68-9a5ed863127c	Reference: BAT2 PL12	No. 37 Qty 1 Dimensions 100 X 190 mm Perimeter 580 mm Surface 0.019 m² Weight 1.4 kg Time 00:00:23
Name: a06e505a-8f14-4572-9ee5-3321b157a9d5	Reference: BAT2 PL1	No. 4 Qty 1 Dimensions 209 X 80 mm Perimeter 579 mm Surface 0.017 m² Weight 1.3 kg Time 00:00:21	Name: 13176345-4687-47bc-9aa5-3d0cdeb0b7c3	Reference: BAT2 PL47	No. 21 Qty 30 Dimensions 200 X 200 mm Perimeter 1216 mm Surface 0.025 m² Weight 2.3 kg Time 00:00:44	Name: 7b3b171b-391d-43d3-90b3-f67029f5d9f	Reference: BAT2 PL26	No. 38 Qty 53 Dimensions 60 X 60 mm Perimeter 240 mm Surface 0.003 m² Weight 0.2 kg Time 00:00:11
Name: 9c0de14b-6a87-43bd-953a-a26a927737b0	Reference: BAT2 V2	No. 5 Qty 4 Dimensions 334 X 102 mm Perimeter 828 mm Surface 0.031 m² Weight 2.4 kg Time 00:00:39	Name: 349b167d-7100-4257-b0c5-b83e00330c3c	Reference: BAT2 PL4	No. 22 Qty 2 Dimensions 170 X 200 mm Perimeter 540 mm Surface 0.034 m² Weight 2.7 kg Time 00:00:27	Name: 679ba265-ba3d-4a5c-bc62-a322377017e	Reference: BAT2 PL14	No. 39 Qty 2 Dimensions 110 X 60 mm Perimeter 340 mm Surface 0.007 m² Weight 0.5 kg Time 00:00:12
Name: 72e69724-f31f-4b64-998a-0a3f0b0d51f	Reference: BAT2 PL37	No. 6 Qty 14 Dimensions 186 X 166 mm Perimeter 703 mm Surface 0.031 m² Weight 2.4 kg Time 00:00:25	Name: 484083fd-bac5-46d7-aa69-7a865a21af3c	Reference: BAT2 PL40	No. 23 Qty 2 Dimensions 112 X 96 mm Perimeter 412 mm Surface 0.011 m² Weight 0.8 kg Time 00:00:15	Name: c31d0cc1-a2a4-4291-b7a5-c853d8b77f65	Reference: BAT2 PL27	No. 40 Qty 4 Dimensions 130 X 100 mm Perimeter 460 mm Surface 0.013 m² Weight 1.0 kg Time 00:00:19


Aug 21, 2014 3:16 PM

Generating manually the offcut

Important:

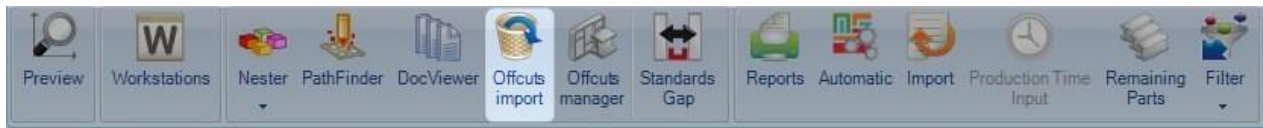
- If the cutting line (Nester) has been generated, the software will automatically generate an offcut (and automatic name it)
- If the cutting line (Nester) hasn't been generated, software will NOT generate an offcut. In some cases, it is possible to generate it manually and this is done on DocViewer module by following the next steps:



1. Generate the report as shown previously
2. Click the  icon
3. Click left and right mouse button on the offcut
4. Offcut name appears on the DocViewer module, the offcut can be used for next nestings

In this case the offcut name won't appear on the report, you should write it by yourself.

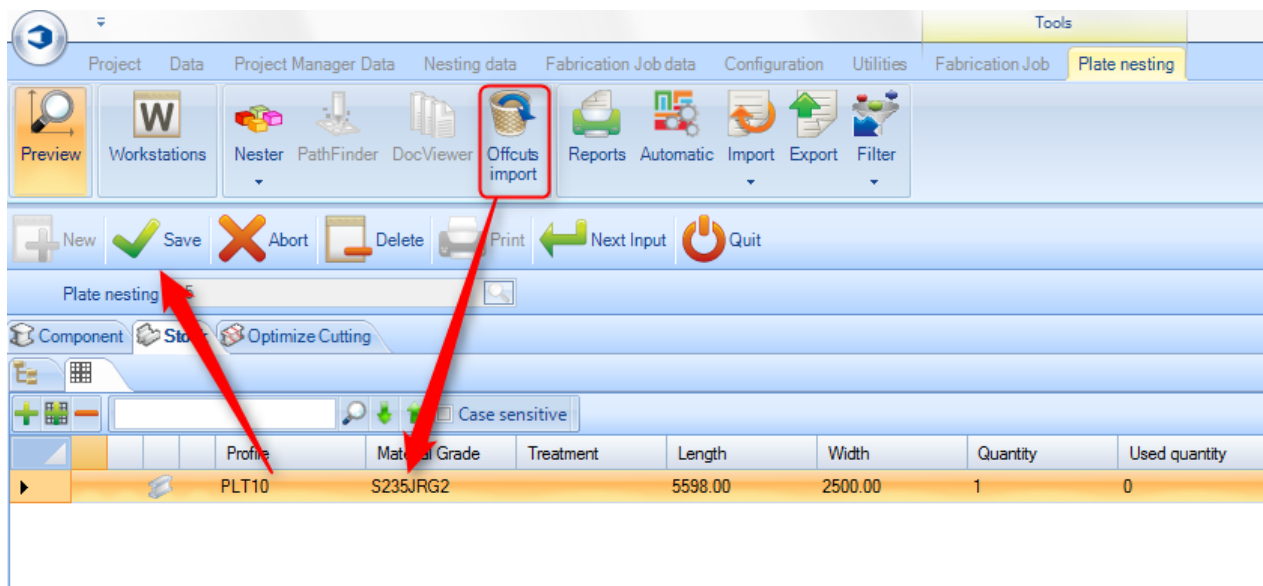
Offcuts import



Offcuts are automatically saved and managed by SP.PLM. after generation, it is possible to use them for future nest.



Pressing the icon will automatic load the saved offcuts into the stock tab, making them ready for use.



Offcuts Manager



Overview of existing offcuts

Same as [here](#), but without the possibility of adding a new offcut manually.

Standard Gaps



Temporary modification of gap between all parts of a nesting

In the workstation's parameters we imported the values of the gaps between the parts from the resource editor .

So, for each thickness / material code, the parts have a constant gap between them when being nested on a plate.

In our example, we defined a 20 mm gap between parts of 15mm STEEL :

General / Tooling / Parameters / Cut parameters / Hole parameters / Deliverable dimensions / Standards Gap							
Material code	Thickness	Part Gap	Left Gap	Right Gap	Top Gap	Bottom Gap	Common cut
STEEL	5.00 mm	15.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	6.00 mm	15.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.50 mm
STEEL	8.00 mm	15.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	10.00 mm	20.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	12.00 mm	20.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	15.00 mm	20.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	20.00 mm	20.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.10 mm
STEEL	25.00 mm	30.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	30.00 mm	35.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	35.00 mm	35.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	40.00 mm	40.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	45.00 mm	40.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	50.00 mm	40.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	55.00 mm	40.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	60.00 mm	40.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	80.00 mm	40.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm
STEEL	100.00 mm	40.00 mm	10.00 mm	10.00 mm	10.00 mm	10.00 mm	4.00 mm

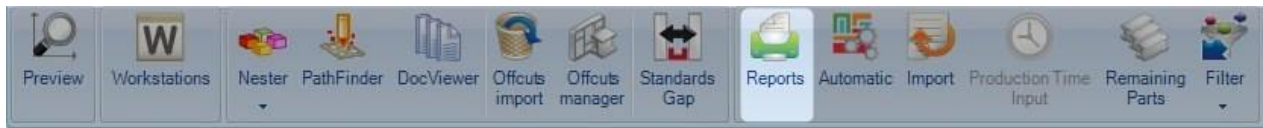
If we want to change this value for the current nesting only, press the Standard Gaps button, you can edit the following grid:

Workstation	Thickness	Material code	Part Gap
GEMINI	15.00 mm	STEEL	20.00 mm

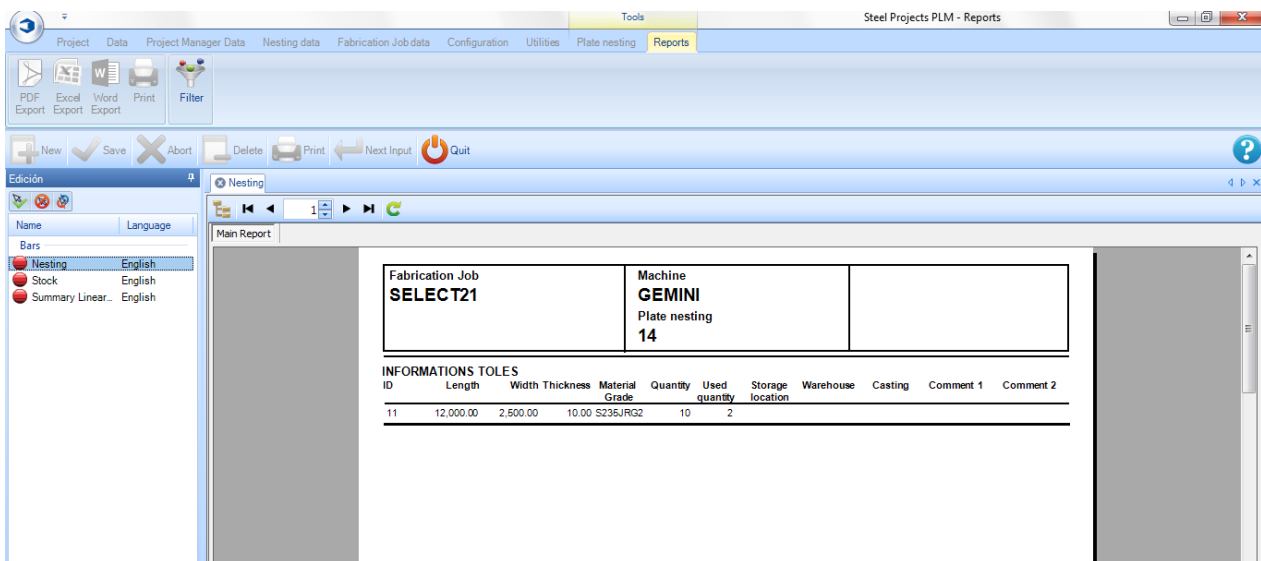
Workstation	Thickness	Material code	Part Gap
GEMINI	15.00 mm	STEEL	18.00 mm

⚠ Note that this change will affect all the parts (STEEL / 15mm) of the nesting, and has to be done **before** nesting the parts on a plate **⚠**

Report



Pressing the Reports option will open the reports module.




Automatic Plate Nesting




Automatic plate nesting: lets the software work in automatic mode

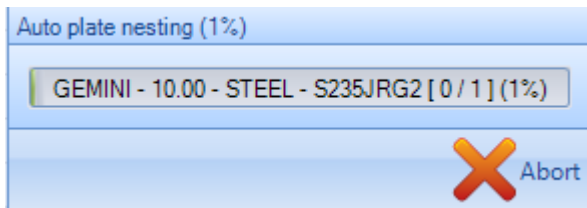


Pressing the  icon, will open the automatic nesting options screen. This tool will nest your components into your available stock \ purchasable lengths, with powerful algorithms prioritising either minimising scrap, remnants, or number of plates used.

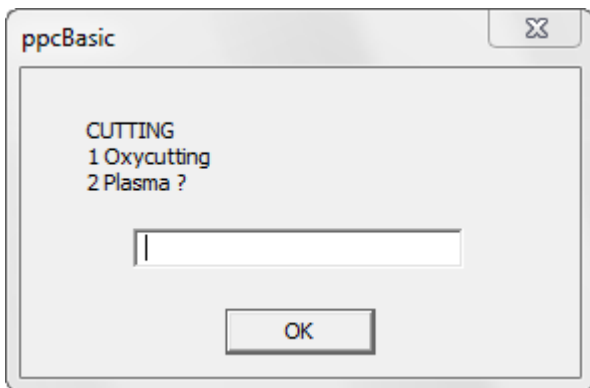


To use the automatic nester, simply press  and it will nest based on the option that you have setup.

You will see this window during the software time calculation:

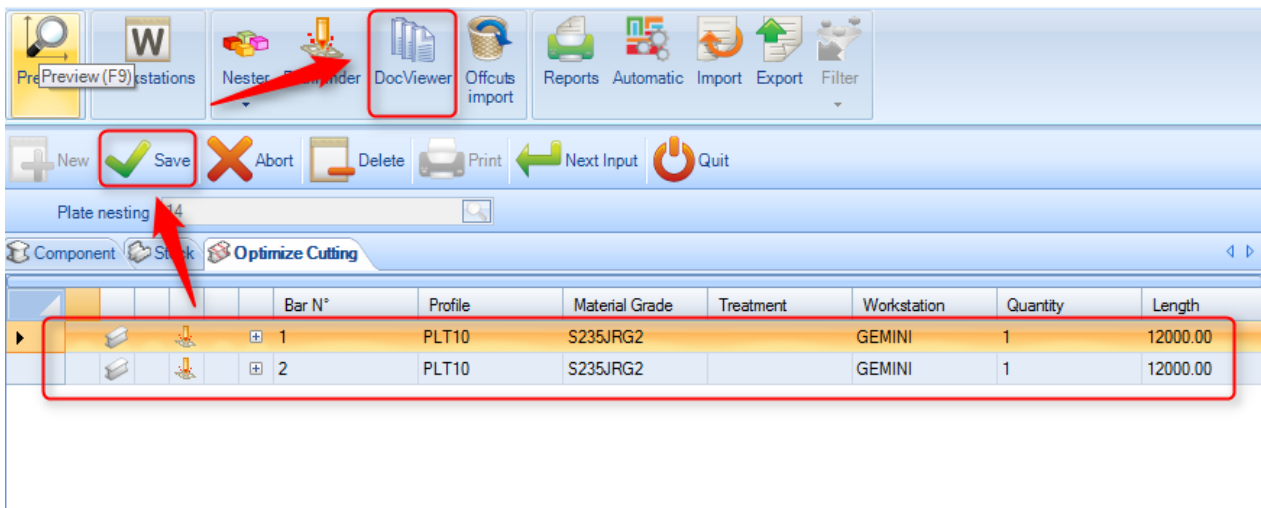


After this process you need to tell the software the cutting mode (plasma or oxy)



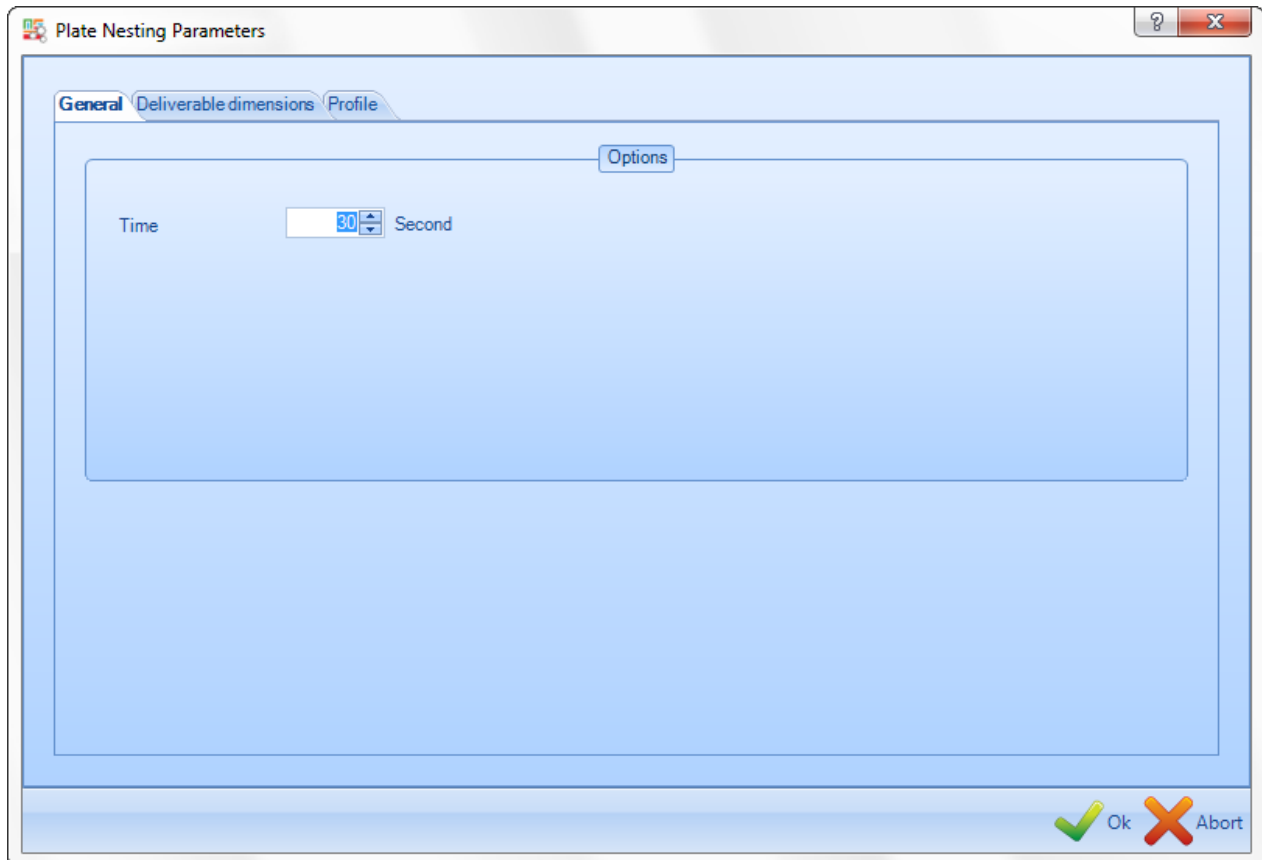
This information will need to be enter for each plate the software is creating.

You can now view the results of the nesting. You will still need to validate the result and use Docviewer to print the nester report.



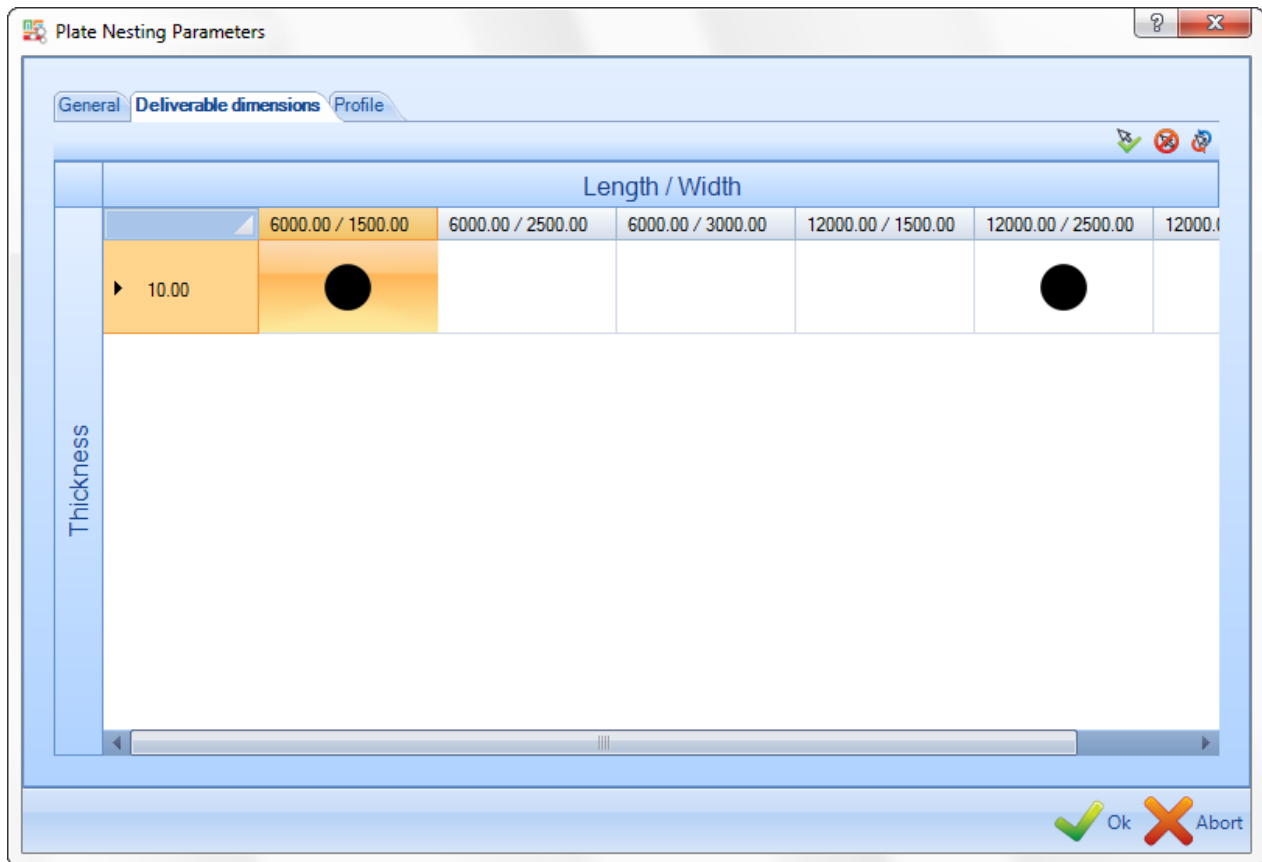
Automatic plate Nesting Options

General



On the general tab is possible to set the parameter maximum time spend by step (Nester and Pathfinder).

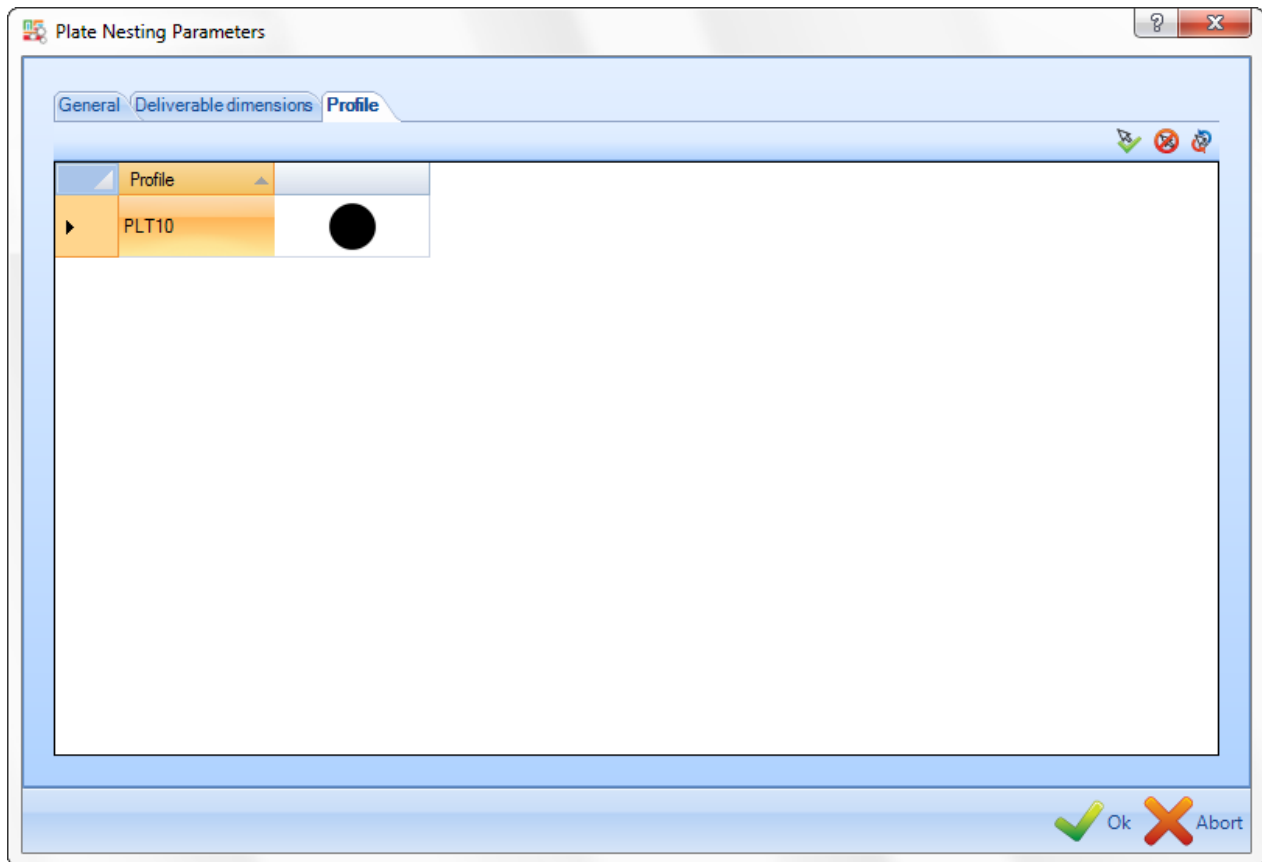
Deliverable dimensions




On the deliverable dimensions tab, you can select or deselect the commercial lengths you want to use for this particular nesting by double clicking on the black icon ●

If we already added some stock or offcuts this will be used in priority.

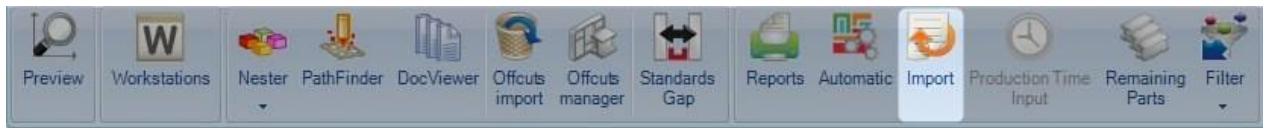
Profile



In case of multi-thickness nesting, we may choose the thickness(es) we want the software to nest.


Thickness can be selected or deselected by double clicking on the black icon  .

Import

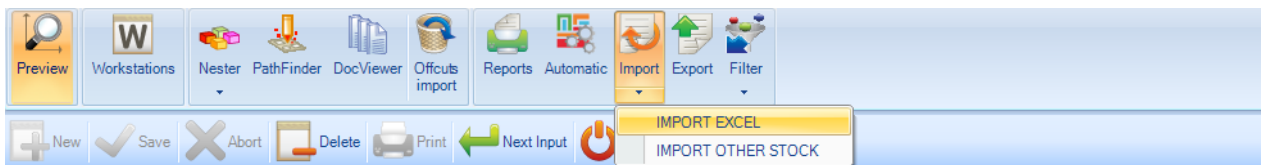


Import: is used for updating PLM stock using your own stock lists

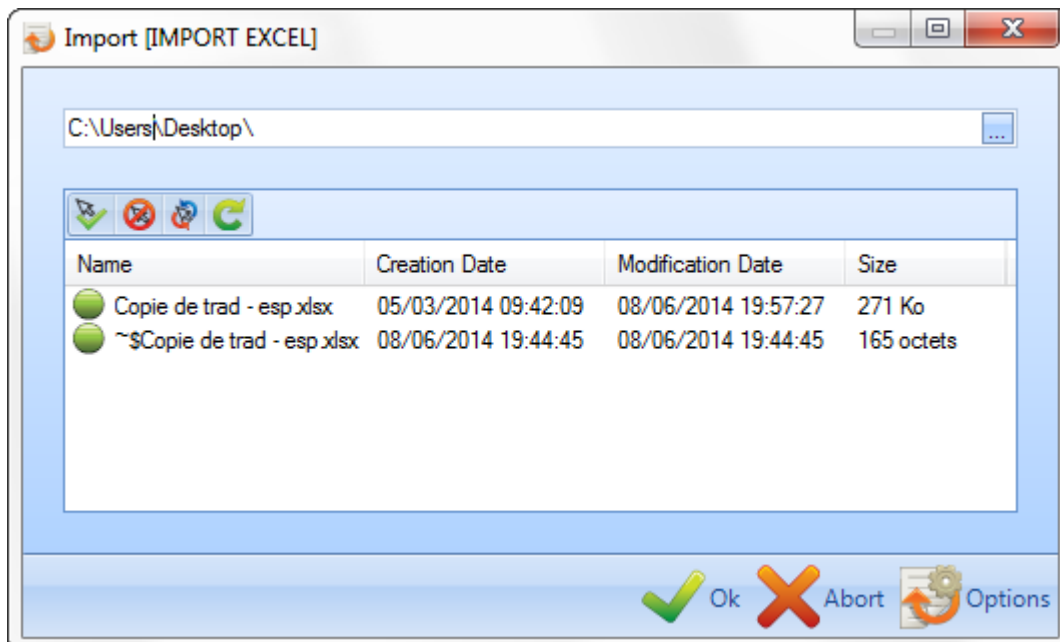



Pressing the  icon will open the stock import menu. This tool allows to import stock lists in excel or other formats.

If different imports are configured, we may click the arrow and select the import you want to use:






After this process you will see the available items on the default configured path.



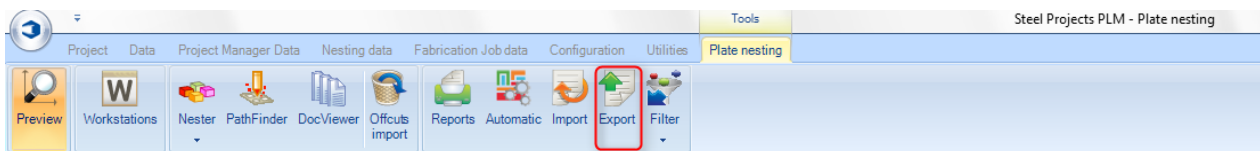
Once the files are found, select the files you want to import by double clicking on  or by using the next

bar menu  and press 

available stock will be automatically add to the stock nesting tab:

Component Stock Optimize Cutting								
		Profile	Material Grade	Treatment	Length	Width	Quantity	Used quantity
		PLT10	S235JRG2		12000.00	2500.00	10	2
		PLT10	S235JRG2		1500.00	1000.00	1	0
		PLT10	S235JRG2		2000.00	2000.00	1	0

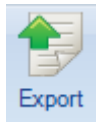
Export

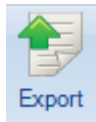


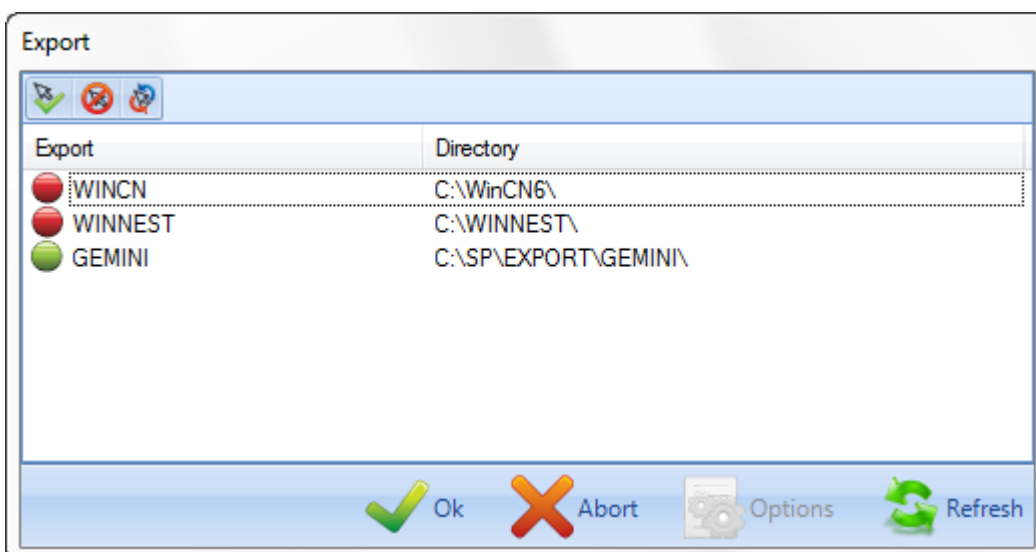
Export: in order to export CNC files to the machine, one of the options is to press the export icon when the work is ready.






This Icon is hidden when a production manager licence is active

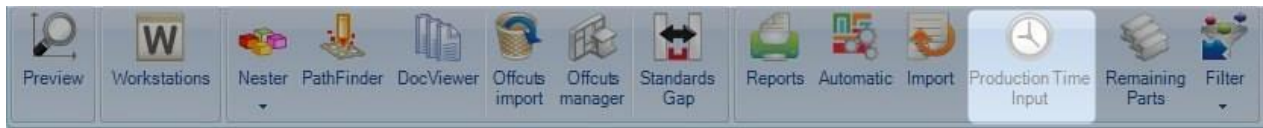


Pressing the  icon will open the export menu. After this a new window will appear with the available exports:

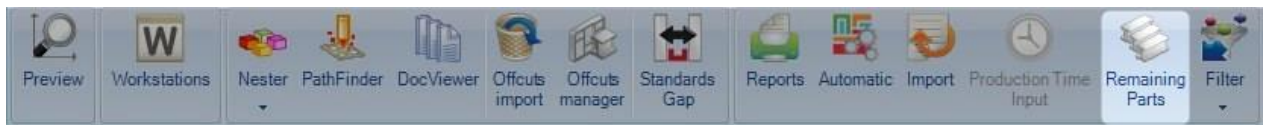


Choose the one(s) you want to use by double clicking on  or  icon and press  to export.

Production Time Input



Remaining Parts



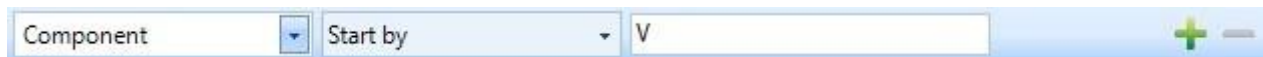
Remaining parts

When selected, the component list only displays the parts to be nested, not the ones already in plates.


Filter



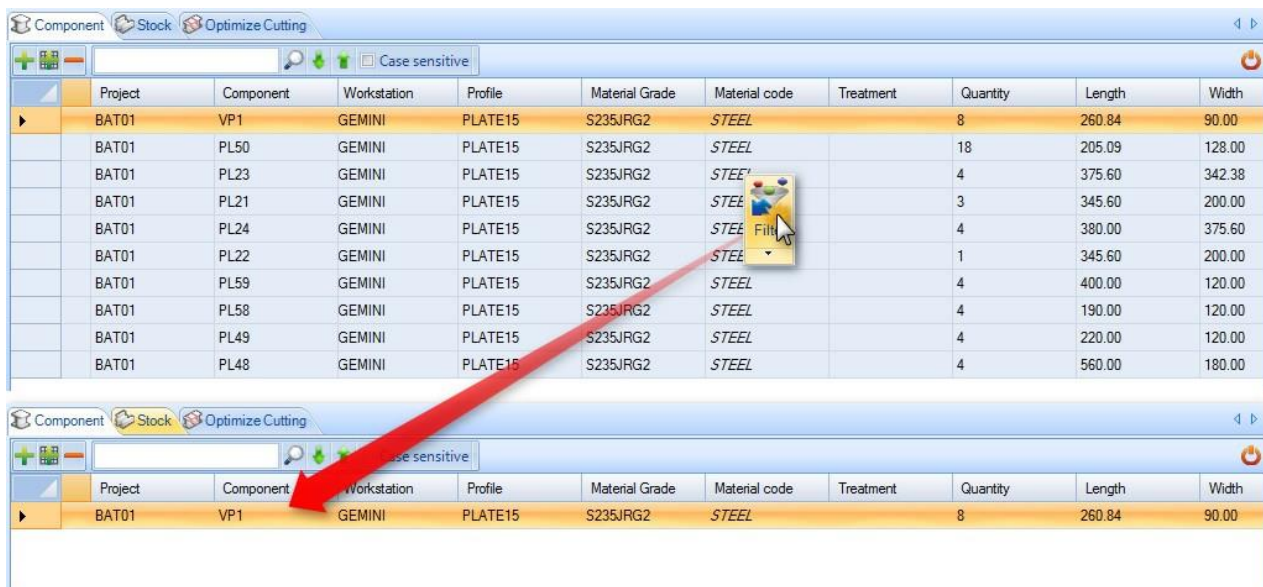
To define a filter, click on the arrow ▼ and fill the needed fields :



In this example, we want to display the components, whose names start by "V"

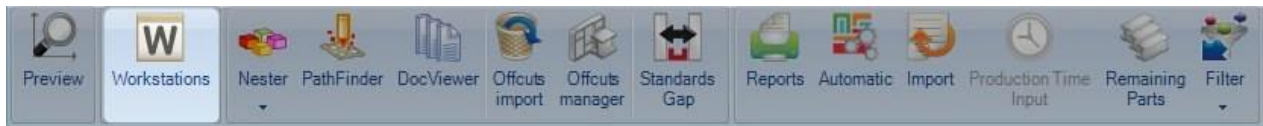
If you press , you can add another filter.

Then, to apply the filter, press in the centre of the filter button.

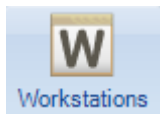


Tips & Tricks

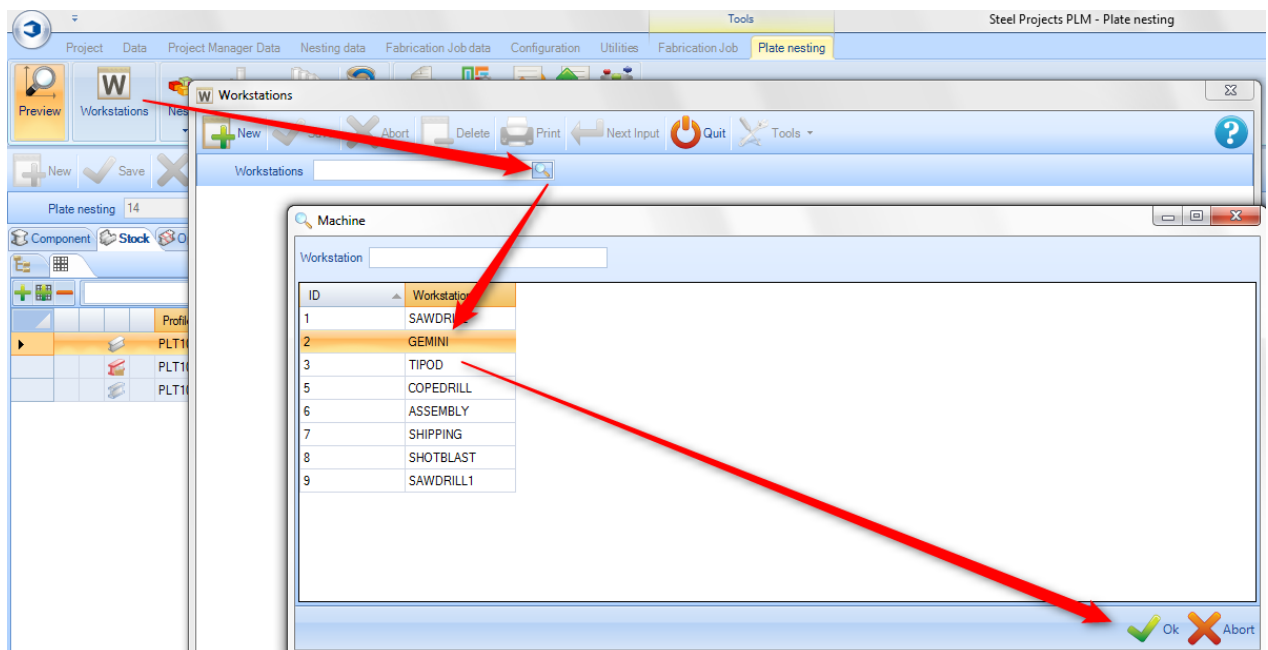
Resource Editor



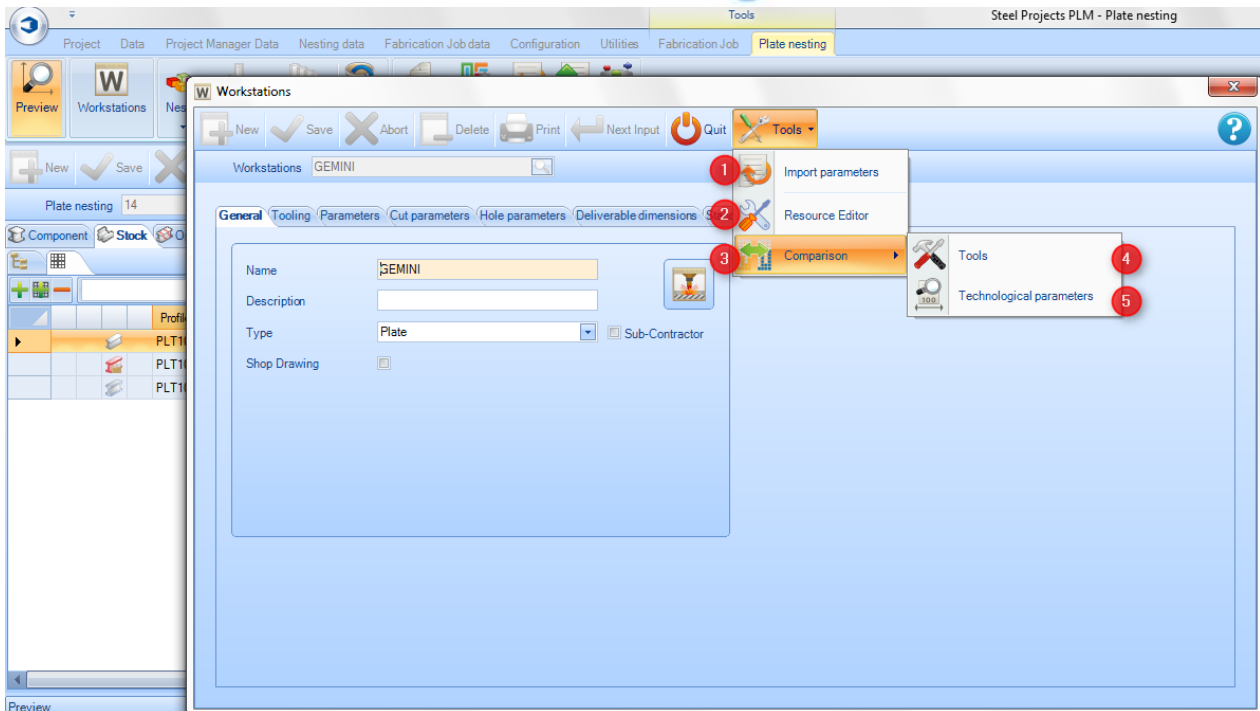
In order to modify some machine parameters before nesting, it is also possible to access the resource editor from the plate module.



Pressing the **Workstations** icon will open the workstations menu where we can find the machine parameters:



On the machine parameters window, it is possible to access Resource Editor and comparison in order to modify and update many nesting parameters:



1

Import parameters - Import machine parameters file

2

Resource Editor - Access de machine and nesting parameters manager

3

Comparison - Access a updater menu in order to compare or import or update the resource editor data into SP.PLM

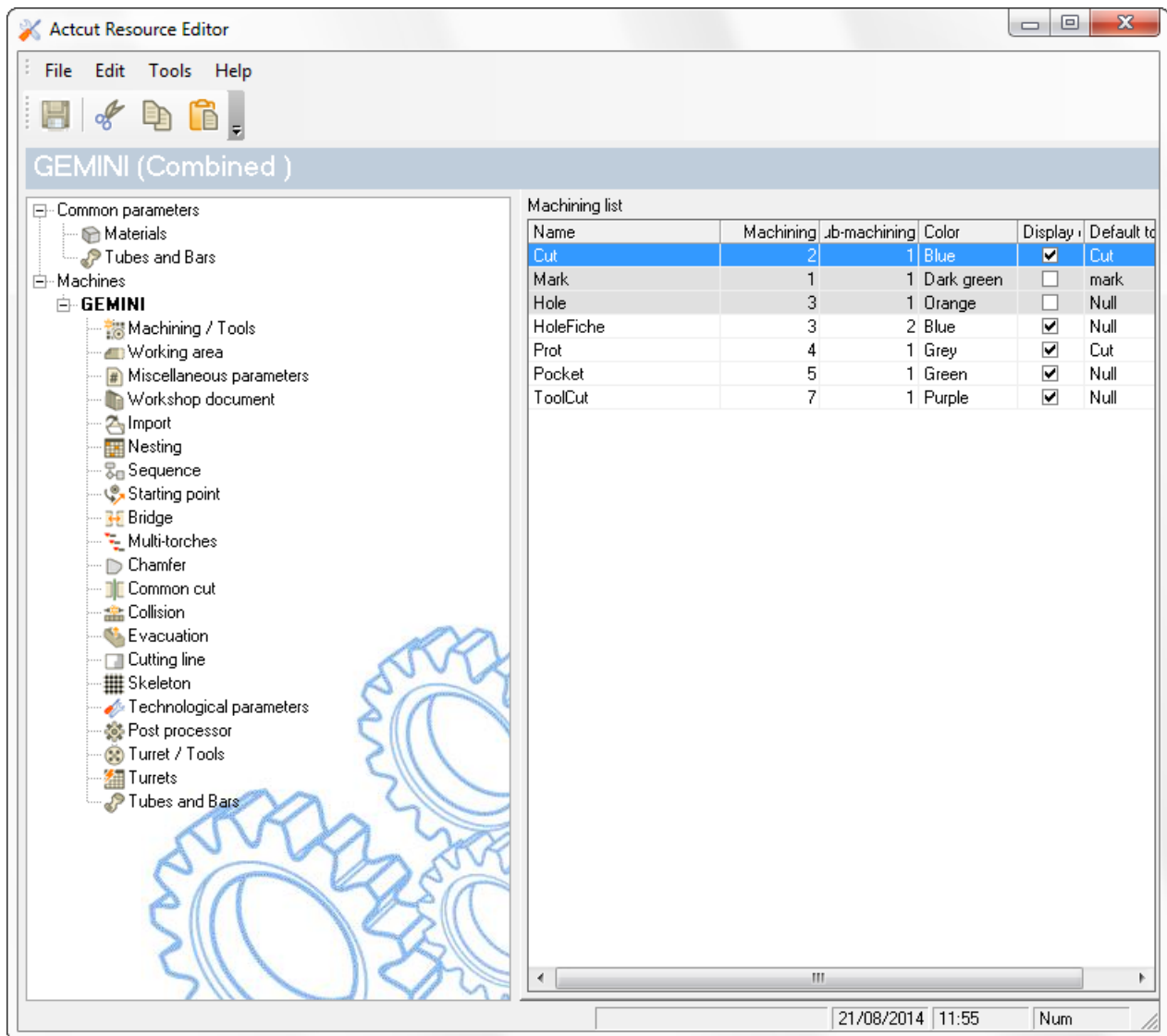
4

Tools - Access the updater menu which compares the available tools in Resource Editor and SP.PLM

5

Technological parameters - Access the updater menu which compares the available thickness and gaps in Resource Editor and SP.PLM

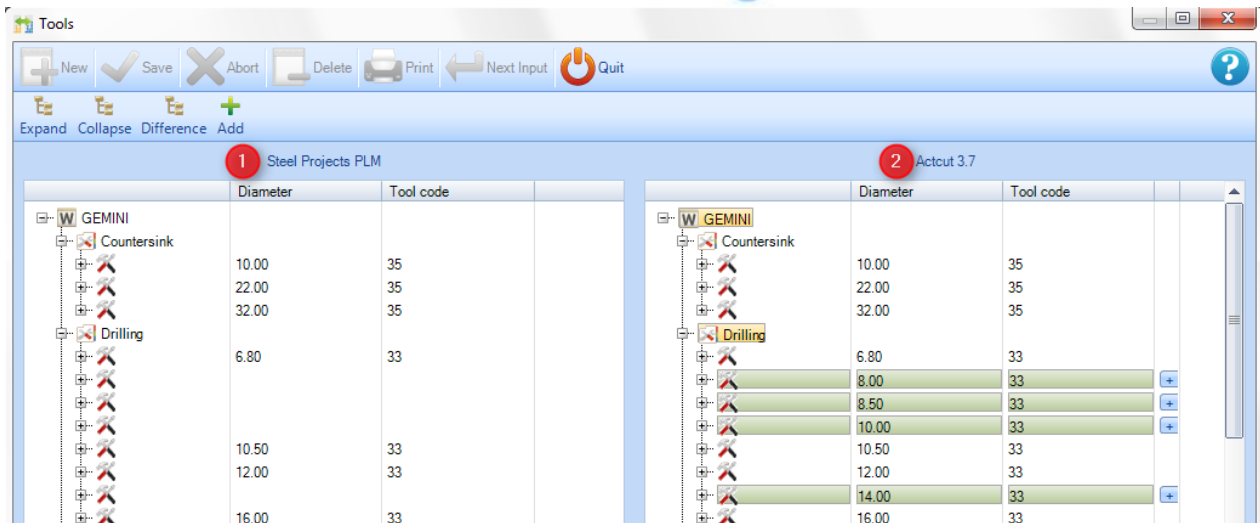
Resource Editor Window



Click Resource Editor to access more information


Tools window

When accessing the tools window it is possible to compare to tools on 1 SP.PL.M and 2 Resource Editor



The tools that software has found on Resource Editor and are not present into SP.PLM are represented with green color.



By clicking the  icon you can automatically add this tools into SP.PLM. Then you have to press



to validate before closing the window.

Technological parameters window

Same rules than tool comparison.

1

SP.PLM and

2

Resource Editor

Technological parameters

NewSaveAbortDeletePrintNext InputQuit

ExpandCollapseDifferenceAddUpdate

Steel Projects PLM						Actcut 3.7					
	Thickness	Part Gap	Left Gap	Right Gap	Top Gap		Thickness	Part Gap	Left Gap	Right Gap	Top Gap
W GEMINI STEEL	5.00	20.00	5.00	5.00	5.00	W GEMINI STEEL	5.00	15.00	5.00	5.00	5.00
	6.00	20.00	5.00	5.00	5.00		6.00	15.00	5.00	5.00	5.00
	8.00	20.00	5.00	5.00	5.00		8.00	15.00	5.00	5.00	5.00
	10.00	20.00	5.00	5.00	5.00		10.00	20.00	5.00	5.00	5.00
	12.00	20.00	5.00	5.00	5.00		12.00	20.00	5.00	5.00	5.00
	15.00	0.00	0.00	0.00	0.00		15.00	20.00	5.00	5.00	5.00
	20.00	0.00	0.00	0.00	0.00		20.00	20.00	5.00	5.00	5.00
	25.00	20.00	5.00	5.00	5.00		25.00	20.00	5.00	5.00	5.00
	30.00	30.00	5.00	5.00	5.00		30.00	30.00	5.00	5.00	5.00
	35.00	30.00	5.00	5.00	5.00		35.00	30.00	5.00	5.00	5.00
	40.00	30.00	5.00	5.00	5.00		40.00	30.00	5.00	5.00	5.00
	45.00	30.00	5.00	5.00	5.00		45.00	30.00	5.00	5.00	5.00
	50.00	30.00	5.00	5.00	5.00		50.00	30.00	5.00	5.00	5.00
	55.00	30.00	5.00	5.00	5.00		55.00	30.00	5.00	5.00	5.00
	60.00	30.00	5.00	5.00	5.00		60.00	30.00	5.00	5.00	5.00
80.00	30.00	5.00	5.00	5.00	80.00	30.00	5.00	5.00	5.00		
100.00	30.00	5.00	5.00	5.00	100.00	30.00	5.00	5.00	5.00		
						110.00	30.00	5.00	5.00	5.00	

The thickness which values are different are represented in red color.



By clicking the **Update** icon you can automatically update this values into SP.PLM. Then you have to press



to validate before closing the window.

The thickness that software has found on Resource Editor and are not present into SP.PLM are represented with green color.



By clicking the **Add** icon you can automatically add this tools into SP.PLM. Then you have to press



to validate before closing the window.

Module - Production Manager



The main module to manage your production

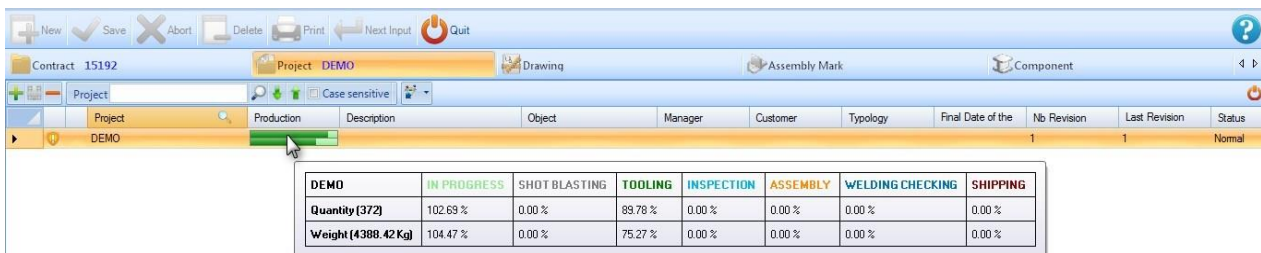
Production Manager allows to send pieces to workstations and to follow the production work-flow. You have the same features as [Module - Project Manager](#) with additional functionality to manage and follow the production.

With this module 3 new sections will be activated.

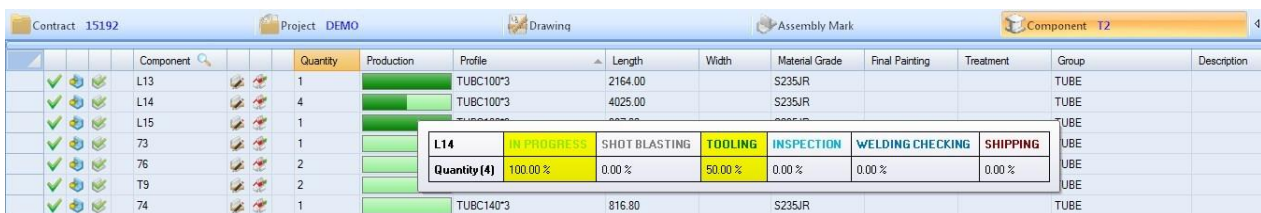
- Send to Production
- Production Manager
- Fabrication Job

The main difference with the project manager is that the production status displayed for each element (Project/Drawing/Assembly/Component).

When you move the mouse over the production's progress bar, a grid with detailed informations appears.



When an element has a feedback level completed, the colour of the progress bar changes according to what has been set-up in the [feedback parameters](#).



Control





Module to control the production feedback and the consolidation status



Feedback Gathering



Forces the feedback service to collect the data from the machines and to consolidate it, if possible.

 This operation only works when done on the SQL server 

Connections



After a manual consolidation, the links between the feedback and the existing data are stored here.

Raw Data



Here, you can find all the feedback data, in their original format.

Fabrication Manual Input



Allows to manually type the production time, without feedback module.

Export



Exports the feedback data to a custom ERP software.

Reports





Prints a selection of reports.

Refresh



Refreshes the displayed data.

 This action doesn't force a feedback data gathering 

Focus

Part Checking

Check if your parts can be produced

SPPLM has the ability to check the feasibility of the parts in the Project Manager in order to assess if the parts can be done on your machines

Configuration

To use this option, you first need to activate it in the [Company Configuration](#) - Project Manager tab

General		STEEL PROJECTS
Revision Management	<input checked="" type="checkbox"/>	
Material Grade Upgrade	<input checked="" type="checkbox"/>	
Profiles Upgrade	<input checked="" type="checkbox"/>	
Project customer management	<input checked="" type="checkbox"/>	
4 Part checking	<input checked="" type="checkbox"/>	
Export unchecked part	<input checked="" type="checkbox"/>	
Edge Gap	<input type="text" value="0.50"/>	
Hole Gap	<input type="text" value="0.10"/>	
Bending checking	<input type="checkbox"/>	
Leadcut checking	<input type="checkbox"/>	
4 Hole checking	<input checked="" type="checkbox"/>	
Hole checking on tubes	<input type="checkbox"/>	
Scribing checking	<input checked="" type="checkbox"/>	
Marking checking	<input checked="" type="checkbox"/>	
Tooling checking	<input type="checkbox"/>	
4 Coping checking	<input type="checkbox"/>	
MINOSSE directory	<input type="text" value=""/>	
Cuts checking	<input checked="" type="checkbox"/>	
Warning if part is in drawing in production	<input checked="" type="checkbox"/>	
Priority mode	<input type="text" value="Not any"/>	
Sites and departments management	<input checked="" type="checkbox"/>	
Workstation multi export	<input type="checkbox"/>	
4 EN 1090 standard management	<input checked="" type="checkbox"/>	
Default execution class	<input type="text" value="EXC2"/>	

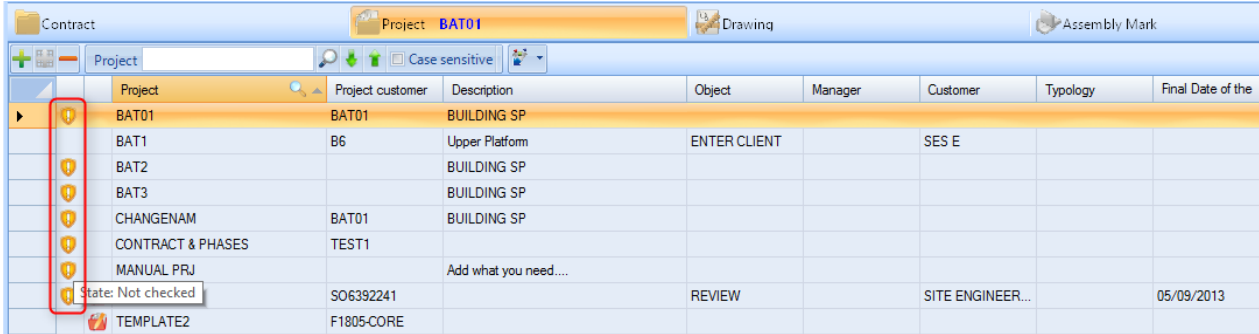
From this menu you can activate the different types of checks the software will perform:

- **Export Unchecked Part** - If this option is not switched on, parts cannot be exported if they have not been checked, or if they have failed the check. With it on, it is just used as a visual indicator.
- **Edge Gap** - Min distance a hole can be to the edge of a part, this you will get a drilling error
- **Hole Gap** - Min distance to another hole. Anything less than this you will get a drilling error
- **Bending cheking** -
- **Leadcut checking** - If there are any leadcuts (unrecognised coping macros) in the part you will get a warning
- **Hole Checking**- Warning if there are holes outside the part or too close to an edge or other hole
- **Scribing Checking** - Warning if there is any bad scribing lines on the part

- **Marking Checking** - Warning if there is a mark off the part or too close to an edge
- **Toolings checking** - The check looks at the tool tables you have set up for your available machines, and warns you if there is a tooling that you do not have a tool set up for
- **Coping Checking** - Works in conjunction with Ficep cope checking software and gives you a warning if there are any coping macros that can not be done on your machine In order to use this option you need to copy the folder d:\Minosse or d:\Pegaso from the machine itself to a local or accessible network location. You then need to set this path here.
- **EN1090 checking** -

Functionality

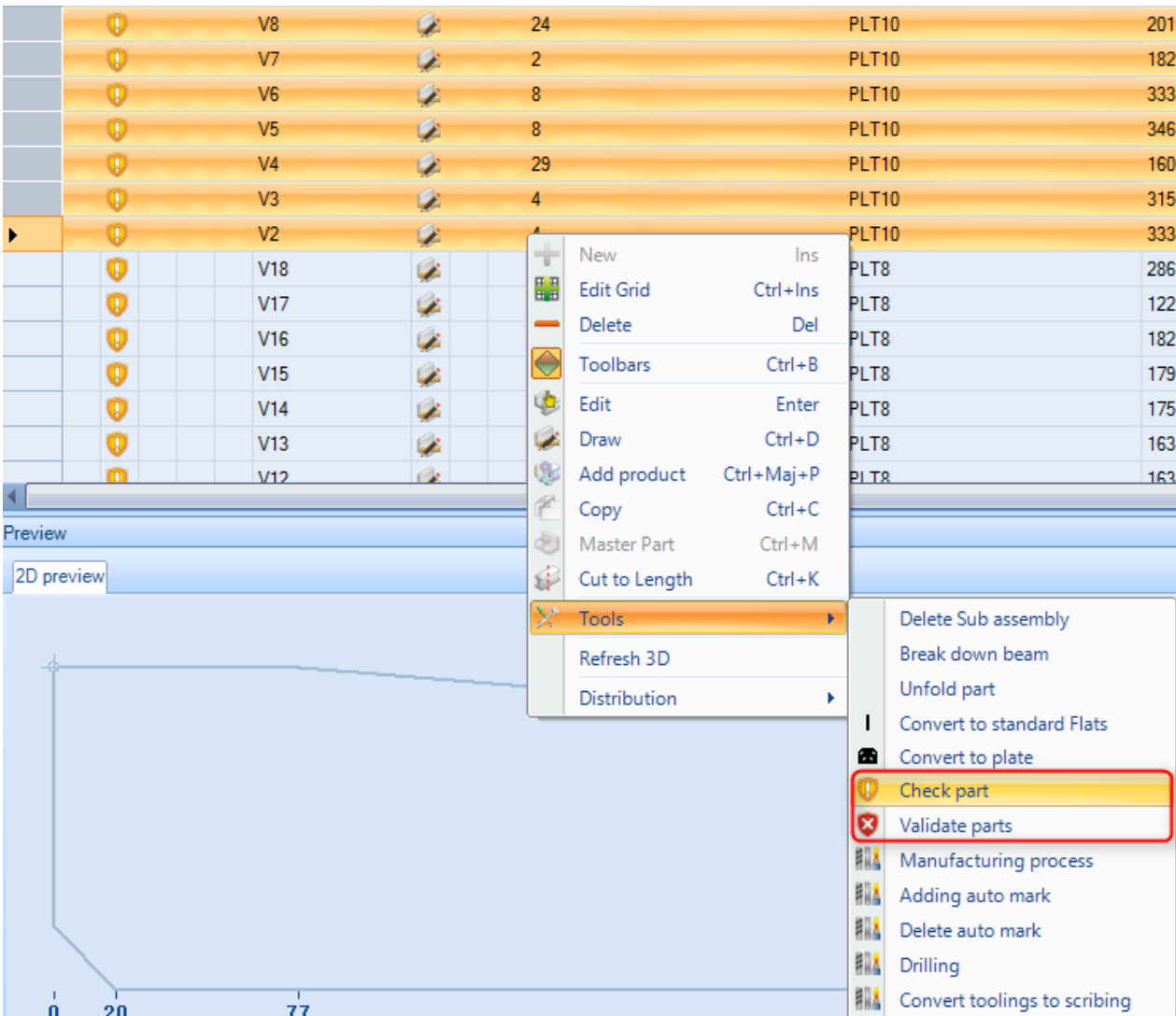
With this option enabled you will notice a shield icon next to all of your Projects, drawings, assemblies and components. If you put the mouse over the icon it tells you the state of the checking



Project	Project customer	Description	Object	Manager	Customer	Typology	Final Date of the
BAT01	BAT01	BUILDING SP					
BAT1	B6	Upper Platform	ENTER CLIENT		SES E		
BAT2		BUILDING SP					
BAT3		BUILDING SP					
CHANGENAM	BAT01	BUILDING SP					
CONTRACT & PHASES	TEST1						
MANUAL PRJ		Add what you need...					
State: Not checked	SO6392241		REVIEW		SITE ENGINEER...		05/09/2013
TEMPLATE2	F1805-CORE						

The default status for all items is Not Checked.

You can check parts from a Project to a Component level by selecting items (using Ctrl or Shift to multi select) and going to the Right Click Menu. In there there is an option for Tools - Check Part





V8	24	PLT10	201.
V7	2	PLT10	182.
V6	8	PLT10	333.
V5	8	PLT10	346.
V4	29	PLT10	160.
V3	4	PLT10	315.
V2		PLT10	333.
V18		PLT8	286.
V17		PLT8	122.
V16		PLT8	182.
V15		PLT8	179.
V14		PLT8	175.
V13		PLT8	163.
V12		PLT8	163.























Preview
2D preview

0 20 77

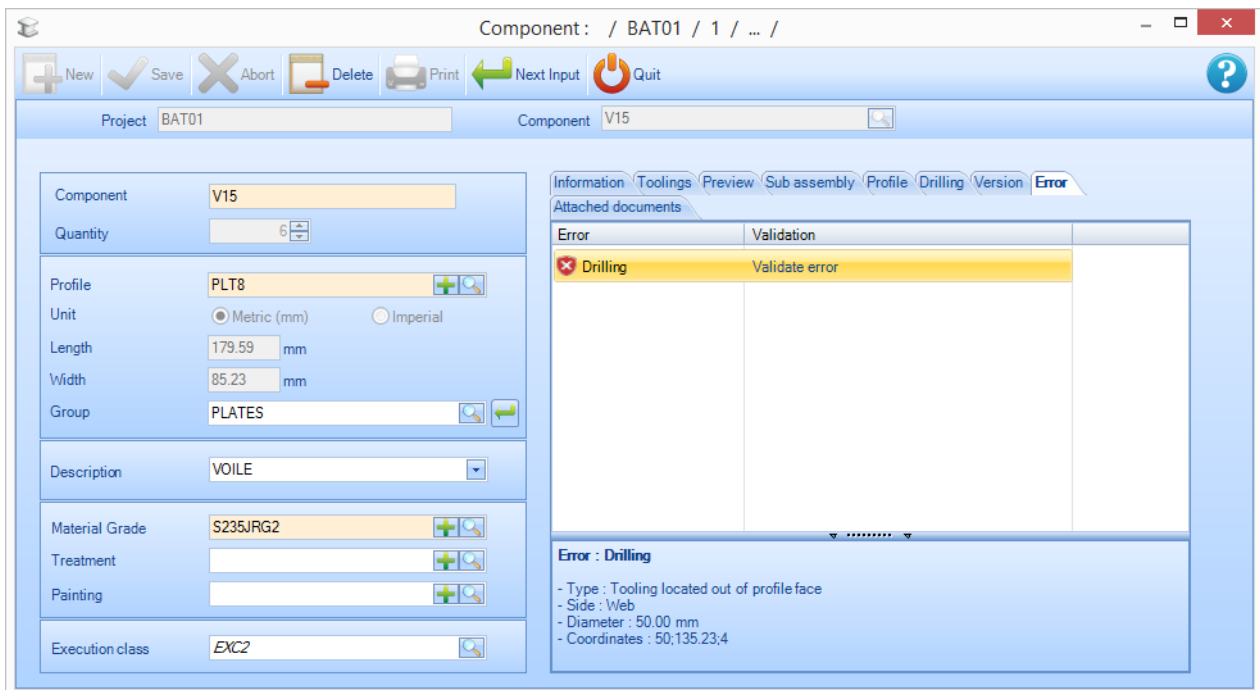
Tools

- Delete Sub assembly
- Break down beam
- Unfold part
- Convert to standard Flats
- Convert to plate
- Check part**
- Validate parts
- Manufacturing process
- Adding auto mark
- Delete auto mark
- Drilling
- Convert toolings to scribing

Once the parts have been checked the shield icon will change to either Valid  or Not Valid  depending on whether the part can be done on your machines

		V7		2	PLT10
		V6		8	PLT10
		V5		8	PLT10
		V4		29	PLT10
		V3		4	PLT10
		V2		4	PLT10
		V18		5	PLT8
		V17		2	PLT8
		V16		2	PLT8
		V15		6	PLT8
		V14		3	PLT8

To check what the problem is with the un-valid parts, double click on the component to go into its Options page and press the ERROR tab




Component : / BAT01 / 1 / ... /

Project: BAT01 Component: V15

Component: V15
Quantity: 6
Profile: PLT8
Unit: ☒ Metric (mm) ☐ Imperial
Length: 179.59 mm
Width: 85.23 mm
Group: PLATES
Description: VOILE
Material Grade: S235JRG2
Treatment:
Painting:
Execution class: EXC2

Information Toolings Preview Sub assembly Profile Drilling Version **Error**


Attached documents

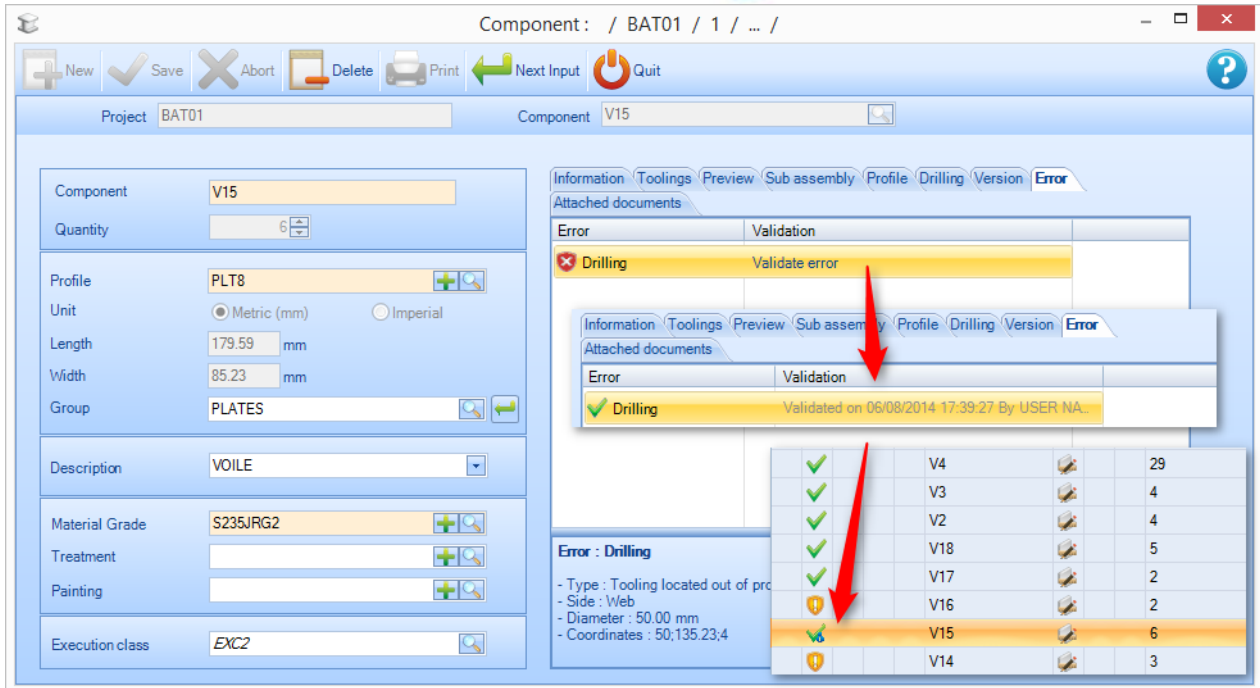
Error	Validation
 Drilling	Validate error

Error : Drilling

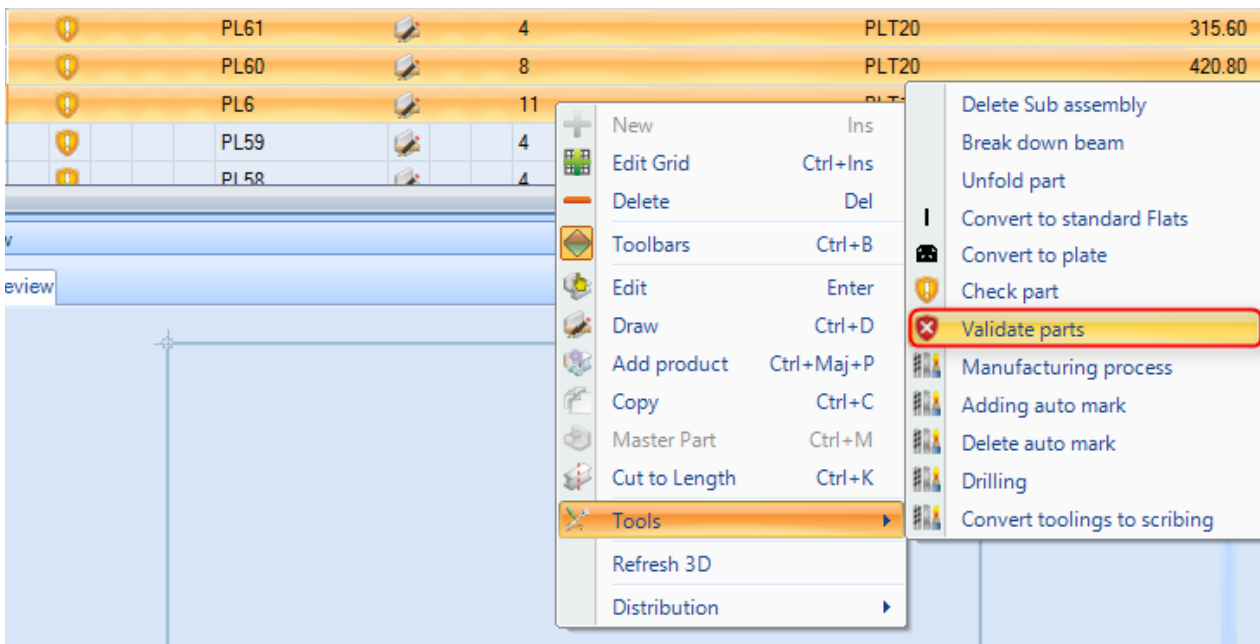
- Type : Tooling located out of profile face
- Side : Web
- Diameter : 50.00 mm
- Coordinates : 50;135.23;4

The errors will be shown in the list. If you click on the error in the list, you can see the error details.

If you have checked the part and the issue is not a problem, press "Validate Error" on this screen. The part will then be recorded as  "Validated by the User"



It is also possible to validate parts with errors from the right click tools menu



Document Manager

Add documents directly attached on contract, drawing , assembly and parts

The document management in SPPLM gives you the ability to attach one or more electronic documents to your Projects, drawings, assemblies, components and customers

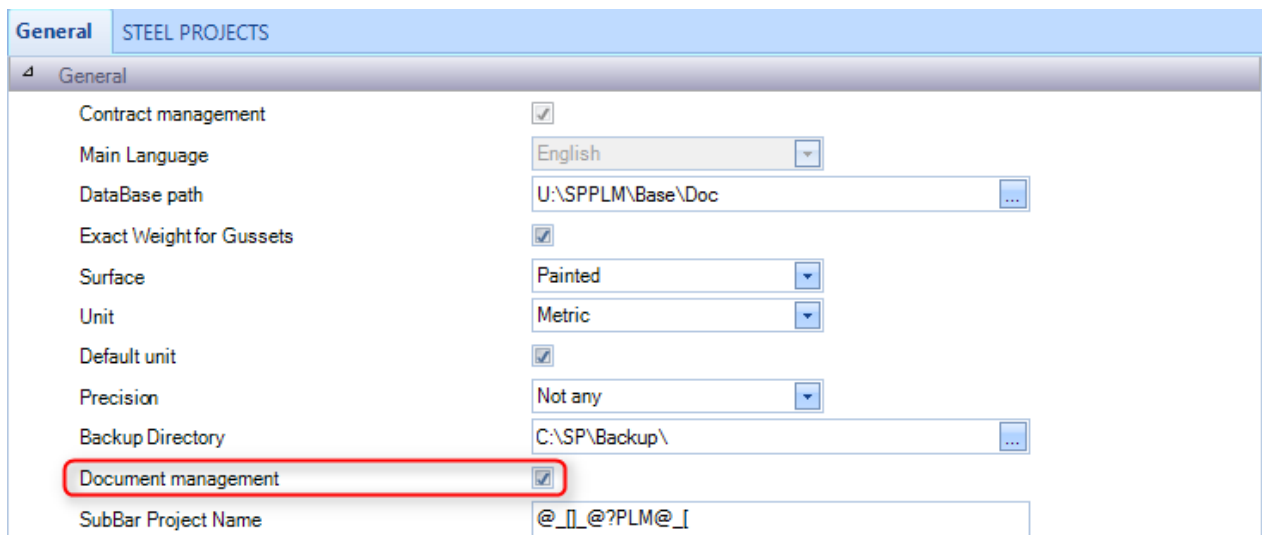
Attached documents are stored on the server database.

Steel-Projects PLM functionality applies a version to these documents and can preserve a history of changes.

Parameters

You need to enabling the document management in the general [configuration settings](#)

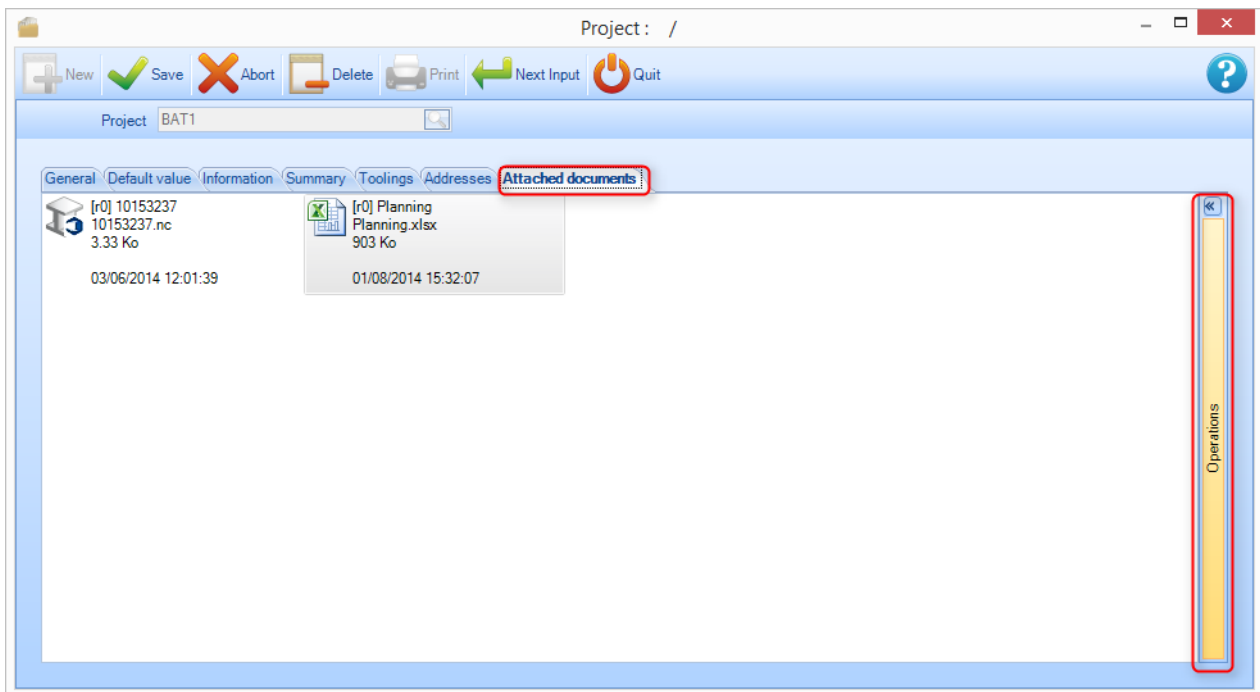
In the tab-Steel Projects PLM, select the tab "Settings" icon and then "Configuration". Check the box to enable document management in the general settings section.



General	
STEEL PROJECTS	
General	
Contract management	<input checked="" type="checkbox"/>
Main Language	English
DataBase path	U:\SPPLM\Base\Doc
Exact Weight for Gussets	<input checked="" type="checkbox"/>
Surface	Painted
Unit	Metric
Default unit	<input checked="" type="checkbox"/>
Precision	Not any
Backup Directory	C:\SP\Backup\
Document management	<input checked="" type="checkbox"/>
SubBar Project Name	@_[]_@?PLM@_[]

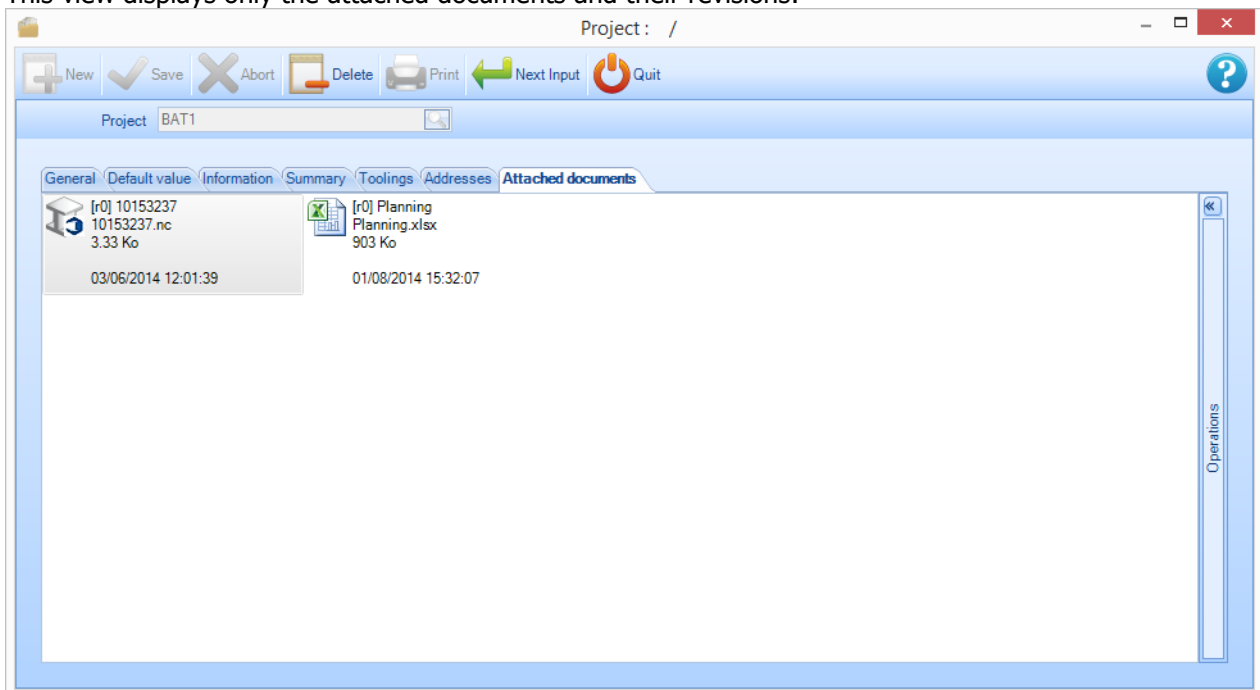
Functionality

Once the document management is enabled, an additional tab will appear in the relevant options page.

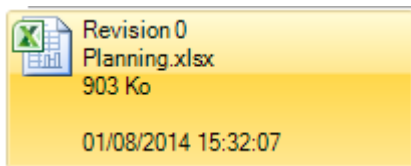


Default view

This view displays only the attached documents and their revisions:



The information displayed is:



[review] Document Name (identical to the file name here)

File name for the revision of the document

The file size on the disk (same units and rounded to Windows)

Author of file revision

Date and time of file modification.

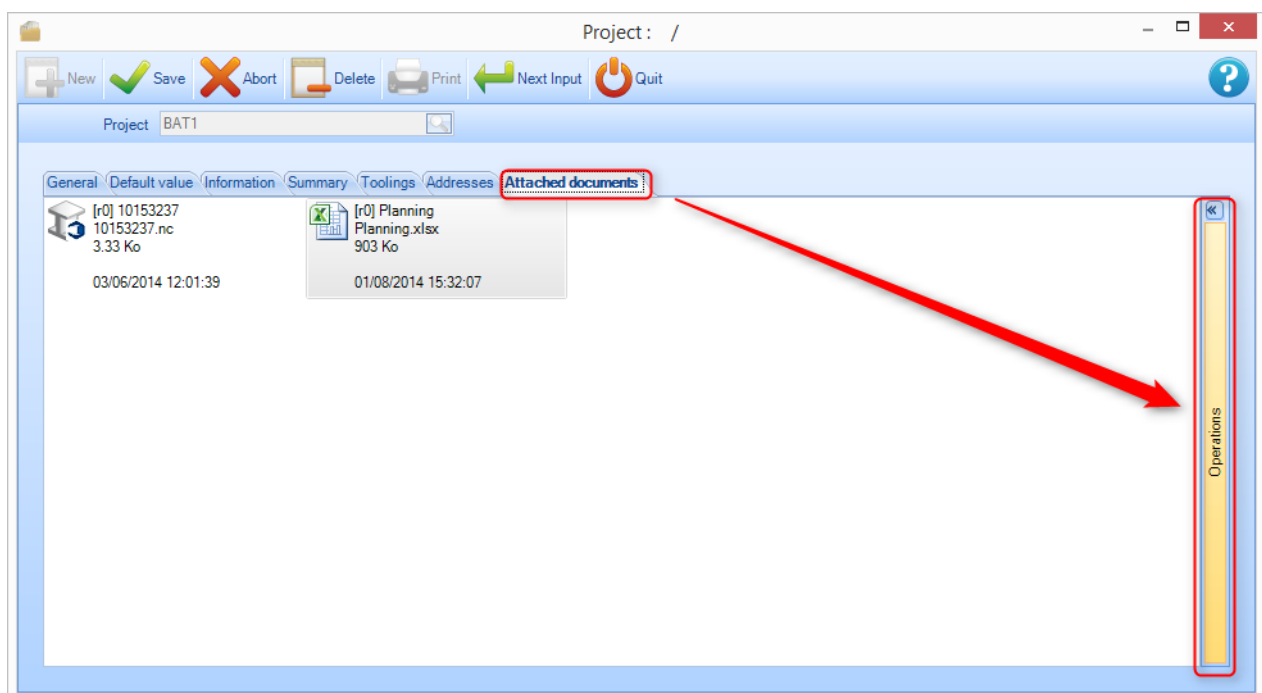
No change is possible in this view. Double-clicking the icon launches the preview using the default Windows program (which means that if there is no program associated with the file type, Windows will ask which application to use).

The transition to full is done by clicking on the vertical bar "Operations" on the right

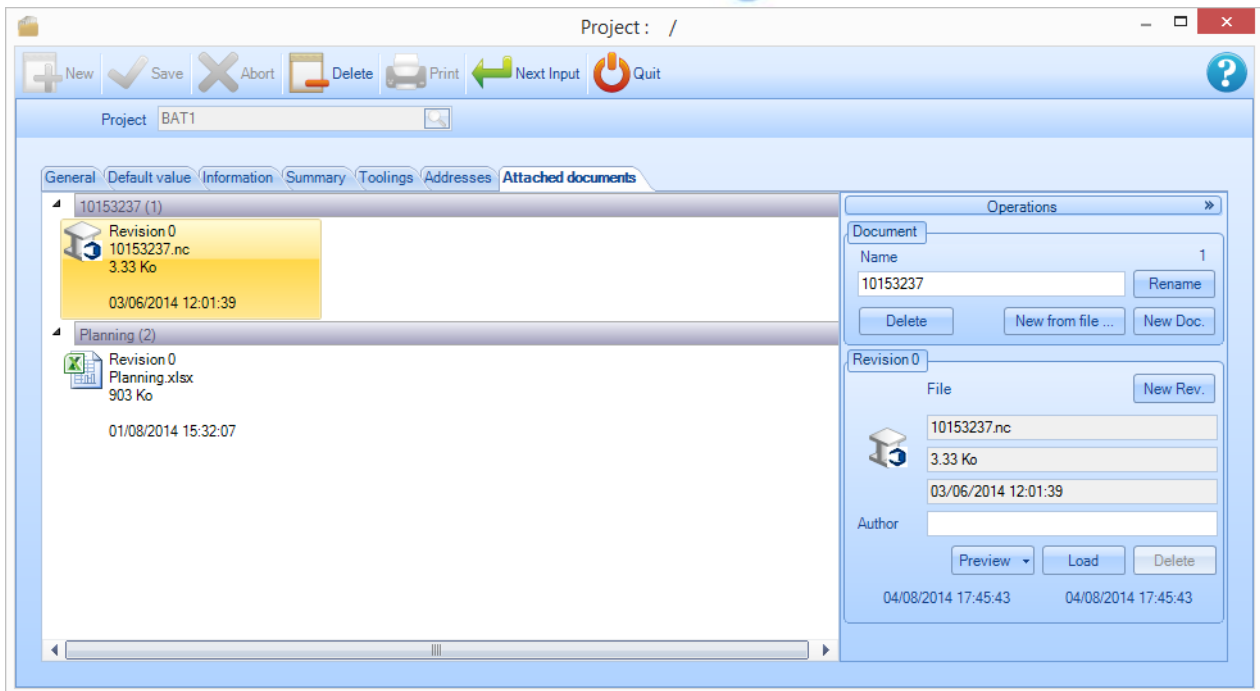
Expanded View

To open the expanded menu press the expansion arrow on the right side

Once in full view, you can perform various operations on the documents and revisions.



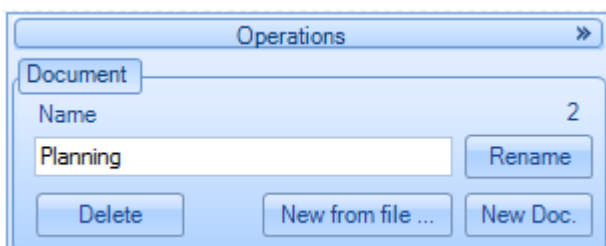
The icon representing the document comes from the operating system when loading the file. It can be generic (as above) or represent a preview if it exists and is supported by Windows.



Management rules

- You can always create a new document.
- You can always rename a document.
- You can not delete a document if it does not exist in revision 0.
- The same file can be associated with several documents / revision.
- Creating a new revision, it duplicates the previous revision is locked.
- You can not change the current revision of a document.
- You can not delete the last revision of a document
- The author is optional
- Revision dates (creation and modification) and the modification date of file can not be edited manually

Document Management



New Doc

Create a document. May enter a document name and click "Nv.doc. ". If no name has been entered, the document created without a name. It may be renamed later.

New from file

Click "Nv. from ... ". Dialogue open file appears. You can select multiple files. Many documents as selected file will be created. The name of each new document without the corresponding file extension.

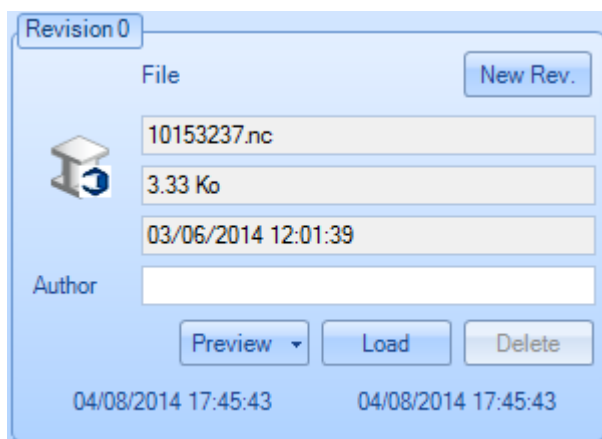
Rename

Select any revision of the document in the list on the left. Enter a new name. Click "Rename". All revisions are known, the files are not affected.

Delete

Select document revision 0 to remove (delete prohibited if more than one revision). Click on "Remove".

Revision Management



The image shows a 'Revision Management' dialog box. At the top, there is a tab labeled 'Revision 0'. Below the tab, on the left, is a small icon of a document with a circular arrow. To the right of the icon is a 'File' label. Further right is a 'New Rev.' button. Below the 'File' label are three text input fields containing the following text: '10153237.nc', '3.33 Ko', and '03/06/2014 12:01:39'. Below these fields is an 'Author' label followed by an empty text input field. At the bottom of the dialog, there are three buttons: 'Preview' (with a dropdown arrow), 'Load', and 'Delete'. Below the 'Preview' button is a timestamp '04/08/2014 17:45:43'. Below the 'Load' button is another timestamp '04/08/2014 17:45:43'.

New Rev

Select any revision of a document. Click "New. Rev. ". The latest revision of the document is duplicated and locked.

File

File information and author assignment.

Load

Update an existent revision of a document. Click on "Load". A file selection dialog appears. Select the file. The size of the latter and its modification are extracted automatically. Modification date of the revision is updated.

Preview

Viewing a file

Rename

Select any revision of the document in the list on the left. Enter a new name. Click "Rename". All revisions are known, the files are not affected.

Delete

Select the latest revision of a document (only the latter can be deleted). Click on "Delete"

Revision Management

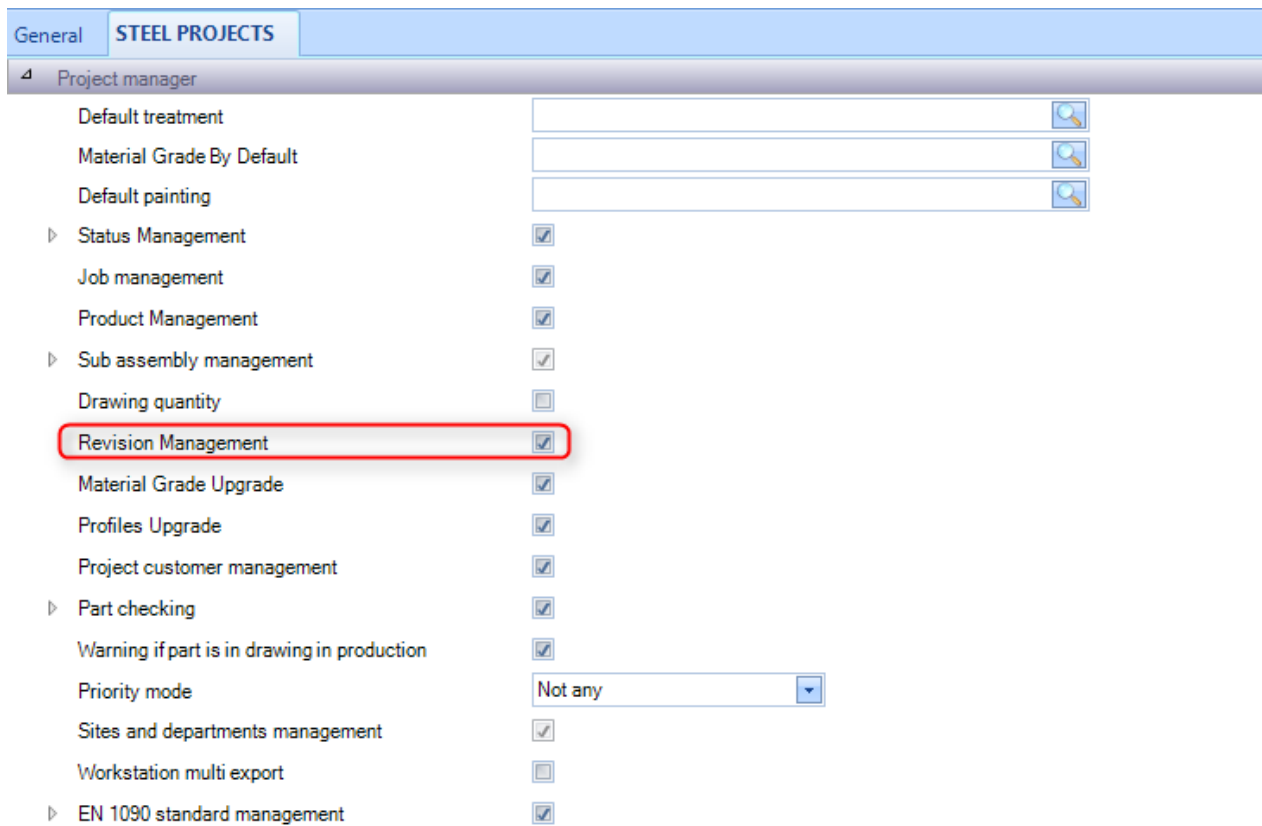
Manage the revisions and compare

The Revision management tool can be used to keep track of different revisions.

Any changes to the facts of the Project, drawing, assemblies, component and sub-assemblies are stored in the system

Enable revision management:

The Revision management parameter needs to be activated in the [Company Configuration](#).



General	STEEL PROJECTS
Project manager	
Default treatment	<input type="text"/>
Material Grade By Default	<input type="text"/>
Default painting	<input type="text"/>
▶ Status Management	<input checked="" type="checkbox"/>
Job management	<input checked="" type="checkbox"/>
Product Management	<input checked="" type="checkbox"/>
▶ Sub assembly management	<input checked="" type="checkbox"/>
Drawing quantity	<input type="checkbox"/>
Revision Management	<input checked="" type="checkbox"/>
Material Grade Upgrade	<input checked="" type="checkbox"/>
Profiles Upgrade	<input checked="" type="checkbox"/>
Project customer management	<input checked="" type="checkbox"/>
▶ Part checking	<input checked="" type="checkbox"/>
Warning if part is in drawing in production	<input checked="" type="checkbox"/>
Priority mode	Not any
Sites and departments management	<input checked="" type="checkbox"/>
Workstation multi export	<input type="checkbox"/>
▶ EN 1090 standard management	<input checked="" type="checkbox"/>

Create a Revision

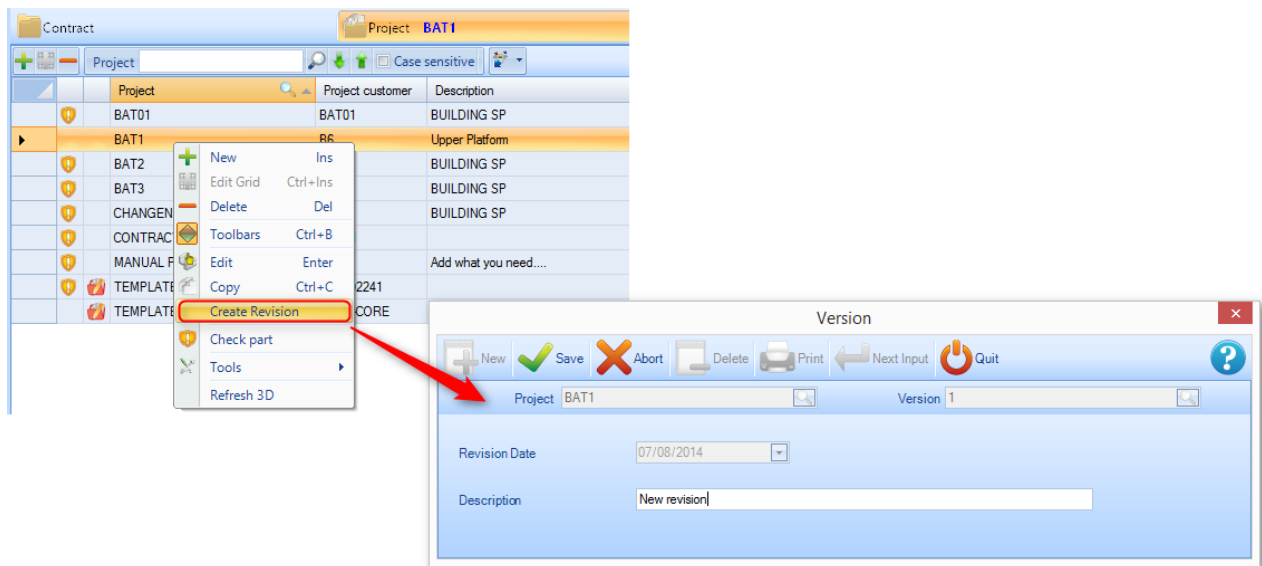
There are two ways to create a revision:

- Through the Project Manager.
- Through an import.

Create Revision In the Project Manager

It is possible to create a revision on an individual Project . Right click on the Project in question and select Create a revision in the right click context menu.

If a revision is possible, a create a new revision window opens.

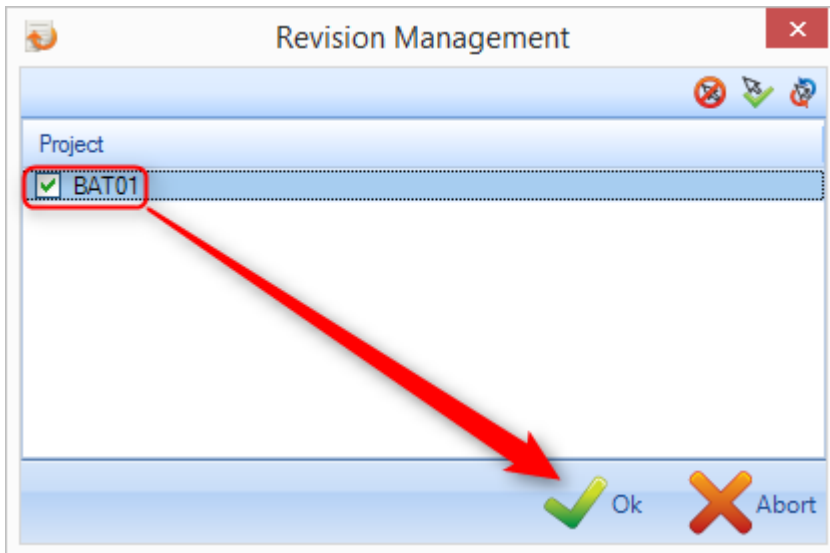


A revision is then created. All changes to the details of the Project will now be performed on the current revision.

Create Revision From an Import

When parts are imported any differences between the new version and the current version are compared. The import will ask you if you want to modify the data by making a revision or not.

If yes you need to fill the check-box and [OK]



Project Review, Drawing, Assembly, Component

Revisions of Projects

Project	Project customer	Description	Object	Manager	Customer	Typology	Final Date of the	Nb Revision	Last Revision
BAT01	BAT01	BUILDING SP						2	0
BAT1	B6	Upper Platform	ENTER CLIENT		SES E			1	0
BAT2		BUILDING SP						0	0
BAT3		BUILDING SP						0	0
CHANGENAM	BAT01	BUILDING SP						0	0
CONTRACT & PHASES	TEST1							0	0
MANUAL PRJ		Add what you need....						0	0
TEMPLATE1	SO6392241		REVIEW		SITE ENGINEER...		05/09/2013	0	0

On this screen, two concepts relate to revisions.

Revision No. column indicates the current revision of this case. In the example above, the selected case is currently under revision 1.

Last revision column indicates the last revision that changed the database of the Project

Revisions of Drawings

Project		BAT1		Drawing		1		Assembly Mark		Component	
Drawer	Treatment	Material Grade	Final Painting	Status	Execution class	Comment 1	Comment 2	Comment 3	Last Revision		
RF				To Produce		EXC2			0		

On this screen, the column last revision indicates which revision data on this drawing are active.




Revisions of assemblies

Modification of an assembly may involve two actions:

Changing the amount of an assembly in a project, addition of an assembly to a project

The modification of data assembly as such (description, master part)

On this screen, the last revision column indicates which revision assembly is active.

 Drawing 1			 Assembly Mark			 Component	
Final Painting	Status	Execution class	Comment 1	Comment 2	Comment 3	Last Revision	
To Produce		EXC2				0	

Revisions of Components

Modification of a part can be of 4 types:

- Changing the quantity of the part in an assembly, the addition of a component to an assembly
- Modification of part data (grade, profile, length, width)
- Changing the machining of the component
- The composition of the pre-assembly part.

Project **BAT01**

Drawing **3**

Assembly Mark

☐ Case sensitive

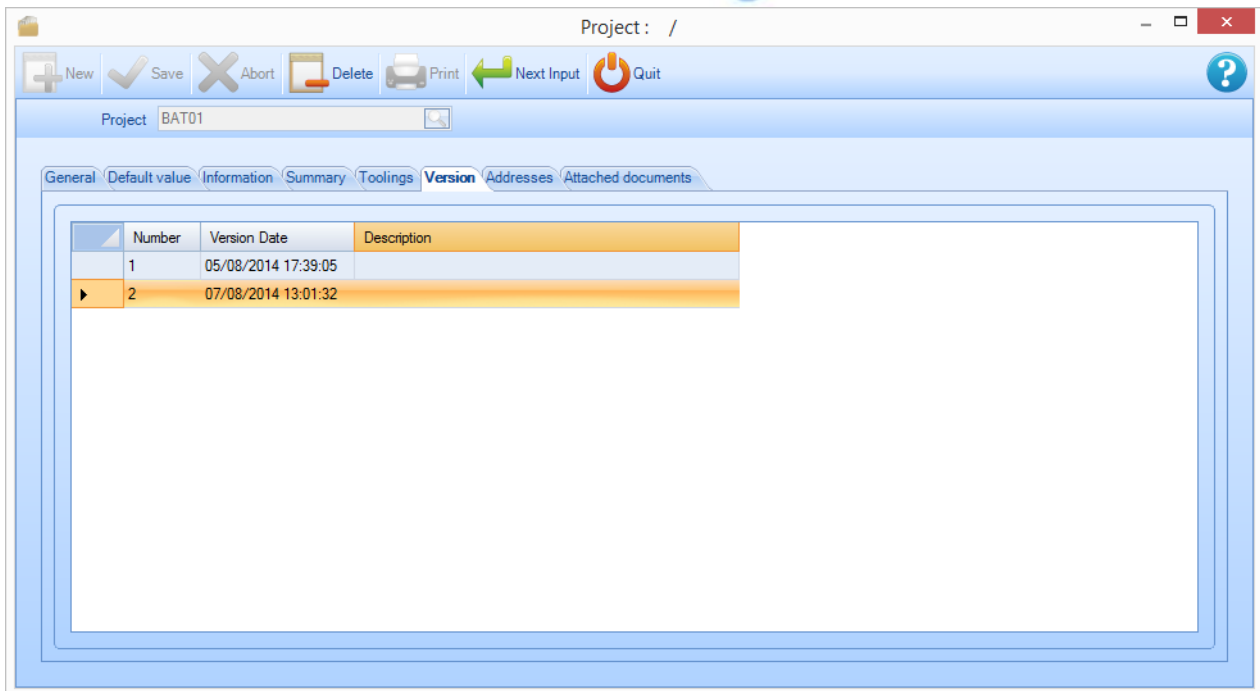
	Quantity	Final Painting	Treatment	Group	Description	Last Revision
	2			PLATES	PRESCELLEMENT	1
	4			PLATES	PRESCELLEMENT	1
	18			PLATES	PRESCELLEMENT	1
	56			FITTINGS	BECHE	2
	4			PLATES	PRESCELLEMENT	2

Display Of Revision History

View Project Revisions

It is possible to compare the different revisions of a Project from the Project Options Information Screen (Double click the Project from the main Projects list)

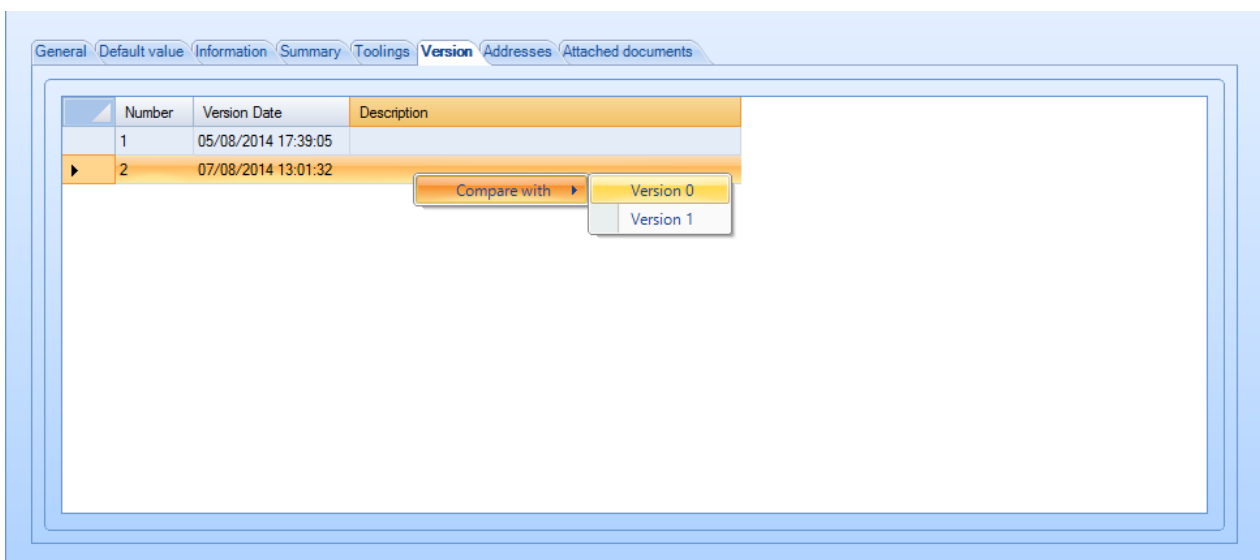
On Projects that have been revised, there is a tab called "revision" which shows all the revision history



This tab shows the dates of any revisions, as well as the description that has been entered.

It also allows you to compare two revisions by right-clicking on the line that you want to compare.

Then simply choose how you want to review the comparison.



The comparison review screen appears:

Version 2						Version 0					
	Quantity	Profile	Length	Width	Material G..		Quantity	Profile	Length	Width	Material G..
BAT01						BAT01					
1	1					1	1				
PA15	1					PA15	1				
V15	6	PLT8	179.59	85.23	S235JRG2	V15	6	PLT8	179.59	85.23	S235JRG2
3											
PP25	18										
167	1	PLT10	350.00	140.00	S235JRG2						
CPR1	2	L60*6	80.00	0.00	S235JRG2						
PP27	2										
PP30	4										
PP35	4										

The colours used on the nodes:

- Green colour: the element was added compared to the initial revision (in the example above PART4 not exist in the assembly revision 0).
- The colour orange: the data has been changed between the two revisions (in the above example PART1 saw its length increased from 1500 to 1600 between revision 0 and revision 2)
- The colour red: data no longer exists (eg, a piece has been removed from Revision 0 and Revision 1).
- Yellow: the data concerned has not been changed, but one of its nodes has been attached (in the example above ASSEMBLY has not been changed, but the elements of its composition so).
- No colour: any changes to the element and its descendants.
- The window buttons:

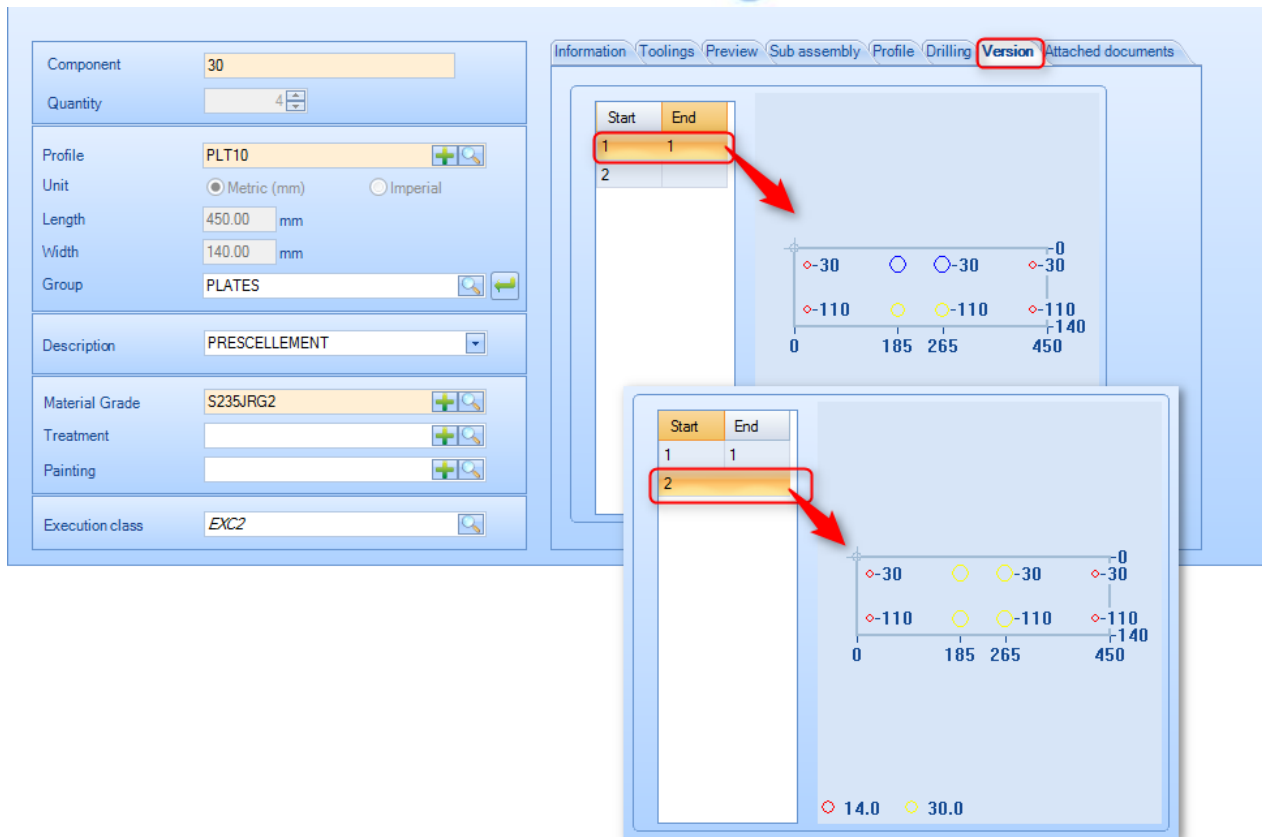
Comparison of Components:

Navigate in the Tree hierarchy to the part you are looking for and it will view the part in both revisions of the project

View Component Revisions

It is also possible to view the history of changes to a particular component.

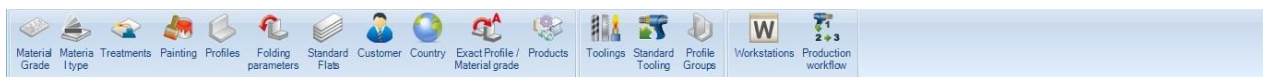
In the component Options screen, a component which had had revisions have a VERSION tab for viewing the design of different versions of the piece.



The left grid shows the range of validity of the component (in the example above the component was amended in Revision 1 and Revision 2).

As in the comparison sheet revision, it is possible to display the version with a double click on the preview picture.

Data



From this menu you can set up most of the Data for your company

Material Grade

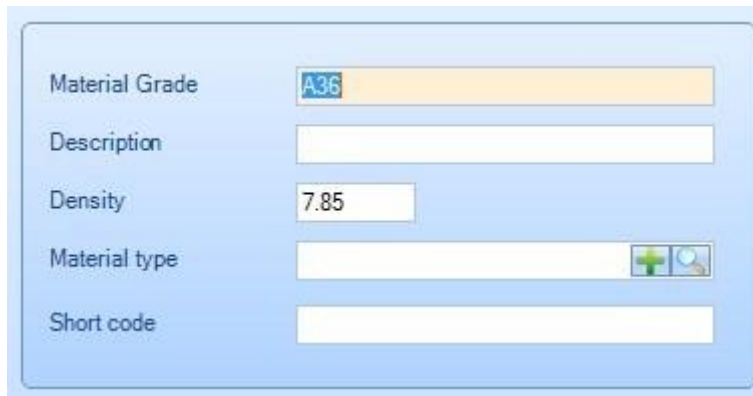


From this menu you can view or set-up your specific Material Grades. Some standard grades are created automatically or you can modify them as you wish

To add a new material grade to the database, type the name into the search box and then press NEW or Ctrl+N



You can then add a description and density (the standard density of steel is 7.85) and then either press SAVE to save and close or NEXT INPUT to add another Material Grade



Material Grade: A36

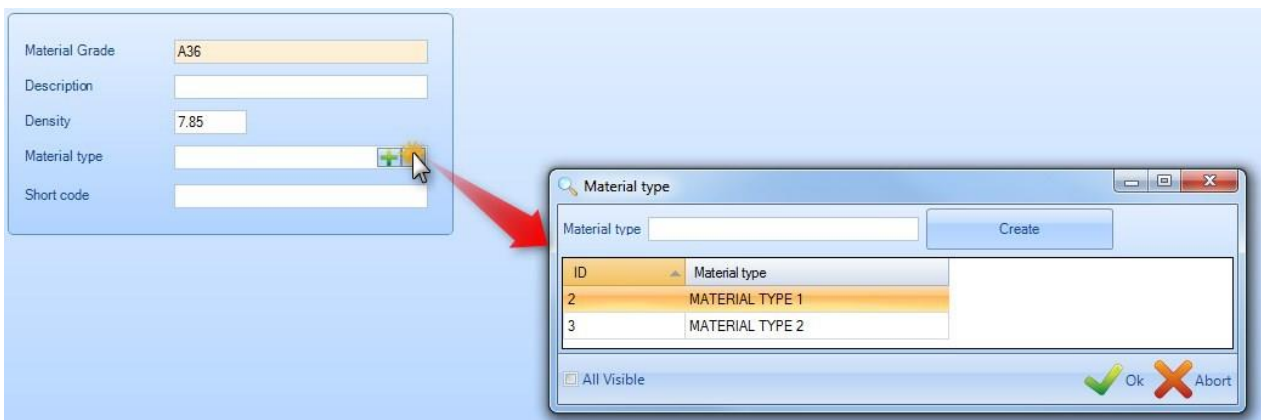
Description:

Density: 7.85

Material type:

Short code:





You can define a material type. this will help you to define and material code link.




Depending on the Project manager options you will be able to define Equivalence between Material grades.

General **STEEL PROJECTS**

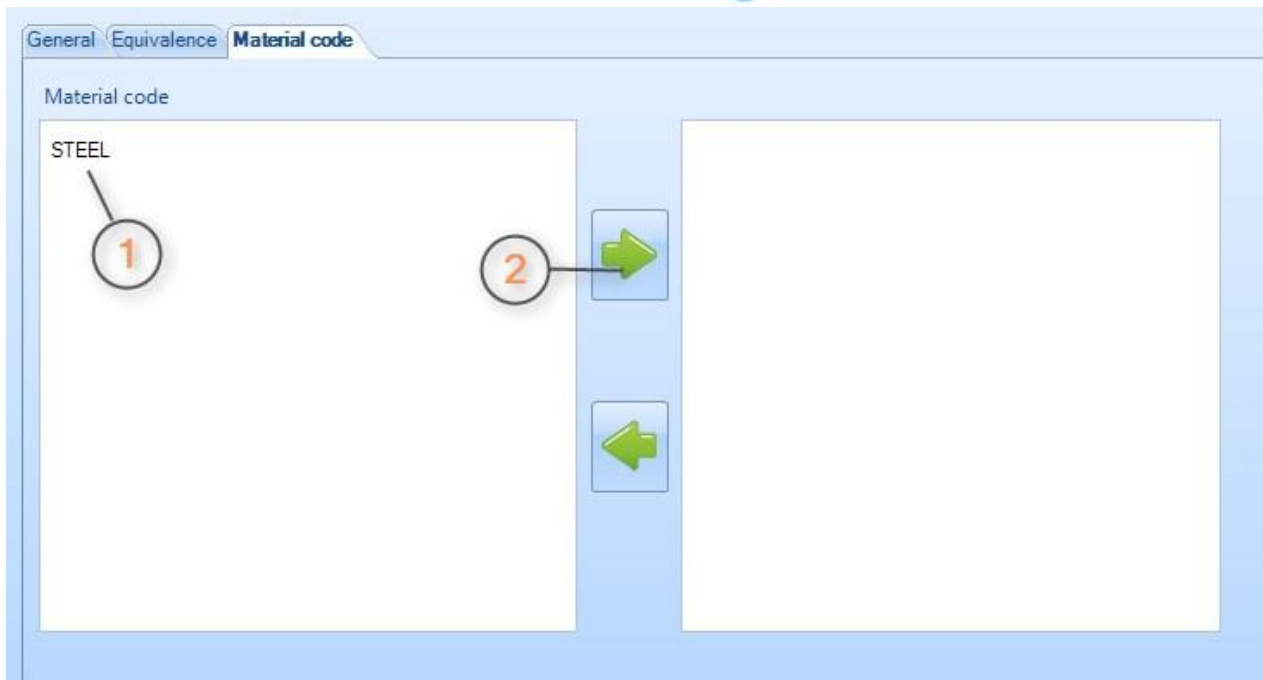
Project manager

Default treatment	<input type="text"/>	
Material Grade By Default	<input type="text"/>	
Default painting	<input type="text"/>	
▶ Status Management	<input checked="" type="checkbox"/>	
Job management	<input checked="" type="checkbox"/>	
Product Management	<input checked="" type="checkbox"/>	
▶ Sub assembly management	<input checked="" type="checkbox"/>	
Drawing quantity	<input type="checkbox"/>	
Revision Management	<input checked="" type="checkbox"/>	
Material Grade Upgrade	<input checked="" type="checkbox"/>	
Profiles Upgrade	<input checked="" type="checkbox"/>	
Project customer management	<input checked="" type="checkbox"/>	
▶ Part checking	<input checked="" type="checkbox"/>	
Warning if part is in drawing in production	<input checked="" type="checkbox"/>	
Priority mode	<input type="text" value="Not any"/>	
Sites and departments management	<input checked="" type="checkbox"/>	
Workstation multi export	<input type="checkbox"/>	
▶ EN 1090 standard management	<input checked="" type="checkbox"/>	

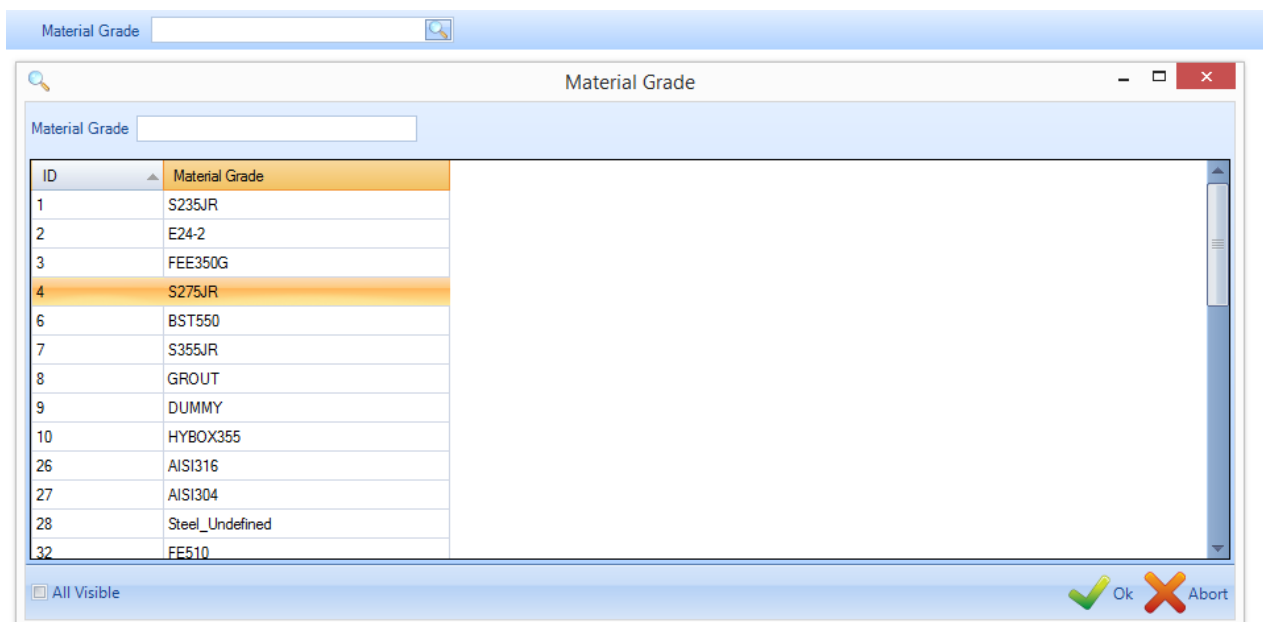
General **Equivalence** Material code

BST550 DUMMY E24-2 FEE350G GROUT HYBOX355 S235JRG2 S275JR S355JR		STEEL PROJECTS S235JR
--	---	--------------------------

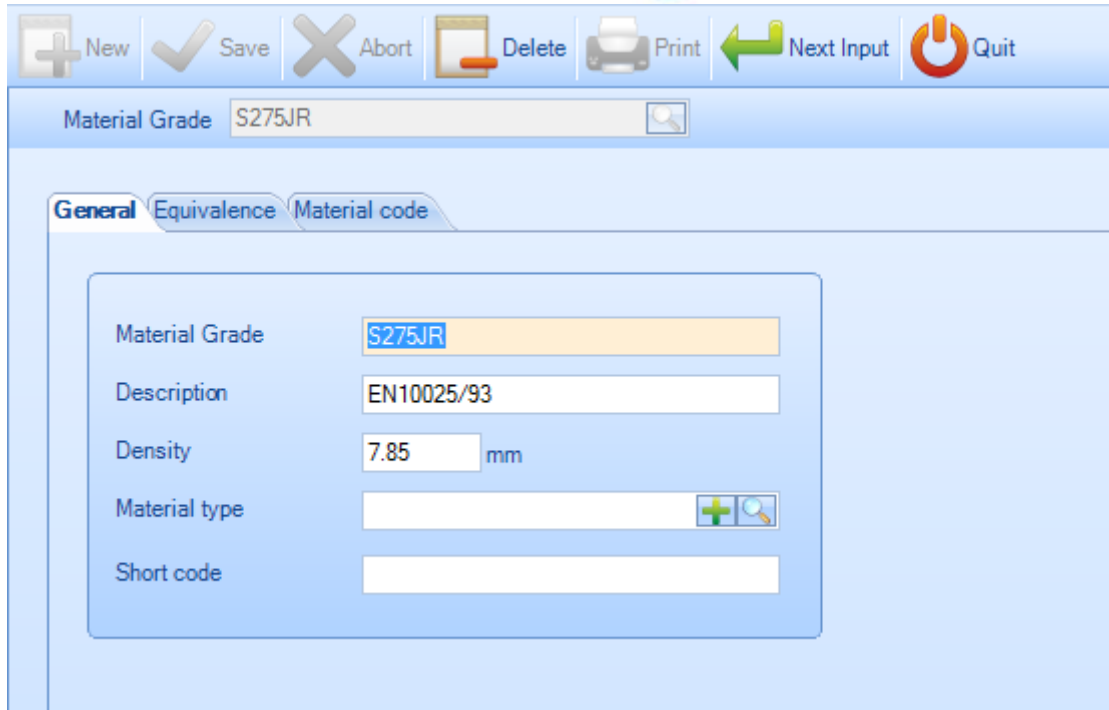
You can define Material Code for each Material Grade or according the Material type you define.



To view the list of material grades, either press f3 or double click in the search box



Then double click on any of the grades to modify its name, description, or density, or delete it from the database



Material Grade S275JR

General Equivalence Material code

Material Grade S275JR

Description EN10025/93

Density 7.85 mm

Material type

Short code

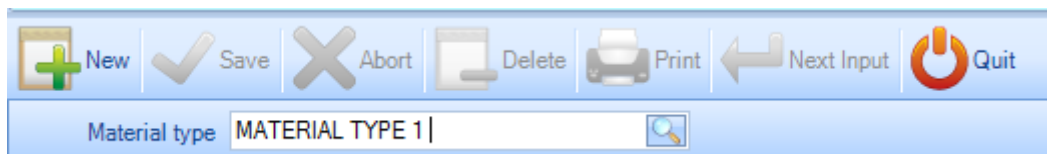
Material Type



From this menu you can view or setup a specific Material Type.

Used only for Plate Nesting Module this parameter will regroup a list of material grades to link with a specificity material code.

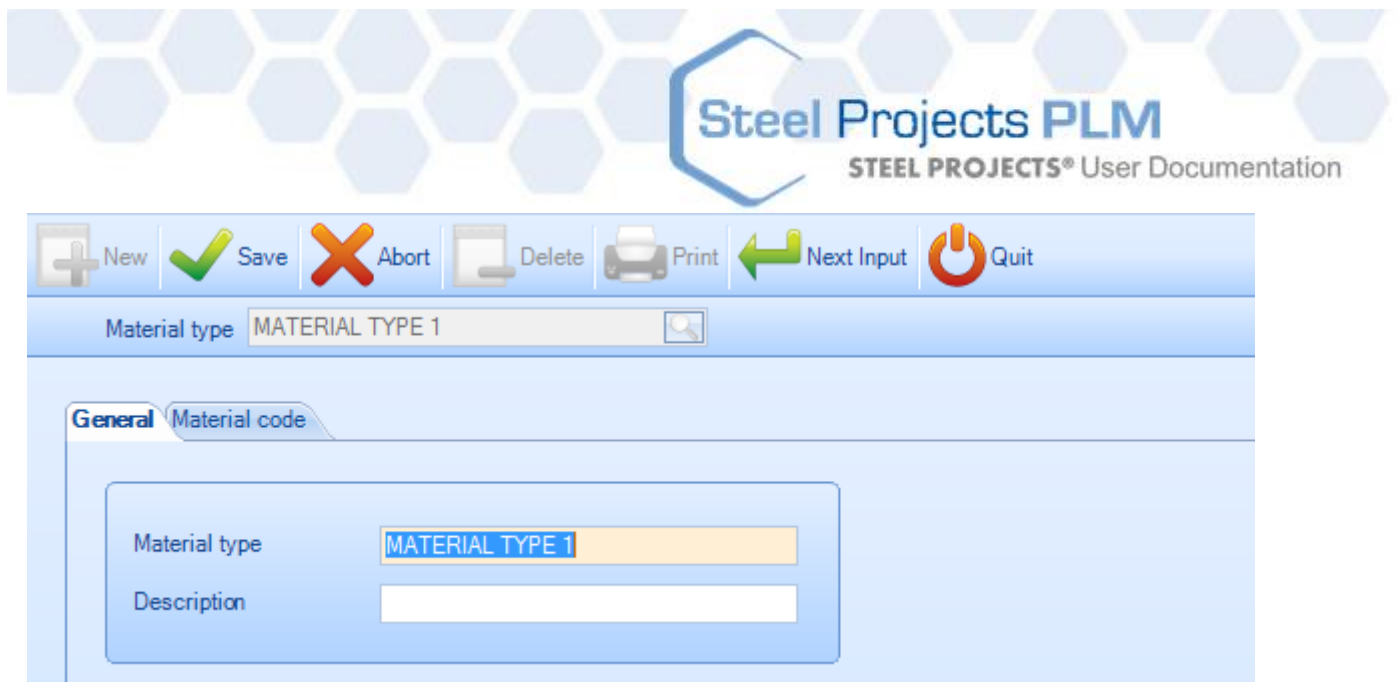
To add a new material type to the database, type the name into the search box and then press NEW or Ctrl+N



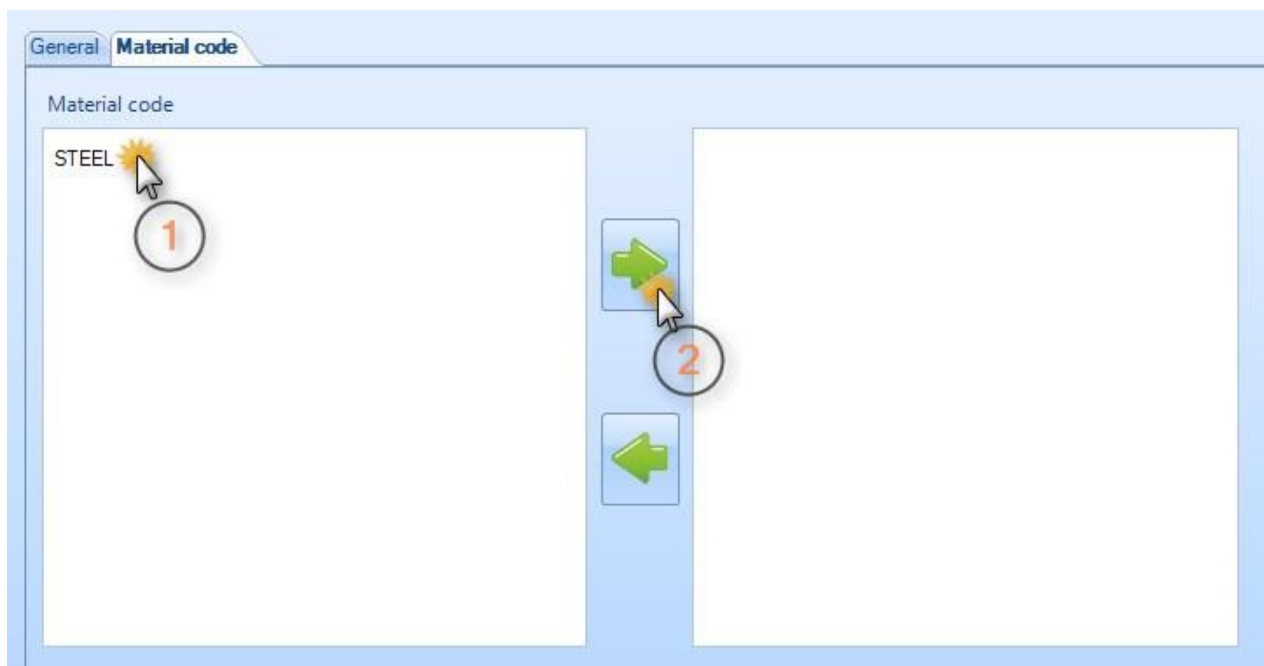
New Save Abort Delete Print Next Input Quit

Material type MATERIAL TYPE 1

You can then add a description



You can then affect a Material Code for this Material type.



Created with the Personal Edition of HelpNDoc: [Free Web Help generator](#)

Treatment



From this menu you can view or setup your different types of treatment. Treatments are extra processing that are not done on a CNC machine, for example Shot blasting or Galvanising. By using the treatments function in PLM you can create specific lists or custom workflows for automatic handling machines.

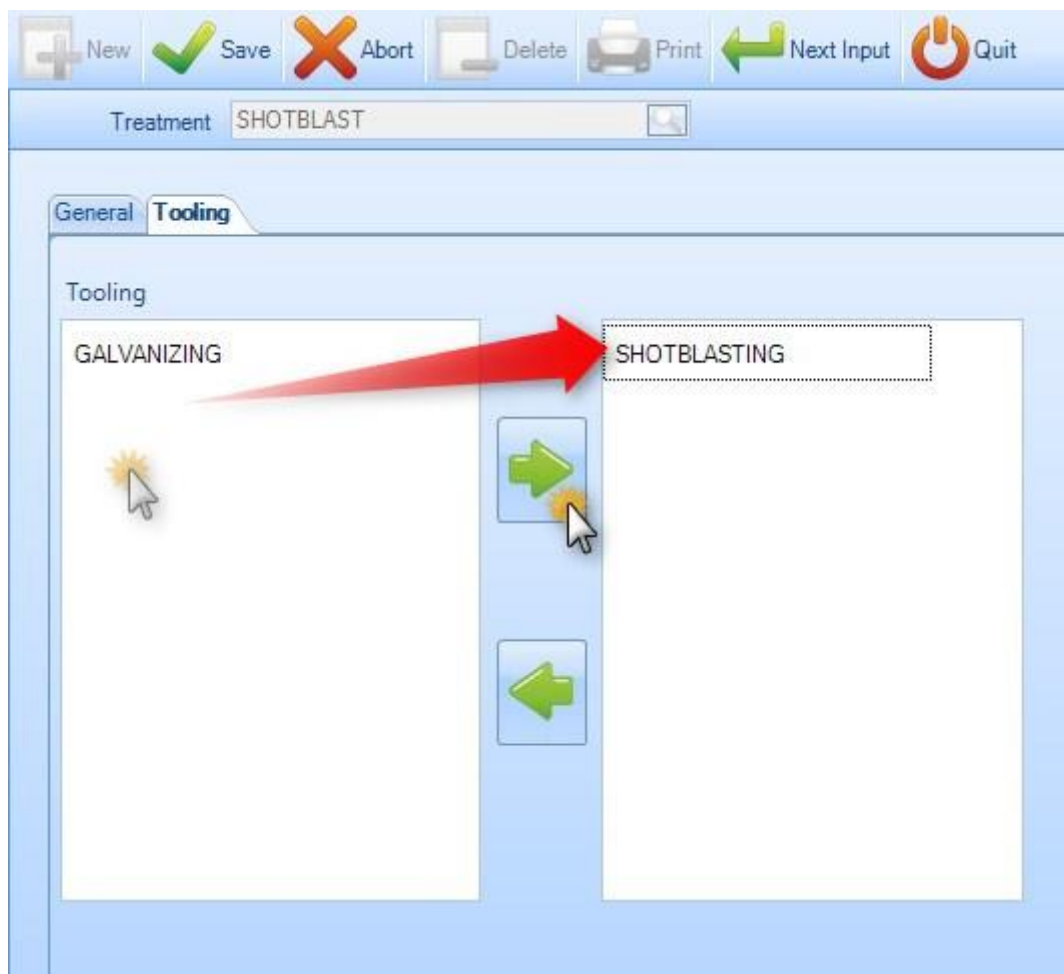
To add a new treatment to the database, type the name into the search box and then press NEW or Ctrl+N



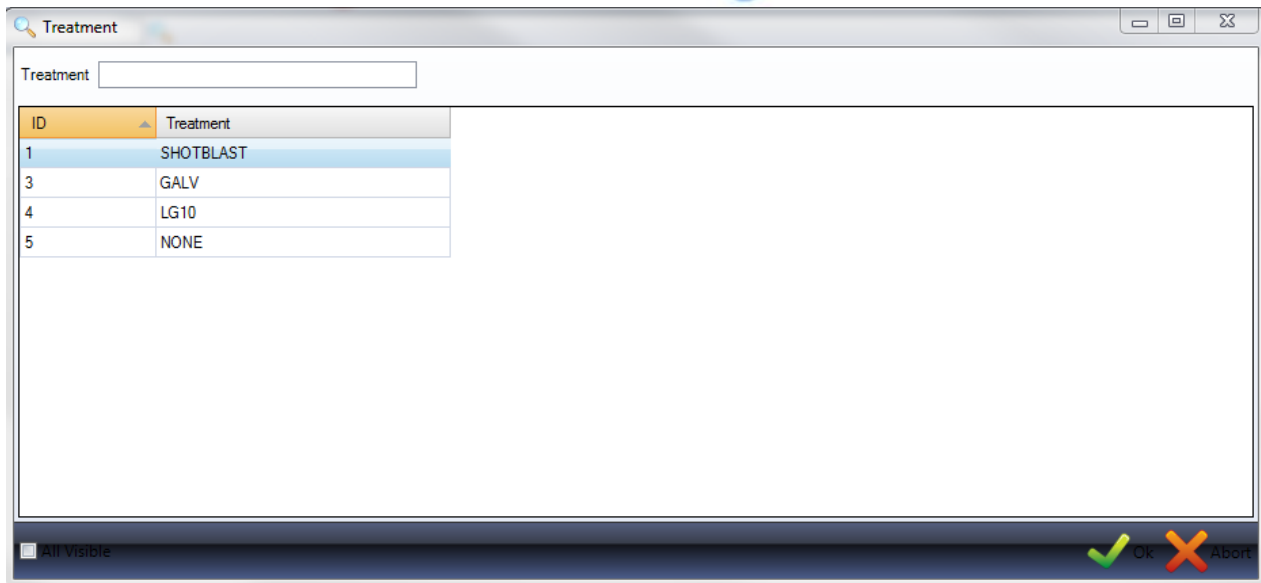
You can then add a description and then either press SAVE to save and close or NEXT INPUT to add another Treatment

Tooling - To associate the treatment with a tooling, you must do this here. This is required when you have an CNC machine that can do the treatment automatically, for example an automatic Shot blast line.

For more information on tooling [see here](#)



To view the list of treatments, either press f3 or double click in the search box. By default this list is blank



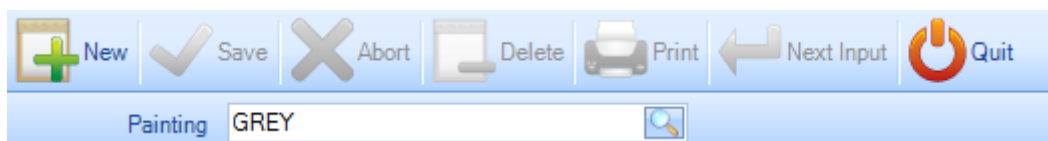
Double Click on a tooling to view it and add a description if required.

Painting



From this menu you can view or setup your different types of painting. This can be used to for reporting, automatic paint requirements calculation, or for custom workflows for different painted or none painted items. You can also set up different rules more single flange unpainted bars.

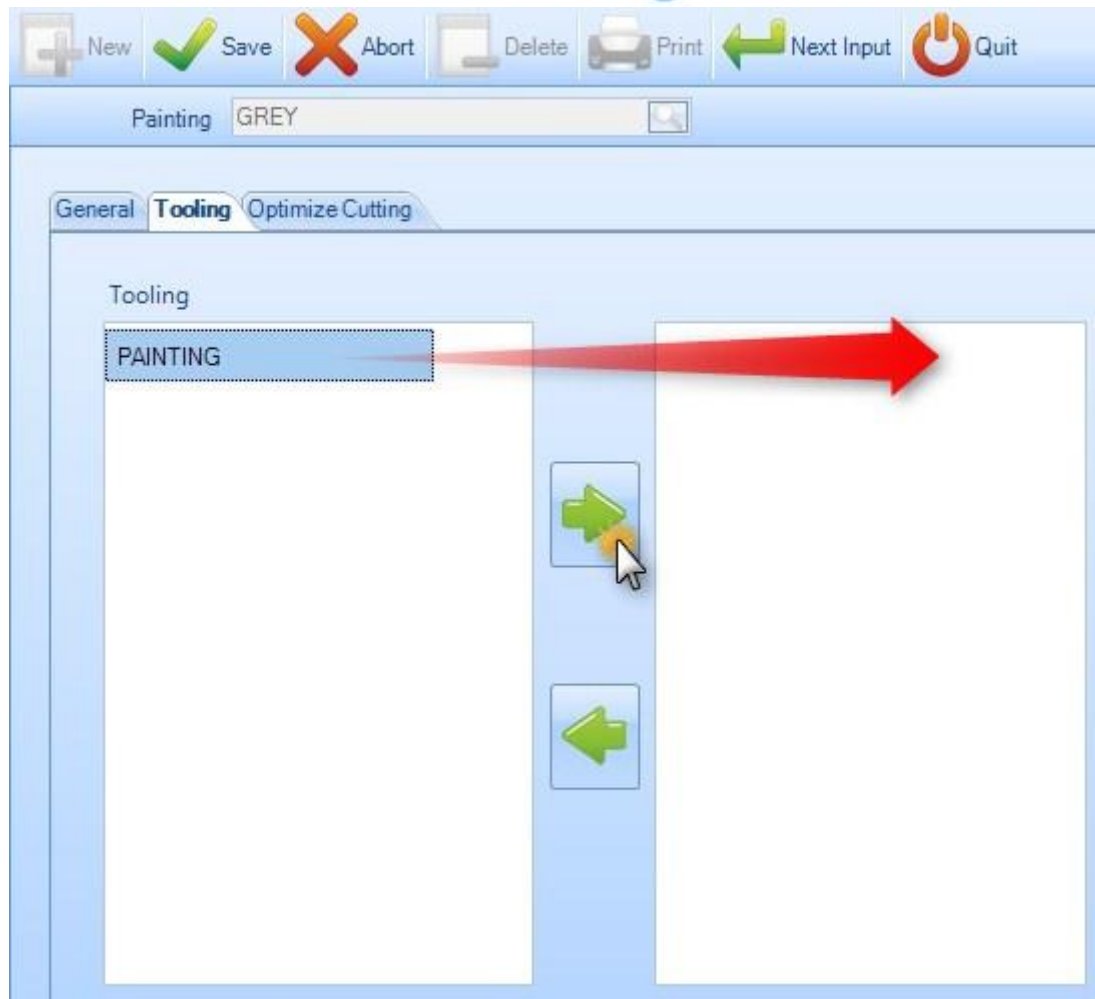
To add a new type of Painting to the database, type the name into the search box and then press NEW or Ctrl+N



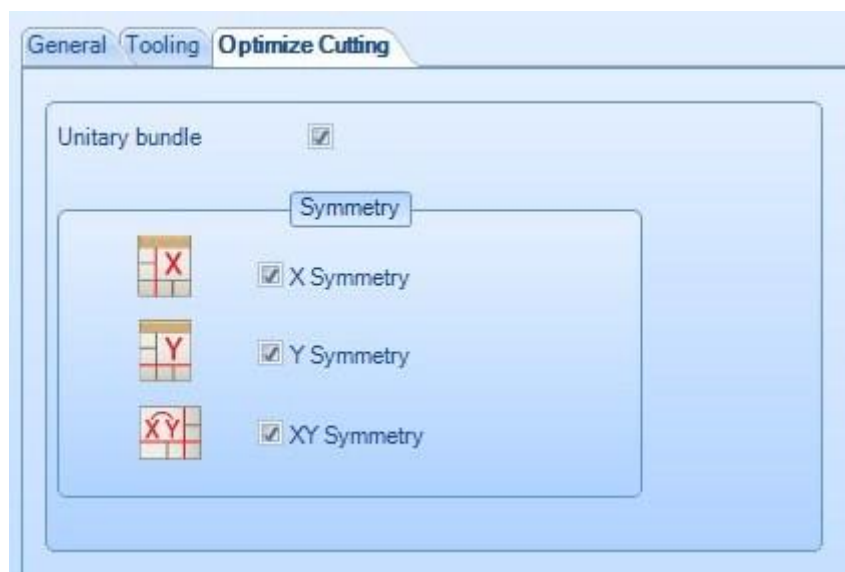
General - Specify the default thickness of this type of painting

Tooling - To associate the Painting with a tooling, you must do this here. This is required when you have an CNC machine that can do the Painting automatically, for example an automatic paint line.

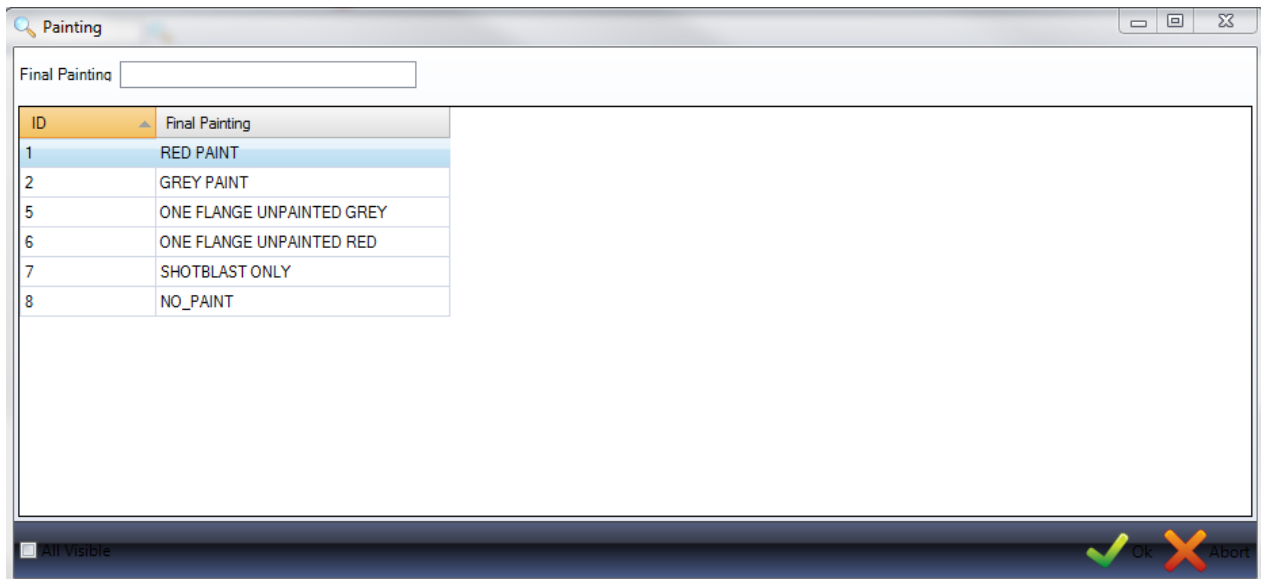
For more information on tooling [see here](#)



Optimize Cutting - If you produce bars that are one flange unpainted, you can control this here by turning off the part rotations the section nesting module will use to optimise the nesting. this allows for the top flange of the part always being at the same place in the bar for all nested parts with this painting type



To view the list of treatments, either press f3 or double click in the search box. By default this list is blank



Double Click on a painting type to view it and modify details if required.

Profiles

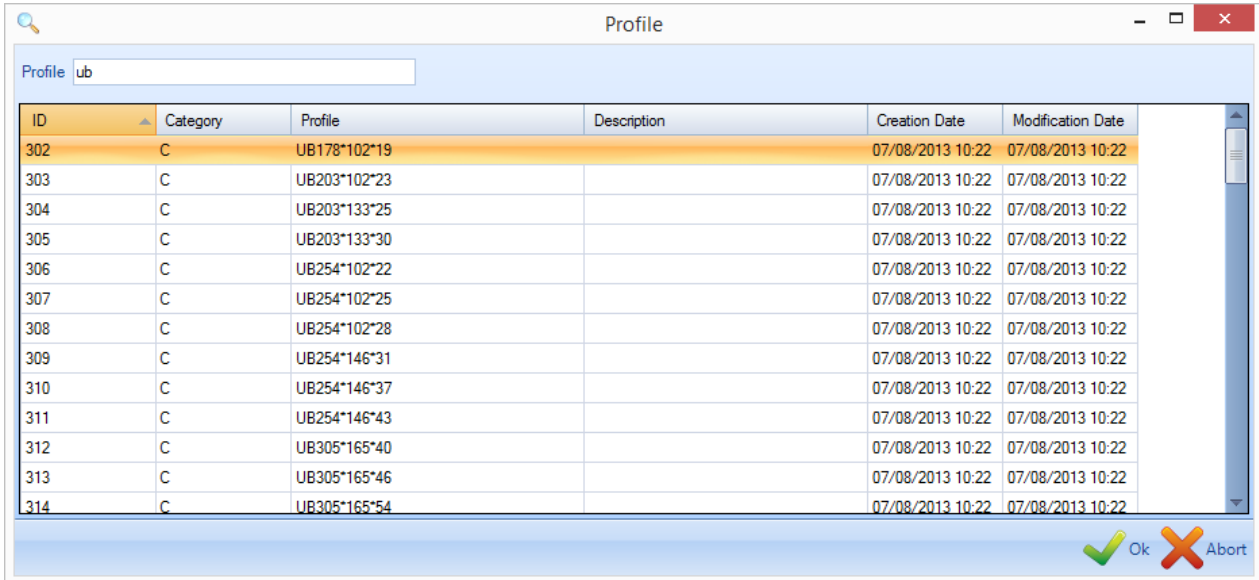


This menu opens up the Profile Manager. By default a full list of standard profiles are included in the database. Profiles are automatically added to the database when importing them from certain CAM files.

View Profiles








To view the list of profile, either press f3 or double click in the search box

A new window will open up. You can use the search box to filter the results.



ID	Category	Profile	Description	Creation Date	Modification Date
302	C	UB178*102*19		07/08/2013 10:22	07/08/2013 10:22
303	C	UB203*102*23		07/08/2013 10:22	07/08/2013 10:22
304	C	UB203*133*25		07/08/2013 10:22	07/08/2013 10:22
305	C	UB203*133*30		07/08/2013 10:22	07/08/2013 10:22
306	C	UB254*102*22		07/08/2013 10:22	07/08/2013 10:22
307	C	UB254*102*25		07/08/2013 10:22	07/08/2013 10:22
308	C	UB254*102*28		07/08/2013 10:22	07/08/2013 10:22
309	C	UB254*146*31		07/08/2013 10:22	07/08/2013 10:22
310	C	UB254*146*37		07/08/2013 10:22	07/08/2013 10:22
311	C	UB254*146*43		07/08/2013 10:22	07/08/2013 10:22
312	C	UB305*165*40		07/08/2013 10:22	07/08/2013 10:22
313	C	UB305*165*46		07/08/2013 10:22	07/08/2013 10:22
314	C	UB305*165*54		07/08/2013 10:22	07/08/2013 10:22

Double click on a profile to see details about it. In here you can manually modify any of the dimensions if required.

 New
  Save
  Abort
  Delete
  Print
  Next Input
  Quit

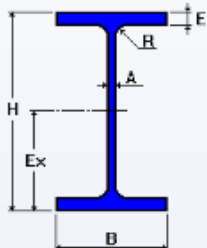
Profile

General

Profile
☒ Metric (mm)
 ☐ Imperial

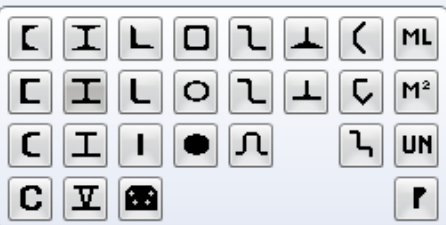
Description
 Maximum Scrap mm

H	<input type="text" value="256.00"/>	H1	<input type="text"/>
B	<input type="text" value="146.40"/>	B1	<input type="text"/>
C	<input type="text"/>	C1	<input type="text"/>
A	<input type="text" value="6.30"/>	A1	<input type="text"/>
E	<input type="text" value="10.90"/>	E1	<input type="text"/>
R	<input type="text" value="7.60"/>	R1	<input type="text"/>
		R2	<input type="text"/>



Ex	<input type="text" value="0.00"/>
Ey	<input type="text"/>
Tr	<input type="text" value="0.00"/>
Tr1	<input type="text" value="0.00"/>
Prc	<input type="text"/>
Prc1	<input type="text"/>








Weight Kg/ml
 Surface m²/ml
 Section mm²



Adding New Profiles

If you need to manually draw a part with a given profile size, you need to first add it into the Profile Manager

To manually add a new profile to the database, type the name into the search box and then press NEW or Ctrl+N

 New
  Save
  Abort
  Delete
  Print
  Next Input
  Quit

Profile

Then choose the type of profile by clicking on the corresponding icon, and add the profile measurements

The weight, surface area and section are automatically calculated

General

Profile: ☒ Metric (mm) ☐ Imperial

Description: Maximum Scrap: mm

H	<input type="text" value="0.00"/>	H1	<input type="text"/>
B	<input type="text" value="0.00"/>	B1	<input type="text"/>
C	<input type="text"/>	C1	<input type="text"/>
A	<input type="text" value="0.00"/>	A1	<input type="text"/>
E	<input type="text"/>	E1	<input type="text"/>
R	<input type="text" value="0.00"/>	R1	<input type="text"/>
		R2	<input type="text"/>

Ex	<input type="text" value="0.00"/>
Ey	<input type="text" value="0.00"/>
Tr	<input type="text" value="0.00"/>
Tr1	<input type="text" value="0.00"/>
Prc	<input type="text"/>
Prc1	<input type="text" value="0.00"/>

Weight: Kg/ml

Surface: m²/ml

Section: mm²

ML

M²

UN

P

ML

M²

UN

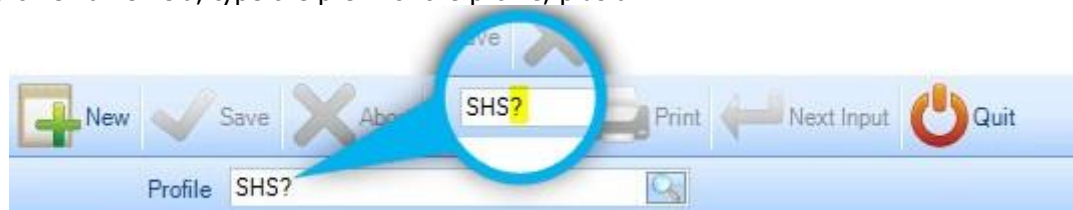
P

When you are finished, press SAVE to save and close or NEXT INPUT to save and add another Profile

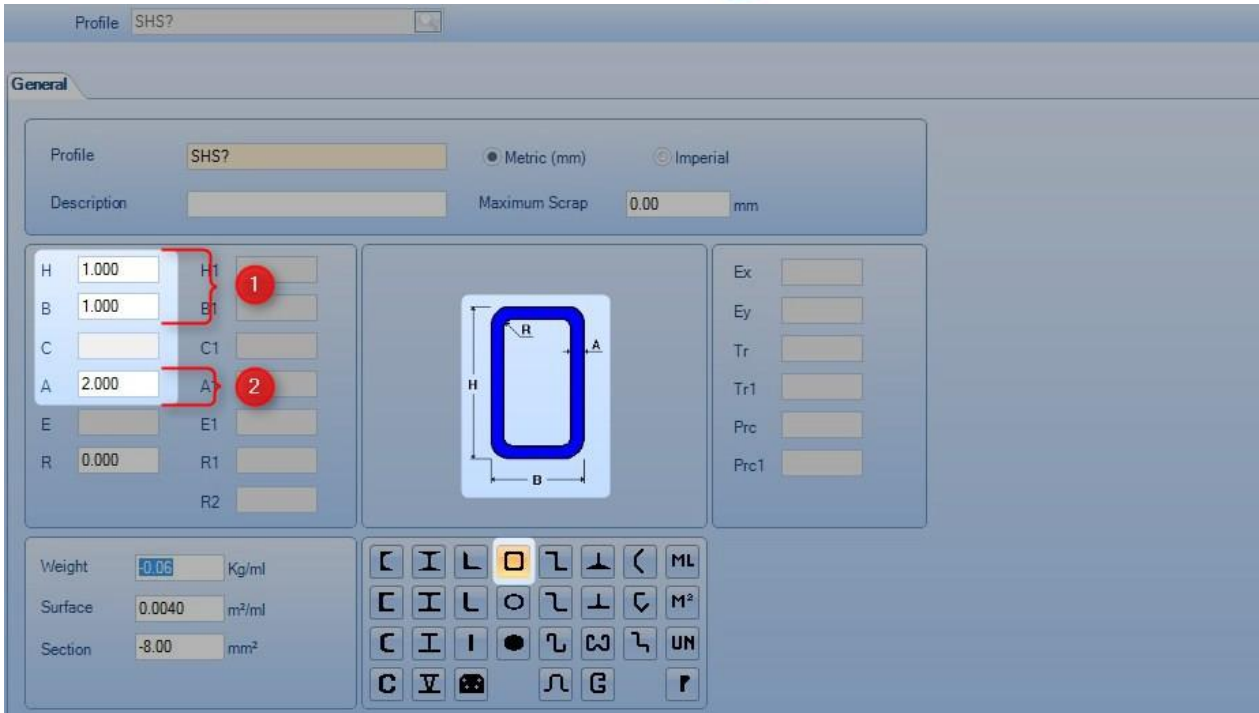
Creating a Generic profile

It's possible to create a parametrized profile.
This is used when you don't want to create all dimensions of a profile.

In the profile name field, type the prefix of the profile, plus a "?"



This question mark means some parameters are expected
When you press enter, in the next screen, you will have to enter the parameters in their sequence



When you will use this profile, you will have to input as follow :

SHS100*3

The first parameter after the profile name, 100, will be assigned to the height and the width of the square profile

The second, 3, will be the thickness

Folding Parameters

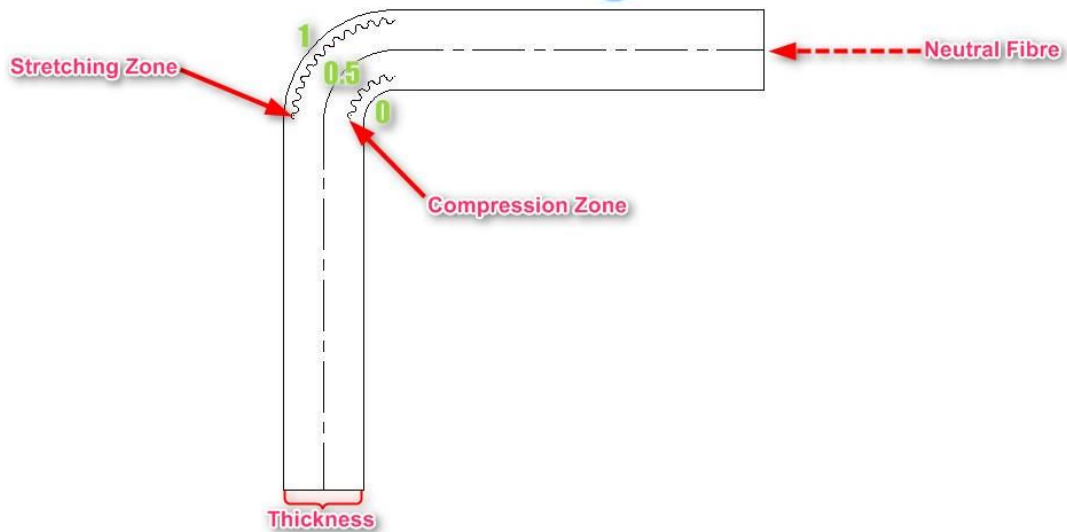


Steel Projects PLM includes a part unfolding tool.

To use it, the folding parameters must have been set-up.

The goal is to define a ratio, r , for each folding case.

This ratio, in green here, is the position of the neutral fibre, as shown below : (0.5 is in the exact middle of the thickness, 1 is on the inside and 0 is on the outside)



Let's analyse this example :

Category	Prefix	Material Grade	Fold type	Minimum angle	Maximum angle	Min Thickness	Max Thickness	Ratio
L				-180.00	180.00			0.50
L		S235JR		-180.00	-90.00			0.30
L		S235JR		-90.00	-90.00			0.33
L		S235JR		-90.00	180.00			0.35

The folded angle profiles have a 0.5 ratio.

A folded angle, with a S235JR material grade have a ratio of

0.30 for a bending angle $-180^\circ < > -90^\circ$

0.33 for a -90° angle

0.35 for a bending angle $-90^\circ < > 180^\circ$

In our example, the first line is not mandatory.

By default, the ratio, if not defined in this grid, is equal to 0.5

Standard Flats



Standard Flats are "plate" parts that PLM can use section nesting for, in order to go through a linear machine such as a saw drill or angle line for example.

You can use this screen to set the standard flat sizes.

Any part with a size not in this list, or of a none standard shape, will be imported as a gusset\plate in order to be sent for plate nesting

0.00


+


+

Thickness

	1.00	2.00	3.00	4.00	5.00	6.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
5.00															
6.00															
10.00															
15.00															
20.00															
25.00															
30.00															


Width


To add a new size not already in the list, type the size in the box and press the top  button to add it as

a possible thickness, and the left  to add it as a width

Then if you double click white circle on the grid, it will turn black and therefore recognised as a standard flat.

To multi select or deselect a row or column, choose the circles you want with the mouse while holding the

Shift or Ctrl key, and use 

To totally delete a certain thickness or width from the list, press on the line and then press 

Customer



You can use this menu to add details of your customers in order to automate reports, and view attached documents from the document manager

To add a new customer to the database, type the name into the search box and then press NEW or Ctrl+N




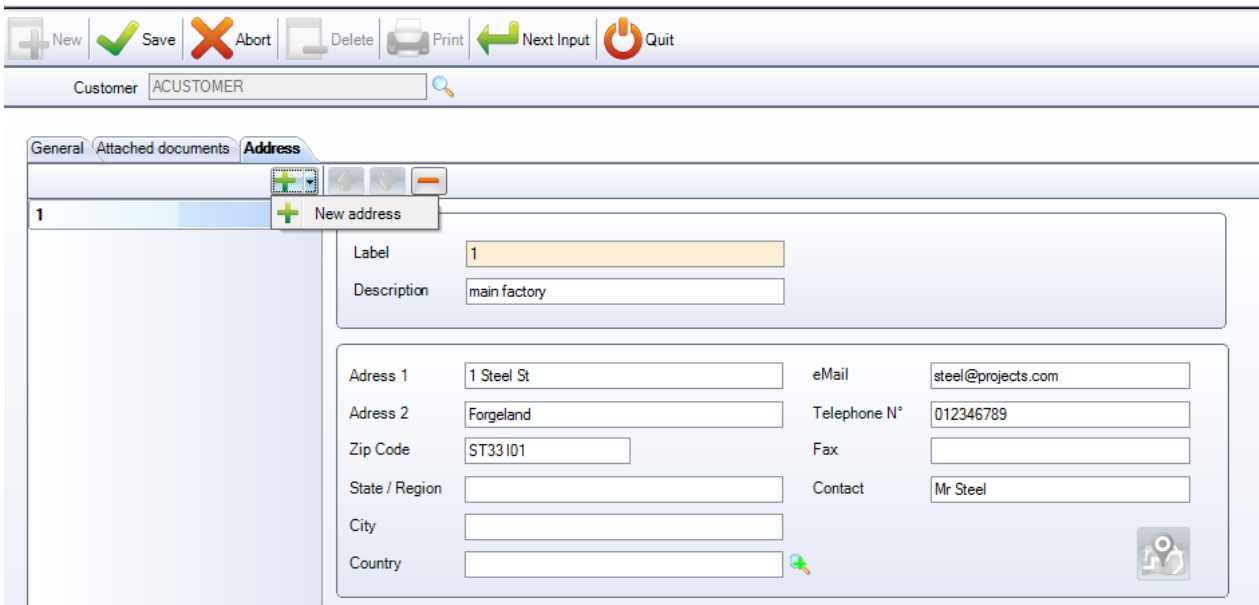
General - Add descriptions for the customer including their VAT codes and comments. This information can be associated with the customer and shown on reports

Attached Documents - Shows all documents that have been attached using the DOCUMENT MANAGER

Address - Add Address's associated with this customer.


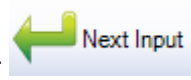


To add a new address press  and enter the details below.



The screenshot shows the 'Address' tab of the software interface. At the top, there is a toolbar with buttons for New, Save, Abort, Delete, Print, Next Input, and Quit. Below the toolbar, there is a search bar for the Customer, currently showing 'ACUSTOMER'. The main form area has tabs for General, Attached documents, and Address. The Address tab is active, showing a list of addresses on the left and a form for adding a new address on the right. The form includes fields for Label (1), Description (main factory), Address 1 (1 Steel St), Address 2 (Forgeland), Zip Code (ST33101), State / Region, City, Country, eMail (steel@projects.com), Telephone N° (012346789), Fax, and Contact (Mr Steel). There is also a location pin icon for the Country field.

Add an extra address by repeating the same steps.

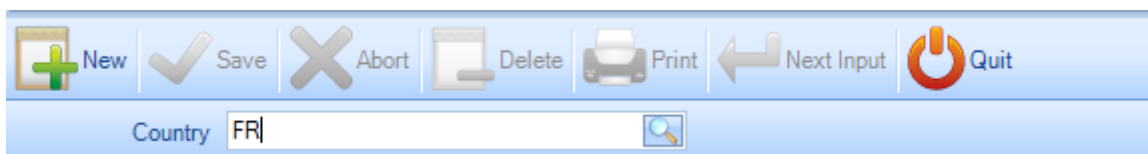
Once completed press  to save and exit or  to add a new customer

Country



If you operate in multiple countries, you can list them here to be available in drop down menus throughout the program

To add a new country to the database, type the name into the search box and then press NEW or Ctrl+N



The screenshot shows the 'Country' search bar in the software interface. It features a toolbar with buttons for New, Save, Abort, Delete, Print, Next Input, and Quit. Below the toolbar, there is a search bar for the Country, currently showing 'FR'. There is a magnifying glass icon for the search bar.

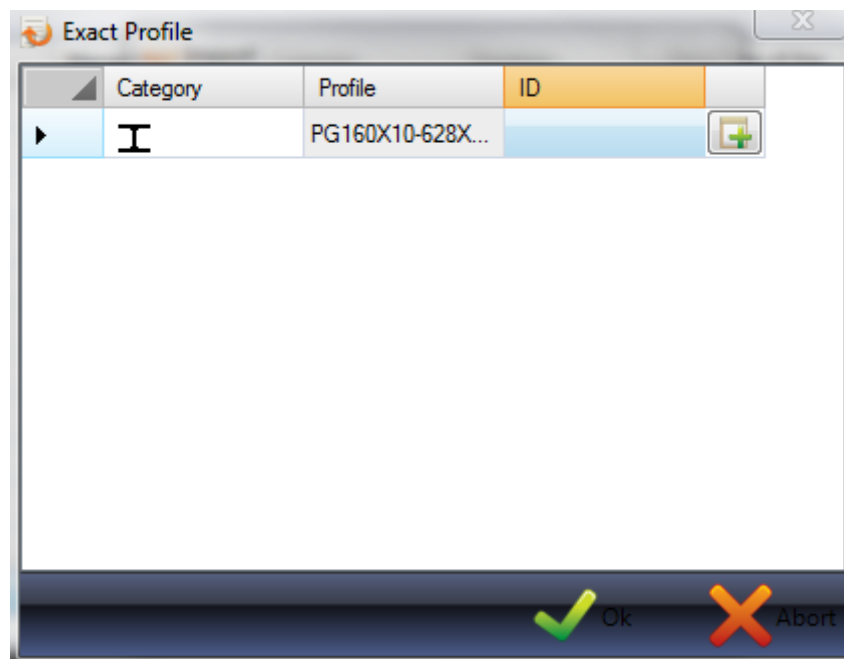
Exact Profile \ Material Grade



It is possible to associate none standard profiles or material grades with standard ones you have set up in your database. With this option they are automatically changed to be to profile or material grade you have set up.

To use this option you first need to activate the option in the [CONFIGURATION](#) menu

The associations are created when parts are imported using an option at that stage. With the configuration option checked when you try import a part with a profile or grade that is not in your database, the exact profile window will open.



If you press  the profile will be added to the database. If you double click in the ID box, it will open up a new window for where you can find a profile to associate the selected one with

You can type in the profile box to filter the results

Profile

ID	Category	Profile	Visible	H	B	C	A
124	C	HEA100	1	96	100	0	5
125	C	HEA1000	1	990	300	0	16.5
126	C	HEA120	1	114	120	0	5
127	C	HEA140	1	133	140	0	5.5
128	C	HEA160	1	152	160	0	6
129	C	HEA180	1	171	180	0	6
130	C	HEA200	1	190	200	0	6.5
131	C	HEA220	1	210	220	0	7
132	C	HEA240	1	230	240	0	7.5
133	C	HEA260	1	250	260	0	7.5
134	C	HEA280	1	270	280	0	8
135	C	HEA300	1	290	300	0	8.5

Ok Abort

This menu allows you to view and delete all of the associations that have been made

Click on the relevant tab to view the list.

To delete an association, click on it in the list and press



New Save Abort Delete Print Next Input Quit





Material Grade Profile Treatment Painting

Material Grade	Exact Material Grade	Creation Date
ST37		
ST37	43A	28/03/2012 13:31:39
ST37	STEEL	07/06/2012 16:22:05
S355JR		
S355JR	50B	11/06/2012 08:17:40
S355JR	S355-JR	11/04/2012 10:21:08
S355JR	SPECIAL092	12/07/2012 10:19:00
ALMG3		
ALMG3	AL	29/06/2012 12:44:27
G0492663		
G0492663	G04926	18/09/2012 10:13:36
G0592102		
G0592102	G05921	18/09/2012 10:13:26
G0851116		
G0851116	G08511	18/09/2012 10:13:20
G0851205		
G0851205	G08512	18/09/2012 10:13:20
G0851655		
G0851655	G08516	18/09/2012 10:13:20
G0851841		
G0851841	G08518	18/09/2012 10:13:20

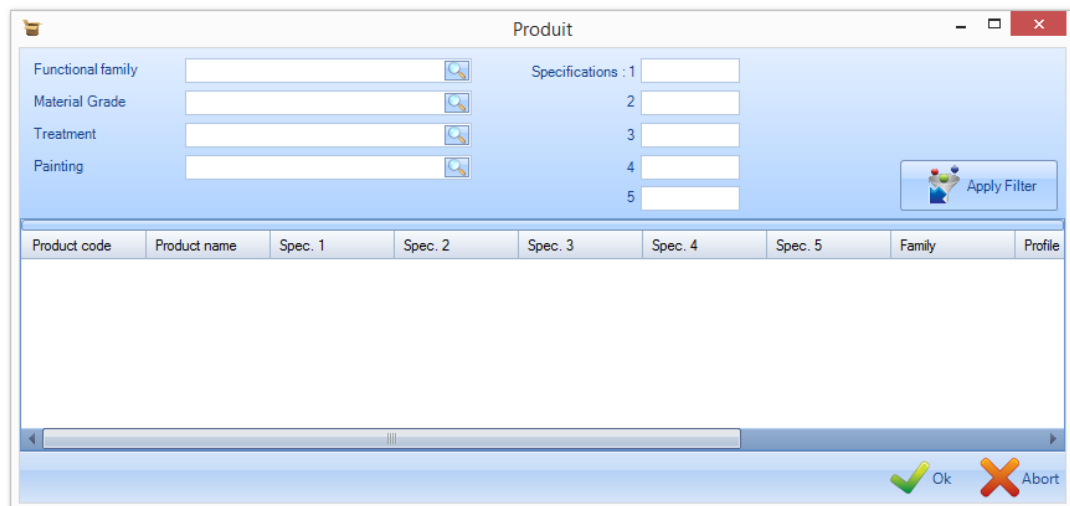
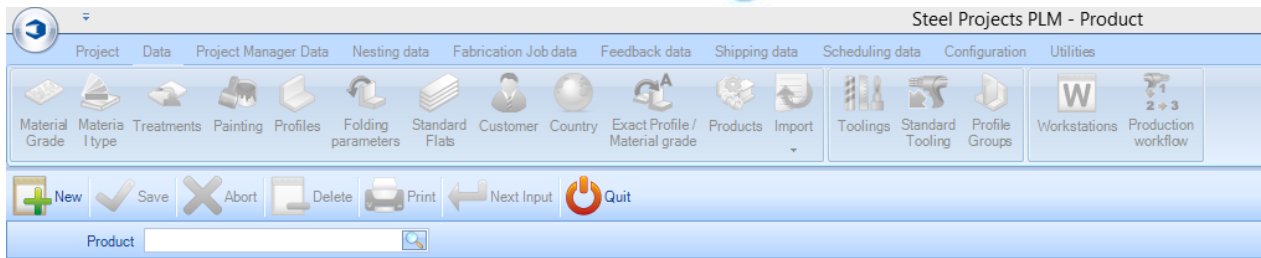
Products



This option is only visible if you activate the product management option.

General		STEEL PROJECTS
Project manager		
Default treatment		
Material Grade By Default		
Default painting		
▶ Status Management	<input checked="" type="checkbox"/>	
Job management	<input checked="" type="checkbox"/>	
Product Management	<input checked="" type="checkbox"/>	
▶ Sub assembly management	<input checked="" type="checkbox"/>	
Drawing quantity	<input type="checkbox"/>	
Revision Management	<input checked="" type="checkbox"/>	
Material Grade Upgrade	<input checked="" type="checkbox"/>	
Profiles Upgrade	<input checked="" type="checkbox"/>	
Project customer management	<input checked="" type="checkbox"/>	
▶ Part checking	<input checked="" type="checkbox"/>	
Warning if part is in drawing in production	<input checked="" type="checkbox"/>	
Priority mode	Not any	
Sites and departments management	<input checked="" type="checkbox"/>	
Workstation multi export	<input type="checkbox"/>	
▶ EN 1090 standard management	<input checked="" type="checkbox"/>	

Activating this option will give you an extra option to manage products like bolts, washers, nuts, etc.



Toolings

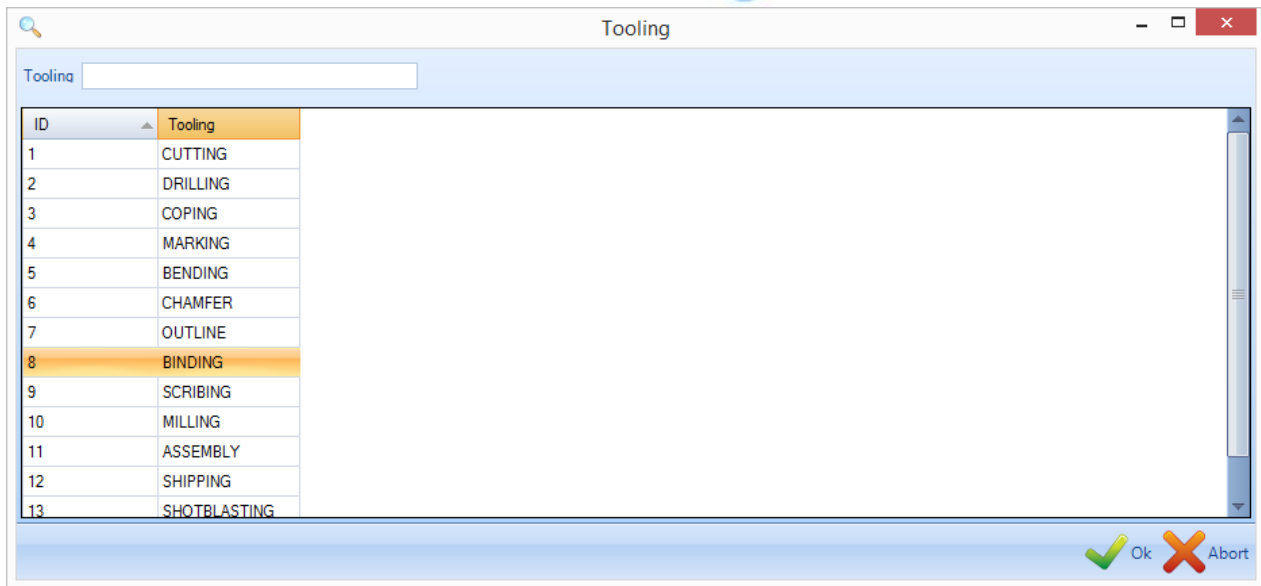


From this menu you can create all the tooling you can perform in your facility. This includes machine specific tooling such as drilling, cutting, coping etc and also none machined processes such as assembly, welding and delivery.

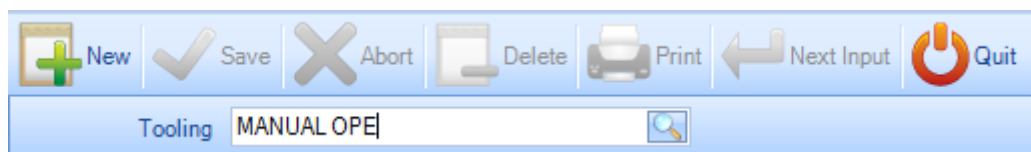
Tooling's are associated with parts when they have been drawn or imported in the project manager. If a part has holes in it for example, it would have the drilling tooling associated to it. When you set your workstations up, you state what tooling can be performed at that workstation. The system will then know that this part needs to be sent to a workstation that can do this tooling

All of the standard toolings are already set up, but you can add extra ones if you require to have an advanced production routing, or achieve production piece monitoring from none CNC workstations.








To view the list of toolings, either press f3 or double click in the search box



To add a new tooling to the database, type the name into the search box and then press NEW or Ctrl+N



If a standard tooling exists that has not already been used then you can make this association from this screen. If it is a manual tooling, you must choose "Not Any"

 New
  Save
  Abort
  Delete
  Print
  Next Input
  Quit

Tooling

Tooling
 Description

Connection

☒ Not any
☐ Cutting
☐ Drilling
☐ Coping
☐ Assembly
☐ Sub assembly
☐ Treatment

☐ Marking
☐ Bending
☐ Chamfer
☐ Outline
☐ Binding
☐ Scribing
☐ Milling
☐ Painting
☐ Shipping

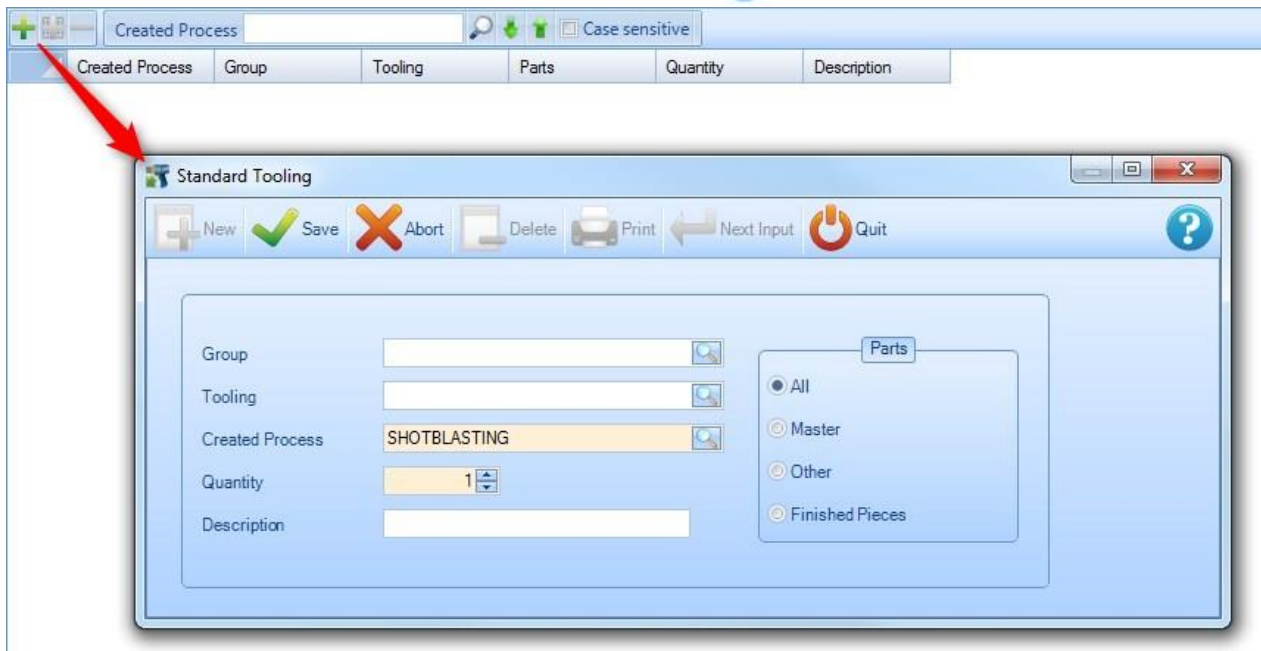
Standard Toolings



You can use this menu to apply rules to automatically assign certain toolings to parts. This is required for advanced machine routing and not required for standard usage.

To add a new standard tooling press the + button on the toolbar or right click and press new

From this window you can then choose a profile group and choose the tooling to be added to the either all the parts, the finished assembly, or the master part.



Group - Use this list to create a process only for one profile group (If empty the process will be created for all groups)

Tooling - Use this list to create a process only to replace an existent one

Create Process - This parameter defines the tooling process to create

Quantity of tooling process - This parameter defines the quantity

Description - Optional description

Parts - Define the part's type affected by the tooling creation.

Profile Groups










Custom profile groups are used to group similar parts together for specific production workflow routing or to help you for a selection.


For example, you may want parts with a certain tooling, or a different size or profile, to go through your factory in a different route than other parts with different characteristics.

The complexity of your profile groups will depend on the number of workstations you have in your factory and the complexity of your workflow.

The name of your groups can be a certain section, or any other name that means something to the way you work

To add a new profile group, type the name into the search box and then press NEW or Ctrl+N

 New
  Save
  Abort
  Delete
  Print
  Next Input
  Quit

Group 

General

Group 

General Tooling Detail

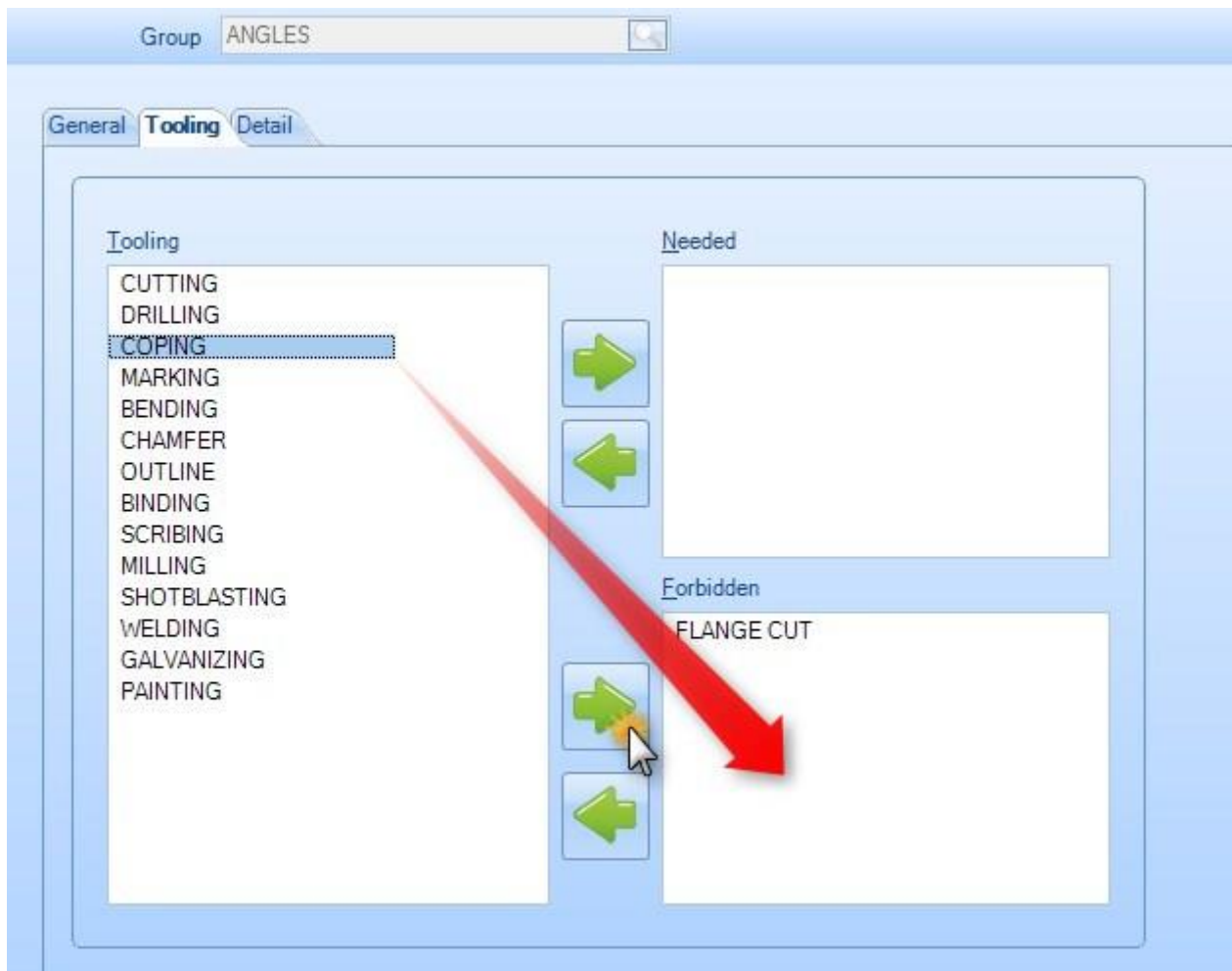
Group

Description

Criteria			Maxi Nb of Diameters		Maxi Nb if Gauge Lines	
	Minimum	Maximum				On axis
Length	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	Web	<input type="text" value="0"/>	Web	<input type="text" value="0"/> <input type="checkbox"/>
Width	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	Top Flange	<input type="text" value="0"/>	Top Flange	<input type="text" value="0"/>
Weight	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	Bottom Flange	<input type="text" value="0"/>	Bottom Flange	<input type="text" value="0"/>
Angle	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	Back Web	<input type="text" value="0"/>	Back Web	<input type="text" value="0"/>
Diameter	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>				
Plate	<input type="checkbox"/>					

Description, Maxi Nb of Diameters, Maxi Nb of Gauge Lines - Specify criteria parts need to adhere to in order to be selected for this group. If left at 0.00 these are not used as criteria

Tooling










Specify tooling that will neither be Needed or Forbidden for a group. Click on one of the toolings in the list



on the left and press to add it to the correct window

If the part needs to be in a give group then it must have this tooling associated with that group. If a tooling is forbidden, a part with this tooling can not be assigned in this group. Toolings that are not put in one of these options are not used as a criteria for the profile group

Detail


 New
  Save
  Abort
  Delete
  Print
  Next Input
  Quit

Group


General Tooling **Detail**

Category	Prefix	Minimum				Maximum			
		Web	Flange	E_Web	E_Flange	Web	Flange	E_Web	E_Flange
L									

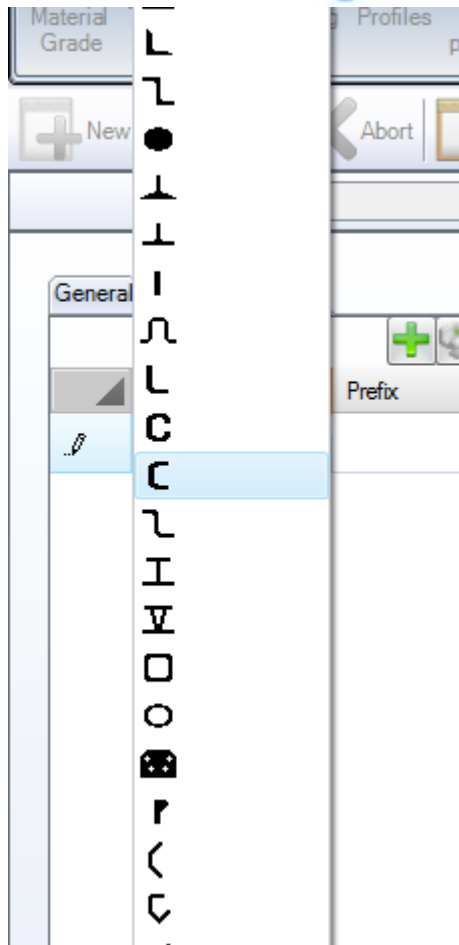
Specify the profiles or profile ranges to be included in this Profile Group

 Add a new profile or profile range to the list

 Add all profiles to the group

 Delete a line from the list

Double Click in the Category window and choose the required profile from the drop down list



To create a detail profile group range, you can add add more specific information

Prefix - Specify a profile name prefix. For example, UC or UB if you want to have separate groups for these two types of Profile

Min \ Max Web
Min \ Max Flange
Min \ Max E_Web (thickness)
Min \ Max E_Flange (Thickness)

Press Save to save the Profile Group or Next Input to save and create another group.

If you create a list of groups that have overlapping profiles, i.e, part can be attributed to more than one profile group, then it is assigned to the one which is first alphabetically.

Use

If you change or add a profile group you can regenerate the groups assigning already imported and processed part to there new groups:



Evaluate the profile group in the part list :

Project BAT01 Drawing Assembly Mark Component 23											
		Component	Quantity	Profile	Length	Width	Material Grade	Final Painting	Treatment	Group	Description
		186	2	CC100-2-2-22-2-116	477.51		S235JRG2			PROFILES	ARRET DALLE
		187	2	CC100-2-2-22-2-136	3210.65		S235JRG2			PROFILES	ARRET DALLE
		188	1	CC100-2-2-22-2-136	3264.59		S235JRG2			PROFILES	ARRET DALLE
		189	32	PLATE30	6188.00	1035.00	S235JRG2			PLATES	BAC
		19	2	IPE180	7101.17		S235JRG2			PROFILES	POTEAU
		190	16	PLATE30	9400.00	1035.00	S235JRG2			PLATES	BAC
		191	1	PLATE30	8248.40	1035.00	S235JRG2			PLATES	BAC
		192	1	PLATE30	5721.70	1035.00	S235JRG2			PLATES	BAC
		193	2	L90*9	160.00		S235JRG2			ANGLES	EQUERRE
		194	1	CC100-2-2-22-2-160	3060.00		S235JRG2			PROFILES	ARRET DALLE
		195	1	CC100-2-2-22-2-116	3300.00		S235JRG2			PROFILES	ARRET DALLE
		196	1	CC100-2-2-22-2-116	1900.00		S235JRG2			PROFILES	ARRET DALLE

Use profile groups as filter for your selection :

Filtre

Name

Project Drawing Assembly Mark **Component**

Component Finished Pieces ☐

Profile Master Part ☐

Material Grade Sub assembly ☐

Treatment

Unit Thickness

Profile Groups

- ANGLES
- PLATES
- PROFILES
- PROFILES COPING

Tooling

- FLANGE CUT
- GALVANIZING
- MARKING
- MILLING
- OUTLINE
- PAINTING
- SCRIBING
- SHOTBLASTING
- WELDING

☐ Inversion

Save Abort Delete Reset Apply Quit

Workstations



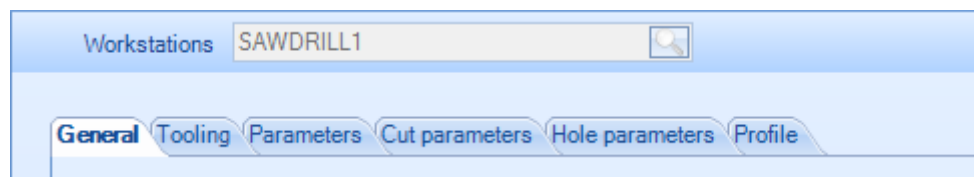
You use this menu to set-up and configure your factories machines \ workstations.

To view the list of workstation, either press f3 or double click in the search box

To add a new workstation to the database, type the name into the search box and then press NEW or Ctrl+N



The configuration of the machine is dependant on the type specifics of the model



Configure the machine with the following tabs:

[GENERAL](#) - General setup of the machine

[TOOLING](#) - Set what toolings can be performed on the machine

[PARAMETERS](#) - Set tooling specific options

[CUT PARAMETERS](#) - For Coping Machines. Set the cutting tools the machine has

[HOLE PARAMETERS](#) - For Drilling machines. Set the drilling tools the machine has

[EXPORT](#) - Set extra CNC export options for the machine

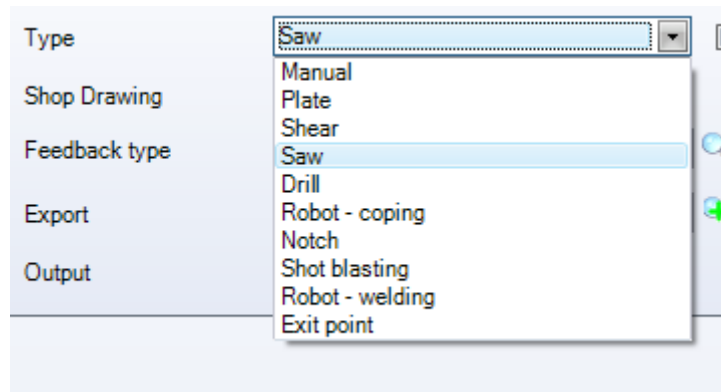
[PROFILE](#) - Set profile specific nesting parameters

General Options

Name - The name of the workstation

Description - Add a description of the station if required

Type - Choose the type of the workstation. Some of the later options are dependant on the type chosen. For example, if you choose saw, then the cutting option will be made available to you.

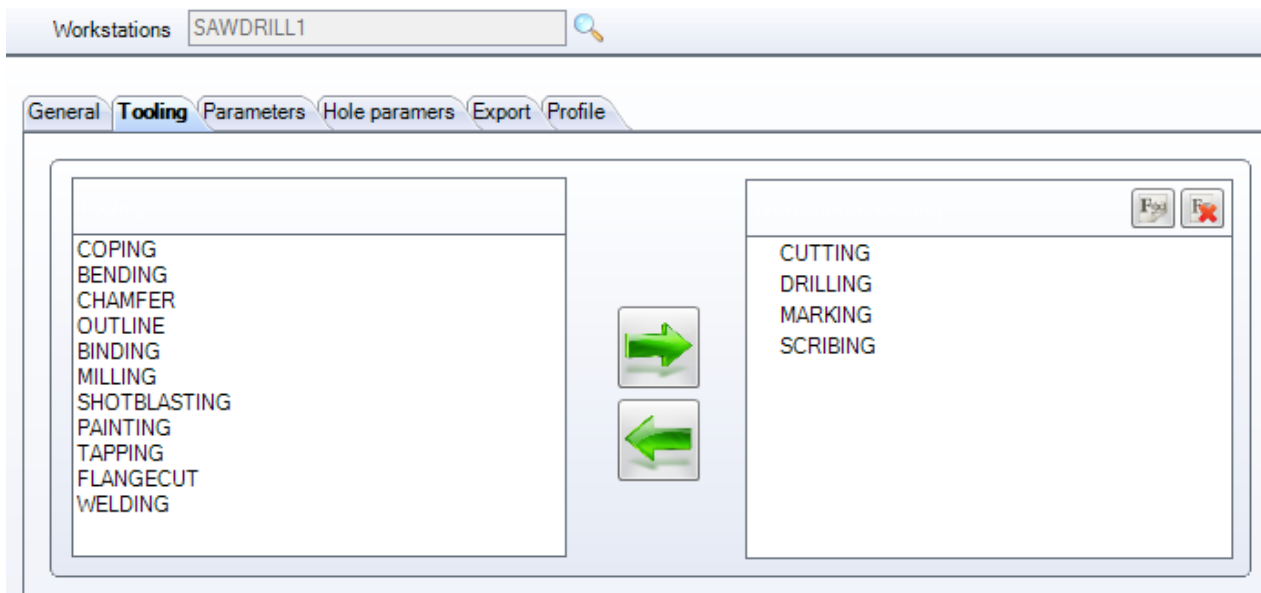


Shop drawing - Automatically print out part drawings for parts when sent to this machine

Feedback Type - For Piece tracking / monitoring. Only activate if you want to use this workstation with feedback, double click and choose the type from the list. See [Feedback Type](#)

Export - Choose the pre setup export to use to send files to this workstation. See [Project Manager - Export](#)

Tooling



Select the toolings that can be performed at this workstation. To select them, click on the list on the left side and press the arrow to move to the right See [Toolings](#)

Parameters

Parameters - Nesting

General Tooling Parameters Hole paramers Export Profile	
Nesting	
First Cut	70.00 mm
End Bar Scrap	100.00 mm
Saw/Disk Thickness	2.60 mm
Distance Cuts Not //	40.00 mm
Add saw/disk thickness if first cut	<input checked="" type="checkbox"/>
Remnant	Pincher scrap
Width of packet	0.00 mm
Height of packet	0.00 mm
X Symmetry	<input checked="" type="checkbox"/>
Y Symmetry	<input checked="" type="checkbox"/>
XY Symmetry	<input checked="" type="checkbox"/>
Optimize flange cut	<input type="checkbox"/>
Unitary quantity	<input checked="" type="checkbox"/>
Maximum length	18300.00 mm
Small Part Position	End
General	
Tooling	

These options are used by the SECTION NESTING module for linear CUTTING or COPING machines.

First Cut - Area cut at the front of the bar for a trim cut

End Bar Scrap - Area kept free at the end of a bar for the pincher area

Saw Thickness - Thickness left between parts to take into consideration the material lost with the cut

Distance Cut Not // - The distance kept between cuts with different angles. Cuts with the same angle will always be cut common cut

Remnant - Leave the remnant at front or back of the bar

Width Of Packet - For pack nesting

Height of packet - for pack nesting

X, Y, XY Symmetry - Allow part rotations by section nester for optimisation

Optimize Flange Cut - If selected, PLM will nest parts with flange bevels together. If not, flange cuts will be sent as straight cuts.

Unitary Quantity - Instead of having identical bars with multiple quantities, bars will always be unique

Maximum length - The length of the machine in-feed which affects the maximum bar size

Small Part Position - Set if you want small parts to be nested with priority at the start or end of the bar.

Parameters - General

General	
Capacity (%)	100.00
Bar loading time	30.00 s
Part unloading time	30.00 s
Workstation move speed	30000.00 mm/min
Tooling	

These settings affect the time calculation by the PRODUCTION MANAGER module

Parameters - Tooling

All of these options are machine specific and dependant on the Tooling the machine can do.

Maxi Nb of Gauge Lines - Set the max number of gauge lines the machine can do in any one bar each side

Maxi Nb of Diameters - Set the max number hole diameters the machine can do in any one bar each side

Maxi number of components per bar - Select if you want to minimise the number of components in any bar

Verify cut angle min / max - Set the minimum and maximum angle the machine can cut to. Anything outside of this range will be sent as square cut.

Verify cut angle min/max	<input checked="" type="checkbox"/>
Cut Angle min	-45.00
Cut Angle max	60.00

Scribing - Set the scribing options if this machine is capable of it. The settings affect the time estimation by the Production Manager module

Scribing	<input checked="" type="checkbox"/>
Scribing back web	<input checked="" type="checkbox"/>
Scribing speed Web and Flanges	2500.00 mm/min
Scribing speed Back Web	1500.00 mm/min
Probing time per Scribing block	3.00 s

Marking - Set the type and speeds of part marking operations

4 Marking ☒

Marking back web ☐

Default marking type Punching

Punching : Probing time per marking 6.00 s

Punching : Marking time per letter 2.00 s

Scribing : Probing time per marking 6.00 s

Scribing : Marking time per letter 5.70 s

Plasma : Probing time per marking 6.00 s

Plasma : Marking time per letter 5.70 s

Drilling - Set the type of drilling performed by the machine, number of heads and speeds and loading times to be used by the Production Manager module

4 Drilling ☒

Speed 70.00 mm/min

Normal holes Drilling

Punching min. diameter 0.00

Punching max. diameter 20.00

Punching max. thickness 25.00

Minimum Diameter for Flame Cutting 40.00

Probing time 10.00 s

Drilling type 3 head drill

Tool loading time 5.00 s

Cutting - Set the default cutting speed of the machine

4 Cutting ☒

Speed 50.00 cm²/min

Parameters - Bundle

Use these settings when you have an automatic shot blast machine and need to create bundles of bars to send through at the same time.

General Tooling Parameters Export		
4 Bundle		
Width	1000.00	mm
Mini Length	2500.00	mm
Minimum distance	50.00	mm
Gap height	5.00	mm
Gap Length	1500.00	mm
Treatment Management	<input checked="" type="checkbox"/>	
Painting Distinct	<input checked="" type="checkbox"/>	
Storage Distinction	<input checked="" type="checkbox"/>	

Width - Width of the rollers. The software calculates the amount of bars it can bundle together using this setting and also half of the height of the profile

Mini Length - The minimum length of a bar, normally the size of the gap between the rollers

Minimum distance - the min distance between bars

Gap height, Length - the height and length of the gap

Treatment Management - Bars with different treatments are bundled separately

Painting Distinction - Bars with different Painting are bundled separately

Storage Distinction - Bars with different storage areas are bundled separately

Cut Parameters

This tab is available only for Coping machines.

Using this tab you can set in the software the cutting tools that are available on this machine. This is used by the PART CHECKING function and also for detailed time calculation by the Production Manager module. These tables can be imported automatically from Ficep machines or added manually for none Ficep machines

General Tooling Parameters Cut parameters Hole parameters Export Profile								
Type	Material Grade	Min Thickness	Max Thickness	Kerf	Speed	Prime duration	Plasma current intensity	
Oxycutting			8.00 mm	1.95 mm	850.00 mm	14		
Oxycutting		8.00 mm	15.00 mm	1.95 mm	600.00 mm	16		
Oxycutting		15.00 mm	35.00 mm	1.90 mm	550.00 mm	20		
Oxycutting		35.00 mm	75.00 mm	2.05 mm	450.00 mm	45		
Oxycutting		75.00 mm	150.00 mm	2.30 mm	300.00 mm	120		
Plasma		6.00 mm	10.00 mm	2.54 mm	4400.00 mm	0.3	260	
Plasma		10.00 mm	12.00 mm	2.79 mm	3200.00 mm	0.3	260	
Plasma		12.00 mm	15.00 mm	3.29 mm	3130.00 mm	0.5	260	
Plasma		15.00 mm	20.00 mm	3.43 mm	2170.00 mm	0.6	260	
Plasma		20.00 mm	22.00 mm	3.60 mm	1930.00 mm	0.7	260	
Plasma		22.00 mm	25.00 mm	4.00 mm	1685.00 mm	0.8	260	
Plasma		25.00 mm	28.00 mm	3.90 mm	1445.00 mm	0.9	260	
Plasma		28.00 mm	32.00 mm	4.32 mm	1135.00 mm	1	260	
Plasma		32.00 mm	38.00 mm	4.45 mm	895.00 mm	1	260	
Plasma		38.00 mm	40.00 mm	4.55 mm	850.00 mm	1.2	260	
Oxycutting			8.00 mm	1.95 mm	850.00 mm	14		
Oxycutting		8.00 mm	15.00 mm	1.95 mm	600.00 mm	16		

For automatic import of these settings see here: [Automatic Import From Ficep Machine](#)

To add a tool manually, open the top menu by pressing on the hidden box at the top, then press



General Tooling Parameters Cut parameters Hole parameters Export Profile								
Type	Material Grade	Min Thickness	Max Thickness	Kerf	Speed	Prime duration	Plasma current intensity	
Oxycutting			8.00 mm	1.95 mm	850.00 mm	14	Open	

Make the selection of the type of tool from the dropdown (oxy\plasma) and then fill the rest of the details by typing in the corresponding boxes






To delete a tool, click on it and then press




Hole Parameters






This tab is available only for Drilling machines.

Using this tab you can set in the software the drilling tools that are available on this machine. This is used by the PART CHECKING function and also for detailed time calculation by the Production Manager module. These tables can be imported automatically from Ficep machines or added manually for none Ficep machines


General Tooling Parameters Cut parameters Hole parameters Export Profile										
<div>   <input type="text"/>    <input type="checkbox"/> Case sensitive </div>										
Type	Material Grade	Tool code	Min. diameter	Max. diameter	Diameter	Drill type	Min Thickness	Max Thickness	Descripti	
Drilling		33	14.00 mm	14.00 mm	14.00 mm	DORMER				
Drilling		33	16.00 mm	16.00 mm	16.00 mm	DORMER				
Drilling		33	18.00 mm	18.00 mm	18.00 mm	DORMER				
Drilling		33	22.00 mm	22.00 mm	22.00 mm	DORMER				
Drilling		33	24.00 mm	24.00 mm	24.00 mm	DORMER				
Milling		68	45.00 mm	45.00 mm	45.00 mm					
Milling		68	1.00 mm	1.00 mm	1.00 mm					
Drilling		33	14.00 mm	14.00 mm	14.00 mm	DORMER				
Drilling		33	16.00 mm	16.00 mm	16.00 mm	DORMER				
Drilling		33	18.00 mm	18.00 mm	18.00 mm	DORMER				
Drilling		33	22.00 mm	22.00 mm	22.00 mm	DORMER				
Drilling		33	24.00 mm	24.00 mm	24.00 mm	DORMER				
Drilling		33	26.00 mm	26.00 mm	26.00 mm	DORMER				

For automatic import of these settings see here: [Automatic Import From Ficep Machine](#)

To add a tool manually, open the top menu by pressing on the hidden box at the top, then press 

General Tooling Parameters Cut parameters Hole parameters Export Profile										
<div>   <input type="text"/>    <input type="checkbox"/> Case sensitive </div>										
Type	Material Grade	Min Thickness	Max Thickness	Kerf	Speed	Prime duration	Plasma current intensity			
Oxycutting		8.00 mm		1.95 mm	850.00 mm	14	Open			

Make the selection of the type of tool from the dropdown and then fill the rest of the details by typing in the corresponding boxes

To delete a tool, click on it and then press 

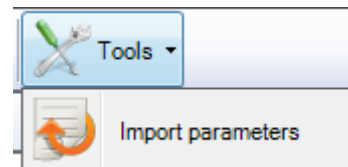
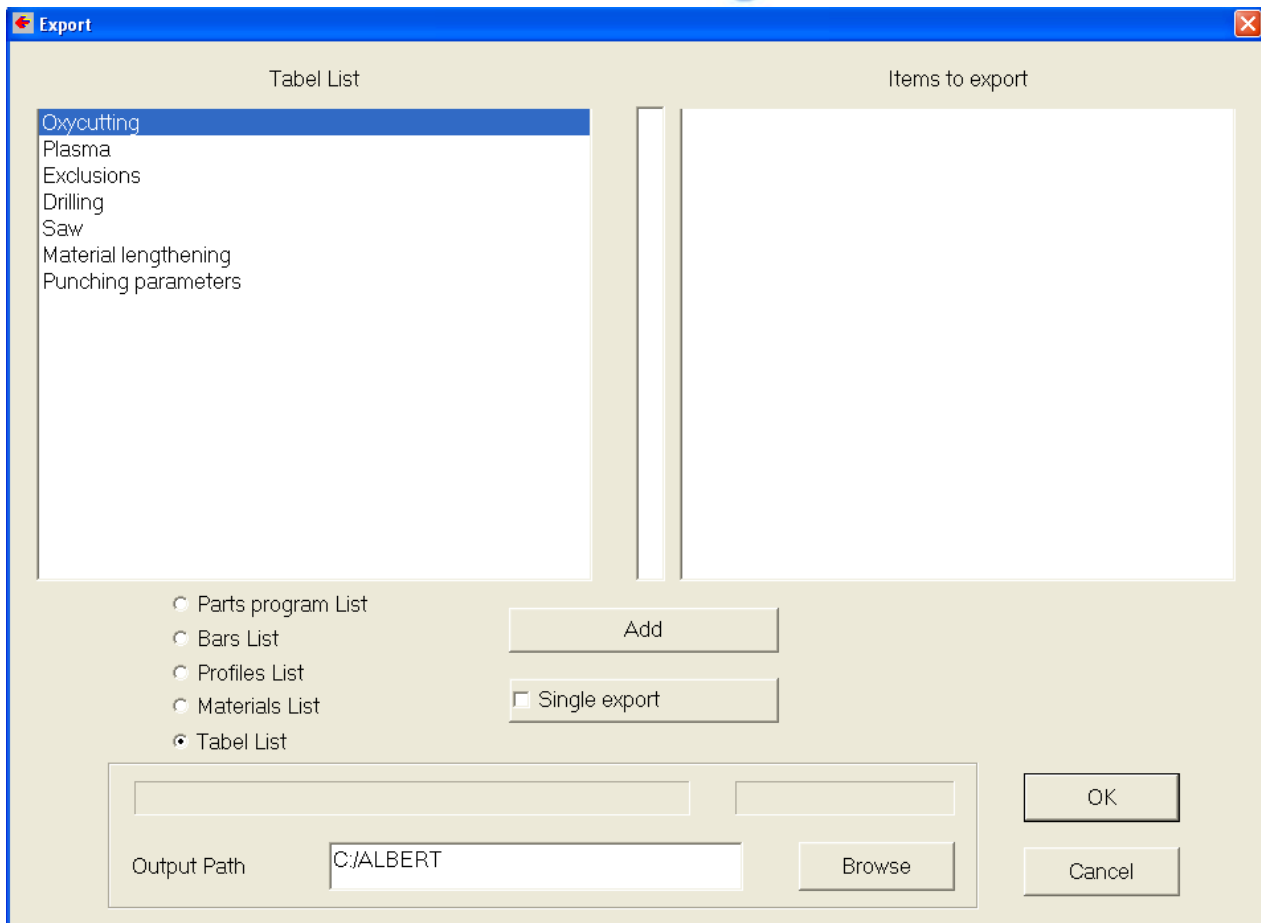
Automatic Import From Ficep Machine

The tool tables can be exported from a Ficep machine as an fnc file. This can then be imported into PLM for these tables to be added automatically

To create the file on the ficep machine: In Minosse go to PROGRAMMING - ARCHIEVE - EXPORT

Choose the Table list and add all of the table lists into the ITEMS TO EXPORT window

Choose an output path and press OK to create the file



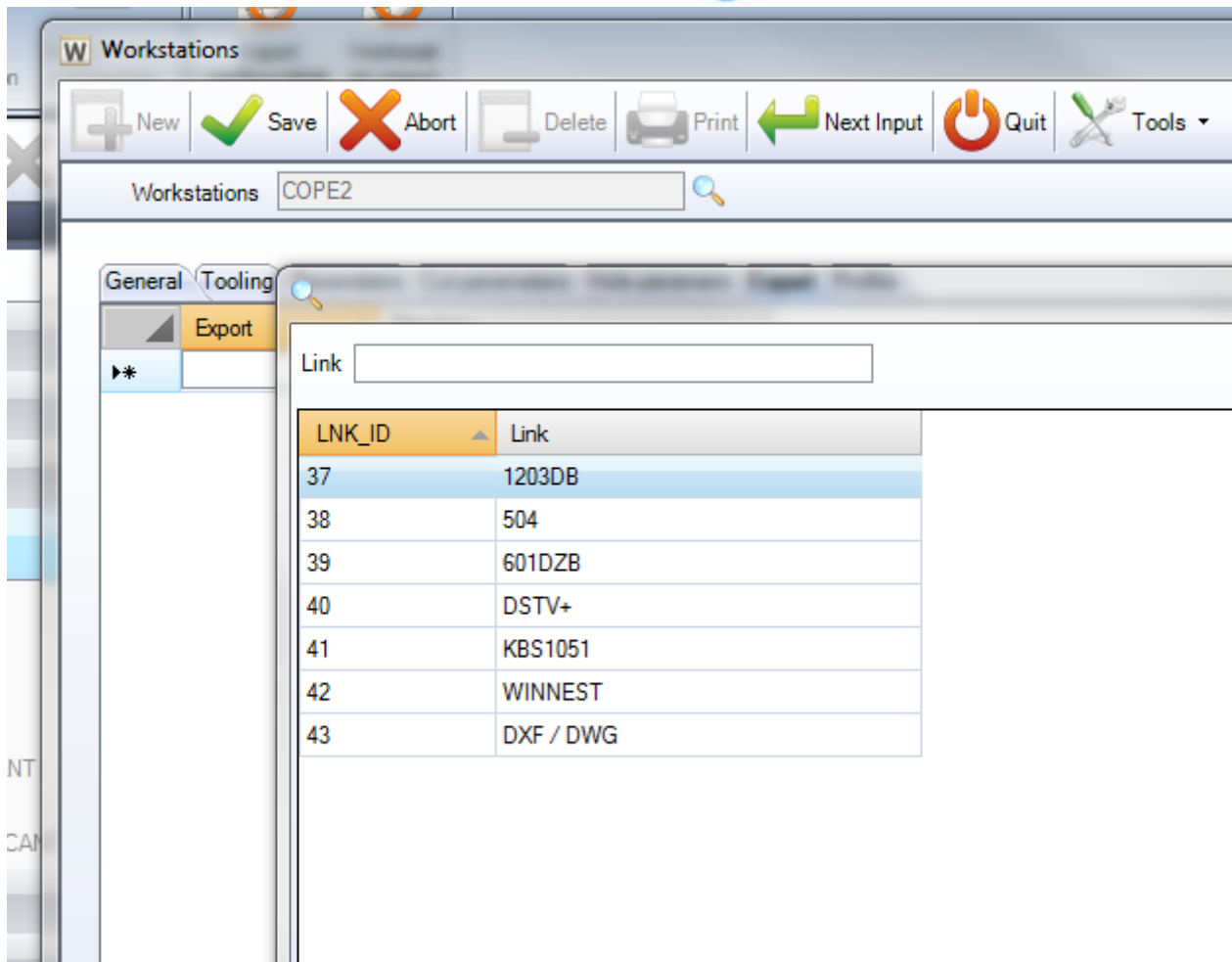
Then in SP PLM, in the Cut Parameters option, press the tools parameters option and browse to the file to import the settings automatically

import

Export

It is possible to set up extra export interfaces for machines as well as the default export. This is useful if you would like to automatically send backup files to a separate location, or if you want to export to multiple identical machines and let the capacity be decided at the shop floor level

To set the extra export, double click in the Export window and select one of the already defined exports. To set these up [SEE HERE](#)



Profile

It is possible to set up different ranges of nesting parameters in the section nesting module for use different profile parameters per machine. This is made so you can be more specific than just having one set for all your different profiles.

General Tooling Parameters Hole parameters Export Profile													
Category	Prefix	Minimum				Maximum				First Cut	End Bar Scrap	Saw/Disk	Distance Cuts Not
		Web	Flange	E_Web	E_Flange	Web	Flange	E_Web	E_Flange				
C						310.00				70.00	100.00	2.60	70.00
C						310.00				70.00	100.00	2.60	70.00
I						310.00				70.00	100.00	2.60	70.00
I						310.00				70.00	100.00	2.60	70.00
L						310.00				70.00	100.00	2.60	70.00
L						310.00				70.00	100.00	2.60	70.00
L						310.00				70.00	100.00	2.60	70.00
I						310.00				70.00	100.00	2.60	70.00
O						310.00				70.00	100.00	2.60	70.00
O						310.00				70.00	100.00	2.60	70.00
C		310.00								100.00	100.00	2.60	70.00
C		310.00								100.00	100.00	2.60	70.00

To add a new range, press the + button and select the type of profile from the drop down. Then set the specific nesting parameters for that profile. These options are used instead of the [default nesting parameters](#) for any profile in this list

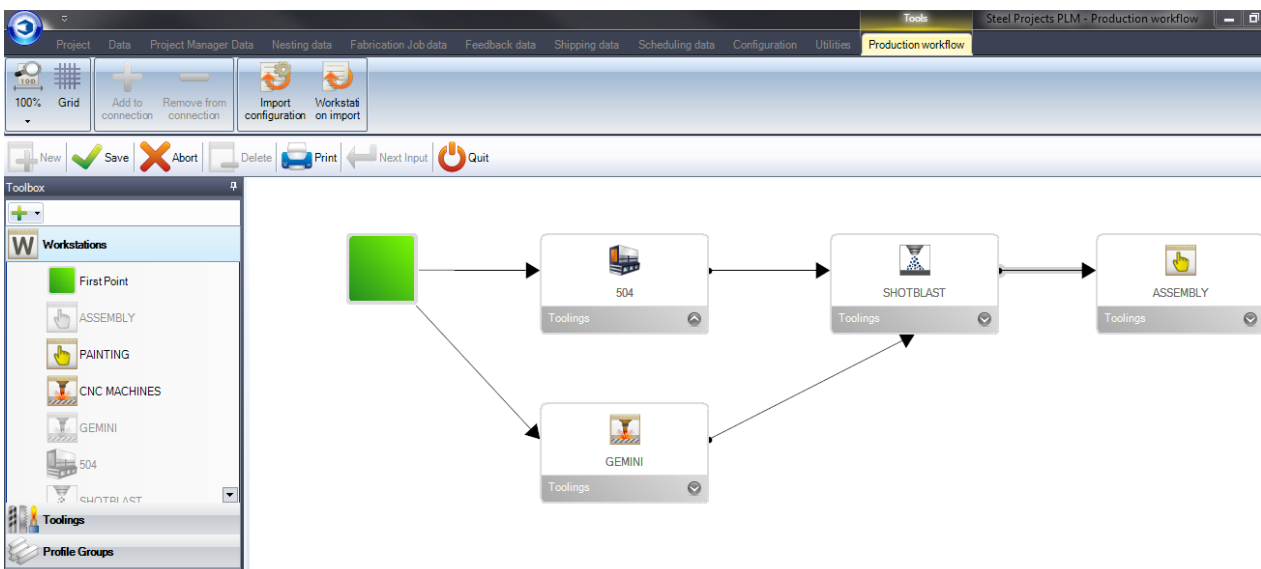
Production Workflow



Once you have set up all of your machines, tooling and profile groups, you can use production workflow to set-up your company's routing.


The aim is to define the routing workflow that the different profile groups can take, this includes sending to workstations, sites, and departments. The screen provides an easy to use drag and drop interface and uses standard process management rules.

The complexity of your workflow depends on the number of workstations and profile groups you have set up.

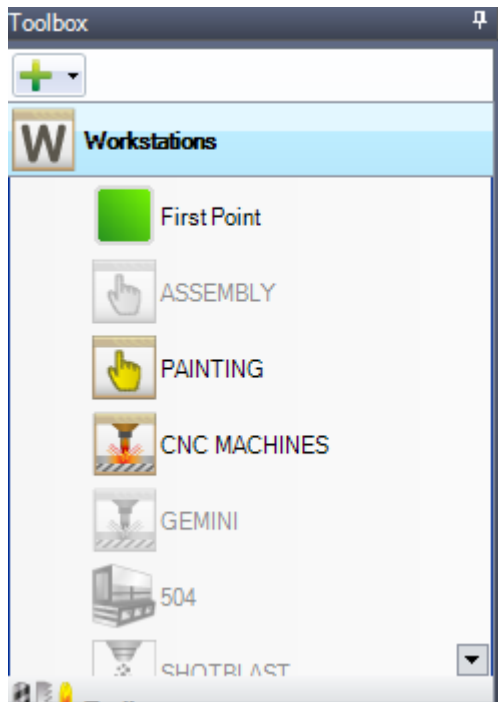


If you have a complicated workflow with multiple factories or departments, please [SEE HERE](#)

Setting up a your companies work flow is quite simple, you'll see that you have a quick access menu this includes the machines, tooling, and profile groups etc that you have already set up on the left hand side of the screen, and the main screen in the middle (white window) is where you can create your production workflow diagram.

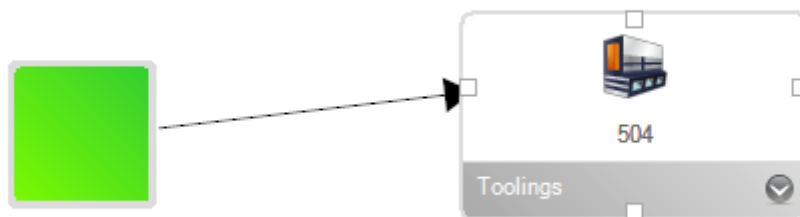
At any stage you can add new [workstations](#), [toolings](#) or [profile groups](#) by clicking on the corresponding list on the left menu, and pressing the  button.

First you need to create a start point. Do this by first clicking on the Workstations list, and then dragging the First Point icon into the white space.

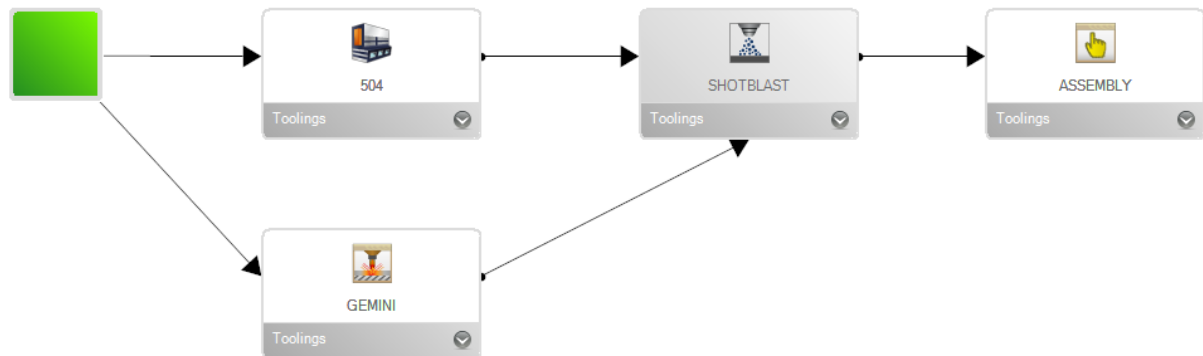


You can then drag your workstations into the white space and place them in a logical order that represents the physical top down layout of your factory.

Then you can create a connection to the first point to each work station by first clicking the the first point, and then one of the conner boxes in the workstation

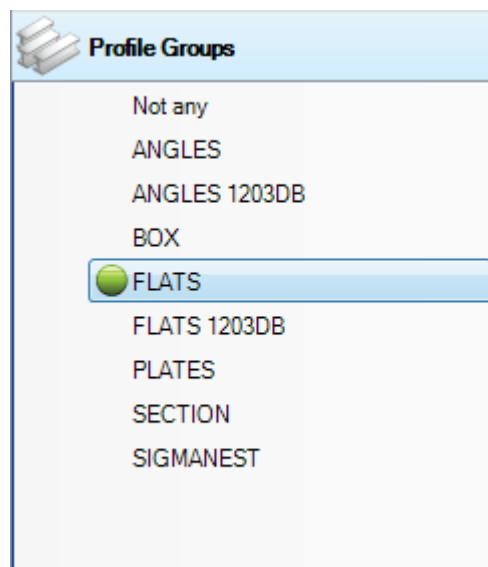


Continue to add your workstations and make connections until you have setup your production workflow.



The next step is to create the specific workflow paths for your different profile groups

Click on the profile groups list on the left menu and click on the group you want to set a path for

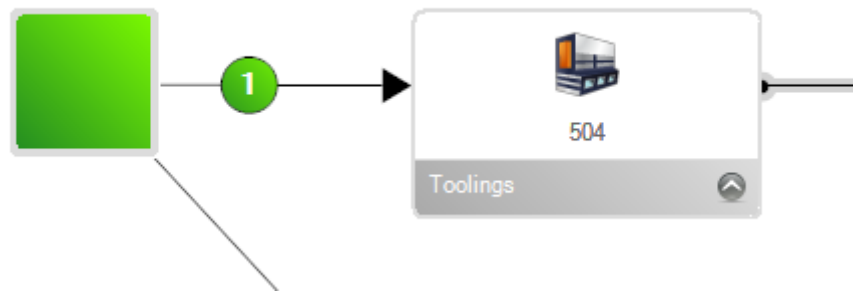


Then, starting from the first point, you need to click on each connection arrow for all the workstations

associated with this workflow path for the selected profile group, and press "Add to Connection"

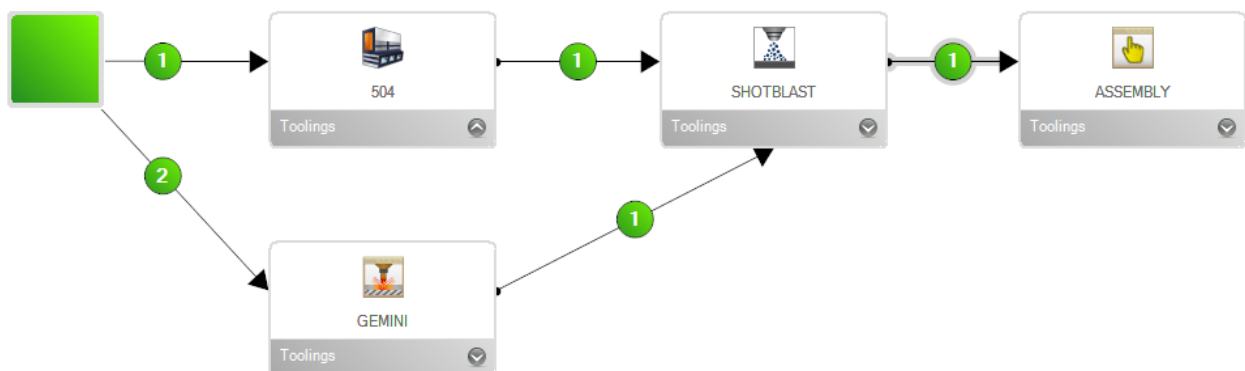


This will put a number next to the connection, representing the priority of the path



If multiple paths are possible for a profile group, do the same for all connections and it will show a number representing the priority of the path. When there is more than one path available the parts can have multiple workstations opportunities.

You need to add to each of the connections from the start point to the last workstation in your workflow

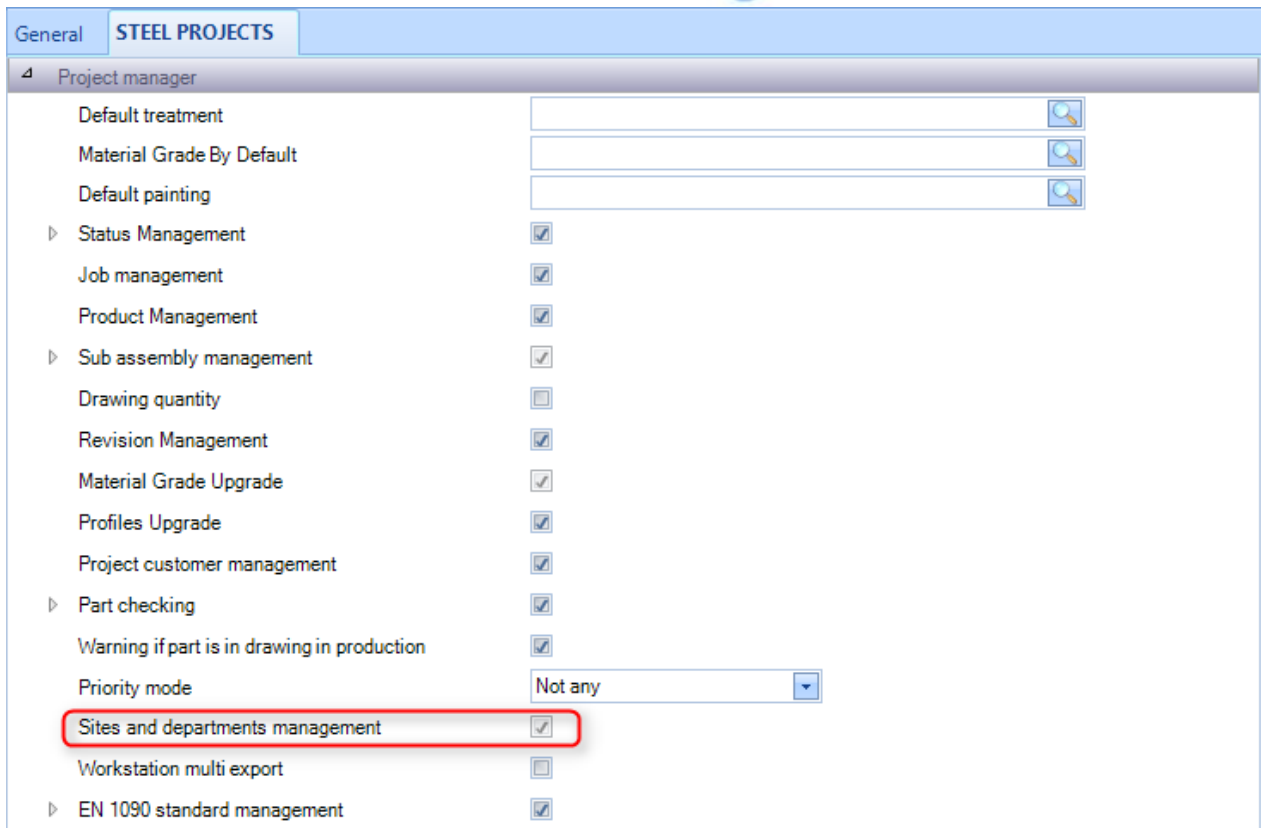


Do this for all of your profile groups.

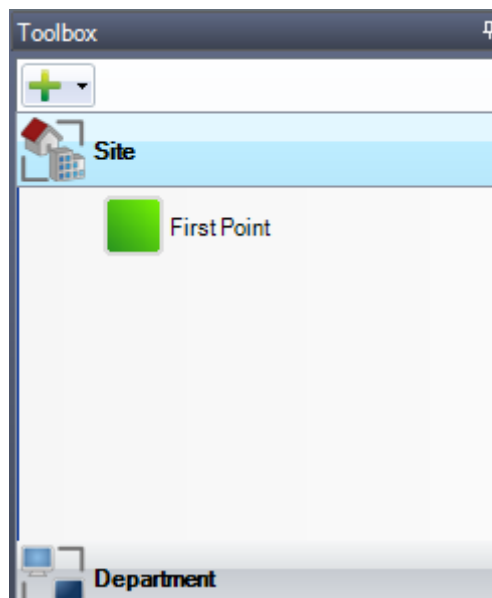
Sites and Departments Management

If you have a complex workflow including multiple sites and or departments, you can use the option for site and department management. It adds some extra hierarchical layers of workflow to group together workstations instead of having large complicated single diagram flows.

The first step is to activate the option in the Configurations - Company Options - Project Manager screen. With this option enabled, you get the more advanced options in the [Production Workflow](#) screen



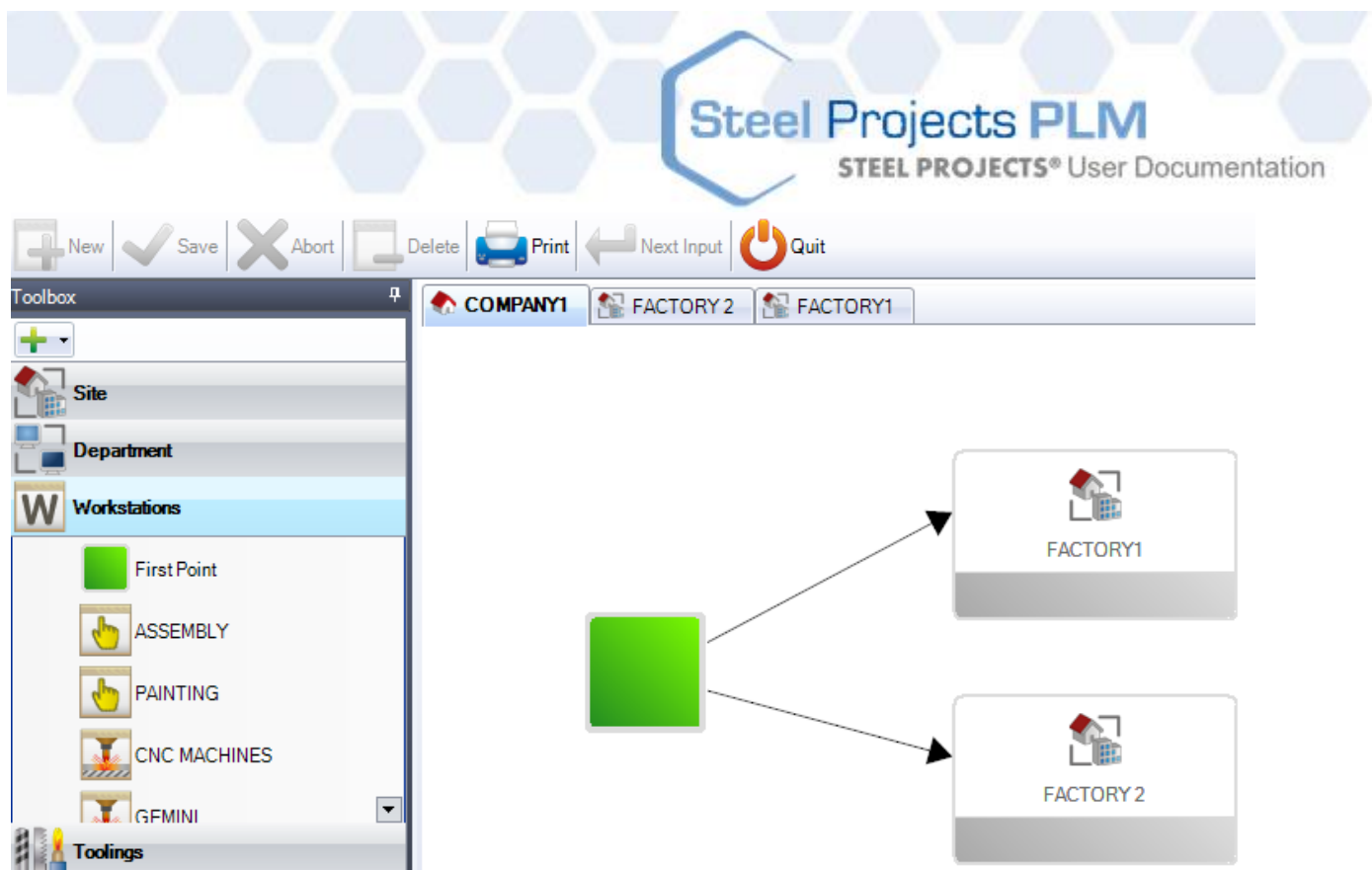
This will activate two extra options in the sidebar menu in the Production Workflow screen



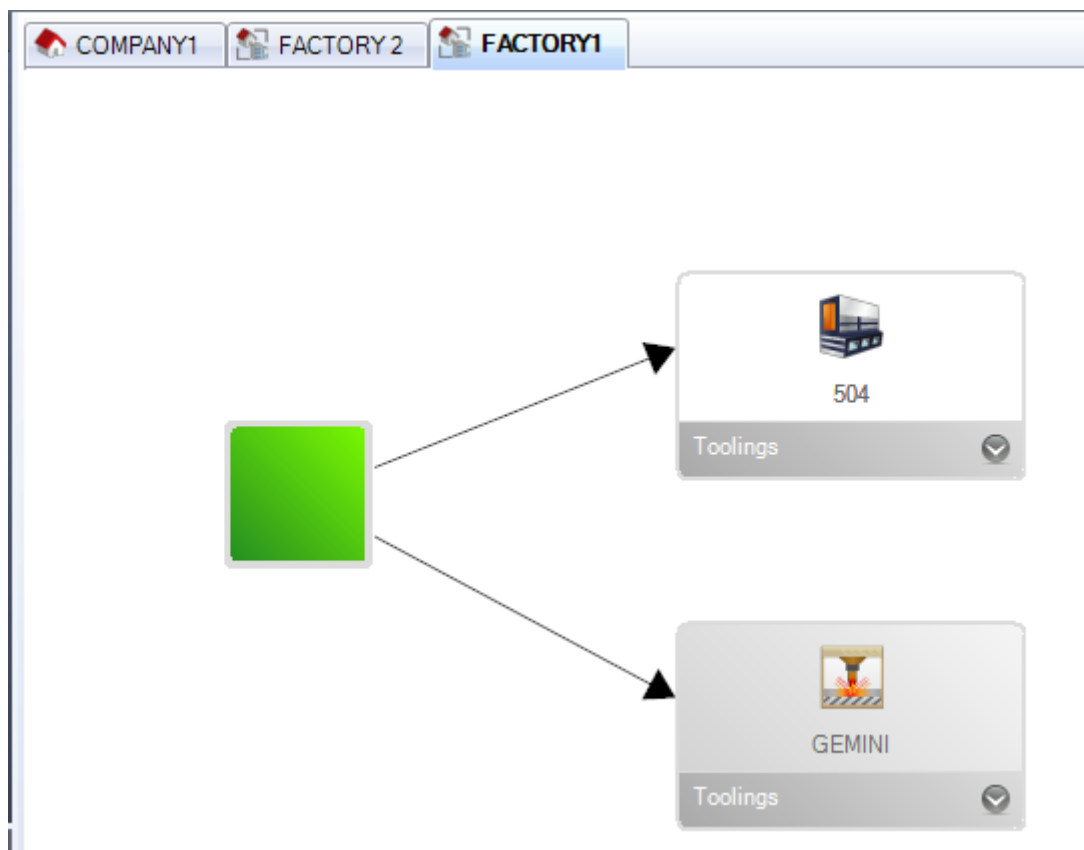
To add a new site or department, click on 

When you have added all your sites, you will see that you have extra tabs at the top of the white space.

On the first tab you need to set the potential flow between your sites. Do this by using the same drag and drop method as before.

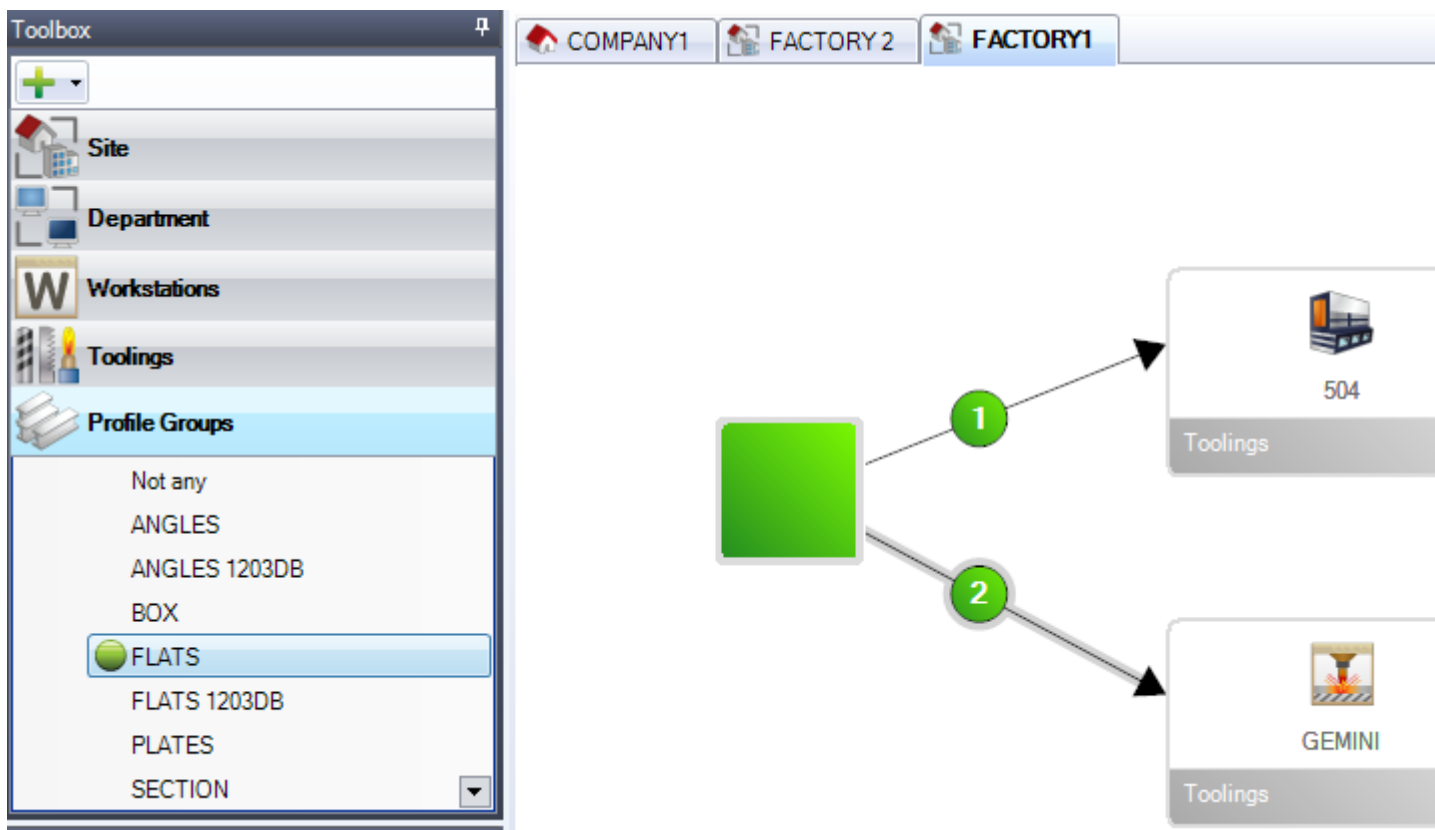
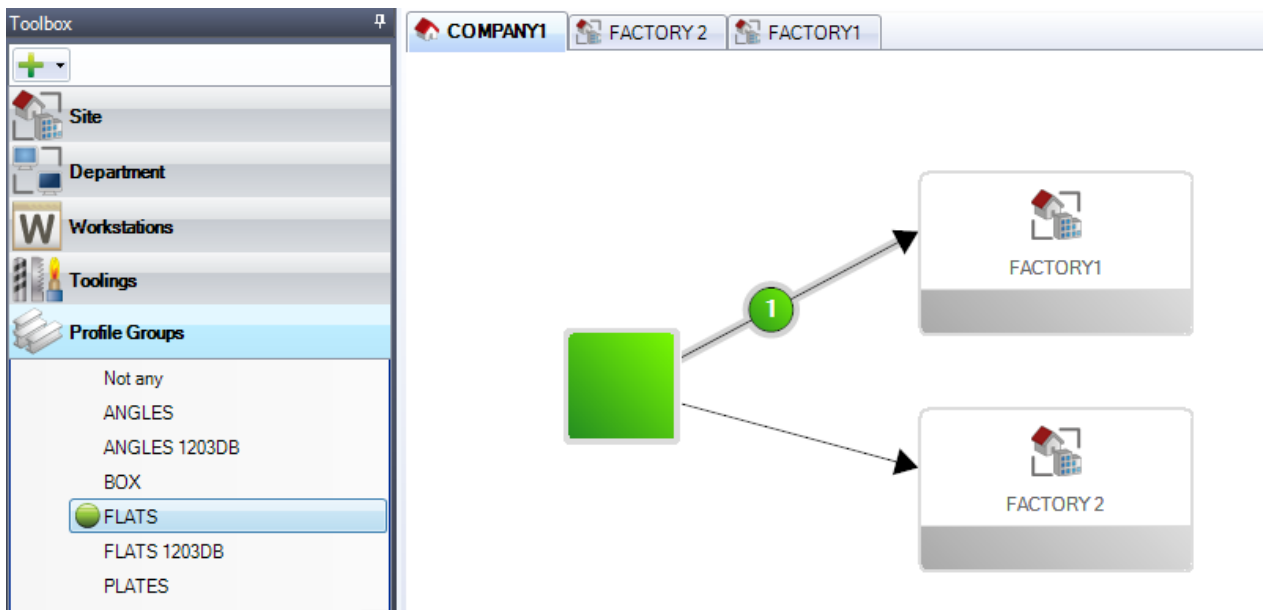


You then need to setup the workflows for each of your sites. Do this by clicking on the tab on the top of the whitespace, and set the workflow for that site.



You can do the same for your departments if you want to group these together.

You then need to set the Profile Groups Connections as before, this is for all of the connections at each level, including site, department, and workstation flows.



Project Manager Data



The Project Manager Data menu is an advanced configuration tab concerned with the import and export of data into and from the Project Manager and other advanced option.

Click on an icon to open the related chapter.

Import

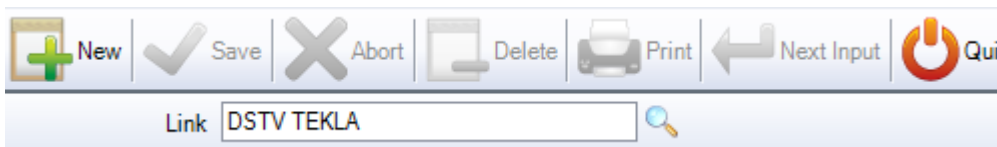


If you want to import data from any other software, you must first configure your imports here. This includes imports from other Cad/Cam software, excel spreadsheets and Steel Projects CAM files

It is important to note the imports, with the exception of the SP CAM import, require the purchase of a licence.

You can control a lot of the information that is imported with each type through the configuration options. You can have multiple imports of the same type with different configurations.

To add a new import, type the name into the search box and then press NEW or Ctrl+N



Type: You need to choose a type of import from the type drop-down list. The type of file can represent either the file extension or program that the files were created with.

[DSTV IMPORT](#)

[DXF \ DWG IMPORT](#)

[TEKLA XML IMPORT](#)

Directory: Specify the default directory where the program will look to import the files from. If you use sub directories then choose the top level.


*its Important that you must specify the file extension after the directory path in order filter for only the correct files. As dstv files have an extension .nc, type *.nc* at the end of the path. For dxf files it would be *.dxf. for XML files *.xml**

Name	<input type="text" value="DSTV TEKLA"/>		
Type	<input type="button" value="Import DSTV Files (2, 50, 6, 118)"/>	<input type="button" value="Options"/>	
Directory	<input type="text" value="C:*.nc"/> <input type="button" value="..."/>		



Parameters



<input type="checkbox"/> Automatic			
<input checked="" type="checkbox"/> Assign Analytical Group			
<input checked="" type="checkbox"/> Drawings Dispatching			
<input checked="" type="checkbox"/> Drillings checking	Distance	<input type="text" value="0.00"/>	mm
<input type="checkbox"/> Compare			
<input type="checkbox"/> Prefix	<input type="text"/>	Separation	<input type="text"/>
<input type="checkbox"/> Only Master Part			

- ASSIGN ANALYTICAL GROUP - Automatically puts parts into relevant profile group on import
- DRAWINGS DESPATCHING - Gives you the option to change the Project or Drawing name when importing the parts

 **Drawings Dispatching** X

	Project	Drawing	Project	Drawing
▶	VR9985	001	VR9985	001

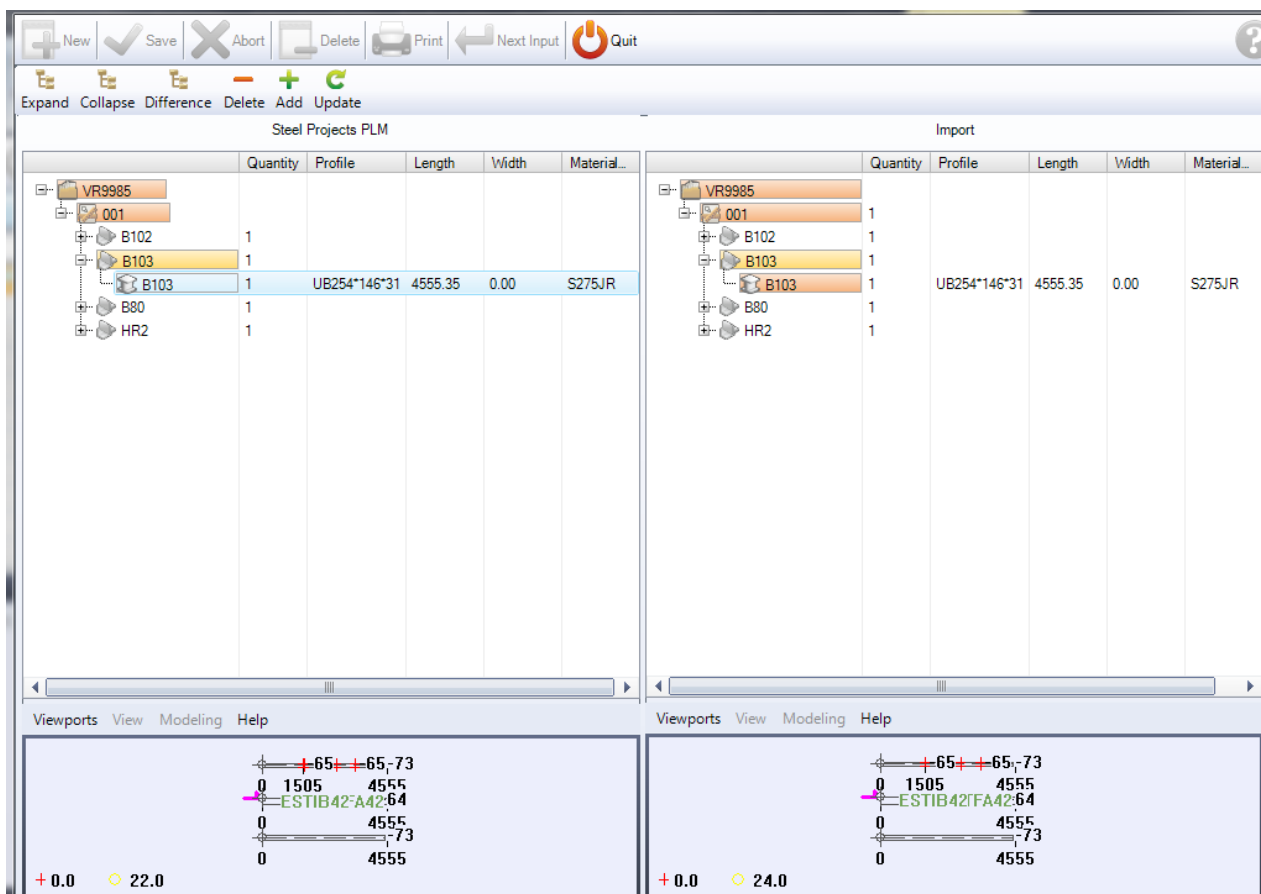
 Ok
 Abort

To change the project or drawing name, type the change in the bottom box and press the corresponding box next to it to change the relevant information. If you have the configuration option "customer project" activated, you will still be able to see the original project name

If there are multiple different Projects or drawings then you can multi-select them and change them all in one go.

DRILLINGS CHECKING - Set a distance and SP PLM will flag up a warning if there are any holes too close to an edge

COMPARE - With the compare function selected, you can check if the parts you are importing already exist in the database, and if so, what the differences are with the existing parts.



If the parts are different then it will show the difference in red highlight. If the change is in the profile, width, length or grade you can see it in the list, or you can see the previous and new previews in the windows below.

PREFIX - It is possible to prefix the component names of all parts that have been imported with this import. If it is only required for the master part of the assembly tick this box. if you want a separation between the prefix and the component name type this in the box to the right

Please [See here](#) for instructions on how to use the imports

DXF \ DWG Import

Automatic procedure

Each file describes one piece of steel construction (beam, angle, channel, plate ...) each side should be defined in one different layer (i.e. layer WEB, TOP, BOTTOM, and BACK). Each layer contains the complete definition of the side: outlines, holes, inlines ... All the sides should be aligned in X direction and drawn horizontally.

To pass the information of the pieces, an AUTOCAD bloc should be inserted. This bloc has the following attributes:

HEAD block

Attribute	Description
COM_NAM	Contract name
DWG_NAM	Drawing name
ASS_NAM	Assembly name or mark
PCE_NAM	Position
PCE_PRF	Profile
PCE_QTY	Quantity
PCE_LEN	Length
PCE_WDH	Width
PCE_THK	Thickness for plates
PCE_MAT	Material
PCE_TRT	Treatment
PCE_DES	Description
PCE_CMT1	Remark
PCE_ECH	Scale factor (i.e. for 1/20 scale = 20, for 2 :1 scale = 0.5)
PCE_UNI	Unit (0: Millimetres / 1: Inch)

If this bloc is not defined in the drawing, the information will be asked when the file is imported.

Defining block with AUTOCAD

- Start a new drawing
- Command DDATTDEF : define all attributes you need
- Save this drawing as name HEAD.DWG

Inserting block in the drawing

- Command INSERT
- Enter HEAD=HEAD.DWG (<bloc name>=<file definition>)
- Fill the attributes in when asked

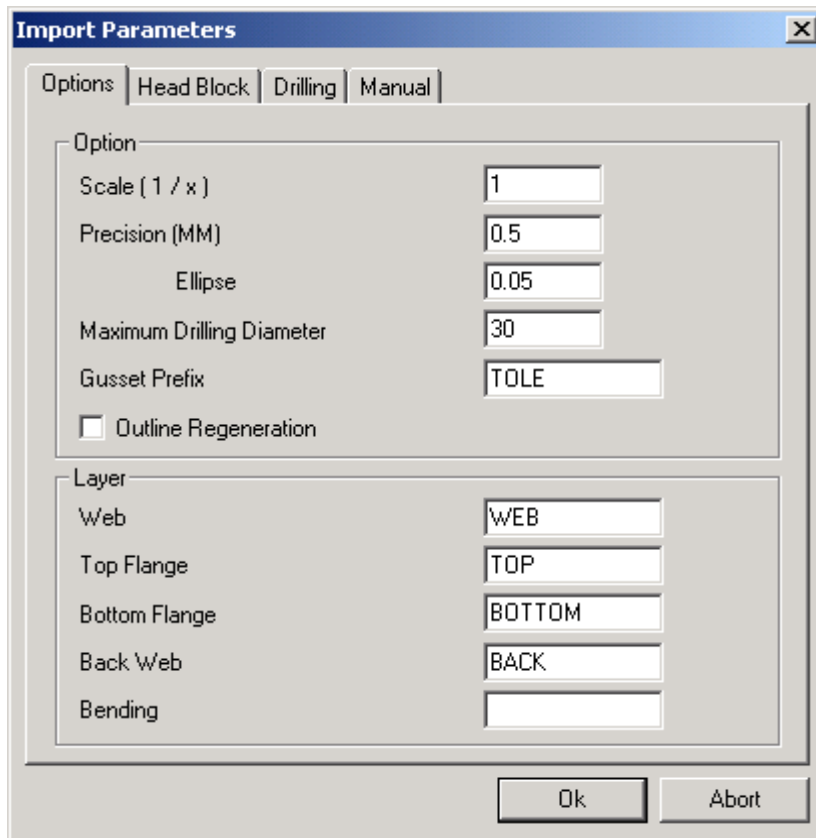
To get a dialog box for the attributes use command ATTDIA and enter 1

Modifying attributes

- Command DDATTE
- Select the bloc you want to edit

Configuration

Options



The **Import Parameters** dialog box has four tabs: **Options**, **Head Block**, **Drilling**, and **Manual**. The **Options** tab is active, showing the following settings:

Option	Value
Scale (1 / x)	1
Precision (MM)	0.5
Ellipse	0.05
Maximum Drilling Diameter	30
Gusset Prefix	TOLE
<input type="checkbox"/> Outline Regeneration	

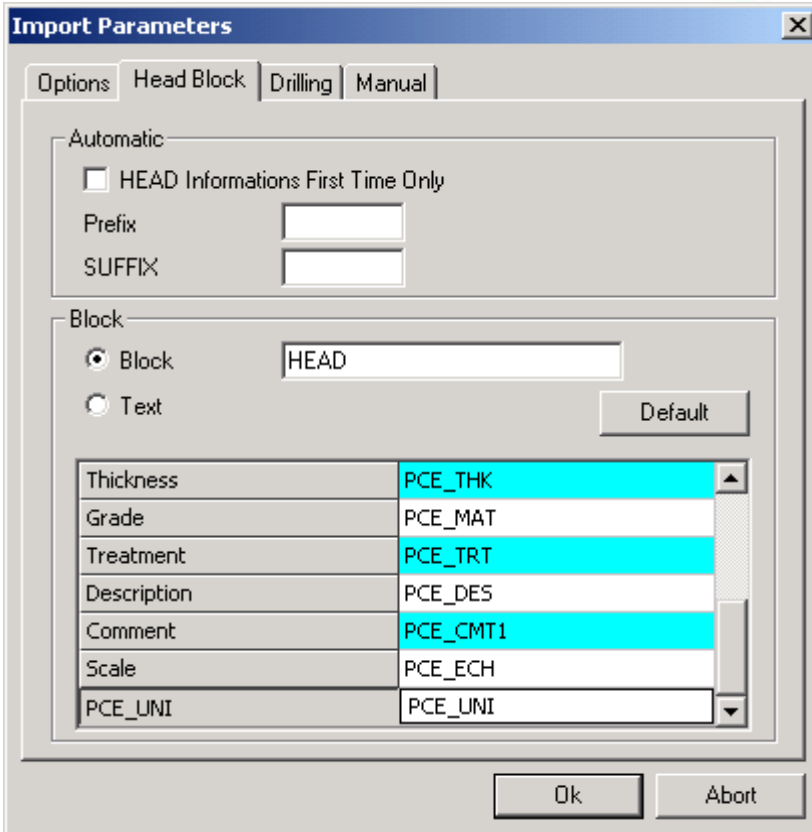
Below these options is a **Layer** section with the following settings:

Layer	Value
Web	WEB
Top Flange	TOP
Bottom Flange	BOTTOM
Back Web	BACK
Bending	

At the bottom of the dialog are **Ok** and **Abort** buttons.

- Scale (1/x) : Scale of the AutoCAD Drawing.
- Precision : Precision of the line on the Drawing.
- Ellipse : Precision of the ellipse on the Drawing.
- Maximum Drilling Diameter : After this Diameters the drill is defined by InLine contour
- Gusset Prefix : The name of the Plate Profile defined in Data Base
- Outline Regeneration : Regeneration of the Outline after Import
- Layer : Correspondence of Layer in Drawing / Flange of Profile

Head Block



The dialog box 'Import Parameters' has four tabs: Options, Head Block, Drilling, and Manual. The 'Head Block' tab is active. It contains two sections: 'Automatic' and 'Block'.

Automatic section:

- ☐ HEAD Informations First Time Only
- Prefix:
- SUFFIX:

Block section:

- ☒ Block:
- ☐ Text

Thickness	PCE_THK
Grade	PCE_MAT
Treatment	PCE_TRT
Description	PCE_DES
Comment	PCE_CMT1
Scale	PCE_ECH
PCE_UNI	PCE_UNI

Buttons: Ok, Abort

- Head Information : Not Used
- Prefix : Not Used
- Suffix : Not Used
- Block : The Name of HEAD Bloc on AutoCAD File
- Thickness, Grade ... : The Name of information in HEAD Block.

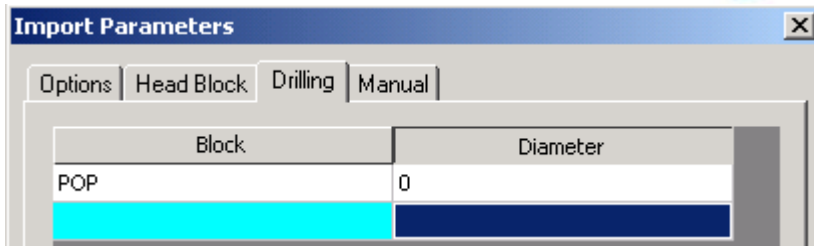
Note:** By default, the correspondence for drawing Unit is PCE_UNI.
If you use PCE_UNIT on your drawing Head Block (Old DXF Import) you can change this parameter or change your HEAD Block on your Draw.

Drilling

If you prefer you can use Block definition instead of drawing Circle in Scale on you Drawing.
It can be useful also for Pop Marking definition.

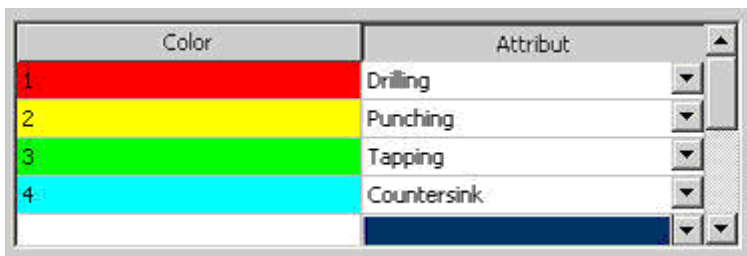
To do that:

- Create a symbol and name this symbol by Block Name (For Example create a crew for Pop marking and name this Draw POP)
- Insert this Bloc (POP) where do you want on your Profile Drawing.
- Modify Drilling Option (Bloc = POP , Diameter = 0)



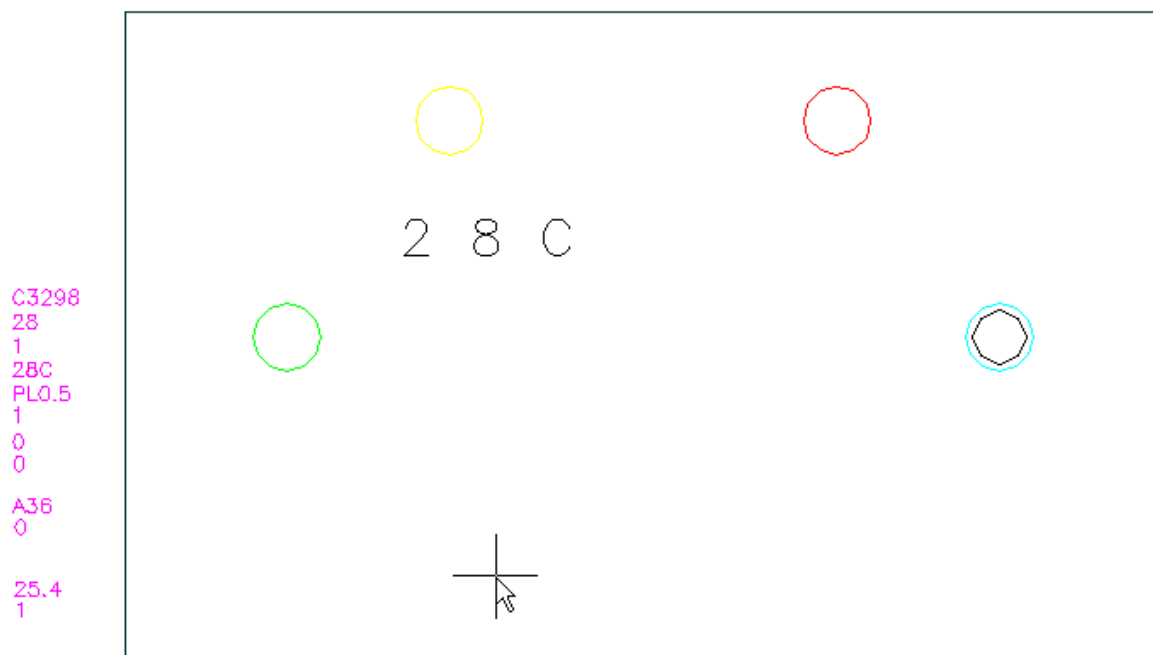
You can also define the tool in DXF instead of using Drilling or punching machine definition.
To do that:

- In the Drilling Window input the tooling correspondence (You can change the colours if you want, each colour is a number (1 to 6))



At DXF file creation:

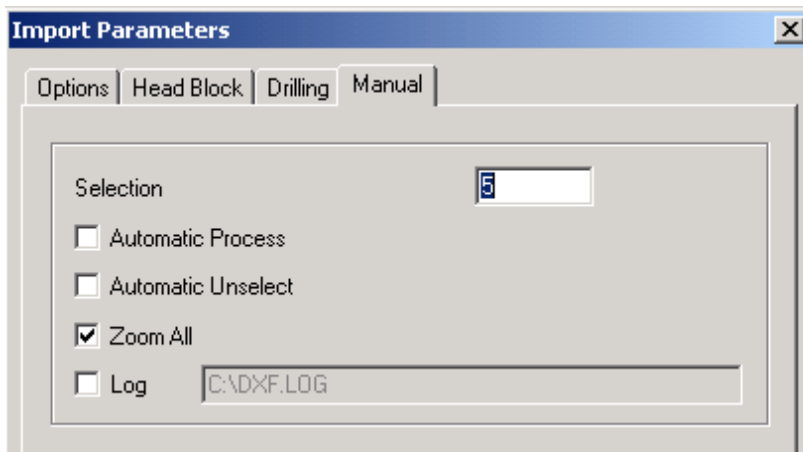
- Change the tool colour to your circle hole definition.



○ Yellow circle = PUNCH

- Red circle = DRILL
- Green circle = TAPPING (Diameter = Hole diameter + Tapping)
- Blue circle = COUNTERSINK (Create Drilled or punched hole and the countersink diameter a the same centre definition)

Manual

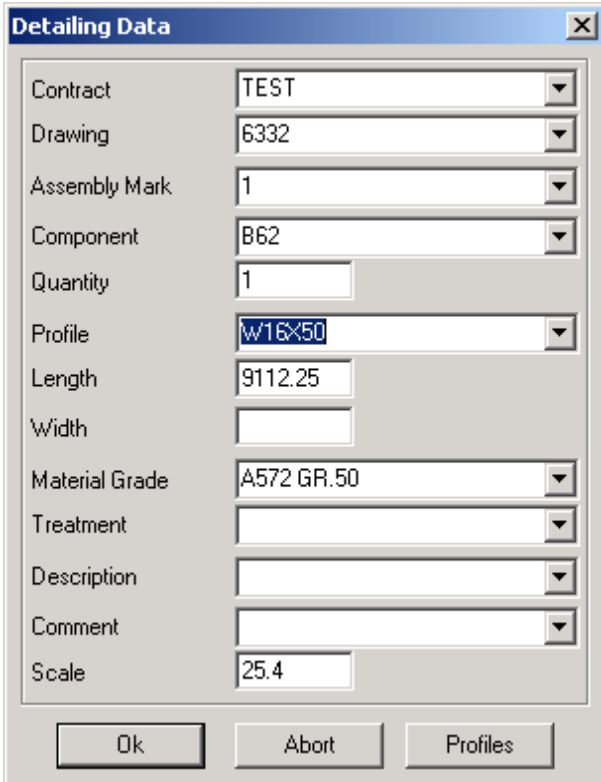


- Selection : Colour of the selected lines
- Automatic Process : Automatically begin to analyse the drawing
- Automatic Unselect : Automatically unselect the lines after analyse
- Zoom all : Automatically Zoom the entire Drawing
- Log : Create a file with all import information

Import

Head Bloc check

If this bloc is not defined in the drawing, the empty or wrong information will be asked when the file is imported the following window appear :



Detailing Data

Contract	TEST
Drawing	6332
Assembly Mark	1
Component	B62
Quantity	1
Profile	W16X50
Length	9112.25
Width	
Material Grade	A572 GR.50
Treatment	
Description	
Comment	
Scale	25.4

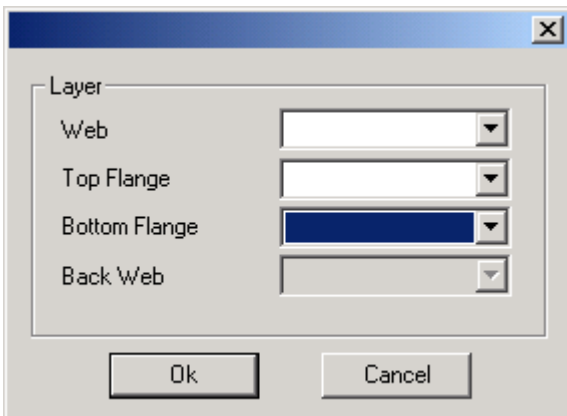
Ok Abort Profiles

If you press OK all information is checked and the cursor will show which parameter is wrong, if any.

If the cursor is highlighted in Profile parameter that means the Profile doesn't exist in Database. You can access directly in Profile Database to modify or create a new Profile.

Layers check

If the Layers are not created or created with a wrong name the following window appear :

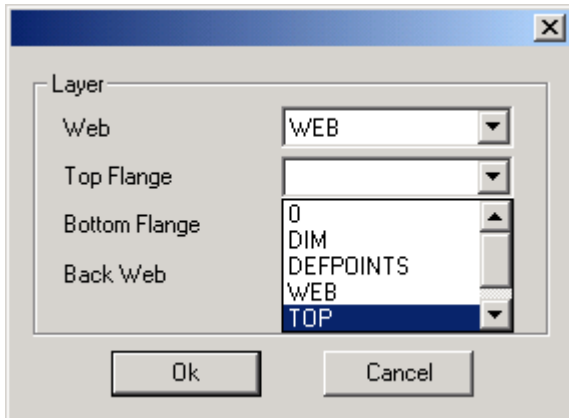


Layer

Web	
Top Flange	
Bottom Flange	
Back Web	

Ok Cancel

This window show you with parameters are found. If the parameter (Web / Top Flange ...) is empty that mean the software can't find any correspondence from Layer found and Layer in your drawing. You can select the name of the correct Layer in the list.



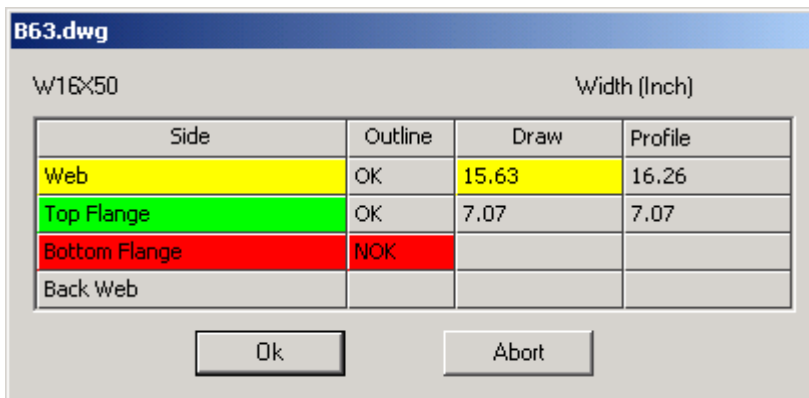
The list of Layer's is all the layers found in the drawing.

Be careful, if you change the layer correspondence, It will be changed in the Import configuration and your modification is active for the other drawings.

You can select empty line if you don't want to import this layer

Dimension check

If the dimensions doest correspond with the Profiles or the software have found no contour on the layers, the following window appear :



Colour meaning:

- Red Nothing found for this side
- Yellow Closed contour found but the width of the side is different than the expected one
 Draw Width = Dimension in the Draw
 Profile Width = Dimension expected (On the Profile Data Base)
- Green Closed contour found matching the width of the side.

Manual procedure

By selecting the file and clicking 'Manual', you enter in the drawing with the following menu :



Detailing Piece

When you choose the selection mode you have to enter the information of the piece and the profile.

If the piece is drawn with one different layer by side with all information inside each layer (outlines, in lines, holes ...), you can select the complete piece with all different side at the same time and then click 'Analyse'.

If the layers are not well defined, select one side at a time and click on the corresponding button. The whole selection will refer to the specified side without regarding the layers.

Colour meaning on the button: (the scale and the profile is very important

- red Nothing found for this side
- yellow Closed contour found but the width of the side is different than the expected one
- green Closed contour found matching the width of the side.

Selection/Unselection

After selecting the mode you can choose the entities in 3 ways:

- Double clicking on the entity will only select/unselect this entity.
- Defining a window from left to right will select/unselect all the entities that are completely inside this window.
- Defining a window from right to left will select/unselect all the entities inside and also crossing the window.

When you are in deselecting mode, clicking again the button will unselect all the entities.

Preview

This will show you the shop drawing of the current piece.

Validation

When the piece is detailed, click OK to confirm. Then you can begin another piece. When you quit the drawing, you will see on the files list a hand at the left of all detailed files. Clicking OK will only import in WinSTEEL the pieces of the corresponding files.

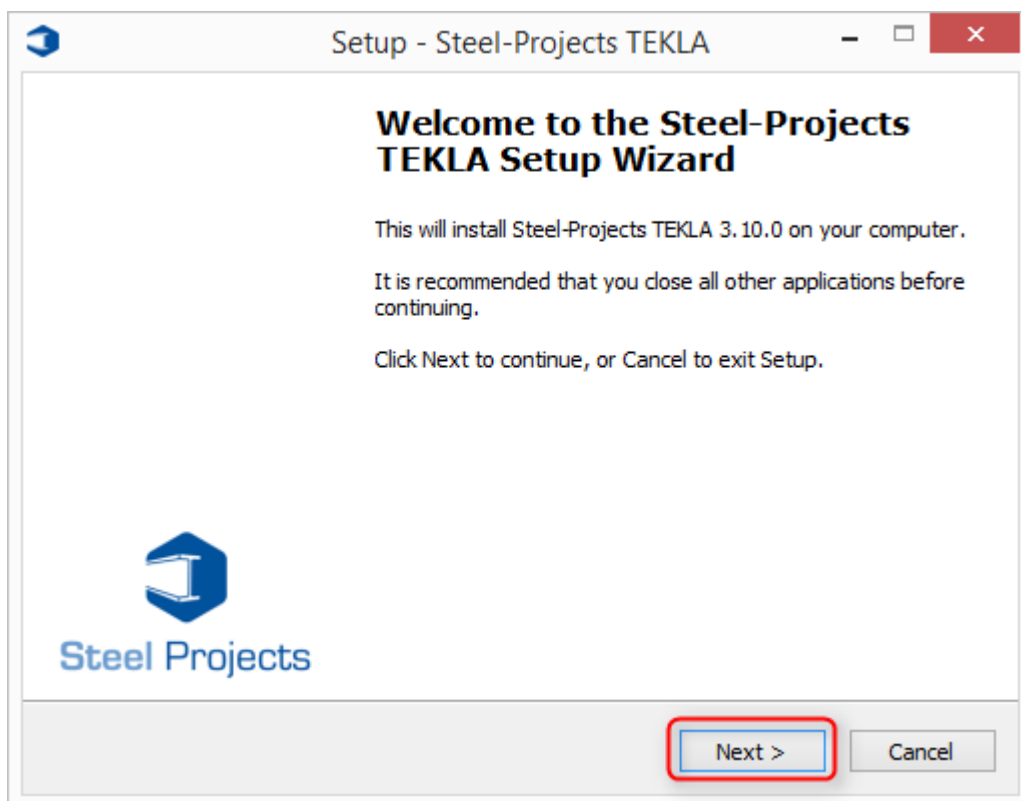
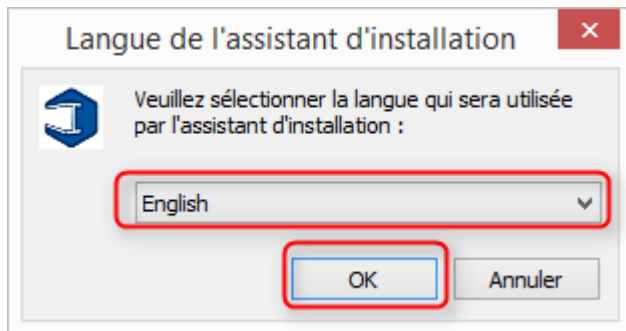
Options

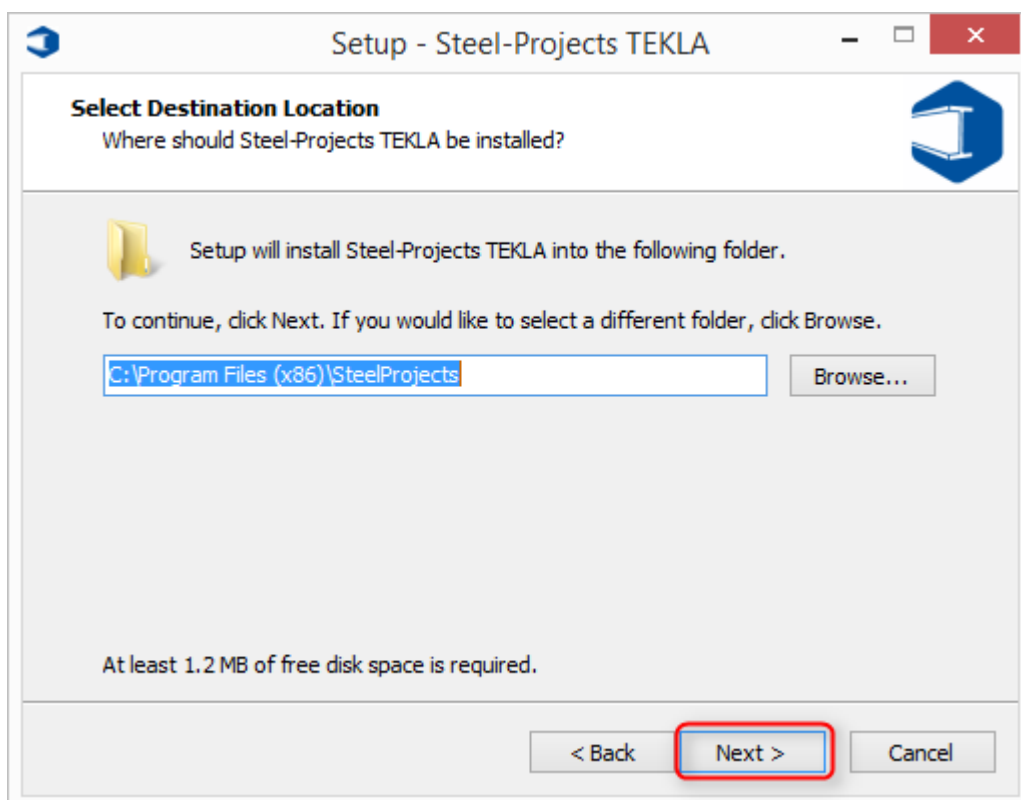
In the options, you can specify the layer linked for each side (if you want to work in this way). You can also give the name of the blocks that you want to be recognized as holes and for these blocks you give the corresponding diameter (i.e block M12 is diameter 14) or -1 if the scale of the block is equal to the diameter.

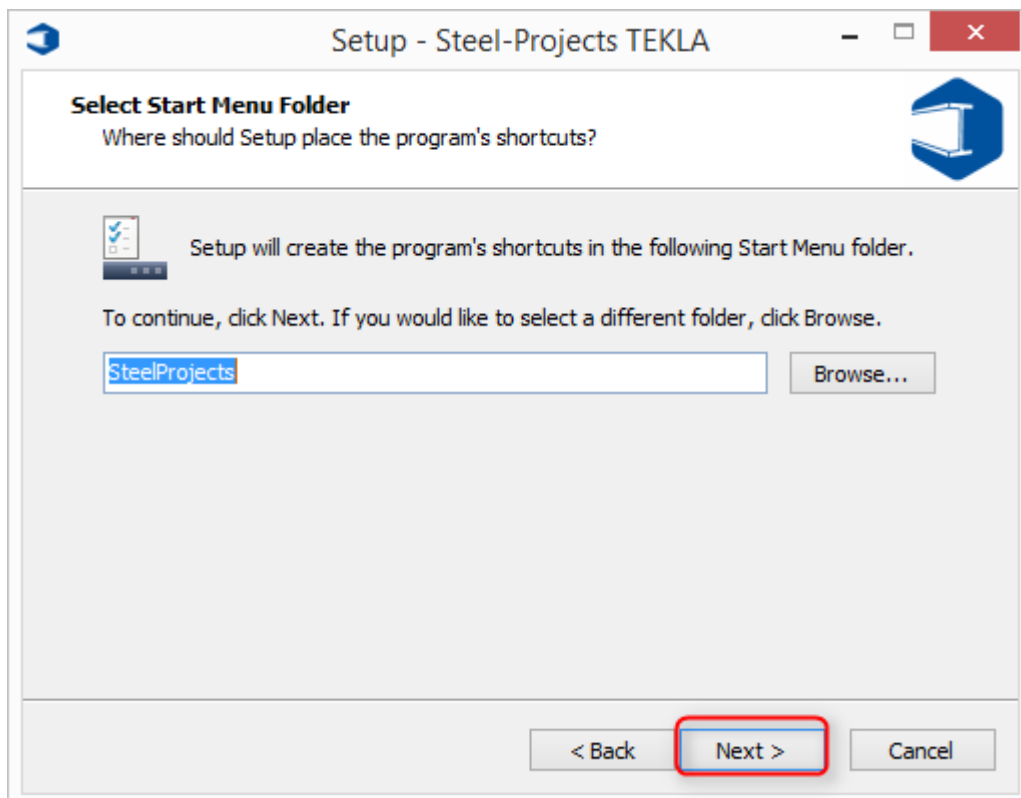
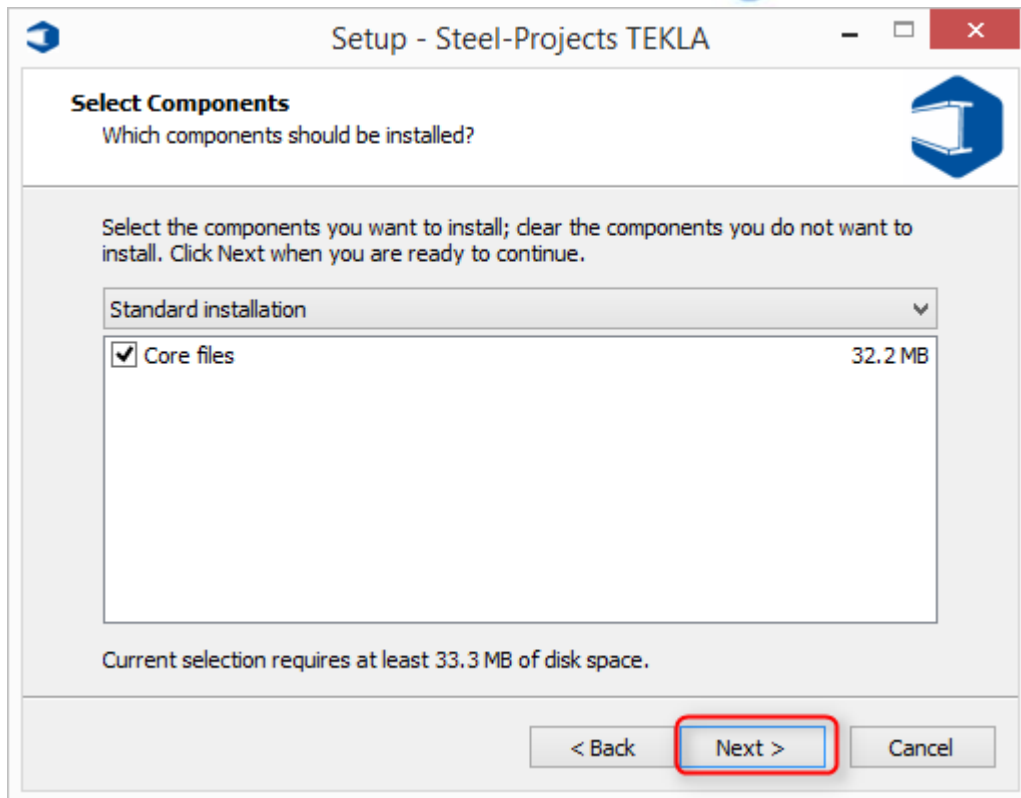
Tekla XML Import

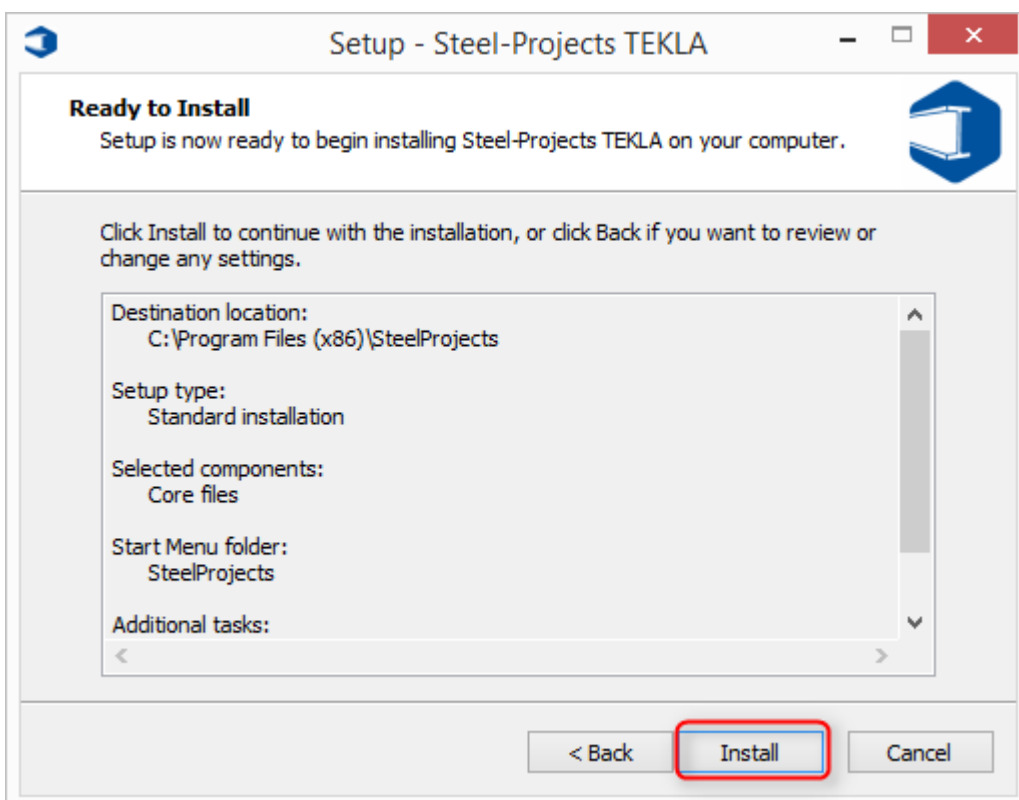
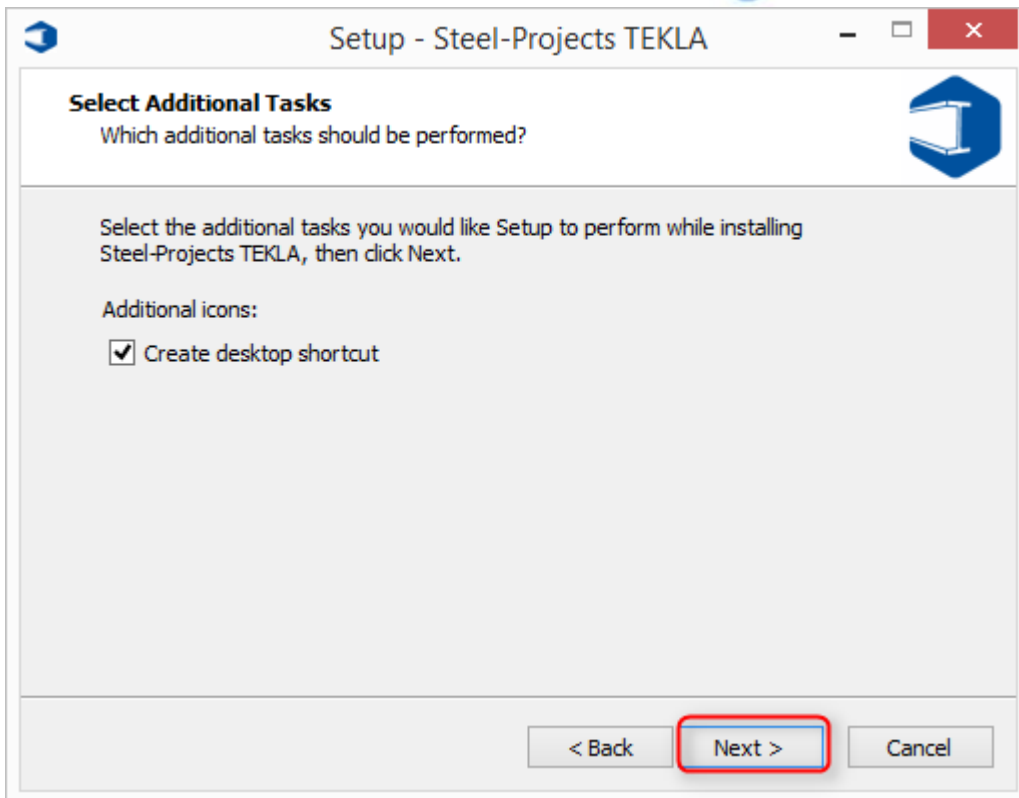
Installation

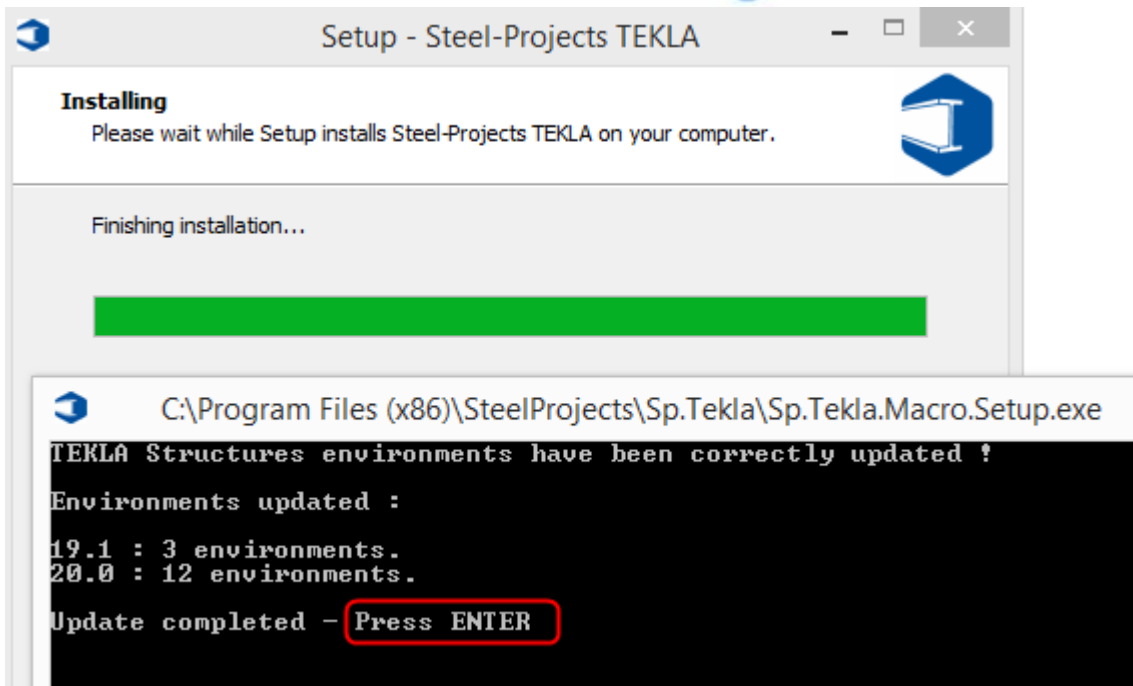
To use this macro, it first needs to be installed inside the Tekla environment. A file [Sp.Setup.Tekla.exe](http://www.steel-projects.net/download/public/Tekla/Sp.Setup.Tekla.exe) is available to download from <http://www.steel-projects.net/download/public/Tekla/Sp.Setup.Tekla.exe>











The automatic installation will copy the file Steel-Projects_XMLexport on the macros folder of Tekla.

If you press 

The Scribing interface will then appear, if it does not or an error message appears then please check previous steps then contact either Tekla, or Steel Projects support.

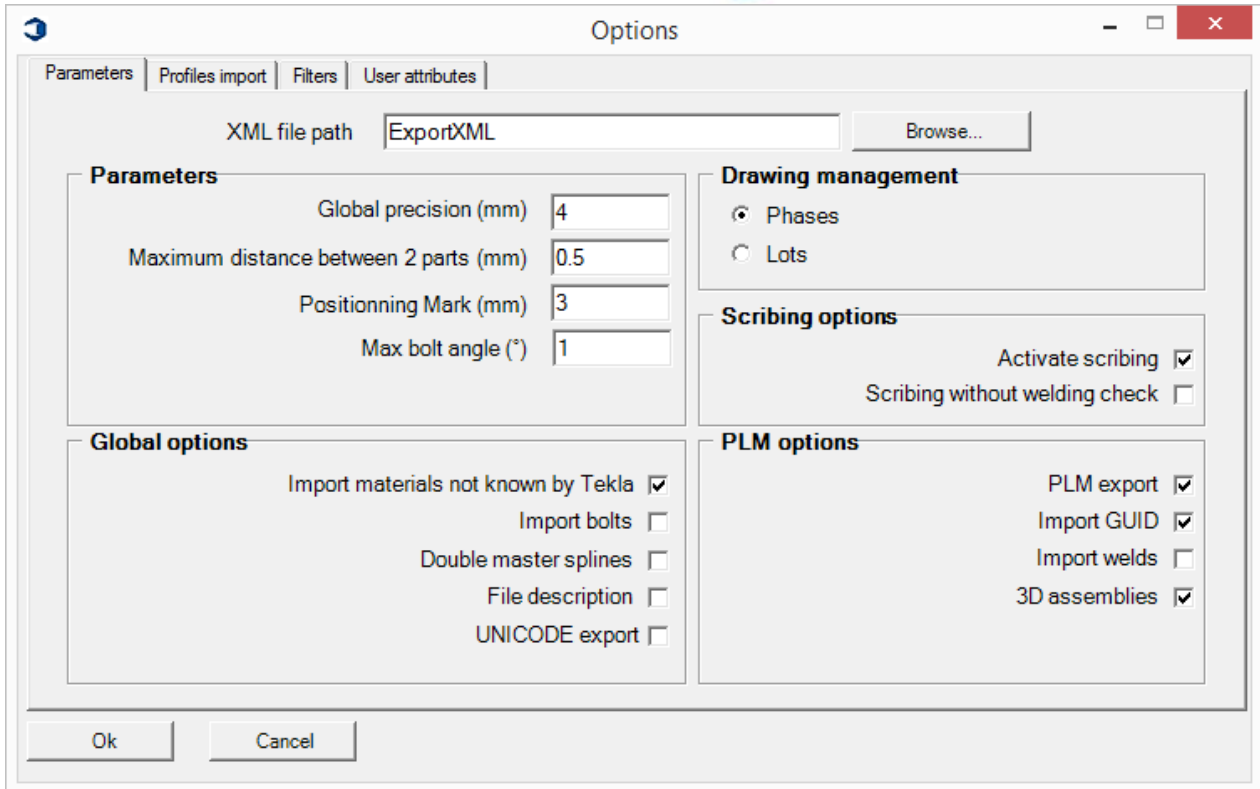


The two radio buttons ("With full model" and "With the selection") allow the user to generate scribing either for the full model or for specific elements selected directly in the model.

To create scribing for all parts activate the tick box "Scribing secondary parts"; if scribing is required for the main part only do not select this option.

Tekla Options

Parameters



Options

Parameters | Profiles import | Filters | User attributes

XML file path:

Parameters

Global precision (mm)

Maximum distance between 2 parts (mm)

Positionning Mark (mm)

Max bolt angle (°)

Drawing management

☒ Phases
☐ Lots

Scribing options

Activate scribing ☒
Scribing without welding check ☐

Global options

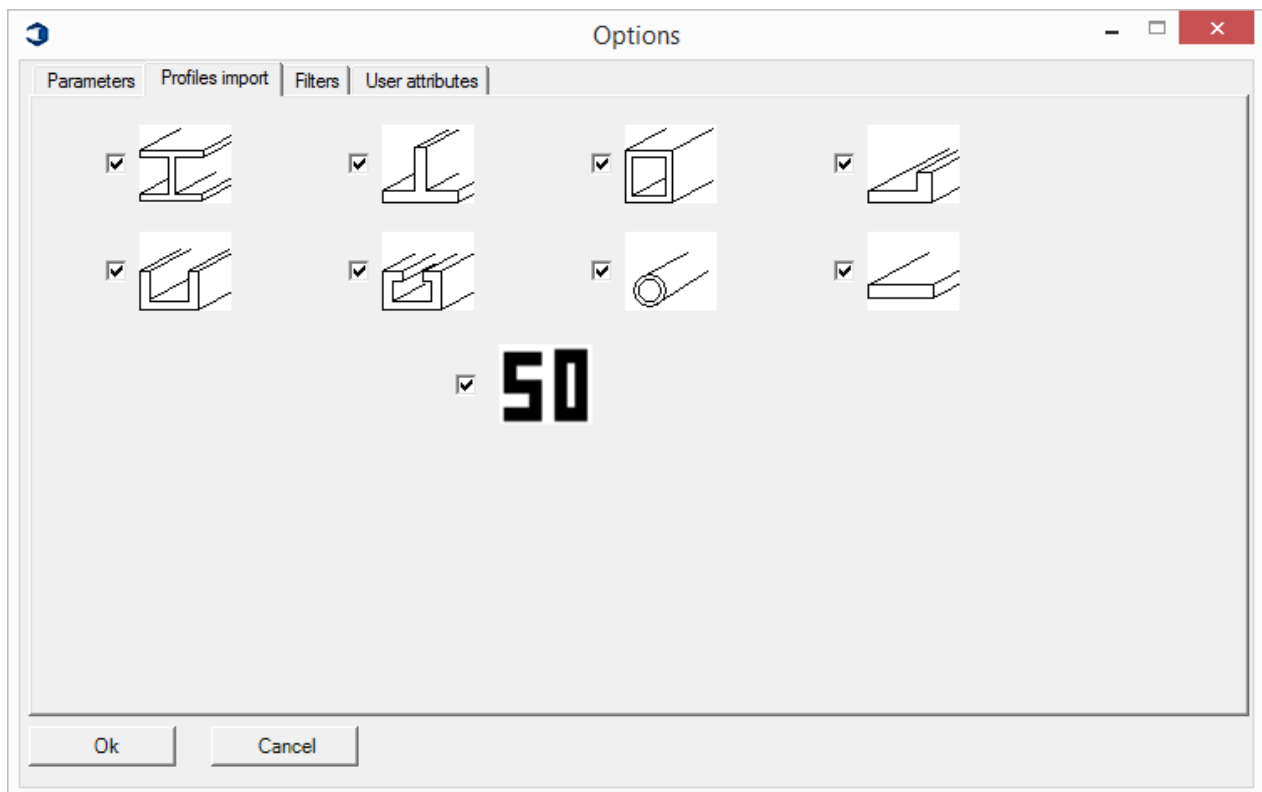
Import materials not known by Tekla ☒
Import bolts ☐
Double master splines ☐
File description ☐
UNICODE export ☐

PLM options

PLM export ☒
Import GUID ☒
Import welds ☐
3D assemblies ☒

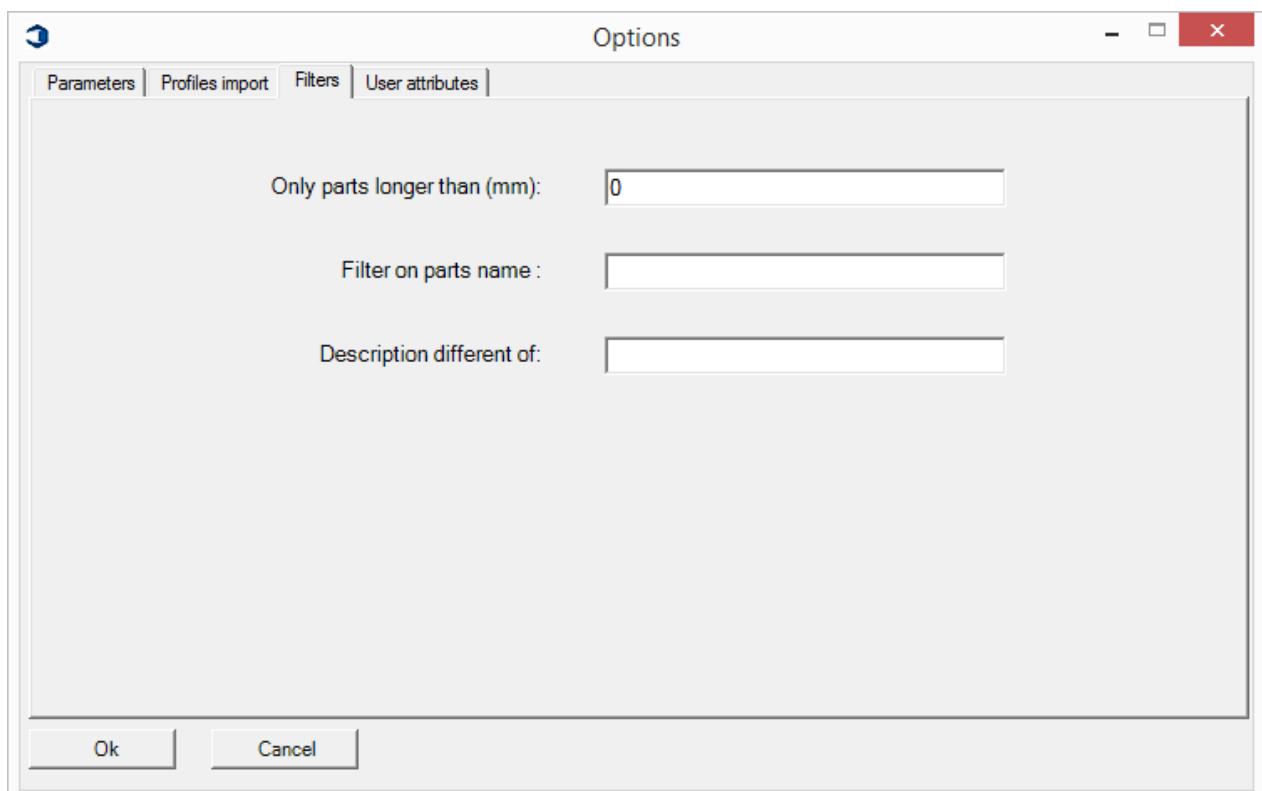
- XML File Path: Path where the exported files for scribing are created. By default they are created in the following folder: C:\TeklaStructuresModels\
- Global Precision (mm): precision for test for comparison regarding a drawing
- Minimal Distance Between 2 parts (mm) : precision for test for comparison of parts
- Import materials not known by tekla: import even if profile do not exist in Tekla
- Import Bolt: Import of bolt in xml file
- Import all parts identifiers: import identifiers for every parts
- No welding check: the macro will generate scribing data even if two parts are not welded together if this option is checked. This option is useful if parts have been added with the option "Add to assembly".
- Import Welds: the macro will generate scribing data even if two parts are not welded together if this option is checked. This option is useful if parts have been added with the option "Add to assembly".
- Drawing (Phases/Lots): import by phases or by lots

Profile import

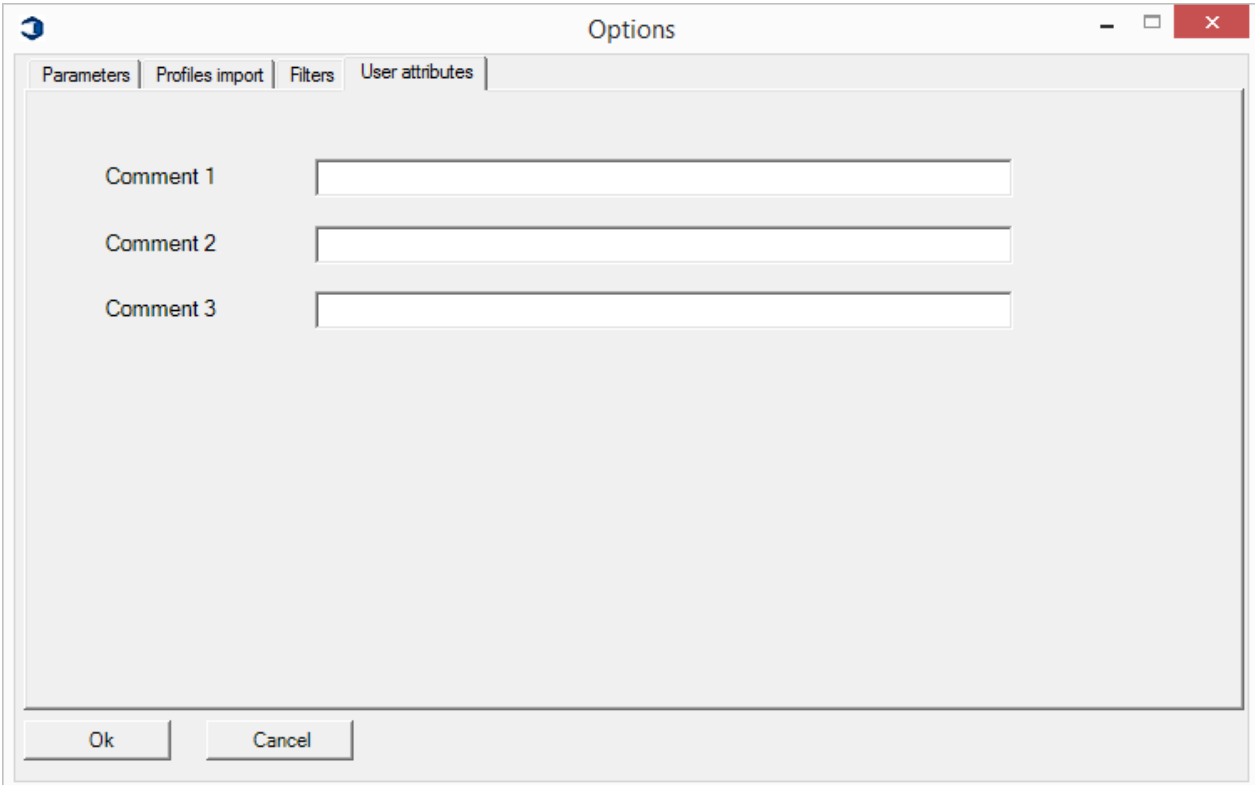


Importation only of parts whom profile are ticked.

Filter

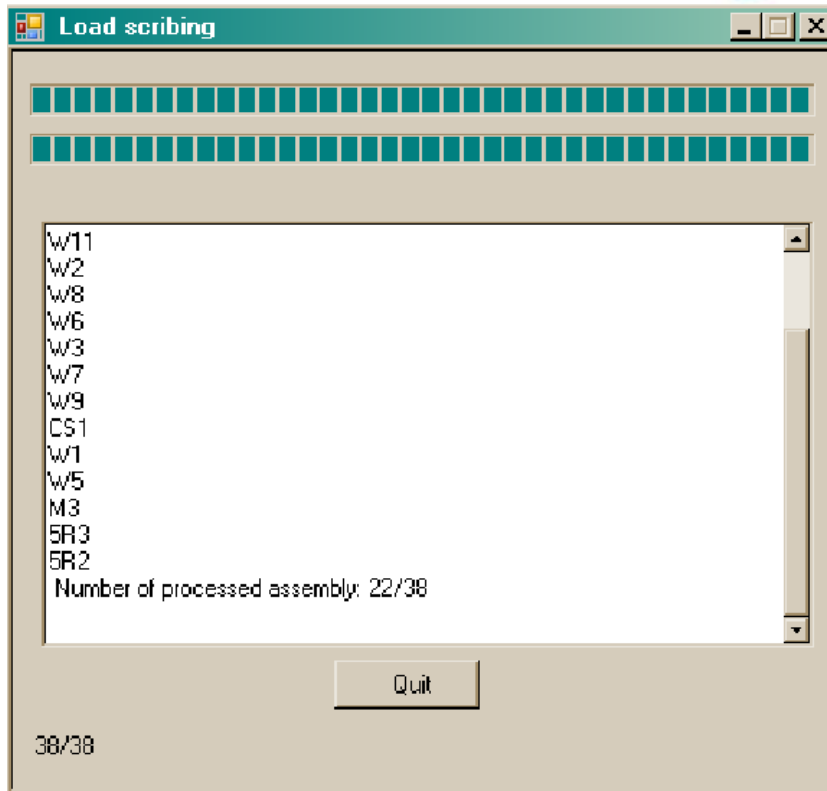


- Only part with length taller than (mm): import only parts with a length bigger than the value
- Filters on parts name: do not import only parts with name beginning by the entered value.
- Description different of: do not import part with a description beginning by the entered value



The image shows a software dialog box titled "Options". It has a tabbed interface with four tabs: "Parameters", "Profiles import", "Filters", and "User attributes". The "Filters" tab is currently selected. Inside the "Filters" tab, there are three labels: "Comment 1", "Comment 2", and "Comment 3", each followed by a text input field. At the bottom of the dialog box, there are two buttons: "Ok" and "Cancel".

Select the Start button and the scribing process will start to run



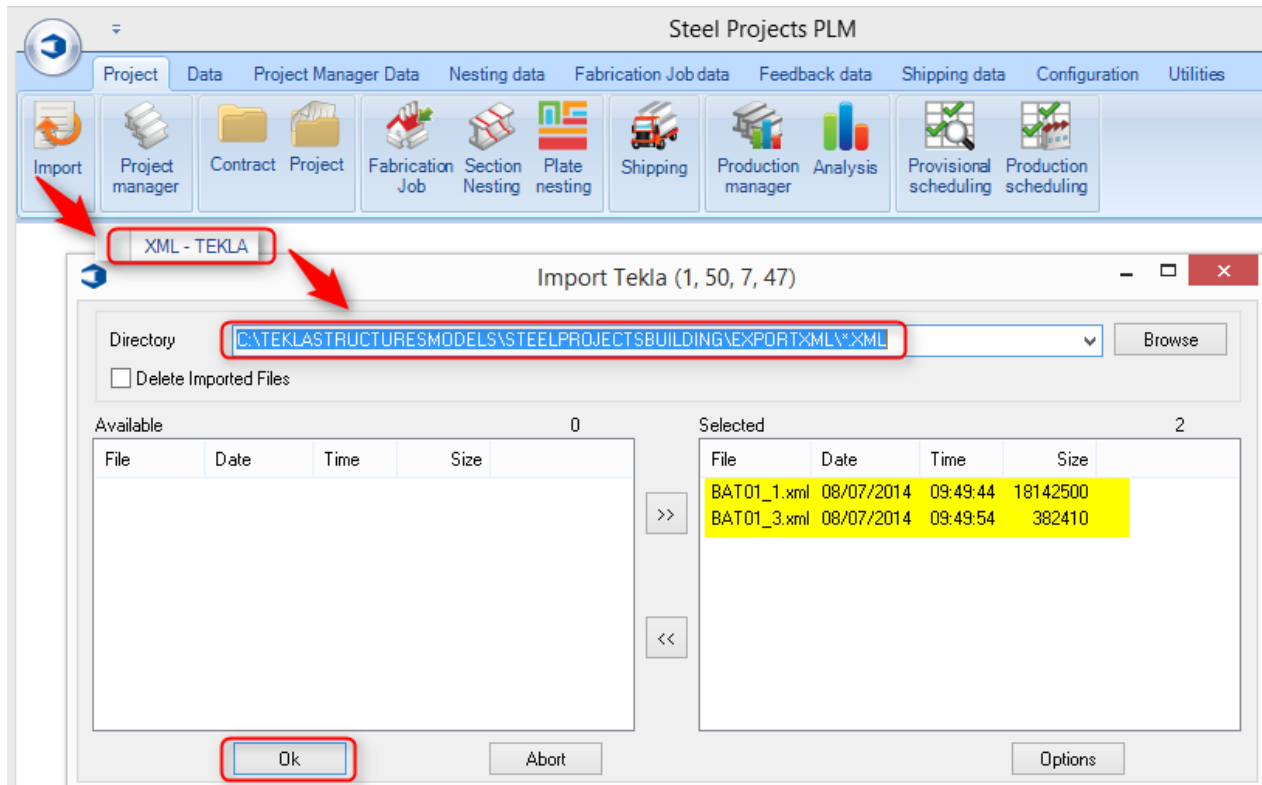
An xml file will then be created by the Scribing macro; this file can then be imported into SPPLM for processing

The next steps explain how to open this file into the Steel Projects Software

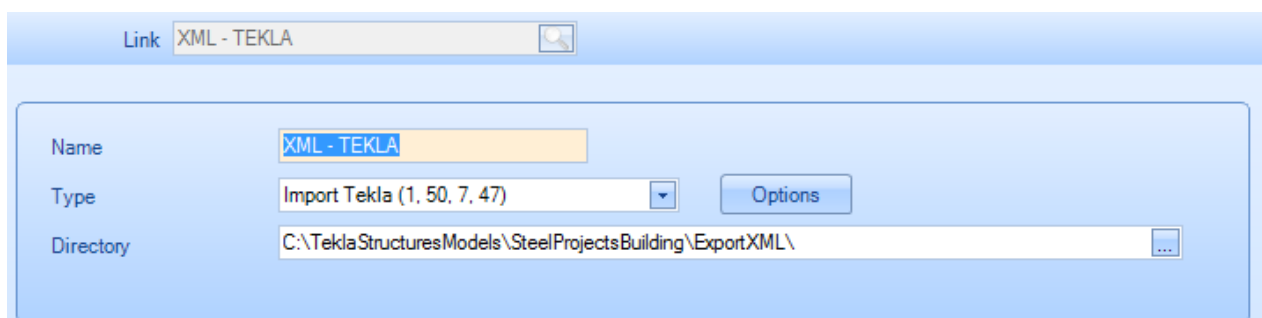
For any models created in earlier versions of Tekla Structures it is possible to open the Model in TeklaStructures V15.0 process and then exit the model without saving. If it is important that the model remains in the previous version then the file is opened in Tekla Structures V15.0 Viewer mode. Another option is to make a copy of the model and process the copy version; this will protect the original from any accidental saves.

In Steel-Projects PLM

Import Use



Import Setup



Enter the information as indicated above. Use the Browse button to locate the designated folder. Remember to add *.xml at the end of the path.

Then press on the options button and move to the next section.

Select Options tab on the above screen

Import Parameters ✕

Options | Scribing | Position | Category | Option...

Options

☒ Outline Regeneration

Cutting Tolerance (MM) ☐ For Round

Minimum Diameter for Flame Cutting

☐ Inline -> Circle

Prefix

Gussets

Square Tubes

Rectangular Tubes

Round Tubes

Unit

☒ Millimetre

☐ Inch

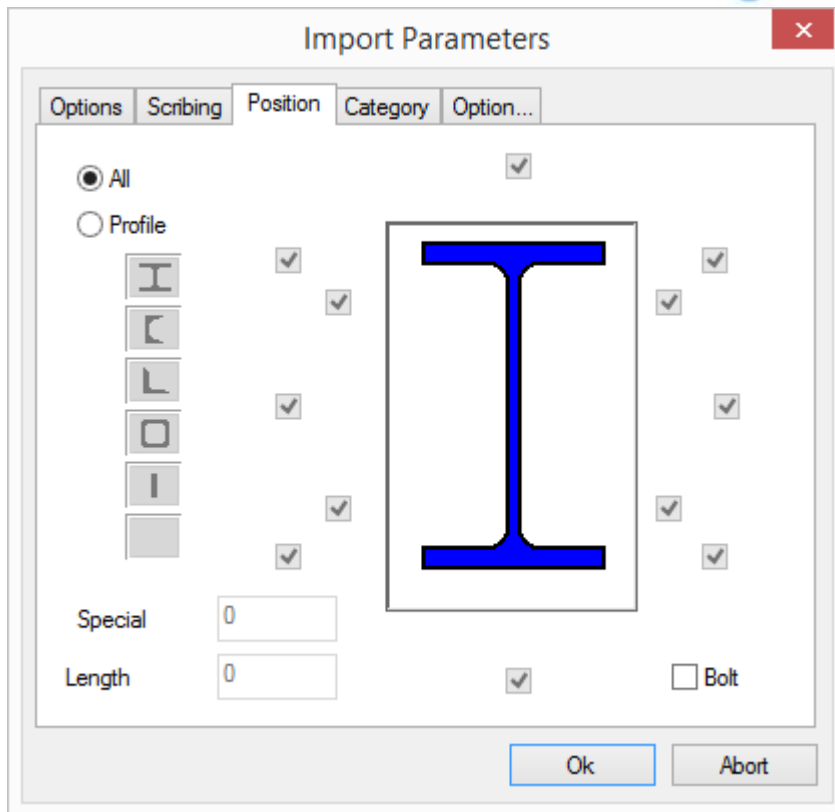
☐ FABTROL

☐ XML

Ok Abort

Parameter	Values
Outline regeneration	If a coping robot is connected to the system, then this has to be checked.
Cutting Tolerance (MM)	
For Round	Rounds up the cut to the nearest interger value
Minimum Diameter for Flame Cutting	Any diameter greater than this value will be transformed to an inline.
Gussets	Default prefix for plates. (usually PL or PLT)
Square Tubes	Default prefix for SHS. (usually SHS)
Rectangular Tubes	Default prefix for RHS. (usually RHS)
Round Tubes	Default prefix for CHS. (usually CHS)
Fabtrol	Thick to import an xml file from Fabtrol

Parameter	Values
Marking	Scribe the component's name Not any : No scribing Right : Scribes on the right of the scribing Left: Scribes on the left of the scribing
Detrompeur	Adds scribing to make sure there is only one orientation for a part
Rotation / scribing back web	X symetry flip in case there are more scribing on back web than on web fir the I beam. Do not activate this option for customer using "erection mark".
Out	
Coping	No modification or Transformation in this macro
Radius	Diameter for hole



Parameter	Values
All	Scribe all faces in full
Profile	<p>Select profile and then select faces to be scribed for that profile :</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> : scribes all the line <input type="checkbox"/> : scribes the line from each corner, on a distance "Length" <input type="checkbox"/> : doesn't scribe the selected side
Special	Will draw a line on flange of the rafter representing the front face of the cleat equal to the dimension inserted – use hole centres to enable shop location
Length	Length equals the actual length of the line that will be scribed if the "web" is selected - in the cut down version of the scribing

Import Parameters [X]

Options | Scribing | Position | **Category** | Option...

Prefix	Category	
IPN	B	I
INP	B	I
PRS	P	I
UPN	A	C
UNP	A	C

Ok Abort

Import Parameters [X]

Options | Scribing | Position | **Category** | Option...

T

☐ Transform T C. IPE HE A/B/M

Macro B 0 C 0

☐ Chamfer

☐ Milling

☐ Split Welded Beams to Flats H 0

Prefix ☐ Back Web

☐ Gross length

Ok Abort

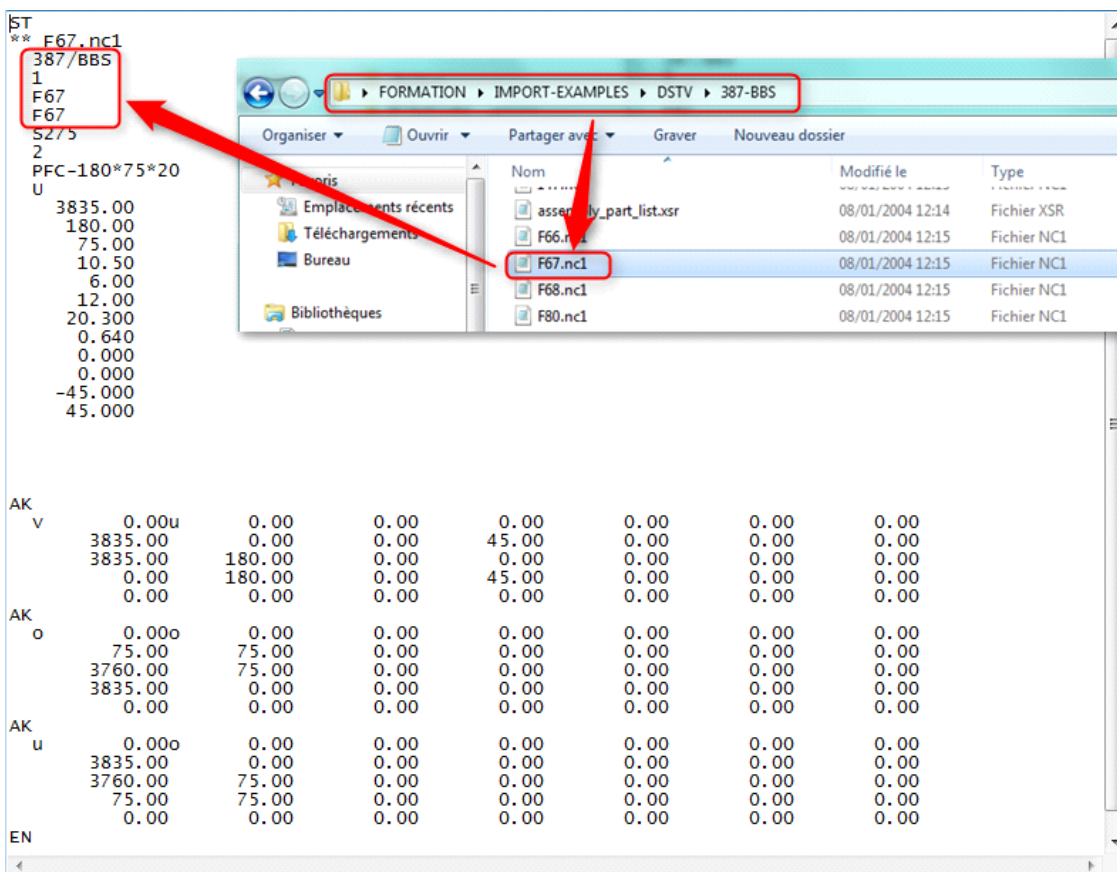
Parameter	Values
-----------	--------

Transform	Tick to transform a T in IPE; If a profile with same dimensions (web and flanges thickness and flanges width) is found, the name of profile before transformation is written in field comment 1. If quantity >2 and height of T is twice inferior to height of new profile, quantity is divided by 2.
Macro	Input the value of the macro
Chamfer	To import chamfer created in tekla
Milling	To recognize pocketting plates (only for gemini machines)
Split welded beams to flat	To split welded beams to flat beams

Created with the Personal Edition of HelpNDoc: [Full-featured EBook editor](#)

DSTV Import

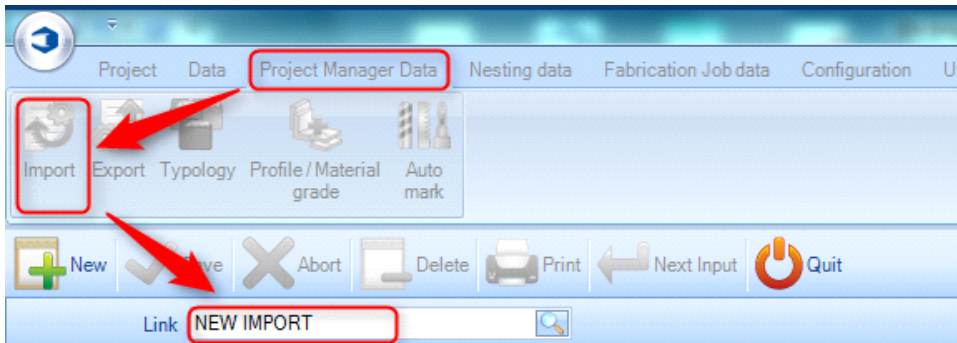
DSTV is a internationally defined format for the steel construction. So many different software are able to export using this format, DSTV has an .NC extension file.
You can find here below a real example:



These type of files can be opened with notepad in windows and it is possible to find project name, part name, etc... as well as the part definition on their data.

Co Configuring import files *.NC

To configure your import it is necessary to access SP.PLM's Project Manager Data, then click the import button, and then type the name of the import:

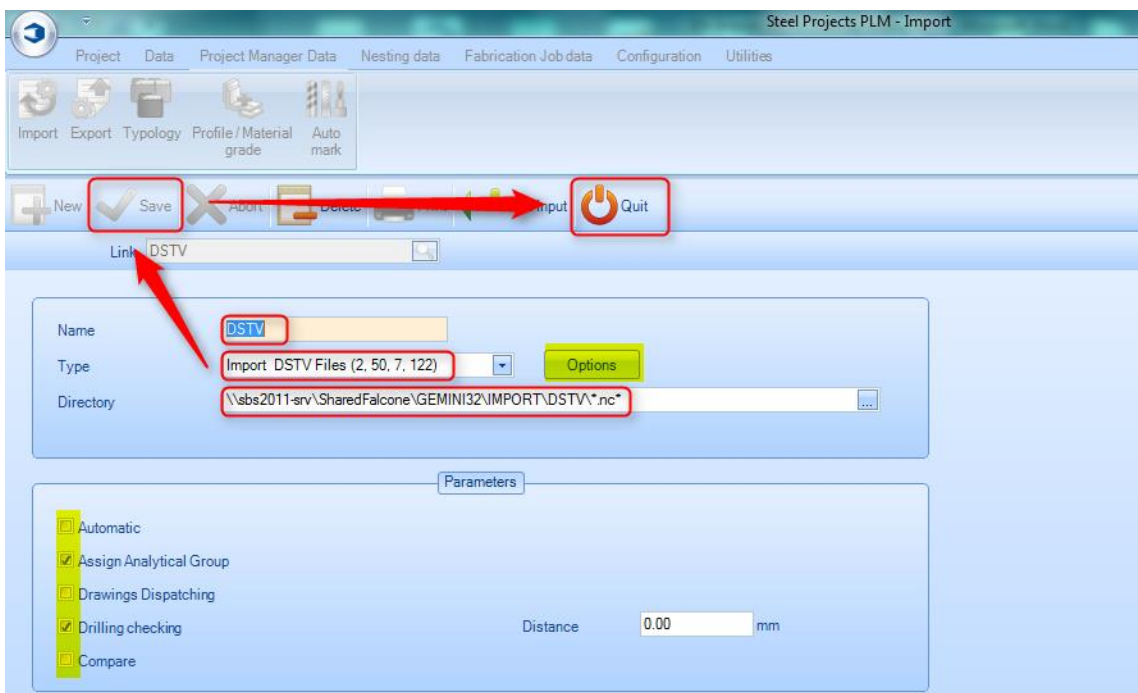


After this step you will be on the import configuration screen as following, you need to fill the next:

Name: you can choose the name you want

Type: DTSV files

Directory: the path we you can files your *.NC projects + *.NC* extension



To configure options and parameters you need and Steel-Projects technician.

Configuring assembly list *.XSR

The assembly list has many different extension types as it is a simple text document. One of the most popular is the .XSR extension, it is generated by Tekla software. The different defaults that are possible with .XSR are included by default with the software.

The SP.PLM need is to have the necessary information to make a correct distribution of the project and follow designers divisions

Here following an example of assembly list:

assembly_part_list.xsr - Bloc-notes

Fichier Edition Format Affichage ?

XSTEEL ASSEMBLY PART LIST FOR **CONTRACT No: 387/BBS** Page: 1
 TITLE: AIR PRODUCTS PHASE: AIRPRODU Date: 08.01.2004

Assembly	Part	No.	Size	Grade	Length (mm)	weight(kg)
1		1	UB254*146*31			232.9
	1	1	UB254*146*31			232.9
	F16	1	FLT35*250	43A	450	30.9
	F22	1	FLT10*150	43A	239	2.8
	F35	2	FLT10*130	43A	90	0.9
	F50	4	PLT 130 X 8	43A	159	1.3
2		1	UB254*146*31			240.9
	2	1	UB254*146*31			192.1
	F16	1	FLT35*250			30.9
	F22	1	FLT10*150			2.8
	F35	2	FLT10*130			0.9
	F50	4	PLT 130 X 8			1.3
	F70	1	PLT10*210			4.9
	F76	1	RSA150*90*10			3.1
3		1	UB254*146*31			236.0
	3	1	UB254*146*31			192.1
	F16	1	FLT35*250			30.9
	F22	1	FLT10*150			2.8
	F35	2	FLT10*130			0.9
	F50	4	PLT 130 X 8			1.3
	F77	1	RSA150*90*10			3.1

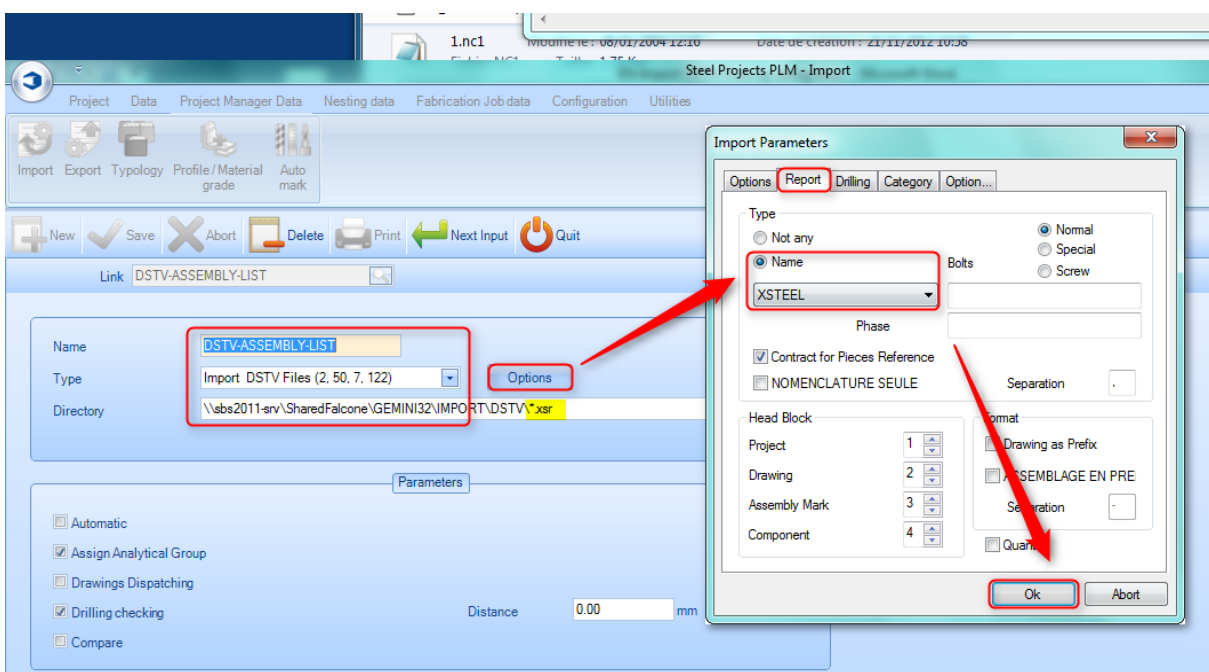
Nom 1.nc1 2.nc1 3.nc1 4.nc1 5.nc1 6.nc1 7.nc1 8.nc1 9.nc1 10.nc1 11.nc1 12.nc1 13.nc1
 Type Fichier NC1 Fichier NC1 Fichier NC1 Fichier NC1 Fichier NC1 Fichier NC1 Fichier NC1 Fichier NC1 Fichier NC1 Fichier NC1 Fichier NC1 Fichier NC1

The assembly-list.XSR and the parts.NC should be in the same folder in order to permit SP.PLM to find the files it found on the assembly list.

SP.PLM will find the Project name, drawing name (phase is usually used as), assembly and part name. When reading the information, SP.PLM will use the correct file.NC, compare the Project and part names and import if correct.

If the file.NC is not found PLM will give an error letting you know.

The way to configure the imports on SP.PLM for .XSR files is the same as .NC files, the difference is PLM will need to look for .XSR file so you have to change the file extension.



When name, type and directory information completed (with *.XSR extension) you should click on the options button and select one of the default report names (XSTEEL for example) and accept. Then save your changes and quit back to the main menu.

This doesn't mean that you are ready to import assembly list as you also need the Steel-projects technician to configure well the assembly list reading options.

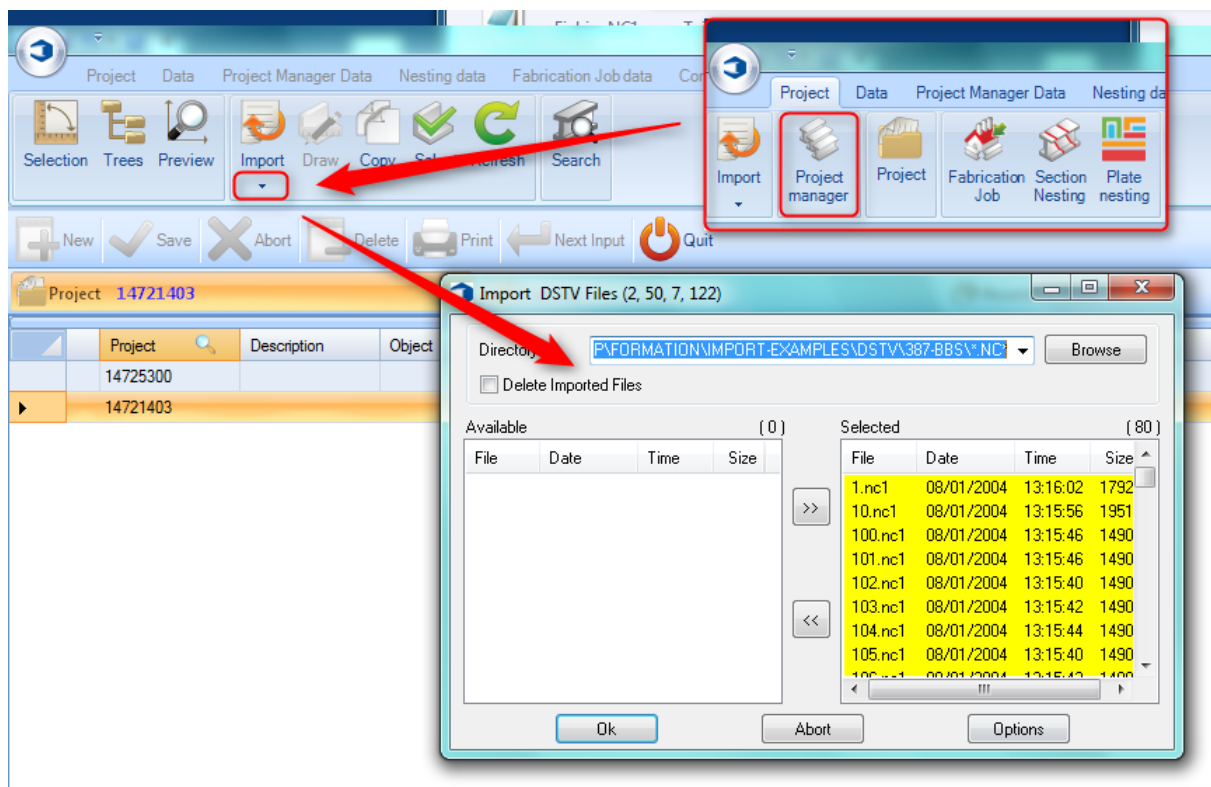
As *.NC files, you also need a Steel-Projects technician to configure Options and Parameters before starting to well-using the import.

Import DSTV into SP.PLM:

Part files (*.NC)

Some steps are necessary to import files into SP.PLM:

- Go to the main menu and select "Project manager" (you can also use the import icon if you don't want to enter Project Manager).
- Select the import you want to use.
- When selected, look for the path where are your files by clicking the "browse" button.

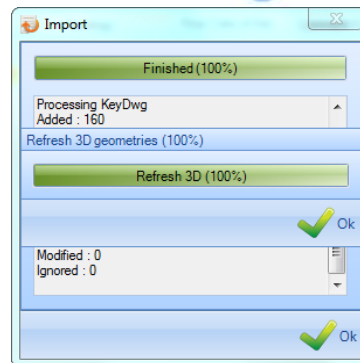


The import window is common for all of our import.

All the items (found items) will be on the right side. If you don't want to import them, put on the left side.

Items can be moved by double clicking them or by selecting them and move with the central arrows.

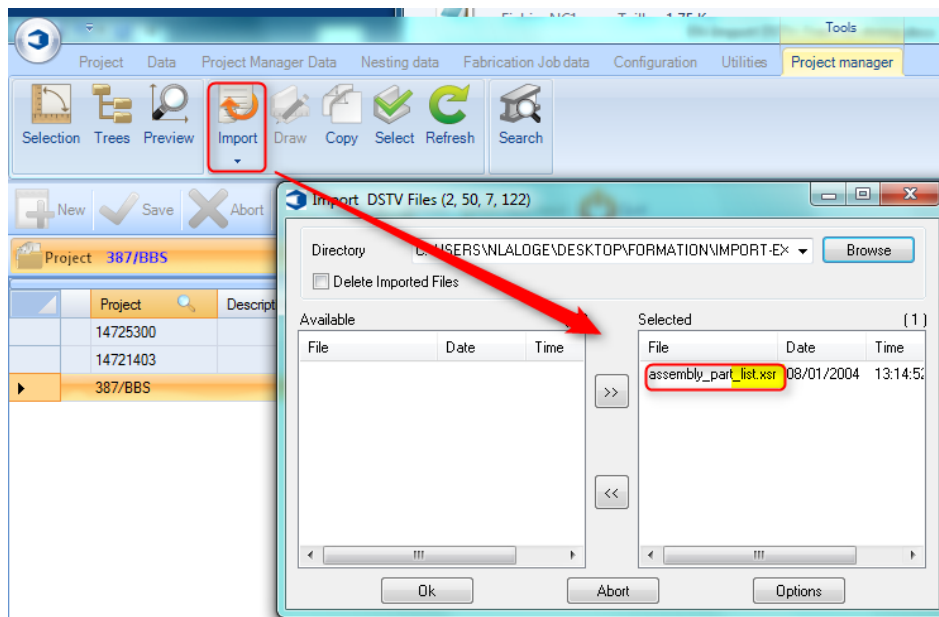
- Once the correct items on the right side, press ok to import them.
- After this, just validate the new windows and you can access your project.



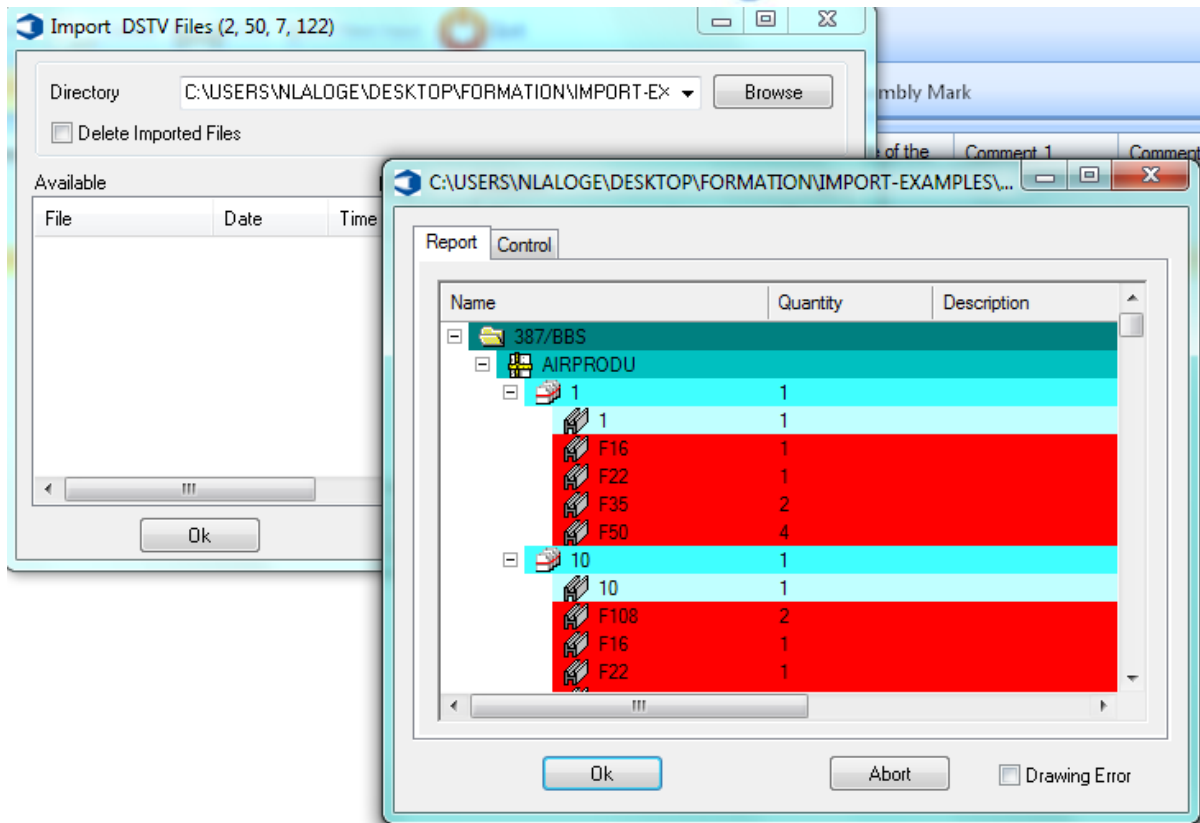
Assembly list (*.XSR)

As below, when using the assembly list import you will find a few differences in the process:

- Go to the main menu and select "Project manager" (you can also use the import icon if you don't want to enter Project Manager).
- Select the import you want to use.
- When selected, look for the path where your files are by clicking the "browse" button.
- Once the correct items are on the right side, press ok to import them (import only 1 assembly list)
- Check your project on the "project validation window" that appears
- After this, you just need to validate the new windows and you can access your project.



After this step, the new project validation window will appear:

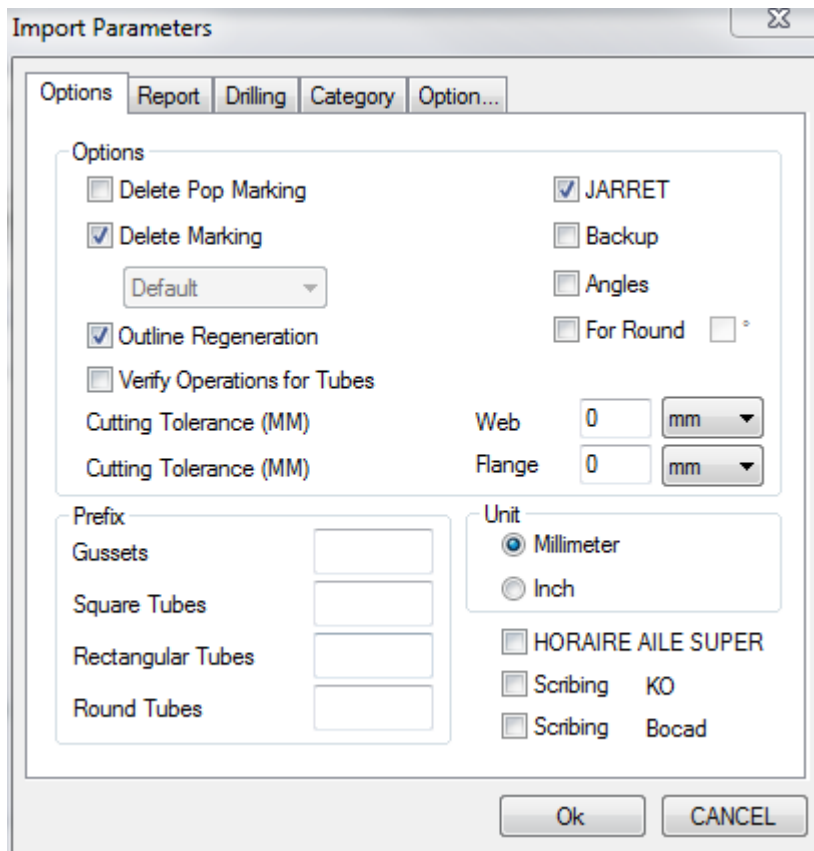


This is the assembly list.

If the part is in blue all the correct information (means that SP.PLM found the *.NC file)

If the part is in red all there is an error with the import.

DSTV Import Options



Import Parameters

Options | Report | Drilling | Category | Option...

Options

☐ Delete Pop Marking

☒ Delete Marking

Default

☒ Outline Regeneration

☐ Verify Operations for Tubes

Cutting Tolerance (MM)

Cutting Tolerance (MM)

Web 0 mm

Flange 0 mm

☒ JARRET

☐ Backup

☐ Angles

☐ For Round ☐ °

Prefix

Gussets

Square Tubes

Rectangular Tubes

Round Tubes

Unit

☒ Millimeter

☐ Inch

☐ HORAIRE AILE SUPER

☐ Scribing KO

☐ Scribing Bocad

Ok CANCEL

Delete Pop Marking - Delete all pop marks / pointing from the file if it is not required

Delete Marking - Delete all marking from the file if you want the position to be controlled by PLM \ WinCN, or specify the default tool for imported marking

Outline Regeneration - This needs to be switched on for SP PLM to convert the outline to coping macros

Verify Operations For Tubes - Turn this on for RDHS and SHS profiles to be rotated for best rotation for machining

JARRETT -

Backup -

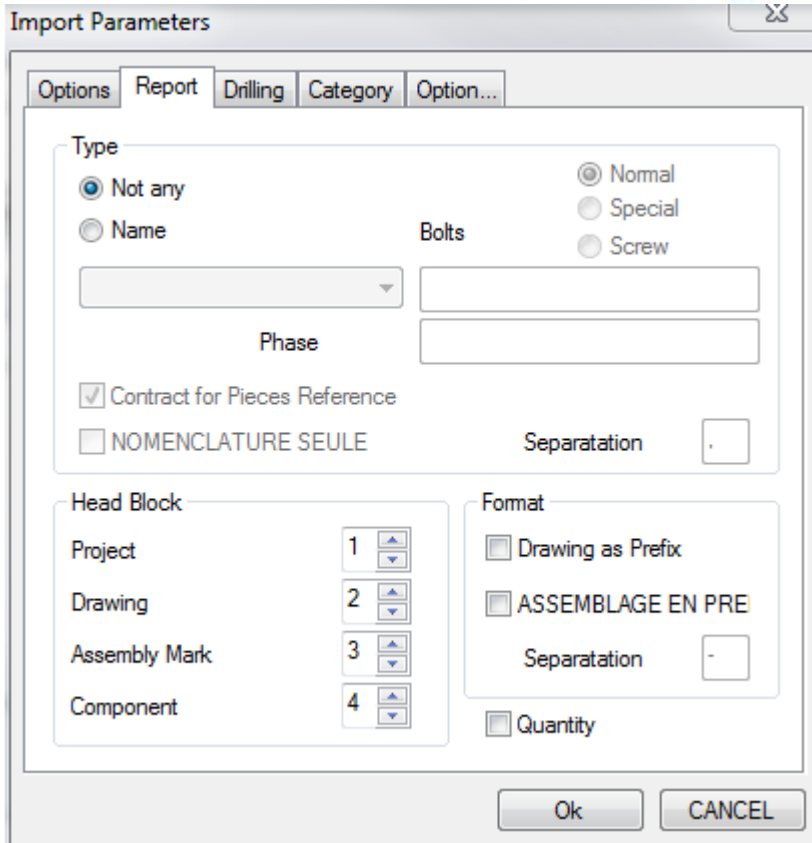
Angles - Rotates angle profiles so that the bevel is in the web and not the leg

Cutting Tolerance - Round up web or flange cuts by an angle or distance

Prefix - Rename profile names into a standard format instead of using the names in the dstv file

Report

Import a report as well as the dstv files to import full assembly information



The **Import Parameters** dialog box has tabs for **Options**, **Report**, **Drilling**, **Category**, and **Option...**. The **Options** tab is active.

Type

- ☒ Not any
- ☐ Name

Bolts

- ☒ Normal
- ☐ Special
- ☐ Screw

Phase

☒ Contract for Pieces Reference

☐ NOMENCLATURE SEULE

Separation [.]

Head Block

Project	1
Drawing	2
Assembly Mark	3
Component	4

Format

- ☐ Drawing as Prefix
- ☐ ASSEMBLAGE EN PRE
- ☐ Quantity

Separation [-]

Ok **CANCEL**

Head Block - Set the head block to import the correct information from the the files

Its main use is to set a different import for Strucad and Tekla import.

Strucad uses a none standard head block structure, so you need to change this in the import for the information to be imported correctly

Tekla Structures 1,2,3,4

Strucad 1,4,3,2

Drawing \ Assembly As Prefix - rename the componant names with a prefix of either the Project Drawing or Assembly, depending on your naming conventions.

Drilling

Import Parameters

Options | Report | **Drilling** | Category | Option...

Coping

Minimum Diameter for Flame Cutting: 40

☐ Slot ☒ Macros FENICE

☐ Generate Pop Marking ☐ LEAD/CUT

Type	Diameter	Type	Diameter	V0

Ok CANCEL

Minimum Diameter for flame cutting - Any hole greater than this setting will be converted to be a flame cut instead of a drill

Slot - When this is not ticked, slots are imported as a tooling. With it ticked, they are imported as an outline \ flame cut

Macros Fenice - Imports coping macros

Lead Cut - Imports and shows none standard coping as blue lines.

Category

Import Parameters

Options Report Drilling **Category** Option...

Prefix	Category	
IPN	B	I
INP	B	I
PRS	P	I
UPN	A	C
UNP	A	C

Ok CANCEL

Option

Import Parameters

Options | Report | Drilling | Category | Option...

Round Tubes

☐ Gussets

Prefix

Options

☐ Split Welded Beams to

H

Prefix

T

☐ Transform T C. IPE HE A/B/M

Macro B C

Options

☐ Profile Special

☒ Drawing Error

Section Nesting

☐ Import Sheet

☐ Import Bar N°

Comment

1

2

3

4

☐ Gross length

Export



You can set up exports for all of your CNC machines from this screen. You need to have a separate export for each machine.

To add a new export, type the name into the search box (usually the name of the machine) and then press NEW or Ctrl+N

Link

Name

Type

Directory

Then add the type of export and the directory you want to export the files to.

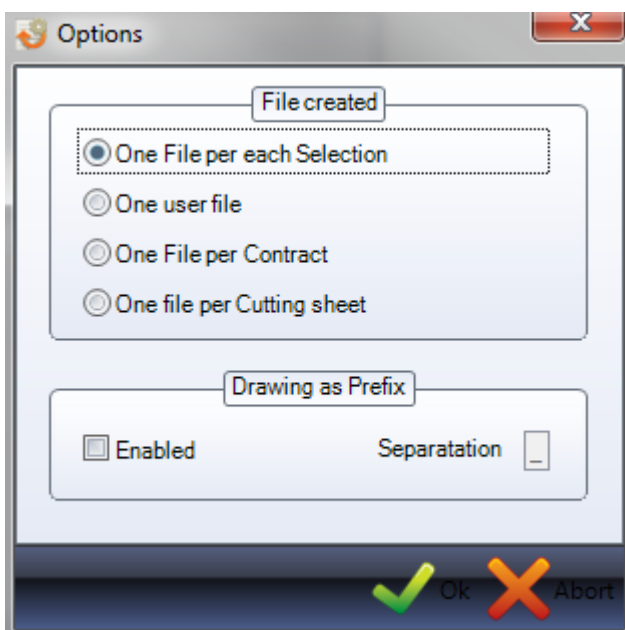
The type of export depends on the machine you are sending to. If you are exporting to a machine with a WinCN post processor installed on it, then you want to choose CAM files. This will send a Steel Projects CAM file to the machine to be imported into this software.

You can also send a FNC file directly to the machine with the export FICEP option.

For none WinCN machines you would normally choose either DSTV or DXF\DWG (Site licences required) depending on the import choices and post processing capabilities on the machine

Type of export

- Cam Export
- File Created - Choose the options for the name of the CAM file generated by SP PLM.
- Drawing as Prefix - Prefix the drawing name before the file name

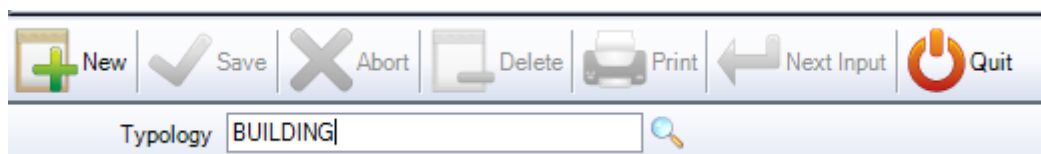


Typology

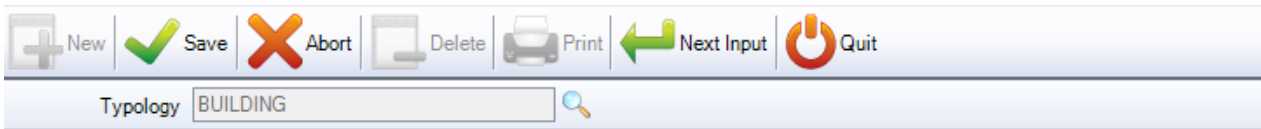


It is possible to create different types of projects and assign them a different typology

To add a new typology to the database, type the name into the search box and then press NEW or Ctrl+N



You can give the typology a description and then set controls on whether it is allowed to have drilling or punching for this type of building.



General

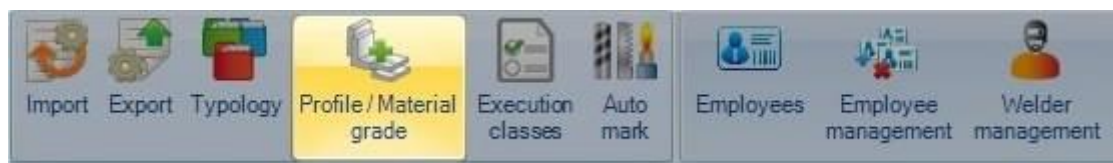
Typology:

Description:

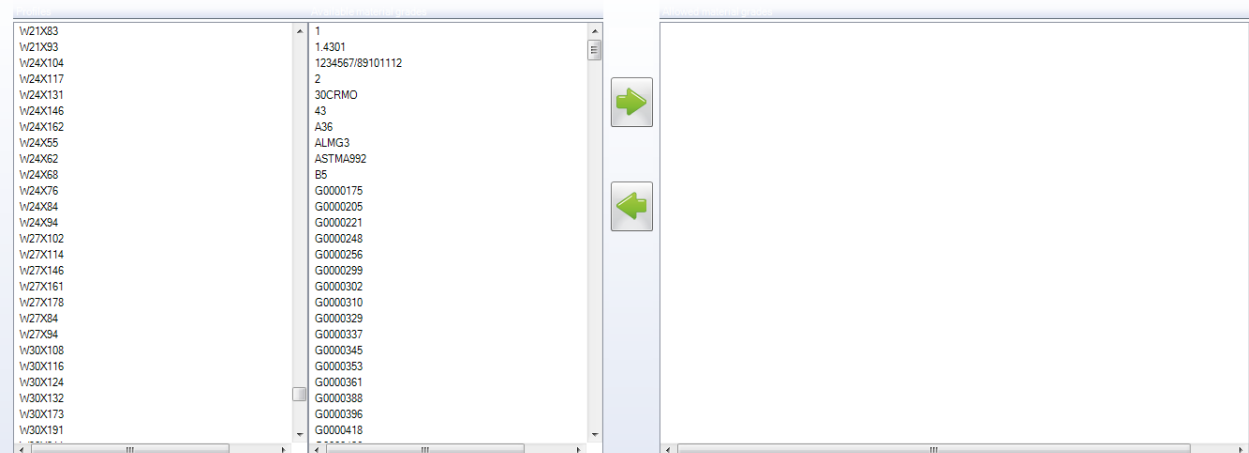
Allow drilling: ☒

Allow punching: ☒


Profile / Material Grade

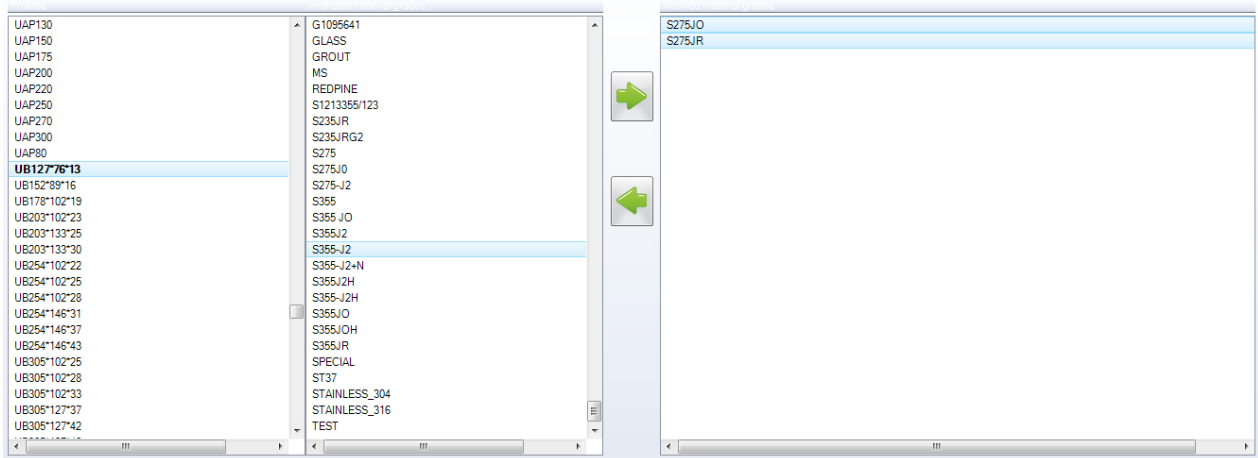


This option allows you to restrict certain material grades for particular profile. The default is for all grades to be available, you only need to change this setting if there are profiles you want to specify the allowed grades.

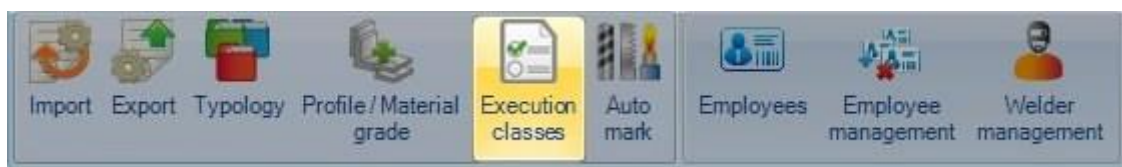


To set a material grade restriction for a profile, click on the grade on the list on the left side

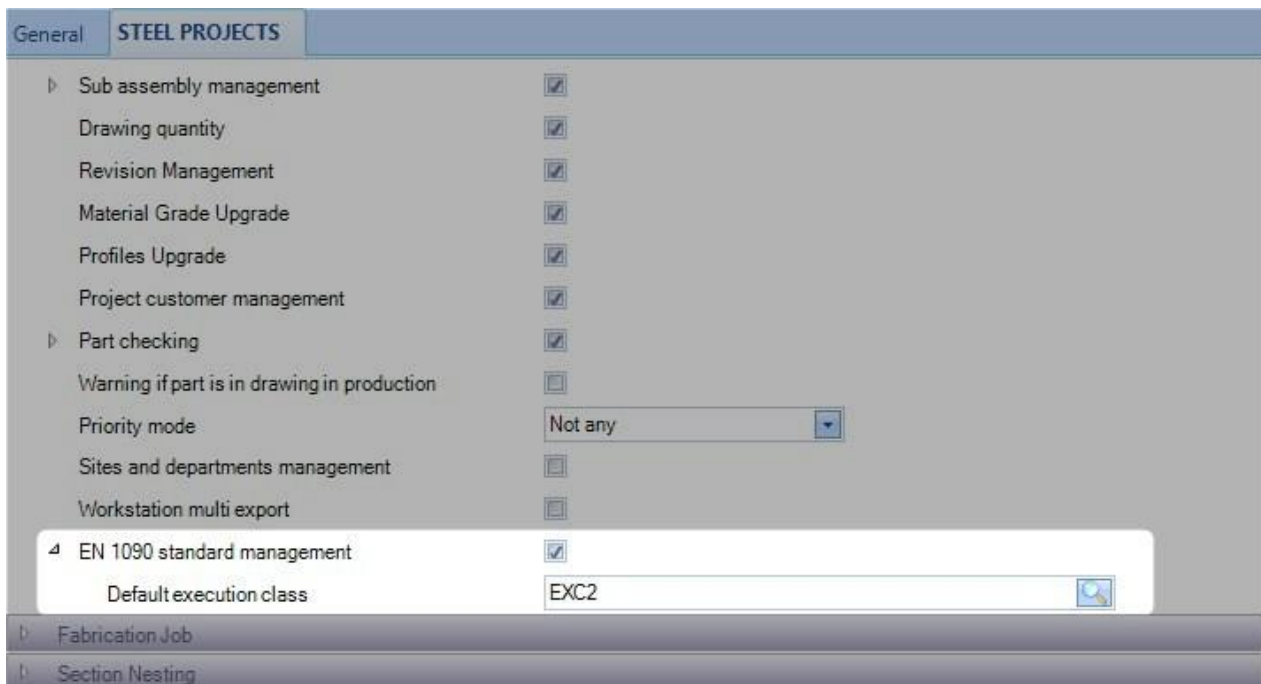
Then click on the allowed material grades on the second list, and press  to add them to the right side window. This indicates that this profile will only have the option to be one of the listed grades



Execution Classes



In order to activate the execution classes management, you first have to go to the configuration menu of the company and enable the following option :



You can define the default execution class that will be applied for each new contract. Here, we select EXC2.

When you go into the Execution Classes menu, the list of all 4 classes is displayed.



This list is not modifiable. It corresponds to the EN1090 norm.

However, you can rename the classes.

Auto Mark

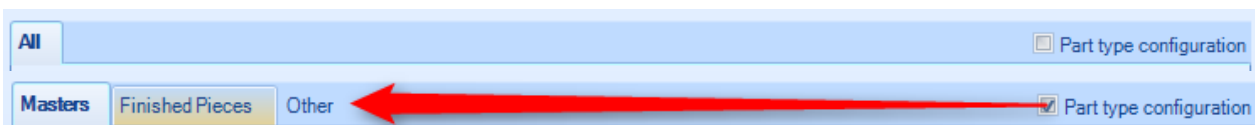


When set-up, this feature allows you to add a specific marking to a group of parts.

configuration

- The automatic marking can be set up for all the parts, without any distinction, or a different marking pattern and process for each type of part (Master, Finished, Other).

To do so, you have to activate the "Part Type Configuration" check box



- The manufacturing process is made to force a marking process, if the machine is able to do it.

All ☐ Part type configuration

Manufacturing process

☒ Unspecified
 ☐ Disc
 ☐ Scribing
 ☐ Leadcut

Text

Separation Free text ☒ Multiline

Composition

Value	Current Value	Size
Drawing		
Assembly Mark		
Project description		
Drawing description		
Part description		
Comment 1		
Comment 2		

Preview

Method

Position

- When Multiline is ticked, each item will be marked on a separate line. Note that this feature is made only for plates.

All ☐ Part type configuration



Manufacturing process

☒ Unspecified
 ☐ Disc
 ☐ Scribing
 ☐ Leadcut

Text

Separation
 Free text
☒ Multiline


Composition

Value		Current Value	Size
Drawing	<div style="text-align: center;">   </div>	Project	0
Assembly Mark		Component	0
Project description		Material short code	0
Drawing description			
Part description			
Comment 1			
Comment 2			

Preview



{Project}
 {Component}
 {Material short code}

Method













Position 

- The content of the marking is set-up as follows

Select an item among the available ones on the left hand side section, and move it to the right hand side.

You can change the order of each selected item by selecting it and using the  and  buttons.

List of the available fields :

-  Project
-  Drawing
-  Assembly Mark
-  Component
-  Project Description
-  Drawing Description
-  Part Description
-  Comment 1, 2, 3, 4 (These are the comments of the part)
-  Material Short Code *
-  Free Text *
-  Source Project *
-  Source Part *

*The fields marked with * are special fields and will be explained further in the document.*

- The position is made to determine where the marking will be placed on the part. This feature is only for plates.

All ☐ Part type configuration

Manufacturing process

☒ Unspecified
 ☐ Disc
 ☐ Scribing
 ☐ Leadcut

Text

Separation Free text ☐ Multiline

Composition

Value	
Project	
Drawing	
Assembly Mark	
Material short code	
Project description	
Drawing description	
Part description	

➔ ➔


Current Value	Size
Component	0

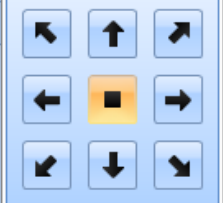
➔ ➔

Preview

{Component}

Method

Position 



Special fields

- If you insert the "Free text" item, it will be replaced in the marking pattern by the text you enter in the free text field.

Text

Separation Free text ☒ Multiline

Composition

Value	
Comment 1	
Comment 2	
Comment 3	
Comment 4	
Source project	
Source part	
Material short code	

➔ ➔

Current Value	Size
Free text	0

➔ ➔



Preview

TEXT HERE

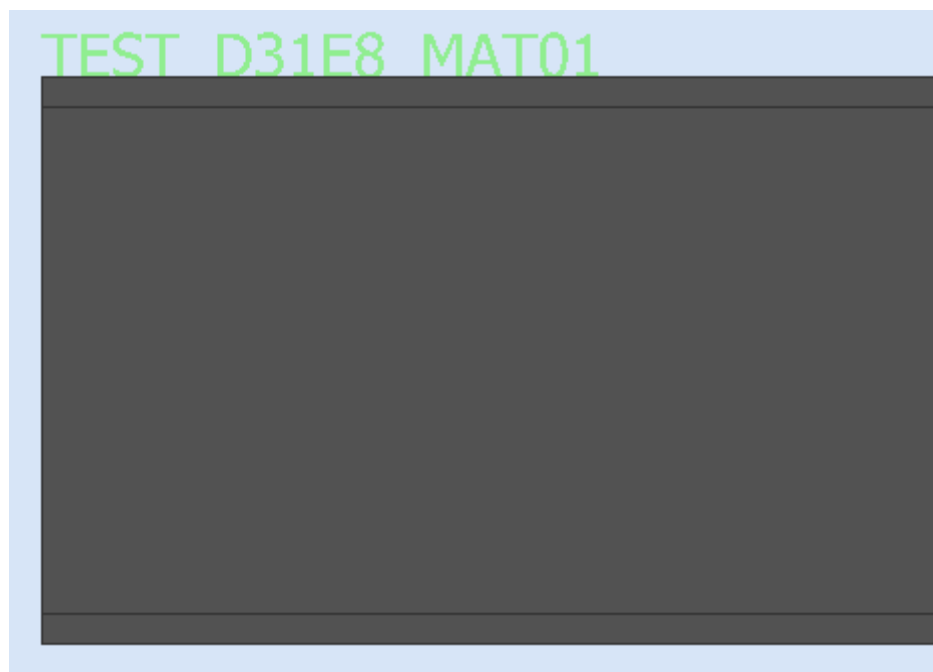
- The ShortCode for material stands for an optional code set up for each material grade.

Current Value	Size	
Project	0	
Component	0	
Material short code	0	

In this example, we set up MAT1 for S235JR

Material Grade	<input type="text" value="S235JR"/>
Description	<input type="text" value="EN10025/93"/>
Density	<input type="text" value="7.90"/>
Material type	<input type="text"/>  
Short code	<input type="text" value="MAT01"/>

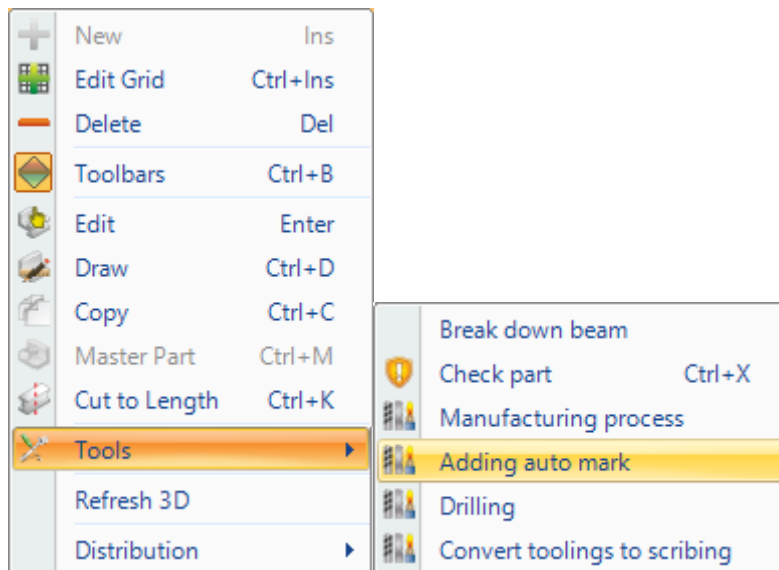
The result of the above mentioned configuration is as follows



The text is not shown in its actual position, which is determined by WinCN.

- Source Project / Source part : When a contract is built from a standard contract, name of this contract / part.

Adding the marking to the part(s) for profiles



Adding the marking to the part(s) for plates

You can use the tool "Adding auto mark" manually for a part selection or you can define the automatic marking addition by activating the machine's parameters:
In this case all part will be marked in automatic for this machine.

Workstations GEMINI

General Tooling **Parameters** Cut parameters Hole parameters Deliverable dimensions Standards Gap

▸ Nesting

▸ General

▾ Tooling

▸ Scribing ☒

▾ Marking ☒

 Marking back web ☐

 Default marking type Scribing

 Punching : Probing time per marking 6.00 s

 Punching : Marking time per letter 2.00 s

 Scribing : Probing time per marking 6.00 s

 Scribing : Marking time per letter 5.70 s

 Plasma : Probing time per marking 6.00 s

 Plasma : Marking time per letter 5.70 s

 Text size 0.00 mm

 Auto mark ☒

▸ Milling ☒

▸ Chamfer ☐

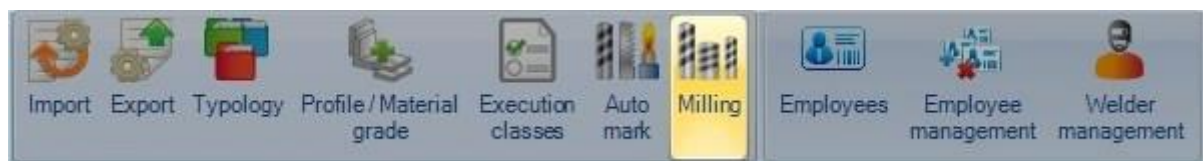
▸ Drilling ☒

▸ Outline ☒

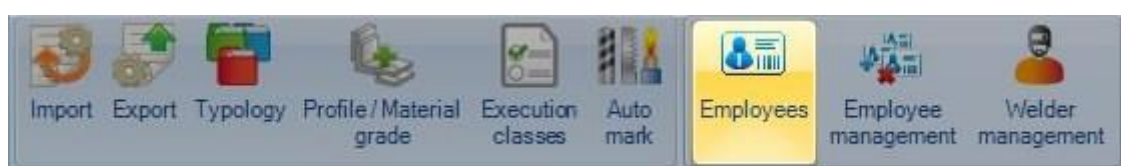
▸ FICEP time ☐

▸ Performance indicator

Milling



Employees




If you use the Production Feedback Module, you can use this option to set up your employees and link them to their SPPLM user name.

To add a employee to the database, type their user ID into the search box and then press NEW or Ctrl+N

GENERAL


Fill in the employees details including start date and end dates if necessary.

Double click in the user field to associate this employee with a user



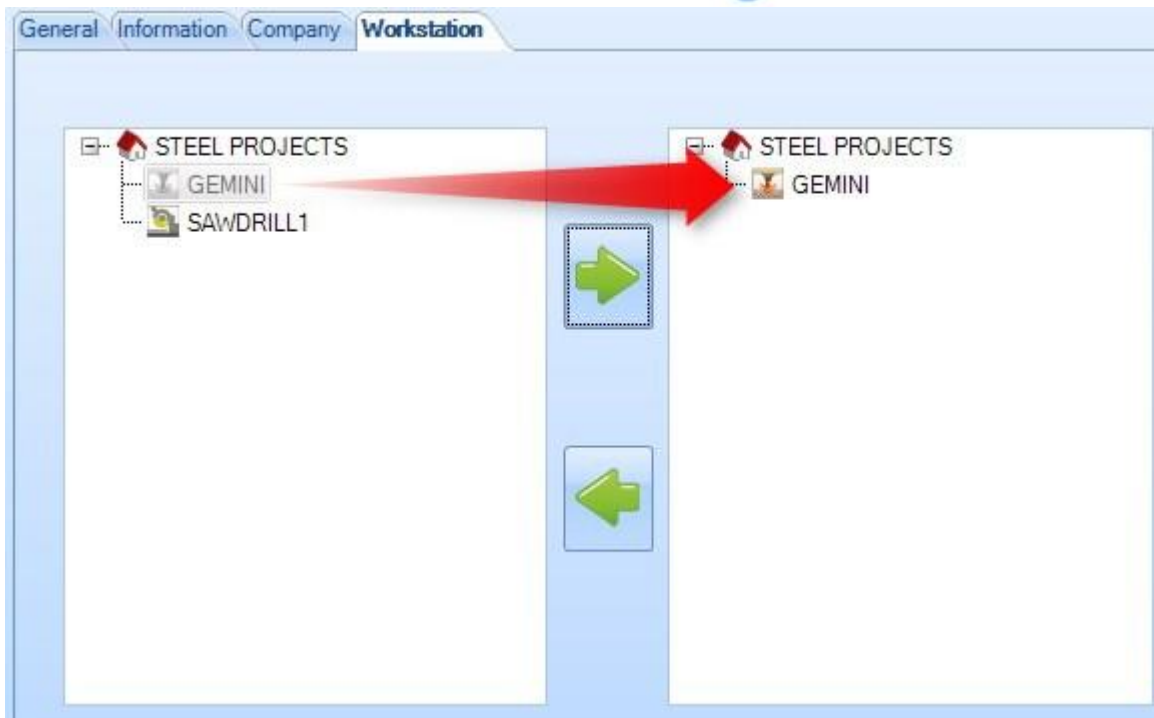
General		Information	Company	Workstation
ID	0001			
ID Number				
Name	MARTI		Functions	
First Name	Oriol		<input type="checkbox"/> Account manager <input type="checkbox"/> Sales representative	
Date in	22/04/2006			
Date out	/ /			
User	USER			
Supervisor	<input type="checkbox"/>			
Telephone N°				

COMPANY

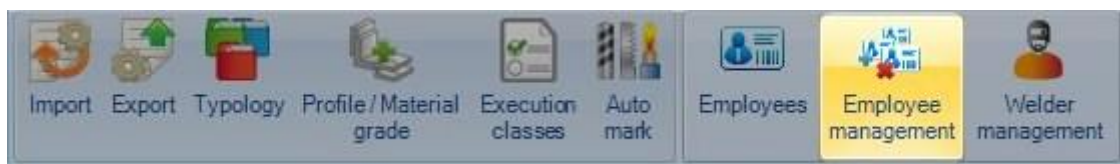
For Multi company databases, select the company the employee is associated with by selecting it from the list of the left side and pressing  to add it to the right

You can assign an employee to each machine he's working on.

In this case, in the production feedback module, only these machines will be displayed when this employee will log on.

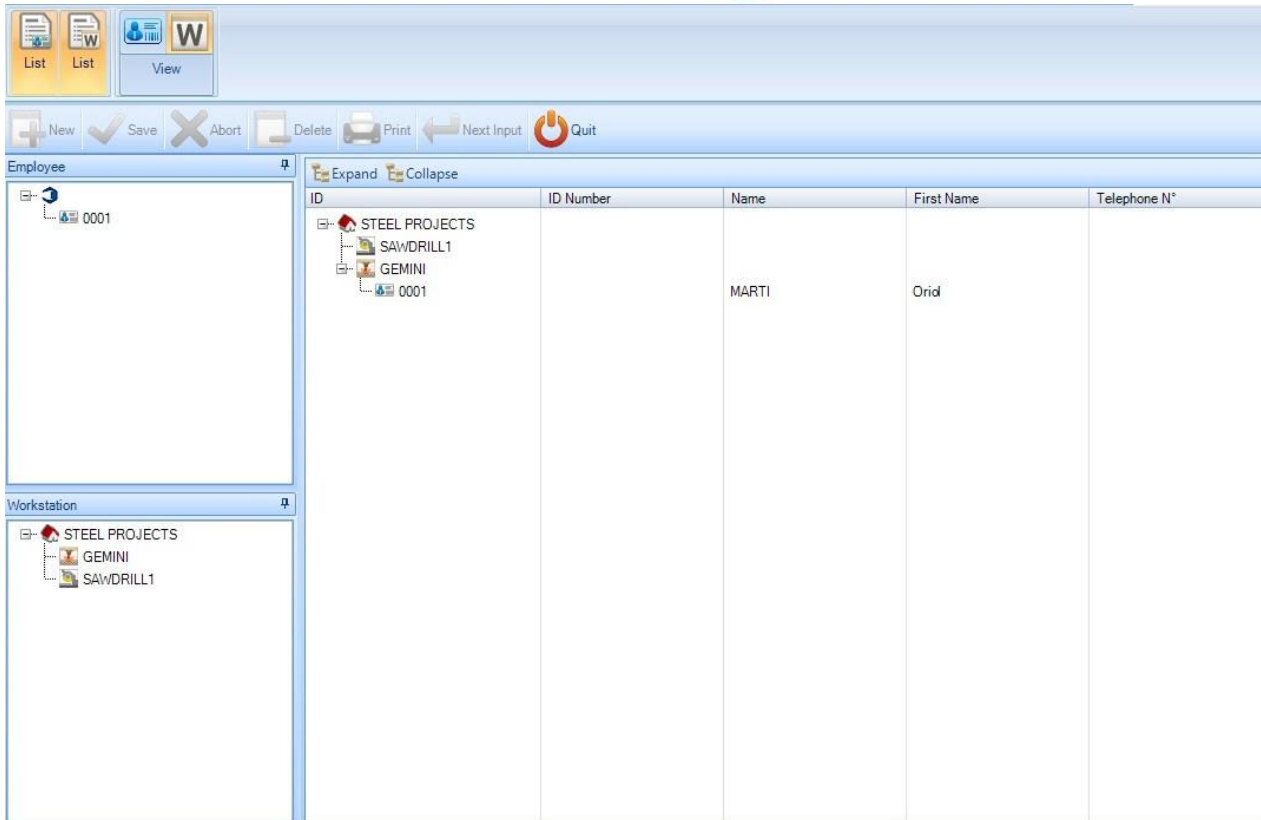


Employee Management



This is an overview of all the employees and workstations for each company.

When **W** is selected, it displays the list of the employees assigned by workstation.



If  is selected, the list of the workstations assigned by employee is displayed.



Welders Management



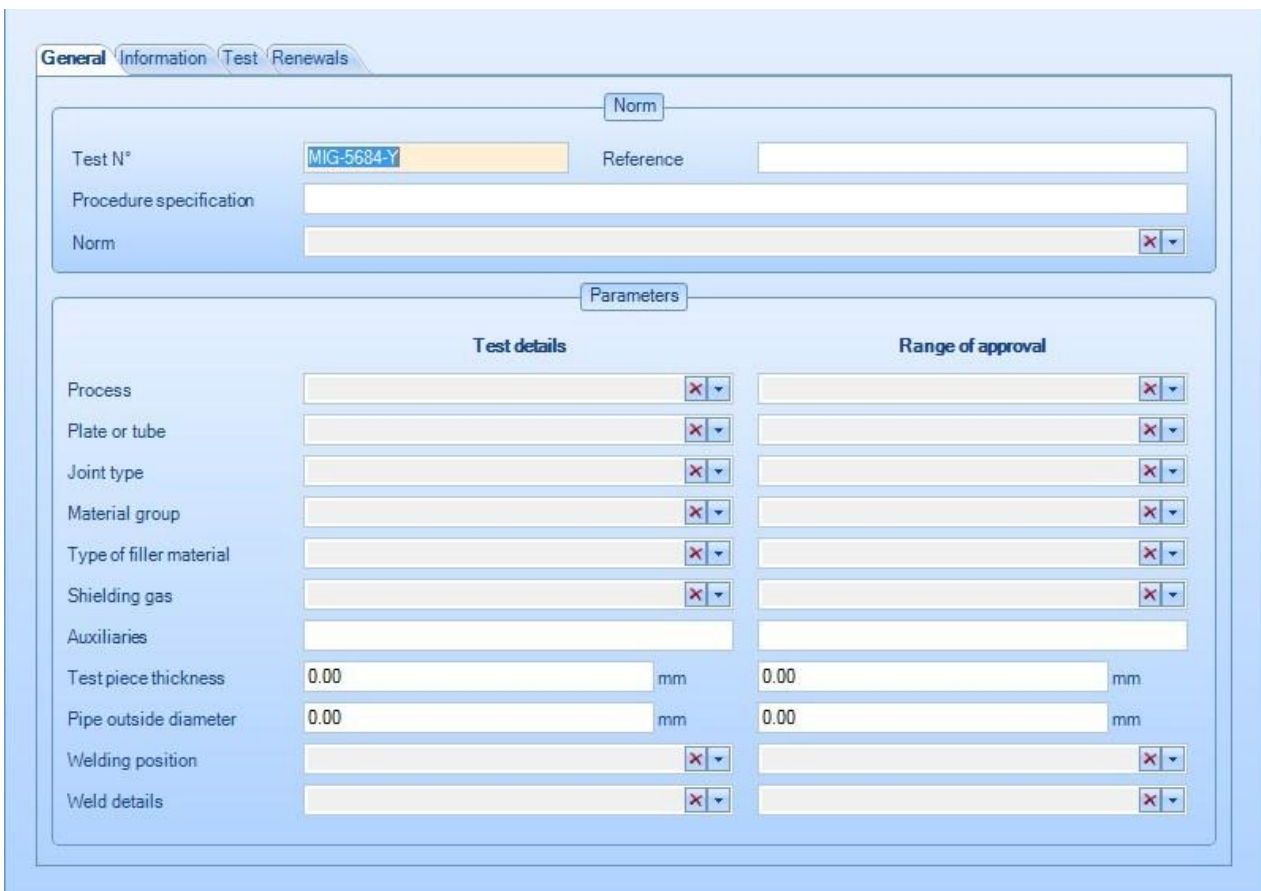
You can manage welding qualifications here.

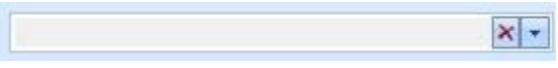
To add a new qualification and assign it to an employee, select him on the left panel and right click, new on the right one.

In the new window, insert the test number and press NEW

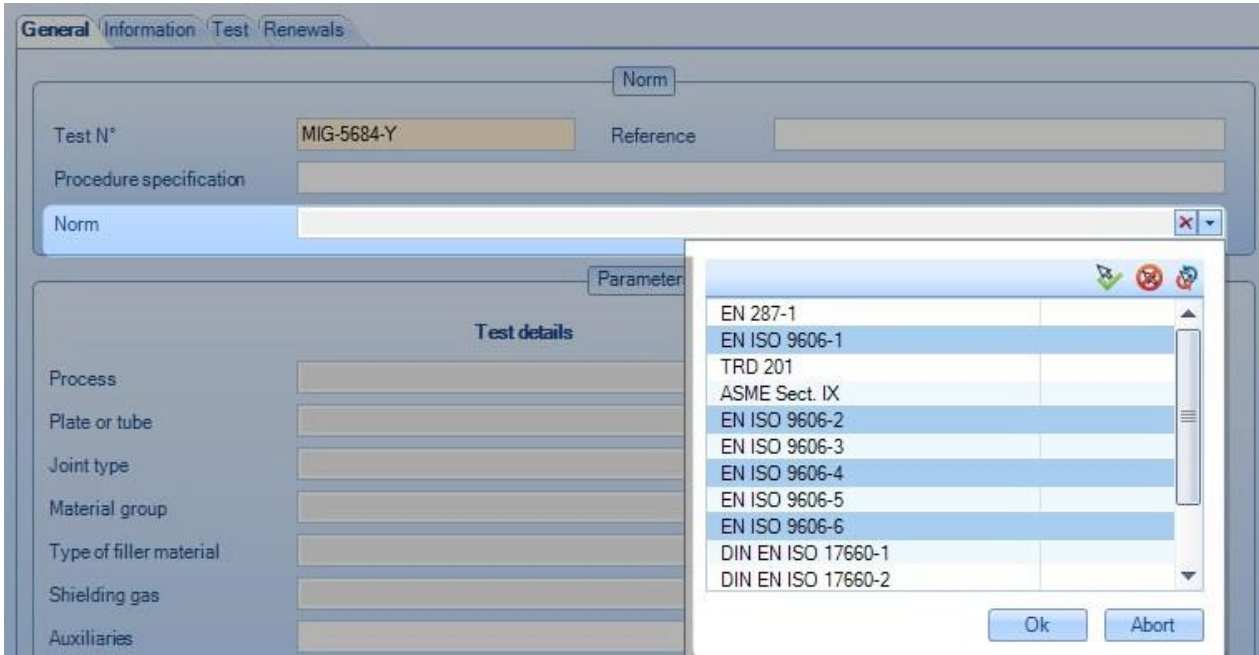


In the Approval form, the general tab contains the main information about the approval test itself

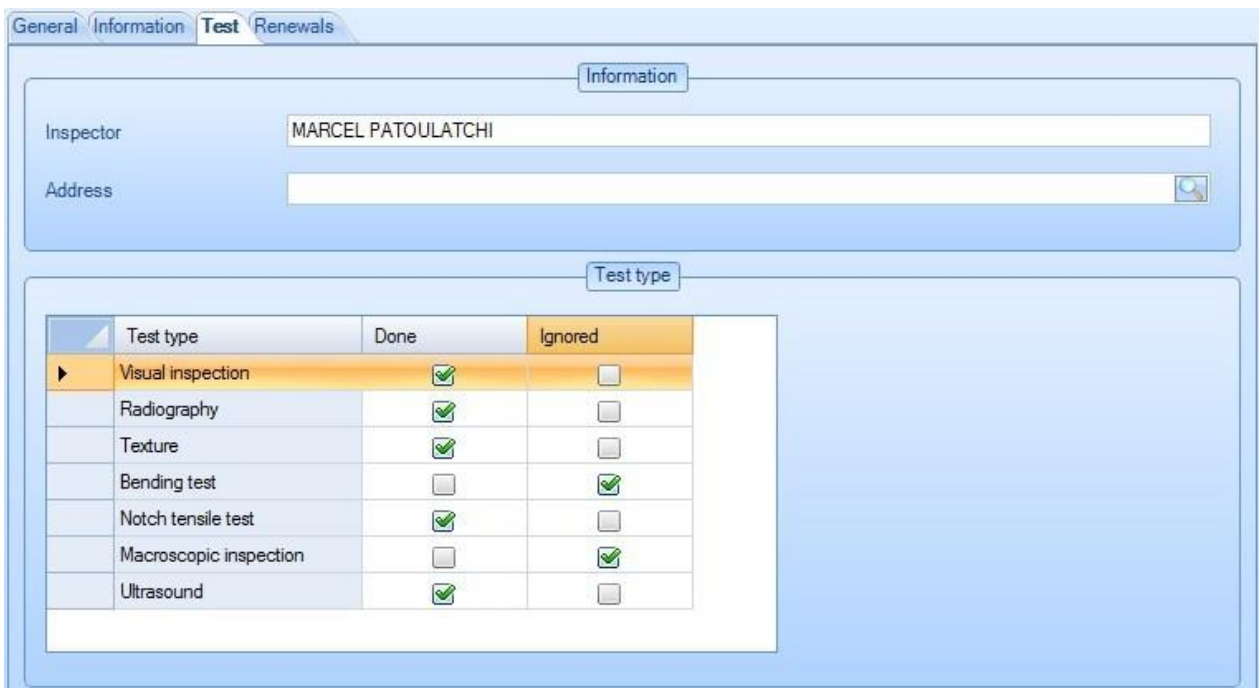


The fields like this one  allow a multiple selection, except for Shielding gas, Plate or Tube, and Joint Type).

Hold Ctrl while selecting the items




The test tab gives additional informations about how the approval test has been done (name of the inspector, Address of the inspection centre, ...)



Test type	Done	Ignored
Visual inspection	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radiography	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Texture	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bending test	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Notch tensile test	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Macroscopic inspection	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ultrasound	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The renewals tab contains the list of the dates the certificate has been renewed and its validity date. In the name field is the name of the inspector who renewed it.

An employee who has qualifications for welding appears with this icon 

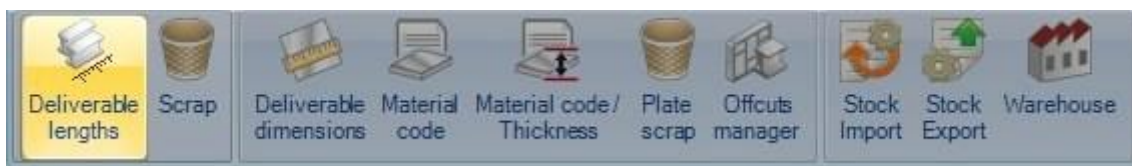
Nesting Data



The Nesting Data menu contains all the settings related to both section and plate nestings.

Click on a button to go to the related chapter.

Deliverable Lengths




These are the stock lengths that are allowed for purchased stock (when not importing your own stock bars, useful for estimation purposes)


You are required to set some lengths up in order to use the Section nesting module



Category / prefix Length mm

Category	Prefix	6100	8000	9000	10000	12000	14000
C		●	○	○	●	●	●
C		●	○	○	●	●	●
I		●	●	●	●	●	●
I		●	●	●	●	●	●
L		●	○	○	○	●	○
●		●	○	○	○	●	○
I		●	○	○	○	○	○
L		●	○	○	○	●	○
C		●	○	○	●	●	●
C		●	○	○	●	●	●
□		●	○	○	○	●	○
○		●	○	○	○	●	○

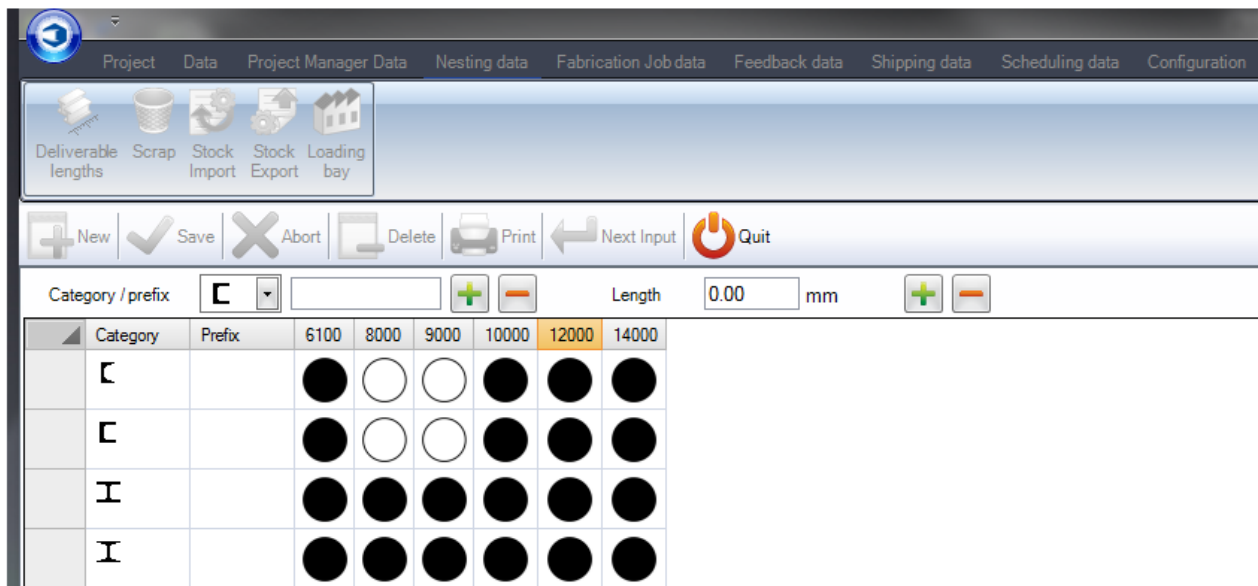
Add Profiles - Add the profiles you will need to nest from the drop down menu and press the left  for each

Add Lengths - Add all of the possible lengths by typing in the size and pressing the right 

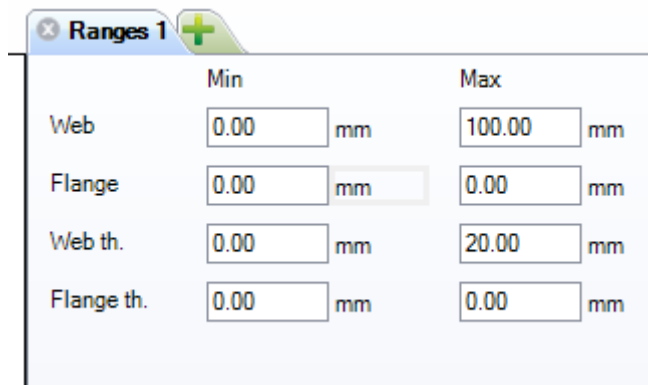
Assignment - Once you have all your profiles and possible lengths set up, double click on the white circles to turn them black, this indicates that you can purchase that length for that profile

Ranges - if you can only purchase certain ranges of profiles for a particular length, use can use the range option

To start with, click on one of the black circles you would like to assign a range to

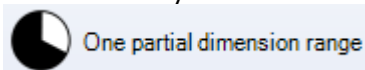



then on the range window on the right, fill in the parameters of the profile that the part must be within to go into to that range.

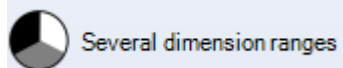


	Min	Max
Web	0.00 mm	100.00 mm
Flange	0.00 mm	0.00 mm
Web th.	0.00 mm	20.00 mm
Flange th.	0.00 mm	0.00 mm

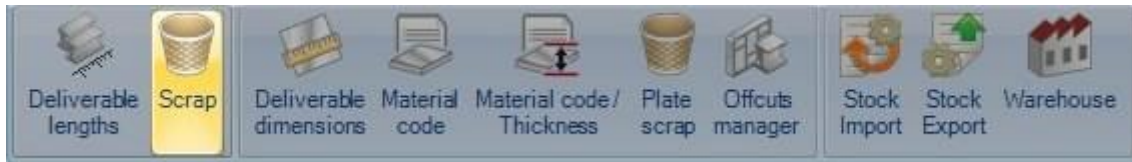
Once you have set these, click on the black circle and you will see it changes from a fully black to a partial black circle, indicating there is a range.



To set up a number of different ranges within the same profile\length, press  When you have set up multiple ranges the circle will show like this












Scrap



Here you can set up the maximum scrap sizes for all types or ranges of profiles.

Any offcuts of less than this value will be identified by the system as scrap. Anything above this will be seen as a recoverable remnant.

 New  Save  Abort  Delete  Print  Next Input  Quit										
Category	Prefix	Minimum				Maximum				Maximum Scrap
		Web	Flange	E_Web	E_Flange	Web	Flange	E_Web	E_Flange	
C										2500.00
C										2500.00
I										2500.00
I										2500.00
L										2500.00
L										2500.00
●										2500.00
⌋										2500.00
⌋										2500.00
I										2500.00
L										2500.00
C										2500.00
C										2500.00
I										2500.00
V										2500.00
□										2500.00
○										2500.00

Press  to add a new profile to the list, or press  to add all profiles

If you want the same scrap value for all sizes of a profile, you don't need to set any minimum or maximum profile size values. Just set a value for the maximum scrap as above

To set different ranges of the same profile, add the profile in multiple times with septate profile sizes.

Web - Web size

Flange - Flange size

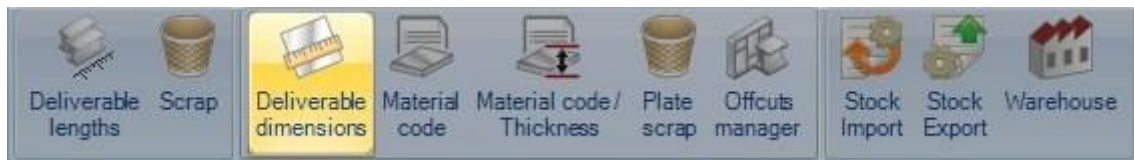
E_Web - Web Thickness

E_Flange - Flange thickness


For example the following settings would set two ranges for beams. Any beam with a web size of below 100, will have a max scrap value of 2500. Any size above will be 2000

		Minimum				Maximum				Maximum Scrap
Category	Prefix	Web	Flange	E_Web	E_Flange	Web	Flange	E_Web	E_Flange	
I						100.00				2500.00
I		100.00								2000

Deliverable Dimensions



Deliverable dimensions are the dimensions of the plates which can be used in the plate nesting module without having to input them for each nesting.

Type the Widths and Lengths in the corresponding fields and press  to add them in the table.

Length 12000.00 mm Width 0.00 mm

Width

	1500.00	2500.00
▶ 6000.00		

Length 0.00 mm Width 0.00 mm

Width

	1500.00	2500.00
▶ 6000.00		
12000.00		

Once all the dimensions have been entered, you have to double click on the pairs [Length;Width] you allow for using :

	1500.00	2500.00
▶ 6000.00		
12000.00		

You can define a range of availability depending on the thickness of the plate.
Click once on a black point, 6000x1500 for instance, and on the right hand side, unselect the "All" box



Thickness

All

Thickness 0.00 mm

It turns the thickness field available


☐ All

Thickness mm  

Enter all the thicknesses allowed for these dimensions




Thickness

☐ All

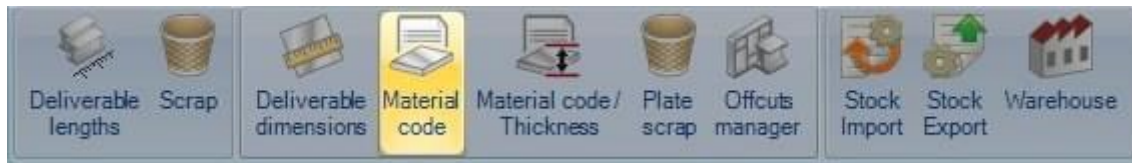
Thickness mm  

Thickness
3.00
5.00
6.00
▶ 8.00

You can now see in the grid the symbol saying there are ranges defined for these dimensions.

	1500.00	2500.00
▶ 6000.00		
12000.00		

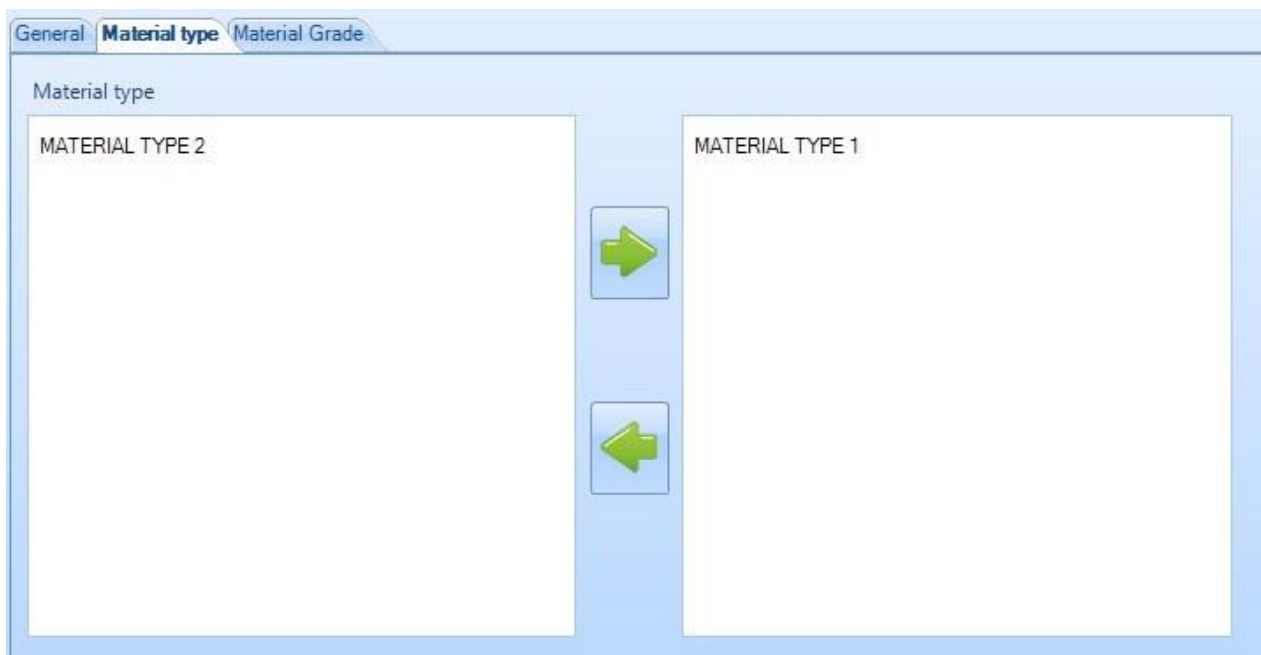
Material Code



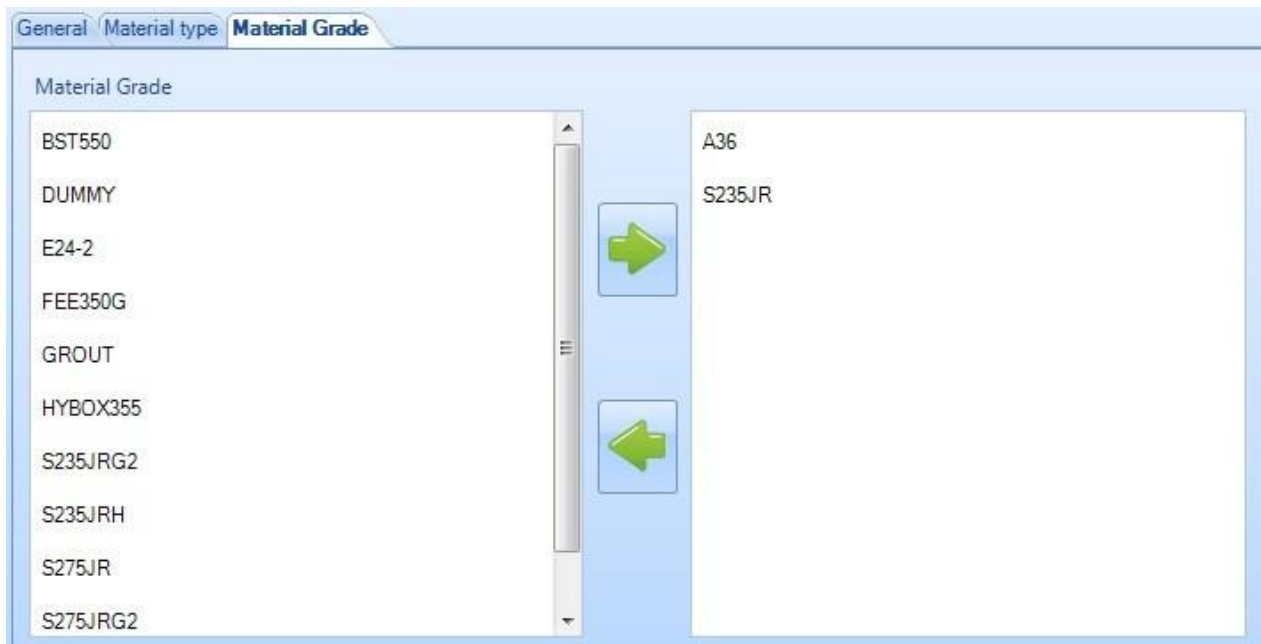
The technological parameters of a nesting depend on the material grade. In most of the cases, these technological parameters are the same for all the grades. Thus, the material code allows grouping material grades together. One material grade can be linked to one or more material codes.

Most of the time, this code will be STEEL. However, for some particular machines, this code can be different in order to provide informations about the amperage, for example.

One or more [material types](#) can be selected, by moving them from the left hand side panel to the right hand side one.



Same for the [Material Grades](#) :

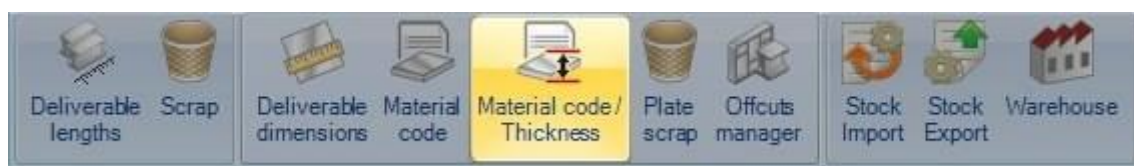


If a material grade is not assigned to any material code, you will get an error message in the nesting module and you won't be able to nest the parts without material code.

	Project	Component	Profile	Material Grade	Material code	Treatment	Quantity
▶	BAT01	VP1	PLATE15	S235JRG2			8
❗	BAT01	PL50	PLATE15	S235JRG2			18
❗	BAT01	PL23	PLATE15	S235JRG2			4
❗	BAT01	PL21	PLATE15	S235JRG2			3
❗		24	PLATE15	S235JRG2			4

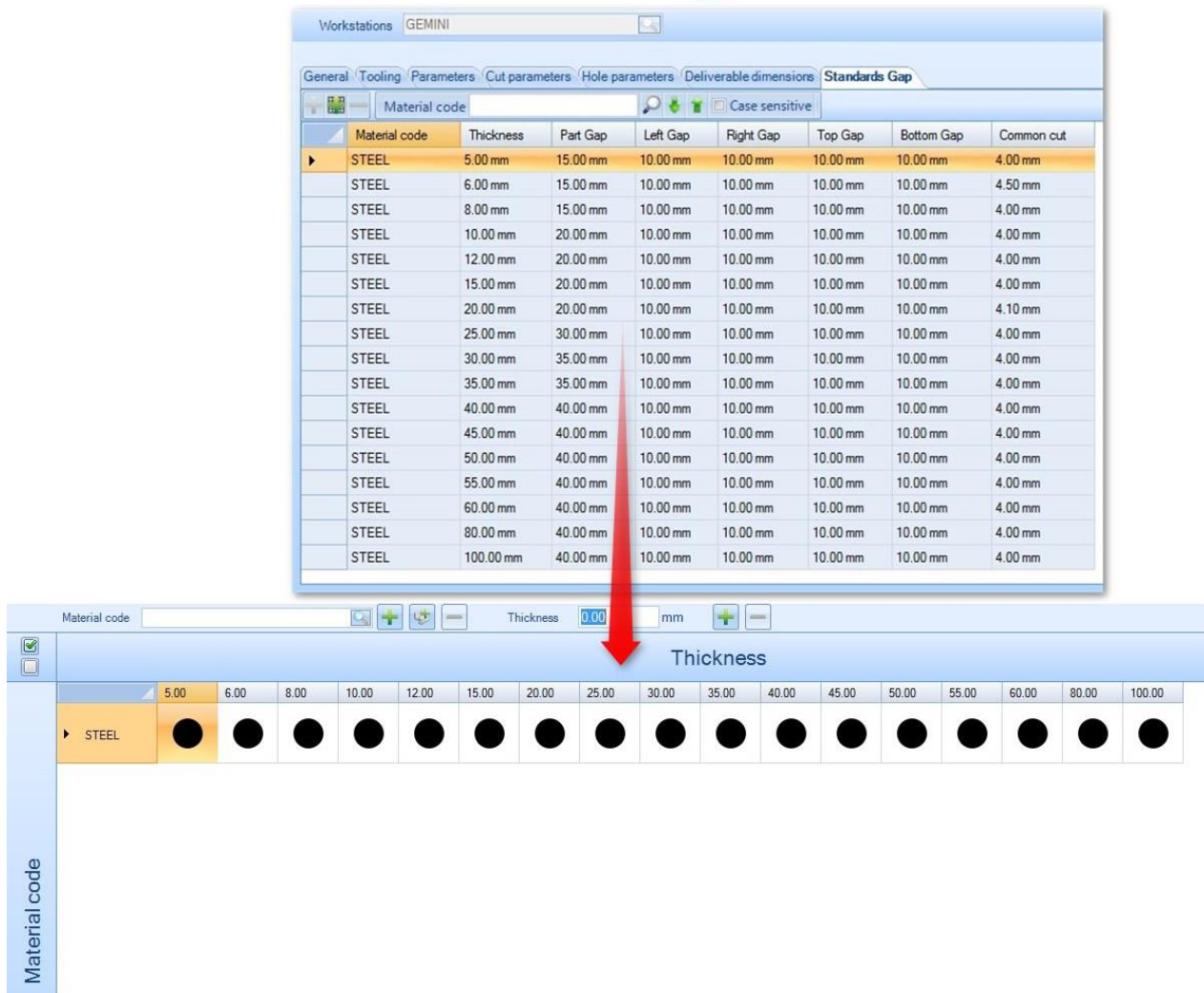
Material code not defined

Material Code / Thickness



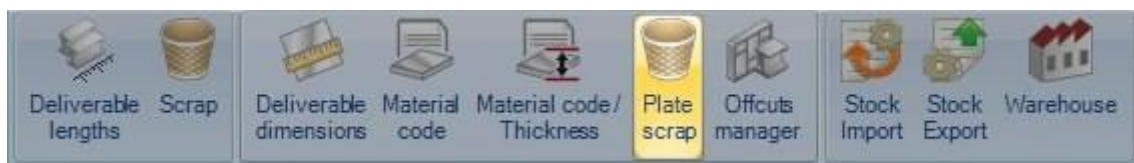
Each [Material Code](#) has to be linked to one or several thicknesses.

The list of thicknesses is imported from the ones associated to the plate nesting machines.



By default, all the thicknesses are added in the Thickness / Material Code grid.

Plate Scrap




Define here the minimum dimensions for the offcuts to be considered as reusable.
Note that the thickness is not mandatory.

Offcuts Manager



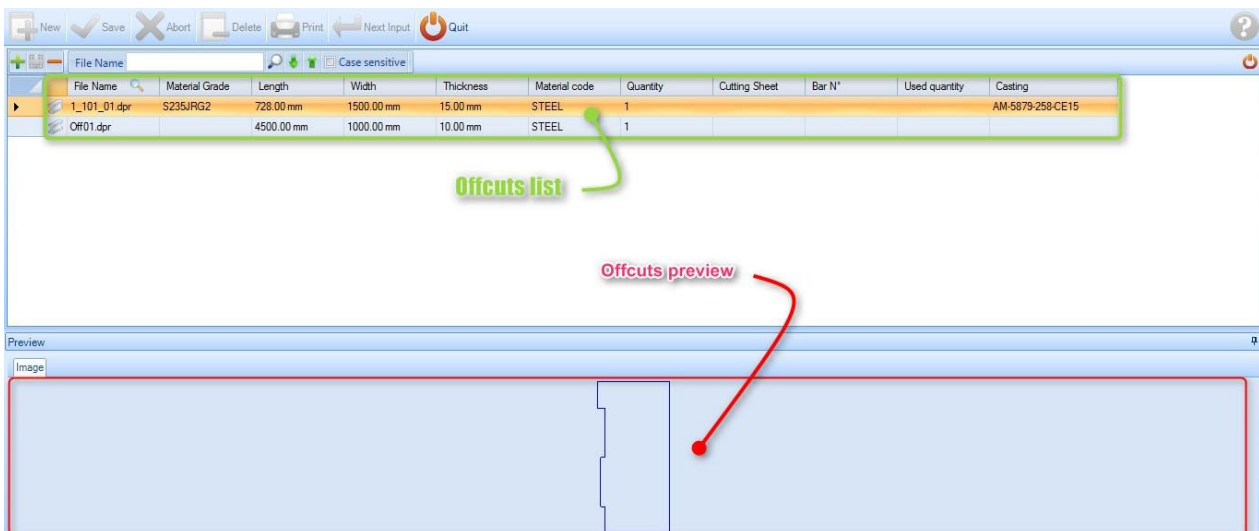
The offcuts manager keeps track of all the plate nesting's offcuts.



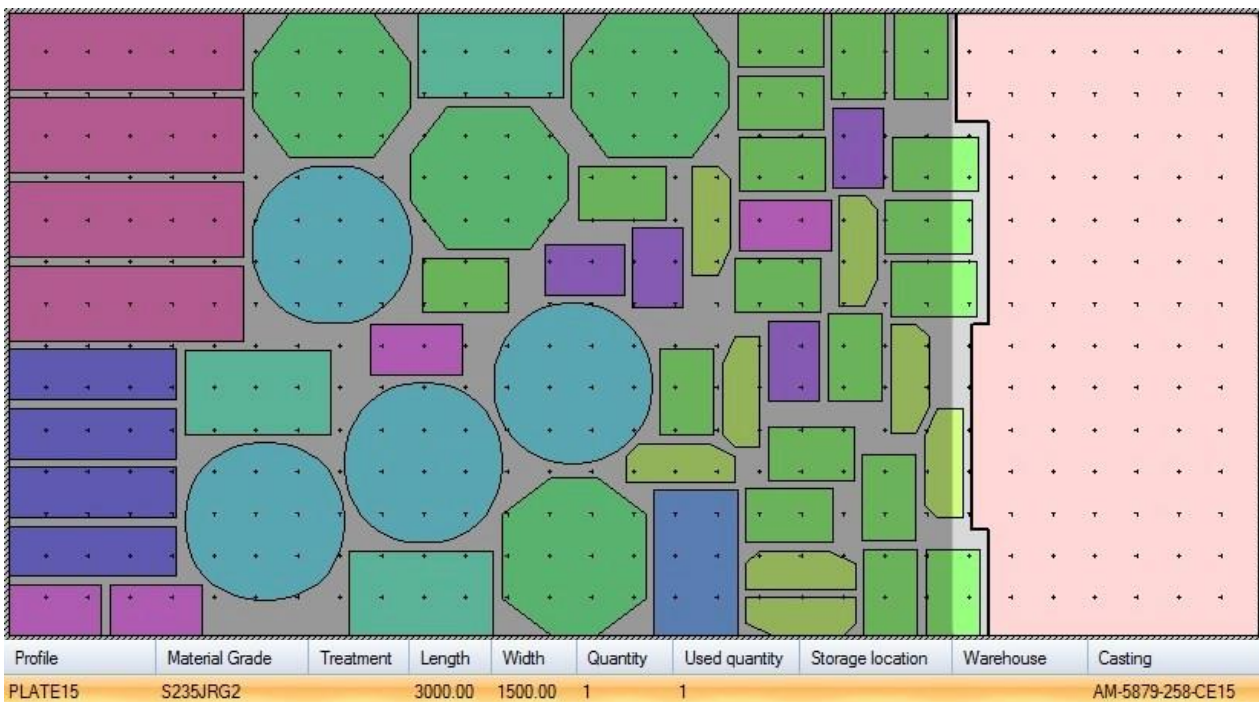
If the scrap button  is activated, the offcuts which are not big enough to be considered reusable are also shown. These dimensions are set up in the [Plate Scrap](#) window.

In the main screen, you have an overview of all the offcuts. These offcuts are generated automatically when the workshop document are printed in the nesting module.

Note the casting number of the mother plate has followed the offcut.



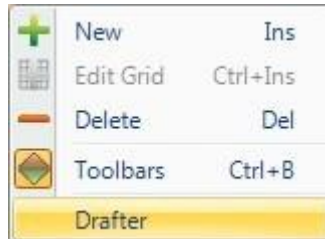
In this example, the offcut has been generated by the following nesting :



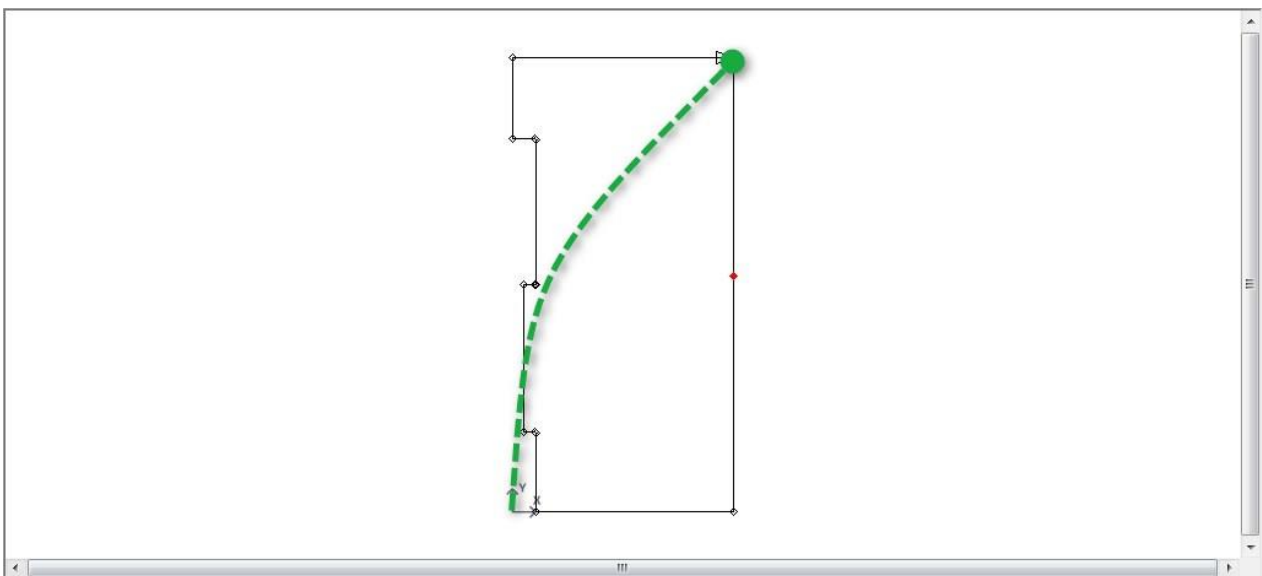
The offcut is generated only once the workshop document has been created.


Editing an offcut

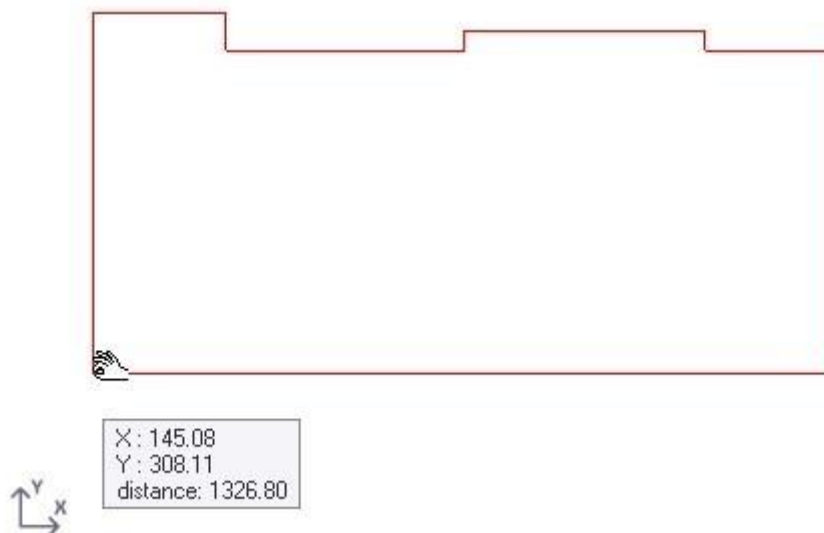
If you right click on a line, you can have access to the drafter in order to edit the offcut. In our example, it's useful to rotate the plate, so the bottom left corner is at the (0,0) point.

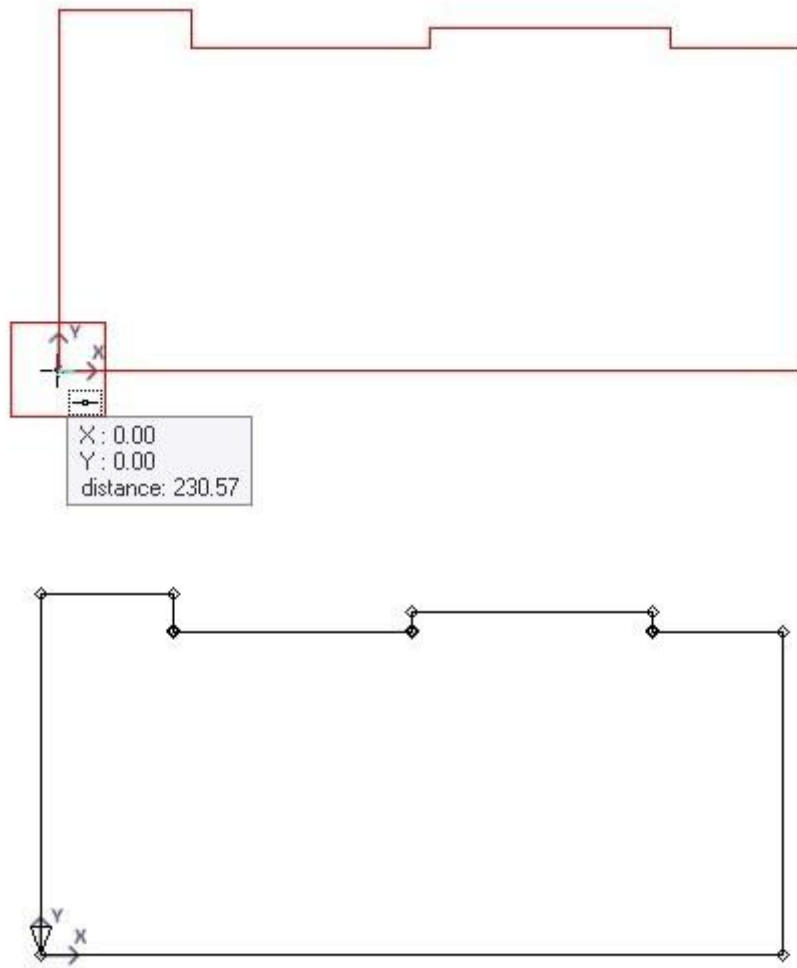


We need to rotate the offcut so the top right corner (green point) is moved to the origin of the draft :

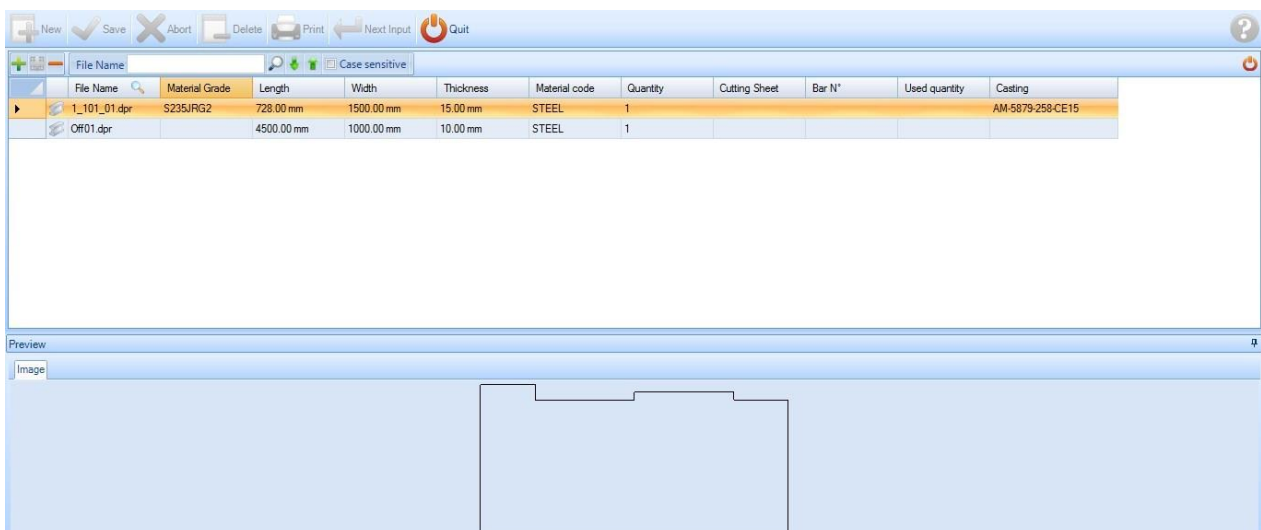


Select the Accurate Nesting tool , click on the entity, then on the top right corner. Now the plate is attached to the tool, you can rotate and flip it until having the result you want :

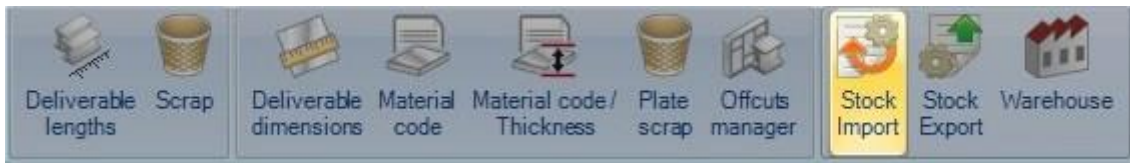




Save and close
Now, in the offcut manager, you can see the modified figure :

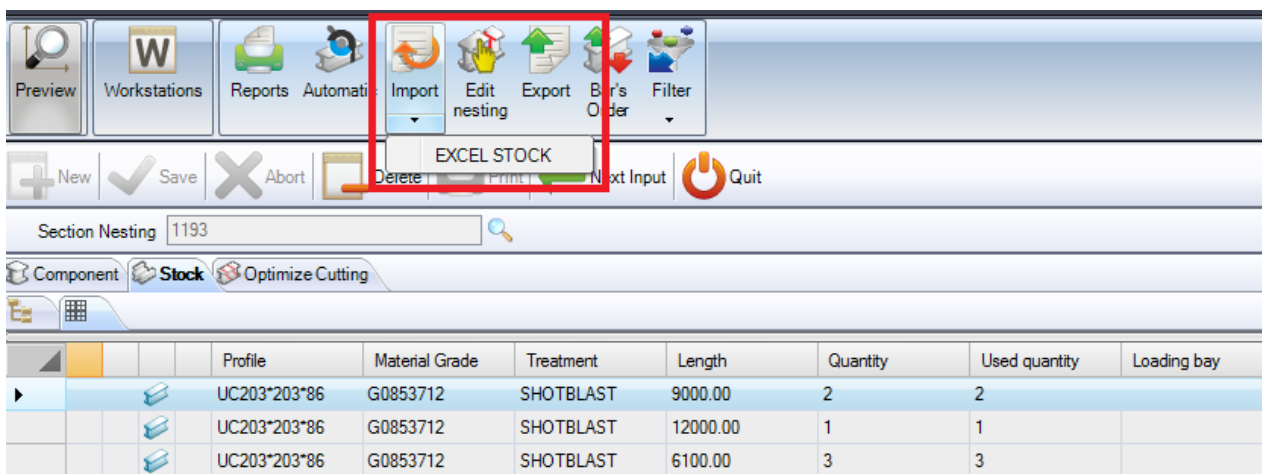


Import Stock



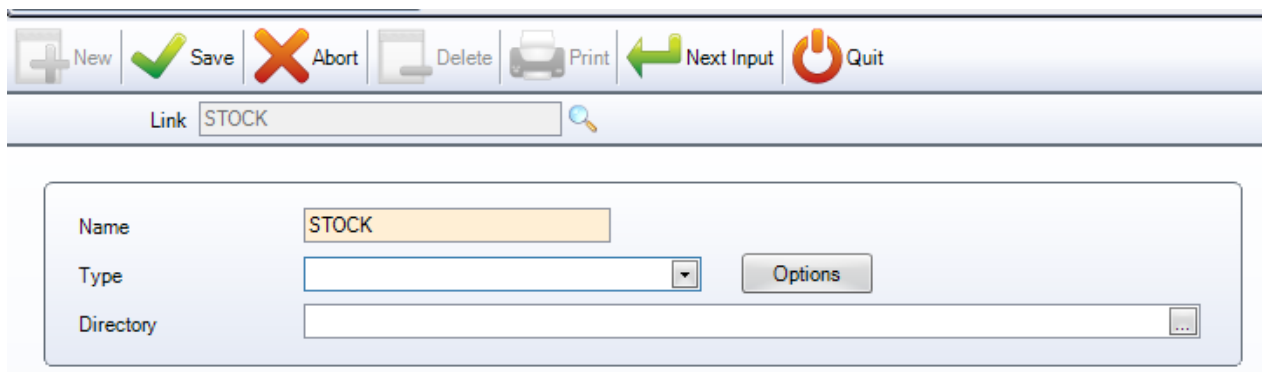
From here you can set-up imports for importing stock bars into the section nesting module from third party software.

These imports are available in the section nesting module using the following icon.



To add a new material grade to the database, type the name into the search box and then press NEW or Ctrl+N

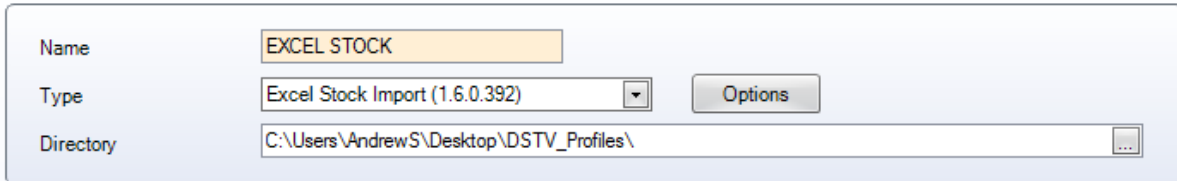
Choose the name of the import, type, and default directory



The two main types are excel, and SP Stock

Import Excel Stock

This import is to import available stock from either an xls or csv Excel file. You can create a file with different rows for the bars you have, and different columns with a variety of different information.



The dialog box shows the following fields:

- Name:** EXCEL STOCK
- Type:** Excel Stock Import (1.6.0.392) [Dropdown]
- Options:** [Button]
- Directory:** C:\Users\AndrewS\Desktop\DSTV_Profiles\ [Text field with browse button]

LINE - Specify the line of the file the information starts on. If you have a single heading line, then you would put line 1 in here (the import ignores line 0)

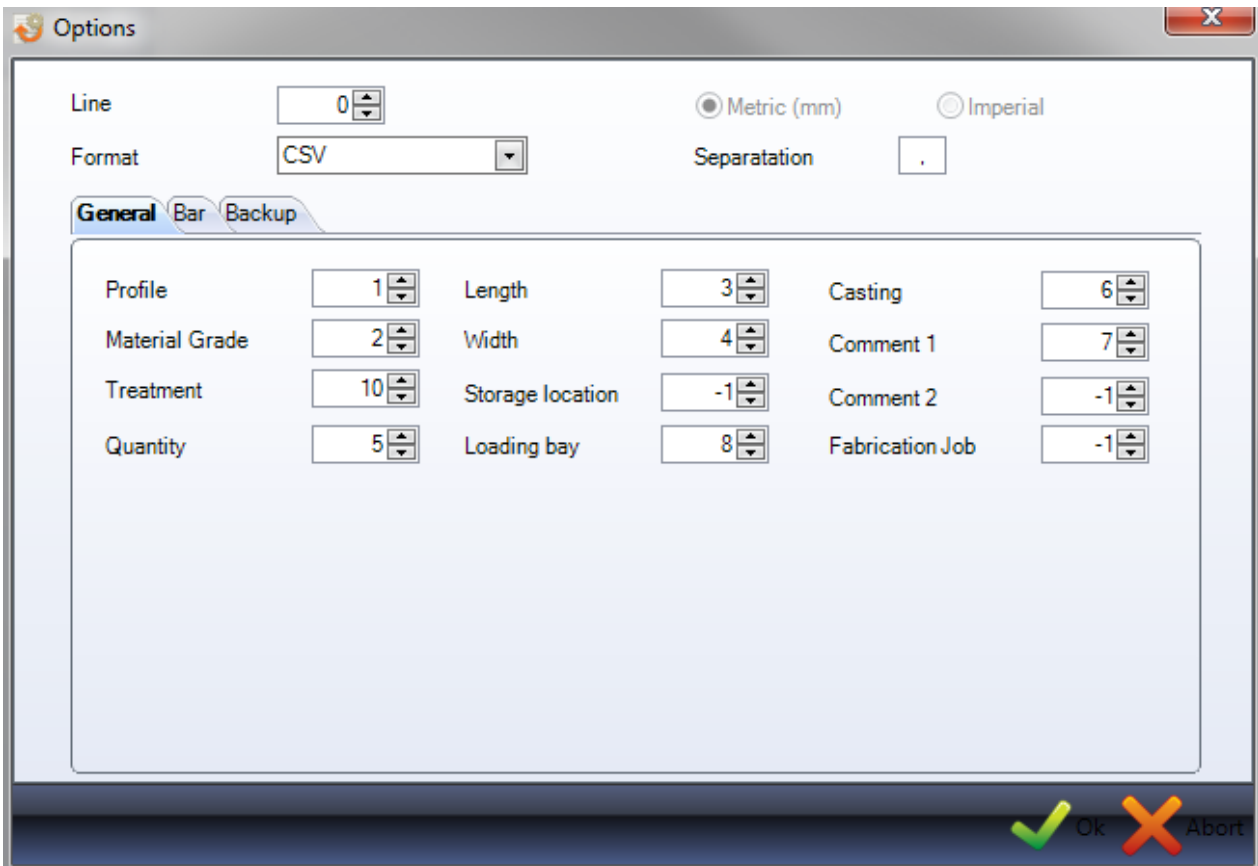
FORMAT - Choose between CSV or XLS formats

GENERAL - Specify the columns of the file and where the information should be imported into.

The number represents the alpha numerical position - A=0, B=2, C=3 etc

Some of the columns are required to be able to create the part - Profile, Length, Quantity, Material Grade.

If a column is set to -1 it is ignored.

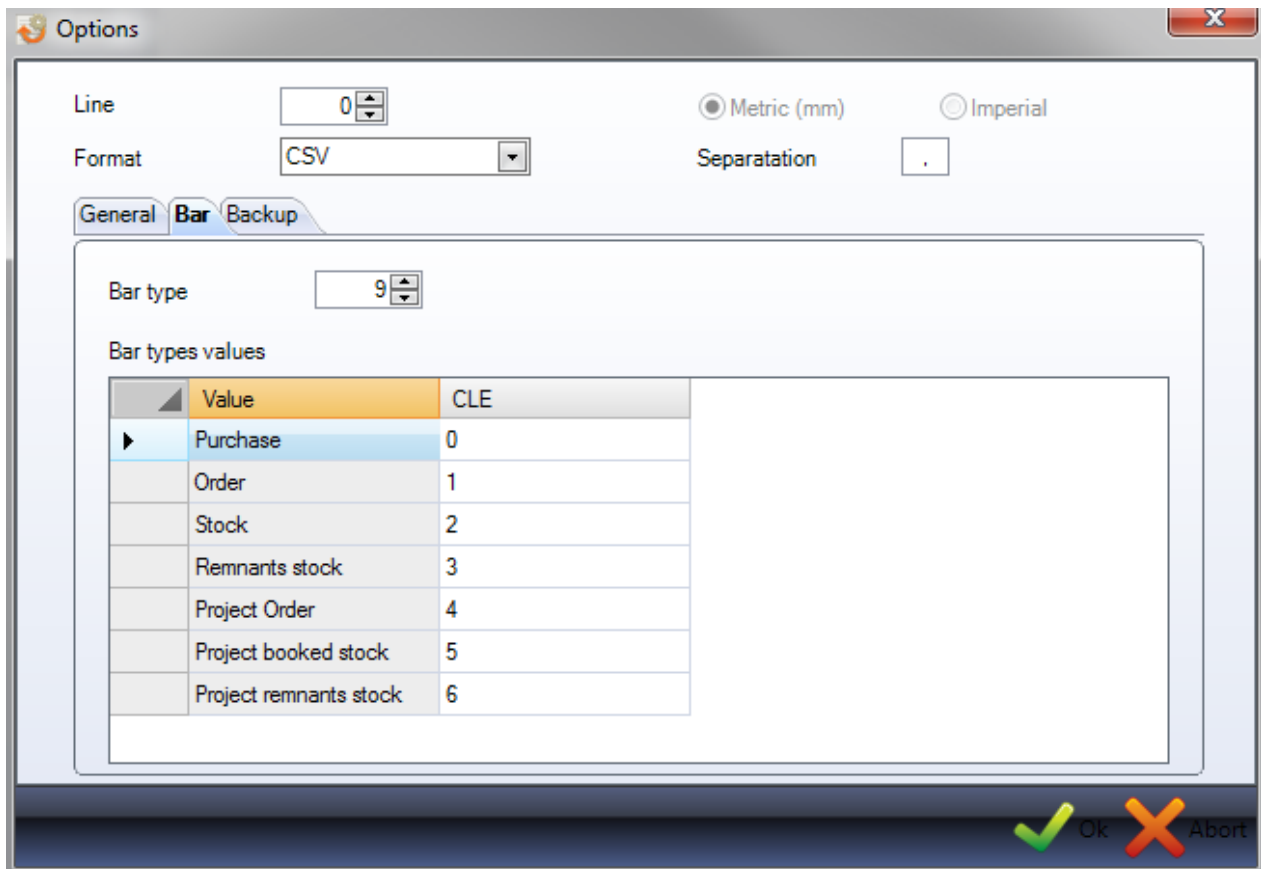


The Options dialog box has the following settings:

- Line:** 0 [Spin box]
- Format:** CSV [Dropdown]
- Separation:** . [Text field]
- Metric (mm):** ☒ **Imperial:** ☐
- General Tab:**
 - Profile:** 1 [Spin box]
 - Material Grade:** 2 [Spin box]
 - Treatment:** 10 [Spin box]
 - Quantity:** 5 [Spin box]
 - Length:** 3 [Spin box]
 - Width:** 4 [Spin box]
 - Storage location:** -1 [Spin box]
 - Loading bay:** 8 [Spin box]
 - Casting:** 6 [Spin box]
 - Comment 1:** 7 [Spin box]
 - Comment 2:** -1 [Spin box]
 - Fabrication Job:** -1 [Spin box]

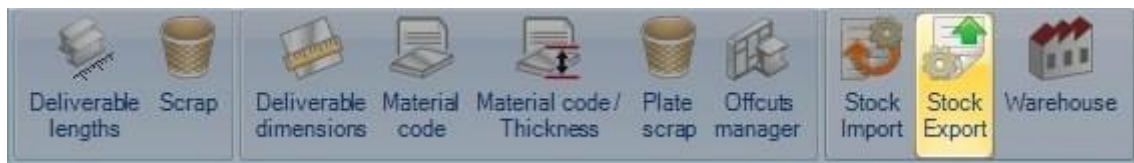
Buttons: [OK] [Abort]

BAR - Set up a column to import the *type* of bar. Different types of bar can be given different nesting priorities, for example remnants can be given a higher priority than stock bars



BACKUP - Set a directory for the file to be backup up to after importing

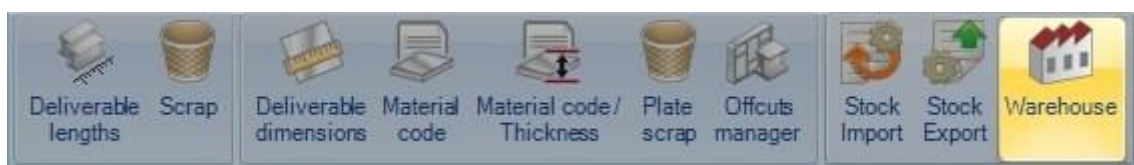
Export Stock



Export Your nesting results to third party software

Please contact SteelProjects support to proceed.

Warehouse



Definition of the warehouses and storage locations in each one.
Not in use yet...

Fabrication Job Data



The Fabrication Job Data menu is an advanced configuration tab concerned with the Production Manager module

Click on an item to display the related chapter.

Import Fabrication Job



From here you can set-up imports for importing fabrication job selections into the fabrication job screen from third party software.

Export Fabrication Job



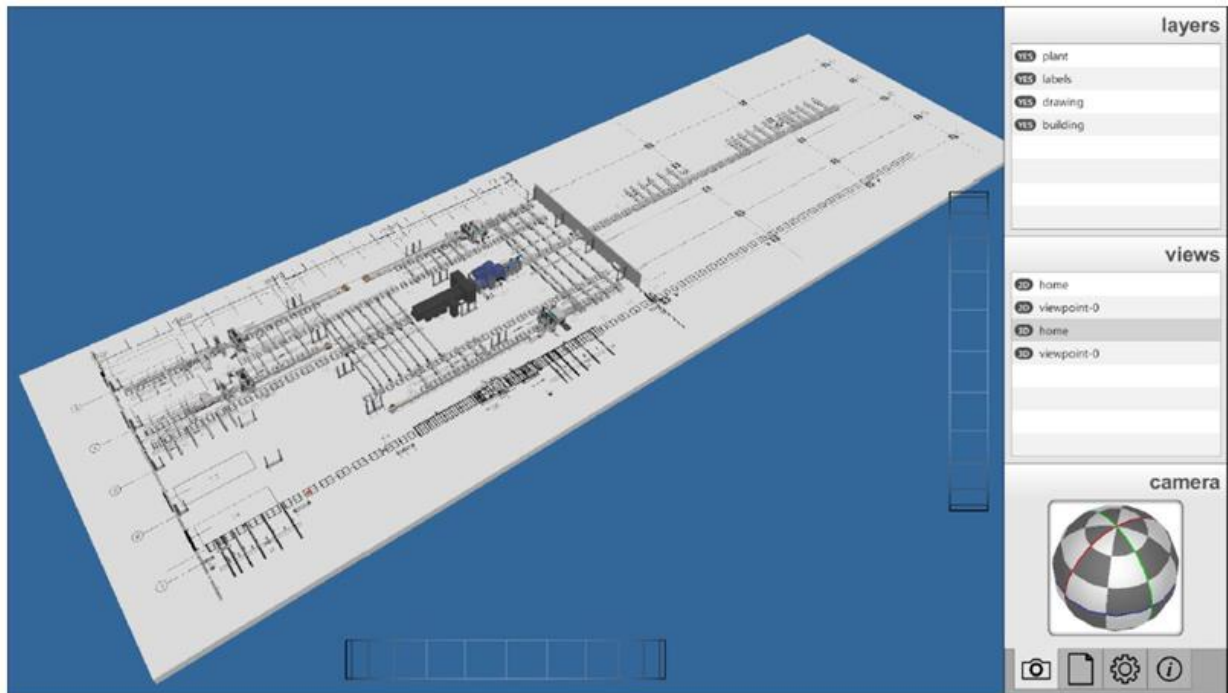
From here you can set-up exports for exporting fabrication jobs to third party software.

Dispatch To Simulation



It is possible for bars to be sent to Production Simulation software for optimal routing to be planned

Please contact us for more information



Steel Projects PLM - Send to production

Project Data Project Manager Data Nesting data Fabrication Job data Feedback data Shipping data Scheduling data Configuration Utilities Fabrication Job Send to production [LP10603]

50% Preview Section Nesting Plate nesting Reports Simulation Export Action Workload

New Save Abort Delete Print Next Input Quit

Production workflow

Component

Project	Drawing	Assembly	Component	Profile	Quantity	Length	Width
SO5659741	1	1	B37	UB406*178*60	1	1509.05	
SO5659741	1	1	B39	UB406*178*60	1	2292.50	
SO5659741	1	1	B38	UB406*178*60	1	2292.05	
SO5659741	1	1	B40	UB406*178*60	1	2422.50	
SO5659741	1	1	B202	UB406*178*60	2	1580.00	
SO5659741	1	1	B138	UB406*178*60	1	1580.00	
SO5659741	1	1	B42	UB406*178*60	1	4763.90	
SO5659741	1	1	B43	UB406*178*60	1	4740.10	
SO5659741	1	1	B41	UB406*178*60	1	7997.00	

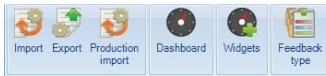
Component Optimize Cutting

Workstation

Workstation	Quantity	Quantity	Weight	Weight	Time	Time
SAWDRILL1	0	0.00 %	0.00	0.00 %	< 1mn	0.00 %
SAWDRILL2	0	0.00 %	0.00	0.00 %	< 1mn	0.00 %
COPE1	33	50.00 %	13970.43	54.08 %	00:11	52.85 %
COPE2	33	50.00 %	11860.66	45.92 %	21:35	47.15 %
SHOTBLAST	125	189.39 %	50860.48	196.90 %	< 1mn	0.00 %
PAINT	125	189.39 %	50860.48	196.90 %	< 1mn	0.00 %
EXIT1	0	0.00 %	0.00	0.00 %	< 1mn	0.00 %
EXIT2	0	0.00 %	0.00	0.00 %	< 1mn	0.00 %
EXIT3	59	89.39 %	25029.39	96.90 %	< 1mn	0.00 %
GEMINI	0	0.00 %	0.00	0.00 %	< 1mn	0.00 %

ADMIN | COMPANY 1 | 11 May 2012

Feedback Data



The Feedback Data menu is an advanced configuration tab concerned with the Production Manager module.

PLM can be used as a Production monitoring tool with automatic time feedback from CNC machines, and semi automatic feedback from manual workstations.

Click on an item to display the related chapter

Import



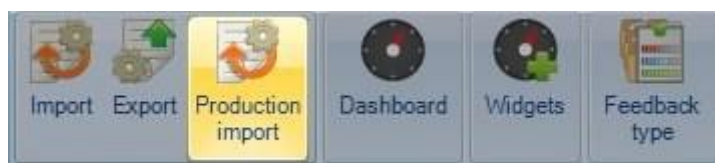
From here you can setup specific imports for production feedback data from none Ficep machines. You do not need to set this up for Ficep machines, as they are set up a different way.

Export



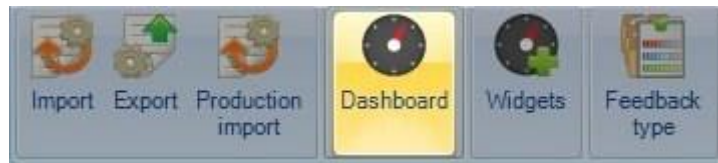
From here you can set up interface specific exports to send the results of your feedback to third party software.

Production Import



There are no imports available for this menu yet

Dashboard



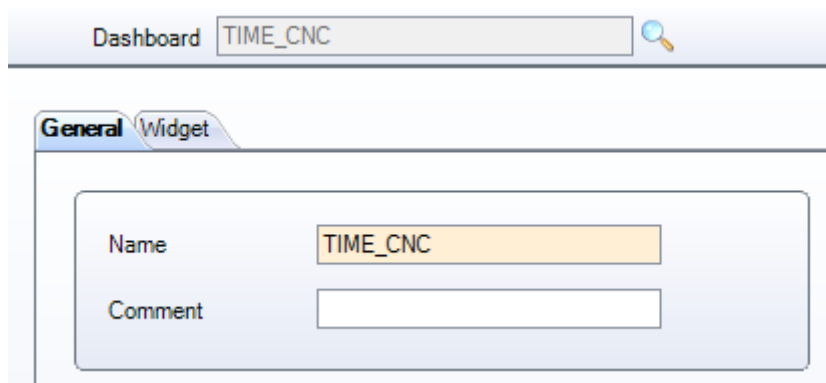
You can create a dashboard layouts of custom graphics representing the information from your Production Feedback.

Before create dashboards, you need to have created some [Widgets](#)

To add a new Dashboard, type the name into the search box and then press NEW or Ctrl+N


GENERAL

Name the dashboard and give it a description

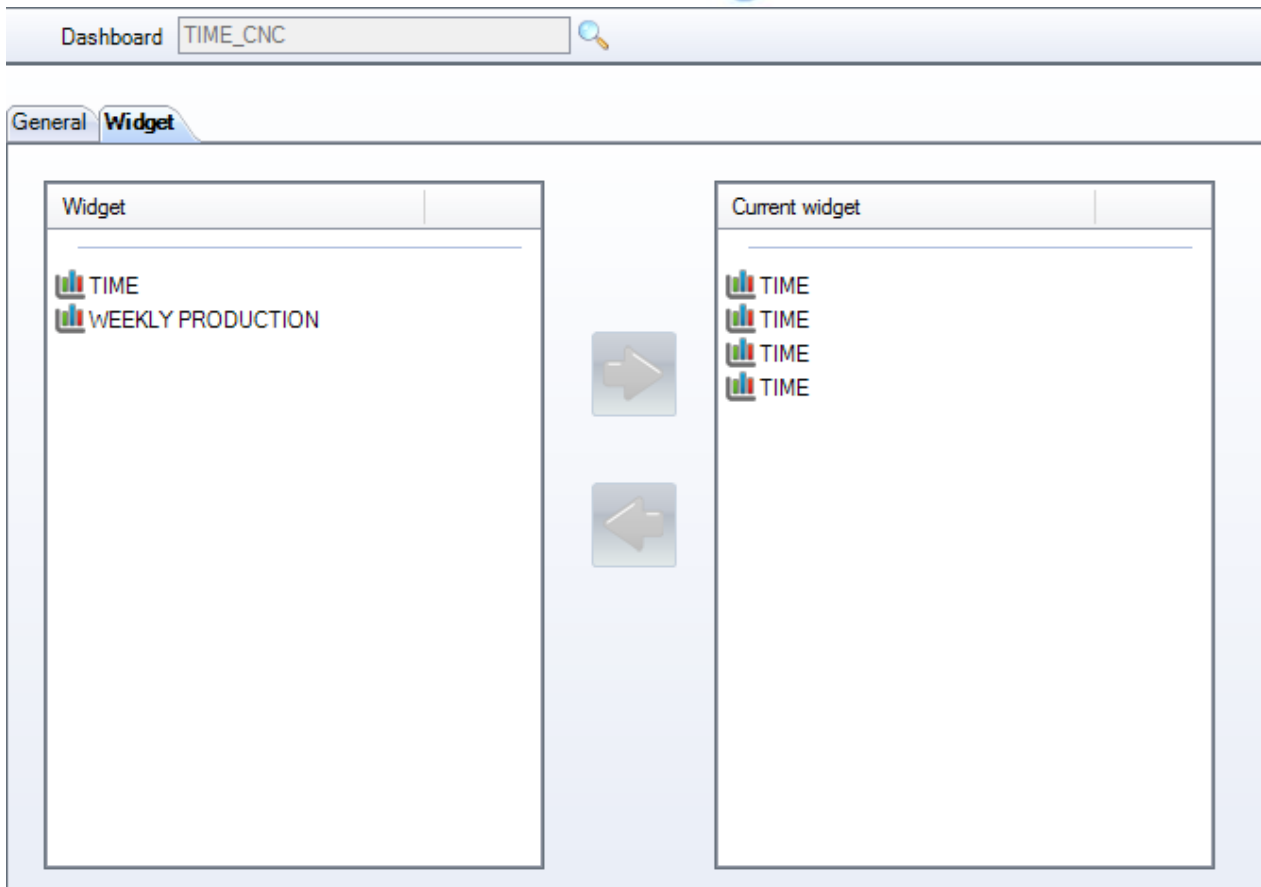


WIDGET

Specify the different Widgets you would like to show in this dashboard view.

Click on the widget on the left menu and press  to add it to the list on the right.

You can add the same widget multiple times which is useful to show the same widget multiple times but with different filters settings



Widgets



You can create custom views of your Production Feedback Data using Widgets. You create the different graphical types and filters here, and then use your [Dashboard](#) to view them

To add a new Widget, type the name into the search box and then press NEW or Ctrl+N

GENERAL

Give your Widget a name, and choose the type of graph that will be used to represent the information


Widget

General Value Filters Grouping

Name

Type

Category





VALUE

Set what information will be shown in the graph.

Select the required field in the list on the left, and press  to add it to the selected list on the right side

Widget

General **Value** Filters Grouping

Value		Current Value	
Weight		Total time	 
Product weight		Stop for alarm	
Project weight		Machine stand-by state	
Time		Tool set-up	
Rmt 11		Ready to start	
Rmt 12		Stop with message	
Rmt 13		Actual production	
Rmt 14		Blade life	
Rmt 15		Auxiliaries not connected	
Rmt 16		Unloading Time	
Rmt 17			
Rmt 18			
Rmt 19			
Rmt 20			

FILTERS

Enable different filters to only show the information for particular machines, projects, types or date ranges

Widget



General Value **Filters** Grouping

Filter

Starting Date
Final Date
Project
Drawing
Type




Current filter

Machine


GROUPING


Set different groups of filters

Widget 

General Value Filters **Grouping**

Grouping	
Machine	
Project	
Drawing	
day	
Week	
Months	
Year	





Current grouping	
------------------	--

Feedback Type

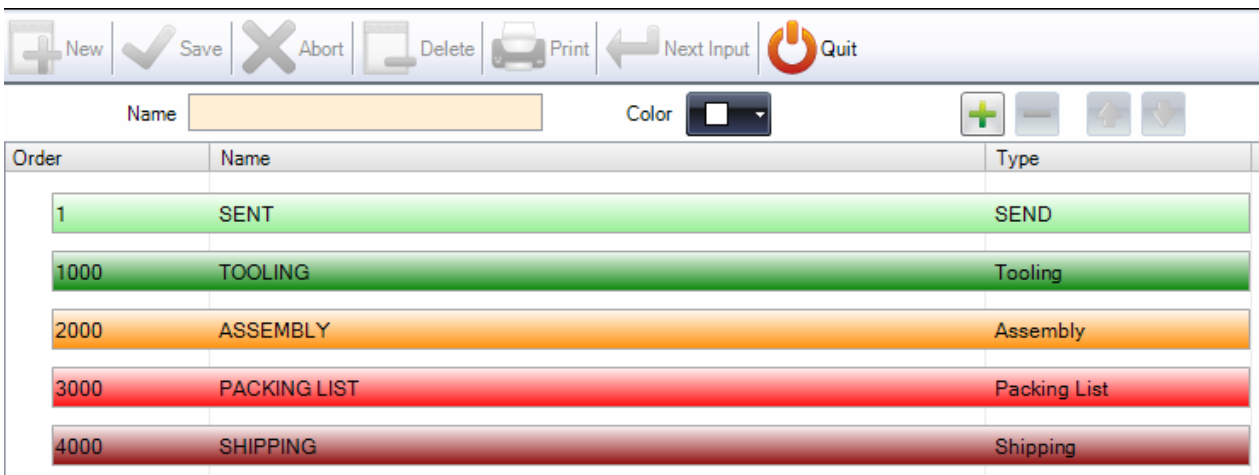


SP PLM uses different Feedback Types to represent different stages of the production process, from being sent to Production to Shipping to the customer. You will see these colours in the piece feedback status in the Production Management module and also Fabrication Job list.

You can assign different feedback types

Each stage of production can be given a name and a colour in order for you to customise it according to your process

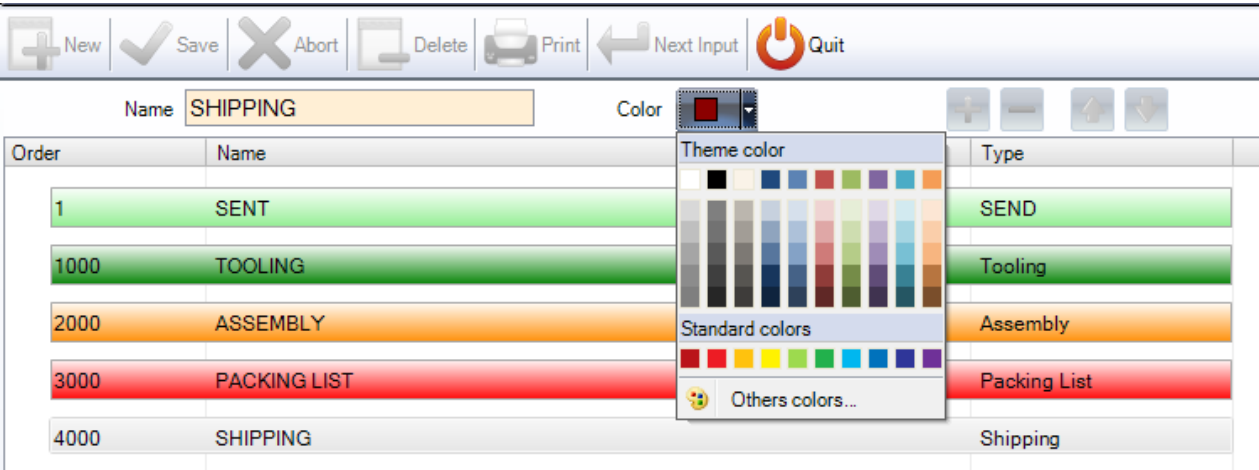
A default list is used with standard colours




Order	Name	Type
1	SENT	SEND
1000	TOOLING	Tooling
2000	ASSEMBLY	Assembly
3000	PACKING LIST	Packing List
4000	SHIPPING	Shipping

To change the of a bar - Click on the line and then modify the name above, and save.

To Change the colour of a bar - Click on the line, and press the colour drop down menu, select the desired colour and save.

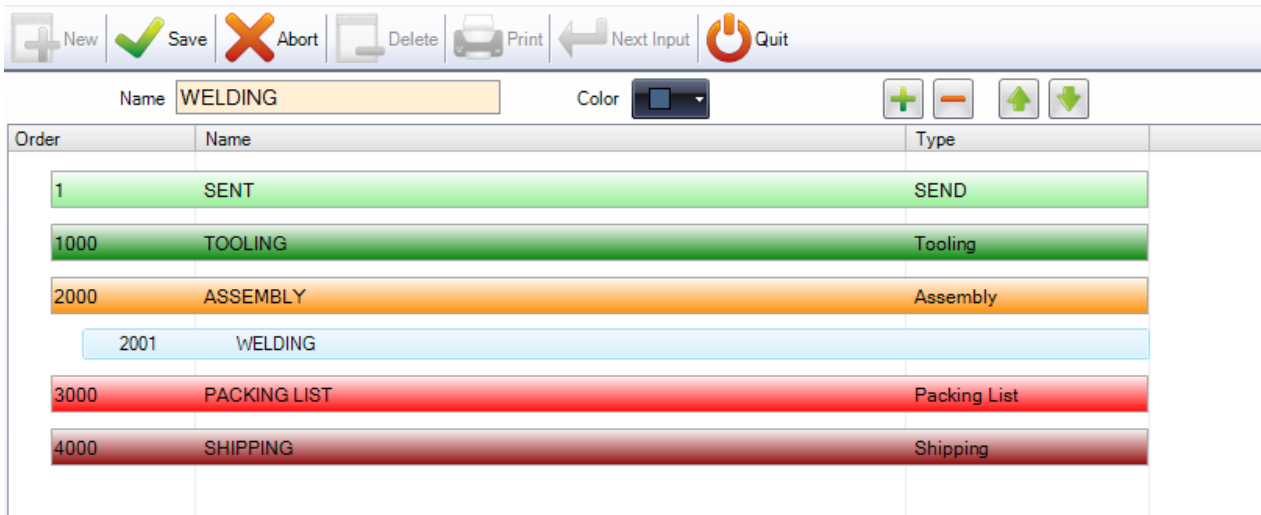


Order	Name	Type
1	SENT	SEND
1000	TOOLING	Tooling
2000	ASSEMBLY	Assembly
3000	PACKING LIST	Packing List
4000	SHIPPING	Shipping

To add a sub level production type, type the name you want, choose a colour from the drop down, and press 

You can then use the arrow keys to move the new type to the correct level

This adds an extra level in your production process if you require it. One reason would be to have multiple levels of fabrication, such as assembly and welding



The interface shows a toolbar with icons for New, Save, Abort, Delete, Print, Next Input, and Quit. Below the toolbar, there is a form with a 'Name' field containing 'WELDING' and a 'Color' dropdown menu. To the right of the form are three buttons: a plus icon, a minus icon, and two arrow icons (up and down). Below the form is a table with three columns: Order, Name, and Type.

Order	Name	Type
1	SENT	SEND
1000	TOOLING	Tooling
2000	ASSEMBLY	Assembly
2001	WELDING	
3000	PACKING LIST	Packing List
4000	SHIPPING	Shipping

Shipping Data



Set the options for the Shipping Module

Click on an item to display the related chapter

Package Types



Here you described the package types used for shipping.

Name <input type="text"/>			
Characteristics			Compatible modes
Maximum load		<input type="text" value="0.00"/>	Kg
Tare weight		<input type="text" value="0.00"/>	Kg
	Length	Width	Height
Gross	<input type="text" value="0.00"/> mm	<input type="text" value="0.00"/> mm	<input type="text" value="0.00"/> mm
Net	<input type="text" value="0.00"/> mm	<input type="text" value="0.00"/> mm	<input type="text" value="0.00"/> mm
			All <input type="checkbox"/> Road <input type="checkbox"/> Railway <input type="checkbox"/> River <input type="checkbox"/> Seaway <input type="checkbox"/> Airway

Name is the name of the package type. Pallet, for instance.

The gross dimensions are the outside maximum dimensions

The net dimensions are the inner maximum dimensions, the actual capacity of the package type.

In compatible modes, you must tell which transport modes can be used for this type of package.

This is used to allow or not a certain type on a [class of vehicle](#).

Here are some examples :

Name <input type="text" value="PALLET"/>			
Characteristics			Compatible modes
Maximum load		<input type="text" value="500.00"/>	Kg
Tare weight		<input type="text" value="15.00"/>	Kg
	Length	Width	Height
Gross	<input type="text" value="1200.00"/> mm	<input type="text" value="800.00"/> mm	<input type="text" value="1200.00"/> mm
Net	<input type="text" value="1200.00"/> mm	<input type="text" value="800.00"/> mm	<input type="text" value="1200.00"/> mm
			All <input checked="" type="checkbox"/> Road <input checked="" type="checkbox"/> Railway <input checked="" type="checkbox"/> River <input checked="" type="checkbox"/> Seaway <input checked="" type="checkbox"/> Airway

Name

Characteristics

Maximum load Kg

Tare weight Kg

	Length	Width	Height
Gross	<input type="text" value="6058.00"/> mm	<input type="text" value="2438.00"/> mm	<input type="text" value="2591.00"/> mm
Net	<input type="text" value="5867.00"/> mm	<input type="text" value="2330.00"/> mm	<input type="text" value="2350.00"/> mm

Compatible modes

[All](#)

☒ Road

☒ Railway

☒ River

☒ Seaway

☐ Airway

Vehicle Classes



The classes of vehicles are defined here.

Name

Mode

Load

Length	<input type="text" value="0.00"/> mm
Volume	<input type="text" value="0.00"/> m³
Weight	<input type="text" value="0.00"/> Kg

The mode is to be selected in the drop down menu. This mode is the same as the one defined in the [package types](#).

A certain package type can be used on a vehicle only if both modes are identical.



Here is an example

Name	<input type="text" value="SEMI TRAILER"/>	
Mode	<input type="text" value="Road"/>	
	<input type="button" value="Load"/>	
Length	<input type="text" value="13700.00"/>	mm
Volume	<input type="text" value="94.00"/>	m³
Weight	<input type="text" value="26000.00"/>	Kg

Vehicles



Here are listed all the vehicles used for shipping :



Name	<input type="text"/>	
	<input type="button" value="Characteristics"/>	
Vehicle class	<input type="text"/>	 
Truck N°	<input type="text"/>	
Second registration	<input type="text"/>	

Each vehicle must have a class assigned to.

Here is an example

Name

Characteristics

Vehicle class  

Truck N°

Second registration

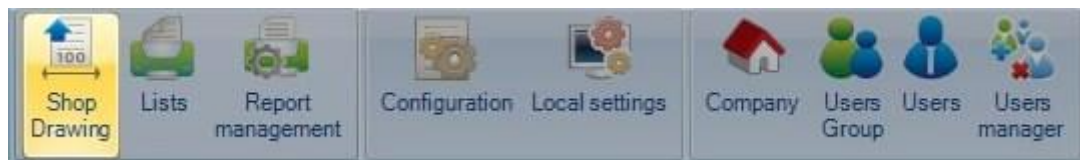
Configuration



You can access numerous menus for configuring SP PLM from the configuration menu

Click on an item to display the related chapter

Shop Drawing



The shop drawing configuration is used to set up the format for the component shop drawings

Options

The shop drawing options allow the user to set-up the necessary formats, representation and parameters for the dimensioning text and lines, and the printers to be used.

Printer Parameters

Options | Format | Representation | Comment | Symbols

Holes Dimensioning

X Axis
☐ Not any
☐ Absolute
☐ Relative
☒ Both

Y Axis
☐ Not any
☐ Absolute
☒ Relative

X Axis Direction
☒ Increasing
☐ Decreasing

Slots
☒ Center
☐ Extremity

Outline Dimensioning

X Axis
☐ Not any
☒ Relative

Y Axis
☐ Not any
☐ Absolute
☐ Relative
☒ Both

☒ Reduction of Pieces
☒ Unique
 Line Thickness: 0.15

Scale And Precision

☒ Use Scaling
☐ Gusset 1/1
☒ Holes Dimensioning
☐ Gap Checking

Decimals
 Dimensioning: 0
 Angles: 2

1000

Presentation

Sides to Draw
☐ Worked
☒ All

Recall Line
☐ Not any
☒ Line
☐ Arrow

☒ Angles Dimensioning
☐ 3D ☐ Keep parts name

Quantity

☐ Sum by Contract ☒ Sum by Drawing ☐ Detail by Mark

Sort
☐ Profile

Ok Abort

Field	Designation
Holes Dimensioning	Selection of the type of dimensions for holes in the horizontal axis (X axis) and gauges (Y axis) for each side of the piece
	Not Any No Dimensioning
	Absolute Absolute dimension according to the reference point of the concerned side
	Relative The dimension of drilling is given in the relation to the previous one. The dimension of the first hole is relative to the reference point of the piece side
	Both Absolute and Relative dimensions
X Direction	This option allows to move the X axis zero point
	Increasing The zero point will be on the left The positive direction will go from left to right
	Decreasing The zero point will be on the right The positive direction will go from right to left
Slots	This option allows to place the slot holes relatively to the length
	Center The length will be calculated between the centers of the two half-circles
	Extremity The length will be calculated between the extremities of the two half-circles

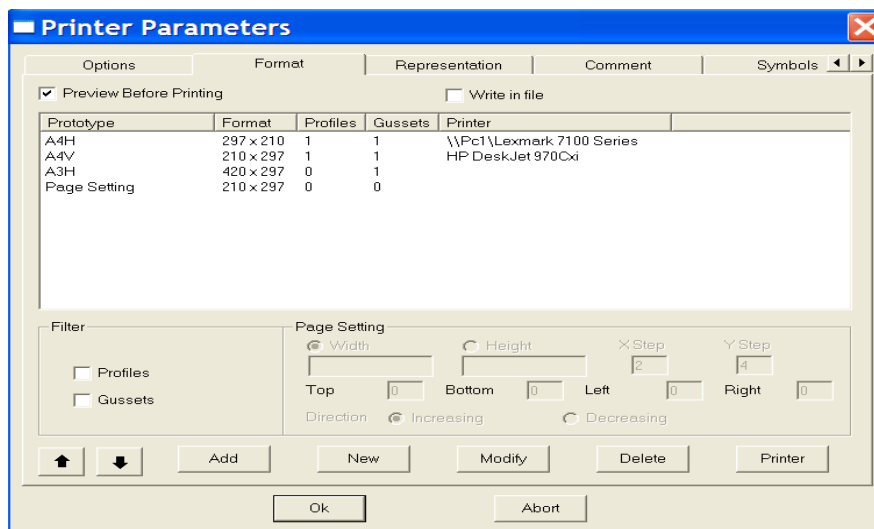
Outline Dimensioning	Not Any No Dimensioning
	Absolute Absolute dimension according to the reference point of the concerned side.
	Relative The dimension of drilling is given in the relation to the previous one. The dimension of the first corner is relative to the reference point of the piece side.
	Both Absolute and Relative options
Reduction of Pieces	This option allows omitting some unnecessary zones to make the graphic view clearer. No No cut will be authorised.

	Yes Selected cuts will be carried out.
Line Thickness	Parameter which defines the line thickness.

Scale and Precision	Use scaling Authorisation to extend the piece in the X axis direction to avoid character superimposition. No In case of difference, outline lines will be continuous. Yes In case of difference, outline lines will be interrupted. Decimal Dimensions The dimension will be represented with the number of the chosen decimals. Decimal Angles The angles will be represented with the number of the chosen decimals.
Presentation	Worked Only the worked sides will be edited. All All sides of the piece will be printed.
Recall Line	Selection of the type of dimensioning line None No type of dimensioning line Line A 45 degrees dash as an end of the dimension Arrow A 30 degrees arrow as an end of the dimension line.
Angle Dimensioning	This option allows the activation or deactivation of angle dimensioning.

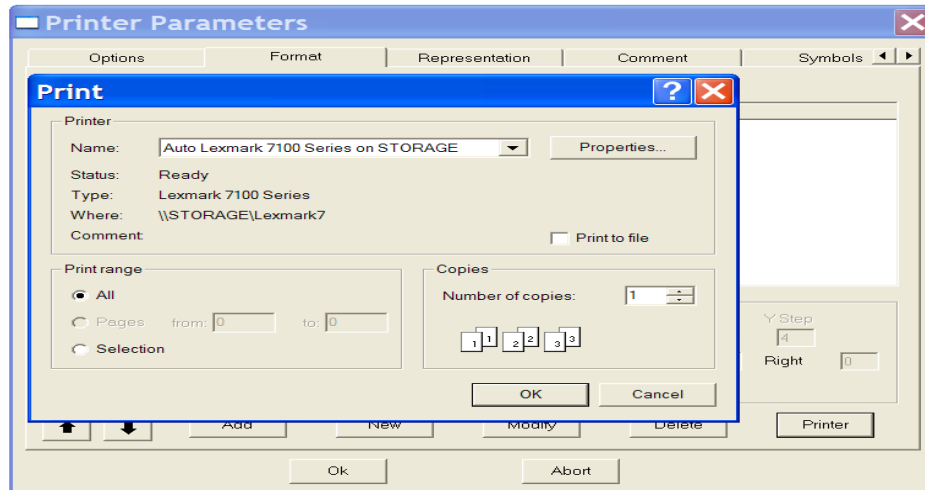
Format

The following screen gives the possibility to assemble all available prototypes for shop drawings. Each one will be assigned to a printer and its characteristics, a format of paper, an orientation, etc.



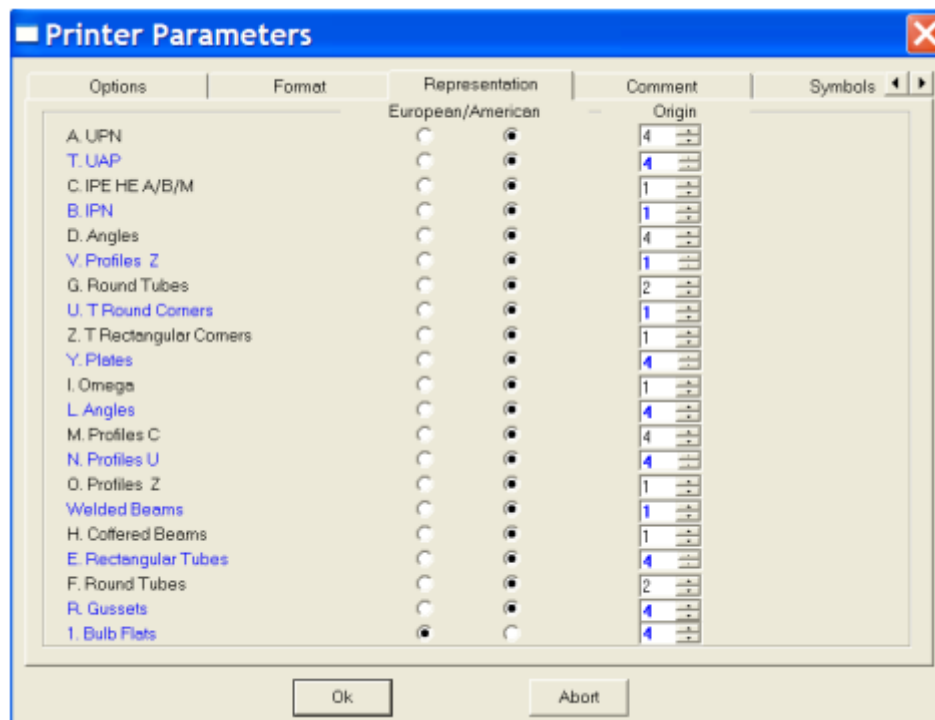
Format	Dimensions of Paper
Profiles	Authorisation to print log profiles (Beams, Angles, etc.)
Gussets	Authorisation to print profiles and gussets. Possibility to print with 1 scale and page setting.
Printer	Name of the printer configured in the system under Windows 95 or Windows NT or later.
Preview	Allows to view the shop drawing on the screen before printing
Prototype	Name of file which contains information of drawing sheet. This file is in the format DWG or DXF.

The Printer button accesses the configured printer in the system and allows modification of the characteristics, as on Fig 4-12 following:



Representation

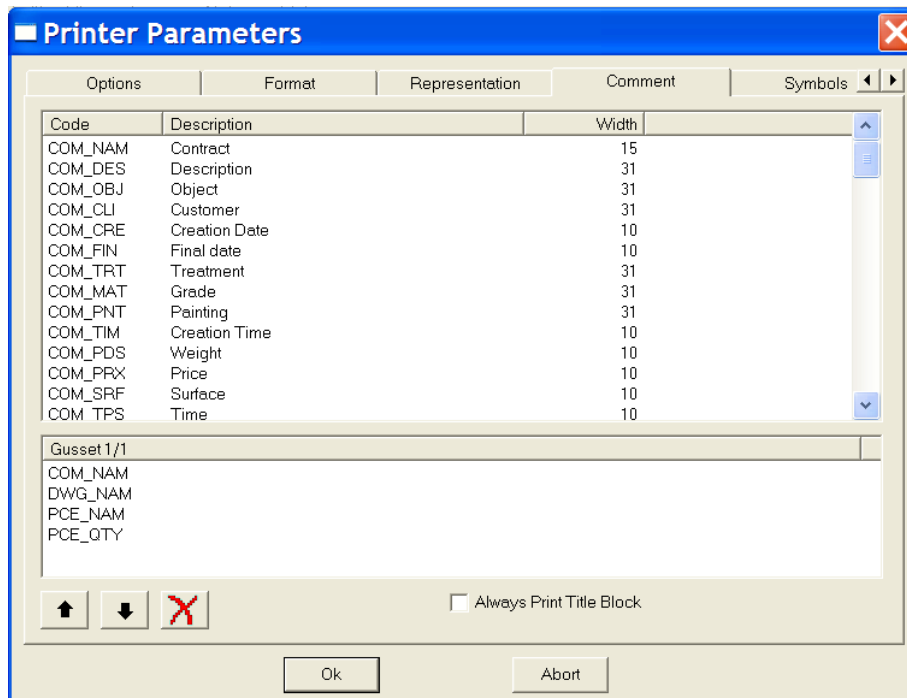
Selecting the type of representation for each profile.



Field	Designation
European	Top flange of the profiles drawn below the web
American	Top flange of the profiles drawn above the web
Origin	The reference origin of the piece which can be chosen on the table given in index

Comment

This section allows the user to personalise the shop drawing by inserting some comments.



Printer Parameters

Options | Format | Representation | Comment | Symbols

Code	Description	Width
COM_NAM	Contract	15
COM_DES	Description	31
COM_OBJ	Object	31
COM_CLI	Customer	31
COM_CRE	Creation Date	10
COM_FIN	Final date	10
COM_TRT	Treatment	31
COM_MAT	Grade	31
COM_PNT	Painting	31
COM_TIM	Creation Time	10
COM_PDS	Weight	10
COM_PRX	Price	10
COM_SRF	Surface	10
COM_TPS	Time	10

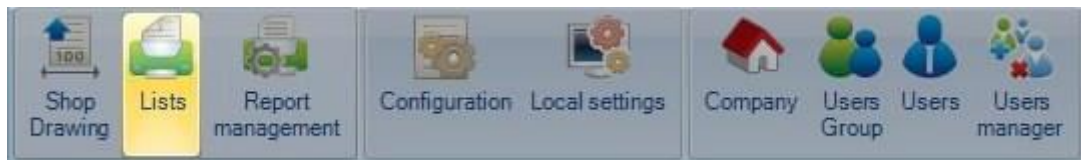
Gusset 1/1

COM_NAM
DWG_NAM
PCE_NAM
PCE_QTY

☐ Always Print Title Block

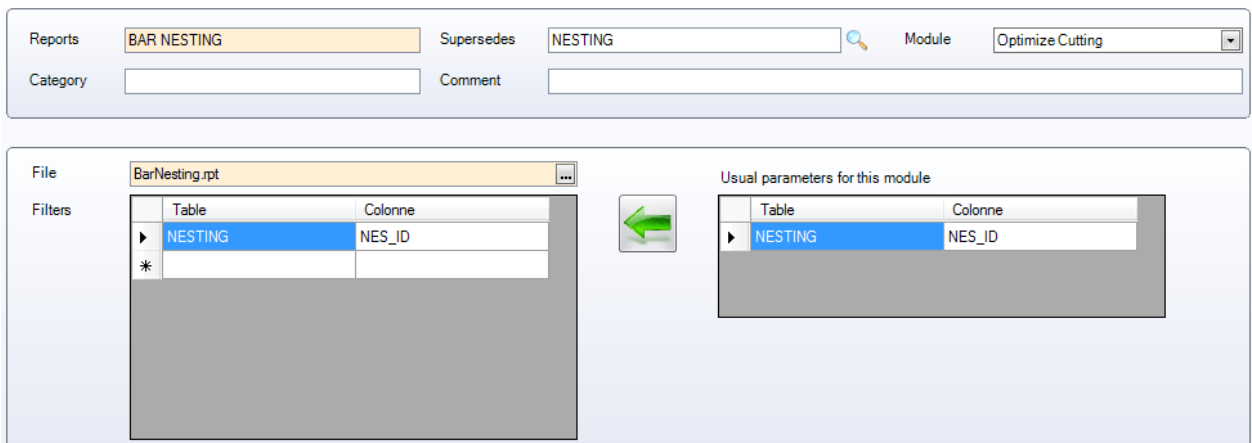
Ok Abort

Lists



The program comes with a set of pre-reports but it is possible to add new ones or update existing ones using the Report Manager

To add a new report, type the name into the search box and then press NEW or Ctrl+N



Reports: Supersedes: Module:

Category: Comment:

File:

Filters:

Table	Colonne
NESTING	NES_ID
*	

Usual parameters for this module

Table	Colonne
NESTING	NES_ID

Reports - The name of the report

Supersedes - if it is to replace an existing report, specify it here

Module - the module name the report is to show in. Choose from the dropdown list

Category & Comment - Manual text box for you to make notes in

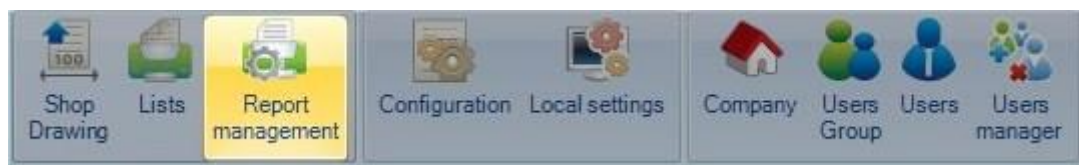
File - choose the file name of the new report. By default, all new reports are to go in the folder base\rpt_cust

Filter - You need to specify a filter for the report. A different filter will be shown on the right side depending on the module it is to be shown in.

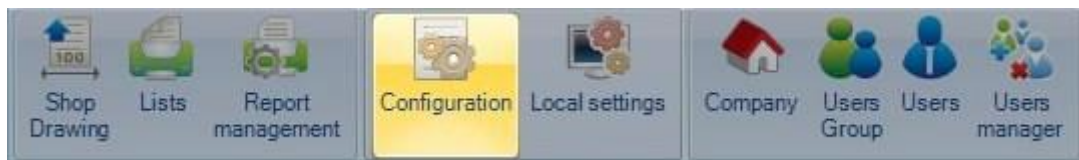
The standard process is to select this and press  to add it in as the standard filter for this report

it is possible to set up different filters depending on the report. your support engineer will advise if this is the case.

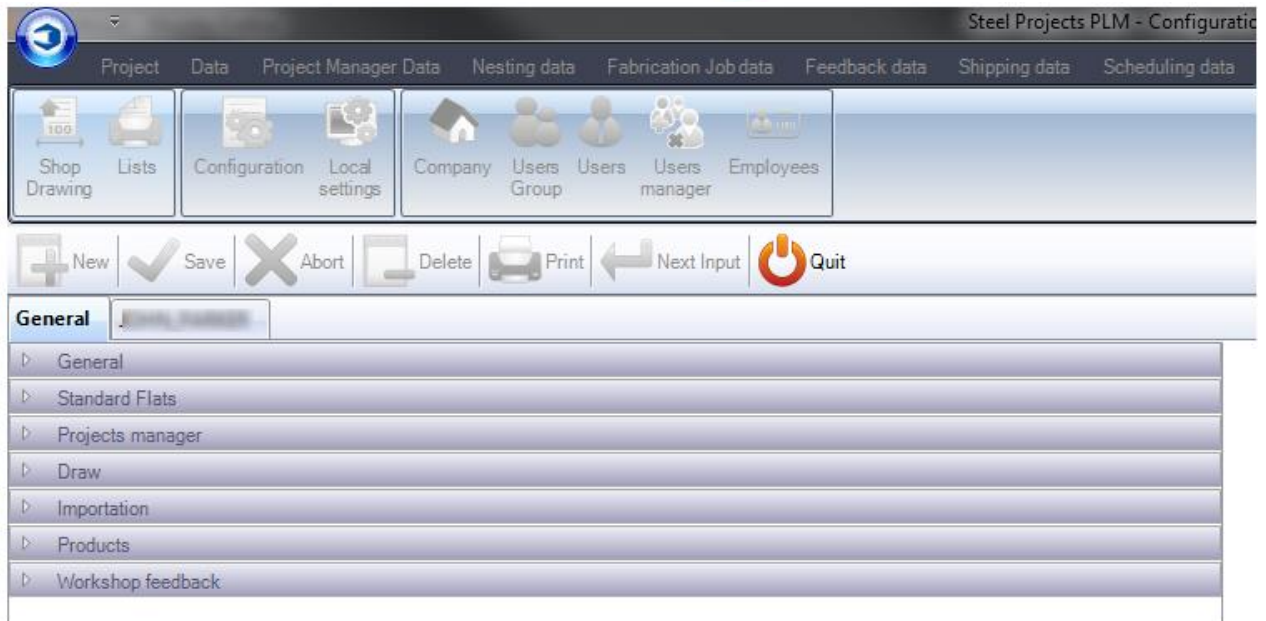
Reports Management



Configuration



From this menu you can set the main shared configurations of Steel Projects PLM.



The configuration is split into two main sections:

[General Configuration](#)

[Company Specific Configuration](#)

General Configuration

General

General	STEEL PROJECTS
General	
Contracts management	<input type="checkbox"/>
Main Language	English
DataBase path	C:\Program Files (x86)\SteelProjects\base
Exact Weight for Gussets	<input type="checkbox"/>
Surface	Painted
Unit	Metric
Default unit	<input checked="" type="checkbox"/>
Precision	Not any
Backup Directory	C:\Users\AndrewS\Desktop\
Document management	<input checked="" type="checkbox"/>
SubBar Project Name	@_[]_@?PLM@_[]
Standard Flats	
Project manager	
Draw	
Import	
Products	
Workshop feedback	

Contracts - Activate the Contract Hierarchy in the Project Manager. The default structure is to have a 4 tier hierarchy - Project - Drawing (Load \ Phase) - Assembly - Component. Activating this option gives you 5 tiers - Contract - Project - Drawing - Assembly - Component. This is useful if you work with multi project contracts

Database path - The path to the main shared Data folder. This needs to be accessible with the actual path to all clients. If it is on a shared server it is recommended to create a folder share, and use the share path instead of the local path

Exact Weights for Gussets - Use the actual weight for plates (material left after tooling), or the theoretical weight of the total area needed before tooling.

Surface - Calculate the actual painted area or the real surface area

Unit - Metric or Imperial units

Precision - Used for imperial weight rounding calculation

Backup Directory - The folder the system will use to create backups. it is recommended this is on a different server to the database. If it is on a shared server it is recommended to create a folder share, and use the share path instead of the local path

Document Management - Activate the [Document Manager](#)

Standard Flats:

General		STEEL PROJECTS
General		
Standard Flats		
Rectangular Shape	<input checked="" type="checkbox"/>	
Any width	<input type="checkbox"/>	
Maximum	<input type="text" value="500.00"/>	mm
Any Rotation	<input checked="" type="checkbox"/>	
Tolerance	<input type="text" value="0.10"/>	mm
Width	<input type="text" value="Minimum"/>	
Maximum NOTCH angle	<input type="text" value="45.00"/>	
Total	<input type="checkbox"/>	
Project manager		
Draw		
Import		
Products		
Workshop feedback		

Extra options the system uses for Standard flats. For further options [see here](#)

Rectangular Shape - The fitting needs to be a rectangle to be recognised as a flat.

Any Width - Parts of any width, not just standard widths are recognised as flats.

Any Rotation - Allow the program to rotate parts to fit your standard flat sizes if possible

Tolerance - Set a tolerance for the software to round up or down the width to a standard flat size

Maximum NOTCH angle - If you have a machine that can cut notches out of flat bar, set the maximum angle it can cut here

Project Manager:

General	
STEEL PROJECTS	
▷ General	
▷ Standard Flats	
▾ Project manager	
Auto next tab	<input checked="" type="checkbox"/>
Clear selection on action	<input checked="" type="checkbox"/>
Job	Assembly Mark
Automatic Master Part	Name
Check automatic master part	<input type="checkbox"/>
Manual Group	<input type="checkbox"/>
Tooling filter	<input type="checkbox"/>
▷ Draw	
▷ Import	
▷ Products	
▷ Workshop feedback	

Configuration for the Project Manager Module

Auto Next Tab - When you create a Project, it will automatically tab to the next level of the hierarchy.

Clear Selection on Action - When you press action, if you have any parts selected they will be cleared

Job - Decide if the drawing, assembly or component should be used for jobs

Automatic Master Part - Set how the software should calculate what the master part of an assembly is.

Check automatic master part - With this activated, a check box will open for you to validate the master part in an assembly.

Manual Group - Manually determine what profile group parts are allocated to

Tooling Filter - Activate the option to be able to filter by tooling

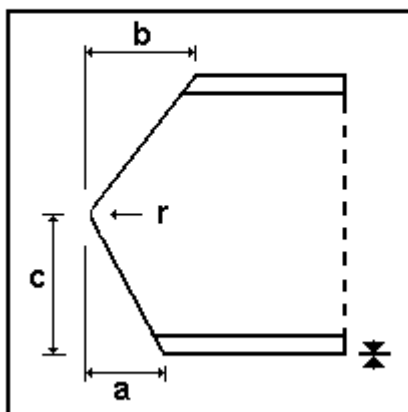
Draw:

General	
STEEL PROJECTS	
Project manager	
Draw	
<ul style="list-style-type: none"> Macros FENICE <ul style="list-style-type: none"> Precision: 0.00 mm Oxycutting: <input checked="" type="checkbox"/> Plasma: <input checked="" type="checkbox"/> Notch Angle: <input type="checkbox"/> Notch NWI: <input type="checkbox"/> G1F33 <ul style="list-style-type: none"> Maximum angle: 45.00 Leadcut <ul style="list-style-type: none"> Leadcut: Not any Precision: 3.00 mm Coping <ul style="list-style-type: none"> Coping: Right Radius: 0.00 mm Angle: 0.80 Back Web: <input checked="" type="checkbox"/> Gauge Line: 1.50 	
Import	
Products	
Workshop feedback	

Macros Fenice - Automatically recognise Stand Ficep macro codes on part import. Required if you have a coping robot

G1F33 - Activate the G1F33 macro recognition

G1F33



I U

Coping on initial side

MAC:ESTI33

Coping on final side

MAC:ESTF33

Coping axis: B / X

Coping: Oxycutting / Plasma

AUTO_DSTV: No

Leadcut - Lead cuts are used for internal cuts where there is no standard macro available. Use this option to convert these cuts to scribing lines or cuts

Coping - Set the coping drawing option and its radius

Back web- Activate the back web in the drawing module. Useful to be able to see back web scribing

Gauge line - Set the gauge line distance for the drawing module

Import:

General | STEEL PROJECTS	
▷ General	
▷ Standard Flats	
▷ Project manager	
▷ Draw	
▴ Import	
Exact Material Grade	<input checked="" type="checkbox"/>
Exact Profile	<input checked="" type="checkbox"/>
Exact Treatment	<input checked="" type="checkbox"/>
Exact Painting	<input checked="" type="checkbox"/>
Standard flats prefix	FLAT
Gusset Prefix	PLT
Square tubes prefix	SHS
rectangular tubes prefix	RHS
Round tubes prefix	CHS
▷ Products	
▷ Workshop feedback	

Exact Material Grade, Profile, Treatment, Painting: Normally, when you import parts from CAM files that have new profiles or material grades, the software will automatically add these to the relevant databases. With this option switched on, when you import parts that are not in your database, an extra option will ask you if you want to add it, or associate it with an existing grader or profile

Profile Prefixes - You can specify prefixes so the parts are renamed to standardised profile names. With this switched off, then profile name in the CAM file is used.

Workshop Feedback:

General	STEEL PROJECTS
▷ General	
▷ Standard Flats	
▷ Project manager	
▷ Draw	
▷ Import	
▷ Products	
⚡ Workshop feedback	File polling interval (mins) <input type="text" value="5"/>

Set the time interval the software should take to read the automatic feedback from the machines

Company Configuration

Project Manager:

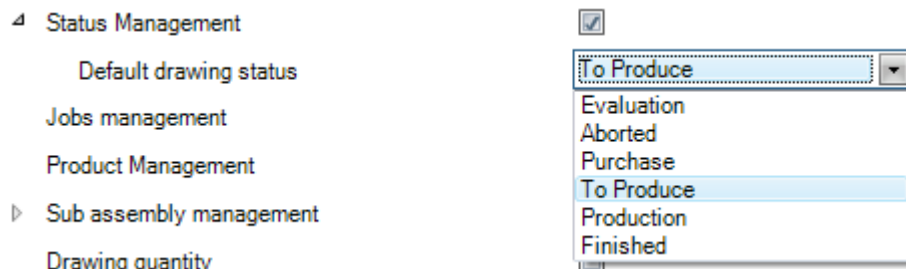
General	STEEL PROJECTS
⚡ Project manager	
Default treatment	<input type="text"/> 🔍
Material Grade By Default	<input type="text" value="ST37"/> 🔍
Default painting	<input type="text"/> 🔍
▷ Status Management	<input type="checkbox"/>
Jobs management	<input type="checkbox"/>
Product Management	<input type="checkbox"/>
▷ Sub assembly management	<input checked="" type="checkbox"/>
Drawing quantity	<input type="checkbox"/>
External GUID management	<input type="checkbox"/>
Revision Management	<input checked="" type="checkbox"/>
Material Grade Upgrade	<input type="checkbox"/>
Profiles Upgrade	<input type="checkbox"/>
Project customer management	<input checked="" type="checkbox"/>
▷ Part checking	<input checked="" type="checkbox"/>
Warning if part is in drawing in production	<input type="checkbox"/>
Priority mode	<input type="text" value="Not any"/> ▼
Sites and departements management	<input checked="" type="checkbox"/>
Workstation multi export	<input checked="" type="checkbox"/>

Default Treatment - Specify a treatment to assign to all parts as a default. Double Click in the box to search and select

Material Grade By Default - Specify a material grade to assign to all parts as a default. Double Click in the box to search and select

Default Painting - Specify a painting to assign to all parts as a default. Double Click in the box to search and select

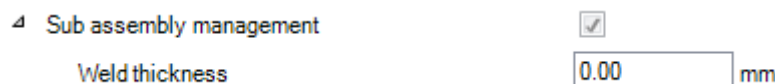
Status Management - Activate the Status management. option This lets you manually assign the current status of a project



Jobs Management - Activate the option for the [Phase Builder](#)

Product Management - Activate [Product Management](#)

Sub Assembly Management - Activating the Sub Assembly option gives you the ability to break down beams into corresponding web and flanges plates. You can set the default weld thickness in the sub menu



Drawing Quantity - By default, there can only be single quantity drawings. This is because for structural buildings, each drawing (load) is unique. However, if you are using the program for other sectors you may want to allow drawings to be multiple quantities. A multiple quantity drawing, will have all of the sub assemblies quantities multiplied by this number.

External GUID Management - GUIDs are used to identify assemblies and parts uniquely by assigning a hexadecimal characters consist of eight (0x00000001). This is for advanced BIM integration

Revision Management - Activate the option for [Revision Management](#)

Material & Profile Upgrade - Changes to the material or profile grades names are changed for all parts with those grades \ profiles

Part Checking - Activate [Part Checking](#)

Warning if drawing is in production - If you try and modify a part that has already been sent to production you will receive a warning

Sites and Departments Management - Activate this option for advanced options workflow configuration for large or multiple factories. See [Sites and Departments Management](#)

Workstations multi export - Allows the option for exporting to more than one workstation at a time. See [Workstation Export](#)

Fabrication Job

4 Fabrication Job	
Report for shop drawing	<input type="text" value=""/>
Grouping master parts and finished pieces	Project
Phase grouping master parts and finished pieces	Not any
Grouping other parts	Project
Phase grouping other parts	Not any
Cutting Sheet	1197
Nesting by profil group	<input type="checkbox"/>
Default priority	99
Revision Management	<input checked="" type="checkbox"/>
4 Update nesting status by drawing status	<input checked="" type="checkbox"/>
Revision on status update	No
MEF checking Mode	Check all MEF
Tooling checking	<input type="checkbox"/>

Report For Shop Drawing - Choose the report to use for your shop drawings

Grouping of parts - Determine the deciding factors in the grouping of parts in fabrication jobs

Cutting Sheet - The cutting sheet needs to be a unique number. It starts at 1 and increases by 1 every time you do a nesting. If you ever want to skip to a later cutting sheet number you can change the next sheet number here

Nesting by profile group - Parts with different profile groups can not be nested together

Default Priority - All part are given a default nesting priority of this setting. The higher the priority, the more it is prioritised.

Revision Management - Activate [revision management](#) for fabrication jobs

Update nesting status by drawing status - With this option and project manager status management activated, you can set to override the nesting status with the manually assigned status.

MEF checking mode - Decide if you should check all MEF or sent MEF

Toolings Checking - Do a [part check](#) at the Send to Production stage to be sure the machines have the correct tools set up in their tool tables to do the allocated parts

Section Nesting

Material Distinction - With this activated, no parts with different material grades will be nested together

Treatment Distinction - With this activated, no parts with different treatments will be nested together

Grouping Treatment, Grouping Painting - Group together bars with the same treatment and or painting

General

General	
Maximum Scrap	Length <input type="button" value="v"/>
Length	<input type="text" value="1000.00"/> mm
Percentage	<input type="text" value="0.00"/>
Workstation tooling for profile group	<input type="checkbox"/>

Set the maximum scrap value by either length or percentage

Workstation tooling for profile group - Activate Workstation tooling for profile groups

Plate Nesting

Material Distinction - With this activated, no parts with different material grades will be nested together

Treatment Distinction - With this activated, no parts with different treatments will be nested together

Grouping Treatment, Grouping Painting - Group together bars with the same treatment and or painting

Production Progress

Production Progress	
Input individual production time	<input checked="" type="checkbox"/>
Input casting numbers	Disabled <input type="button" value="v"/>

Input individual production time - Allow the option to manually override the production time

Input casting numbers - Set whether you need to add a casting number before updating the production progress

Shipping

Shipping	
Packing List	<input type="checkbox"/>
Components	Assemblies <input type="button" value="v"/>
Auto. Number	Company <input type="button" value="v"/>

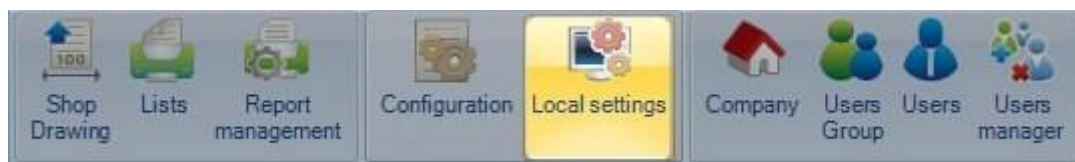
3D Geometry

3D Geometry	
Assembly 3D Management	<input checked="" type="checkbox"/>
Refresh 3D geometries	<input type="checkbox"/>
Parts	<input type="checkbox"/>
Section Nesting	<input type="checkbox"/>
Assemblies	<input type="checkbox"/>

Assembly 3D management - Activating this option allows you to view the 3d assembly drawing for projects that have been imported with the Tekla XML interface.

Refresh 3D geometries - Automatically update the 3d view for parts, assemblies and bars

Local Settings



These local settings are independent for each workstation the software is installed on.

GLOBAL OPTIONS

Global options	Graphic options	3D modeling options
Log		
Write in LOG file	<input type="checkbox"/>	
Maximum size (in Kb)	512	
Level of details	Normal	
Proxy server		
Use authentication	<input type="checkbox"/>	
Proxy server user name		
Proxy server password		
Tekla Structures		
Use Tekla link	<input type="checkbox"/>	
Tekla version	Automatic version	
General		
Search engine	Google	

Log - Update a log file in the PLM base folder. Used by Steel projects to understand technical problems. Set to off unless required as it will generate a large file

Proxy Server - If your company network uses a proxy server for internet access you need to activate this option to be able to update over the internet and use the customer FTP utility. Activate if needed and specify a username and password with access to use HTTP and FTP

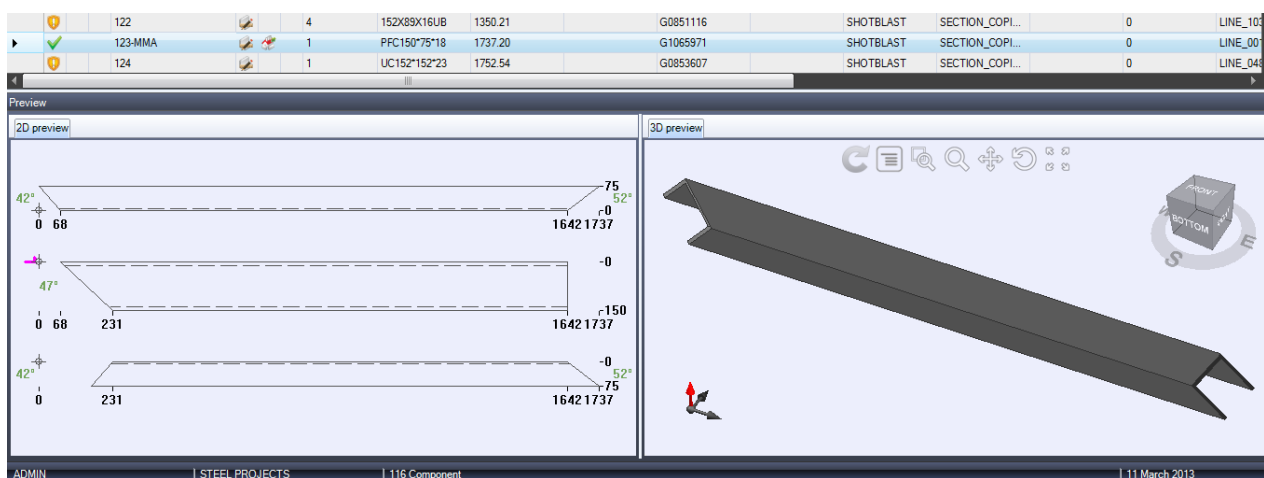
Tekla Structures - SP PLM has added integration with tekla Structures with this option activated. Both applications need to be installed on the same computer.

General - Specify your preferred search engine for internet queries

GRAPHIC OPTIONS

Global options	Graphic options	3D modeling options
General		
Activate 3D display	<input checked="" type="checkbox"/>	
Default display	3D display	
Show menu	<input type="checkbox"/>	
Show tabs	<input checked="" type="checkbox"/>	
Graphic style	DotNetBar style	
Use hardware acceleration	<input checked="" type="checkbox"/>	
Arc chordal tolerance	0.50	
3D options		
System icon	<input checked="" type="checkbox"/>	
Origin	<input type="checkbox"/>	
Vertices	<input type="checkbox"/>	
Normals	<input type="checkbox"/>	
Grid	<input type="checkbox"/>	
Bounding box	<input type="checkbox"/>	
Toolbars	<input checked="" type="checkbox"/>	
Cube	<input checked="" type="checkbox"/>	

GENERAL - Activate the 3D preview on this computer and set the options for the display window in the Project Manager



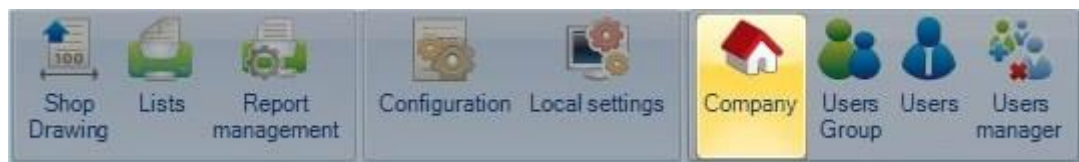
3D OPTIONS - Set various window display options for the 3D preview

3D MODELLING OPTIONS - Set various part display options for the 3D preview

Real representation - Set whether certain tooling displays as real representation or is represented theoretically


Global options	Graphic options	3D modeling options
Real representation		
Part	<input type="checkbox"/>	
Profile	<input type="checkbox"/>	
Drilling	<input checked="" type="checkbox"/>	
Pointing	<input type="checkbox"/>	
Scribing	<input type="checkbox"/>	
Marking	<input type="checkbox"/>	
Part preview		
Display mode	Full modeling	
Origin	<input type="checkbox"/>	
Legend	<input type="checkbox"/>	
Section nesting preview		
Display mode	Full modeling	
Legend	<input type="checkbox"/>	
Assembly preview		
Display mode	Partial preview	
Legend	<input type="checkbox"/>	


Company



Specify your company details in order for them to be used in reports


General

Company	<input type="text" value="STEEL PROJECTS"/>	Code Company	<input type="text"/>
Description	<input type="text"/>	Planning Company	<input type="text"/> 

Address	<input type="text"/>		
Address	<input type="text"/>		
Zip Code	<input type="text"/>	City	<input type="text"/>
State / Region	<input type="text"/>	Country	<input type="text"/> 
Telephone N°	<input type="text"/>	Fax	<input type="text"/>
eMail	<input type="text"/>		

Code Register Company	<input type="text"/>
Code Register Company	<input type="text"/>

If the management of the EN1090 norm is activated for the company (see [here](#)), you can fill in the related informations in the CE Marking tab

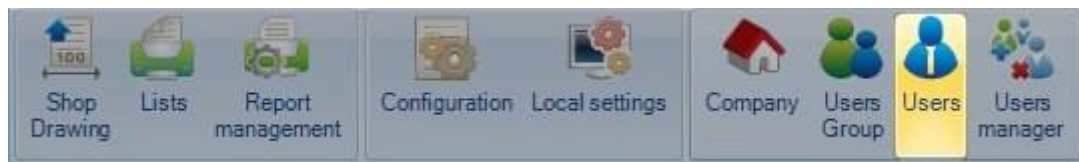
Company 

General | **Address** | **Material Grade Upgrade** | **Profiles Upgrade** | **CE marking**

Identification number of the notified organ	<input type="text"/>
Application date of CE marking	<input type="text"/>
Certificate of compliance number	<input type="text"/>
ATE number	<input type="text"/>

CE

Users

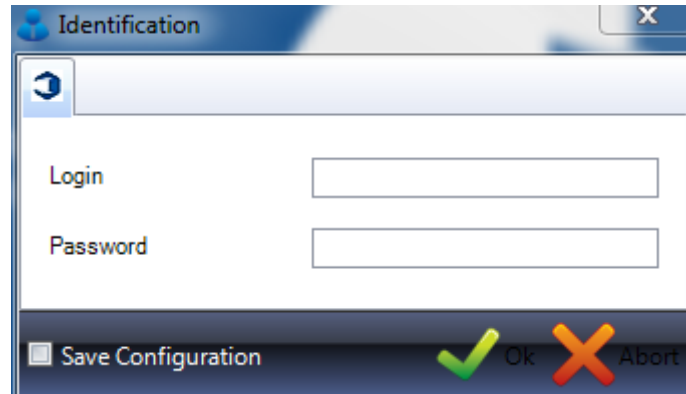


SP PLM has a full User Group management allowing you to control which users can have access to certain program functionality.

Different users can have their own logins and given certain rights to software menus and reports.

From this list, you can create and control the users, user names, and passwords, and assign them into a relevant [User Group](#)

When you log into the program, each user will need to specify his login and password to access the program





Identification

Login

Password

☐ Save Configuration

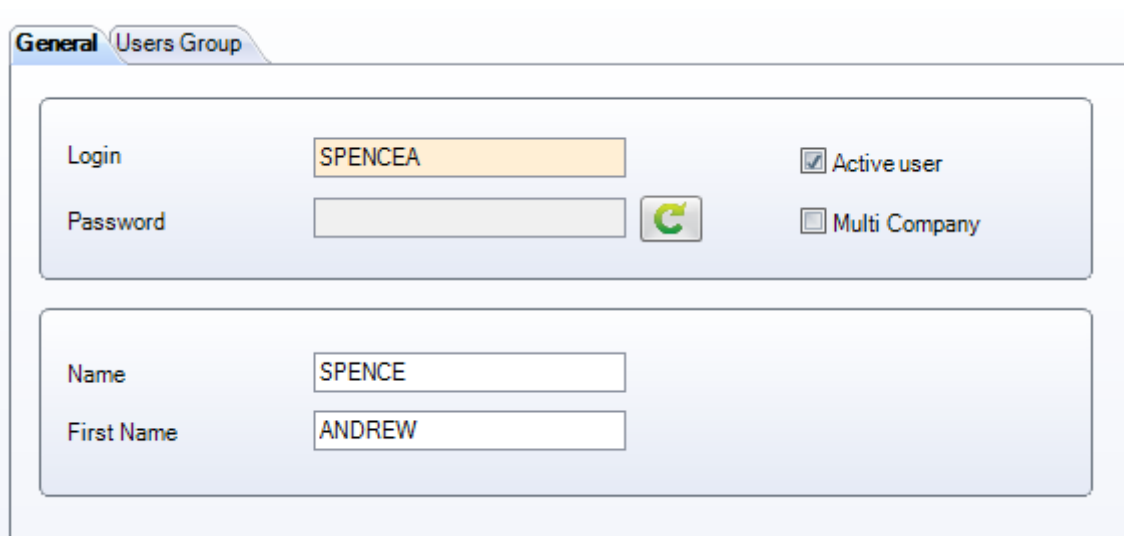
 OK  Abort

Use the "save configuration" option to remember the login information and not have to refill it every time.

To add a user to the database, type a user name into the search box and then press NEW or Ctrl+N


GENERAL

Specify a password, and the first and last name of the user.



General Users Group

Login ☒ Active user

Password  ☐ Multi Company

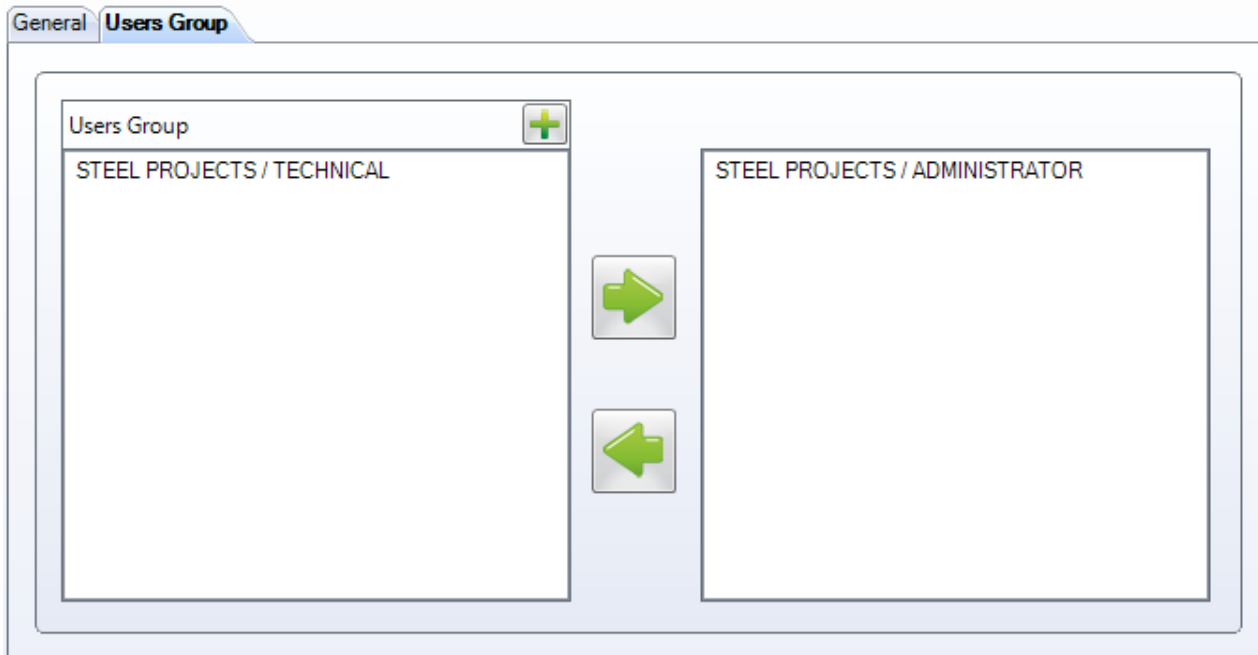
Name


First Name

if the user is not active, unselect "active user" this is useful if you dont want to delete the user fully but would like to stop access using that account

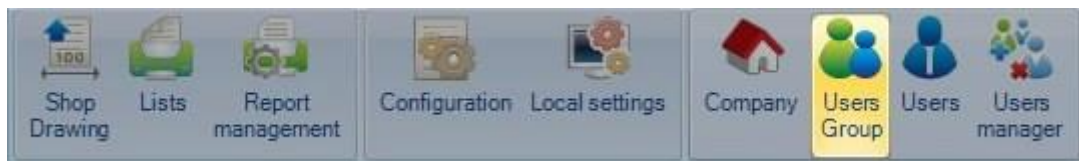
If you have a multi company database and the user can have access to multiple companies, select this option. In most cases this is not needed.

USER GROUP



Specify the user group that the user belongs to, by selecting it from the list of the left side and pressing  to add it to the right. The user will have all the rights and restrictions of this group.

User Groups



SP PLM has a full User Group management allowing you to control which users can have access to certain program functionality.

Different users can have their own logins and given certain rights to software menus and reports.

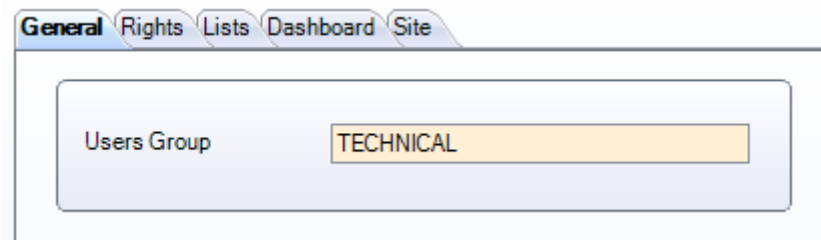
The default user group created is *administrator*. Users belonging to this group have access to all of the software. The default user is always in the administrator group.

You only need to add more user groups if you want to restrict access to any user.

To add a new user group, type the name into the search box and then press NEW or Ctrl+N


GENERAL

Type the name of your Profile Group



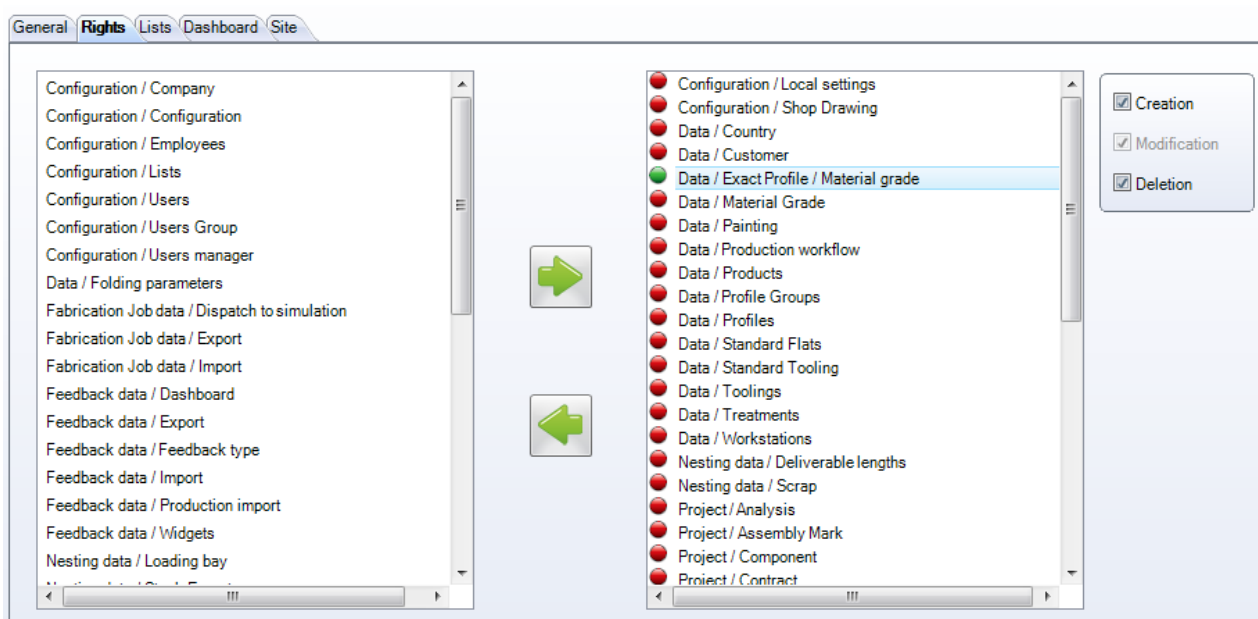
RIGHTS

Use this list to select the parts of SP PLM you would like users of this Profile Group to have access to.

Select the menus from the left list, and press  to add it to the list on the right.

Then you need to allow the right for creation, modification and deletion with the box further to the right.

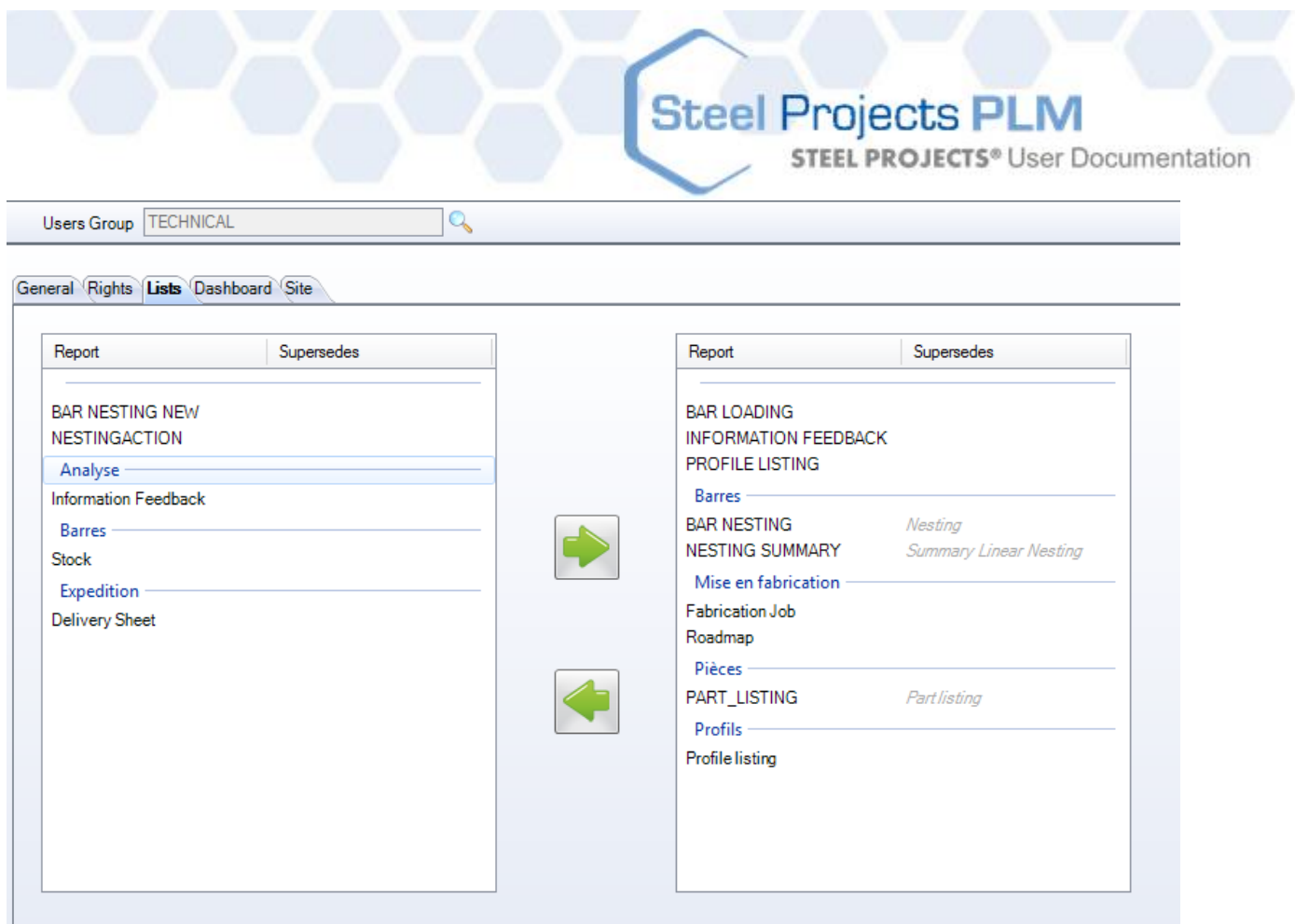
You can multi select from either list




LISTS

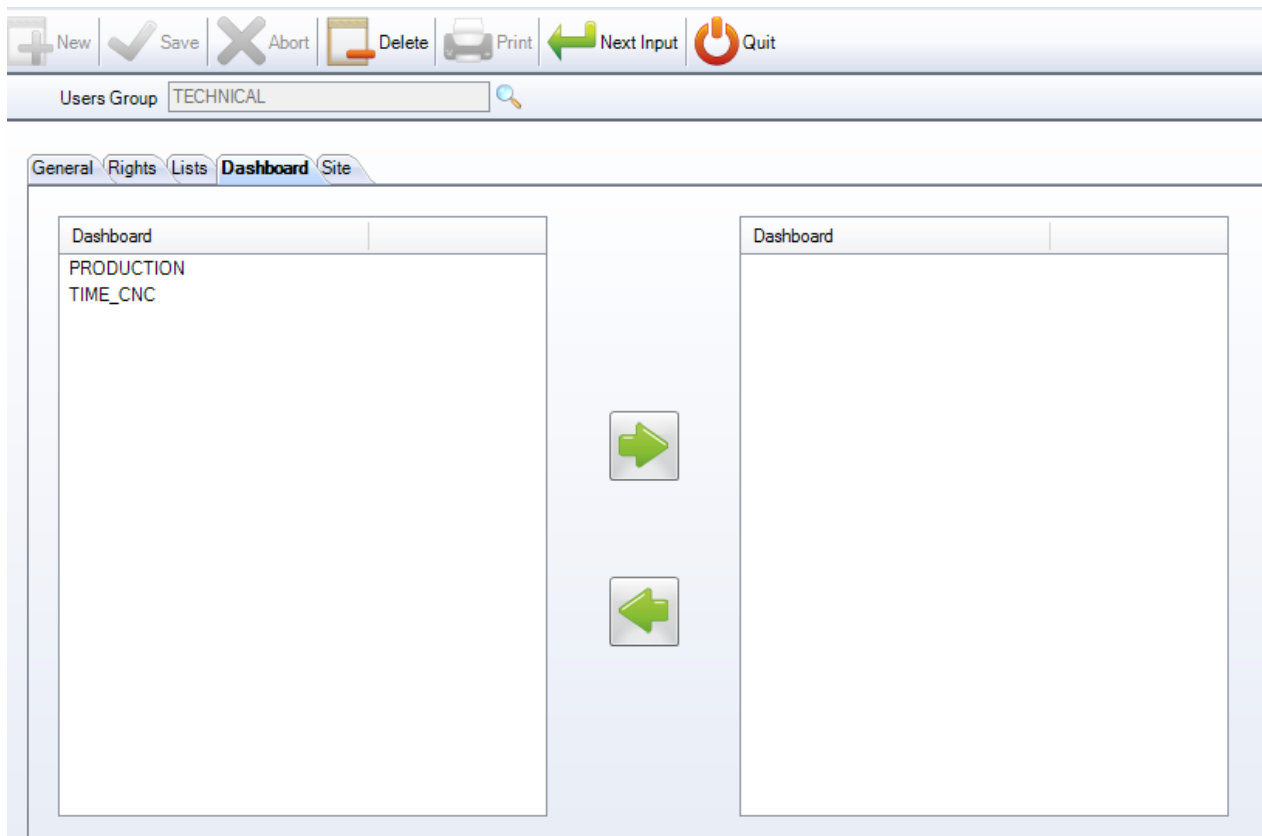
Control which reports users in this group can have access to

Select the allowed lists on the left menu and press  to allow access




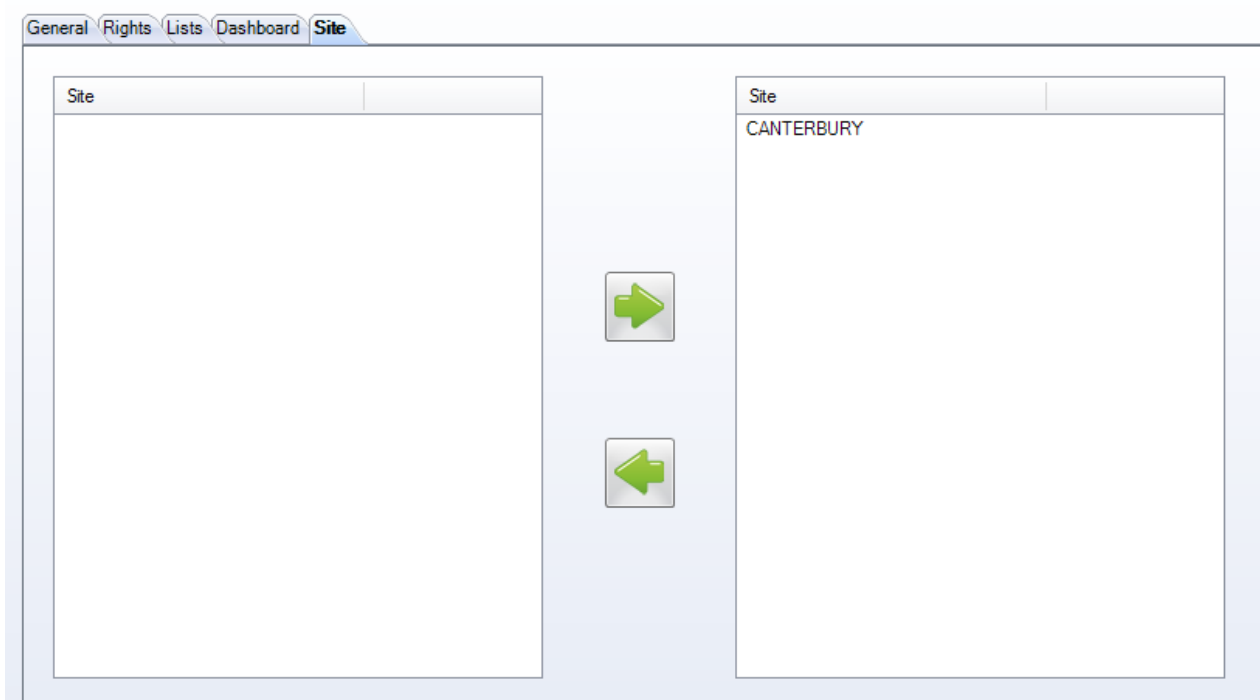
Allow access to Production Feedback Dashboards.


Select the allowed dashboards on the left menu and press  to allow access



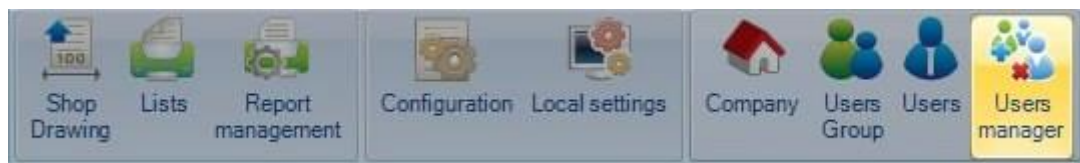
SITE

If you use the [Sites and Departments Management](#) option you can allow access to your different sites from this menu. To allow access to a site press  to add it to the list on the right



option you can allow access to your different sites from this menu. To allow access to a site press  to add it to the list on the right

Users Manager



Utilities

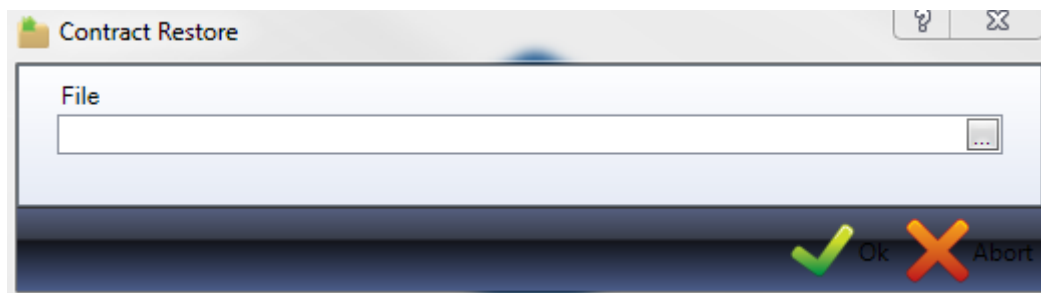


Contract Restore



Restore a [previously backup](#) PLM Project or WinSteel Contract.

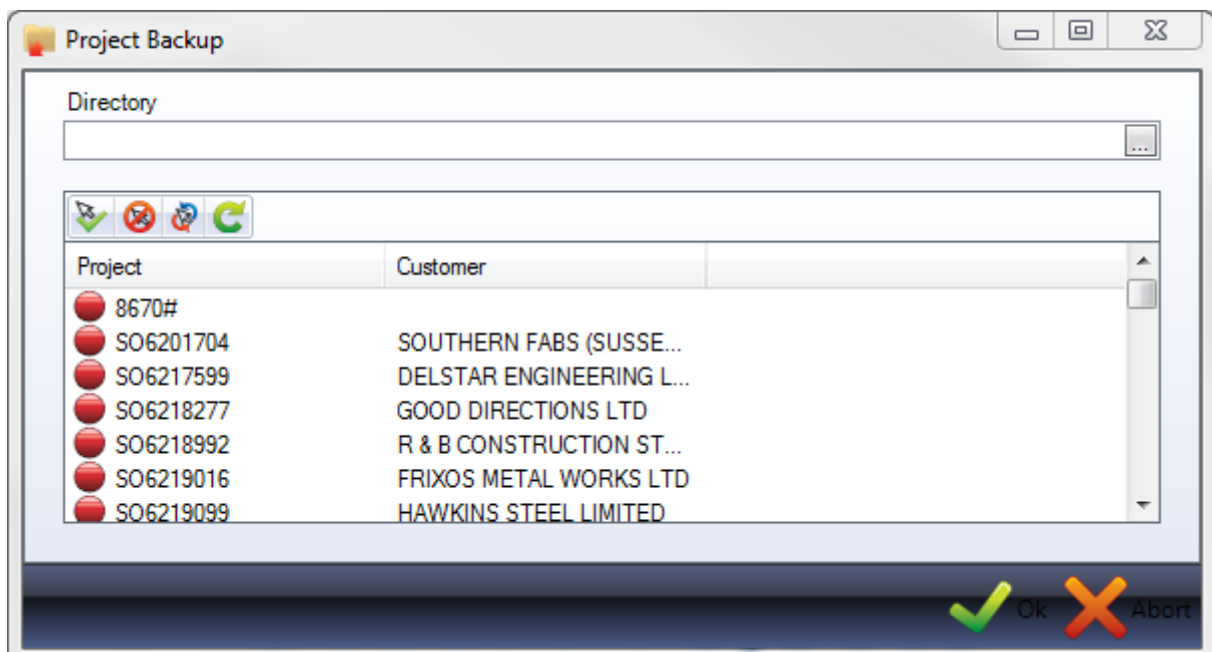
Press the browse button to search for the contract zip file. Select the file and press OK to import it into the program. It will go through the import routine and if there is no problem it will be available in the Project list




Project Backup



Backup one or Multiple PLM Projects, to zip files. These can then be [restored](#) back into program later if required.



Press the Browse button to set the backup folder. We recommend this is a folder away from the main server.

The full list of Projects will be shown below. For all of the Projects you want to backup, click on the red circle next to the name to select the projects the circle will turn to green. Or you can multi select the Projects while holding Ctrl, and use the selection icon  above.

To select all the Projects press the  icon

When you have made your selection, press OK to start the backup process.

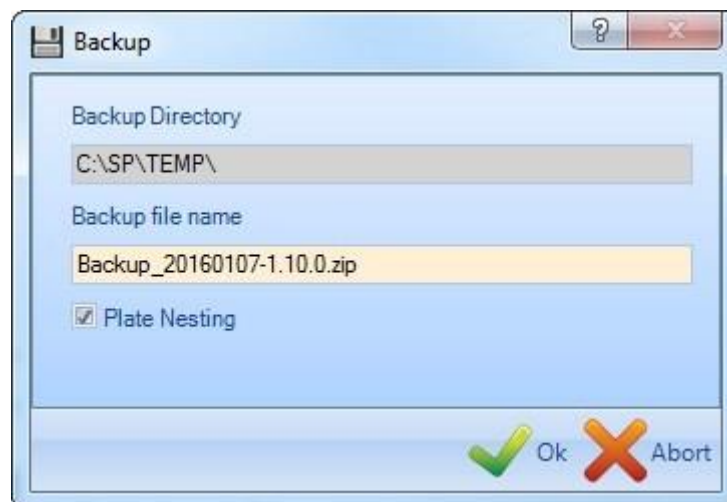
Once finished, you will have a number of zip folders in the selected directory

Backup



Backup the full SP.PLM database and base folder.

The program will try and create the backup to the destination folder you have set up in your [general configuration options](#)



If you uncheck the Plate Nesting option, the plate nesting related elements (files in the MET folder) won't be included in the backup. Thus reducing quite a lot the size of the backup file.

To make the backup, simply press OK to start the process.

It is important to note that the destination folder needs to be accessible by the client and also the server. It is recommended to use a folder share with the correct user permissions

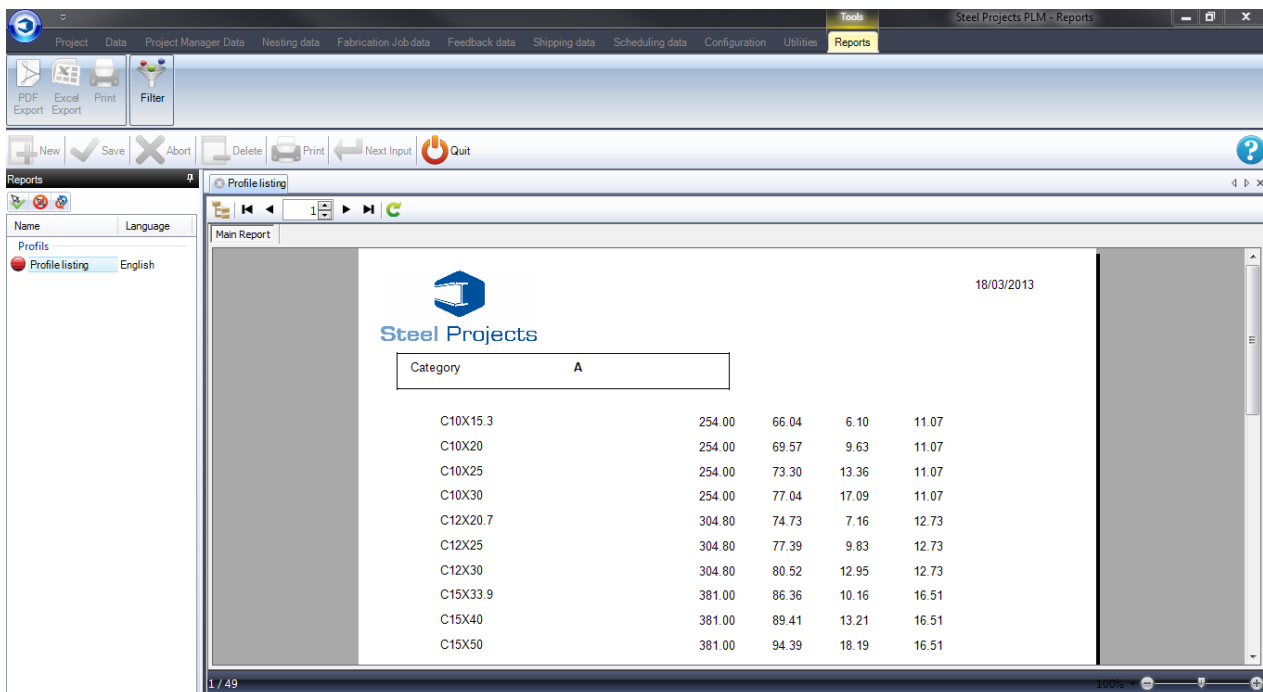
Lists



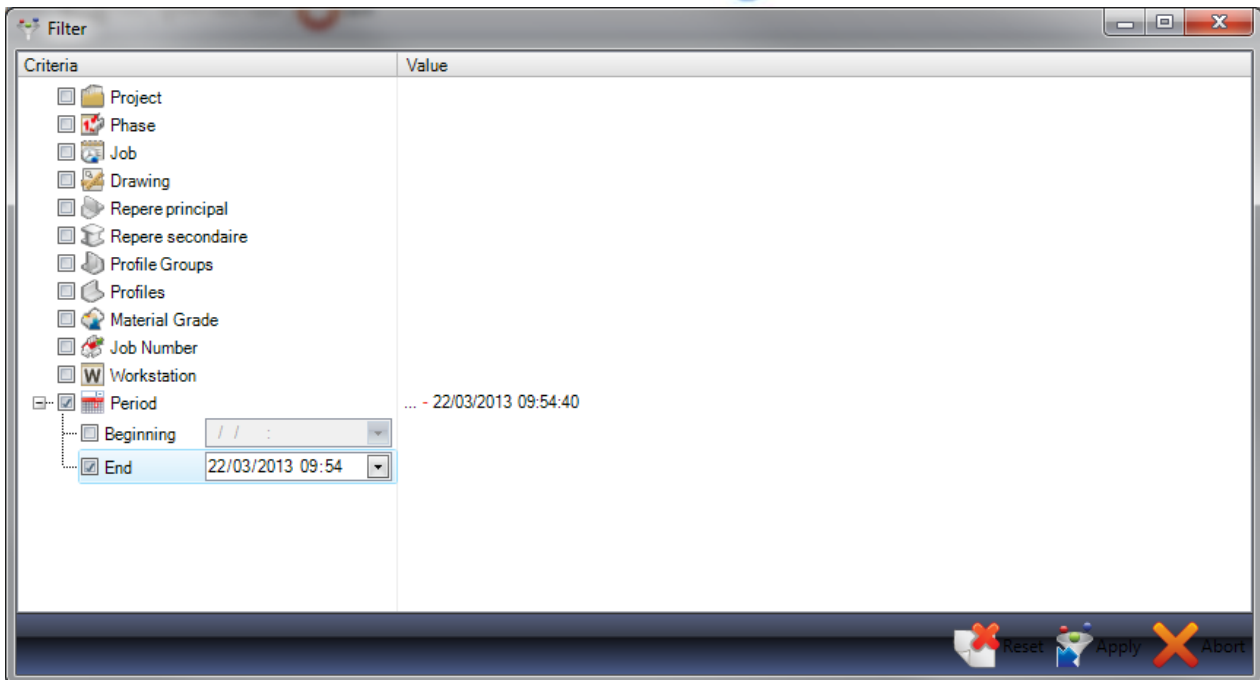
Some reports are available to run from the Utilities menu

The default reports lists the profiles you have in your profile database, but you can also load extra reports in using the [report manager](#)

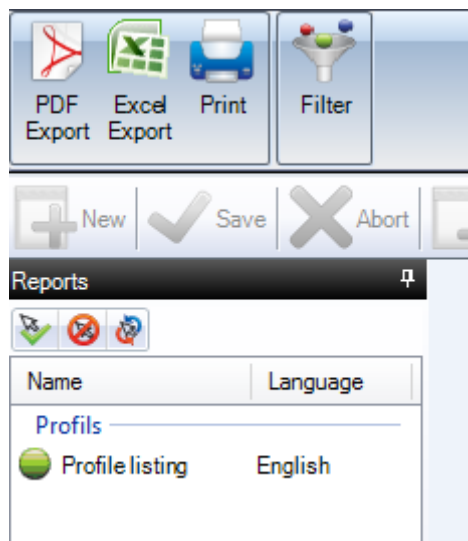
To preview the report double click on a report name and it will show on the right side



To filter the information shown on the report, press  and set the required filters by project, profile, or date for example



To print the report to either a printer, excel file or pdf, click on the red circle next to the report name to turn it green. this will activate the corresponding options on the top toolbar

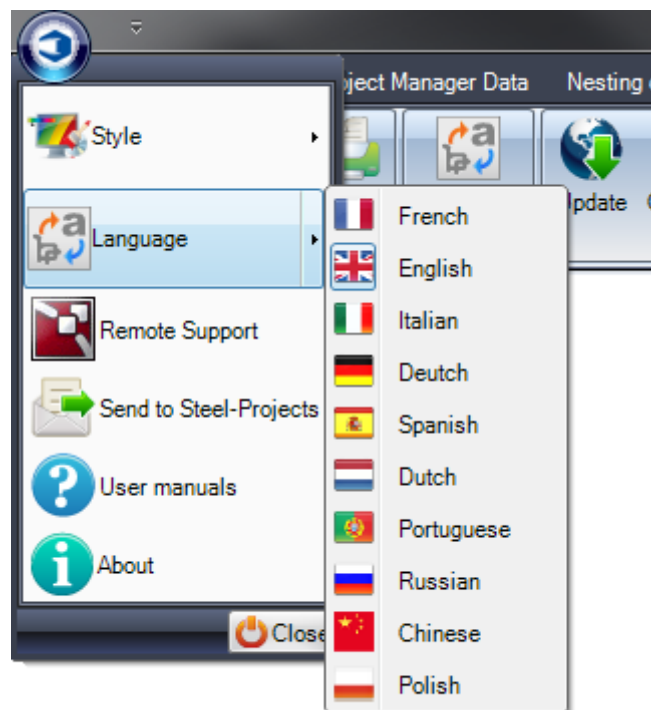


Translator



SP.PLM contains a comprehensive translation tool, which can be used to modify the menu, icon, option names, and wording as required

To set or check the default language, click the top ribbon toolbar menu and look at the language option

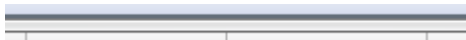


In the translation menu, is the translation guide the software uses to translate the software.

Steel Projects PLM - Translator											
Project	Data	Project Manager Data	Nesting data	Fabrication Job data	Feedback data	Shipping data	Scheduling data	Configuration	Utilities	Tools	Translator
Export											
New Save Abort Delete Print Next Input Quit											
CLE	French	English	Italian	Deutsch	Spanish	Portuguese	Russian	Chinese	Polish	Dutch	ANGLAIS_US
-	-	-	-	-	-	-	-	-	-	-	-
%	%	%	%	%	%	%	%	%	%	%	%
% ACHEVE	% Achievé	% Cleared	% Terminato	% Abgeschlossen	% Acabado	% Acabado	% Завершено	% 清除	% Wyczyszczone	% Acheve	%
% EFFECTUE	% Effectué	% Operated	% Eseguito	% Ausgeführt	% Realizado	% Efetuado	% Исполнено	% 操作	% Obsługiwane	% Verwerkt	%
% POIDS	% Poids	% Weight	% Peso	% Gewicht	% Peso	% Peso	% Вес	% 重量	% Waga	% Gewicht	%
% TPS	% Tps	% Time	% Tempo	% Zeit	% Tiempo	% Tempo	% Время	% 时间	% Czas	% Tijd	%
%D PIECE(S)	%d Pièce(s)	%d Piece(s)	%d Pezzo(i)	%d Stück(e)	%d Pieza(s)	%d peça(s)	% Изделия(i)	% 件数(s)	%d Część (i)	%d Stuk(s)	%
(AUTRES)	(Autres)	(Others)	Altri/e	(AUTRES)	(OtroS)	(Otras)	(Другие)	(其它)	(Inne)	(AUTRES)	(AUTRES)
(INDEFINI)	(Indéfini)	(Unspecified)	(non definito)	(INDEFINI)	(INDEFINIDO)	(INDEFINIDO)	(Неопределенн...	(未指定)	(Niewyspecyfiko...	(INDEFINI)	(INDEFINI)
(KG)	(kg)	(kg)	(kg)	(kg)	(kg)	(kg)	(кг)	(公斤)	(kg)	(kg)	(KG)
(KG/M²)	(kg/m²)	(kg/m²)	(kg/m²)	(kg/m²)	(kg/m²)	(kg/m²)	(кг/м²)	(公斤/平方米)	(kg/m²)	(kg/m²)	(KG_e/
(KG/ML)	(kg/ml)	(kg/ml)	(kg/ml)	(kg/ml)	(kg/ml)	(kg/ml)	(кг/мл)	(公斤/毫升)	(kg/ml)	(kg/ml)	(KG_e/
(M)	(m)	(m)	(m)	(m)	(m)	(m)	(м)	(米)	(m)	(m)	(M)
(M²)	(m²)	(m²)	(m²)	(m²)	(m²)	(m²)	(м²)	(平方米)	(m²)	(m²)	(M²)
(M²/M²)	(m²/m²)	(m²/m²)	(m²/m²)	(m²/m²)	(m²/m²)	(m²/m²)	(м²/м²)	(平方米/平方米)	(m²/m²)	(m²/m²)	(M²/es/
(M²/ML)	(m²/ml)	(m²/ml)	(m²/ml)	(m²/ml)	(m²/ml)	(m²/ml)	(м²/мл)	(平方米/毫升)	(m²/ml)	(m²/ml)	(M²/es/
(MM²)	(mm²)	(mm²)	(mm²)	(mm²)	(mm²)	(mm²)	(мм²)	(平方毫米)	(mm²)	(mm²)	(MM²)
(SC)	(SC)	(SC)	(SC)	(SC)	(SC)	(SC)	(SC)	(SC)	(SC)	(SC)	(SC)
(SL)	(SL)	(SL)	(SL)	(SL)	(SL)	(SL)	(SL)	(SL)	(SL)	(SL)	(SL)
(SP)	(SP)	(SP)	(SP)	(SP)	(SP)	(SP)	(SP)	(SP)	(SP)	(SP)	(SP)
(SRS)	(SRS)	(SRS)	(SRS)	(SRS)	(SRS)	(SRS)	(SRS)	(SRS)	(SRS)	(SRS)	(SRS)
(VIDE)	(Vide)	(Empty)	(Vuoto)	(LEER)	(Vacío)	(Vazio)	(Пустой)	(空)	(Pusty)	(VIDE)	(VIDE)
.

Click on the heading of the current language to organise the list alphabetically

To view the hidden toolbar, press



To set the search to use that column, right click on the heading name. you will see that column now has a magnifying glass next to it

English					
Case sensitive					
CLE	French	English	Italian	Deutsch	
DIRTY BRANCH...	-	-	-	-	
-	-	-	-	-	
TRI "TEXT+NUM"	Tri "Text+Num"	"Text&Num" Sorti...	Classificazione "	Sortierung"Text+..	
BARRB%	%	%	%	%	
%	%	%	%	%	
POI	%	%	%	%	
% ACHEVE	% Achievé	% Cleared	% Terminato	% Abgeschlossen	
% EFFECTUE	% Effectué	% Operated	% Eseguito	% Ausgeführt	

Type in the search bar the word or phrase you want to change the translation for.

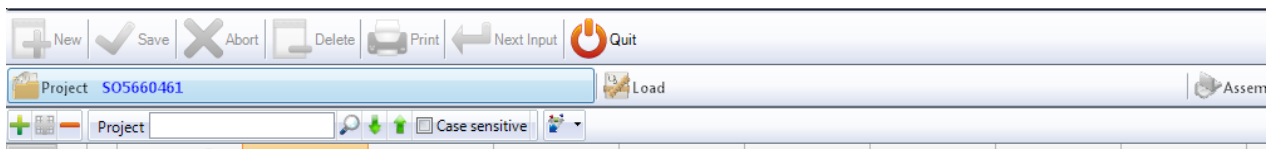
Press Enter or the search icon to scroll through the possible lines. All possibilities are highlighted in yellow

	English	drawing				<input type="checkbox"/> Case sensitive	3 elements
	CLE	French	English		Italian	Deutsch	
	DESSINATEUR	Dessinateur	Drawer		Disegnatore	Zeichner	
	PLAN	Plan	Drawing		Disegno	Zeichnung	
	DWG_NAM	Plan	Drawing		Disegno	Zeichnung	
	DRAWING	DRAWING	DRAWING		Disegno	DRAWING	
	PI AN %S DANS	Plan %s dans MF	Drawing %s in Fa		Disegno %s in M	Plan %s da	

To modify the word, press the icon to edit the grid. this then allows you to change the word and then save to commit the change

	New		Save		Abort		Delete		Print	
	English	drawing				<input type="checkbox"/> Case				
	CLE	French	English		Italia					
	DESSINATEUR	Dessinateur	Drawer		Diseg					
	PLAN	Plan	LOAD		Diseg					
	DWG_NAM	Plan	Drawing		Diseg					
	DRAWING	DRAWING	DRAWING		Diseg					
	PI AN %S DANS	Plan %s dans MF	Drawing %s in Fa		Disegno %s in M	Plan %s da				

The translation in the software will now reflect your changes instead of the default



Update



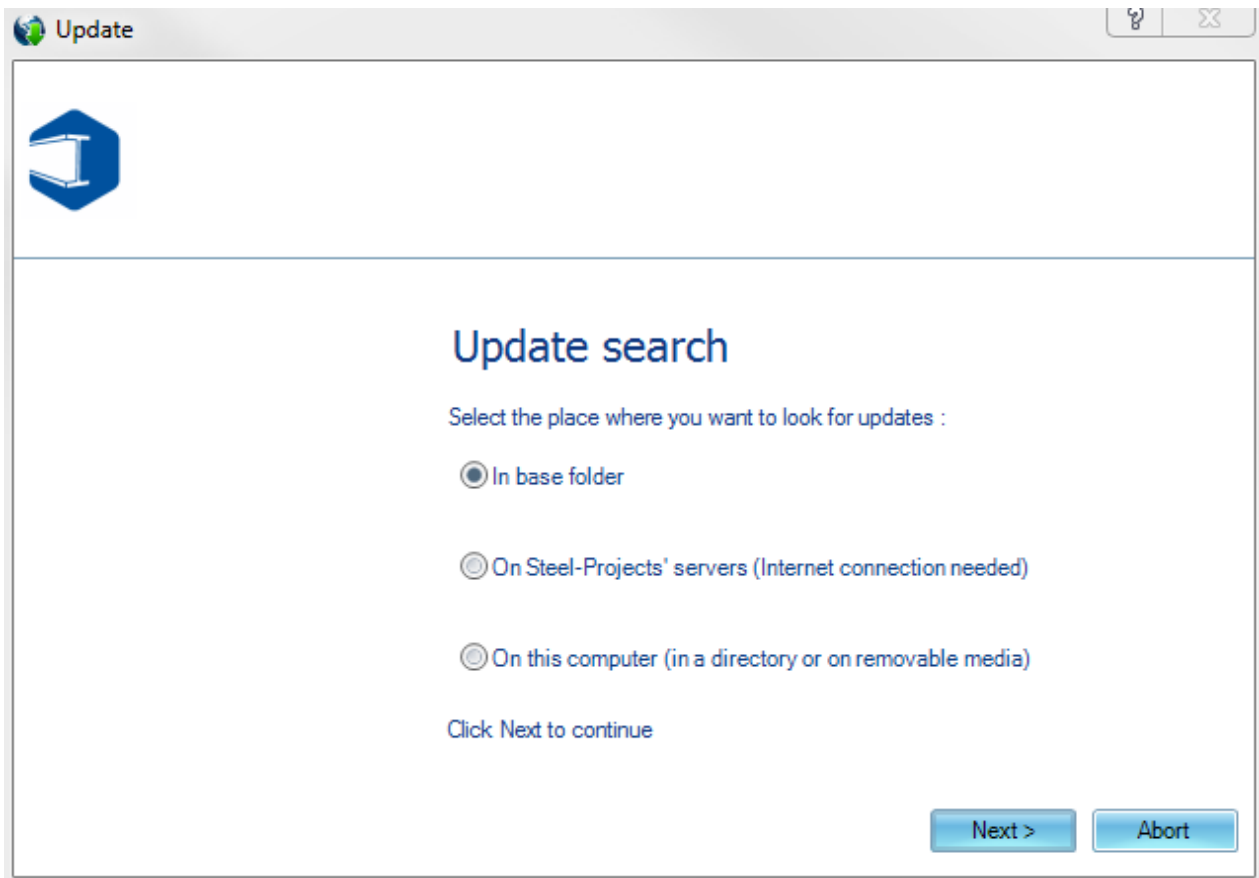
SP.PLM can be automatically updated so long as you have a warranty period or active maintenance contract.

The database will first need to be updated and then once this is done the client programs will automatically recognise they need to be updated on program opening.

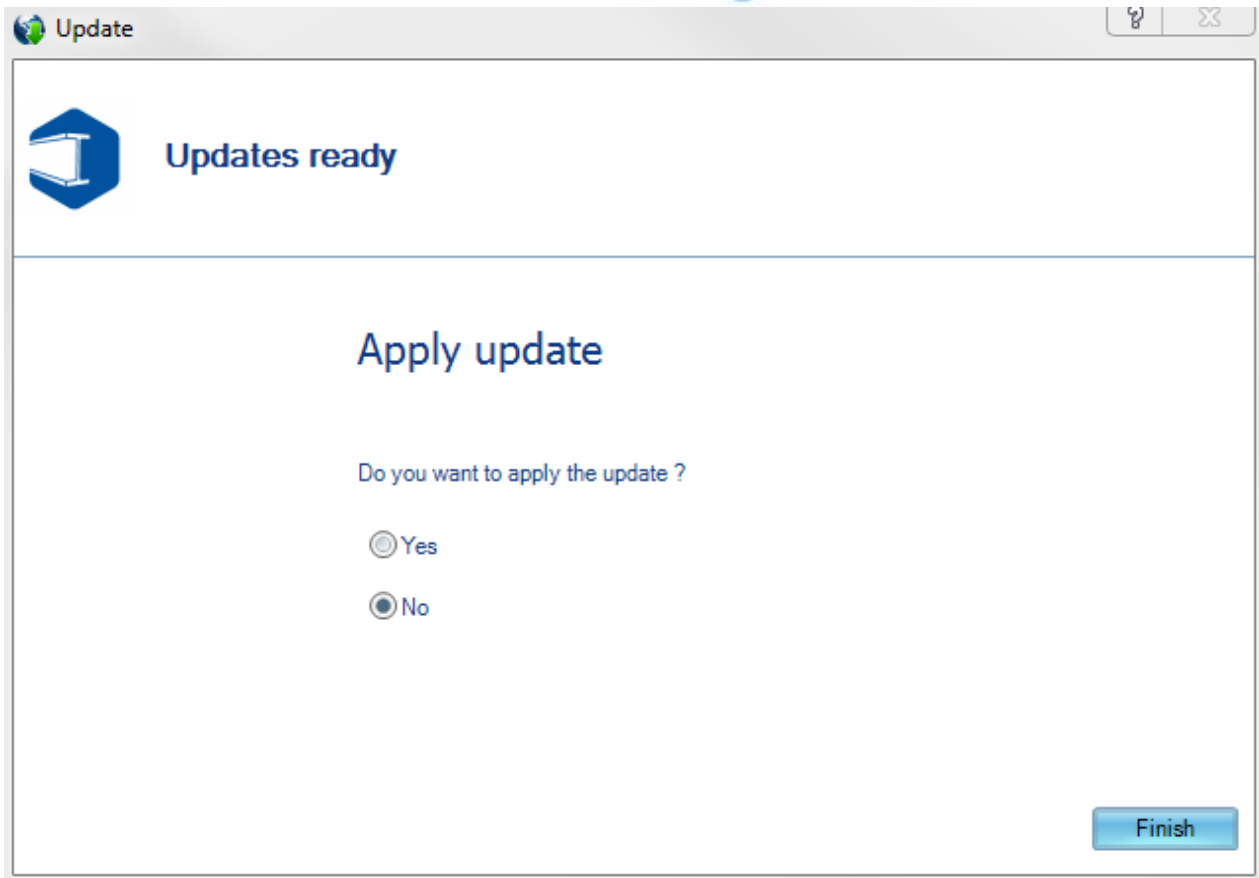
There are three possible options for updating the database

In Base Folder: If you have already downloaded the file from SP servers and not applied it yet, choose this option. There needs to be a valid folder and update.exe file in the base\update\ folder

On Steel Projects Servers - This method of update will attempt to connect to the SP servers to download the latest version over the internet.



If an update is available it will tell you the version that is available and allow you to download. Once the file is downloaded, it will ask you if you want to apply the update now and automatically update the database.



On This Computer: If you are provided with a copy of the update on a disc, you can use this option to browse to the update.exe file

If you have a valid maintenance contract but the option to download the latest version is not available, please contact SP Support and you will be provided with a valid support file.

Customer FTP

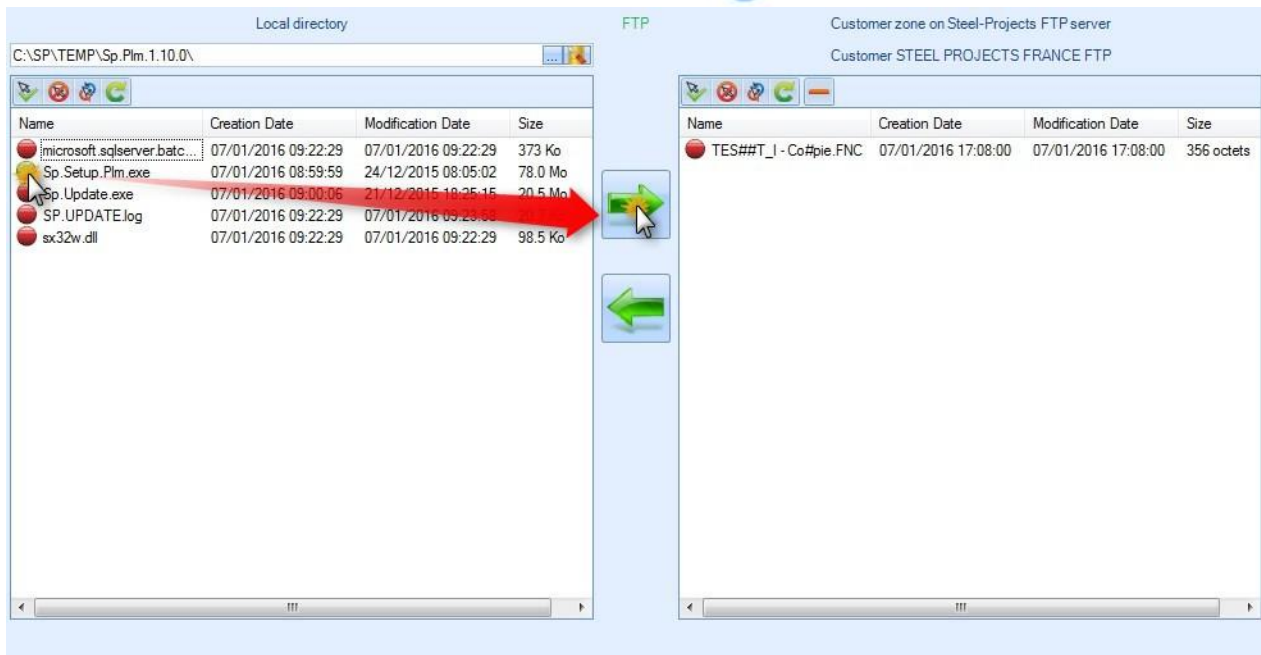



The customer FTP is a useful tool for you to be able to upload or download files to or from your private folder on the Steel Projects FTP server

the left window allows you to browse to a folder on your computer and view the files. the window on the right shows the files in your FTP folder

To upload a file to the FTP folder, browse to the correct location and click on the red circle to turn it to green.

Then press  to upload

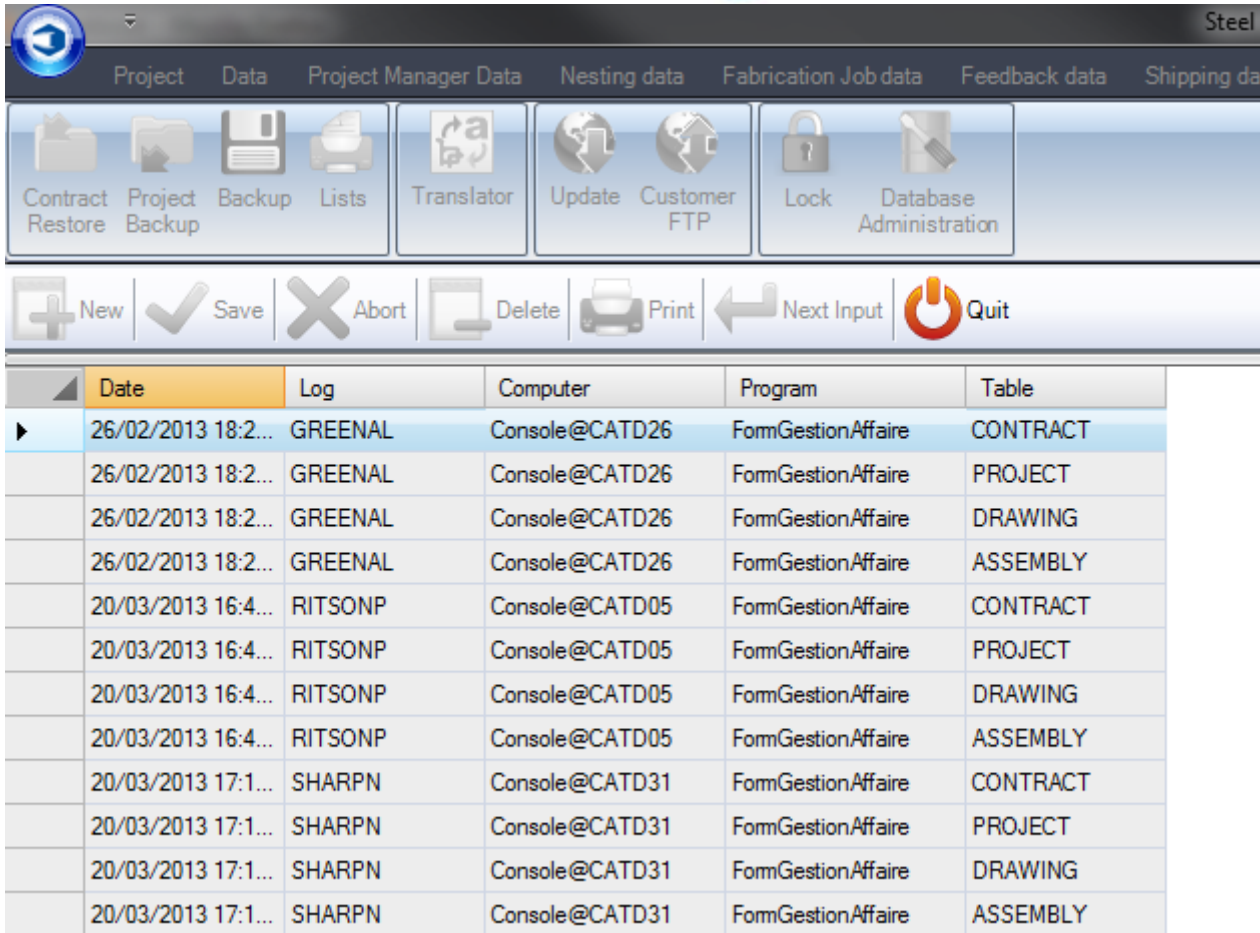


To download an available file, select a folder on your pc to download it to, press the circle on the right to change it to green and press 

Lock



The lock screen shows a list of locked database files



The interface shows a menu bar with options: Project, Data, Project Manager Data, Nesting data, Fabrication Job data, Feedback data, Shipping data. The toolbar includes icons for Contract Restore, Project Backup, Backup, Lists, Translator, Update, Customer FTP, Lock, and Database Administration. Below the toolbar is a row of buttons: New, Save, Abort, Delete, Print, Next Input, and Quit.

	Date	Log	Computer	Program	Table
▶	26/02/2013 18:2...	GREENAL	Console@CATD26	FormGestionAffaire	CONTRACT
	26/02/2013 18:2...	GREENAL	Console@CATD26	FormGestionAffaire	PROJECT
	26/02/2013 18:2...	GREENAL	Console@CATD26	FormGestionAffaire	DRAWING
	26/02/2013 18:2...	GREENAL	Console@CATD26	FormGestionAffaire	ASSEMBLY
	20/03/2013 16:4...	RITSONP	Console@CATD05	FormGestionAffaire	CONTRACT
	20/03/2013 16:4...	RITSONP	Console@CATD05	FormGestionAffaire	PROJECT
	20/03/2013 16:4...	RITSONP	Console@CATD05	FormGestionAffaire	DRAWING
	20/03/2013 16:4...	RITSONP	Console@CATD05	FormGestionAffaire	ASSEMBLY
	20/03/2013 17:1...	SHARPN	Console@CATD31	FormGestionAffaire	CONTRACT
	20/03/2013 17:1...	SHARPN	Console@CATD31	FormGestionAffaire	PROJECT
	20/03/2013 17:1...	SHARPN	Console@CATD31	FormGestionAffaire	DRAWING
	20/03/2013 17:1...	SHARPN	Console@CATD31	FormGestionAffaire	ASSEMBLY

Database Administration



The interface shows a toolbar with icons for Contract Restore, Project Backup, Backup, Lists, Translator, Update, Customer FTP, Lock, Database Administration (highlighted), Services management, Source data import, and Check Data Integrity.

Tools for database administration and maintenance

Information

Information Administration

Reports: Express

Version: SQL Server 2014 RTM

Server: PORT-OM\SERVPLM

Database:

Database Size: 150.00 MB 2%

Type	Drive	Size	Free_Disk_Space
Data	C:\	100.00 Mb	67906 Mb
Log	C:\	50.00 Mb	67906 Mb

Database Statistics not up to date 182 Day(s)

Size of temporary table 5424 KB

The main informations, such as version, size of database are displayed here.

Administration

Information Administration

Maintenance

Update indexes

Delete temporary table

Shrink database

Shrink log file

File stream

● FileStream Option enabled

Activate

Module

Update used modules

- ATOM Import
- DXF Import
- PCS Import
- SPD Import**
- STRUCAD import
- Production Viewer
- Production Scheduling

Maintenance

If the maintenance plan service is stopped, it can't perform all the necessary operation to avoid the database size to blow up.

In this case, you can manually update the indexes, delete the temporary tables and shrink the databases and log file to save disk space.

This operation has to be done preferably by a Steel Project expert.

Filestream

This must always be activated. If not, click on "activate".

Module

After an update of the licence file, an addition of new modules, it's mandatory to press "Update Used Modules".

Services Management



Local

Management of the services installed on the server.

⚠ Each service, if needed, must be installed only once, preferably on the server ⚠

Local service applications management									
			Name	Installation			Statup mode	Startup	
				IP Address	Port number	(Un)Install		Log	Running
1	2	3	4	5	6	7	8	9	10
			Sp.Refresh3D		-1	Uninstall	Automatic	<input type="checkbox"/>	OFF
			Sp.Feedback		-1	Uninstall	Disabled	<input type="checkbox"/>	OFF
			Sp.ArcManager		-1	Uninstall	Disabled	<input type="checkbox"/>	OFF
			Sp.MaintenancePlan		-1	Install		<input type="checkbox"/>	OFF

- 1 Activity indicator. Visible if a management operation is in progress.
- 2 Specifies whether the executable service file is present on disk.
- 3 Indicates whether the service is registered in Windows, and if the latter can run it.
- 4 Name of the executable file
- 5 When there are more than one network card interface on the server, indicate the IP address used.
Must be set-up before installing the service
- 6 Defines the port used by the service. Must be set-up before installation.
If -1, the port 8001 will be used
- 7 Install / Uninstall
If the service is in use, it can't be uninstalled.
- 8 Once the service installed, defines the startup mode.
- 9 For an installed service, not started, allows to activate a log file to trace the execution.
- 10 If the service is installed, allow to start or stop it.

General

Set-up of the services (parameters, recurrence, etc.)
This has to be done by a Steel Projects Expert.

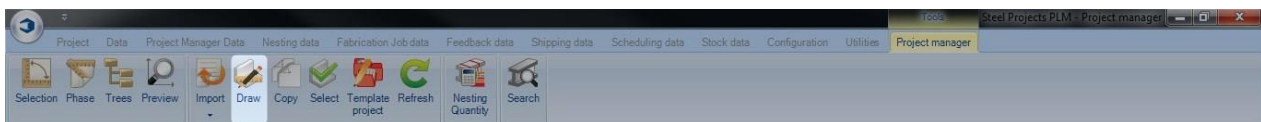
Source Data Import



Check Data Integrity



Drawing module



Open the drawing module to modify or create a part (Click the icon , double click in the drawing preview, Ctrl+D)

The drawing module in Steel Project PLM Project Manager allows the user to create and/or edit the parts that are required to be processed in the workshop.

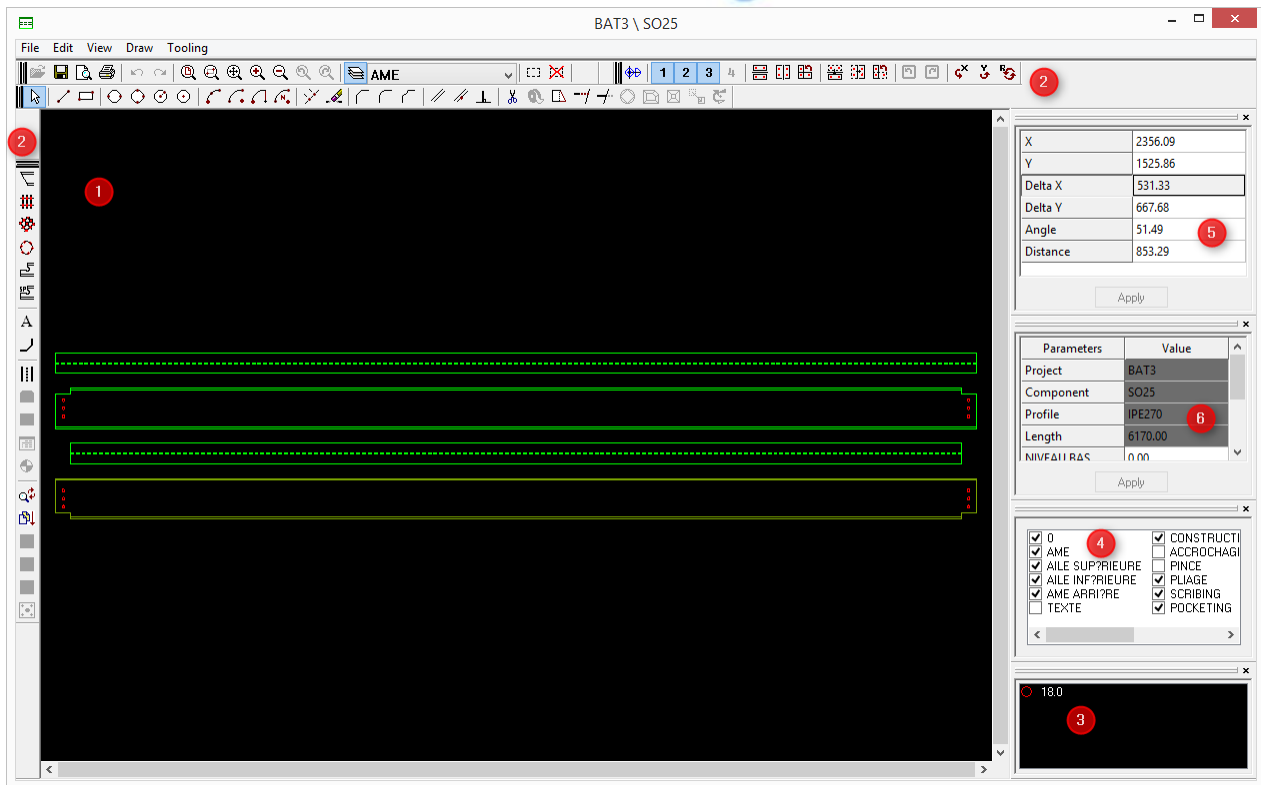
Drawing layout

The main window is divided into 6 areas.

These windows can be arranged as the user desires. This is done by dragging and dropping the box to the preferred location.

In order to zoom in and out, just use the mouse wheel. Press and hold the mouse wheel to move the part that is selected.

- 1 Drawing window.
- 2 Toolbars.
- 3 Legend box
- 4 Layers box.
- 5 Parameters box.
- 6 Informations box.









Toolbars

For each function, it is shown if it can be used either for profiles plates or .

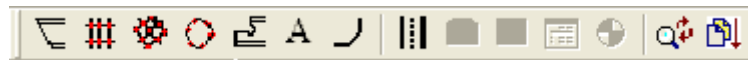
File



























Icon	Profiles	Plate s	Description
	✓	✓	Open a part from the part list
	✓	✓	Save the current part
	✓	✓	Print preview
	✓	✓	Print the workshop document
	✓	✓	Undo / Redo You can undo / redo as many times as you want
	✓	✓	Zoom all Best zoom to display the entire part
	✓	✓	Zoom Window
	✓	✓	Move You can also move the part by clicking the mouse wheel.
	✓	✓	Zoom In / Out Can be done with the mouse wheel.

			Display / Hide layers box
			Select active layer












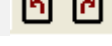

Toolings



Icon	Prf	Pl.	Description
			Mitre cut
			Drilling input
			Inclined drilling input
			Circular drilling input
			Coping input
			Stamping/Marking input
			Bending lines input
			Lead-Cut direction changing
			Lead-Cut sequence changing





























































Copy



Icon	Prf	Pl.	Description
			Switching from American to European view
			Select the sides affected by a symmetry
			Copy holes using a symmetry
			Move holes using a symmetry
			Converts a beam/column with a mitre cut in the flanges into a RHS profile.

Drawing



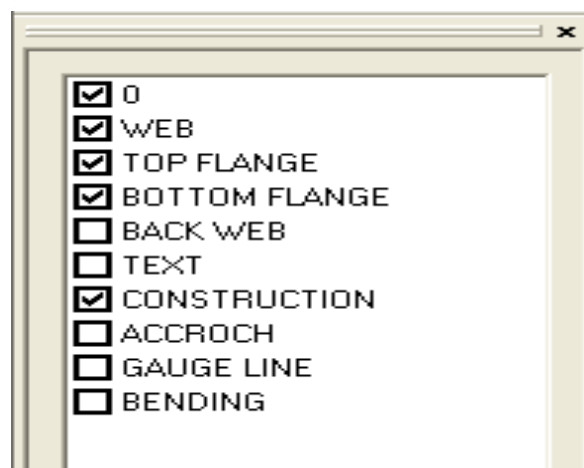
Icon	Prf	Pl.	Description
			Selection
			Line
			Rectangle
			Circle with 2 points
			Circle with 3 points
			Circle with center and radius
			Circle with center and pre-defined diameter
			Arc 3 points
			Arc center and 2 points
			Arc with 2 points (begin, end) and radius
			Arc with center, start and radius
			Measure
			Eraser
			Straight notch
			Round notch (Convex)
			Round notch (Concave)
			Offset (draw a line to a pre-defined distance)
			Parallel (draw a parallel line to the selected line)
			Cut (a segment)
			Closes the non closed contours
			Extend lines
			Trim lines
			Polygonize circles
			Resize a contour
			Homothetic
			Translation
			Rotation

Legend box



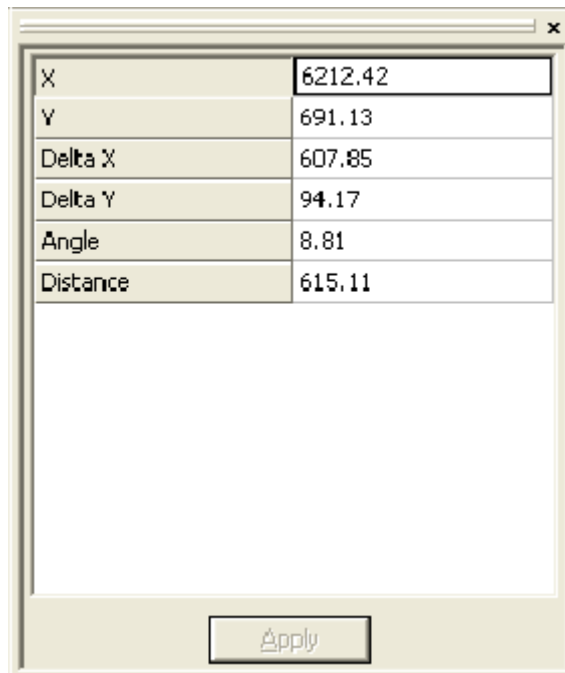
Indicates the legend for the holes (diameter and properties).
The colours are not fixed by diameter from a part to another.
The smaller diameter is red, then yellow, and so on.

Layers



It is possible display or hide any layer by checking the corresponding checkbox.

Information



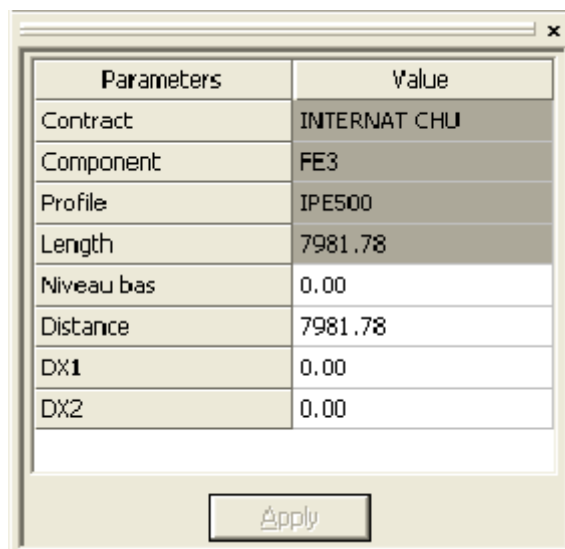
A dialog box titled 'Information' with a close button (x) in the top right corner. It contains a table with the following data:

X	6212.42
Y	691.13
Delta X	607.85
Delta Y	94.17
Angle	8.81
Distance	615.11

Below the table is a large empty rectangular area. At the bottom center is an 'Apply' button.

This box shows the various data such as coordinates, distance, etc.

Parameters



A dialog box titled 'Parameters' with a close button (x) in the top right corner. It contains a table with the following data:

Parameters	Value
Contract	INTERNAT CHU
Component	FE3
Profile	IPE500
Length	7981.78
Niveau bas	0.00
Distance	7981.78
DX1	0.00
DX2	0.00

Below the table is a large empty rectangular area. At the bottom center is an 'Apply' button.


Displays the options needed for some tools

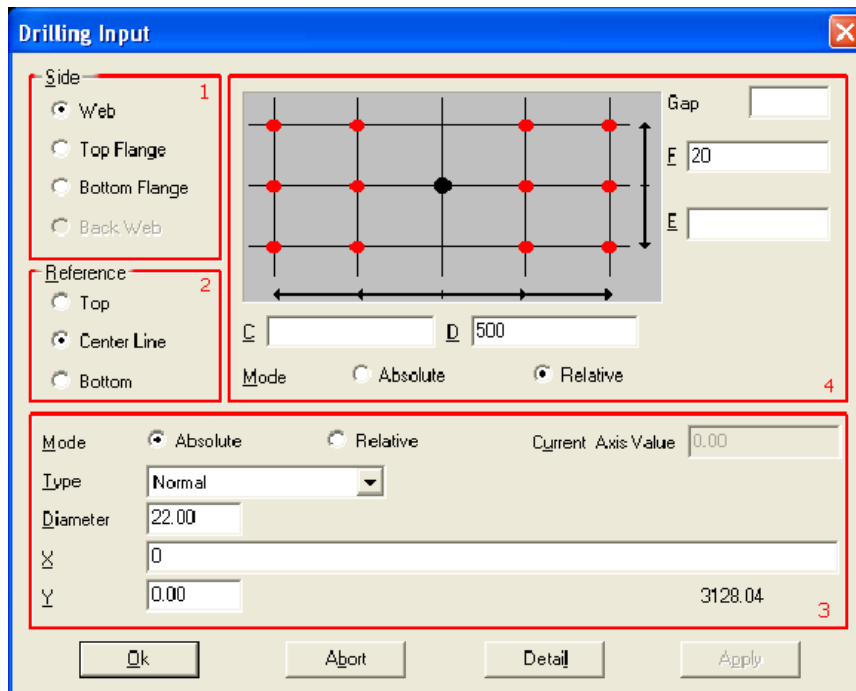
Getting started with the drawing module

General use

Except in some cases as shown below, when a tool is selected all the parameters that require an input will appear in the *Properties* window. Then, in order to confirm the input, press the *Enter Key* twice or click on the *Apply* button.

Drilling

By selecting the drilling tool  (or pressing [F6]), this window will appear:



The **Drilling Input** dialog box is divided into several sections:

- Side (1):** Contains radio buttons for *Web* (selected), *Top Flange*, *Bottom Flange*, and *Back Web*.
- Reference (2):** Contains radio buttons for *Top*, *Center Line* (selected), and *Bottom*.
- Diagram:** A grid showing the drilling pattern with a central black dot and red dots at the intersections. Dimensions *C* and *D* are indicated with arrows.
- Gap:** Input fields for *E* (value 20) and *E* (empty).
- Mode:** Radio buttons for *Absolute* and *Relative* (selected).
- Mode (bottom):** Radio buttons for *Absolute* (selected) and *Relative*.
- Type:** A dropdown menu set to *Normal*.
- Diameter:** Input field with value 22.00.
- X:** Input field with value 0.
- Y:** Input field with value 0.00. A value of 3128.04 is displayed to the right.
- Buttons:** *Ok*, *Abort*, *Detail*, and *Apply*.

In SPPLM, the perforations are inserted as a matrix of holes: a complete pattern of holes can be inserted at once.

In the first area (*Side*), select the side that requires holes to be drilled (if the profile is a plate, the side is automatically set as *Web*). Then, in the second area (*Reference*), select the desired reference for the drilling matrix. The reference is the vertical reference (Y axis) of the origin in the drilling matrix. If *Top* is selected, then the origin is placed at the top and the Y coordinates of the holes will be placed in a downward direction. If *Centre Line* is selected, holes can be placed above or below the origin. Finally if *Bottom* is selected, Y coordinates of the holes will be placed above the origin.

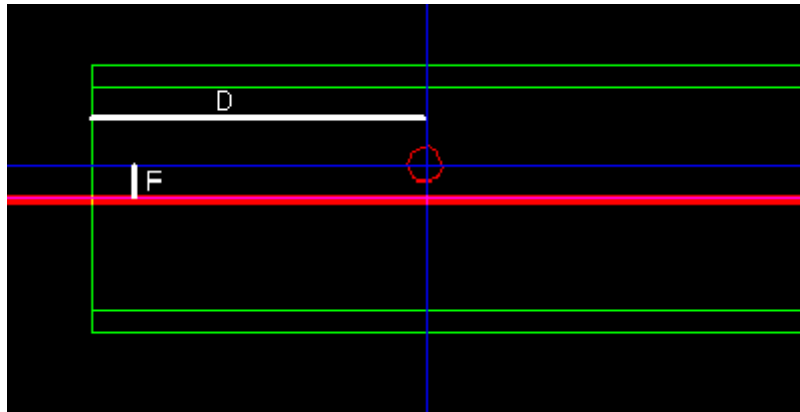
After selecting the Y reference, the hole parameters and placing the origin of the matrix is now defined. In the *Type* list, the type of hole to be created is specified here (drill, punch, slot, countersink, etc.). If *Normal* is selected, WinCN / WinNEST will select the appropriate way to make the hole, regarding their parameters. If *Drill* is selected, WinCN / WinNEST will automatically drill the hole even if this hole should have been punched (ex. TIPOB).

When creating drilled or tapped holes it is possible to input a depth to create blind holes. The legend will display them as filled circles.

In the X and Y fields, the coordinates of the origin is inputted here. This is represented by the black point in the area above (4).

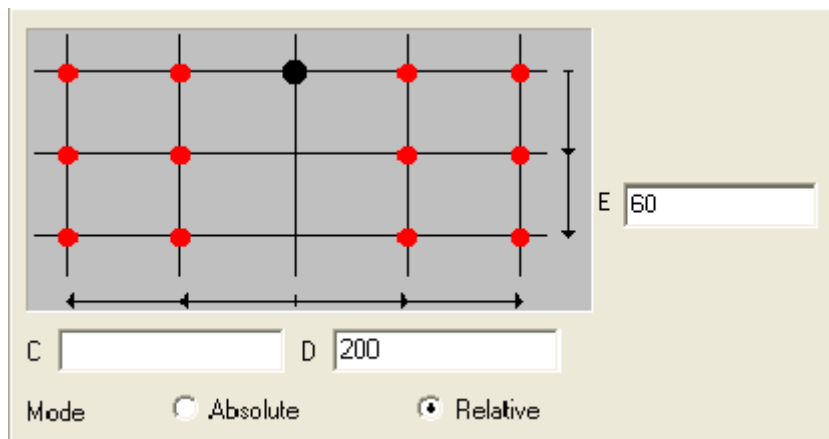
Now the coordinates of the holes are placed in the fields C, D, E and F; C and D represent the X axis and E and F stand for the Y axis.

In this example, here is the resulting hole;



The red line indicates the horizontal axis of the origin.

If the reference is changed to *Top* and the parameters are as below, the same result is obtained.

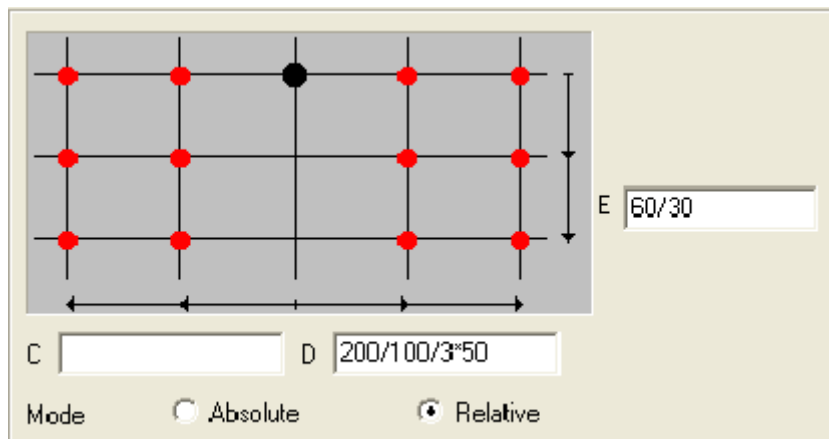


C D

Mode ☐ Absolute ☒ Relative

E

When absolute mode is selected, all coordinates are in reference to the origin. If relative mode is selected, coordinates are from the last inputted coordinate. This allows the user to input a series of holes at once.

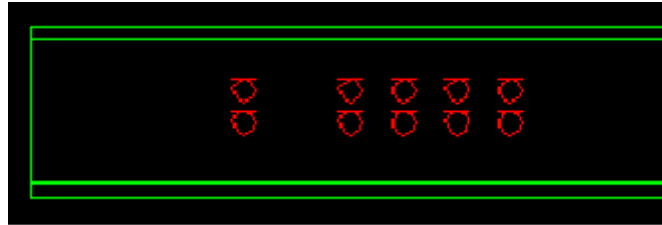


C D

Mode ☐ Absolute ☒ Relative

E

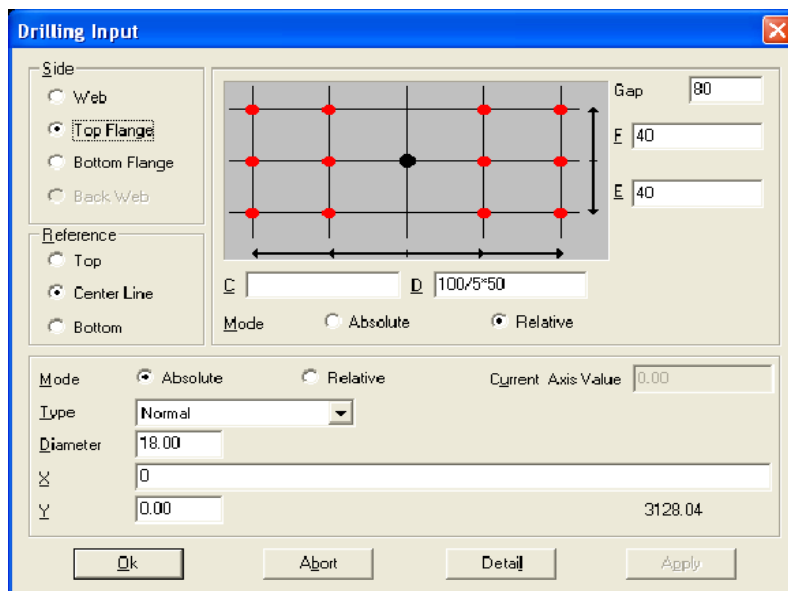
In this case, the resulting 10 holes will look like this;



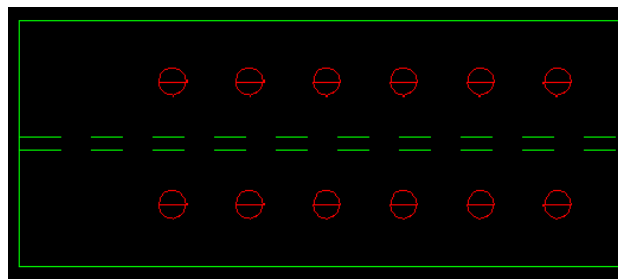
After creating a hole, the properties can be changed by right clicking on it and selecting properties, or by double clicking on it.

While editing the matrix for the holes, it is possible to select certain holes in the matrix to be removed. This is done by clicking on the *Detail* button. The following is an example.

Fill the Drill parameters as shown

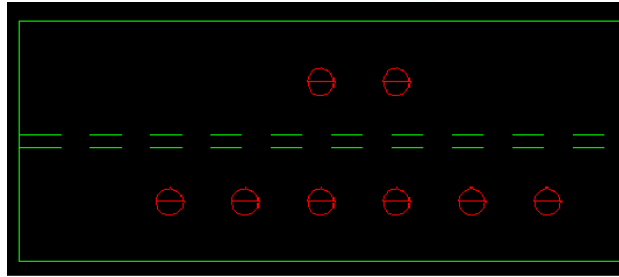


By clicking OK, the following pattern is obtained:




Double click on a hole to edit the properties of the group. Then click on the *Detail* button and uncheck the boxes representing the holes to be deleted.

After clicking OK, the following figure is the result;



Remark: Note that the pattern can be modified as many times as desired simply by opening the *Drilling Group Detail* window and changing the pattern.

Cutting - Profiles

Making a cut in SPPLM is very easy: select the cutting tool  (or press [F5]). Then, in the *parameters box*, fill the fields as required:

Parameters	Value
Web	
Beginning	30.00
End	0
Flange	
Beginning	0.00
End	0.00

Apply


In this case, there will be a cut in the Web, on the left hand side (*beginning*), with the angle of 30°. It is possible to do the same on the flanges.

To remove a cut in a profile, simply enter the value 0 in the corresponding field.

Cutting - Plates

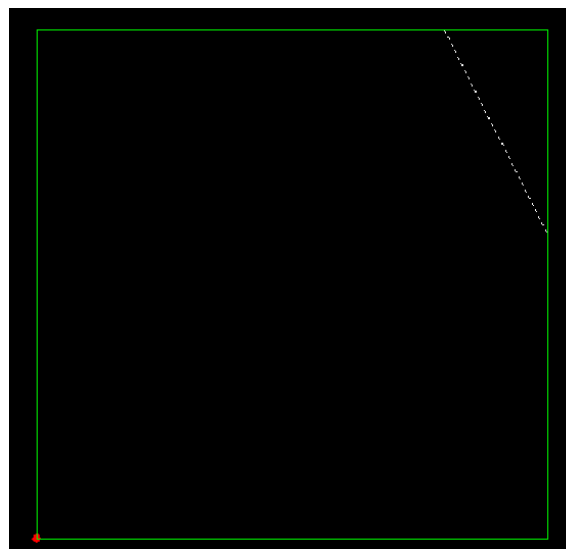
Cutting a plate is slightly different compared to a bar profile. The contours of the plates are modified instead of adding a cut/mitre. The tools required to do this are in the drawing toolbar.

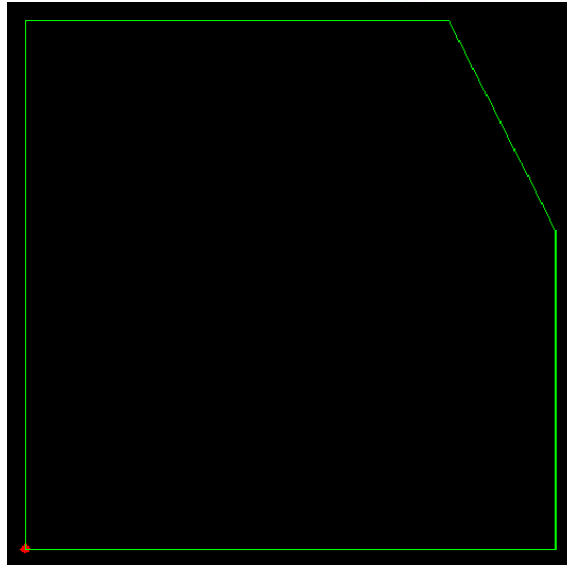
Notches

After having selected a notch tool,  fill the parameters in the parameter area (cut length, radius, etc.) and approach the mouse pointer to the angle to be modified. In the case of straight notches, the value *Cut1* corresponds to the closest line to the pointer.

Parameters	Value
Cut 1	100.00
Cut 2	200.00

Apply







Round and tangent notch tools work like the straight notch tool. The parameter to put is not a distance but a radius.

Construction lines

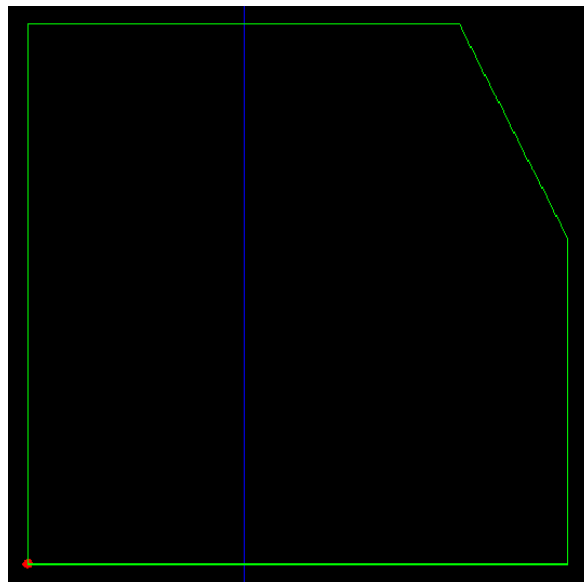
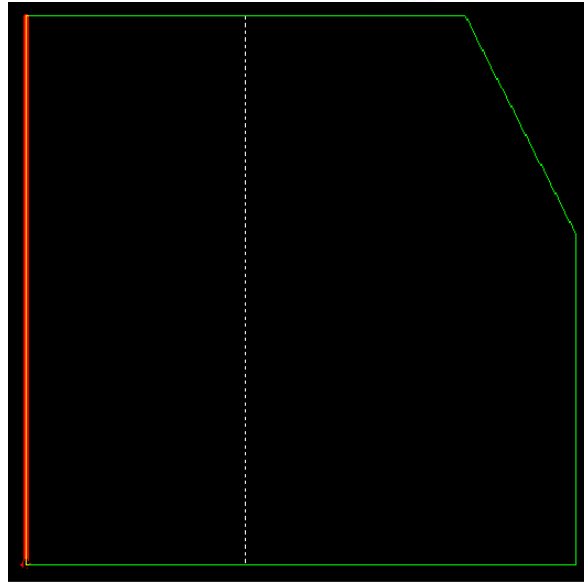
Construction lines are useful when figures are needed to be drawn in a plate. They allow for reference points to aid when drawing lines, circles, rectangles, etc.

Select the *parallel tool*,  check the *construction* box and click on the line to have a parallel line drawn. Then click to place the insertion point. This tool is useful if the user requires draw lines going through the middle or ends of existing lines.

To draw a construction line with an offset value from a reference line, select the *offset tool*,  insert the offset value and click on the reference line;

Parameters	Value
Distance	200
Construction	<input checked="" type="checkbox"/>

Apply



Note that construction lines will not appear on the workshop document. However it is possible to hide them either by deleting them or by inactivating the construction layer.

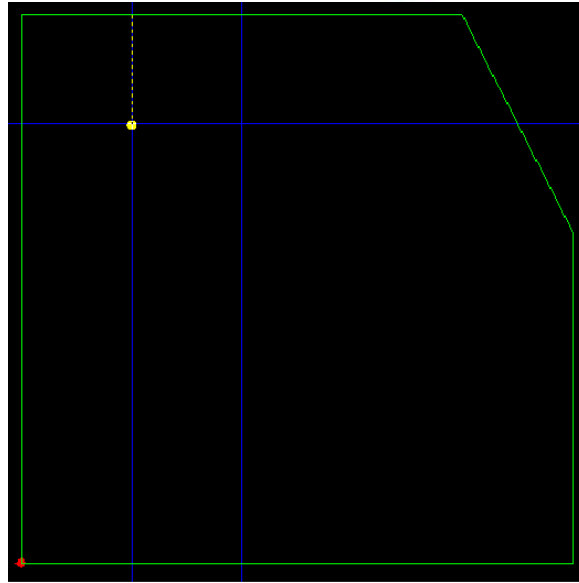
Modifying the contour

After having drawn some construction lines, the shape of the plate can be modified using one of the drawing tools (line, rectangle, etc.).

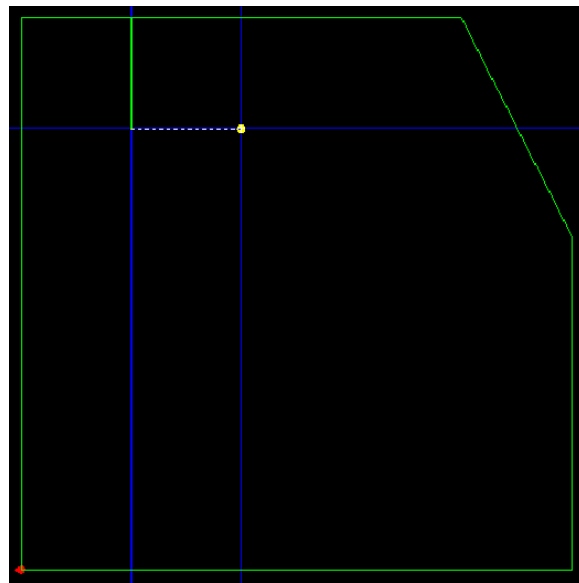
For this example, the line tool will be used.

Select the first intersection (note that the pointer locks automatically on intersections)

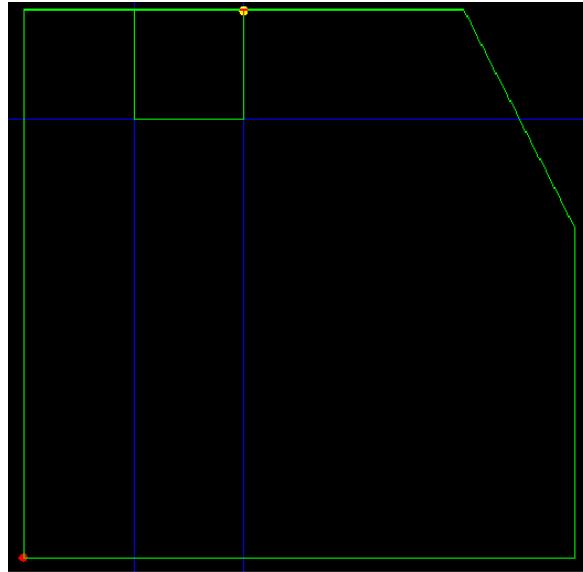
Click and select the second point you want the line to go through :




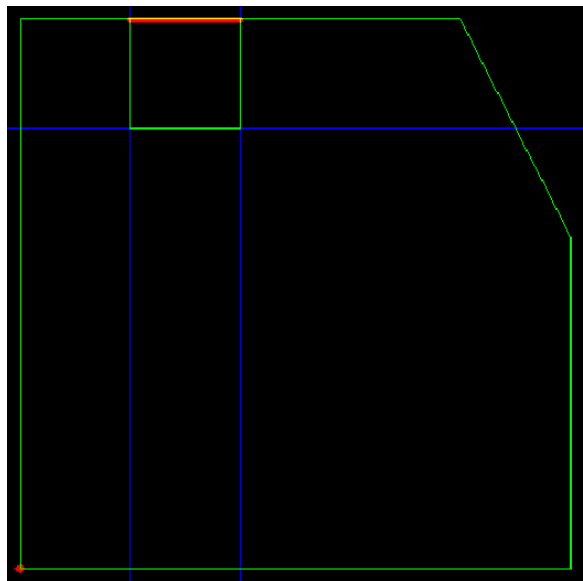
Click on the second point.

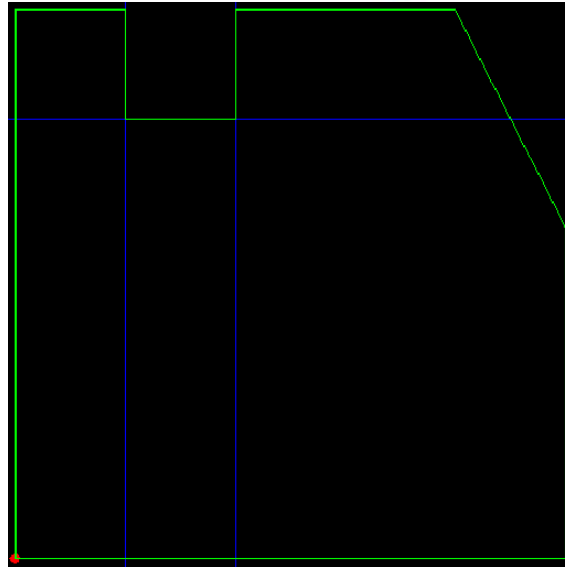


Do the same for the last point. When the last point is clicked, right click to finish.




To cut the segment between the first and the last point of the polyline, select the scissor tool  and click on the segment to delete it. When the pointer approaches the line, the segment will be highlighted to indicate which part of the line that will be removed:

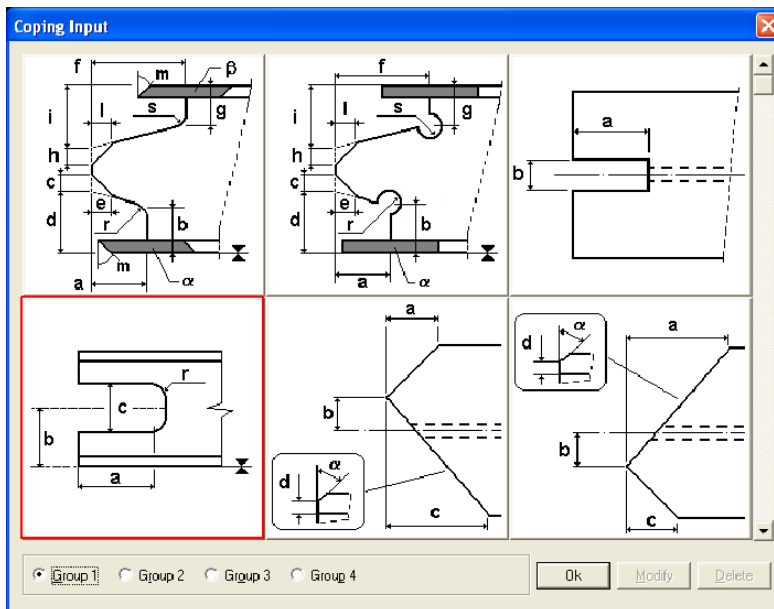




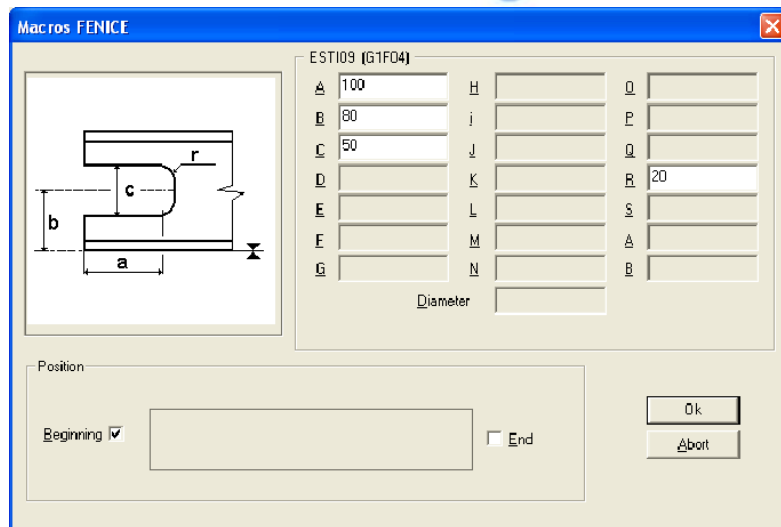
FICEP Macros

In order to program FICEP coping machines, SPPLM has a *macro* library. These macros can be used only for profiles (beams, channels, flats, etc.).

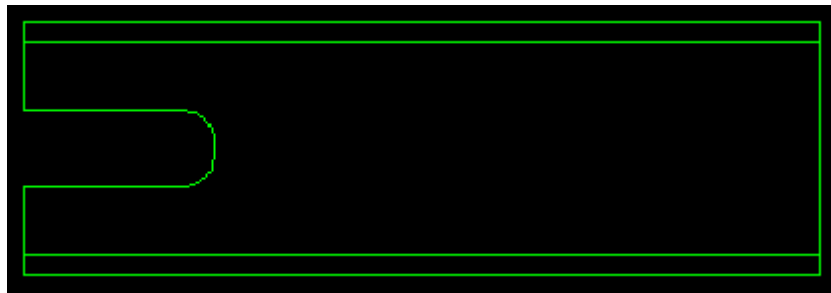
To add a coping to a profile, select the *macro tool*  (or press [F8]).
In the following window, select the macro that is desired.



When a macro is selected, the following window appears. The data must be entered to represent the correct cope. Each dimension on the figure is represented by a letter and each letter is reported in fields on the right hand side. If a field is left blank, it is considered to equal 0.



In this example, the cope is added on the left hand side of the beam (beginning).

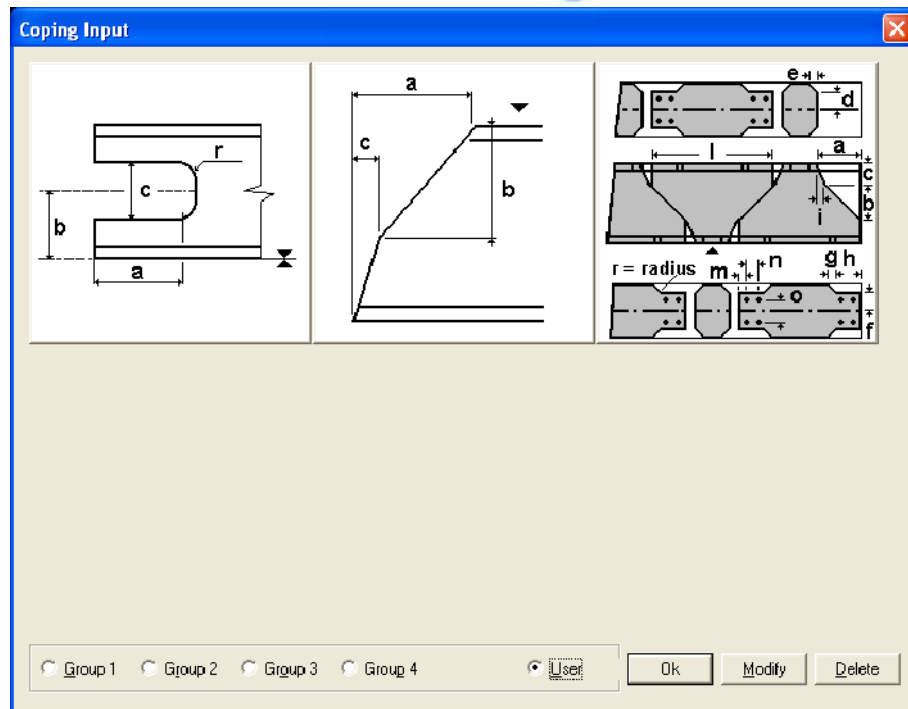


In order to modify the macros settings or delete it, select the macro tool to find the macro used and click on modify or delete.

It is possible to have the macros used most frequently separated in a user-defined library. This will make it easier to find the same macro in the future. To do so, select the "Macro User" item in the "File" menu.

Then, double click on the macro to be added in the user-defined library and click on OK when done.

Then when the macro tool is selected, there will be a group *User* that will display only the most frequently used macros as defined by the user.



Stamping

The mark number (or any text as desired) can be manually placed on a part. Simply select the stamp tool



(or press [F7]).

In the parameters box, the part name is automatically set by default. This can be changed or left as required. Then, click on the location on the part where the stamp should be placed.

Bending lines

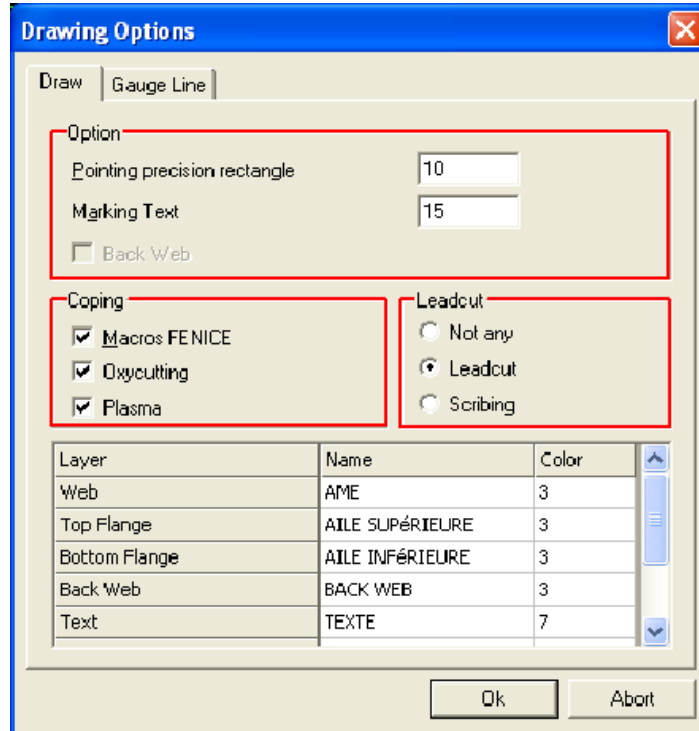
SPPLM allows the user to draw bending lines on the plates. They will appear on the workshop document. Bending lines are inserted as regular lines plus the value of the bending angle that is entered in the properties box.

Scribing lines

SPPLM also allows the user to draw lines to be scribed on plates or profiles using bending lines. The difference is that the angle parameter must be set to 0.

Drawing options

Menu File / Options



The **Drawing Options** dialog box has two tabs: **Draw** and **Gauge Line**. The **Draw** tab is active. It contains several sections:

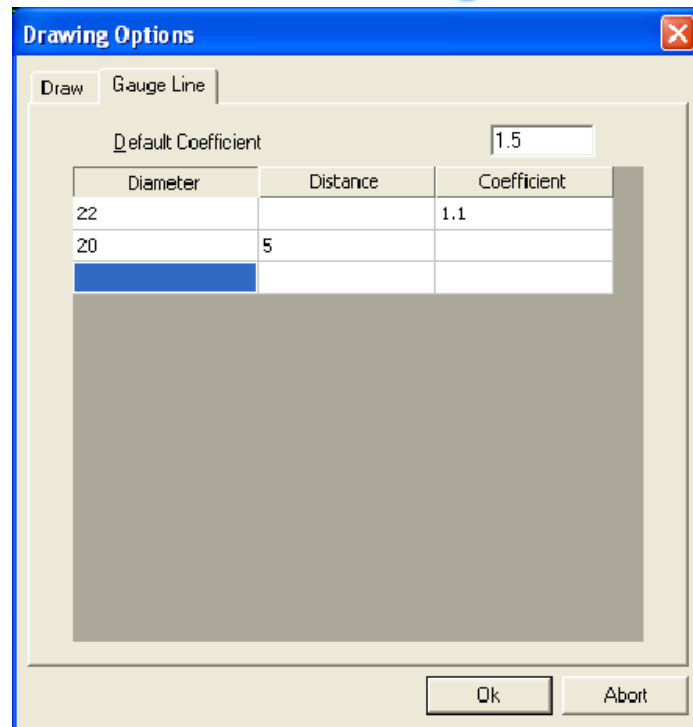
- Option** (highlighted with a red box):
 - Pointing precision rectangle**: A text box with the value **10**.
 - Marking Text**: A text box with the value **15**.
 - Back Web**: An unchecked checkbox.
- Coping** (highlighted with a red box):
 - Macros FENICE**: A checked checkbox.
 - Oxycutting**: A checked checkbox.
 - Plasma**: A checked checkbox.
- Leadcut** (highlighted with a red box):
 - Not any**: An unchecked radio button.
 - Leadcut**: A selected radio button.
 - Scribing**: An unchecked radio button.
- Layer Table**: A table with 3 columns: Layer, Name, and Color.

Layer	Name	Color
Web	AME	3
Top Flange	AILE SUPÉRIEURE	3
Bottom Flange	AILE INFÉRIEURE	3
Back Web	BACK WEB	3
Text	TEXTE	7

At the bottom are **Ok** and **Abort** buttons.

Item	Description
Pointing precision rectangle	This value allows defining the size of the selection rectangle during the selection of drawing elements. Default Value = 5.
Marking Text	Font size for stamping
Macros FENICE	Must be checked if using a FICEP Robot If the coping machine is a Ceptrol machine, uncheck this box.
Oxycutting / Plasma	Both Oxycutting and Plasma are checked by default. If the Robot doesn't have Plasma, uncheck the plasma checkbox. If it doesn't have an Oxycutting torch, uncheck the Oxycutting checkbox.
Lead Cut	If a macro is not recognized, SPPLM can generate Lead Cut commands, scribing lines. If <i>Not Any</i> is checked, nothing is done.

Remark: With a FICEP Coping Machine (Robot), it is possible to copy the file *minosse.ini* / *arianna.ini* (in D:\Minosse or D:\Arianna on the machine) into the *BASE* folder of SPPLM in order to set up the macros filter automatically.



Drawing Options

Draw Gauge Line

Default Coefficient: 1.5

Diameter	Distance	Coefficient
22		1.1
20	5	

Ok Abort

This data is used for the generation of shape outlines according to the size of each drilling axis. SPPLM proposes either a fixed distance relative to the size selected, or a coefficient to apply to the relevant size. Otherwise, the default coefficient will be applied.