

# Lattice Technology

## New Product Feature Highlights

June 2011 Product Release

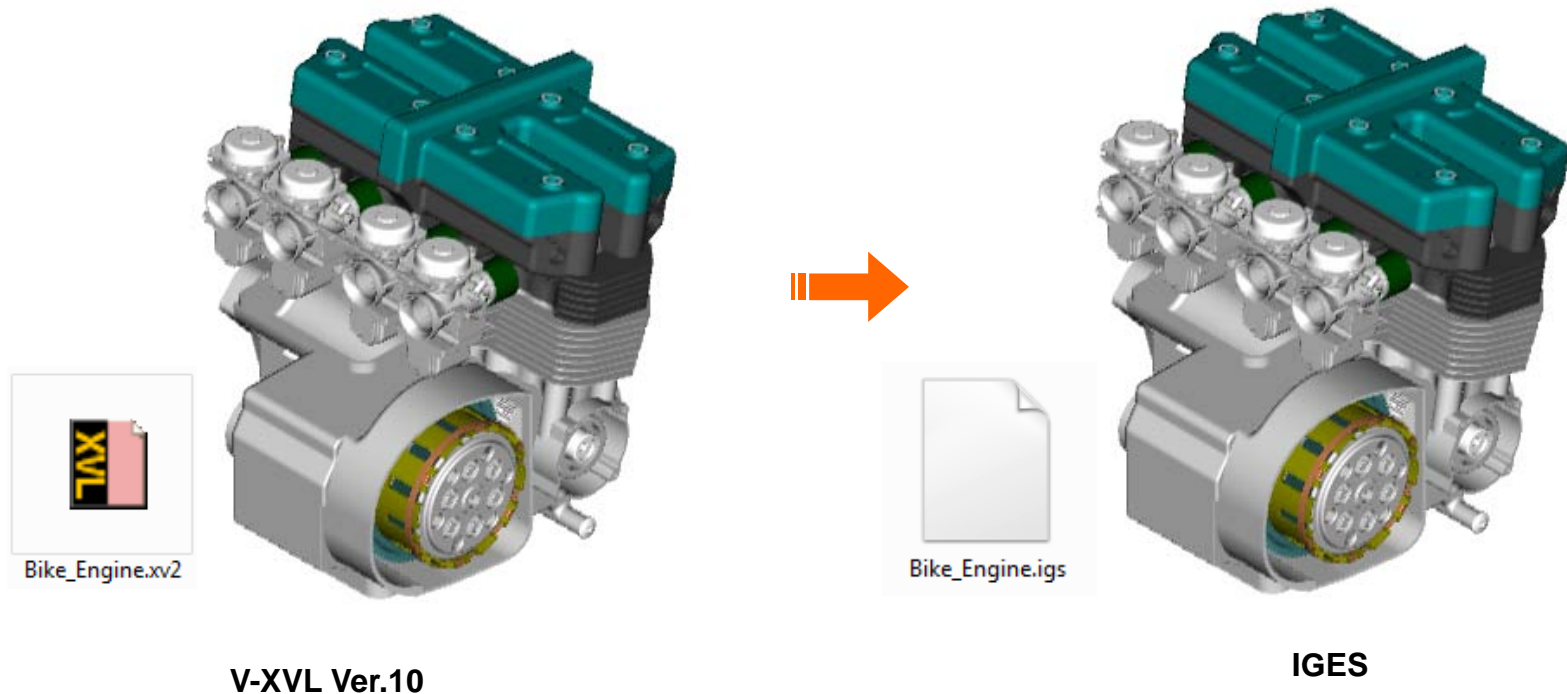
# XVL Studio Ver. 10.0a

# General Features

# [S-1] Exporting IGES from V-XVL Ver.10

Description: IGES file is exported from V-XVL Ver.10 format.

Menu: [File] > [Export]

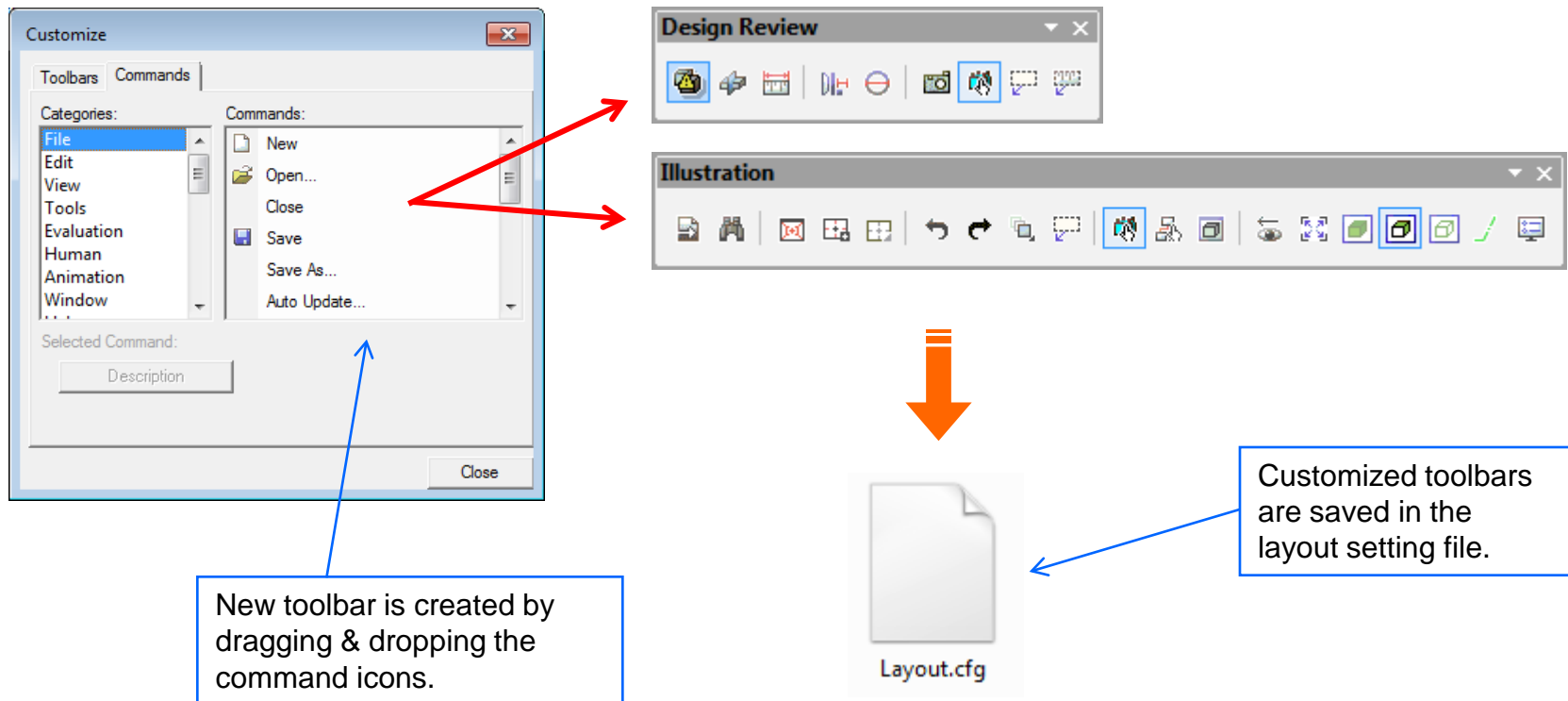


**\* IGES format is exported from P-XVL and V-XVL Ver.10 format only.  
IGES format is not exported from V-XVL Ver.9 format.**

# [S-2] Customizing Toolbars

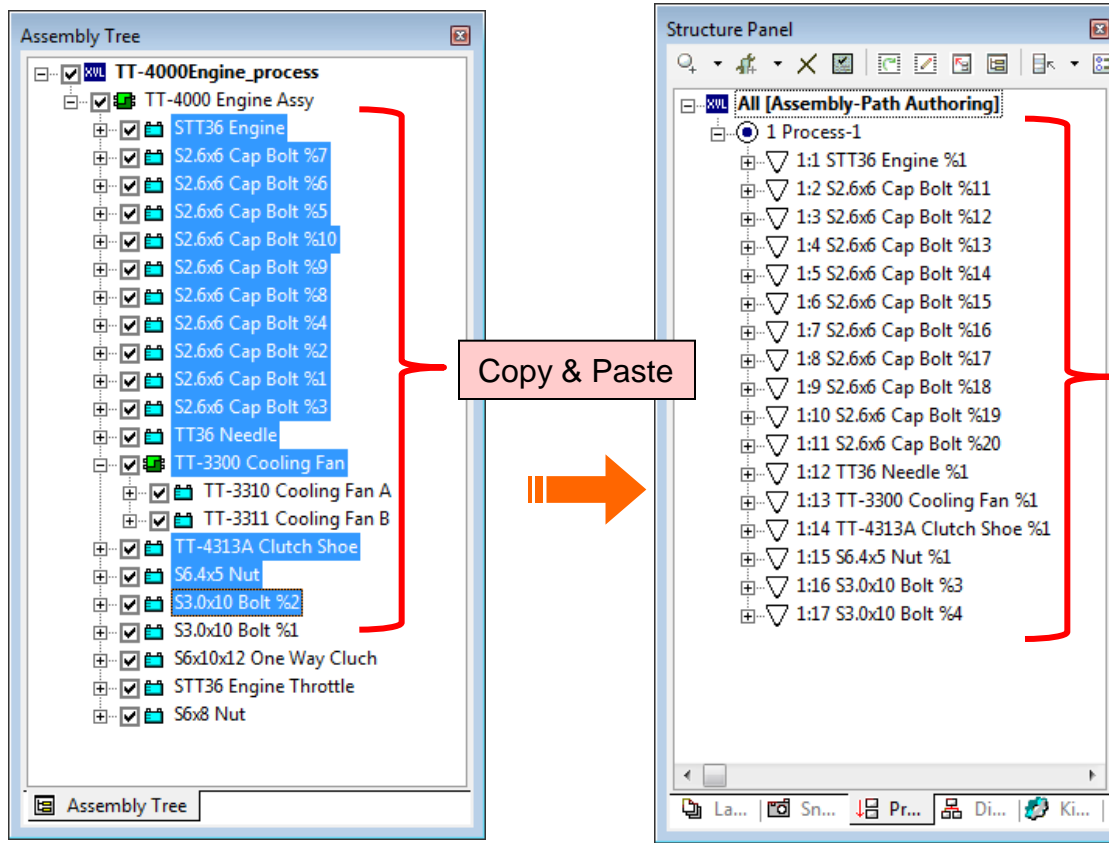
**Description:** You can create your own customized toolbars.

**Menu:** [Tools] > [Customize]



# [S-3] Import the Tree in the Same Order

**Description:** When the components are selected and dragged and dropped from the original tree, components are created in the same order as the original tree.



Components are created in the same order as the original tree.

**In Ver.9.2, components were created in the random order.**

# Auto Update Features

# [S-4] Updating Selected Assembly

**Description:** You can update only specified sub assembly.

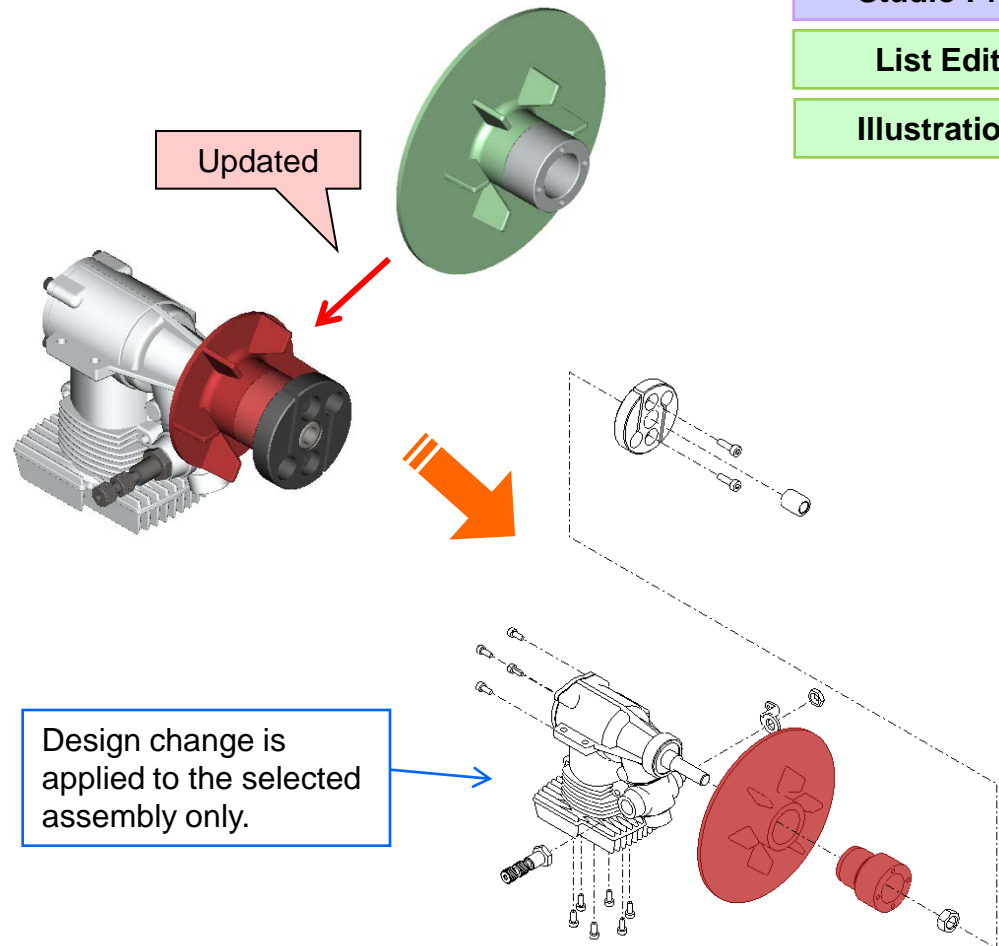
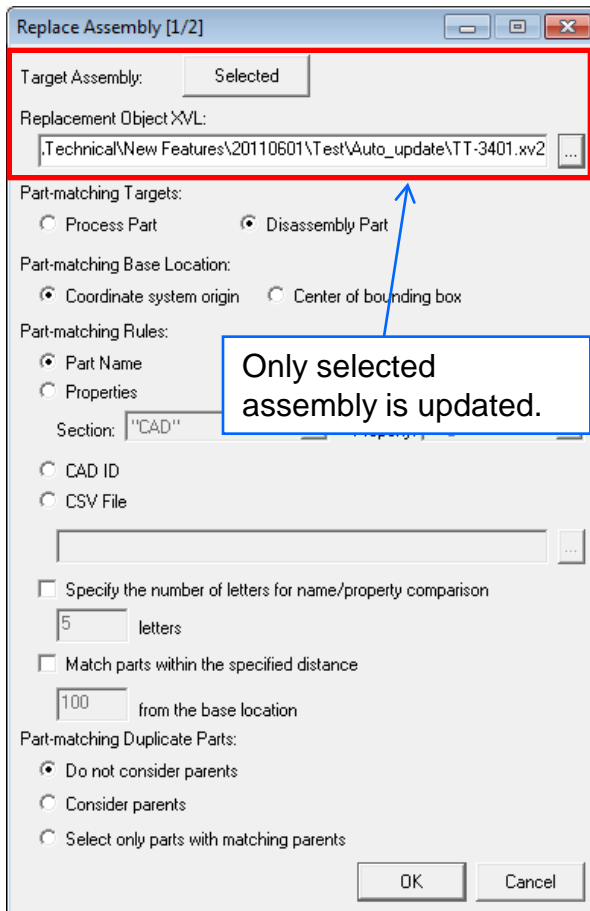
**Menu:** [File]: [Replace Assembly]

Studio Standard

Studio Pro

List Edit

Illustration





# [S-5] Updating Process Tree and Disassembly Tree

**Description:** Both Process Tree and Disassembly Tree are updated simultaneously.

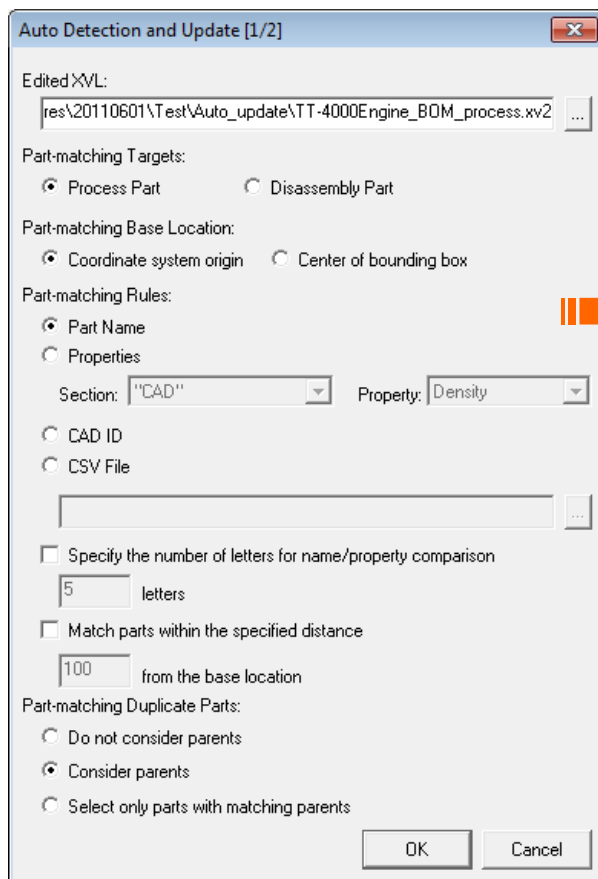
**Menu:** [File]: [Auto Detection and Update]

Studio Standard

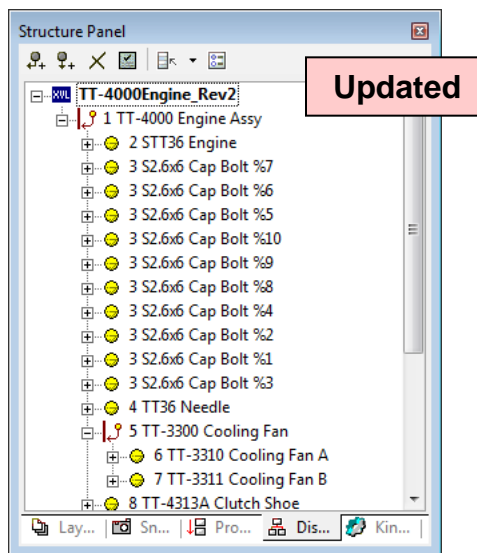
Studio Pro

List Edit

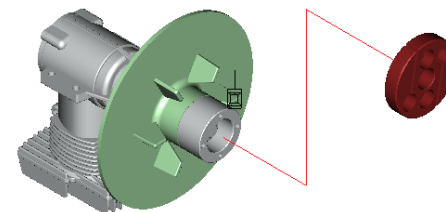
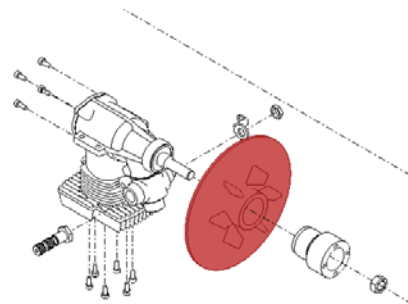
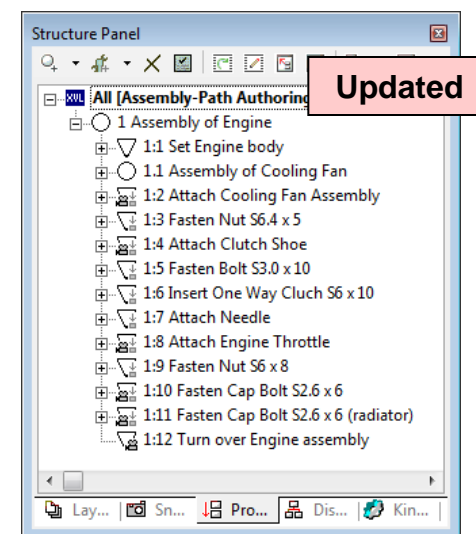
Illustration



## Disassembly Tree



## Process Tree



# [S-6] Matching Option for Duplicate Parts

**Description:** Specifies the method of judgment if two or more matching parts are found during auto detection.

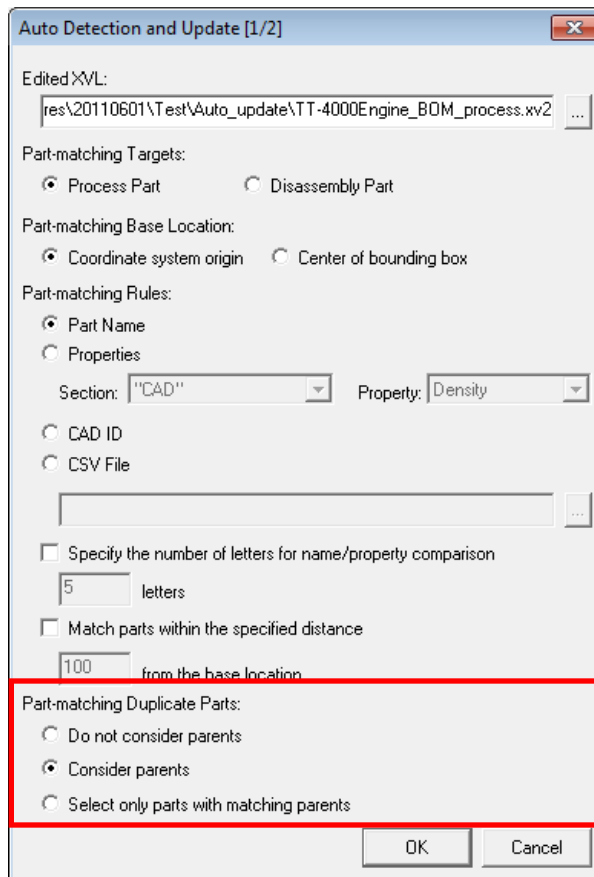
**Menu:** [File]: [Auto Detection and Update]

Studio Standard

Studio Pro

List Edit

Illustration



Option	Description
Do not consider parents	The parts that are closest to each other from the base location are judged to match. The parents of the parts are not considered.
Consider parents	If parts with matching parents are found, the parts that are closest to each other from the base location are judged to match. If no parts with matching parents are found, the parts that are closest to each other from the base location are judged to match.
Select only parts with matching parents	If parts with matching parents are found, the parts that are closest to each other are judged to match.

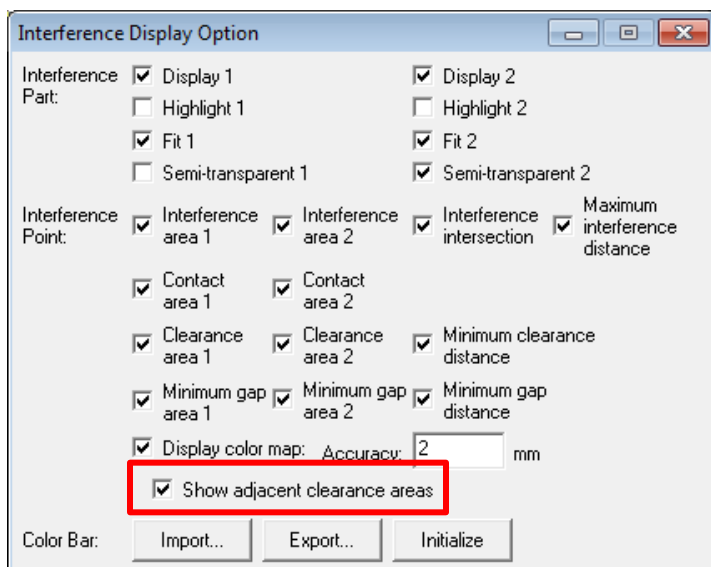
# DMU Features

# [S-7] Visualizing Clearance in Interference Check

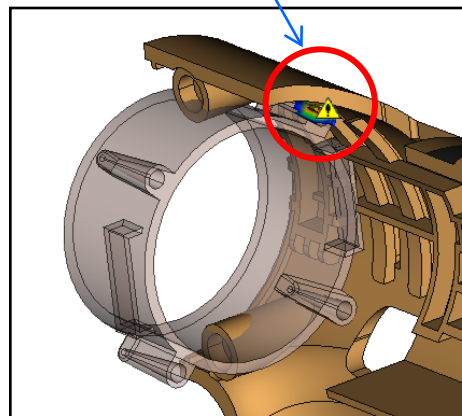
Studio Pro

**Description:** Clearance is visualized in color map while checking interference.

**Menu:** Edit Panel > [Interference Result] > [Display Options]

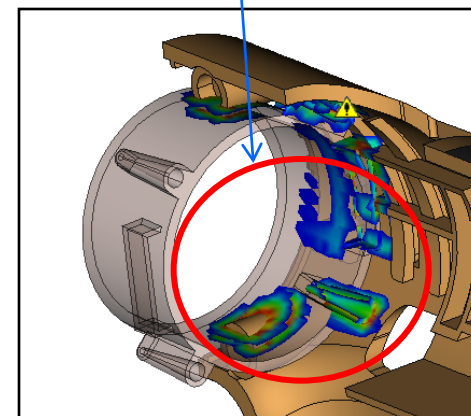


Only interfered areas are displayed in color map.



Clearance areas = OFF

Adjacent clearance areas are also displayed in color map.



Clearance areas = ON

# [S-8] Saving Layout in Annotation View

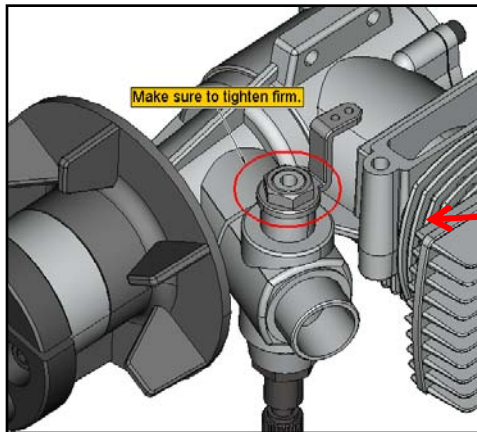
Description: Part layout is saved in the Annotation View.

Menu: [Tools] > [Customize]

Studio Standard

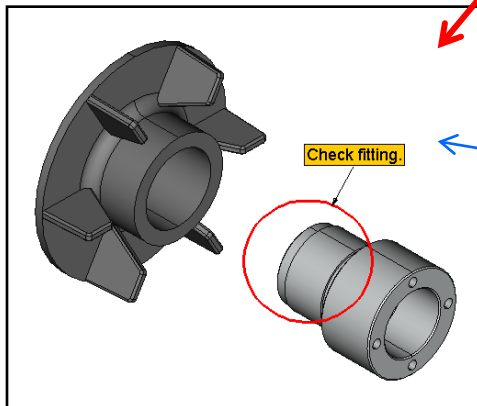
Studio Pro

Annotation View

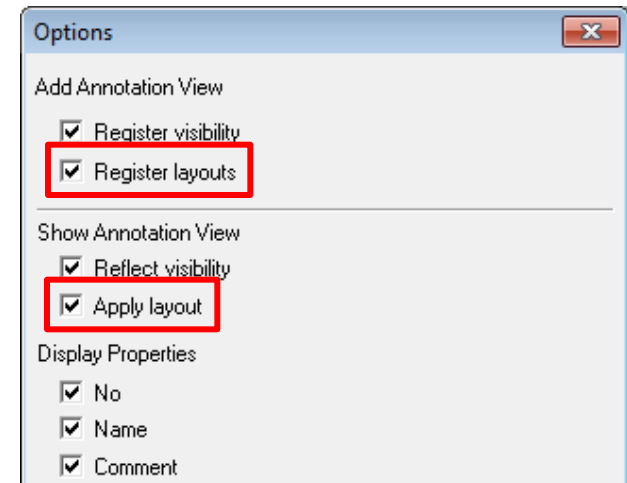


Edit Panel

No	Name	Comment
1	Annotation-1	Assembly check of Cooling Fan
2	Annotation-2	Tightening check



Parts layout is saved and applied in the annotation view.

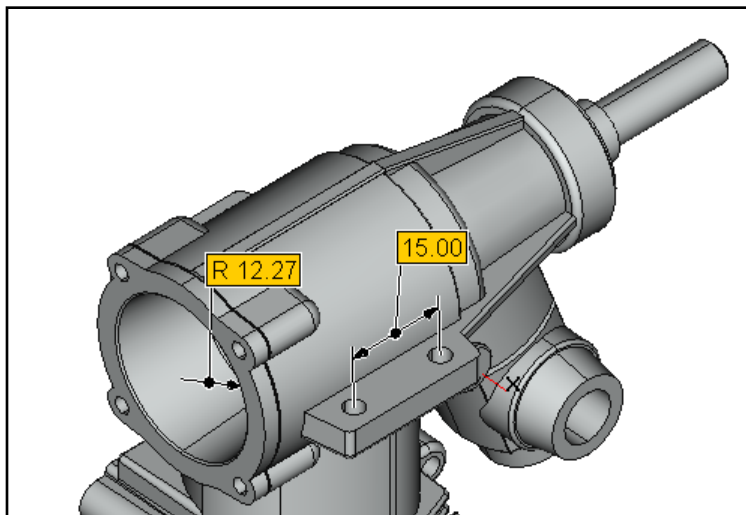


# [S-9] Prevent to Move Dimension Text Position

Description: By changing the setting, dimension text position is not moved.

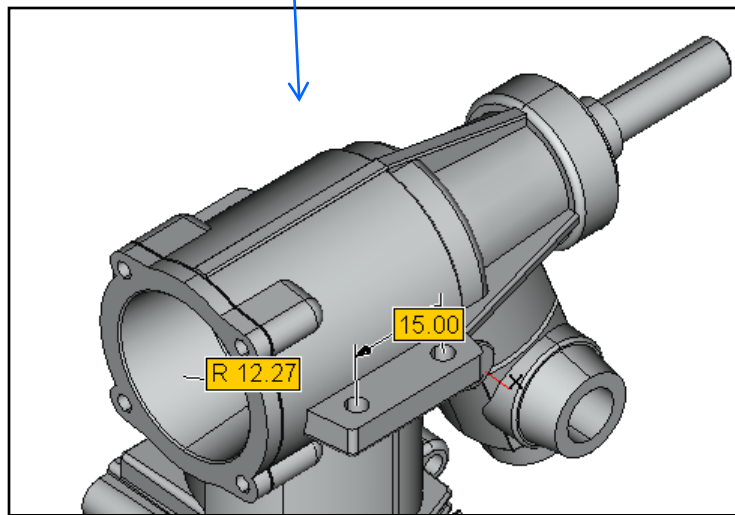
Setting File: DIMENSION\_FIX\_TEXT = TRUE

By changing the setting file,  
you can go back to the  
behavior of previous version.



Dimension texts are moved with leader lines (default behavior).

**DIMENSION\_FIX\_TEXT = FALSE**



Dimension texts are not moved (same behavior as Ver.9.1 or earlier).

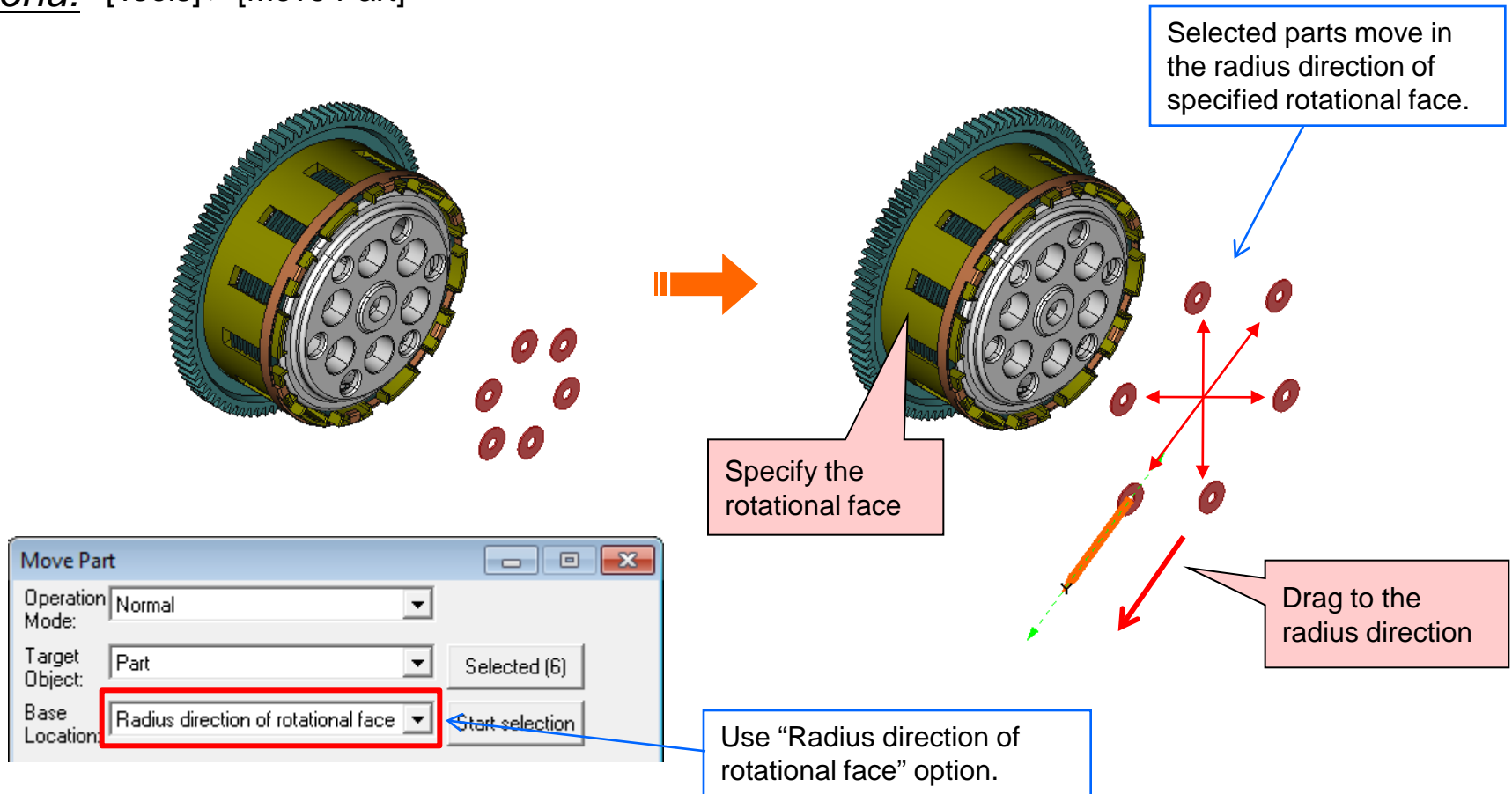
**DIMENSION\_FIX\_TEXT = TRUE**

# Parts List / Illustration

# [S-10] Moving Parts in Radius Direction

Description: Parts can be moved in radius direction.

Menu: [Tools] > [Move Part]

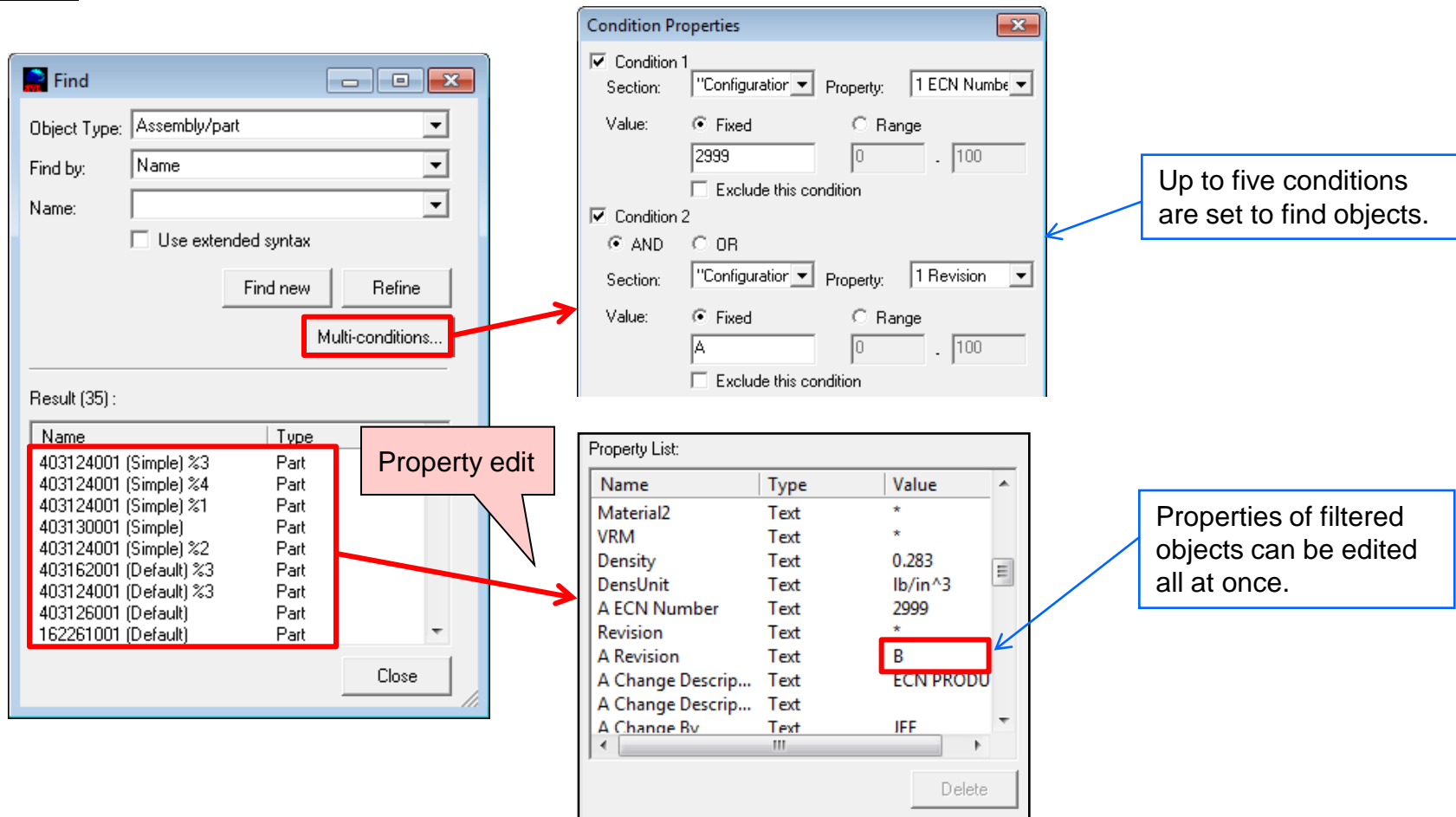




# [S-11] Finding Objects with Multi-Filter

Description: Multiple filter conditions are specified to find objects.

Menu: [Edit] > [Find]



The screenshot shows the 'Find' dialog box with the following settings:

- Object Type: Assembly/part
- Find by: Name
- Name: (empty)
- Use extended syntax:
- Buttons: Find new, Refine, Multi-conditions...

The 'Multi-conditions...' button is highlighted with a red box and an arrow pointing to the 'Condition Properties' dialog box. The 'Condition Properties' dialog box shows two conditions:

- Condition 1: Section: "Configuration", Property: 1 ECN Number, Value: Fixed, 2999
- Condition 2: Section: "Configuration", Property: 1 Revision, Value: Fixed, A

The 'Multi-conditions...' button is also highlighted with a red box and an arrow pointing to the 'Property List' dialog box. The 'Property List' dialog box shows a table of properties for filtered objects:

Name	Type	Value
Material2	Text	*
VRM	Text	*
Density	Text	0.283
DensUnit	Text	lb/in^3
A ECN Number	Text	2999
Revision	Text	*
A Revision	Text	B
A Change Descrip...	Text	ECN PRODU
A Change Descrip...	Text	
A Change Rv	Text	IFF

The 'A Revision' property value 'B' is highlighted with a red box and an arrow pointing to the 'Property List' dialog box. The 'Property List' dialog box also has a 'Delete' button.

Annotations:

- Up to five conditions are set to find objects.
- Property edit
- Properties of filtered objects can be edited all at once.

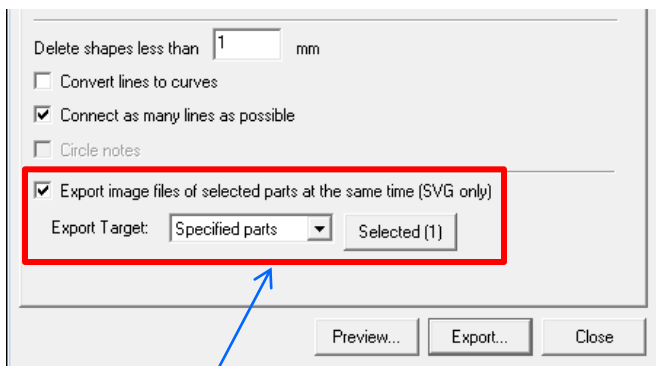
# [S-12] Exporting SVG Illustration with Raster Image

**Description:** SVG illustration is exported with raster graphic image.

**Menu:** [File] > [Export] > [Illustration File]: [Illustration File Output] tab

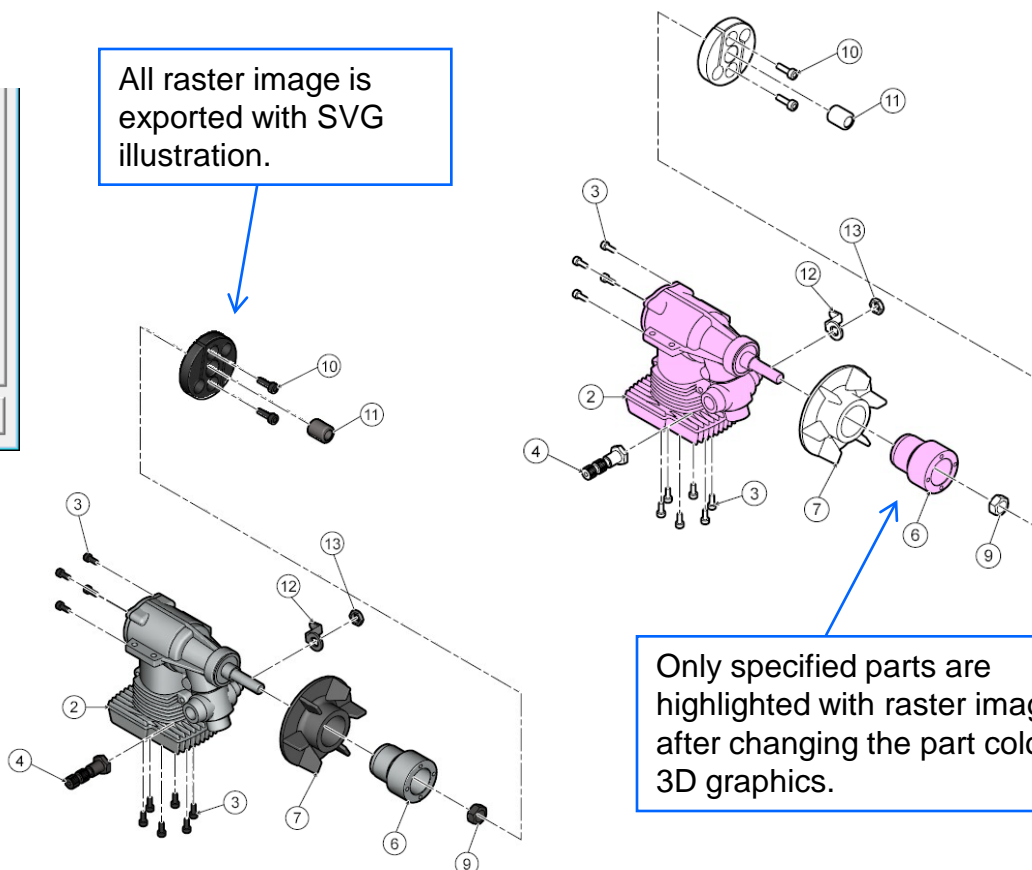
Illustration

## Illustration Output dialog



Either all parts or specified parts are exported with raster image.

All raster image is exported with SVG illustration.



Only specified parts are highlighted with raster image after changing the part color in 3D graphics.

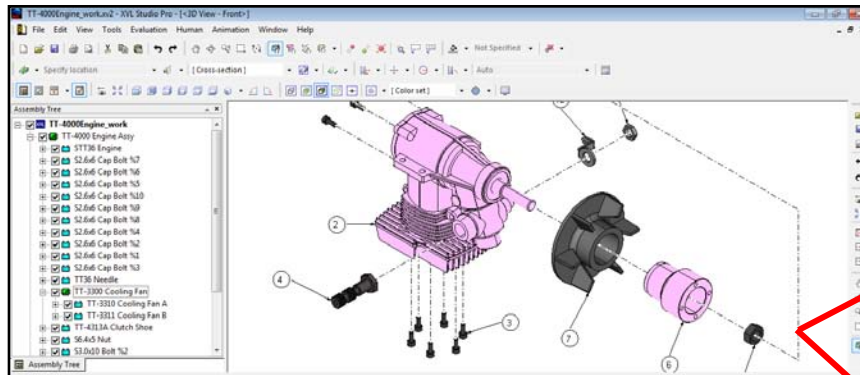
**\* Only SVG format is supported.**

**Description:** By changing the setting, you can export image/illustration in the method of previous version.

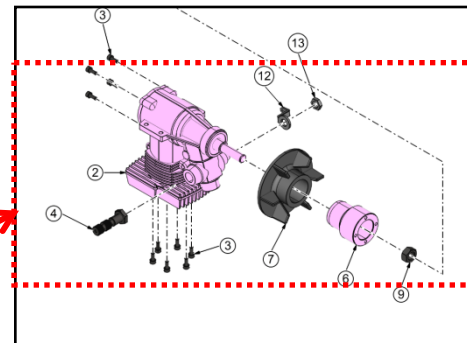
**Setting File:** FILE\_EXPORT\_IMG\_ADJUST\_VIEWSIZE = FALSE  
ILLUST\_EXPORT\_ADJUST\_VIEWSIZE = FALSE

Illustration

## VXL Studio

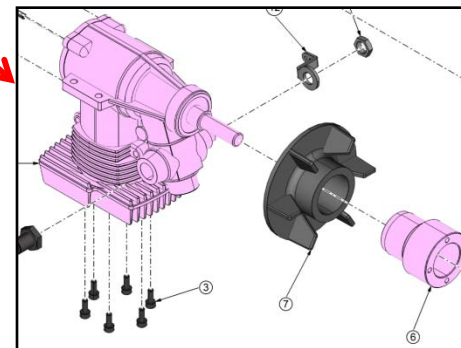


### Default behavior



All visible area is included in image/illustration.

### Previous behavior (same as Ver.9.1 or earlier)



Image/illustration is fit in vertical direction.

# Process Design

# [S-14] Equipment/Tool List

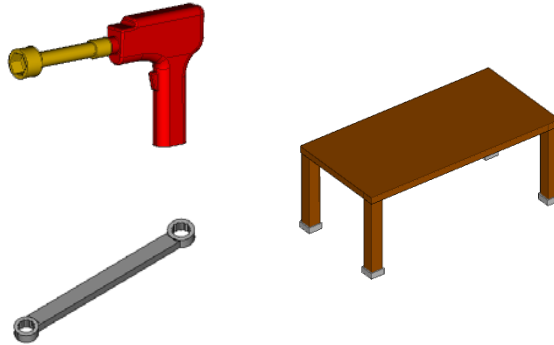
Studio Pro

**Description:** Tools and equipments are displayed and edited in the list.

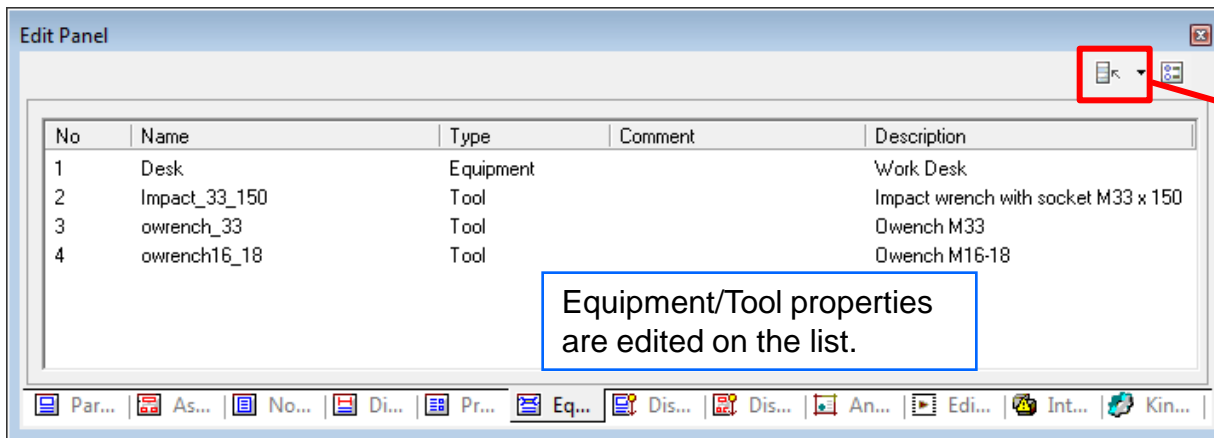
**Menu:** Edit Panel > [Equipment/Tool List]

## Assembly Tree

- [-]  Equipment\_Group
  - [+]  Desk
- [-]  Tool\_Group
  - [+]  Impact\_33\_150
  - [+]  owrench\_33
  - [+]  owrench16\_18



## Equipment/Tool List



No	Name	Type	Comment	Description
1	Desk	Equipment		Work Desk
2	Impact_33_150	Tool		Impact wrench with socket M33 x 150
3	owrench_33	Tool		Owrench M33
4	owrench16_18	Tool		Owrench M16-18

Equipment/Tool properties are edited on the list.

Equipment/Tool list is exported in CSV format.



Equipment/Tool CSV

# [S-15] Improvement of Part/Assembly Snapping

**Description:** Assembly snap is performed more efficiently.

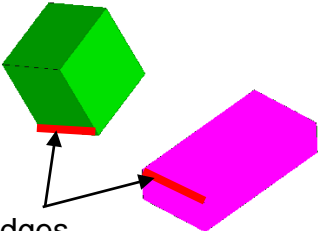
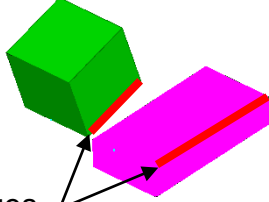
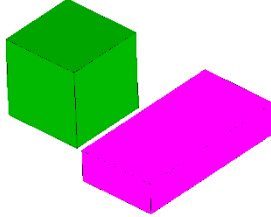
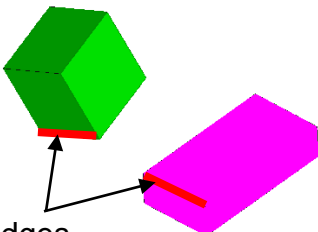
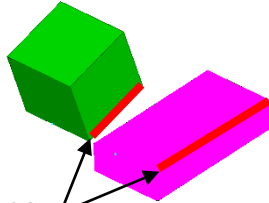
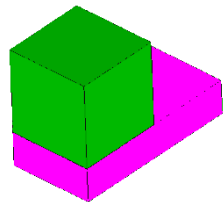
**Menu:** [Tools] > [Snap Part/Assembly]

Studio Standard

Studio Pro

List Edit

## Example

	STEP 1	STEP 2	Result
Up to Ver. 9.2	<p><b>Constraint: 1</b></p>  <p>Select edges</p>	<p><b>Constraint: 2 (continuation snap)</b></p>  <p>Select edges</p>	 <p>Posture changes, but position is same.</p>
Ver. 10.0a	<p><b>Constraint: 1</b></p>  <p>Select edges</p>	<p><b>Constraint: 2 (continuation snap)</b></p>  <p>Select edges</p>	 <p>Posture and position are applied.</p>

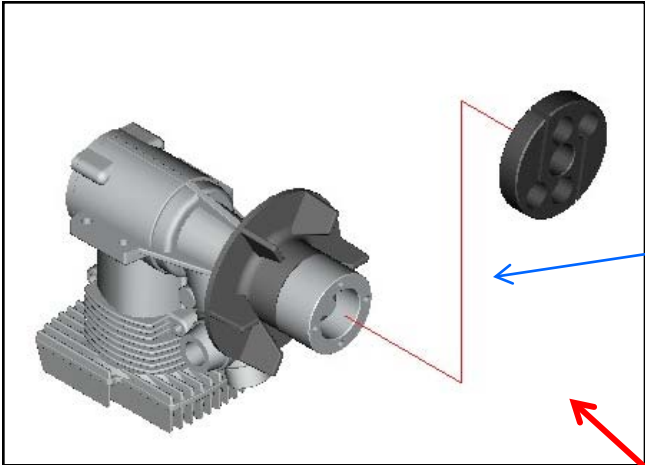
# [S-16] Trace Line in Process Report

Studio Standard

Studio Pro

Description: Animation trace lines are displayed in the process report.



Menu: Edit Panel > [Process List]: [Output Report]



Animation trace line is shown in the images.



Process Report (Excel)

Nc	Name	Man-ho	Comment	Image1	Image2
1:4	Attach Clutch Shoe	30	Attach the Clutch Shoe to the assembly.		

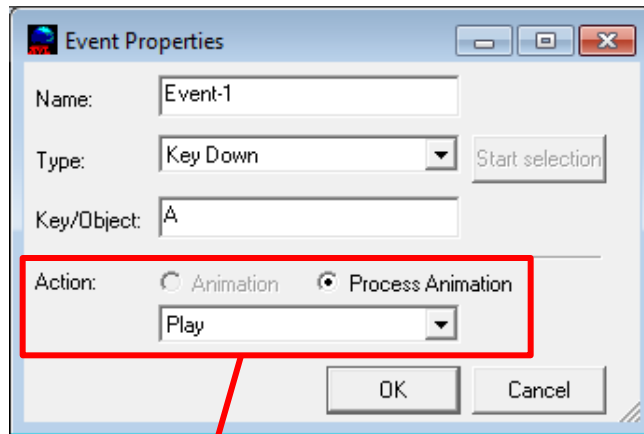
# [S-17] User Event for Process Animation

Studio Standard

Studio Pro

**Description:** User event is defined for process animation.

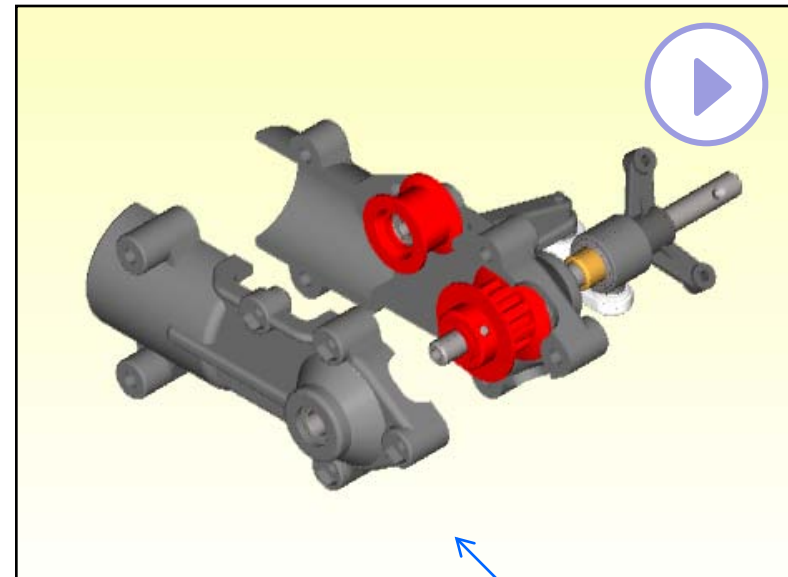
**Menu:** [Animation] > [Edit Event]



- Play
- Pause
- Play Reverse
- Cue
- Previous
- Next
- Stop

Each action for process animation control is selected.

XVL Player



Process animation is played from defined user event on XVL Player.



# [S-18] File Import Enhancement

**Description:** When part is replaced, part name and its properties are also replaced.

**Menu:** [File] > [Import] > [Geometry File]

## Import Geometry File dialog

Import Method:

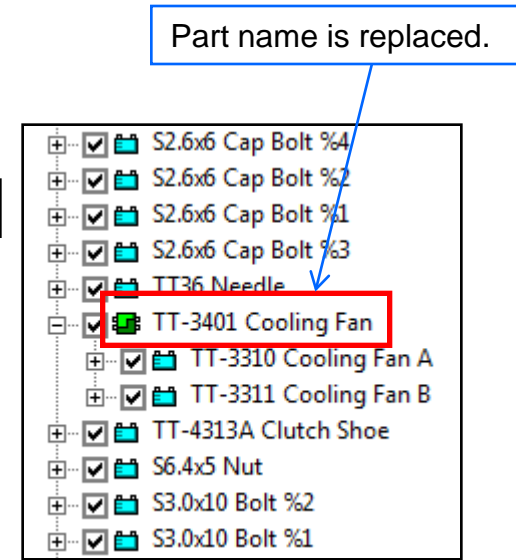
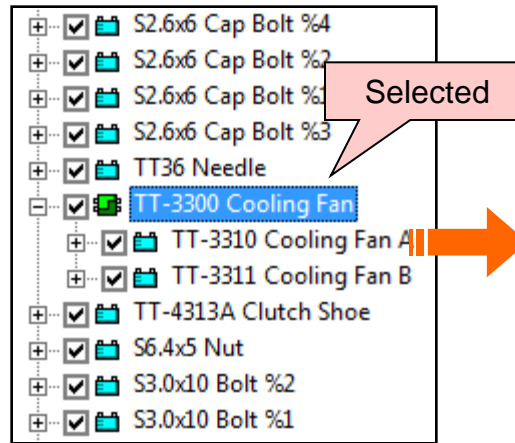
Add to model  
 Specify how to import a part with the same name

Add to selected assembly  
 Add assembly as link

**Replace selected part**

Import Structure:

Layer  Process  Disassembly tree



Property List:

Name	Type	Value
Description	Text	Cooling Fan
PartNo	Text	TT-3300-000
UNIT_OF_MEASURE	Text	- none -

Property List:

Name	Type	Value
Description	Text	Cooling Fan
PartNo	Text	<b>TT-3401-000</b>
UNIT_OF_MEASURE	Text	- none -

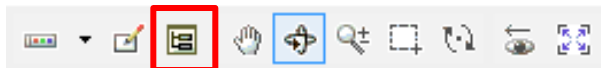
**Required setting:**  
**FILE\_IMPORT\_PART\_REPLACE\_MODE = 1**

Property value is replaced.

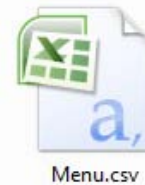
# XVL Player Ver. 11.0a

# [P-1] Customizing Menus

**Description:** You can enable/disable menus by setting the menu file.

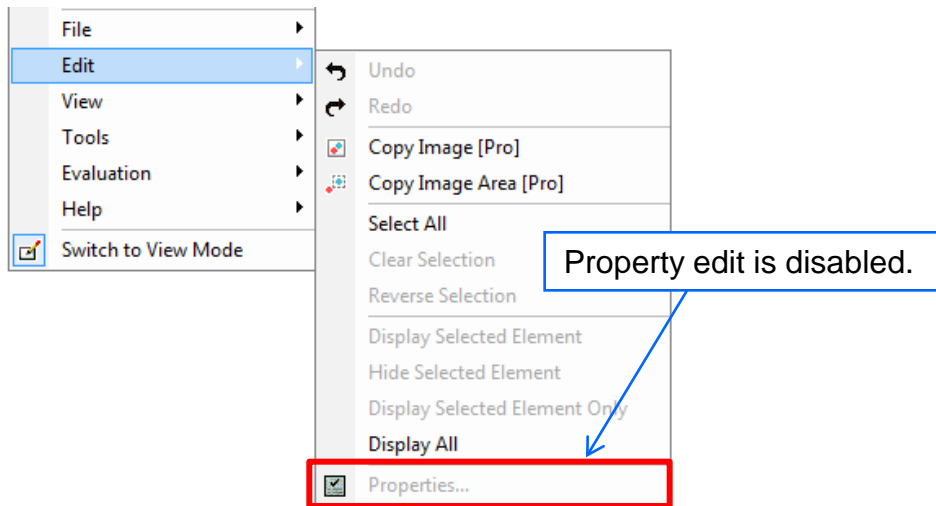


Assembly Tree display is disabled.



Menu.csv

STATUS	IDC_XT_TOOLBAR	FALSE
STATUS	IDC_XT_TREEDOCKWIN	TRUE
STATUS	ID_FILE_PROP	FALSE
STATUS	ID_EDIT_PROP	TRUE



Menu file is specified in two methods.

## Server Menu File

Specify the menu file using `OPT_MENU_FILE` among the Options properties set upon startup.

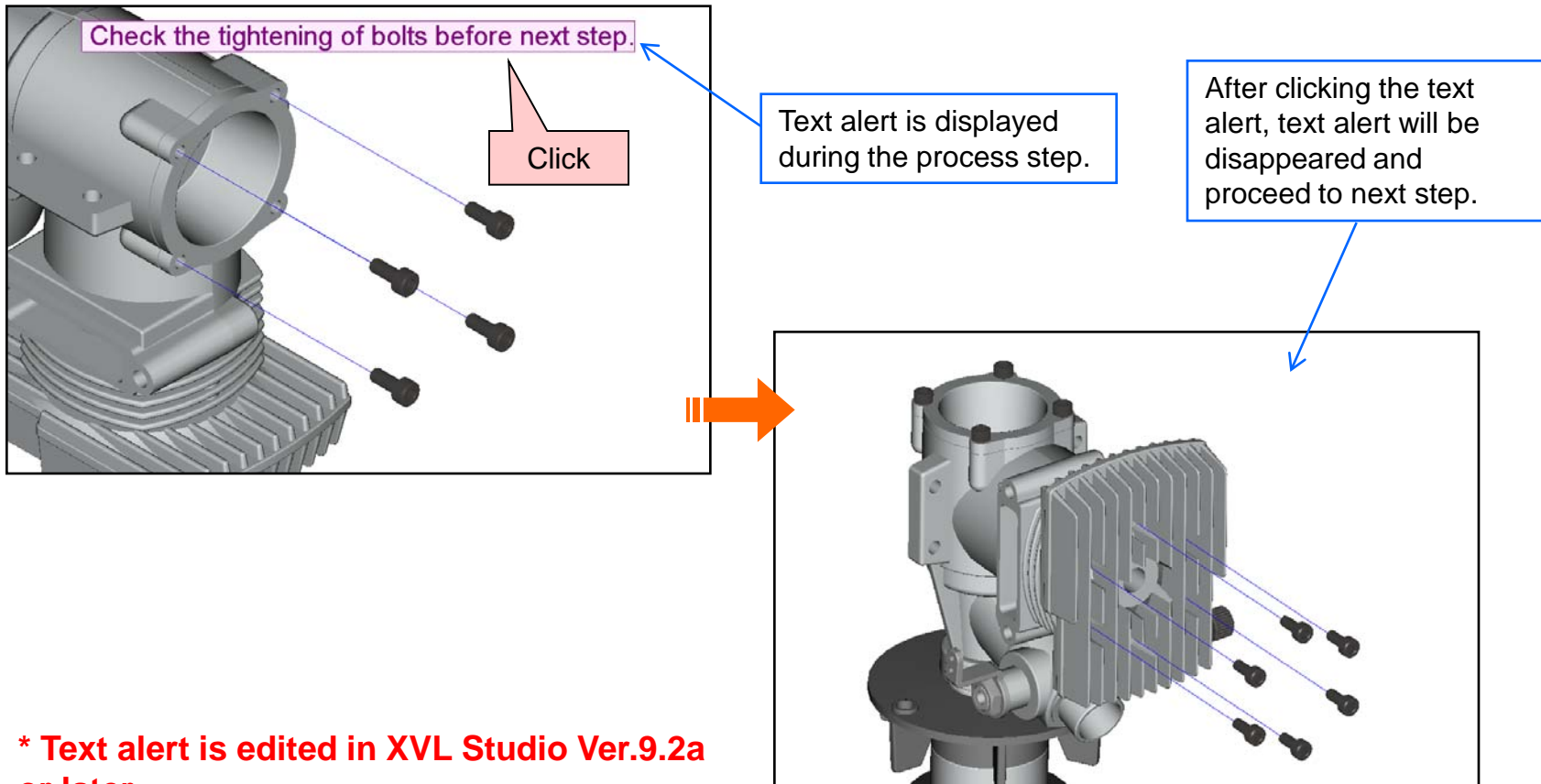
## Client Menu File

Put the menu file in the following location.  
<Installation\_directory>\Env\Menu.csv

\* For more information, see “XVL\_Player\_MenuFile.pdf” that locates under <Installation\_directory>\Doc folder.

# [P-2] Process Animation Text Alert

Description: Text alert is displayed during process animation.



**\* Text alert is edited in XVL Studio Ver.9.2a or later.**

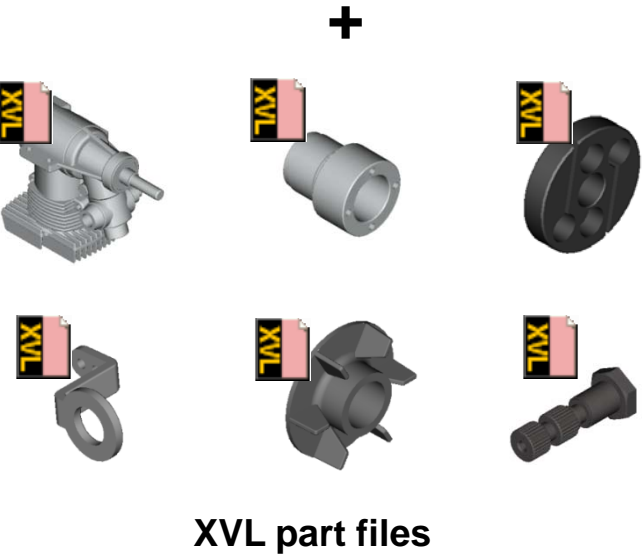
# XVL BOM Assembler Ver. 1.2

# [B-1] Process Import/Export Option

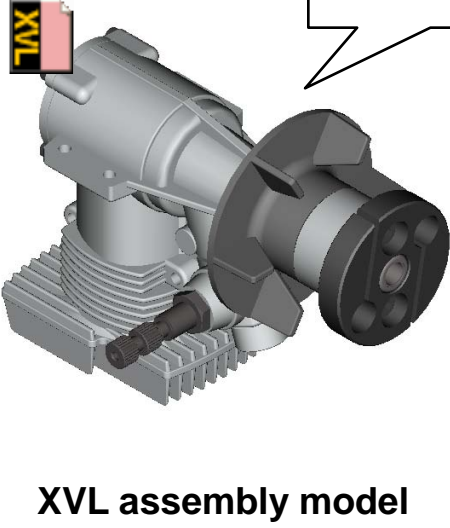
Description: XVL file is created with process tree information.  
Process tree information is exported to XML file.

Process

XML  
- Assembly structural tree  
- Process tree



Import  
Export

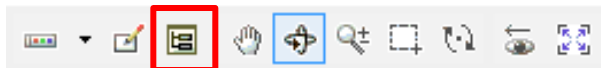


\* Process option is required.

# XVL Player Pro Ver. 11.0a

# [P-1] Customizing Menus

**Description:** You can enable/disable menus by setting the menu file.

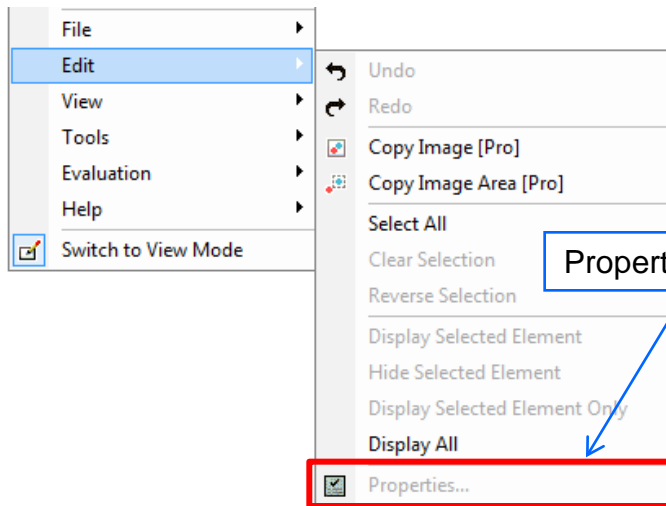


Assembly Tree display is disabled.



Menu.csv

STATUS	IDC_XT_TOOLBAR	FALSE
STATUS	IDC_XT_TREEDOCKWIN	TRUE
STATUS	ID_FILE_PROP	FALSE
STATUS	ID_EDIT_PROP	TRUE



Property edit is disabled.

Menu file is specified in two methods.

## Server Menu File

Specify the menu file using `OPT_MENU_FILE` among the Options properties set upon startup.

## Client Menu File

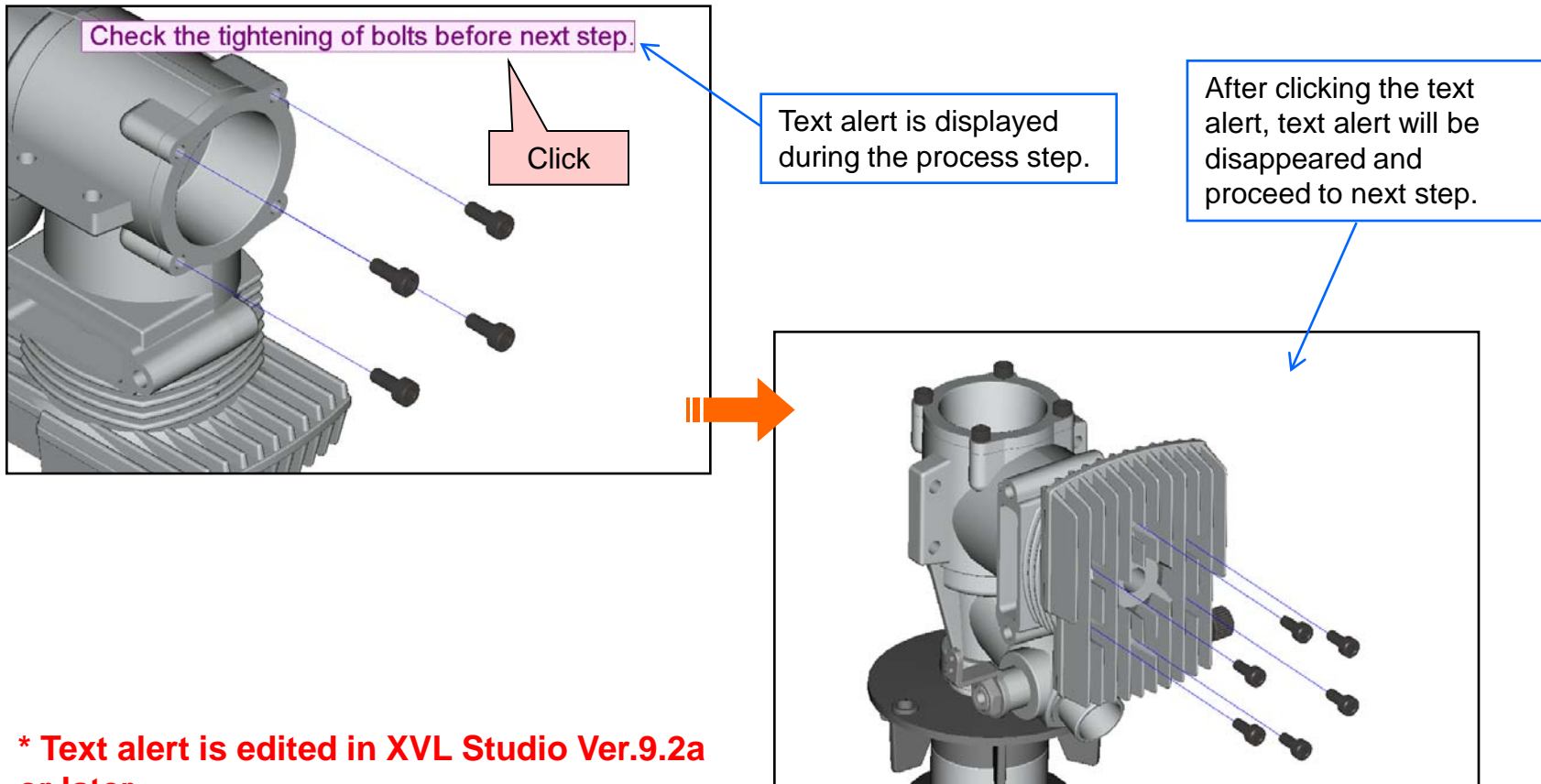
Put the menu file in the following location.  
<Installation\_directory>\Env\Menu.csv

\* For more information, see “XVL\_Player\_MenuFile.pdf” that locates under <Installation\_directory>\Doc folder.



# [P-2] Process Animation Text Alert

Description: Text alert is displayed during process animation.



\* Text alert is edited in XVL Studio Ver.9.2a or later.

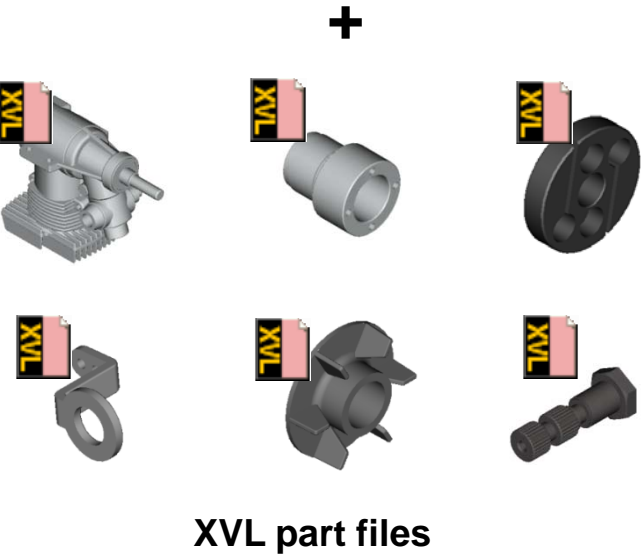
# XVL BOM Assembler Ver. 1.2

# [B-1] Process Import/Export Option

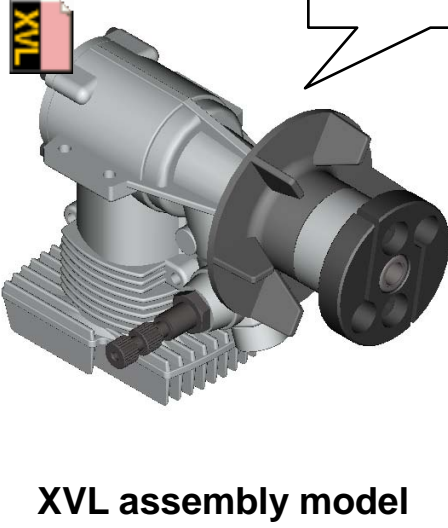
Description: XVL file is created with process tree information.  
Process tree information is exported to XML file.

Process

XML  
- Assembly structural tree  
- Process tree



Import  
Export



\* Process option is required.

# Questions?

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