

## Funktionsliste der 3DViewStation-Produktfamilie

Information as per October 27, 2023. Errors excepted, information is subject to change without notice at any time.

| Functionality |         |                      | Desktop, ActiveX |             |                  |           |                      |                        |                  |                         | WebViewer |             |                      |                        |                  |                         |
|---------------|---------|----------------------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
| Category      | Item    | Detail               | 2D basic         | 2D advanced | 3D all importers | 3D export | 3D advanced analysis | 3D feature recognition | 3D IP protection | Technical documentation | WebViewer | 2D advanced | 3D advanced analysis | 3D feature recognition | 3D IP protection | Technical documentation |
| file          | open    |                      | ●                | ●           | ●                |           |                      |                        |                  |                         | API       | ●           |                      |                        |                  |                         |
|               | import  |                      | ●                | ●           | ●                |           |                      |                        |                  |                         | API       | ●           |                      |                        |                  |                         |
|               | save as |                      | ●                | ●           | ●                |           |                      |                        |                  |                         | API       | ●           |                      |                        |                  |                         |
|               | convert |                      |                  |             |                  | ●         |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|               | print   |                      | ●                | ●           | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
| settings      | search  | search for a setting | ●                | ●           | ●                | ●         | ●                    |                        | ●                | ●                       | ●         | ●           | ●                    |                        | ●                | ●                       |
|               | import  | tessellation         |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | import  | BREP                 |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | import  | attributes           |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | import  | wireframes           |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | import  | PMIs                 |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |

| Functionality |              |                       | Desktop, ActiveX |             |                  |           |                      |                        |                  |                         | WebViewer |             |                      |                        |                  |                         |
|---------------|--------------|-----------------------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
| Category      | Item         | Detail                | 2D basic         | 2D advanced | 3D all importers | 3D export | 3D advanced analysis | 3D feature recognition | 3D IP protection | Technical documentation | WebViewer | 2D advanced | 3D advanced analysis | 3D feature recognition | 3D IP protection | Technical documentation |
|               | import       | help constructions    |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | import       | views                 |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | import       | filter                |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | import       | replace node names    |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | import       | recursive file search |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | import       | incremental           |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | export       | BREP or tessellation  |                  |             |                  | ●         |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | export       | PDF + template        |                  |             |                  | ●         |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
| rendering     | solid        |                       |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | wireframe    |                       |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | illustration |                       |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | silhouette   |                       |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | opaque       |                       |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | material     |                       |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |

| Functionality |                      |            | Desktop, ActiveX |             |                  |           |                      |                        |                  |                         | WebViewer |             |                      |                        |                  |                         |
|---------------|----------------------|------------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
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|               | shadow               |            |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | grid                 |            |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | invert               | background | ●                | ●           |                  |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|               | black / white mode   |            | ●                | ●           |                  |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|               | full screen          |            |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | split screen         |            |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|               | focus                |            |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | hardware accelerated |            | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | software mode        |            | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | remove edges         |            |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | re-calculate edges   |            |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
| navigation    | zoom                 |            | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | pan                  |            | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | rotate               |            | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |

| Functionality |                  |          | Desktop, ActiveX |             |                  |           |                      |                        |                  |                         | WebViewer |             |                      |                        |                  |                         |
|---------------|------------------|----------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
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|               | fly through      |          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | page             | next     | ●                | ●           |                  |           |                      |                        |                  |                         |           | ●           |                      |                        |                  |                         |
|               | page             | previous | ●                | ●           |                  |           |                      |                        |                  |                         |           | ●           |                      |                        |                  |                         |
|               | layer            |          |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|               | standard views   |          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | PMI views        |          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | functional views |          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | play views       |          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | save views       |          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | load views       |          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
| selection     | click            |          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | add              |          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | remove           |          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | rectangle        |          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |

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|---------------|---------------------|----------------------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
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|               | all                 |                      |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | merge               | to single, recursive |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | intelligent picking |                      |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | drill down          |                      |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | hide                |                      |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | ghost               |                      |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | invert              |                      |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | delete              |                      |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | mode                | select               |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | mode                | ghost                |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | mode                | hide                 |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | mode                | delete               |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | mode                | face                 |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | mode                | color                |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |



| Functionality            |                      |                      | Desktop, ActiveX |             |                  |           |                      |                        |                  |                         | WebViewer |             |                      |                        |                  |                         |
|--------------------------|----------------------|----------------------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
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|                          | by object type       |                      |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|                          | search PMI           | 3D file formats only |                  |             | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|                          | search Markups       |                      |                  |             | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|                          | text search          | 2D file formats only | ●                | ●           |                  |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|                          | neighbourhood search | box                  |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                          | neighbourhood search | sphere               |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                          | neighbourhood search | linear distance      |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
| Measurements & dimension | point                |                      | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|                          | length               |                      | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|                          | length               | cumulated            | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|                          | center               |                      | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|                          | perimeter            |                      | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|                          | radius               |                      | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|                          | diameter             |                      | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |

| Functionality |                |                   | Desktop, ActiveX |             |                  |           |                      |                        |                  |                         | WebViewer |             |                      |                        |                  |                         |
|---------------|----------------|-------------------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
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|               | area           |                   |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | area           | cumulated         |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | angle          | edge              | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | angle          | line              | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | angle          | point             | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | angle          | coordinate system |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | wall thickness |                   |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | bounding box   | world             |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | bounding box   | part              |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | distance       | points            | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | distance       | lines             | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | distance       | edges             |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | distance       | axis              |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | distance       | faces             |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |



| Functionality |                   |              | Desktop, ActiveX |             |                  |           |                      |                        |                  |                         | WebViewer |             |                      |                        |                  |                         |
|---------------|-------------------|--------------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
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|               | distance          | solids       |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | distance          | combinations |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | calibrate         |              | ●                | ●           |                  |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
| properties    | volume            |              |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | surface           |              |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | density           |              |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | mass              |              |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | center of gravity |              |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | color             |              |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | transparency      |              |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | attributes        |              |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | wires             | color        |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | background image  | color        |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | background        | image        |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |

| Functionality     |                |                   | Desktop, ActiveX |             |                  |           |                      |                        |                  |                         | WebViewer |             |                      |                        |                  |                         |
|-------------------|----------------|-------------------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
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|                   | skybox         |                   |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
| analysis standard | section        | coordinate system |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                   | section        | normal of face    |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                   | section        | 3 points          |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|                   | compare        | quick             |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                   | compare        | exact             |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                   | projected area |                   |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                   | BOM            |                   |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
| analysis advanced | draft angle    |                   |                  |             |                  |           | ●                    |                        |                  |                         |           |             | ●                    |                        |                  |                         |
|                   | split          |                   |                  |             |                  |           | ●                    |                        |                  |                         |           |             | ●                    |                        |                  |                         |
|                   | clash          |                   |                  |             |                  |           | ●                    |                        |                  |                         |           |             | ●                    |                        |                  |                         |
|                   | wall thickness | graduated heatmap |                  |             |                  |           | ●                    |                        |                  |                         |           |             | ●                    |                        |                  |                         |
|                   | convex hull    |                   |                  |             |                  |           | ●                    |                        |                  |                         |           |             | ●                    |                        |                  |                         |
|                   | curvature      | graduated heatmap |                  |             |                  |           | ●                    |                        |                  |                         |           |             | ●                    |                        |                  |                         |

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|                     | clearance band analysis   | graduated heatmap |                  |             |                  |           | ●                    |                        |                  |                         |           |             | ●                    |                        |                  |                         |
| feature recognition | neutral axis              |                   |                  |             |                  |           |                      | ●                      |                  |                         |           |             |                      | ●                      |                  |                         |
|                     | drill hole                |                   |                  |             |                  |           |                      | ●                      |                  |                         |           |             |                      | ●                      |                  |                         |
| IP protection       | distort tessellation      |                   |                  |             |                  |           |                      |                        | ●                |                         |           |             |                      |                        | ●                |                         |
|                     | distort BREP              |                   |                  |             |                  |           |                      |                        | ●                |                         |           |             |                      |                        | ●                |                         |
|                     | remove internal parts     |                   |                  |             |                  |           |                      |                        | ●                |                         |           |             |                      |                        | ●                |                         |
|                     | remove internal faces     |                   |                  |             |                  |           |                      |                        | ●                |                         |           |             |                      |                        | ●                |                         |
|                     | remove triangles internal |                   |                  |             |                  |           |                      |                        | ●                |                         |           |             |                      |                        | ●                |                         |
|                     | convex hull               |                   |                  |             |                  |           |                      |                        | ●                |                         |           |             |                      |                        | ●                |                         |
| transform           | move                      |                   |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                     | rotate                    |                   |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                     | scale                     |                   |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                     | explode                   |                   |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                     | mirror                    |                   |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |

| Functionality     |  |        | Desktop, ActiveX |             |                  |           |                      |                        |                  |                         | WebViewer |             |                      |                        |                  |                         |
|-------------------|--|--------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
| Category          | Item                                   | Detail | 2D basic         | 2D advanced | 3D all importers | 3D export | 3D advanced analysis | 3D feature recognition | 3D IP protection | Technical documentation | WebViewer | 2D advanced | 3D advanced analysis | 3D feature recognition | 3D IP protection | Technical documentation |
|                   | free drag                              |        |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                   | coordinate system to coordinate system |        |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|                   | axis to axis                           |        |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|                   | lock direction                         |        |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|                   | lock rotation axis                     |        |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|                   | animated rotation                      |        |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
| help construction | create coordinate system               |        |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                   | create circle center                   |        |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                   | create point                           |        |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                   | create axis                            |        |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|                   | activate coordinate system             |        |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
| redline / markup  | text annotation                        |        | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|                   | circle                                 |        | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |

| Functionality           |                     |                          | Desktop, ActiveX |             |                  |           |                      |                        |                  |                         | WebViewer |             |                      |                        |                  |                         |
|-------------------------|---------------------|--------------------------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
| Category                | Item                | Detail                   | 2D basic         | 2D advanced | 3D all importers | 3D export | 3D advanced analysis | 3D feature recognition | 3D IP protection | Technical documentation | WebViewer | 2D advanced | 3D advanced analysis | 3D feature recognition | 3D IP protection | Technical documentation |
|                         | rectangle           |                          | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|                         | free hand           |                          | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
| technical documentation | generate BOM Ids    |                          |                  |             |                  |           |                      |                        |                  | ●                       |           |             |                      |                        |                  | ●                       |
|                         | callout generate    | automatic                |                  |             |                  |           |                      |                        |                  | ●                       |           |             |                      |                        |                  | ●                       |
|                         | callout generate    | interactively            |                  |             |                  |           |                      |                        |                  | ●                       |           |             |                      |                        |                  | ●                       |
|                         | callout arrangement | automatic                |                  |             |                  |           |                      |                        |                  | ●                       |           |             |                      |                        |                  | ●                       |
|                         | callout arrangement | interactively            |                  |             |                  |           |                      |                        |                  | ●                       |           |             |                      |                        |                  | ●                       |
|                         | callout properties  | shapes, balloons & lines |                  |             |                  |           |                      |                        |                  | ●                       |           |             |                      |                        |                  | ●                       |
| publish                 | bitmap              |                          | ●                | ●           | ●                |           |                      |                        |                  |                         | API       | API         |                      |                        |                  |                         |
|                         | PDF                 |                          | ●                | ●           | ●                |           |                      |                        |                  |                         | API       | API         |                      |                        |                  |                         |
|                         | HLR to DXF          |                          |                  |             | ●                |           |                      |                        |                  |                         | API       |             |                      |                        |                  |                         |
|                         | HLR to SVG          |                          |                  |             | ●                |           |                      |                        |                  |                         | API       |             |                      |                        |                  |                         |
|                         | callout lines       |                          |                  |             | ●                |           |                      |                        |                  |                         | API       |             |                      |                        |                  |                         |
|                         | clipboard           |                          | ●                | ●           | ●                |           |                      |                        |                  |                         | API       | API         |                      |                        |                  |                         |

| Functionality |                  |                    | Desktop, ActiveX |             |                  |           |                      |                        |                  |                         | WebViewer |             |                      |                        |                  |                         |
|---------------|------------------|--------------------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
| Category      | Item             | Detail             | 2D basic         | 2D advanced | 3D all importers | 3D export | 3D advanced analysis | 3D feature recognition | 3D IP protection | Technical documentation | WebViewer | 2D advanced | 3D advanced analysis | 3D feature recognition | 3D IP protection | Technical documentation |
|               | export           |                    |                  |             | ●                |           |                      |                        |                  |                         | API       |             |                      |                        |                  |                         |
| various       | instances        | optimize           |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | Skybox generator |                    |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|               | undo             |                    | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | face extraction  |                    |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | color code       |                    |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | hyperlinking     |                    |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | UI               | ribbon Office like | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | UI               | change color       | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | UI               | change language    | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | UI               | customize layout   | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | UI               | extend by PlugIn   | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | UI               | reset layout       | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | settings         | save profile       | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |

| Functionality |                  |                   | Desktop, ActiveX |             |                  |           |                      |                        |                  |                         | WebViewer |             |                      |                        |                  |                         |
|---------------|------------------|-------------------|------------------|-------------|------------------|-----------|----------------------|------------------------|------------------|-------------------------|-----------|-------------|----------------------|------------------------|------------------|-------------------------|
| Category      | Item             | Detail            | 2D basic         | 2D advanced | 3D all importers | 3D export | 3D advanced analysis | 3D feature recognition | 3D IP protection | Technical documentation | WebViewer | 2D advanced | 3D advanced analysis | 3D feature recognition | 3D IP protection | Technical documentation |
|               | settings         | load profile      | ●                | ●           | ●                |           |                      |                        |                  |                         | ●         | ●           |                      |                        |                  |                         |
|               | 2D font replace  | single, table     |                  | ●           |                  |           |                      |                        |                  |                         |           | ●           |                      |                        |                  |                         |
|               | 3D mouse support | 3D Connexion      |                  |             | ●                |           |                      |                        |                  |                         |           |             |                      |                        |                  |                         |
|               | wires            | remove            |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | wires            | generate          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | faces            | remove            |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | faces            | generate          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | normals          | remove            |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | normals          | generate          |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | tessellation     | reduce            |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | geometries       | detect duplicates |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | geometries       | detect tiny       |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |
|               | geometries       | re-center         |                  |             | ●                |           |                      |                        |                  |                         | ●         |             |                      |                        |                  |                         |