SMARTElectrode 15.0.0.0

What‘s New

b&w software

Enhancement

What

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

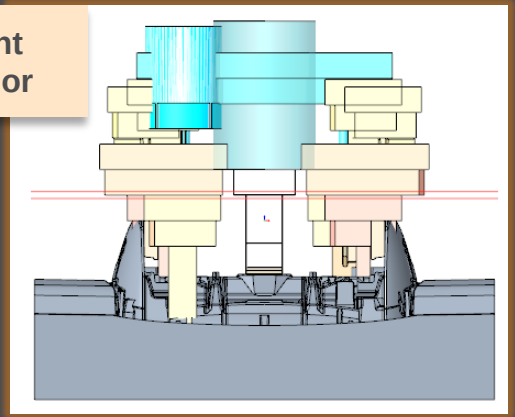
Why

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

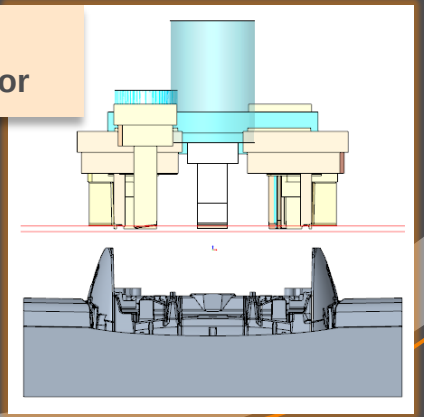
How

- 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

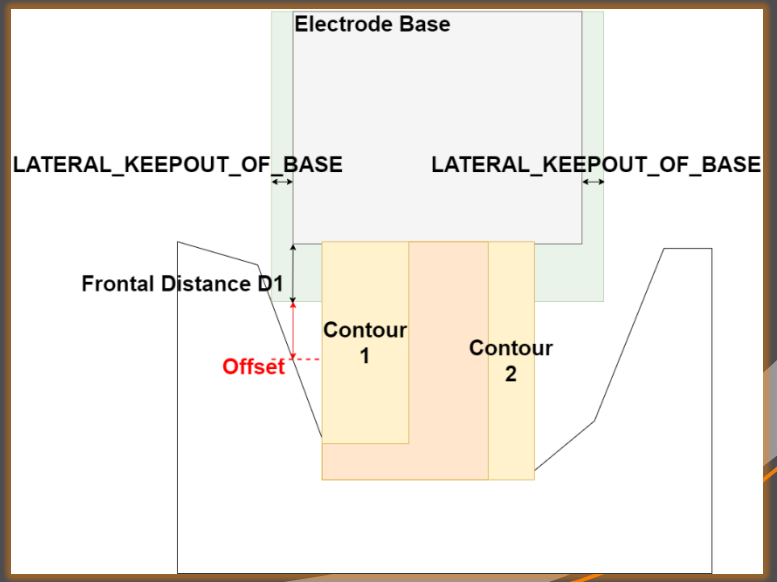
- Introduce new option #Electrode #LATERAL_KEEPOUT_OF_BASE
  https://redmine.buw-soft.de/issues/13766

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_OF_BASE



Enhancement

What

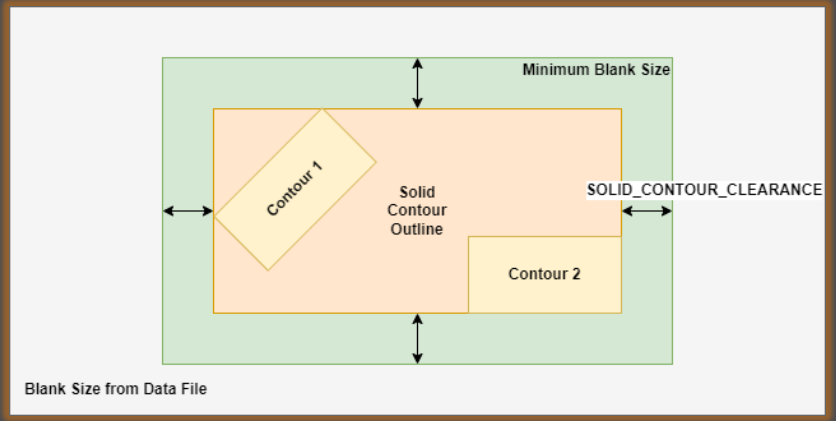
- Introduce new option #Electrode #SOLID_CONTOUR_CLEARANCE
  https://redmine.buw-soft.de/issues/13765

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

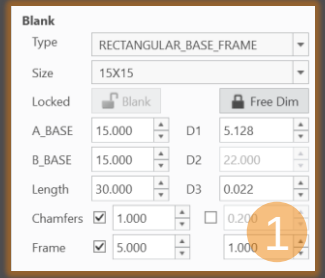
- Allow enabling or disabling automatic calculation of a variable measure in the Base UI. https://redmine.buw-soft.de/issues/13672
- (related to: https://redmine.buw-soft.de/issues/12517)

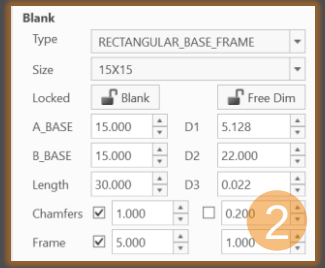
Why

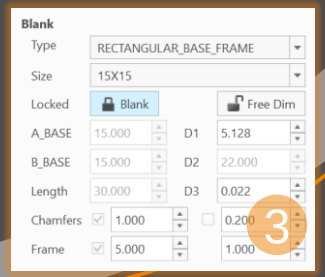
- Allows users to switch between both behaviors

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.







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 archieve 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

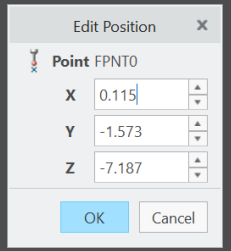
- Edit CMM points in user interface
- https://redmine.buw-soft.de/issues/12392

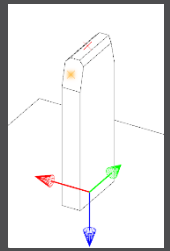
Why

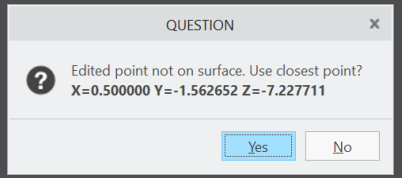
- Move measuring points to even value

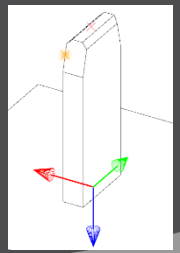
How

- 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

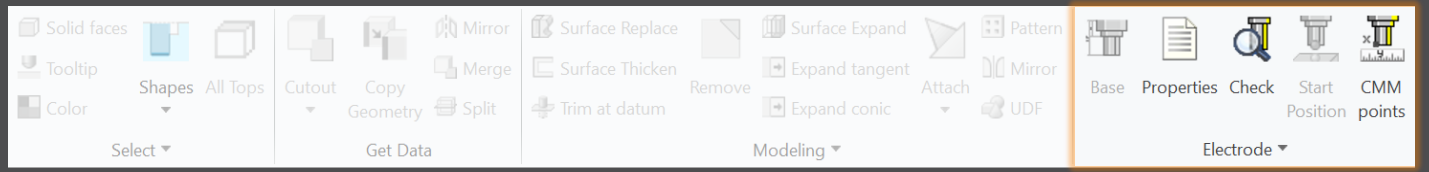
What

- 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