



SMARTElectrode 15.1.0.0

What's New



Fixed error

Description

- Allow renaming of manufacturing assembly and workpiece in Manufacturing UI and Rename UI.

- <https://redmine.buw-soft.de/issues/13988>

Cause

- A renamed electrode may not meet the naming format anymore
- Allow edit of default MFG and workpiece name in Manufacturing UI.
- Allow adjusting of names of existing MFG and workpiece during rename.

Solution

- Double click Mfg or Workpiece name in Manufacturing UI to edit names for objects to create (📄). Existing assemblies and parts (✅) can't be renamed Manufacturing UI.
- Rename UI shows input panels for MFG and workpiece if available.

ID	Electrode	Size	Status	Mfg Name	Workpiece Name	Template
1	SE_CREO8_EDM_01	15.0x15.0x28.0	✅	SE_CREO8_MFG_01	SE_CREO8_WP_01	mfg_default.asm
2	SE_CREO8_EDM_02	15.0x15.0x28.0	📄	SE_MFG_02	SE_CREO8_WP_02	

Rename

Electrode SE_CREO8_EDM_01

New Name SE_CREO8_EDM_01

Manufacturing SE_CREO8_MFG_01

Workpiece SE_CREO8_WP_01

OK Cancel

Improvement

What

- Prefer template without rotation ($C=0^\circ$) if several templates with same blank dimensions are available.

Why

- <https://redmine.buw-soft.de/issues/13672>
- Order of templates in .dat decided which template - with or without rotation - was assigned. This is improved by defined behavior.

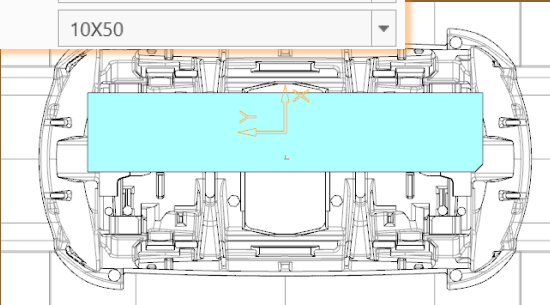
How

Current Behavior

A	0.00
B	0.00
C	90.00

Z 5.0000

Blank
Type RECTANGULAR_BASE
Size 10X50

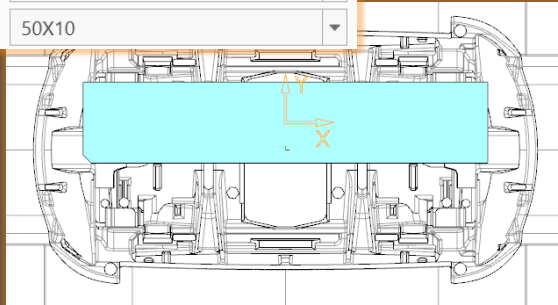


New Behavior

A	0.00
B	0.00
C	0.00

Z 5.0000

Blank
Type RECTANGULAR_BASE
Size 50X10



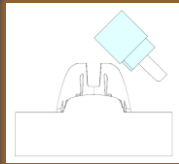
Fixed error

Description

- Ignore rotation of EDM_ORIGIN for default start and secure position
- <https://redmine.buw-soft.de/issues/13878>

Cause

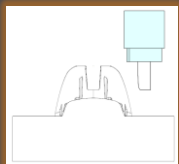
- In some cases a rotated EDM_ORIGIN is useful
 - Easier definition of start position
 - EDM_ORIGIN is rotated for later NC setup
- In both cases either the calculated angles or the display are wrong



SX	SY	SZ	SA
0.000	18.887	1.571	-45.000

Solution

- Applied rotation to EDM_ORIGIN is ignored for calculation of angles.
- SE_EDM_BASE is used for electrodes created in current releases.
- EDM_ORIGIN is used for electrodes created in versions prior 8.0.



SX	SY	SZ	SA
0.000	18.887	1.571	0.000



SMARTElectrode 15.0.0.0

What's New



Enhancement

What

- BREAKING CHANGE
- Consider contour height on calculation of default start- and secure-position.
<https://redmine.buw-soft.de/issues/13762>

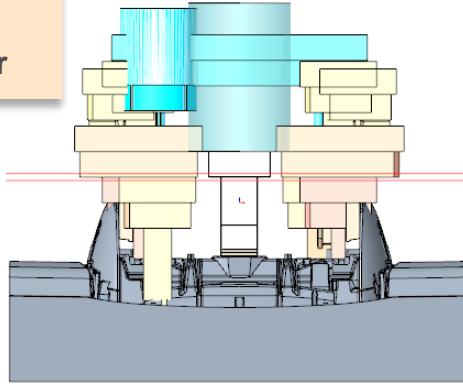
Why

- Calculation of default start and secure position using EDM_ORIGIN led to disadvantageous or wrong values.
- Reduce effort to set start and secure positions.

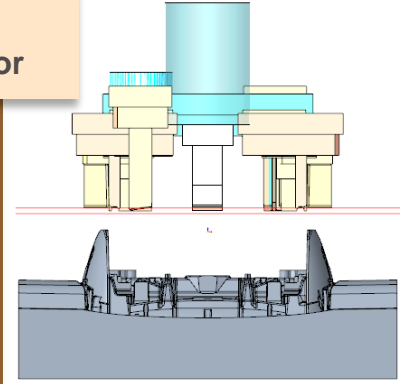
How

- **NOTE:** Adjustment of operation default planes may be necessary to respond appropriately to the new behavior.
- New behavior is available for all assemblies from current versions.

Current Behavior



New Behavior



Enhancement

What

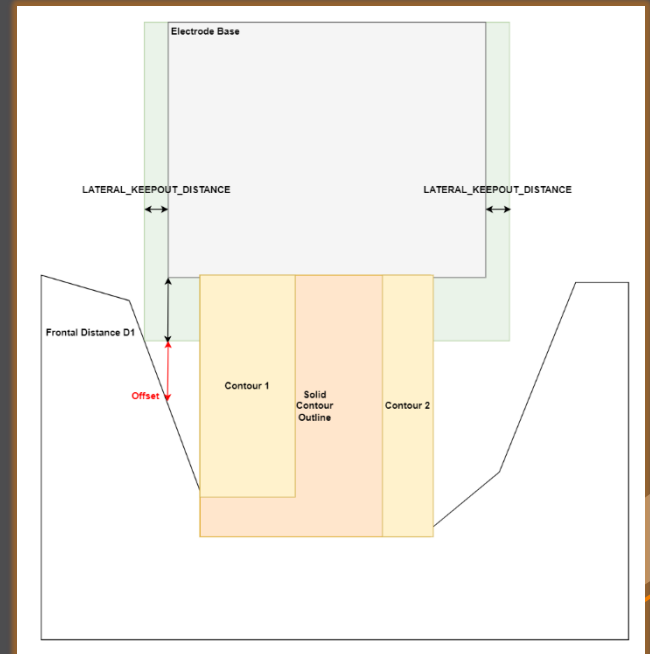
- Introduce new option #Electrode #LATERAL_KEEPOUT_DISTANCE
<https://redmine.buw-soft.de/issues/13766>

Why

- Defines the minimum distance in XY direction from the base that must not be disturbed by workpiece geometry.

How

- Default value '0'
- When adding a new base, position will be adjusted to...
 - ...meet normal distance D1 and
 - ...to fulfill lateral offset defined in LATERAL_KEEPOUT_DISTANCE



Enhancement

What

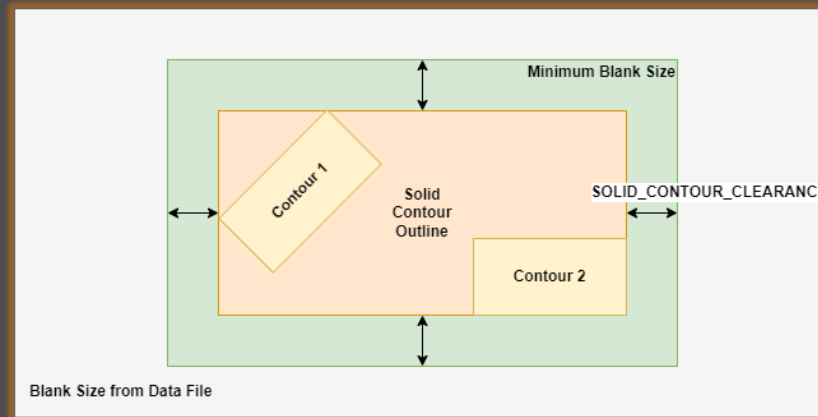
- Introduce new option #Electrode #SOLID_CONTOUR_CLEARANCE
<https://redmine.buw-soft.de/issues/13765>

Why

- Necessary to specify the minimum clearance in XY direction between the contour and blank outline

How

- Option value SOLID_CONTOUR_CLEARANCE defines the clearance added to electrode's solid contour before blank size selection.
- Default value '0'



Improvement

What

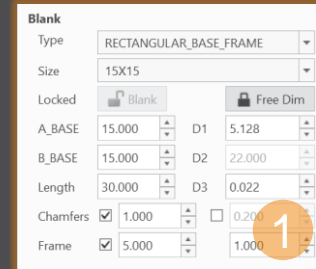
- Allow enabling or disabling automatic calculation of a variable measure in the Base UI. <https://redmine.buw-soft.de/issues/13672>
- (related to: <https://redmine.buw-soft.de/issues/12517>)

Why

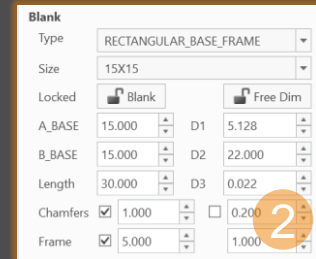
- Allows users to switch between both behaviors

How

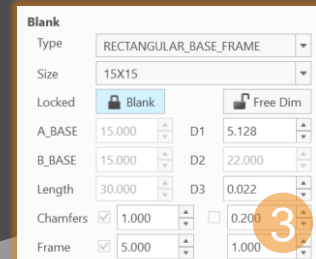
1. **Variable dimension used (-1)**
Variable dimension will be disabled and calculated automatically based on other inputs.
2. **Blank unlocked**
Z position of blank length should stay fixed on input.
Change of D2 changes D2 and D3.
Change of Z position changes LENGTH and D3 accordingly.
Change of LENGTH changes LENGTH and D3 accordingly.
3. **Blank locked**
Blank (A_BASE, B_BASE, LENGTH and D2) are disabled and can't be changed. Changes to D1, D3 or Z position change the other two dependent values accordingly.



Blank			
Type	RECTANGULAR_BASE_FRAME		
Size	15X15		
Locked	<input checked="" type="checkbox"/> Blank	<input type="checkbox"/> Free Dim	
A_BASE	15.000	D1	5.128
B_BASE	15.000	D2	22.000
Length	30.000	D3	0.022
Chamfers	<input checked="" type="checkbox"/> 1.000	<input type="checkbox"/> 0.200	
Frame	<input checked="" type="checkbox"/> 5.000	<input type="checkbox"/> 1.000	



Blank			
Type	RECTANGULAR_BASE_FRAME		
Size	15X15		
Locked	<input type="checkbox"/> Blank	<input type="checkbox"/> Free Dim	
A_BASE	15.000	D1	5.128
B_BASE	15.000	D2	22.000
Length	30.000	D3	0.022
Chamfers	<input checked="" type="checkbox"/> 1.000	<input type="checkbox"/> 0.200	
Frame	<input checked="" type="checkbox"/> 5.000	<input type="checkbox"/> 1.000	



Blank			
Type	RECTANGULAR_BASE_FRAME		
Size	15X15		
Locked	<input checked="" type="checkbox"/> Blank	<input type="checkbox"/> Free Dim	
A_BASE	15.000	D1	5.128
B_BASE	15.000	D2	22.000
Length	30.000	D3	0.022
Chamfers	<input checked="" type="checkbox"/> 1.000	<input type="checkbox"/> 0.200	
Frame	<input checked="" type="checkbox"/> 5.000	<input type="checkbox"/> 1.000	

Enhancement

What

- Allow export of files for Creo View
<https://redmine.buw-soft.de/issues/13699>

Why

- Provide data for downstream processes

How

- Use keywords “SE_EDM_BACKUP_PVS” or “SE_EDM_BACKUP_PVZ” in export template to create a file structure for Creo View (PVS) or a zipped archive of the files (PVZ). PVS creates a *.pvs for the file structure and numerated *.ol files containing viewable geometry.
- Example: export PVS/PVZ of assembly

```
Assembly PVS: #SE_EDM_BACKUP_DIR#\#partname#. #SE_EDM_BACKUP_PVS#  
Assembly PVZ: #SE_EDM_BACKUP_DIR#\#partname#. #SE_EDM_BACKUP_PVZ#
```

- Example: export PVS/PVZ for each electrode

```
ELECTRODE_START  
PVS: #SE_EDM_BACKUP_DIR#\#partname#. #SE_EDM_BACKUP_PVS#  
PVZ: #SE_EDM_BACKUP_DIR#\#partname#. #SE_EDM_BACKUP_PVZ#  
ELECTRODE_END
```

Enhancement

What

- Use default profiles or option files for 3D exports
<https://redmine.buw-soft.de/issues/13681>

Why

- Support of custom option files

How

- Save options file named “def_profile” to export/<type> or processor/<type>.

Type	Keyword in export template	Options file name
VDA	SE_EDM_BACKUP_VDA	def_profile.dep_vda
STEP	SE_EDM_BACKUP_STEP	def_profile.dep_step
IGES	SE_EDM_BACKUP_IGES	def_profile.dep_iges
CATIA	SE_EDM_BACKUP_CATIA	def_profile.dep_catv5
SAT (Acis)	SE_EDM_BACKUP_SAT	def_profile.dep_acis
NEUTRAL	SE_EDM_BACKUP_NEUTRAL	def_profile.dep_neu
X_T (Parasolid)	SE_EDM_BACKUP_X_T	def_profile.dep_para
UG (NX)	SE_EDM_BACKUP_UG	def_profile.dep_nx
JT (license necessary)	SE_EDM_BACKUP_JT	def_profile.dep_jt

Enhancement

What

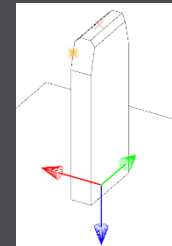
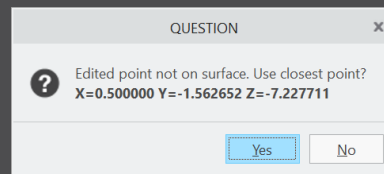
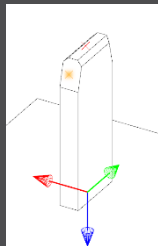
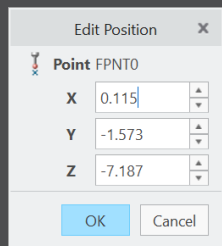
- Edit CMM points in user interface
- <https://redmine.buw-soft.de/issues/12392>

Why

- Move measuring points to even value

How

- Open “CMM points”
- Select point to edit in table
- Start edit on double-click or press “Edit”
- Point will be automatically moved to new position or reachable coordinates are suggested if point is out of bounds
- Original coordinates are restored on cancel



Enhancement

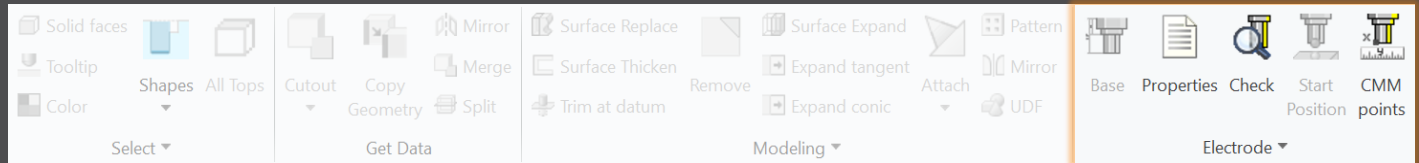
What

- Allow CMM points in workpiece models
- <https://redmine.buw-soft.de/issues/12327>

Why

- Enable definition and output of measuring points for CMM in workpieces

How



Workflow and functionality is the same as for electrodes

- Activate component
- Open “CMM points”
- “Add” measuring points on pick position till loop is cancelled with MMB
- Confirm or discard points

The image shows a dialog box titled 'Measuring Points' with a table of data. The table has columns for ID, X, Y, Z, I, J, and K. The data is as follows:

ID	X	Y	Z	I	J	K
1	26.17	5.98	2.57	0.81	0.26	0.95
2	29.11	2.26	83.66	0.97	0.09	0.24
3	26.32	2.81	5.24	0.80	1.00	0.05

