

Simcenter 3D 2021.1 xMCF Extension

xMCF Weld Position Partial Compatibility Simcenter 3D 2020.2

Seam Weld Connection

General
Flanges
Locations
Tolerances
Weld Properties

Number of Welds
☒ 2 ☐ 3 ☐ 4

Weld 1

Location: Flange 1, Side 1

Section: U

Filler Material: MAT1 1

Shape: Straight

Penetration: 1

Weld 2

Location: Vector

u: .50

Specify Vector

Section: U

Filler Material: MAT1 1

Shape: Straight

Penetration: 1

OK Apply Cancel

Information

CONNECTION EXPORT INFORMATION

Valid connections will be exported to C:\SeamWeld.xmlcf file

Invalid Location Type is set in weld properties for Connection - 'Seam Weld Connection_23_24_25' u, x, y, z will be incorrect!

1 connection exported to xMCF file

```
<version>3.0.0</version>
<units force="N" length="mm" mass="t"/>
<date>2020-12-10</date>
<connection_group id="1">
  <connected_to>
    <part index="1" pid="23"/>
    <part index="2" pid="24"/>
    <part index="3" pid="25"/>
  </connected_to>
  <connection_list>
    <connection_id label="Seam Weld Connection_23_24_25">
      <loc_list>
        <loc>0.000000 0.000000 240.000000</loc>
        <loc>0.000000 30.000000 240.000000</loc>
      </loc_list>
      <seamweld>
        <corner_weld base="1" technology="Arc">
          <weld_position filler="yes" filler_material="MAT1 1" penetration="1.000000" section="U" shape="straight" u="0.000000" x="0.000000" y="0.000000" z="0.000000"/>
          <weld_position filler="yes" filler_material="MAT1 1" penetration="1.000000" section="U" shape="straight" u="0.500000" x="0.707107" y="0.000000" z="-0.707107"/>
          <sheet_parameter gap="1.000000" index="2" sheet_angle="0.0174532925"/>
          <sheet_parameter gap="1.000000" index="3" sheet_angle="0.0174532925"/>
        </corner_weld>
      </seamweld>
    </connection_id>
  </connection_list>
</connection_group>
</xmcf>
```

xMCF Weld Position Compatibility Extension Simcenter 3D 2021.1



Connection Export

Select Input

✓ Select Object (1)

Output File Units

Units (Force)(Length)(M) (N)(mm)(t)

☐ Specify Time Unit sec

☐ Specify Torque Unit N-m

☐ Specify Angle Unit radians

Output File Name

File Name

Information

CONNECTION EXPORT INFORMATION

Valid connections will be exported to C:\SeamWeld2.xmcf file

The weld location vector is computed from the Flange/Side location type for the Connection - Seam Weld Connection 23_24_25

1 connection exported to xMCF file

```
<units force="N" length="mm" mass="t"/>
<date>2020-12-10</date>
connection_group id="1">
  <connected_to>
    <part index="1" pid="23"/>
    <part index="2" pid="25"/>
    <part index="3" pid="24"/>
  </connected_to>
  <connection_list>
    <connection_id label="Seam Weld: Corner Weld (Double) (Group(12) / Group(13) / Group(14))">
      <loc_list>
        <loc>0.000000 30.000000 240.000000</loc>
        <loc>0.000000 20.000000 240.000000</loc>
        <loc>0.000000 10.000000 240.000000</loc>
        <loc>0.000000 0.000000 240.000000</loc>
      </loc_list>
      <seamweld>
        <corner_weld base="1" technology="Arc">
          <weld_position filler="no" penetration="1.000000" section="U" shape="straight" u="0.000000" x="0.632456" y="-0.447213" z="-0.632456"/>
          <weld_position filler="no" penetration="1.000000" section="V" shape="straight" u="0.500000" x="0.707107" y="0.000000" z="0.707107"/>
          <sheet_parameter gap="0.000000" index="2" sheet_angle="0.0174532925"/>
          <sheet_parameter gap="0.000000" index="3" sheet_angle="0.0174532925"/>
        </corner_weld>
      </seamweld>
    </connection_id>
  </connection_list>
</connection_group>
</xmcf>
```


Support of xMCF in Simcenter 3D



Generic:

```
<appdata>  
<connection_group>  
  <connected_to>  
    <assy>  
    <part>  
  <connection_list>  
    <connection_0d>  
    <connection_1d>
```

+ support of corresponding nested elements.

Connections:

```
<spotweld>  
<bolt>  
<seamweld>
```

+ support of corresponding nested elements.