

# Comparison of commands and tools by product for Vectorworks 2021

This document lists all of the commands and tools available in this version of Vectorworks software, and the products in which they are available. This allows you to easily compare features side by side for each product.

The first section covers commands on both regular menus and context menus. The second section covers tools in every tool palette and tool set.

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                         | Path                                  | F | D | A | L | S | B | C |
|---------------------------------|---------------------------------------|---|---|---|---|---|---|---|
| 1-1/2 Space                     | Text > Spacing                        | X | X | X | X | X | X | X |
| 2D Plan                         | View > Projection                     | X | X | X | X | X | X | X |
| 2D Polys to 3D Source Data...   | AEC > Survey Input                    |   | X | X |   |   |   |   |
| 2D Polys to 3D Source Data...   | Landmark > Survey Input               |   |   |   | X |   |   |   |
| 3D Polys to 3D Loci...          | AEC > Survey Input                    |   | X |   |   |   |   |   |
| 3D Polys to 3D Loci...          | Landmark > Survey Input               |   |   |   | X |   |   |   |
| 3D Properties...                | AEC > Machine Design                  |   | X | X |   |   |   |   |
| 3D Properties...                | Landmark > Machine Design             |   |   |   | X |   |   |   |
| 3D Properties...                | Spotlight > Machine Design            |   |   |   |   | X | X |   |
| <Esc><Esc> does not exit group  | Window > Edit Group Options           | X | X | X | X | X | X | X |
| <Esc><Esc> exits group          | Window > Edit Group Options           | X | X | X | X | X | X | X |
| About Vectorworks               | Help (Windows only)                   | X | X | X | X | X | X | X |
| About Vectorworks               | Vectorworks (Macintosh only)          | X | X | X | X | X | X | X |
| About...                        | Cloud                                 | X | X | X | X | X | X | X |
| Activate Class                  | Document Context Menu                 | X | X | X | X | X | X | X |
| Activate Class                  | Object Context Menu                   | X | X | X | X | X | X | X |
| Activate Layer                  | Document Context Menu                 | X | X | X | X | X | X | X |
| Activate Layer                  | Object Context Menu                   | X | X | X | X | X | X | X |
| Activate Object Info Palette    | Document Context Menu > Palettes      | X | X | X | X | X | X | X |
| Activate Object Info Palette    | Window > Palettes                     | X | X | X | X | X | X | X |
| Active Layer Scale...           | Document Context Menu                 | X | X | X | X | X | X | X |
| Active Only                     | Document Context Menu > Class Options | X | X | X | X | X | X | X |
| Active Only                     | View > Class Options                  | X | X | X | X | X | X | X |
| Active Only                     | Document Context Menu > Layer Options | X | X | X | X | X | X | X |
| Active Only                     | View > Layer Options                  | X | X | X | X | X | X | X |
| Add 3D Object To Slab...        | AEC                                   |   | X | X |   |   |   |   |
| Add 3D Object To Slab...        | Landmark > Architectural              |   |   |   | X |   |   |   |
| Add 3D Object To Slab...        | Spotlight > Architectural             |   |   |   |   | X | X |   |
| Add Area Modifier to Space      | Object Context Menu                   |   | X | X | X | X | X | X |
| Add Dimension                   | Object Context Menu                   | X | X | X | X | X | X | X |
| Add Keyframe                    | Object Context Menu                   | X | X | X | X | X | X | X |
| Add Leader Line                 | Object Context Menu                   | X | X | X | X | X | X | X |
| Add Point Loads at Selection... | Braceworks                            |   | + |   |   |   | X |   |
| Add Profile                     | Object Context Menu                   |   | X | X | X |   |   |   |
| Add Solids                      | Model                                 | X | X | X | X | X | X | X |
| Add Specific Marker             | Object Context Menu                   |   | + |   |   | X | X | X |
| Add Surface                     | Modify                                | X | X | X | X | X | X | X |

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| Command  | Path                                  | F | D | A | L | S | B | C |
|--|---------------------------------------|---|---|---|---|---|---|---|
| Add Text to Database...                                    | Text                                  |   | X | X | X | X | X |   |
| Administrative Release...                                  | Object Context Menu                   |   | X | X | X | X | X |   |
| Align Bottom   | Object Context Menu                   | X | X | X | X | X | X | X |
| Align Center   | Object Context Menu                   | X | X | X | X | X | X | X |
| Align Insertion Point Horizontally                         | Object Context Menu                   | X | X | X | X | X | X | X |
| Align Insrtion Point Vertically                            | Object Context Menu                   | X | X | X | X | X | X | X |
| Align Layer Views  | View                                  | X | X | X | X | X | X | X |
| Align Left   | Object Context Menu                   | X | X | X | X | X | X | X |
| Align Middle   | Object Context Menu                   | X | X | X | X | X | X | X |
| Align Right  | Object Context Menu                   | X | X | X | X | X | X | X |
| Align Stakes Vertically...                                 | AEC > Roads                           |   | X |   |   |   |   |   |
| Align Stakes Vertically...                                 | Landmark > Roads                      |   |   |   | X |   |   |   |
| Align to Grid  | Modify > Align                        | X | X | X | X | X | X | X |
| Align Top  | Object Context Menu                   | X | X | X | X | X | X | X |
| Align Working Plane with Current View                      | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Align Working Plane with Current View                      | Modify > Working Plane                | X | X | X | X | X | X | X |
| Align Working Plane with Layer Plane                       | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Align Working Plane with Layer Plane                       | Modify > Working Plane                | X | X | X | X | X | X | X |
| Align Working Plane X Axis with Layer Plane                | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Align Working Plane X Axis with Layer Plane                | Modify > Working Plane                | X | X | X | X | X | X | X |
| Align/Distribute   | Object Context Menu                   | X | X | X | X | X | X | X |
| Align/Distribute 3D...                                     | Modify > Align                        | X | X | X | X | X | X | X |
| Align/Distribute Leader Lines...                           | Modify > Align                        | X | X | X | X | X | X | X |
| Align/Distribute...  | Modify > Align                        | X | X | X | X | X | X | X |
| All Layers Cable Report                                    | ConnectCAD > Documentation            |   | + |   |   |   |   | X |
| All Layers Device Report                                   | ConnectCAD > Documentation            |   | + |   |   |   |   | X |
| Allow numeric keypad entry for instant data bar activation | Window > Data Bar Options             | X | X | X | X | X | X | X |
| Animate Scenes...  | Spotlight > Visualization             |   | + |   |   | X | X |   |
| Arc into Segments...                                       | Modify > Drafting Aids                | X | X | X | X | X | X | X |
| Arc Smoothing  | Modify > Poly Smoothing               | X | X | X | X | X | X | X |
| Architect  | Tools > Workspaces                    |   | X | X |   |   |   |   |
| Arrange Icons  | Window                                | X | X | X | X | X | X | X |
| Artistic Brush Brown Thin                                  | View > Renderworks Style              | X | X | X | X | X | X | X |
| Artistic Chunky Thick Purple                               | View > Renderworks Style              | X | X | X | X | X | X | X |
| Artistic Cloned Thin Green                                 | View > Renderworks Style              | X | X | X | X | X | X | X |
| Artistic Pencil Thick Blue                                 | View > Renderworks Style              | X | X | X | X | X | X | X |

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| Command   | Path                             | F | D | A | L | S | B | C |
|---|----------------------------------|---|---|---|---|---|---|---|
| Artistic Renderworks  | View > Rendering                 | X | X | X | X | X | X | X |
| Artistic Renderworks Options...                                 | View > Rendering                 | X | X | X | X | X | X | X |
| Artistic Shadow Blue  | View > Renderworks Style         | X | X | X | X | X | X | X |
| Artistic Taper Thick Black                                      | View > Renderworks Style         | X | X | X | X | X | X | X |
| Assign Legend Properties to Selected                            | Object Context Menu              |   | X |   |   | X | X | X |
| Assign Legend to Lighting Devices                               | Object Context Menu              |   | X |   |   | X |   |   |
| Assign Legend to Lighting Devices...                            | Object Context Menu              |   | + |   |   | X | X |   |
| Assign Legend to Lighting Devices...                            | Spotlight > Label Legend         |   | + |   |   | X | X |   |
| Assign Multicable Circuits...                                   | Spotlight > Cables               |   | + |   |   | X | X |   |
| Attach Record...  | Tools > Records                  | X | X | X | X | X | X | X |
| Attach to Rigging Object  | Object Context Menu              |   | X |   |   | X | X | X |
| Attributes  | Document Context Menu > Palettes | X | X | X | X | X | X | X |
| Attributes  | Window > Palettes                | X | X | X | X | X | X | X |
| Auto cycle to non-displayed fields when tabbing past last field | Window > Data Bar Options        | X | X | X | X | X | X | X |
| Auto Number Positions   | Spotlight                        |   | + |   |   | X | X |   |
| Auto-Hide Docked Palettes                                       | Window > Palette Options         | X | X | X | X | X | X | X |
| Auto-Hide Floating Palettes                                     | Window > Palette Options         | X | X | X | X | X | X | X |
| Back  | View > Standard Views            | X | X | X | X | X | X | X |
| Basic   | Window > Palettes                | X | X | X | X | X | X | X |
| Batch Convert...  | File                             | X | X | X | X | X | X | X |
| Batch Rename...   | Tools                            | X | X | X | X | X | X | X |
| Belt Length Calculator...                                       | AEC > Machine Design             |   | X | X |   |   |   |   |
| Belt Length Calculator...                                       | Landmark > Machine Design        |   |   |   | X |   |   |   |
| Belt Length Calculator...                                       | Spotlight > Machine Design       |   |   |   |   | X | X |   |
| Bezier Spline Smoothing   | Modify > Poly Smoothing          | X | X | X | X | X | X | X |
| Bold  | Text > Font Style                | X | X | X | X | X | X | X |
| Bottom  | View > Standard Views            | X | X | X | X | X | X | X |
| Bottom  | Text > Alignment                 | X | X | X | X | X | X | X |
| Bottom Baseline   | Text > Alignment                 | X | X | X | X | X | X | X |
| Braceworks  | Tools > Workspaces               |   | X |   |   |   | X | X |
| Braceworks Preferences...                                       | Spotlight > Rigging              |   | + |   |   | X | X |   |
| Bridle Preferences...   | Spotlight > Rigging              |   | + |   |   | X | X |   |
| Cable Preferences...  | Spotlight > Preview Features     |   | + |   |   | X | X |   |
| Cable Settings...   | Spotlight > Cables               |   | + |   |   | X | X |   |
| Calculate All Objects...  | Braceworks                       |   | + |   |   |   | X |   |
| Calculate Cable Lengths...                                      | ConnectCAD > Documentation       |   | + |   |   |   |   | X |

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| Command                           | Path                             | F | D | A | L | S | B | C |
|-----------------------------------|----------------------------------|---|---|---|---|---|---|---|
| Calculate Load Combinations...    | Braceworks                       |   | + |   |   |   | X |   |
| Calculate Selection...            | Braceworks                       |   | + |   |   |   | X |   |
| Calculate Visible...              | Braceworks                       |   | + |   |   |   | X |   |
| Calculation Overview...           | Braceworks                       |   | + |   |   |   | X |   |
| Cameras                           | Document Context Menu > Palettes | X | X | X | X | X | X | X |
| Cameras                           | Window > Palettes                | X | X | X | X | X | X | X |
| Cancel All Viewport Updates       | View                             | X | X | X | X | X | X | X |
| Cascade                           | Window                           | X | X | X | X | X | X | X |
| Center                            | Text > Alignment                 | X | X | X | X | X | X | X |
| Center                            | Text > Alignment                 | X | X | X | X | X | X | X |
| Center Drawing on Internal Origin | Tools > Origin                   | X | X | X | X | X | X | X |
| Centroid                          | AEC > Machine Design             |   | X | X |   |   |   |   |
| Centroid                          | Landmark > Machine Design        |   |   |   | X |   |   |   |
| Centroid                          | Spotlight > Machine Design       |   |   |   |   | X | X |   |
| Chain Length Calculator...        | AEC > Machine Design             |   | X | X |   |   |   |   |
| Chain Length Calculator...        | Landmark > Machine Design        |   |   |   | X |   |   |   |
| Chain Length Calculator...        | Spotlight > Machine Design       |   |   |   |   | X | X |   |
| Change All Fields...              | Tools > Records                  | X | X | X | X | X | X | X |
| Change Configuration              | Object Context Menu              |   | X |   |   | X | X | X |
| Change One Field...               | Tools > Records                  | X | X | X | X | X | X | X |
| Change Plant Grouping             | AEC > Plants                     |   | X |   |   |   |   |   |
| Change Plant Grouping             | Landmark                         |   |   |   | X |   |   |   |
| Change Plant Grouping             | Object Context Menu              |   |   |   | X |   |   |   |
| Change Symbol Attrs...            | Tools > Utilities                | X | X | X | X | X | X | X |
| Change Trim Height of System      | Object Context Menu              |   | X |   |   | X | X | X |
| Check Drawing...                  | ConnectCAD > Drawing             |   | + |   |   |   |   | X |
| Check Drawing...                  | Document Context Menu            |   |   |   |   |   |   | X |
| Check Drawing...                  | Object Context Menu              |   |   |   |   |   |   | X |
| Check for Updates                 | Help (Windows only)              | X | X | X | X | X | X | X |
| Check for Updates                 | Vectorworks (Macintosh only)     | X | X | X | X | X | X | X |
| Check Out...                      | Modify                           |   | X | X | X | X | X |   |
| Check Out...                      | Object Context Menu              |   | X | X | X | X | X |   |
| Check Spelling...                 | Text                             | X | X | X | X | X | X | X |
| Choose Plant Data Source...       | AEC > Plants                     |   | X |   |   |   |   |   |
| Choose Plant Data Source...       | Document Context Menu            |   |   |   | X |   |   |   |
| Choose Plant Data Source...       | Landmark                         |   |   |   | X |   |   |   |
| Circuit Assign Preference...      | Spotlight > Cables               |   | + |   |   | X | X |   |

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| Command                        | Path                             | F | D | A | L | S | B | C |
|--------------------------------|----------------------------------|---|---|---|---|---|---|---|
| Class and Layer Mapping...     | Tools                            |   | X | X | X |   |   |   |
| Classes                        | Document Context Menu > Palettes | X | X | X | X | X | X | X |
| Classes                        | Window > Palettes                | X | X | X | X | X | X | X |
| Clear                          | Edit                             | X | X | X | X | X | X | X |
| Clear Cable Numbers            | ConnectCAD > Drawing             |   | + |   |   |   |   | X |
| Clear Calculation Results      | Braceworks                       |   | + |   |   |   | X |   |
| Clear Markup                   | ConnectCAD > Drawing             |   | + |   |   |   |   | X |
| Clear Markup                   | Document Context Menu            |   |   |   |   |   |   | X |
| Clear Markup                   | Object Context Menu              |   |   |   |   |   |   | X |
| Clip Cube                      | View                             | X | X | X | X | X | X | X |
| Clip Surface                   | Modify                           | X | X | X | X | X | X | X |
| Close                          | File                             | X | X | X | X | X | X | X |
| Close Active View Pane         | Object Context Menu              | X | X | X | X | X | X | X |
| Close Active View Pane         | View > Multiple View Panes       | X | X | X | X | X | X | X |
| Close All                      | Window                           | X | X | X | X | X | X | X |
| Close and Release              | File                             |   | X | X | X | X | X | X |
| Cloud Publish...               | Cloud                            | X | X | X | X | X | X | X |
| Combine Into Surface           | Modify                           | X | X | X | X | X | X | X |
| Compare Cable List and Drawing | ConnectCAD > Compare             |   | + |   |   |   |   | X |
| Compose                        | Modify                           | X | X | X | X | X | X | X |
| Compress Images...             | Tools                            | X | X | X | X | X | X | X |
| Conductor Sizing Calc...       | AEC > Electrical                 |   | X | X |   |   |   |   |
| Conduit Sizing Calc...         | AEC > Electrical                 |   | X | X |   |   |   |   |
| Connect Selected               | ConnectCAD > Drawing             |   | + |   |   |   |   | X |
| ConnectCAD                     | Tools > Workspaces               |   | X |   |   |   | X | X |
| ConnectCAD Report              | ConnectCAD > Documentation       |   | + |   |   |   |   | X |
| ConnectCAD Settings...         | ConnectCAD                       |   | + |   |   |   |   | X |
| Control Values for Keys...     | AEC > Machine Design             |   | X | X |   |   |   |   |
| Control Values for Keys...     | Landmark > Machine Design        |   |   |   | X |   |   |   |
| Control Values for Keys...     | Spotlight > Machine Design       |   |   |   |   | X | X |   |
| Conversion Factors...          | AEC > Machine Design             |   | X | X |   |   |   |   |
| Conversion Factors...          | Landmark > Machine Design        |   |   |   | X |   |   |   |
| Conversion Factors...          | Spotlight > Machine Design       |   |   |   |   | X | X |   |
| Convert Arc to Radius Polyline | Object Context Menu              | X | X | X | X | X | X | X |
| Convert Copy to Lines          | Modify > Convert                 | X | X | X | X | X | X | X |
| Convert Copy to Polygons       | Modify > Convert                 | X | X | X | X | X | X | X |
| Convert Object to Dimension    | Modify > Convert                 | X | X | X | X | X | X | X |

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| Command                               | Path                          | F | D | A | L | S | B | C |
|---------------------------------------|-------------------------------|---|---|---|---|---|---|---|
| Convert Old Hoists                    | Tools > Utilities             |   | + |   |   | X | X |   |
| Convert Old Notes to New...           | Text                          |   | X | X | X | X | X |   |
| Convert Report to List                | ConnectCAD > Compare          |   | + |   |   |   |   | X |
| Convert Text to Polylines             | Text                          | X | X | X | X | X | X | X |
| Convert to 3D Polys                   | Modify > Convert              | X | X | X | X | X | X | X |
| Convert to Area Light...              | Modify > Convert              | X | X | X | X | X | X | X |
| Convert to Boundary                   | Object Context Menu           |   | X |   | X |   |   |   |
| Convert to Cable...                   | Spotlight > Cables            |   | + |   |   | X | X |   |
| Convert to Generic Solids             | Modify > Convert              | X | X | X | X | X | X | X |
| Convert to Group                      | Modify > Convert              | X | X | X | X | X | X | X |
| Convert to Hanging Position           | Object Context Menu           |   | X |   |   | X | X | X |
| Convert To Hanging Position           | Spotlight > Object Conversion |   | + |   |   | X | X |   |
| Convert To Lighting Device            | Spotlight > Object Conversion |   | + |   |   | X | X |   |
| Convert to Line Light...              | Modify > Convert              | X | X | X | X | X | X | X |
| Convert to Lines                      | Modify > Convert              | X | X | X | X | X | X | X |
| Convert to Menu Command               | Object Context Menu           |   | X | X | X | X | X | X |
| Convert to Mesh                       | Modify > Convert              | X | X | X | X | X | X | X |
| Convert to NURBS                      | Modify > Convert              | X | X | X | X | X | X | X |
| Convert to Object Node                | Object Context Menu           |   | X | X | X | X | X | X |
| Convert to Pathway                    | Object Context Menu           |   | X |   | X |   |   |   |
| Convert to Plug-in Object             | Modify > Convert              | X | X | X | X | X | X | X |
| Convert to Polygons                   | Modify > Convert              | X | X | X | X | X | X | X |
| Convert to Subdivision                | Modify > Convert              | X | X | X | X | X | X | X |
| Convert to Truss...                   | Braceworks                    |   | + |   |   |   | X |   |
| Convert to Viewport                   | Modify > Convert              |   | X | X | X | X | X |   |
| Convert to Viewport (from layer link) | Object Context Menu           | X | + | + | + | + | + | + |
| Convert to Wrapper Node               | Object Context Menu           | X | X | X | X | X | X | X |
| Convert Truss to Symbol...            | Braceworks                    |   | + |   |   |   | X |   |
| Copy                                  | Edit                          | X | X | X | X | X | X | X |
| Copy                                  | Object Context Menu           | X | X | X | X | X | X | X |
| Crease all Edges                      | Object Context Menu           | X | X | X | X | X | X | X |
| Crease all Vertices                   | Object Context Menu           | X | X | X | X | X | X | X |
| Create 3D Loci at Grade Points        | AEC > Terrain                 |   | X |   |   |   |   |   |
| Create 3D Loci at Grade Points        | Landmark                      |   |   |   | X |   |   |   |
| Create 3D Object From 2D              | AEC > Machine Design          |   | X | X |   |   |   |   |
| Create 3D Object From 2D              | Landmark > Machine Design     |   |   |   | X |   |   |   |
| Create 3D Object From 2D              | Spotlight > Machine Design    |   |   |   |   | X | X |   |

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| Command                                     | Path                         | F | D | A | L | S | B | C |
|---|------------------------------|---|---|---|---|---|---|---|
| Create Auto Hybrid                          | AEC                          |   | X | X |   |   |   |   |
| Create Auto Hybrid                          | Landmark > Architectural     |   |   |   | X |   |   |   |
| Create Auto Hybrid                          | Spotlight > Architectural    |   |   |   |   | X | X |   |
| Create Batch Render Job...                  | View > Rendering             | X | X | X | X | X | X | X |
| Create Bridle Assembly Diagrams...          | Spotlight > Rigging          |   | + |   |   | X | X |   |
| Create Bridle Report...                     | Spotlight > Reports          |   | + |   |   | X | X |   |
| Create Cable Report...                      | Spotlight > Preview Features |   | + |   |   | X | X |   |
| Create Cable Worksheet...                   | Spotlight > Reports          |   | + |   |   | X | X |   |
| Create Calculation Report...                | Braceworks                   |   | + |   |   |   | X |   |
| Create Color Chart...                       | Tools > Utilities            | X | X | X | X | X | X | X |
| Create Data Visualization Legend            | Object Context Menu          |   | X | X | X | X | X | X |
| Create Detail Viewport...                   | View                         |   | X | X | X | X | X |   |
| Create Dividing Lines...                    | Modify > Drafting Aids       | X | X | X | X | X | X | X |
| Create Drape Surface...                     | Model > 3D Power Pack        | X | X | X | X | X | X | X |
| Create Existing Trees From Loci...          | AEC > Existing Trees         |   | X |   |   |   |   |   |
| Create Existing Trees From Loci...          | Landmark > Existing Trees    |   |   |   | X |   |   |   |
| Create Fillet Surface...                    | Model > 3D Power Pack        | X | X | X | X | X | X | X |
| Create Floating View Pane                   | Object Context Menu          | X | X | X | X | X | X | X |
| Create Floating View Pane                   | View > Multiple View Panes   | X | X | X | X | X | X | X |
| Create Gobo Texture...                      | Spotlight > Visualization    |   | + |   |   | X | X |   |
| Create Grade Limits from Pad...             | AEC > Terrain                |   | X |   |   |   |   |   |
| Create Grade Limits from Pad...             | Landmark                     |   |   |   | X |   |   |   |
| Create Helix-Spiral...                      | Model > 3D Power Pack        | X | X | X | X | X | X | X |
| Create Hoist Report...                      | Spotlight > Reports          |   | + |   |   | X | X |   |
| Create Horizontal Section Viewport...       | View                         |   | X | X | X | X | X |   |
| Create Image Prop...                        | Model                        | X | X | X | X | X | X | X |
| Create Interior Elevation Viewport...       | View                         |   | X | X |   |   |   |   |
| Create Interpolated Surface...              | Model > 3D Power Pack        | X | X | X | X | X | X | X |
| Create Joists...                            | AEC > Framing                |   | X | X |   |   |   |   |
| Create Joists...                            | Landmark > Architectural     |   |   |   | X |   |   |   |
| Create Label                                | AEC > Energos                |   | X | X |   |   |   |   |
| Create Label Legend from Lighting Device... | Spotlight > Label Legend     |   | + |   |   | X | X |   |
| Create Layer Link...                        | View                         | X | + | + | + | + | + | X |
| Create LECTERN...                           | Event Design                 |   | + |   |   | X | X |   |
| Create Movie                                | Object Context Menu          | X | X | X | X | X | X | X |
| Create Multiple Viewports...                | View                         |   | X | X | X | X | X |   |
| Create Objects from Shapes...               | AEC                          |   | X | X |   |   |   |   |



## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                                  | Path                        | F | D | A | L | S | B | C |
|--|-----------------------------|---|---|---|---|---|---|---|
| Create Objects from Shapes...            | Landmark                    |   |   |   | X |   |   |   |
| Create Objects from Shapes...            | Modify                      |   |   |   |   | X | X |   |
| Create Objects from Shapes...            | Object Context Menu         |   | X | X | X | X | X |   |
| Create Orbit Path...                     | Model > Create Animation... | X | X | X | X | X | X | X |
| Create Pad from Grade Limits...          | AEC > Terrain               |   | X |   |   |   |   |   |
| Create Pad from Grade Limits...          | Landmark                    |   |   |   | X |   |   |   |
| Create Panel Riser Diag...               | Tools > Reports             |   | X | X |   |   |   |   |
| Create Panel Schedule...                 | Tools > Reports             |   | X | X |   |   |   |   |
| Create Piping Runs                       | AEC > Electrical            |   | X | X |   |   |   |   |
| Create Planar Caps                       | Model > 3D Power Pack       | X | X | X | X | X | X | X |
| Create Plant Style from Catalog...       | AEC > Plants                |   | X |   |   |   |   |   |
| Create Plant Style from Catalog...       | Landmark                    |   |   |   | X |   |   |   |
| Create Plant Style from Selection...     | AEC > Plants                |   | X |   |   |   |   |   |
| Create Plant Style from Selection...     | Document Context Menu       |   |   |   | X |   |   |   |
| Create Plant Style from Selection...     | Landmark                    |   |   |   | X |   |   |   |
| Create Plug-in Style...                  | Tools                       | X | X | X | X | X | X | X |
| Create Polys from Walls...               | AEC                         |   | X | X |   |   |   |   |
| Create Polys from Walls...               | Landmark > Architectural    |   |   |   | X |   |   |   |
| Create Polys from Walls...               | Spotlight > Architectural   |   |   |   |   | X | X |   |
| Create Redline Status WS                 | Text > Redlines             |   | X | X | X | X | X |   |
| Create Report...                         | Spotlight > Reports         |   | + |   |   | X | X |   |
| Create Report...                         | Tools > Reports             | X | X | X | X | + | + | X |
| Create Retaining Wall Site Modifier...   | AEC > Terrain               |   | X |   |   |   |   |   |
| Create Retaining Wall Site Modifier...   | Landmark                    |   |   |   | X |   |   |   |
| Create Rm Finish Legend...               | Tools > Reports             |   | X | X |   |   |   |   |
| Create Road from Stakes...               | AEC > Roads                 |   | X |   |   |   |   |   |
| Create Road from Stakes...               | Landmark > Roads            |   |   |   | X |   |   |   |
| Create Roof...                           | AEC                         |   | X | X |   |   |   |   |
| Create Roof...                           | Landmark > Architectural    |   |   |   | X |   |   |   |
| Create Roof...                           | Spotlight > Architectural   |   |   |   |   | X | X |   |
| Create Room...                           | Event Design                |   | + |   |   | X | X |   |
| Create Saddle                            | Object Context Menu         |   | X | X | X | X | X | X |
| Create Schematic View...                 | Spotlight > Visualization   |   | + |   |   | X | X |   |
| Create Screen...                         | Event Design                |   | + |   |   | X | X |   |
| Create Section Viewport (from clip cube) | Object Context Menu         |   | X | X | X | X | X | X |
| Create Section Viewport...               | View                        |   | X | X | X | X | X |   |
| Create Sheet List...                     | Tools > Reports             |   | X | X |   |   |   |   |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                                     | Path                        | F | D | A | L | S | B | C |
|---|-----------------------------|---|---|---|---|---|---|---|
| Create Similar Object                       | Object Context Menu         |   | X | X | X | X | X |   |
| Create Site Model Volume List...            | AEC > Terrain               |   | X | X |   |   |   |   |
| Create Site Model Volume List...            | Landmark                    |   |   |   | X |   |   |   |
| Create Solid Section from Grade Objects     | AEC                         |   | X | X |   |   |   |   |
| Create Solid Section from Grade Objects     | Landmark > Architectural    |   |   |   | X |   |   |   |
| Create Solid Section from Grade Objects     | Spotlight > Architectural   |   |   |   |   | X | X |   |
| Create Spaces from Polys                    | AEC > Space Planning        |   | X | X | + | + |   |   |
| Create Spaces from Walls...                 | AEC > Space Planning        |   | X | X | + | + |   |   |
| Create Spin Path...                         | Model > Create Animation... | X | X | X | X | X | X | X |
| Create Stage...                             | Event Design                |   | + |   |   | X | X |   |
| Create Stair...                             | Event Design                |   | + |   |   | X | X |   |
| Create Standard Viewports..                 | File > Document Settings    |   | X | X |   |   |   |   |
| Create Stepped Wall...                      | AEC                         |   | X | X |   |   |   |   |
| Create Stepped Wall...                      | Landmark > Architectural    |   |   |   | X |   |   |   |
| Create Subdivision Primitive...             | Model                       | X | X | X | X | X | X | X |
| Create Surface Array...                     | Model                       |   | X | X | X | X | X |   |
| Create Surface from Curves                  | Model > 3D Power Pack       | X | X | X | X | X | X | X |
| Create Symbol...                            | Modify                      | X | X | X | X | X | X | X |
| Create Viewport...                          | View                        | X | X | X | X | X | X | X |
| Create Views                                | Event Design                |   | + |   |   | X | X |   |
| Create Walkthrough Path from Saved Views... | Model > Create Animation... | X | X | X | X | X | X | X |
| Create Walkthrough Path from Selection      | Model > Create Animation... | X | X | X | X | X | X | X |
| Create Wall Projection...                   | AEC                         |   | X | X |   |   |   |   |
| Create Wall Projection...                   | Landmark > Architectural    |   |   |   | X |   |   |   |
| Create Wall Projection...                   | Spotlight > Architectural   |   |   |   |   | X | X |   |
| Create Wall Recess...                       | AEC                         |   | X | X |   |   |   |   |
| Create Wall Recess...                       | Landmark > Architectural    |   |   |   | X |   |   |   |
| Create Wall Recess...                       | Spotlight > Architectural   |   |   |   |   | X | X |   |
| Create Walls from Spaces...                 | AEC > Space Planning        |   | X | X | + | + |   |   |
| Cross Section Workload...                   | Braceworks                  |   | + |   |   |   | X |   |
| Cubic Spline Smoothing                      | Modify > Poly Smoothing     | X | X | X | X | X | X | X |
| Current Layer Cable Labels                  | ConnectCAD > Documentation  |   | + |   |   |   |   | X |
| Current Layer Cable Report                  | ConnectCAD > Documentation  |   | + |   |   |   |   | X |
| Current Layer Device Report                 | ConnectCAD > Documentation  |   | + |   |   |   |   | X |
| Custom Checkout...                          | Tools                       |   | X | X | X | X | X |   |
| Custom Modification...                      | Tools                       |   | X | X | X | X | X |   |
| Custom Release...                           | Tools                       |   | X | X | X | X | X |   |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                                 | Path                             | F | D | A | L | S | B | C |
|---|----------------------------------|---|---|---|---|---|---|---|
| Custom Renderworks                      | View > Rendering                 | X | X | X | X | X | X | X |
| Custom Renderworks Options...           | View > Rendering                 | X | X | X | X | X | X | X |
| Custom Selection...                     | Tools                            | X | X | X | X | X | X | X |
| Custom Tool/Attribute...                | Tools                            | X | X | X | X | X | X | X |
| Customize Truss Symbol Data             | Object Context Menu              |   | X |   |   | X | X | X |
| Cut                                     | Edit                             | X | X | X | X | X | X | X |
| Cut                                     | Object Context Menu              | X | X | X | X | X | X | X |
| Cut 2D Section                          | Model                            | X | + | + | + | + | + | X |
| Cut 3D Section                          | Model                            | X | + | + | + | + | + | X |
| Dashed Hidden Line                      | View > Rendering                 | X | X | X | X | X | X | X |
| Data                                    | Document Context Menu > Palettes | X | X | X | X | X | X | X |
| Data                                    | Window > Palettes                | X | X | X | X | X | X | X |
| Data Manager...                         | Tools                            |   | X | X | X | X | X |   |
| Decompose                               | Modify                           | X | X | X | X | X | X | X |
| Delete                                  | Object Context Menu              | X | X | X | X | X | X | X |
| Delete All Guides                       | Modify > Guides                  | X | X | X | X | X | X | X |
| Delete Dimension                        | Object Context Menu              | X | X | X | X | X | X | X |
| Delete Frames                           | Object Context Menu              |   | X | X | X | X | X | X |
| Delete Keyframe                         | Object Context Menu              | X | X | X | X | X | X | X |
| Delete Leader Line                      | Object Context Menu              | X | X | X | X | X | X | X |
| Delete Profile                          | Object Context Menu              |   | X | X | X |   |   |   |
| Delete User-Provided 2D Components      | Object Context Menu              | X | X | X | X | X | X | X |
| Delete Wall Peaks...                    | AEC                              |   | X | X |   |   |   |   |
| Delete Wall Peaks...                    | Landmark > Architectural         |   |   |   | X |   |   |   |
| Delete Witness Line                     | Object Context Menu              | X | X | X | X | X | X | X |
| Design Layers                           | Document Context Menu > Palettes | X | X | X | X | X | X | X |
| Design Layers                           | Window > Palettes                | X | X | X | X | X | X | X |
| Designer                                | Tools > Workspaces               |   | X |   |   |   |   |   |
| Detach from Grade Network               | Object Context Menu              |   | X | X | X | X | X | X |
| Detach From Pipe Network                | Object Context Menu              |   | X |   | X |   |   |   |
| Detach Record...                        | Tools > Records                  | X | X | X | X | X | X | X |
| Dimension Exterior Walls...             | AEC                              |   | X | X |   |   |   |   |
| Dimension Exterior Walls...             | Landmark > Architectural         |   |   |   | X |   |   |   |
| Dimension Exterior Walls...             | Spotlight > Architectural        |   |   |   |   | X | X |   |
| Dimension Grid Sequence                 | Object Context Menu              |   | X | X | X | X | X | X |
| Disassociate                            | Object Context Menu              | X | X | X | X | X | X | X |
| Display Repetitions (line type editing) | Object Context Menu              | X | X | X | X | X | X | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command  | Path                       | F | D | A | L | S | B | C |
|--|----------------------------|---|---|---|---|---|---|---|
| Display Tile Repetitions   | Object Context Menu        | X | X | X | X | X | X | X |
| Distribute Frames  | Object Context Menu        |   | X | X | X | X | X | X |
| Distribute Horizontally (Spacing)                                      | Object Context Menu        | X | X | X | X | X | X | X |
| Distribute Vertically (Spacing)  | Object Context Menu        | X | X | X | X | X | X | X |
| DMX Patch...   | Spotlight                  |   | + |   |   | X | X |   |
| Do not allow instant data bar activation                               | Window > Data Bar Options  | X | X | X | X | X | X | X |
| Do not allow numeric keypad entry for instant data bar activation      | Window > Data Bar Options  | X | X | X | X | X | X | X |
| Do not auto cycle to non-displayed fields when tabbing past last field | Window > Data Bar Options  | X | X | X | X | X | X | X |
| Do not show floating data bar after datum creation                     | Window > Data Bar Options  | X | X | X | X | X | X | X |
| Do not use floating data bar - show data bar fields on fixed data bar  | Window > Data Bar Options  | X | X | X | X | X | X | X |
| Document Preferences...  | Document Context Menu      | X | X | X | X | X | X | X |
| Document Preferences...  | File > Document Settings   | X | X | X | X | X | X | X |
| Document Setup...  | File > Document Settings   |   | X | X | X |   |   |   |
| Double Space   | Text > Spacing             | X | X | X | X | X | X | X |
| Download Content   | Help                       | X | X | X | X | X | X | X |
| Draw Cam Diagrams  | AEC > Machine Design       |   | X | X |   |   |   |   |
| Draw Cam Diagrams  | Landmark > Machine Design  |   |   |   | X |   |   |   |
| Draw Cam Diagrams  | Spotlight > Machine Design |   |   |   |   | X | X |   |
| Dropbox Integration  | Cloud                      | X | X | X | X | X | X | X |
| Duplicate  | Edit                       | X | X | X | X | X | X | X |
| Duplicate Along Path...  | Edit                       | X | X | X | X | X | X | X |
| Duplicate Array...   | Edit                       | X | X | X | X | X | X | X |
| Edit   | Object Context Menu        | X | X | X | X | X | X | X |
| Edit 2D Components   | Object Context Menu        | X | X | X | X | X | X | X |
| Edit 3D Component  | Object Context Menu        | X | X | X | X | X | X | X |
| Edit 3D Wall Hole Component  | Object Context Menu        | X | X | X | X | X | X | X |
| Edit Annotations   | Object Context Menu        | X | X | X | X | X | X | X |
| Edit Array Items   | Object Context Menu        |   | X | X | X | X | X | X |
| Edit Base Surface  | Object Context Menu        |   | X | X | X | X | X | X |
| Edit Border Slab Style   | Object Context Menu        |   | X | X | X |   |   |   |
| Edit Boundary  | Object Context Menu        |   | X | X | X | X | X | X |
| Edit Bubble Layout   | Object Context Menu        |   | X | X | X | X | X | X |
| Edit Camera  | Object Context Menu        | X | X | X | X | X | X | X |
| Edit Connection(s)   | Object Context Menu        |   | X | X | X | X | X | X |
| Edit Constraints...  | Modify                     | X | X | X | X | X | X | X |
| Edit Control Geometry  | Object Context Menu        | X | X | X | X | X | X | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                                     | Path                | F | D | A | L | S | B | C |
|---|---------------------|---|---|---|---|---|---|---|
| Edit Crop                                   | Object Context Menu | X | X | X | X | X | X | X |
| Edit Crop (pdf)                             | Modify              | X | X | X | X | X | X | X |
| Edit Current Workspace...                   | Tools > Workspaces  | X | X | X | X | X | X | X |
| Edit Description                            | Object Context Menu |   | X | X | X | X | X | X |
| Edit Design Layer                           | Object Context Menu | X | X | X | X | X | X | X |
| Edit Dimension                              | Object Context Menu | X | X | X | X | X | X | X |
| Edit Drain(s)/Drainage                      | Object Context Menu |   | X | X | X | X | X | X |
| Edit Elevation In-Place                     | Object Context Menu |   | X | X | X | X |   |   |
| Edit Existing Site Model Contours           | Object Context Menu |   | X | X | X |   |   |   |
| Edit Existing Site Model Surface            | Object Context Menu |   | X | X | X |   |   |   |
| Edit Features                               | Object Context Menu | X | X | X | X | X | X | X |
| Edit Frames                                 | Object Context Menu |   | X | X | X | X | X | X |
| Edit Group                                  | Modify              | X | X | X | X | X | X | X |
| Edit Image Attributes                       | Object Context Menu | X | X | X | X | X | X | X |
| Edit Image Effects                          | Object Context Menu | X | X | X | X | X | X | X |
| Edit Light                                  | Object Context Menu |   | X |   |   | X | X | X |
| Edit Main Slab Style                        | Object Context Menu |   | X | X | X |   |   |   |
| Edit Manual Edge                            | Object Context Menu |   | X | X | X | X | X | X |
| Edit Marker List...                         | Tools > Options     | X | X | X | X | X | X | X |
| Edit Modifiers                              | Object Context Menu |   | X | X | X | X | X | X |
| Edit Object Connection                      | Tools > Database    |   | X | X | X | X | X |   |
| Edit Panels                                 | Object Context Menu |   | X | X | X | X | X | X |
| Edit Path                                   | Object Context Menu | X | X | X | X | X | X | X |
| Edit Plug-in Style                          | Object Context Menu | X | X | X | X | X | X | X |
| Edit Profile                                | Object Context Menu | X | X | X | X | X | X | X |
| Edit Proposed Site Model Contours           | Object Context Menu |   | X | X | X |   |   |   |
| Edit Proposed Site Model Surface            | Object Context Menu |   | X | X | X |   |   |   |
| Edit Referenced Design Layer (design layer) | Object Context Menu | X | X | X | X | X | X | X |
| Edit Roof Style                             | Object Context Menu |   | X | X | X | X | X | X |
| Edit Script                                 | Object Context Menu |   | X | X | X | X | X | X |
| Edit Section In-Place                       | Object Context Menu |   | X | X | X | X |   |   |
| Edit Site Model Crop                        | Object Context Menu |   | X | X | X |   |   |   |
| Edit Slab Addition Settings                 | Object Context Menu |   | X | X | X | X | X | X |
| Edit Slab Style                             | Object Context Menu |   | X | X | X | X | X | X |
| Edit Slab Subtraction Settings              | Object Context Menu |   | X | X | X | X | X | X |
| Edit Solid                                  | Object Context Menu | X | X | X | X | X | X | X |
| Edit Surface Modifiers                      | Object Context Menu |   | X | X | X |   |   |   |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                                       | Path                       | F | D | A | L | S | B | C |
|---|----------------------------|---|---|---|---|---|---|---|
| Edit Tag Data                                 | Object Context Menu        |   | X | X | X | X | X | X |
| Edit Tag Layout                               | Object Context Menu        |   | X | X | X | X | X | X |
| Edit Using Curtain Wall Tool                  | Object Context Menu        |   | X | X | X | X | X | X |
| Edit Using Reshape Tool                       | Object Context Menu        |   | X | X | X | X | X | X |
| Edit Valley(s) (slab slope valleys)           | Object Context Menu        |   | X | X | X | X | X | X |
| Edit Wall Style                               | Object Context Menu        |   | X | X | X | X | X | X |
| Enable Multiple View Panes                    | Object Context Menu        | X | X | X | X | X | X | X |
| Enable Multiple View Panes                    | View > Multiple View Panes | X | X | X | X | X | X | X |
| Encrypt Script...                             | Tools > Plug-ins           | X | X | X | X | X | X | X |
| Engineering Properties...                     | Model                      | X | X | X | X | X | X | X |
| Even Divide...                                | Modify > Drafting Aids     | X | X | X | X | X | X | X |
| Exit Group                                    | Modify                     | X | X | X | X | X | X | X |
| Exit Viewport                                 | Object Context Menu        | X | X | X | X | X | X | X |
| Export  | Object Context Menu        |   | X | X | X | X | X | X |
| Export 3D PDF (3D only)...                    | File > Export              |   | X | X | X | X | X |   |
| Export 3DS (3D only)...                       | File > Export              |   | X | X | X | X | X |   |
| Export as Vectorworks <previous version> File | File > Export              | X | X | X | X | X | X | X |
| Export ASCII Patch...                         | File > Export              |   | + |   |   | X | X |   |
| Export Braceworks Structure...                | Braceworks                 |   | + |   |   |   | X |   |
| Export Cinema 4D (3D only)...                 | File > Export              | X | X | X | X | X | X | X |
| Export COLLADA (3D only)...                   | File > Export              | X | X | X | X | X | X | X |
| Export Database...                            | File > Export              | X | X | X | X | X | X | X |
| Export DWF...                                 | File > Export              | X | X | X | X | X | X | X |
| Export DXF/DWG...                             | File > Export              | X | X | X | X | X | X | X |
| Export Energy Data...                         | AEC > Energos              |   | X | X |   |   |   |   |
| Export EPSF...                                | File > Export              | X | X | X | X | X | X | X |
| Export ESC...                                 | File > Export              |   | + |   |   | X | X |   |
| Export FBX (3D only)...                       | File > Export              | X | X | X | X | X | X | X |
| Export High Dynamic Range Image (HDRI)...     | File > Export              | X | X | X | X | X | X | X |
| Export IFC Project...                         | File > Export              |   | X | X | X | X | X |   |
| Export IGES (3D only)...                      | File > Export              | X | X | X | X | X | X | X |
| Export Image File...                          | File > Export              | X | X | X | X | X | X | X |
| Export KML (3D only)...                       | File > Export              |   | X | X | X | X | X |   |
| Export Lighting Device Data...                | File > Export              |   | + |   |   | X | X |   |
| Export Metafile...                            | File > Export              | X | X | X | X | X | X | X |
| Export MVR...                                 | File > Export              |   | + |   |   | X | X |   |
| Export OBJ (3D only)...                       | File > Export              | X | X | X | X | X | X | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                                 | Path                                  | F | D | A | L | S | B | C |
|---|---------------------------------------|---|---|---|---|---|---|---|
| Export Panorama (3D only)...            | File > Export                         | X | X | X | X | X | X | X |
| Export Parasolid X_T (3D only)...       | File > Export                         | X | X | X | X | X | X | X |
| Export PDF...                           | File > Export                         | X | X | X | X | X | X | X |
| Export Plant                            | Object Context Menu                   |   | X |   | X |   |   |   |
| Export Revit (3D Geometry only)...      | File > Export                         |   | X | X | X | X | X |   |
| Export Rhino 3DM (3D only)...           | File > Export                         | X | X | X | X | X | X | X |
| Export SAT (3D only)...                 | File > Export                         | X | X | X | X | X | X | X |
| Export Script...                        | File > Export                         | X | X | X | X | X | X | X |
| Export Shapefile...                     | File > Export                         |   | X | X | X |   |   |   |
| Export Simple VectorScript (3D only)... | File > Export                         | X | X | X | X | X | X | X |
| Export STEP (3D only)...                | File > Export                         | X | X | X | X | X | X | X |
| Export STL (3D only)...                 | File > Export                         | X | X | X | X | X | X | X |
| Export Web View (3D only)...            | File > Export                         |   | X | X | X | X | X |   |
| Export Worksheet...                     | File > Export                         | X | X | X | X | X | X | X |
| Extend NURBS...                         | Model > 3D Power Pack                 | X | X | X | X | X | X | X |
| Extract 3D Loci from Point Cloud ...    | Model > Point Clouds                  |   | X | X | X | X | X |   |
| Extrude Along Path                      | Model                                 | X | X | X | X | X | X | X |
| Extrude...                              | Model                                 | X | X | X | X | X | X | X |
| Fast Renderworks                        | View > Rendering                      | X | X | X | X | X | X | X |
| File Info...                            | File                                  | X | X | X | X | X | X | X |
| Final Quality Renderworks               | View > Rendering                      | X | X | X | X | X | X | X |
| Final Shaded Polygon                    | View > Rendering                      | X | X | X | X | X | X | X |
| Find and Modify...                      | Spotlight                             |   | + |   |   | X | X |   |
| Find-Replace Text...                    | Text                                  | X | X | X | X | X | X | X |
| Fit Bottom of Space to Objects...       | AEC > Space Planning                  |   | X | X | + | + |   |   |
| Fit To Objects                          | View > Zoom                           | X | X | X | X | X | X | X |
| Fit To Page Area                        | View > Zoom                           | X | X | X | X | X | X | X |
| Fit Top of Space to Objects...          | AEC > Space Planning                  |   | X | X | + | + |   |   |
| Fit Walls to Objects...                 | AEC                                   |   | X | X |   |   |   |   |
| Fit Walls to Objects...                 | Landmark > Architectural              |   |   |   | X |   |   |   |
| Flip                                    | Object Context Menu                   | X | X | X | X | X | X | X |
| Flip Horizontal                         | Modify > Rotate                       | X | X | X | X | X | X | X |
| Flip Horizontal                         | Object Context Menu > Rotate          | X | X | X | X | X | X | X |
| Flip Vertical                           | Modify > Rotate                       | X | X | X | X | X | X | X |
| Flip Vertical                           | Object Context Menu > Rotate          | X | X | X | X | X | X | X |
| Flip X'                                 | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Flip X'                                 | Modify > Working Plane                | X | X | X | X | X | X | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                                  | Path                                  | F | D | A | L | S | B | C |
|--|---------------------------------------|---|---|---|---|---|---|---|
| Flip Y'                                  | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Flip Y'                                  | Modify > Working Plane                | X | X | X | X | X | X | X |
| Flip Z'                                  | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Flip Z'                                  | Modify > Working Plane                | X | X | X | X | X | X | X |
| Floating palettes can dock to each other | Window > Palette Options              | X | X | X | X | X | X | X |
| Floor...                                 | AEC                                   |   | X | X |   |   |   |   |
| Floor...                                 | Landmark > Architectural              |   |   |   | X |   |   |   |
| Floor...                                 | Spotlight > Architectural             |   |   |   |   | X | X |   |
| Focus Lighting Devices Along Path...     | Document Context Menu                 |   | + |   |   | X | X |   |
| Focus Lighting Devices...                | Object Context Menu                   |   |   |   |   | X | X |   |
| Focus Lighting Devices...                | Spotlight                             |   | + |   |   | X | X |   |
| Font (list of installed fonts)           | Text                                  | X | X | X | X | X | X | X |
| Force Select                             | Document Context Menu                 | X | X | X | X | X | X | X |
| Force Select                             | Object Context Menu                   | X | X | X | X | X | X | X |
| Format Text...                           | Text                                  | X | X | X | X | X | X | X |
| Front                                    | View > Standard Views                 | X | X | X | X | X | X | X |
| Front-Rear Rack View...                  | ConnectCAD > Layout                   |   | + |   |   |   |   | X |
| Fundamentals                             | Tools > Workspaces                    | X | X | X | X | X | X | X |
| Generate 2D from 3D Component            | Object Context Menu                   | X | X | X | X | X | X | X |
| Generate Paperwork...                    | Spotlight > Reports                   |   | + |   |   | X | X |   |
| Georeferencing...                        | File > Document Settings              |   | X | X | X | X | X |   |
| Get Analysis from AutoTURN Online...     | AEC > AutoTURN Online                 |   | X | X |   |   |   |   |
| Get Analysis from AutoTURN Online...     | Landmark > AutoTURN Online            |   |   |   | X |   |   |   |
| Get Analysis from AutoTURN Online...     | Spotlight > AutoTURN Online           |   |   |   |   | X | X |   |
| Get Distance Start to Click              | Spotlight > Cables                    |   | + |   |   | X | X |   |
| Getting Started Guides                   | Help                                  | X | X | X | X | X | X | X |
| Go to [Feature]                          | Object Context Menu                   | X | X | X | X | X | X | X |
| Gray Others                              | Document Context Menu > Class Options | X | X | X | X | X | X | X |
| Gray Others                              | View > Class Options                  | X | X | X | X | X | X | X |
| Gray Others                              | Document Context Menu > Layer Options | X | X | X | X | X | X | X |
| Gray Others                              | View > Layer Options                  | X | X | X | X | X | X | X |
| Gray/Snap Others                         | Document Context Menu > Class Options | X | X | X | X | X | X | X |
| Gray/Snap Others                         | View > Class Options                  | X | X | X | X | X | X | X |
| Gray/Snap Others                         | Document Context Menu > Layer Options | X | X | X | X | X | X | X |
| Gray/Snap Others                         | View > Layer Options                  | X | X | X | X | X | X | X |
| Grid Method Entry...                     | AEC > Survey Input                    |   | X | X |   |   |   |   |
| Grid Method Entry...                     | Landmark > Survey Input               |   |   |   | X |   |   |   |



## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                              | Path                             | F | D | A | L | S | B | C |
|--------------------------------------|----------------------------------|---|---|---|---|---|---|---|
| Group                                | Modify                           | X | X | X | X | X | X | X |
| Hatch...                             | Modify                           | X | X | X | X | X | X | X |
| Help                                 | Cloud                            | X | X | X | X | X | X | X |
| Hidden Line                          | View > Rendering                 | X | X | X | X | X | X | X |
| Hide (property line object)          | Object Context Menu              |   | X | X | X |   |   |   |
| Hide Enabled Palettes                | Document Context Menu > Palettes | X | X | X | X | X | X | X |
| Hide Enabled Palettes                | Window > Palettes                | X | X | X | X | X | X | X |
| Hide Guides                          | Modify > Guides                  | X | X | X | X | X | X | X |
| Hide Jump                            | Object Context Menu              |   | X |   | X |   |   |   |
| Hide Others (Mac only)               | Vectorworks                      | X | X | X | X | X | X | X |
| Hide Vectorworks (Mac only)          | Vectorworks                      | X | X | X | X | X | X | X |
| Hide Warning Icons                   | AEC > Irrigation                 |   | X |   |   |   |   |   |
| Hide Warning Icons                   | Landmark > Irrigation            |   |   |   | X |   |   |   |
| Highlight objects I have checked out | View > Project Sharing Options   |   | X | X | X | X | X |   |
| Highlight objects using User Colors  | View > Project Sharing Options   |   | X | X | X | X | X |   |
| IFC Data...                          | AEC                              |   | X | X |   |   |   |   |
| IFC Data...                          | Landmark > Architectural         |   |   |   | X |   |   |   |
| IFC Data...                          | Spotlight > Architectural        |   |   |   |   | X | X |   |
| IFC Zones, Systems and Groups...     | AEC                              |   | X | X |   |   |   |   |
| Import 3DS (3D only)...              | File > Import                    |   | X | X | X | X | X |   |
| Import Adjacency Matrix...           | AEC > Space Planning             |   | X | X | + | + |   |   |
| Import Cinema 4D Textures...         | File > Import                    | X | X | X | X | X | X | X |
| Import DXF/DWG or DWF...             | File > Import                    | X | X | X | X | X | X | X |
| Import EPSF...                       | File > Import                    | X | X | X | X | X | X | X |
| Import GDTF...                       | File > Import                    |   | + |   |   | X | X |   |
| Import IFC...                        | File > Import                    |   | X | X | X | X | X |   |
| Import IGES (3D only)...             | File > Import                    | X | X | X | X | X | X | X |
| Import Image File...                 | File > Import                    | X | X | X | X | X | X | X |
| Import Lighting Device Data...       | File > Import                    |   | + |   |   | X | X |   |
| Import Metafile as Bitmap...         | File > Import                    | X | X | X | X | X | X | X |
| Import Metafile...                   | File > Import                    | X | X | X | X | X | X | X |
| Import Mosa Pattern...               | File > Import                    | X | X | X | X | X | X | X |
| Import mtextrur...                   | File > Import                    | X | X | X | X | X | X | X |
| Import MVR...                        | File > Import                    |   | + |   |   | X | X |   |
| Import OBJ (3D only)...              | File > Import                    | X | X | X | X | X | X | X |
| Import Parasolid X_T (3D only)...    | File > Import                    | X | X | X | X | X | X | X |
| Import PartSpec...                   | AEC > Machine Design             |   | X | X |   |   |   |   |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                                    | Path                       | F | D | A | L | S | B | C |
|--|----------------------------|---|---|---|---|---|---|---|
| Import PartSpec...                         | Landmark > Machine Design  |   |   |   | X |   |   |   |
| Import PartSpec...                         | Spotlight > Machine Design |   |   |   |   | X | X |   |
| Import PDF...                              | File > Import              | X | X | X | X | X | X | X |
| Import PICT as Bitmap...                   | File > Import              | X | X | X | X | X | X | X |
| Import PICT...                             | File > Import              | X | X | X | X | X | X | X |
| Import Point Cloud...                      | File > Import              |   | X | X | X | X | X |   |
| Import Revit (Batch)...                    | File > Import              |   | X | X | X | X | X |   |
| Import Revit...                            | File > Import              |   | X | X | X | X | X |   |
| Import Rhino 3DM (3D only)...              | File > Import              | X | X | X | X | X | X | X |
| Import SAT (3D only)...                    | File > Import              | X | X | X | X | X | X | X |
| Import Script...                           | File > Import              | X | X | X | X | X | X | X |
| Import Shapefile...                        | File > Import              |   | X | X | X |   |   |   |
| Import Single DWF...                       | File > Import              | X | X | X | X | X | X | X |
| Import Single DXF/DWG...                   | File > Import              | X | X | X | X | X | X | X |
| Import SketchUp...                         | File > Import              |   | X | X | X | X | X |   |
| Import STEP (3D only)...                   | File > Import              | X | X | X | X | X | X | X |
| Import STL (3D only)...                    | File > Import              | X | X | X | X | X | X | X |
| Import Survey File...                      | AEC > Survey Input         |   | X | X |   |   |   |   |
| Import Survey File...                      | Landmark > Survey Input    |   |   |   | X |   |   |   |
| Import Tree Survey File...                 | AEC > Existing Trees       |   | X |   |   |   |   |   |
| Import Tree Survey File...                 | Landmark > Existing Trees  |   |   |   | X |   |   |   |
| Import Worksheet...                        | File > Import              | X | X | X | X | X | X | X |
| Insert Distributed Load at Selection...    | Braceworks                 |   | + |   |   |   | X |   |
| Insert Door (curtain wall)                 | Object Context Menu        |   | X | X | X | X | X | X |
| Insert Drop...                             | Braceworks                 |   | + |   |   |   | X |   |
| Insert House Rigging Point at Selection... | Spotlight > Rigging        |   | + |   |   | X | X |   |
| Insert Window (curtain wall)               | Object Context Menu        |   | X | X | X | X | X | X |
| Intersect Solids                           | Model                      | X | X | X | X | X | X | X |
| Intersect Surface                          | Modify                     | X | X | X | X | X | X | X |
| Invert Selection                           | Edit                       | X | X | X | X | X | X | X |
| Irrigation Settings...                     | AEC > Irrigation           |   | X |   |   |   |   |   |
| Irrigation Settings...                     | Landmark > Irrigation      |   |   |   | X |   |   |   |
| Italic                                     | Text > Font Style          | X | X | X | X | X | X | X |
| Join                                       | Modify > Join              | X | X | X | X | X | X | X |
| Join (no trim)                             | Modify > Join              | X | X | X | X | X | X | X |
| Join (wall object)                         | Object Context Menu        |   | X | X | X | X | X | X |
| Join and Fillet                            | Modify > Join              | X | X | X | X | X | X | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                                   | Path                                  | F | D | A | L | S | B | C |
|---|---------------------------------------|---|---|---|---|---|---|---|
| Justify                                   | Text > Alignment                      | X | X | X | X | X | X | X |
| Label Legend Manager...                   | Spotlight > Label Legend              |   | + |   |   | X | X |   |
| Landmark                                  | Tools > Workspaces                    |   | X |   | X |   |   |   |
| Launch Vectorworks Cloud Services Website | Cloud                                 | X | X | X | X | X | X | X |
| Left                                      | View > Standard Views                 | X | X | X | X | X | X | X |
| Left                                      | Text > Alignment                      | X | X | X | X | X | X | X |
| Left Isometric                            | View > Standard Views                 | X | X | X | X | X | X | X |
| Left Rear Iso                             | View > Standard Views                 | X | X | X | X | X | X | X |
| Lighting Inventory Setup...               | Spotlight > Reports                   |   | + |   |   | X | X |   |
| Lighting Symbol Maintenance...            | Spotlight > Reports                   |   | + |   |   | X | X |   |
| Lights                                    | Document Context Menu > Palettes      | X | X | X | X | X | X | X |
| Lights                                    | Window > Palettes                     | X | X | X | X | X | X | X |
| Line into Segments...                     | Modify > Drafting Aids                | X | X | X | X | X | X | X |
| Line Render Options...                    | View > Rendering                      | X | X | X | X | X | X | X |
| Line Thickness...                         | Tools > Options                       | X | X | X | X | X | X | X |
| Link Text to Record...                    | Modify                                | X | X | X | X | X | X | X |
| Link Text to Record...                    | Tools > Records                       | X | X | X | X | X | X | X |
| List Symbols...                           | Tools > Utilities                     | X | X | X | X | X | X | X |
| Load Overview...                          | Braceworks                            |   | + |   |   |   | X |   |
| Locate [Resource] in Resource Manager     | Object Context Menu                   | X | X | X | X | X | X | X |
| Locate Internal Origin                    | Tools > Origin                        | X | X | X | X | X | X | X |
| Lock                                      | Modify                                | X | X | X | X | X | X | X |
| Lock                                      | Object Context Menu                   | X | X | X | X | X | X | X |
| Log In to AutoTURN Online...              | AEC > AutoTURN Online                 |   | X | X |   |   |   |   |
| Log In to AutoTURN Online...              | Landmark > AutoTURN Online            |   |   |   | X |   |   |   |
| Log In to AutoTURN Online...              | Spotlight > AutoTURN Online           |   |   |   |   | X | X |   |
| Look at Working Plane                     | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Look at Working Plane                     | Modify > Working Plane                | X | X | X | X | X | X | X |
| Look at Working Plane                     | View                                  | X | X | X | X | X | X | X |
| lower case                                | Text > Capitalization                 | X | X | X | X | X | X | X |
| Lower Left Iso                            | View > Standard Views                 | X | X | X | X | X | X | X |
| Lower Left Rear                           | View > Standard Views                 | X | X | X | X | X | X | X |
| Lower Right Iso                           | View > Standard Views                 | X | X | X | X | X | X | X |
| Lower Right Rear                          | View > Standard Views                 | X | X | X | X | X | X | X |
| Make Cable Labels...                      | ConnectCAD > Documentation            |   | + |   |   |   |   | X |
| Make Connections from List                | ConnectCAD > Update                   |   | + |   |   |   |   | X |
| Make Data Cable Chain                     | Spotlight > Cables                    |   | + |   |   | X | X |   |

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| Command                                  | Path                             | F | D | A | L | S | B | C |
|--|----------------------------------|---|---|---|---|---|---|---|
| Make Devices from List                   | ConnectCAD > Update              |   | + |   |   |   |   | X |
| Make Guide                               | Modify > Guides                  | X | X | X | X | X | X | X |
| Make JF Labels...                        | ConnectCAD > Documentation       |   | + |   |   |   |   | X |
| Make Jumper Cable Chain...               | Spotlight > Cables               |   | + |   |   | X | X |   |
| Make TP Labels...                        | ConnectCAD > Documentation       |   | + |   |   |   |   | X |
| Manage AutoTURN Online Drawings...       | AEC > AutoTURN Online            |   | X | X |   |   |   |   |
| Manage AutoTURN Online Drawings...       | Landmark > AutoTURN Online       |   |   |   | X |   |   |   |
| Manage AutoTURN Online Drawings...       | Spotlight > AutoTURN Online      |   |   |   |   | X | X |   |
| Manage Bridle Parts...                   | Spotlight > Rigging              |   | + |   |   | X | X |   |
| Manage Cable Parts...                    | Spotlight > Preview Features     |   | + |   |   | X | X |   |
| Manage Databases...                      | Tools > Database                 |   | X | X | X | X | X |   |
| Manage Loads                             | Object Context Menu              |   | X |   |   | X | X | X |
| Manage Scenes...                         | Spotlight > Visualization        |   | + |   |   | X | X |   |
| Marionette Commands                      | Tools > Marionette Commands      |   | X | X | X | X | X |   |
| Marionette Commands                      | Tools                            |   | X | X | X | X | X | X |
| Mark Specific Distance...                | Spotlight > Cables               |   | + |   |   | X | X |   |
| Marker Style(s)                          | Object Context Menu              |   | X | X | X |   |   |   |
| Merge Point Clouds                       | Model > Point Clouds             |   | X | X | X | X | X |   |
| Merge Record Formats...                  | Tools > Records                  | X | X | X | X | X | X | X |
| Migration Manager...                     | Tools                            | X | X | X | X | X | X | X |
| Model to Floorplan...                    | AEC > Space Planning             |   | X | X | + | + |   |   |
| Modify [Feature]                         | Object Context Menu              | X | X | X | X | X | X | X |
| Modify by Record...                      | Tools > Records                  |   | X | X | X | X | X |   |
| Move 3D...                               | Modify > Move                    | X | X | X | X | X | X | X |
| Move Geographic...                       | Modify > Move                    |   | X |   | X |   |   |   |
| Move to Hanging Point                    | Object Context Menu              |   | X |   |   | X | X | X |
| Move...                                  | Modify > Move                    | X | X | X | X | X | X | X |
| Multicable Jumper Preferences...         | Spotlight > Cables               |   | + |   |   | X | X |   |
| Multiple Extrude...                      | Model                            | X | X | X | X | X | X | X |
| Narrow Perspective                       | View > Projection                | X | X | X | X | X | X | X |
| Navigation                               | Document Context Menu > Palettes |   | X | X | X | X | X | X |
| Navigation                               | Window > Palettes                |   | X | X | X | X | X | X |
| New Hatch From Locally Mapped Hatch      | Object Context Menu              | X | X | X | X | X | X | X |
| New Plug-in Style from Unstyled Plug-in  | Object Context Menu              | X | X | X | X | X | X | X |
| New Roof Style from Unstyled Roof        | Object Context Menu              |   | X | X | X | X | X | X |
| New Slab Style from Unstyled Border Slab | Object Context Menu              |   | X |   | X |   |   |   |
| New Slab Style from Unstyled Main Slab   | Object Context Menu              |   | X |   | X |   |   |   |

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| Command                                     | Path                                  | F | D | A | L | S | B | C |
|---|---------------------------------------|---|---|---|---|---|---|---|
| New Slab Style from Unstyled Slab           | Object Context Menu                   |   | X | X | X | X | X | X |
| New Tile From Locally Mapped Tile           | Object Context Menu                   | X | X | X | X | X | X | X |
| New Wall Style from Unstyled Wall           | Object Context Menu                   |   | X | X | X | X | X | X |
| New...                                      | File                                  | X | X | X | X | X | X | X |
| Next View                                   | View                                  | X | X | X | X | X | X | X |
| Next Working Plane                          | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Next Working Plane                          | Modify > Working Plane                | X | X | X | X | X | X | X |
| No Smoothing                                | Modify > Poly Smoothing               | X | X | X | X | X | X | X |
| Normal Perspective                          | View > Projection                     | X | X | X | X | X | X | X |
| Normal Scale                                | View > Zoom                           | X | X | X | X | X | X | X |
| Number Cables...                            | ConnectCAD > Drawing                  |   | + |   |   |   |   | X |
| Object Connection...                        | Tools > Database                      |   | X | X | X | X | X |   |
| Object Info                                 | Document Context Menu > Palettes      | X | X | X | X | X | X | X |
| Object Info                                 | Window > Palettes                     | X | X | X | X | X | X | X |
| Oblique Cabinet 30                          | View > Projection                     | X | X | X | X | X | X | X |
| Oblique Cabinet 45                          | View > Projection                     | X | X | X | X | X | X | X |
| Oblique Cavalier 30                         | View > Projection                     | X | X | X | X | X | X | X |
| Oblique Cavalier 45                         | View > Projection                     | X | X | X | X | X | X | X |
| Open AutoTURN Online Drawing...             | AEC > AutoTURN Online                 |   | X | X |   |   |   |   |
| Open AutoTURN Online Drawing...             | Landmark > AutoTURN Online            |   |   |   | X |   |   |   |
| Open AutoTURN Online Drawing...             | Spotlight > AutoTURN Online           |   |   |   |   | X | X |   |
| Open BCF Manager...                         | AEC                                   |   | X | X | + | + |   |   |
| Open Camera View in New Pane                | Object Context Menu                   | X | X | X | X | X | X | X |
| Open Plant Data...                          | AEC > Plants                          |   | X |   |   |   |   |   |
| Open Plant Data...                          | Document Context Menu                 |   |   |   | X |   |   |   |
| Open Plant Data...                          | Landmark                              |   |   |   | X |   |   |   |
| Open Recent (list of recently opened files) | File                                  | X | X | X | X | X | X | X |
| Open Server-based Project File...           | File                                  |   | X | X | X | X | X | X |
| Open Vectorworks Cloud Services Folder...   | Cloud                                 | X | X | X | X | X | X | X |
| Open...                                     | File                                  | X | X | X | X | X | X | X |
| OpenGL                                      | View > Rendering                      | X | X | X | X | X | X | X |
| OpenGL Options...                           | View > Rendering                      | X | X | X | X | X | X | X |
| Organization...                             | Tools                                 | X | X | X | X | X | X | X |
| Orthogonal                                  | View > Projection                     | X | X | X | X | X | X | X |
| Other...                                    | Text > Spacing                        | X | X | X | X | X | X | X |
| Outline (Mac only)                          | Text > Font Style                     | X | X | X | X | X | X | X |
| Page Setup...                               | File                                  | X | X | X | X | X | X | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                                    | Path                                  | F | D | A | L | S | B | C |
|--|---------------------------------------|---|---|---|---|---|---|---|
| Palettes can dock to each other (Mac only) | Window > Palette Options              | X | X | X | X | X | X | X |
| Paste                                      | Document Context Menu                 | X | X | X | X | X | X | X |
| Paste                                      | Edit                                  | X | X | X | X | X | X | X |
| Paste                                      | Object Context Menu                   | X | X | X | X | X | X | X |
| Paste As Bitmap                            | Edit                                  | X | X | X | X | X | X | X |
| Paste In Place                             | Edit                                  | X | X | X | X | X | X | X |
| Patterns...                                | File > Document Settings              | X | X | X | X | X | X | X |
| Pick up Redline                            | Text > Redlines                       |   | X | X | X | X | X |   |
| Pillar...                                  | AEC                                   |   | X | X |   |   |   |   |
| Pillar...                                  | Landmark > Architectural              |   |   |   | X |   |   |   |
| Pillar...                                  | Spotlight > Architectural             |   |   |   |   | X | X |   |
| Place Break Out Labels...                  | Spotlight > Cables                    |   | + |   |   | X | X |   |
| Place Camera Match Object                  | View > Camera Match                   | X | X | X | X | X | X | X |
| Place Reference                            | View > Camera Match                   | X | X | X | X | X | X | X |
| Plain Text                                 | Text > Font Style                     | X | X | X | X | X | X | X |
| Plant Line...                              | AEC > Plants                          |   | X |   |   |   |   |   |
| Plant Line...                              | Landmark                              |   |   |   | X |   |   |   |
| Plug-in Manager...                         | Tools > Plug-ins                      | X | X | X | X | X | X | X |
| Plug-in Object Options                     | Object Context Menu                   | X | X | X | X | X | X | X |
| Plug-in Object Style Options               | Object Context Menu                   | X | X | X | X | X | X | X |
| Preferences (Mac only)                     | Vectorworks                           | X | X | X | X | X | X | X |
| Preview Exterior                           | View > Renderworks Style              | X | X | X | X | X | X | X |
| Preview Interior                           | View > Renderworks Style              | X | X | X | X | X | X | X |
| Previous Selection                         | Edit                                  | X | X | X | X | X | X | X |
| Previous View                              | View                                  | X | X | X | X | X | X | X |
| Previous Working Plane                     | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Previous Working Plane                     | Modify > Working Plane                | X | X | X | X | X | X | X |
| Print...                                   | File                                  | X | X | X | X | X | X | X |
| Project Settings...                        | AEC > Energos                         |   | X | X |   |   |   |   |
| Project Sharing...                         | File                                  |   | X | X | X | X | X | X |
| Properties...                              | Object Context Menu                   | X | X | X | X | X | X | X |
| Publish...                                 | File                                  | X | X | X | X | X | X | X |
| Purge...                                   | Tools                                 | X | X | X | X | X | X | X |
| Quick Search...                            | Tools                                 | X | X | X | X | X | X | X |
| Quit                                       | File                                  | X | X | X | X | X | X | X |
| Quit Vectorworks (Mac only)                | Vectorworks                           | X | X | X | X | X | X | X |
| Rack Equipment Report                      | ConnectCAD > Documentation            |   | + |   |   |   |   | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command   | Path                             | F | D | A | L | S | B | C |
|---|----------------------------------|---|---|---|---|---|---|---|
| Rack Frames Report                                      | ConnectCAD > Documentation       |   | + |   |   |   |   | X |
| Radius Smoothing  | Modify > Poly Smoothing          | X | X | X | X | X | X | X |
| Re-Sequence   | Object Context Menu              |   | X | X | X | X | X | X |
| Realistic Colors White                                  | View > Renderworks Style         | X | X | X | X | X | X | X |
| Realistic Exterior Fast                                 | View > Renderworks Style         | X | X | X | X | X | X | X |
| Realistic Exterior Final                                | View > Renderworks Style         | X | X | X | X | X | X | X |
| Realistic Exterior Night Fast                           | View > Renderworks Style         | X | X | X | X | X | X | X |
| Realistic Exterior Night Final                          | View > Renderworks Style         | X | X | X | X | X | X | X |
| Realistic Interior Fast                                 | View > Renderworks Style         | X | X | X | X | X | X | X |
| Realistic Interior Final                                | View > Renderworks Style         | X | X | X | X | X | X | X |
| Rebuild NURBS...  | Model > 3D Power Pack            | X | X | X | X | X | X | X |
| Recalculate   | AEC > Irrigation                 |   | X |   |   |   |   |   |
| Recalculate   | Landmark > Irrigation            |   |   |   | X |   |   |   |
| Reconcile Notes...                                      | Text                             |   | X | X | X | X | X |   |
| Record Format Connection...                             | Tools > Database                 |   | X | X | X | X | X |   |
| Recreate from Source Data                               | Object Context Menu              |   | X | X | X |   |   |   |
| Redo  | Edit                             | X | X | X | X | X | X | X |
| Referenced Files (list of referenced files in the file) | Window (File name)               | X | X | X | X | X | X | X |
| References  | Document Context Menu > Palettes | X | X | X | X | X | X | X |
| References  | Window > Palettes                | X | X | X | X | X | X | X |
| Refresh   | File                             |   | X | X | X | X | X | X |
| Refresh All Cables                                      | Spotlight > Cables               |   | + |   |   | X | X |   |
| Refresh Lighting Devices                                | Document Context Menu            |   | + |   |   | X | X |   |
| Refresh Lighting Devices                                | Object Context Menu              |   |   |   |   | X | X |   |
| Refresh Lighting Devices                                | Spotlight                        |   |   |   |   | X | X |   |
| Refresh Lighting Devices                                | Object Context Menu              |   | X |   |   | X |   |   |
| Release...  | Modify                           |   | X | X | X | X | X |   |
| Release...  | Object Context Menu              |   | X | X | X | X | X |   |
| Remove [Feature]  | Object Context Menu              | X | X | X | X | X | X | X |
| Remove Break  | Object Context Menu              |   | X | X | X | X | X | X |
| Remove Constraints                                      | Object Context Menu              | X | X | X | X | X | X | X |
| Remove Fold(s)  | Object Context Menu              |   | X | X | X | X | X | X |
| Remove from Hanging Position                            | Object Context Menu              |   | X |   |   | X | X | X |
| Remove From Schematic View                              | Object Context Menu              |   | X |   |   | X | X | X |
| Remove Object Connection                                | Tools > Database                 |   | X | X | X | X | X |   |
| Remove Outliers ...                                     | Model > Point Clouds             |   | X | X | X | X | X |   |
| Remove Saddle   | Object Context Menu              |   | X | X | X | X | X | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                       | Path                                  | F | D | A | L | S | B | C |
|-------------------------------|---------------------------------------|---|---|---|---|---|---|---|
| Rename Marionette Object      | Object Context Menu                   |   | X | X | X | X | X | X |
| Rename Truss System           | Object Context Menu                   |   | X |   |   | X | X | X |
| Render                        | Document Context Menu > Palettes      | X | X | X | X | X | X | X |
| Render                        | Window > Palettes                     | X | X | X | X | X | X | X |
| Render Style White Model      | View > Renderworks Style              | X | X | X | X | X | X | X |
| ReNUMBER Devices...           | ConnectCAD > Drawing                  |   | + |   |   |   |   | X |
| ReNUMBER Sockets...           | ConnectCAD > Drawing                  |   | + |   |   |   |   | X |
| Replace                       | Object Context Menu                   | X | X | X | X | X | X | X |
| Replace Lighting Devices...   | Spotlight                             |   | + |   |   | X | X |   |
| Replace Plant Style           | Object Context Menu                   |   | X |   | X |   |   |   |
| Replace Truss Type...         | Spotlight > Rigging                   |   | + |   |   | X | X |   |
| Replace Truss...              | Spotlight > Rigging                   |   | + |   |   | X | X |   |
| Replace with Stock Symbols... | Spotlight > Object Conversion         |   | + |   |   | X | X |   |
| Replace with Symbol...        | Modify > Convert                      |   | X | X | X | X | X |   |
| Reset All Plug-Ins            | Tools > Utilities                     |   | X | X | X | X | X |   |
| Reset Braceworks IDs          | Braceworks                            |   | + |   |   |   | X |   |
| Reset Object Position         | Object Context Menu                   |   | X |   |   | X | X | X |
| Resource Manager              | Document Context Menu > Palettes      | X | X | X | X | X | X | X |
| Resource Manager              | Window > Palettes                     | X | X | X | X | X | X | X |
| Restore Redline               | Text > Redlines                       |   | X | X | X | X | X |   |
| Reverse Direction             | Object Context Menu                   |   | X | X | X |   |   |   |
| Revert                        | File                                  |   | X | X | X | X | X | X |
| Revert To Saved               | File                                  | X | X | X | X | X | X | X |
| Revolve with Rail             | Model > 3D Power Pack                 | X | X | X | X | X | X | X |
| Right                         | View > Standard Views                 | X | X | X | X | X | X | X |
| Right                         | Text > Alignment                      | X | X | X | X | X | X | X |
| Right Isometric               | View > Standard Views                 | X | X | X | X | X | X | X |
| Right Rear Iso                | View > Standard Views                 | X | X | X | X | X | X | X |
| Roof Face...                  | AEC                                   |   | X | X |   |   |   |   |
| Roof Face...                  | Landmark > Architectural              |   |   |   | X |   |   |   |
| Roof Face...                  | Spotlight > Architectural             |   |   |   |   | X | X |   |
| Roof Framer...                | AEC > Framing                         |   | X | X |   |   |   |   |
| Rotate (slab drainage valley) | Object Context Menu                   |   | X | X | X | X | X | X |
| Rotate 3D View...             | View                                  | X | X | X | X | X | X | X |
| Rotate 3D...                  | Modify > Rotate                       | X | X | X | X | X | X | X |
| Rotate 3D...                  | Object Context Menu > Rotate          | X | X | X | X | X | X | X |
| Rotate About X' Left 90°      | Document Context Menu > Working Plane |   | + |   |   | X | X |   |



## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                                     | Path                                  | F | D | A | L | S | B | C |
|---|---------------------------------------|---|---|---|---|---|---|---|
| Rotate About X' Left 90°                    | Modify > Working Plane                |   |   |   |   | X | X |   |
| Rotate About X' Left 90°                    | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Rotate About X' Left 90°                    | Modify > Working Plane                | X | X | X | X | X | X | X |
| Rotate About X' Right 90°                   | Document Context Menu > Working Plane |   | + |   |   | X | X |   |
| Rotate About X' Right 90°                   | Modify > Working Plane                |   |   |   |   | X | X |   |
| Rotate About X' Right 90°                   | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Rotate About X' Right 90°                   | Modify > Working Plane                | X | X | X | X | X | X | X |
| Rotate About Y' Left 90°                    | Document Context Menu > Working Plane |   | + |   |   | X | X |   |
| Rotate About Y' Left 90°                    | Modify > Working Plane                |   |   |   |   | X | X |   |
| Rotate About Y' Left 90°                    | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Rotate About Y' Left 90°                    | Modify > Working Plane                | X | X | X | X | X | X | X |
| Rotate About Y' Right 90°                   | Document Context Menu > Working Plane |   | + |   |   | X | X |   |
| Rotate About Y' Right 90°                   | Modify > Working Plane                |   |   |   |   | X | X |   |
| Rotate About Y' Right 90°                   | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Rotate About Y' Right 90°                   | Modify > Working Plane                | X | X | X | X | X | X | X |
| Rotate About Z' Left 90°                    | Document Context Menu > Working Plane |   | + |   |   | X | X |   |
| Rotate About Z' Left 90°                    | Modify > Working Plane                |   |   |   |   | X | X |   |
| Rotate About Z' Left 90°                    | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Rotate About Z' Left 90°                    | Modify > Working Plane                | X | X | X | X | X | X | X |
| Rotate About Z' Right 90°                   | Document Context Menu > Working Plane |   | + |   |   | X | X |   |
| Rotate About Z' Right 90°                   | Modify > Working Plane                |   |   |   |   | X | X |   |
| Rotate About Z' Right 90°                   | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Rotate About Z' Right 90°                   | Modify > Working Plane                | X | X | X | X | X | X | X |
| Rotate Left 90°                             | Modify > Rotate                       |   | + |   |   | X | X |   |
| Rotate Left 90°                             | Object Context Menu > Rotate          |   |   |   |   | X | X |   |
| Rotate Left 90°                             | Modify > Rotate                       | X | X | X | X | X | X | X |
| Rotate Left 90°                             | Object Context Menu > Rotate          | X | X | X | X | X | X | X |
| Rotate Plan                                 | View                                  |   | X | X | X | X | X |   |
| Rotate Right 90°                            | Modify > Rotate                       |   | + |   |   | X | X |   |
| Rotate Right 90°                            | Object Context Menu > Rotate          |   |   |   |   | X | X |   |
| Rotate Right 90°                            | Modify > Rotate                       | X | X | X | X | X | X | X |
| Rotate Right 90°                            | Object Context Menu > Rotate          | X | X | X | X | X | X | X |
| Rotate...                                   | Modify > Rotate                       | X | X | X | X | X | X | X |
| Rotate...                                   | Object Context Menu > Rotate          | X | X | X | X | X | X | X |
| Run Marionette Script                       | Object Context Menu                   |   | X | X | X | X | X | X |
| Run Project Sharing Metadata Diagnostics... | Tools > Utilities                     |   | X | X | X | X | X |   |
| Run Script...                               | Tools > Plug-ins                      | X | X | X | X | X | X | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command   | Path                                  | F | D | A | L | S | B | C |
|---|---------------------------------------|---|---|---|---|---|---|---|
| Save  | File                                  | X | X | X | X | X | X | X |
| Save A Copy As...                                     | File                                  | X | X | X | X | X | X | X |
| Save and Commit...                                    | File                                  |   | X | X | X | X | X | X |
| Save As Template...                                   | File                                  | X | X | X | X | X | X | X |
| Save As...  | File                                  | X | X | X | X | X | X | X |
| Save Marionette Script as Python Script               | Object Context Menu                   |   | X | X | X | X | X | X |
| Save Palette Positions                                | Window > Palettes                     | X | X | X | X | X | X | X |
| Save View...  | View                                  | X | X | X | X | X | X | X |
| Save Working Plane                                    | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Save Working Plane                                    | Modify > Working Plane                | X | X | X | X | X | X | X |
| Saved Views   | Document Context Menu > Palettes      | X | X | X | X | X | X | X |
| Saved Views   | Window > Palettes                     | X | X | X | X | X | X | X |
| Scale Influence Lines...                              | Braceworks                            |   | + |   |   |   | X |   |
| Scale Objects...                                      | Modify                                | X | X | X | X | X | X | X |
| Script Options...                                     | Tools > Plug-ins                      | X | X | X | X | X | X | X |
| Script Palettes (list of script palettes in the file) | Window (File name)                    | X | X | X | X | X | X | X |
| Search Knowledgebase                                  | Help                                  | X | X | X | X | X | X | X |
| Section Solids...                                     | Model                                 | X | X | X | X | X | X | X |
| Select All  | Document Context Menu                 | X | X | X | X | X | X | X |
| Select All  | Edit                                  | X | X | X | X | X | X | X |
| Select Cables...                                      | Spotlight > Cables                    |   | + |   |   | X | X |   |
| Select Coincident Objects...                          | Object Context Menu                   | X | X | X | X | X | X | X |
| Select Components with Warnings                       | AEC > Irrigation                      |   | X |   |   |   |   |   |
| Select Components with Warnings                       | Landmark > Irrigation                 |   |   |   | X |   |   |   |
| Select Connected Components                           | AEC > Irrigation                      |   | X |   |   |   |   |   |
| Select Connected Components                           | Landmark > Irrigation                 |   |   |   | X |   |   |   |
| Select Connected Objects                              | Edit                                  | X | X | X | X | X | X | X |
| Select Edge Loop                                      | Object Context Menu                   | X | X | X | X | X | X | X |
| Select Focused Lighting Devices                       | Object Context Menu                   |   | X |   |   | X |   |   |
| Select Grid Sequence                                  | Object Context Menu                   |   | X | X | X | X | X | X |
| Select Guides   | Modify > Guides                       | X | X | X | X | X | X | X |
| Select Hoists Origin                                  | Object Context Menu                   |   | X |   | X |   |   |   |
| Select Marionette Network                             | Object Context Menu                   |   | X | X | X | X | X | X |
| Select Multicable                                     | Object Context Menu                   |   | X |   |   | X | X | X |
| Select Objects of Same Cross Section                  | Object Context Menu                   |   | X |   |   | X | X | X |
| Select Objects of Same Symbol                         | Object Context Menu                   |   | X |   |   | X | X | X |
| Select Rigging Object                                 | Object Context Menu                   |   | X |   |   | X | X | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                            | Path                                  | F | D | A | L | S | B | C |
|------------------------------------|---------------------------------------|---|---|---|---|---|---|---|
| Select System Objects              | Object Context Menu                   |   | X |   |   | X | X | X |
| Select Vertex in OIP               | Object Context Menu                   | X | X | X | X | X | X | X |
| Select Vision Video Source...      | Spotlight > Visualization             |   | + |   |   | X | X |   |
| Select Working Plane               | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Select Working Plane               | Edit                                  | X | X | X | X | X | X | X |
| Select Working Plane               | Modify > Working Plane                | X | X | X | X | X | X | X |
| Send Backward                      | Modify > Send                         | X | X | X | X | X | X | X |
| Send Backward                      | Object Context Menu > Send            | X | X | X | X | X | X | X |
| Send Design to AutoTURN Online...  | AEC > AutoTURN Online                 |   | X | X |   |   |   |   |
| Send Design to AutoTURN Online...  | Landmark > AutoTURN Online            |   |   |   | X |   |   |   |
| Send Design to AutoTURN Online...  | Spotlight > AutoTURN Online           |   |   |   |   | X | X |   |
| Send Forward                       | Modify > Send                         | X | X | X | X | X | X | X |
| Send Forward                       | Object Context Menu > Send            | X | X | X | X | X | X | X |
| Send to Back                       | Modify > Send                         | X | X | X | X | X | X | X |
| Send to Back                       | Object Context Menu > Send            | X | X | X | X | X | X | X |
| Send to Cinema 4D (3D only)...     | File                                  | X | X | X | X | X | X | X |
| Send to Front                      | Modify > Send                         | X | X | X | X | X | X | X |
| Send to Front                      | Object Context Menu > Send            | X | X | X | X | X | X | X |
| Send to Surface                    | AEC > Terrain                         |   | X | X |   |   |   |   |
| Send to Surface                    | Landmark                              |   |   |   | X |   |   |   |
| Send to Surface                    | Object Context Menu                   |   |   |   | X |   |   |   |
| Send to Vision...                  | File                                  |   | + |   |   | X | X |   |
| Services (standard Mac menu)       | Vectorworks                           | X | X | X | X | X | X | X |
| Set 3D View                        | View                                  | X | X | X | X | X | X | X |
| Set Custom Perspective...          | View > Projection                     | X | X | X | X | X | X | X |
| Set Default Symbol Class...        | Tools > Utilities                     |   | X | X | X |   |   |   |
| Set Light to View                  | Object Context Menu                   | X | X | X | X | X | X | X |
| Set Lighting Options...            | View                                  | X | X | X | X | X | X | X |
| Set Position                       | Object Context Menu                   | X | X | X | X | X | X | X |
| Set Renderworks Background...      | View                                  |   | X | X | X | X | X |   |
| Set Size...                        | Text > Size                           | X | X | X | X | X | X | X |
| Set Spotlight Rendering Options... | Spotlight > Visualization             |   | + |   |   | X | X |   |
| Set Sun Position...                | View                                  | X | + | + | + | + | + | X |
| Set View to Light                  | Object Context Menu                   | X | X | X | X | X | X | X |
| Set Working Plane                  | Document Context Menu > Working Plane | X | X | X | X | X | X | X |
| Set Working Plane                  | Modify > Working Plane                | X | X | X | X | X | X | X |
| Settings...                        | Cloud                                 | X | X | X | X | X | X | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command   | Path                                  | F | D | A | L | S | B | C |
|---|---------------------------------------|---|---|---|---|---|---|---|
| Shaded Polygon  | View > Rendering                      | X | X | X | X | X | X | X |
| Shaded Polygon No Lines   | View > Rendering                      | X | X | X | X | X | X | X |
| Shadow (Mac only)   | Text > Font Style                     | X | X | X | X | X | X | X |
| Shaft Analysis...   | AEC > Machine Design                  |   | X | X |   |   |   |   |
| Shaft Analysis...   | Landmark > Machine Design             |   |   |   | X |   |   |   |
| Shaft Analysis...   | Spotlight > Machine Design            |   |   |   |   | X | X |   |
| Shape   | Document Context Menu > Palettes      | X | X | X | X | X | X | X |
| Shape   | Window > Palettes                     | X | X | X | X | X | X | X |
| Sheet Layers  | Document Context Menu > Palettes      | X | X | X | X | X | X | X |
| Sheet Layers  | Window > Palettes                     | X | X | X | X | X | X | X |
| Show (property line object)                                     | Object Context Menu                   |   | X | X | X |   |   |   |
| Show All (Mac only)   | Vectorworks                           | X | X | X | X | X | X | X |
| Show Document Tabs  | Window                                | X | X | X | X | X | X | X |
| Show Document Tabs  | Window                                | X | X | X | X | X | X | X |
| Show floating data bar above SmartCursor cues                   | Window > Data Bar Options             | X | X | X | X | X | X | X |
| Show floating data bar after datum creation                     | Window > Data Bar Options             | X | X | X | X | X | X | X |
| Show floating data bar below SmartCursor cues                   | Window > Data Bar Options             | X | X | X | X | X | X | X |
| Show Grids (title block border)                                 | Object Context Menu                   | X | X | X | X | X | X | X |
| Show Guides   | Modify > Guides                       | X | X | X | X | X | X | X |
| Show Jump   | Object Context Menu                   |   | X |   | X |   |   |   |
| Show objects using actual colors                                | View > Project Sharing Options        |   | X | X | X | X | X |   |
| Show only primary fields on data bar                            | Window > Data Bar Options             | X | X | X | X | X | X | X |
| Show or Hide Constraints  | View > Show                           | X | X | X | X | X | X | X |
| Show or Hide Details...   | ConnectCAD > Drawing                  |   | + |   |   |   |   | X |
| Show or Hide Plant Details                                      | View > Show                           |   | X |   | X |   |   |   |
| Show or Hide Redlines   | Text > Redlines                       |   | X | X | X | X | X |   |
| Show or Hide Site Modifiers                                     | View > Show                           |   | X |   | X |   |   |   |
| Show Others   | Document Context Menu > Class Options | X | X | X | X | X | X | X |
| Show Others   | View > Class Options                  | X | X | X | X | X | X | X |
| Show Others   | Document Context Menu > Layer Options | X | X | X | X | X | X | X |
| Show Others   | View > Layer Options                  | X | X | X | X | X | X | X |
| Show primary and secondary fields on data bar                   | Window > Data Bar Options             | X | X | X | X | X | X | X |
| Show primary, secondary, and cursor location fields on data bar | Window > Data Bar Options             | X | X | X | X | X | X | X |
| Show Results...   | AEC > Energos                         |   | X | X |   |   |   |   |
| Show Warning Icons  | AEC > Irrigation                      |   | X |   |   |   |   |   |
| Show Warning Icons  | Landmark > Irrigation                 |   |   |   | X |   |   |   |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                        | Path                                  | F | D | A | L | S | B | C |
|--------------------------------|---------------------------------------|---|---|---|---|---|---|---|
| Show/Snap Others               | Document Context Menu > Class Options | X | X | X | X | X | X | X |
| Show/Snap Others               | View > Class Options                  | X | X | X | X | X | X | X |
| Show/Snap Others               | Document Context Menu > Layer Options | X | X | X | X | X | X | X |
| Show/Snap Others               | View > Layer Options                  | X | X | X | X | X | X | X |
| Show/Snap/Modify Others        | Document Context Menu > Class Options | X | X | X | X | X | X | X |
| Show/Snap/Modify Others        | View > Class Options                  | X | X | X | X | X | X | X |
| Show/Snap/Modify Others        | Document Context Menu > Layer Options | X | X | X | X | X | X | X |
| Show/Snap/Modify Others        | View > Layer Options                  | X | X | X | X | X | X | X |
| Simple Beam Analysis           | AEC > Machine Design                  |   | X | X |   |   |   |   |
| Simple Beam Analysis           | Landmark > Machine Design             |   |   |   | X |   |   |   |
| Simple Beam Analysis           | Spotlight > Machine Design            |   |   |   |   | X | X |   |
| Simple Beam Calculator...      | AEC > Framing                         |   | X | X |   |   |   |   |
| Simple Beam Calculator...      | Landmark > Architectural              |   |   |   | X |   |   |   |
| Simple Beam Calculator...      | Spotlight > Architectural             |   |   |   |   | X | X |   |
| Simple Beam...                 | AEC > Machine Design                  |   | X | X |   |   |   |   |
| Simple Beam...                 | Landmark > Machine Design             |   |   |   | X |   |   |   |
| Simple Beam...                 | Spotlight > Machine Design            |   |   |   |   | X | X |   |
| Simplify 3D Polygons...        | AEC > Terrain                         |   | X | X |   |   |   |   |
| Simplify 3D Polygons...        | Landmark > Create Site Model          |   |   |   | X |   |   |   |
| Simplify Mesh...               | Modify                                | X | X | X | X | X | X | X |
| Simplify Polys...              | Modify > Drafting Aids                | X | X | X | X | X | X | X |
| Single Space                   | Text > Spacing                        | X | X | X | X | X | X | X |
| Site Model from Boundary...    | AEC > Terrain                         |   | X | X |   |   |   |   |
| Site Model from Boundary...    | Landmark > Create Site Model          |   |   |   | X |   |   |   |
| Site Model from Source Data... | AEC > Terrain                         |   | X | X |   |   |   |   |
| Site Model from Source Data... | Landmark > Create Site Model          |   |   |   | X |   |   |   |
| Site Model Section...          | AEC > Terrain                         |   | X | X |   |   |   |   |
| Site Model Section...          | Landmark                              |   |   |   | X |   |   |   |
| Size (list of default sizes)   | Text                                  | X | X | X | X | X | X | X |
| Size Pipes...                  | AEC > Irrigation                      |   | X |   |   |   |   |   |
| Size Pipes...                  | Landmark > Irrigation                 |   |   |   | X |   |   |   |
| Sketch                         | View > Rendering                      |   | X | X | X | X | X |   |
| Sketch Options...              | View > Rendering                      |   | X | X | X | X | X |   |
| Smart Options Display          | Document Context Menu                 | X | X | X | X | X | X | X |
| Smart Options Display          | Object Context Menu                   | X | X | X | X | X | X | X |
| SmartCursor Settings...        | Tools                                 | X | X | X | X | X | X | X |
| Smooth all Edges               | Object Context Menu                   | X | X | X | X | X | X | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                       | Path                             | F | D | A | L | S | B | C |
|-------------------------------|----------------------------------|---|---|---|---|---|---|---|
| Smooth all Vertices           | Object Context Menu              | X | X | X | X | X | X | X |
| Snapping                      | Document Context Menu > Palettes | X | X | X | X | X | X | X |
| Snapping                      | Window > Palettes                | X | X | X | X | X | X | X |
| Solution of Triangles...      | AEC > Machine Design             |   | X | X |   |   |   |   |
| Solution of Triangles...      | Landmark > Machine Design        |   |   |   | X |   |   |   |
| Solution of Triangles...      | Spotlight > Machine Design       |   |   |   |   | X | X |   |
| Split Dimension               | Object Context Menu              | X | X | X | X | X | X | X |
| Split Horizontally            | View > Multiple View Panes       | X | X | X | X | X | X | X |
| Split Horizontally            | Object Context Menu              | X | X | X | X | X | X | X |
| Split Record Format...        | Tools > Records                  | X | X | X | X | X | X | X |
| Split Vertically              | View > Multiple View Panes       | X | X | X | X | X | X | X |
| Split Vertically              | Object Context Menu              | X | X | X | X | X | X | X |
| Spotlight                     | Tools > Workspaces               |   | X |   |   | X | X | X |
| Spotlight Numbering...        | Spotlight                        |   | + |   |   | X | X |   |
| Spotlight Preferences...      | File > Document Settings         |   | + |   |   | X | X |   |
| Spring Calculator...          | AEC > Machine Design             |   | X | X |   |   |   |   |
| Spring Calculator...          | Landmark > Machine Design        |   |   |   | X |   |   |   |
| Spring Calculator...          | Spotlight > Machine Design       |   |   |   |   | X | X |   |
| Stake Object from 3D Locus... | Modify > Convert                 |   | X |   | X |   |   |   |
| Standard Naming...            | File > Document Settings         |   | X | X | X |   |   |   |
| Start Batch Render...         | View > Rendering                 | X | X | X | X | X | X | X |
| Station on Polyline...        | AEC > Roads                      |   | X |   |   |   |   |   |
| Station on Polyline...        | Landmark > Roads                 |   |   |   | X |   |   |   |
| Status...                     | Cloud                            | X | X | X | X | X | X | X |
| Stitch and Trim Surfaces      | Model > 3D Power Pack            | X | X | X | X | X | X | X |
| Subscript                     | Text > Font Style                | X | X | X | X | X | X | X |
| Subtract 3D Object From Slab  | AEC                              |   | X | X |   |   |   |   |
| Subtract 3D Object From Slab  | Landmark > Architectural         |   |   |   | X |   |   |   |
| Subtract 3D Object From Slab  | Spotlight > Architectural        |   |   |   |   | X | X |   |
| Subtract Solids...            | Model                            | X | X | X | X | X | X | X |
| Superscript                   | Text > Font Style                | X | X | X | X | X | X | X |
| Sweep...                      | Model                            | X | X | X | X | X | X | X |
| System Check All Objects      | Braceworks                       |   | + |   |   |   | X |   |
| System Check Selection        | Braceworks                       |   | + |   |   |   | X |   |
| Tapered Extrude...            | Model                            | X | X | X | X | X | X | X |
| Text Along Path...            | Text                             | X | X | X | X | X | X | X |
| Tile                          | Window                           | X | X | X | X | X | X | X |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                          | Path                      | F | D | A | L | S | B | C |
|----------------------------------|---------------------------|---|---|---|---|---|---|---|
| Title Block Manager...           | File                      |   | X | X | X | X | X |   |
| Title Caps                       | Text > Capitalization     | X | X | X | X | X | X | X |
| Toggle Design/Calculated Display | AEC > Irrigation          |   | X |   |   |   |   |   |
| Toggle Design/Calculated Display | Landmark > Irrigation     |   |   |   | X |   |   |   |
| Tool Sets                        | Window > Palettes         | X | X | X | X | X | X | X |
| Top                              | View > Standard Views     | X | X | X | X | X | X | X |
| Top                              | Text > Alignment          | X | X | X | X | X | X | X |
| Top Baseline                     | Text > Alignment          | X | X | X | X | X | X | X |
| Top Level                        | Modify                    | X | X | X | X | X | X | X |
| Top/Plan                         | View > Standard Views     | X | X | X | X | X | X | X |
| Tour...                          | Cloud                     | X | X | X | X | X | X | X |
| Trace Bitmap...                  | Modify                    | X | X | X | X | X | X | X |
| Trim                             | Modify                    | X | X | X | X | X | X | X |
| Turn On/Off (light object)       | Object Context Menu       | X | X | X | X | X | X | X |
| Underline                        | Text > Font Style         | X | X | X | X | X | X | X |
| Undo                             | Edit                      | X | X | X | X | X | X | X |
| Undock Current Document          | Window                    | X | X | X | X | X | X | X |
| Unfold Surfaces                  | Model > 3D Power Pack     |   | X | X | X | X | X |   |
| Ungroup                          | Modify                    | X | X | X | X | X | X | X |
| Unified View                     | View                      | X | X | X | X | X | X | X |
| Unified View Options...          | View                      | X | X | X | X | X | X | X |
| Units...                         | File > Document Settings  | X | X | X | X | X | X | X |
| Unlock                           | Modify                    | X | X | X | X | X | X | X |
| Unlock                           | Object Context Menu       | X | X | X | X | X | X | X |
| Unrotate 3D Objects              | Modify                    | X | X | X | X | X | X | X |
| Unshaded Polygon                 | View > Rendering          | X | X | X | X | X | X | X |
| Unwrap Marionette Network        | Object Context Menu       |   | X | X | X | X | X | X |
| Update                           | Object Context Menu       | X | X | X | X | X | X | X |
| Update All Schematic Views       | Spotlight > Visualization |   | + |   |   | X | X |   |
| Update All Viewports             | View                      | X | X | X | X | X | X | X |
| Update External Database         | Tools > Database          |   | X | X | X | X | X |   |
| Update Plant Data                | AEC > Plants              |   | X |   |   |   |   |   |
| Update Plant Data                | Landmark                  |   |   |   | X |   |   |   |
| Update Plug-in Objects           | Tools > Utilities         | X | X | X | X | X | X | X |
| Update Rack Elevation            | ConnectCAD > Layout       |   | + |   |   |   |   | X |
| Update Selected Viewports        | View                      | X | X | X | X | X | X | X |
| Update Settings...               | Tools > Database          |   | X | X | X | X | X |   |

## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command  | Path                             | F | D | A | L | S | B | C |
|--|----------------------------------|---|---|---|---|---|---|---|
| Update Spaces...                                   | AEC > Space Planning             |   | X | X | + | + |   |   |
| Update Vectorworks Document                        | Tools > Database                 |   | X | X | X | X | X |   |
| Update Vectorworks Plant Styles                    | AEC > Plants                     |   | X |   |   |   |   |   |
| Update Vectorworks Plant Styles                    | Landmark                         |   |   |   | X |   |   |   |
| UPPER CASE   | Text > Capitalization            | X | X | X | X | X | X | X |
| Use Application Window                             | Window                           | X | X | X | X | X | X | X |
| Use floating data bar                              | Window > Data Bar Options        | X | X | X | X | X | X | X |
| Use floating data bar only when tab key is pressed | Window > Data Bar Options        | X | X | X | X | X | X | X |
| Use Full Screen                                    | Window                           | X | X | X | X | X | X | X |
| Use large exit group button                        | Window > Edit Group Options      | X | X | X | X | X | X | X |
| Use Same Visibilities in All Panes                 | View > Multiple View Panes       | X | X | X | X | X | X | X |
| Use Same Visibilities in All Panes                 | Object Context Menu              | X | X | X | X | X | X | X |
| Use small exit group button                        | Window > Edit Group Options      | X | X | X | X | X | X | X |
| User Origin...                                     | Tools > Origin                   | X | X | X | X | X | X | X |
| Validate 3D Data                                   | AEC > Terrain                    |   | X | X |   |   |   |   |
| Validate 3D Data                                   | Landmark > Create Site Model     |   |   |   | X |   |   |   |
| Vectorworks Cloud Services                         | Help                             | X | X | X | X | X | X | X |
| Vectorworks Help                                   | Help                             | X | X | X | X | X | X | X |
| Vectorworks Preferences...                         | Tools > Options                  | X | X | X | X | X | X | X |
| Vectorworks Remote...                              | Tools > Utilities                | X | X | X | X | X | X | X |
| Vectorworks Service Select                         | Help                             | X | X | X | X | X | X | X |
| Vegetation Line...                                 | AEC > Plants                     |   | X |   |   |   |   |   |
| Vegetation Line...                                 | Landmark                         |   |   |   | X |   |   |   |
| Viewports  | Document Context Menu > Palettes | X | X | X | X | X | X | X |
| Viewports  | Window > Palettes                | X | X | X | X | X | X | X |
| Visualization                                      | Document Context Menu > Palettes | X | X | X | X | X | X | X |
| Visualization                                      | Window > Palettes                | X | X | X | X | X | X | X |
| Volumetric Properties...                           | Model                            | X | X | X | X | X | X | X |
| Wall Framer...                                     | AEC > Framing                    |   | X | X |   |   |   |   |
| What's This?                                       | Help                             | X | X | X | X | X | X | X |
| Wide Perspective                                   | View > Projection                | X | X | X | X | X | X | X |
| Wireframe  | View > Rendering                 | X | X | X | X | X | X | X |
| Wireframe Options...                               | View > Rendering                 | X | X | X | X | X | X | X |
| Working Planes                                     | Document Context Menu > Palettes | X | X | X | X | X | X | X |
| Working Planes                                     | Window > Palettes                | X | X | X | X | X | X | X |
| Worksheets (list of worksheets in the file)        | Window (File name)               | X | X | X | X | X | X | X |
| Workspaces...                                      | Tools > Workspaces               | X | X | X | X | X | X | X |

+ Command can be added to the workspace; see the Workspace Editor section in the Vectorworks help system



## Vectorworks 2021 product comparison: Commands

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Command                     | Path                | F | D | A | L | S | B | C |
|-----------------------------|---------------------|---|---|---|---|---|---|---|
| Wrap Marionette Network     | Object Context Menu |   | X | X | X | X | X | X |
| Zone of Visual Influence... | AEC > Terrain       |   | X |   |   |   |   |   |
| Zone of Visual Influence... | Landmark            |   |   |   | X |   |   |   |

## Vectorworks 2021 product comparison: Tools

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Tool                 | Tool palette/set   | F | D | A | L | S | B | C |
|----------------------|--------------------|---|---|---|---|---|---|---|
| 2D Locus             | Basic              | X | X | X | X | X | X | X |
| 2D Polygon           | Basic              | X | X | X | X | X | X | X |
| 3D Locus             | 3D Modeling        | X | X | X | X | X | X | X |
| 3D Polygon           | 3D Modeling        | X | X | X | X | X | X | X |
| Acorn Nut (inch)     | Fasteners          |   | X | X | X | X | X |   |
| Acorn Nut (inch)-3D  | Fasteners          |   | X | X | X | X | X |   |
| Add Vertex           | Surface Sculpting  |   | X | X | X |   |   |   |
| Adjacency Matrix     | Space Planning     |   | X | X |   |   |   |   |
| Adjacency Score      | Space Planning     |   | X | X |   |   |   |   |
| Aisle                | Event Design       |   | + |   |   | X | X |   |
| Aisle                | Furn/Fixtures      |   | X |   |   |   |   |   |
| Align and Distribute | Lighting           |   | + |   |   | X | X |   |
| Align Plane          | 3D Modeling        | X | X | X | X | X | X | X |
| Analysis             | 3D Modeling        | X | X | X | X | X | X | X |
| Angle                | Detailing          | X | X | X | X | X | X | X |
| Angle - 3D           | Detailing          |   | X | X | X | X | X |   |
| Angular Dimension    | Dims/Notes         | X | X | X | X | X | X | X |
| Angular Dimension    | Basic              |   |   |   | X | X | X |   |
| Arc                  | Basic              | X | X | X | X | X | X | X |
| Arc Length Dimension | Dims/Notes         | X | X | X | X | X | X | X |
| Arc Length Dimension | Basic              |   |   |   | X | X | X |   |
| Attribute Mapping    | Basic              | X | X | X | X | X | X | X |
| Attribute Mapping    | Visualization      | X | X | X | X | X | X | X |
| Ball Bearing         | Machine Components |   | X | X | X | X | X |   |
| Ball Bearing - 3D    | Machine Components |   | X | X | X | X | X |   |
| Base Cabinet         | Furn/Fixtures      |   | X | X | X | X | X |   |
| Bath-Shower          | Furn/Fixtures      |   | X | X |   |   |   |   |
| Batt Insulation      | Detailing          | X | X | X | X | X | X | X |
| Bearing Lock Nut     | Machine Components |   | X | X | X | X | X |   |
| Bearing Lock Nut-3D  | Machine Components |   | X | X | X | X | X |   |
| Belleville Spring    | Machine Components |   | X | X | X | X | X |   |
| Belleville Spring-3D | Machine Components |   | X | X | X | X | X |   |
| Bevel Gears          | Machine Components |   | X | X | X | X | X |   |
| Bevel Gears - 3D     | Machine Components |   | X | X | X | X | X |   |
| BIMObject            | Furn/Fixtures      |   | X | X | X |   |   |   |
| Blended Screen       | Event Design       |   | + |   |   | X | X |   |
| Bolt and Nut - inch  | Detailing          |   | X | X |   |   |   |   |

## Vectorworks 2021 product comparison: Tools

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Tool                   | Tool palette/set | F | D | A | L | S | B | C |
|------------------------|------------------|---|---|---|---|---|---|---|
| Bolt and Nut - mm      | Detailing        |   | X | X |   |   |   |   |
| Break Line             | Dims/Notes       | X | X | X | X | X | X | X |
| Bridge Line            | Dims/Notes       | X | X | X | X | X | X | X |
| Bridle                 | Rigging          |   | + |   |   | X | X |   |
| Bulb Flat              | Detailing        |   | X | X | X | X | X |   |
| Bulb Flat - 3D         | Detailing        |   | X | X | X | X | X |   |
| Cable                  | Cable Tools      |   | + |   |   | X | X |   |
| Cable Area             | Cable Tools      |   | + |   |   | X | X |   |
| Cable Path             | Cable Tools      |   | + |   |   | X | X |   |
| Callout                | Basic            | X | X | X | X | X | X | X |
| Camera Match Mask      | Visualization    | X | X | X | X | X | X | X |
| Camera Match Shadow    | Visualization    | X | X | X | X | X | X | X |
| Campanile              | Building Shell   |   | + |   |   | X | X |   |
| Campanile              | Site Planning    |   | X | X | X |   |   |   |
| Carriage Bolt          | Detailing        |   | X | X | X | X | X |   |
| Carriage Bolt - 3D     | Detailing        |   | X | X | X | X | X |   |
| Ceiling Grid           | Furn/Fixtures    |   | X | X |   |   |   |   |
| Ceiling Grid           | MEP              |   | X | X |   |   |   |   |
| Center Mark            | Dims/Notes       | X | X | X | X | X | X | X |
| Chain Extrude          | Building Shell   |   | X | X | X | X | X |   |
| Chamfer                | Basic            | X | X | X | X | X | X | X |
| Chamfer Edge           | 3D Modeling      | X | X | X | X | X | X | X |
| Channel                | Detailing        | X | X | X | X | X | X | X |
| Channel - 3D           | Detailing        |   | X | X | X | X | X |   |
| Circle                 | Basic            | X | X | X | X | X | X | X |
| Circuiting             | MEP              |   | X | X |   |   |   |   |
| Clevis Pin (DIN)       | Fasteners        |   | X | X | X | X | X |   |
| Clevis Pin (DIN)-3D    | Fasteners        |   | X | X | X | X | X |   |
| Clevis Pin (Inch)      | Fasteners        |   | X | X | X | X | X |   |
| Clevis Pin (Inch)-3D   | Fasteners        |   | X | X | X | X | X |   |
| Clevis Pin (Metric)    | Fasteners        |   | X | X | X | X | X |   |
| Clevis Pin (Metric)-3D | Fasteners        |   | X | X | X | X | X |   |
| Clip                   | Basic            | X | X | X | X | X | X | X |
| Clothes Rod            | Furn/Fixtures    |   | X | X |   |   |   |   |
| Column                 | Building Shell   |   | X | X | X | X | X |   |
| Comm Device            | MEP              |   | X | X |   |   |   |   |
| Compartment Sink       | Furn/Fixtures    |   | X | X |   |   |   |   |

## Vectorworks 2021 product comparison: Tools

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Tool                         | Tool palette/set   | F | D | A | L | S | B | C |
|------------------------------|--------------------|---|---|---|---|---|---|---|
| Component Join               | Building Shell     |   | X | X | X | X | X |   |
| Compression Spring 1         | Machine Components |   | X | X | X | X | X |   |
| Compression Spring 1 - 3D    | Machine Components |   | X | X | X | X | X |   |
| Compression Spring 2         | Machine Components |   | X | X | X | X | X |   |
| Compression Spring 2 - 3D    | Machine Components |   | X | X | X | X | X |   |
| Cone                         | 3D Modeling        | X | X | X | X | X | X | X |
| Conical Comp Spring - 3D     | Machine Components |   | X | X | X | X | X |   |
| Conical Compression Spring   | Machine Components |   | X | X | X | X | X |   |
| Connect                      | Schematics         |   | + |   |   |   |   | X |
| Connect/Combine              | Basic              | X | X | X | X | X | X | X |
| Connector Panel              | Schematics         |   | + |   |   |   |   | X |
| Constrain Angle              | Dims/Notes         | X | X | X | X | X | X | X |
| Constrain Coincident         | Dims/Notes         | X | X | X | X | X | X | X |
| Constrain Collinear          | Dims/Notes         | X | X | X | X | X | X | X |
| Constrain Concentric         | Dims/Notes         | X | X | X | X | X | X | X |
| Constrain Distance           | Dims/Notes         | X | X | X | X | X | X | X |
| Constrain Horiz Distance     | Dims/Notes         | X | X | X | X | X | X | X |
| Constrain Horiz-Vertical     | Dims/Notes         | X | X | X | X | X | X | X |
| Constrain Parallel           | Dims/Notes         | X | X | X | X | X | X | X |
| Constrain Perpendicular      | Dims/Notes         | X | X | X | X | X | X | X |
| Constrain Radius             | Dims/Notes         | X | X | X | X | X | X | X |
| Constrain Tangent            | Dims/Notes         | X | X | X | X | X | X | X |
| Constrain Vertical Distance  | Dims/Notes         | X | X | X | X | X | X | X |
| Constrained Linear Dimension | Dims/Notes         | X | X | X | X | X | X | X |
| Constrained Linear Dimension | Basic              |   |   |   | X | X | X |   |
| Controller                   | Irrigation         |   | X |   | X |   |   |   |
| Cotter Pin (Inch)            | Fasteners          |   | X | X | X | X | X |   |
| Cotter Pin (Inch) - 3D       | Fasteners          |   | X | X | X | X | X |   |
| Counter Top                  | Furn/Fixtures      |   | X | X |   |   |   |   |
| Create Contours              | 3D Modeling        | X | X | X | X | X | X | X |
| Curved Truss                 | Detailing          |   | X |   |   |   |   |   |
| Curved Truss                 | Rigging            |   |   |   |   | X | X |   |
| Custom Cabinet               | Furn/Fixtures      |   | X | X | X | X | X |   |
| Data Cable                   | Lighting           |   | + |   |   | X | X |   |
| Data Tag                     | Dims/Notes         |   | X | X | X | X | X | X |
| Deform                       | 3D Modeling        | X | X | X | X | X | X | X |
| Design Zone                  | Irrigation         |   | X |   | X |   |   |   |

## Vectorworks 2021 product comparison: Tools

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Tool                     | Tool palette/set   | F | D | A | L | S | B | C |
|--------------------------|--------------------|---|---|---|---|---|---|---|
| Desk                     | Furn/Fixtures      |   | X | X | X | X | X |   |
| Detail Callout           | Dims/Notes         |   | X | X | X | X | X | X |
| Detail Cut Wood          | Detailing          |   | X | X | X |   |   |   |
| Device Builder           | Schematics         |   | + |   |   |   |   | X |
| Die Spring               | Machine Components |   | X | X | X | X | X |   |
| Die Spring - 3D          | Machine Components |   | X | X | X | X | X |   |
| Dimension Tape           | Dims/Notes         |   | + |   |   | X | X | X |
| Distribution Amplifier   | Schematics         |   | + |   |   |   |   | X |
| Distributor              | Cable Tools        |   | + |   |   | X | X |   |
| Door                     | Building Shell     |   | X | X | X | X | X |   |
| Double Line              | Basic              | X | X | X | X | X | X | X |
| Double-Line Polygon      | Basic              | X | X | X | X | X | X | X |
| Dowel Pin (Inch)         | Fasteners          |   | X | X | X | X | X |   |
| Dowel Pin (Inch)-3D      | Fasteners          |   | X | X | X | X | X |   |
| Drawing Label            | Dims/Notes         | X | X | X | X | X | X | X |
| Drilled Footing          | Building Shell     |   | X | X |   |   |   |   |
| Drip Outlet              | Irrigation         |   | X |   | X |   |   |   |
| Duplicate Symbol in Wall | Building Shell     |   | X | X | X | X | X |   |
| Edit Circuiting          | MEP                |   | X | X |   |   |   |   |
| Edit Curtain Wall        | Building Shell     |   | X | X | X | X | X |   |
| Edit Subdivision         | 3D Modeling        | X | X | X | X | X | X | X |
| Elevation Benchmark      | Dims/Notes         |   | X | X | X |   |   |   |
| Elevator                 | Building Shell     |   | X | X |   |   |   |   |
| Equipment Item           | Layout             |   | + |   |   |   |   | X |
| Equipment Rack 2D        | Layout             |   | + |   |   |   |   | X |
| Equipment Rack 3D        | Layout             |   | + |   |   |   |   | X |
| Escalator                | Building Shell     |   | X | X |   |   |   |   |
| Existing Tree            | Site Planning      |   | X |   | X |   |   |   |
| Extension Spring - 3D    | Machine Components |   | X | X | X | X | X |   |
| Extension Spring - End   | Machine Components |   | X | X | X | X | X |   |
| Extension Spring - Front | Machine Components |   | X | X | X | X | X |   |
| External                 | Schematics         |   | + |   |   |   |   | X |
| Extract                  | 3D Modeling        | X | X | X | X | X | X | X |
| Eye Bolt                 | Fasteners          |   | X | X | X | X | X |   |
| Eye Bolt - 3D            | Fasteners          |   | X | X | X | X | X |   |
| Eyedropper               | Basic              | X | X | X | X | X | X | X |
| Fastener                 | Fasteners          |   | X | X | X | X | X |   |

## Vectorworks 2021 product comparison: Tools

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Tool                              | Tool palette/set   | F | D | A | L | S | B | C |
|-----------------------------------|--------------------|---|---|---|---|---|---|---|
| Feature Control Frame             | Dims/Notes         |   | X | X | X | X | X | X |
| Feeder Cable                      | Lighting           |   | + |   |   | X | X |   |
| Fillet                            | Basic              | X | X | X | X | X | X | X |
| Fillet Edge                       | 3D Modeling        | X | X | X | X | X | X | X |
| Fireplace                         | Furn/Fixtures      |   | X | X |   |   |   |   |
| Fixed Point Resize                | Basic              | X | X | X | X | X | X | X |
| Flanged Bearing - 2 Hole          | Machine Components |   | X | X | X | X | X |   |
| Flanged Bearing - 2 Hole-3D       | Machine Components |   | X | X | X | X | X |   |
| Flanged Bearing - 4 Hole          | Machine Components |   | X | X | X | X | X |   |
| Flanged Bearing - 4 Hole-3D       | Machine Components |   | X | X | X | X | X |   |
| Flyover                           | 3D Modeling        | X | X | X | X | X | X | X |
| Flyover                           | Basic              | X | X | X | X | X | X | X |
| Flyover                           | Visualization      | X | X | X | X | X | X | X |
| Focus Lighting Devices Along Path | Lighting           |   | + |   |   | X | X |   |
| Focus Point                       | Lighting           |   | + |   |   | X | X |   |
| Foliage                           | Site Planning      |   | X |   |   |   |   |   |
| Foliage                           | Visualization      |   |   |   | X |   |   |   |
| Framing Member                    | Detailing          |   | X | X | X |   |   |   |
| Freehand                          | Basic              | X | X | X | X | X | X | X |
| Ganging                           | Lighting           |   | + |   |   | X | X |   |
| General Notes                     | Dims/Notes         |   | X | X | X | X | X | X |
| Geoimage                          | Event Design       |   | + |   |   | X | X |   |
| Geoimage                          | GIS                |   | X | X | X |   |   |   |
| Geolocate                         | Event Design       |   | + |   |   | X | X |   |
| Geolocate                         | GIS                |   | X | X | X |   |   |   |
| Geom Dim and Tol Note             | Dims/Notes         |   | X | X | X | X | X | X |
| GIS Stake                         | GIS                |   | X | X | X |   |   |   |
| Grab Bars                         | Furn/Fixtures      |   | X | X |   |   |   |   |
| Grade                             | Building Shell     |   | + | X |   | X | X |   |
| Grade                             | Site Planning      |   | X |   | X |   |   |   |
| Graticule                         | GIS                |   | X | X | X |   |   |   |
| Great Circle                      | GIS                |   | X | X | X |   |   |   |
| Grid - Polar                      | Dims/Notes         | X | X | X | X | X | X | X |
| Grid - Rectangular                | Dims/Notes         | X | X | X | X | X | X | X |
| Grid Line                         | Building Shell     |   | X | X | X | X | X |   |
| Grid Line                         | Dims/Notes         |   | X | X | X | X | X | X |
| Guardrail (Curved)                | Site Planning      |   | X | X | X |   |   |   |

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(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Tool                      | Tool palette/set   | F | D | A | L | S | B | C |
|---------------------------|--------------------|---|---|---|---|---|---|---|
| Guardrail (Straight)      | Site Planning      |   | X | X | X |   |   |   |
| Hanging Position          | Lighting           |   | + |   |   | X | X |   |
| Hardscape                 | Site Planning      |   | X | X | X |   |   |   |
| Heliodon                  | Visualization      |   | X | X | X | X | X |   |
| Hemisphere                | 3D Modeling        | X | X | X | X | X | X | X |
| Hex Cap Nut (DIN)         | Fasteners          |   | X | X | X | X | X |   |
| Hex Cap Nut (DIN)-3D      | Fasteners          |   | X | X | X | X | X |   |
| Hoist                     | Rigging            |   | + |   |   | X | X |   |
| Hoist Origin              | Rigging            |   | + |   |   | X | X |   |
| Hole - Drilled            | Detailing          |   | X | X | X | X | X |   |
| Hole - Drilled - 3D       | Detailing          |   | X | X | X | X | X |   |
| Hole - Tapped (Inch)      | Detailing          |   | X | X | X | X | X |   |
| Hole - Tapped (Inch)-3D   | Detailing          |   | X | X | X | X | X |   |
| Hole - Tapped (Metric)    | Detailing          |   | X | X | X | X | X |   |
| Hole - Tapped (Metric)-3D | Detailing          |   | X | X | X | X | X |   |
| Hole Pattern              | Detailing          |   | X | X | X | X | X |   |
| HopOver                   | Schematics         |   | + |   |   |   |   | X |
| House Rigging Point       | Rigging            |   | + |   |   | X | X |   |
| Hub - 3D                  | Machine Components |   | X | X | X | X | X |   |
| HVAC Damper               | MEP                |   | X | X |   |   |   |   |
| HVAC Diffuser             | MEP                |   | X | X |   |   |   |   |
| HVAC Elbow Duct           | MEP                |   | X | X |   |   |   |   |
| HVAC Flex Duct            | MEP                |   | X | X |   |   |   |   |
| HVAC Outlet               | MEP                |   | X | X |   |   |   |   |
| HVAC Splitter             | MEP                |   | X | X |   |   |   |   |
| HVAC Straight Duct        | MEP                |   | X | X |   |   |   |   |
| HVAC Transition           | MEP                |   | X | X |   |   |   |   |
| HVAC Vertical Duct        | MEP                |   | X | X |   |   |   |   |
| HVAC Vertical Elbow       | MEP                |   | X | X |   |   |   |   |
| Hydrozone                 | Irrigation         |   | X |   | X |   |   |   |
| Hyperlink                 | Dims/Notes         | X | X | X | X | X | X | X |
| I-Beam                    | Detailing          | X | X | X | X | X | X | X |
| I-Beam - 3D               | Detailing          |   | X | X | X | X | X |   |
| Incandescent Fixture      | MEP                |   | X | X |   |   |   |   |
| Insert Connection         | Rigging            |   | + |   |   | X | X |   |
| Instrument Summary        | Lighting           |   | + |   |   | X | X |   |
| Interior Elevation Marker | Dims/Notes         | X | X | X | X | X | X | X |

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(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Tool                        | Tool palette/set   | F | D | A | L | S | B | C |
|-----------------------------|--------------------|---|---|---|---|---|---|---|
| J-Bolt                      | Fasteners          |   | X | X | X | X | X |   |
| J-Bolt - 3D                 | Fasteners          |   | X | X | X | X | X |   |
| Jackfield                   | Schematics         |   | + |   |   |   |   | X |
| Jumper Cable                | Lighting           |   | + |   |   | X | X |   |
| Key                         | Machine Components |   | X | X | X | X | X |   |
| Key-3D                      | Machine Components |   | X | X | X | X | X |   |
| Keyway                      | Detailing          |   | X | X | X | X | X |   |
| Knurled Thumb Nut (DIN)     | Fasteners          |   | X | X | X | X | X |   |
| Knurled Thumb Nut (DIN)-3D  | Fasteners          |   | X | X | X | X | X |   |
| Knurled Thumb Nut (Inch)    | Fasteners          |   | X | X | X | X | X |   |
| Knurled Thumb Nut (Inch)-3D | Fasteners          |   | X | X | X | X | X |   |
| Lag Screw                   | Detailing          |   | X | X | X | X | X |   |
| Lag Screw - 3D              | Detailing          |   | X | X | X | X | X |   |
| Landscape Area              | Site Planning      |   | X |   | X |   |   |   |
| Layout Room                 | Layout             |   | + |   |   |   |   | X |
| Leader Line                 | Basic              |   | X | X | X | X | X |   |
| Leader Line Simple          | Basic              | X | + | + | + | + | + | X |
| LED Screen                  | Event Design       |   | + |   |   | X | X |   |
| Legend                      | Schematics         |   | + |   |   |   |   | X |
| Light                       | Visualization      | X | X | X | X | X | X | X |
| Lighting Accessory          | Lighting           |   | + |   |   | X | X |   |
| Lighting Device             | Lighting           |   | + |   |   | X | X |   |
| Lighting Pipe               | Rigging            |   | + |   |   | X | X |   |
| Lighting Pipe Ladder        | Rigging            |   | + |   |   | X | X |   |
| Line                        | Basic              | X | X | X | X | X | X | X |
| Linear Material             | Detailing          |   | X | X | X |   |   |   |
| Linked Jackfield            | Schematics         |   | + |   |   |   |   | X |
| Loft Surface                | 3D Modeling        | X | X | X | X | X | X | X |
| Manage Loads                | Rigging            |   | + |   |   | X | X |   |
| Marionette                  | Basic              |   | X | X | X | X | X |   |
| Massing Model               | Site Planning      |   | X | X | X |   |   |   |
| Mirror                      | Basic              | X | X | X | X | X | X | X |
| Mother Grid                 | Rigging            |   | + |   |   | X | X |   |
| Move by Points              | Basic              | X | X | X | X | X | X | X |
| Move Page                   | Basic              | X | X | X | X | X | X | X |
| Mullion                     | Building Shell     |   | X | X |   |   |   |   |
| Multicable                  | Lighting           |   | + |   |   | X | X |   |



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| Tool                  | Tool palette/set   | F | D | A | L | S | B | C |
|-----------------------|--------------------|---|---|---|---|---|---|---|
| Needle Bearing        | Machine Components |   | X | X | X | X | X |   |
| Needle Bearing - 3D   | Machine Components |   | X | X | X | X | X |   |
| New Device            | Schematics         |   | + |   |   |   |   | X |
| North Arrow           | Dims/Notes         |   | X | X | X | X | X | X |
| NURBS Curve           | 3D Modeling        | X | X | X | X | X | X | X |
| Offset                | Basic              | X | X | X | X | X | X | X |
| Outlet                | Irrigation         |   | X |   | X |   |   |   |
| Oval                  | Basic              | X | X | X | X | X | X | X |
| Pan                   | Basic              | X | X | X | X | X | X | X |
| Parallel Pin (DIN)    | Fasteners          |   | X | X | X | X | X |   |
| Parallel Pin (DIN)-3D | Fasteners          |   | X | X | X | X | X |   |
| Parking Along Path    | Site Planning      |   | X |   | X |   |   |   |
| Parking Area          | Site Planning      |   | X |   | X |   |   |   |
| Parking Spaces        | Building Shell     |   | + |   |   | X | X |   |
| Parking Spaces        | Site Planning      |   | X | X | X |   |   |   |
| Photometer            | Lighting           |   | + |   |   | X | X |   |
| Photometric Grid      | Lighting           |   | + |   |   | X | X |   |
| Pilaster              | Building Shell     |   | X | X |   |   |   |   |
| Pillow Block          | Machine Components |   | X | X | X | X | X |   |
| Pillow Block - 3D     | Machine Components |   | X | X | X | X | X |   |
| Pipe                  | Irrigation         |   | X |   | X |   |   |   |
| Pipe Fitting          | Detailing          |   | X | X |   |   |   |   |
| Piping                | MEP                |   | X | X |   |   |   |   |
| Piping Connection     | MEP                |   | X | X |   |   |   |   |
| Piping Run            | MEP                |   | X | X |   |   |   |   |
| Plant                 | Site Planning      |   | X |   | X |   |   |   |
| Point Of Connection   | Irrigation         |   | X |   | X |   |   |   |
| Polyline              | Basic              | X | X | X | X | X | X | X |
| Project               | 3D Modeling        | X | X | X | X | X | X | X |
| Property Line         | Site Planning      |   | X | X | X |   |   |   |
| Protractor            | Dims/Notes         | X | X | X | X | X | X | X |
| Protractor            | Basic              |   |   |   | X | X | X |   |
| Pulley                | Machine Components |   | X | X | X | X | X |   |
| Pulley - 3D           | Machine Components |   | X | X | X | X | X |   |
| Push/Pull             | 3D Modeling        | X | X | X | X | X | X | X |
| Quarter Arc           | Basic              | X | X | X | X | X | X | X |
| Rack Frame            | Layout             |   | + |   |   |   |   | X |

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| Tool                      | Tool palette/set | F | D | A | L | S | B | C |
|---------------------------|------------------|---|---|---|---|---|---|---|
| Rack Ruler                | Layout           |   | + |   |   |   |   | X |
| Radial Dimension          | Dims/Notes       | X | X | X | X | X | X | X |
| Radial Dimension          | Basic            |   |   |   | X | X | X |   |
| Railing/Fence             | Furn/Fixtures    |   | X | X | X |   |   |   |
| Railing/Fence             | Site Planning    |   | X |   | X |   |   |   |
| Railing/Fence Join        | Furn/Fixtures    |   | X | X | X |   |   |   |
| Railing/Fence Join        | Site Planning    |   | X |   | X |   |   |   |
| Ramp                      | Building Shell   |   | X | X | X | X | X |   |
| Receptacle                | MEP              |   | X | X |   |   |   |   |
| Rectangle                 | Basic            | X | X | X | X | X | X | X |
| Rectangular Tubing        | Detailing        | X | X | X | X | X | X | X |
| Rectangular Tubing - 3D   | Detailing        |   | X | X | X | X | X |   |
| Redline                   | Dims/Notes       |   | X | X | X | X | X | X |
| Reference Marker          | Dims/Notes       | X | X | X | X | X | X | X |
| Regular Polygon           | Basic            | X | X | X | X | X | X | X |
| Remove Wall Breaks        | Building Shell   |   | X | X | X | X | X |   |
| Render Bitmap             | Visualization    | X | X | X | X | X | X | X |
| Renderworks Camera        | Visualization    | X | X | X | X | X | X | X |
| Repetitive Unit           | Detailing        |   | X | X | X |   |   |   |
| ReRoute Circuits          | Schematics       |   | + |   |   |   |   | X |
| Reshape                   | Schematics       |   | + |   |   |   |   | X |
| Reshape                   | Basic            | X | X | X | X | X | X | X |
| Retaining Ring (ASME)     | Fasteners        |   | X | X | X | X | X |   |
| Retaining Ring (ASME)-3D  | Fasteners        |   | X | X | X | X | X |   |
| Retaining Ring (DIN)      | Fasteners        |   | X | X | X | X | X |   |
| Retaining Ring (DIN)-3D   | Fasteners        |   | X | X | X | X | X |   |
| Retaining Washer (DIN)    | Fasteners        |   | X | X | X | X | X |   |
| Retaining Washer (DIN)-3D | Fasteners        |   | X | X | X | X | X |   |
| Revision Cloud            | Dims/Notes       | X | X | X | X | X | X | X |
| Rigging Load              | Rigging          |   | + |   |   | X | X |   |
| Rivet (DIN)               | Fasteners        |   | X | X | X | X | X |   |
| Rivet (DIN) - 3D          | Fasteners        |   | X | X | X | X | X |   |
| Rivet - Large (Inch)      | Fasteners        |   | X | X | X | X | X |   |
| Rivet - Large (Inch)-3D   | Fasteners        |   | X | X | X | X | X |   |
| Rivet - Small (Inch)      | Fasteners        |   | X | X | X | X | X |   |
| Rivet - Small (Inch)-3D   | Fasteners        |   | X | X | X | X | X |   |
| Roadway (Curved)          | Site Planning    |   | X | X | X |   |   |   |

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| Tool                        | Tool palette/set   | F | D | A | L | S | B | C |
|-----------------------------|--------------------|---|---|---|---|---|---|---|
| Roadway (Custom Curb)       | Site Planning      |   | X | X | X |   |   |   |
| Roadway (NURBS)             | Site Planning      |   | X | X | X |   |   |   |
| Roadway (Poly)              | Site Planning      |   | X | X | X |   |   |   |
| Roadway (Straight)          | Site Planning      |   | X | X | X |   |   |   |
| Roadway (Tee)               | Site Planning      |   | X | X | X |   |   |   |
| Roller Bearing              | Machine Components |   | X | X | X | X | X |   |
| Roller Bearing - 3D         | Machine Components |   | X | X | X | X | X |   |
| Roller Chain - Circular     | Machine Components |   | X | X | X | X | X |   |
| Roller Chain - Circular-3D  | Machine Components |   | X | X | X | X | X |   |
| Roller Chain - Linear       | Machine Components |   | X | X | X | X | X |   |
| Roller Chain - Linear-3D    | Machine Components |   | X | X | X | X | X |   |
| Roller Chain - Offset Link  | Machine Components |   | X | X | X | X | X |   |
| Roller Chain-Offset Link-3D | Machine Components |   | X | X | X | X | X |   |
| Room Name Simple            | Dims/Notes         | X | X | X | X | X | X | X |
| Rope and Stanchion          | Event Design       |   | + |   |   | X | X |   |
| Rotate                      | Basic              | X | X | X | X | X | X | X |
| Rotate View                 | Visualization      | X | X | X | X | X | X | X |
| Round Tubing                | Detailing          | X | X | X | X | X | X | X |
| Round Tubing - 3D           | Detailing          |   | X | X | X | X | X |   |
| Round Wall                  | Building Shell     |   | X | X | X | X | X |   |
| Round Wall                  | Site Planning      |   | X |   | X |   |   |   |
| Rounded Rectangle           | Basic              | X | X | X | X | X | X | X |
| Scale Bar                   | Dims/Notes         | X | X | X | X | X | X | X |
| Screw Threads               | Detailing          |   | X | X | X | X | X |   |
| Sculptor                    | Surface Sculpting  |   | X | X | X |   |   |   |
| Seating Layout              | Furn/Fixtures      |   | + |   |   | X | X |   |
| Seating Section             | Event Design       |   | + |   |   | X | X |   |
| Seating Section             | Furn/Fixtures      |   | X | X |   |   |   |   |
| Section-Elevation Line      | Dims/Notes         | X | X | X | X | X | X | X |
| Select Similar              | Basic              |   | X | X | X | X | X | X |
| Selection                   | Basic              | X | X | X | X | X | X | X |
| Set Working Plane           | 3D Modeling        | X | X | X | X | X | X | X |
| Shaft                       | Machine Components |   | X | X | X | X | X |   |
| Shaft - 3D                  | Machine Components |   | X | X | X | X | X |   |
| Shaft Break                 | Detailing          | X | X | X | X | X | X | X |
| Shaft Break 2               | Detailing          |   | X | X | X | X | X |   |
| Shear                       | Basic              | X | X | X | X | X | X | X |

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| Tool                   | Tool palette/set   | F | D | A | L | S | B | C |
|------------------------|--------------------|---|---|---|---|---|---|---|
| Sheet Metal Screw      | Detailing          |   | X | X | X | X | X |   |
| Sheet Metal Screw - 3D | Detailing          |   | X | X | X | X | X |   |
| Shell Solid            | 3D Modeling        | X | X | X | X | X | X | X |
| Shelving Unit          | Furn/Fixtures      |   | X | X | X | X | X |   |
| Simple Stair           | Building Shell     |   | + | + | X | X | X |   |
| Site Model Contour     | Contour Edit       |   | X | X | X |   |   |   |
| Site Modifiers         | Site Planning      |   | X | X | X |   |   |   |
| Slab                   | Building Shell     |   | X | X | X | X | X |   |
| Slab Drainage          | Building Shell     |   | X | X | X | X | X |   |
| Slope Dimension        | Dims/Notes         |   | X | X | X |   |   |   |
| Slot                   | Detailing          | X | X | X | X | X | X | X |
| Socket                 | Schematics         |   | + |   |   |   |   | X |
| Socket Loop            | Schematics         |   | + |   |   |   |   | X |
| Soft Goods             | Detailing          |   | X |   |   |   |   |   |
| Soft Goods             | Event Design       |   |   |   |   | X | X |   |
| Space                  | Building Shell     |   | X | X | + | + |   |   |
| Space                  | Space Planning     |   | X | X | + | + |   |   |
| Space Link             | Space Planning     |   | X | X |   |   |   |   |
| Speaker                | Event Design       |   | + |   |   | X | X |   |
| Speaker Array          | Event Design       |   | + |   |   | X | X |   |
| Sphere                 | 3D Modeling        | X | X | X | X | X | X | X |
| Spiral                 | Basic              | X | X | X | X | X | X | X |
| Split                  | Basic              | X | X | X | X | X | X | X |
| Sprocket               | Machine Components |   | X | X | X | X | X |   |
| Sprocket - 3D          | Machine Components |   | X | X | X | X | X |   |
| Spur Gear              | Machine Components |   | X | X | X | X | X |   |
| Spur Gear Rack         | Machine Components |   | X | X | X | X | X |   |
| Spur Gear Rack - 3D    | Machine Components |   | X | X | X | X | X |   |
| Spur Gear-3D           | Machine Components |   | X | X | X | X | X |   |
| Square Tubing          | Detailing          | X | X | X | X | X | X | X |
| Square Tubing - 3D     | Detailing          |   | X | X | X | X | X |   |
| Stacking Diagram       | Space Planning     |   | X | X |   |   |   |   |
| Stage Deck             | Event Design       |   | + |   |   | X | X |   |
| Stage Lift             | Rigging            |   | + |   |   | X | X |   |
| Stage Plug             | Event Design       |   | + |   |   | X | X |   |
| Stage Ramp             | Event Design       |   | + |   |   | X | X |   |
| Stage Steps            | Event Design       |   | + |   |   | X | X |   |

## Vectorworks 2021 product comparison: Tools

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Tool                        | Tool palette/set   | F | D | A | L | S | B | C |
|-----------------------------|--------------------|---|---|---|---|---|---|---|
| Stair                       | Building Shell     |   | X | X | X |   |   |   |
| Stake                       | Site Planning      |   | X | X | X |   |   |   |
| Stipple                     | Dims/Notes         |   | X | X | X | X | X | X |
| Straight Truss              | Detailing          |   | X |   |   |   |   |   |
| Straight Truss              | Rigging            |   |   |   |   | X | X |   |
| Structural Member           | Building Shell     |   | X | X |   |   |   |   |
| Structural Member           | Rigging            |   |   |   |   | X | X |   |
| Swale/Berm                  | Surface Sculpting  |   | X | X | X |   |   |   |
| Swing Bolt                  | Fasteners          |   | X | X | X | X | X |   |
| Swing Bolt - 3D             | Fasteners          |   | X | X | X | X | X |   |
| Swing Eye Bolt              | Fasteners          |   | X | X | X | X | X |   |
| Swing Eye Bolt - 3D         | Fasteners          |   | X | X | X | X | X |   |
| Switch                      | MEP                |   | X | X |   |   |   |   |
| Symbol Insertion            | Basic              | X | X | X | X | X | X | X |
| Symmetry Label              | Dims/Notes         | X | X | X | X | X | X | X |
| System Component            | Irrigation         |   | X |   | X |   |   |   |
| T-Bolt                      | Fasteners          |   | X | X | X | X | X |   |
| T-Bolt - 3D                 | Fasteners          |   | X | X | X | X | X |   |
| Table and Chairs            | Furn/Fixtures      |   | X | X | X | X | X |   |
| Tag/Label                   | Irrigation         |   | X |   | X |   |   |   |
| Tape Measure                | Dims/Notes         | X | X | X | X | X | X | X |
| Tape Measure                | Basic              |   |   |   | X | X | X |   |
| Taper Face                  | 3D Modeling        | X | X | X | X | X | X | X |
| Taper Pin (DIN)             | Fasteners          |   | X | X | X | X | X |   |
| Taper Pin (DIN)-3D          | Fasteners          |   | X | X | X | X | X |   |
| Taper Pin (Inch)            | Fasteners          |   | X | X | X | X | X |   |
| Taper Pin (Inch)-3D         | Fasteners          |   | X | X | X | X | X |   |
| Tapered Roller Bearing      | Machine Components |   | X | X | X | X | X |   |
| Tapered Roller Bearing - 3D | Machine Components |   | X | X | X | X | X |   |
| Tee                         | Detailing          | X | X | X | X | X | X | X |
| Tee - 3D                    | Detailing          |   | X | X | X | X | X |   |
| Television                  | Event Design       |   | + |   |   | X | X |   |
| Term Panel                  | Schematics         |   | + |   |   |   |   | X |
| Terminator                  | Schematics         |   | + |   |   |   |   | X |
| Text                        | Basic              | X | X | X | X | X | X | X |
| Thrust Bearing              | Machine Components |   | X | X | X | X | X |   |
| Thrust Bearing - 3D         | Machine Components |   | X | X | X | X | X |   |

## Vectorworks 2021 product comparison: Tools

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Tool                           | Tool palette/set   | F | D | A | L | S | B | C |
|--------------------------------|--------------------|---|---|---|---|---|---|---|
| Thumb Screw (Inch)             | Fasteners          |   | X | X | X | X | X |   |
| Thumb Screw (Inch) - 3D        | Fasteners          |   | X | X | X | X | X |   |
| Title Block Border             | Dims/Notes         | X | X | X | X | X | X | X |
| Toilet Stall                   | Furn/Fixtures      |   | X | X |   |   |   |   |
| Torsion Spring - 3D            | Machine Components |   | X | X | X | X | X |   |
| Torsion Spring - End           | Machine Components |   | X | X | X | X | X |   |
| Torsion Spring - Front         | Machine Components |   | X | X | X | X | X |   |
| Translate View                 | Visualization      | X | X | X | X | X | X | X |
| Triangle                       | Basic              | X | X | X | X | X | X | X |
| Trim                           | Basic              | X | X | X | X | X | X | X |
| Truss                          | Rigging            |   | + |   |   | X | X |   |
| Tubular Rivet (DIN)            | Fasteners          |   | X | X | X | X | X |   |
| Tubular Rivet (DIN) - 3D       | Fasteners          |   | X | X | X | X | X |   |
| U-Bolt                         | Fasteners          |   | X | X | X | X | X |   |
| U-Bolt - 3D                    | Fasteners          |   | X | X | X | X | X |   |
| Unconstrained Linear Dimension | Dims/Notes         | X | X | X | X | X | X | X |
| Unconstrained Linear Dimension | Basic              |   |   |   | X | X | X |   |
| Utility Cabinet                | Furn/Fixtures      |   | X | X | X | X | X |   |
| Valve                          | Irrigation         |   | X |   | X |   |   |   |
| VBvisual Plant                 | Visualization      | X | X | X | X | X | X | X |
| Video Camera                   | Event Design       |   | + |   |   | X | X |   |
| Video Camera                   | Visualization      |   |   |   |   | X | X |   |
| Video Screen                   | Event Design       |   | + |   |   | X | X |   |
| Visibility                     | Basic              |   | X | X | X | X | X | X |
| Walkthrough                    | Visualization      | X | X | X | X | X | X | X |
| Wall                           | Building Shell     |   | X | X | X | X | X |   |
| Wall                           | Site Planning      |   | X |   | X |   |   |   |
| Wall Cabinet                   | Furn/Fixtures      |   | X | X | X | X | X |   |
| Wall End Cap                   | Building Shell     |   | X | X | X | X | X |   |
| Wall Join                      | Building Shell     |   | X | X | X | X | X |   |
| Wall Join                      | Site Planning      |   | X |   | X |   |   |   |
| Welding Sym-Fillet (AWS)       | Dims/Notes         |   | X | X | X | X | X | X |
| Welding Sym-Fillet (ISO)       | Dims/Notes         |   | X | X | X | X | X | X |
| Welding Sym-Flange (AWS)       | Dims/Notes         |   | X | X | X | X | X | X |
| Welding Sym-Flange (ISO)       | Dims/Notes         |   | X | X | X | X | X | X |
| Welding Sym-Groove (AWS)       | Dims/Notes         |   | X | X | X | X | X | X |
| Welding Sym-Groove (ISO)       | Dims/Notes         |   | X | X | X | X | X | X |

## Vectorworks 2021 product comparison: Tools

(F: Fundamentals, D: Designer, A: Architect, L: Landmark, S: Spotlight, B: Braceworks, C: ConnectCAD)

| Tool                        | Tool palette/set   | F | D | A | L | S | B | C |
|-----------------------------|--------------------|---|---|---|---|---|---|---|
| Welding Sym-Misc (AWS)      | Dims/Notes         |   | X | X | X | X | X | X |
| Welding Sym-Misc (ISO)      | Dims/Notes         |   | X | X | X | X | X | X |
| Welding Sym-Slot-Plug (AWS) | Dims/Notes         |   | X | X | X | X | X | X |
| Welding Sym-Slot-Plug (ISO) | Dims/Notes         |   | X | X | X | X | X | X |
| Wide Flange                 | Detailing          | X | X | X | X | X | X | X |
| Wide Flange - 3D            | Detailing          |   | X | X | X | X | X |   |
| Window                      | Building Shell     |   | X | X | X | X | X |   |
| Wing Nut (DIN)              | Fasteners          |   | X | X | X | X | X |   |
| Wing Nut (DIN)-3D           | Fasteners          |   | X | X | X | X | X |   |
| Wing Nut - Type A (Inch)    | Fasteners          |   | X | X | X | X | X |   |
| Wing Nut - Type A (Inch)-3D | Fasteners          |   | X | X | X | X | X |   |
| Wing Nut - Type B (Inch)    | Fasteners          |   | X | X | X | X | X |   |
| Wing Nut - Type B (Inch)-3D | Fasteners          |   | X | X | X | X | X |   |
| Wing Nut - Type C (inch)    | Fasteners          |   | X | X | X | X | X |   |
| Wing Nut - Type C (inch)-3D | Fasteners          |   | X | X | X | X | X |   |
| Wing Nut - Type D (inch)    | Fasteners          |   | X | X | X | X | X |   |
| Wing Nut - Type D (inch)-3D | Fasteners          |   | X | X | X | X | X |   |
| Wood Screw                  | Detailing          |   | X | X | X | X | X |   |
| Wood Screw - 3D             | Detailing          |   | X | X | X | X | X |   |
| Woodruff Key                | Machine Components |   | X | X | X | X | X |   |
| Woodruff Key-3D             | Machine Components |   | X | X | X | X | X |   |
| Workstation Counter         | Furn/Fixtures      |   | X | X | X | X | X |   |
| Workstation Overhead        | Furn/Fixtures      |   | X | X | X | X | X |   |
| Workstation Panel           | Furn/Fixtures      |   | X | X | X | X | X |   |
| Workstation Pedestal        | Furn/Fixtures      |   | X | X | X | X | X |   |
| Worm                        | Machine Components |   | X | X | X | X | X |   |
| Worm - 3D                   | Machine Components |   | X | X | X | X | X |   |
| Worm Gear                   | Machine Components |   | X | X | X | X | X |   |
| Worm Gear - 3D              | Machine Components |   | X | X | X | X | X |   |
| Z-Section                   | Detailing          |   | X | X | X | X | X |   |
| Z-Section - 3D              | Detailing          |   | X | X | X | X | X |   |
| Zoom                        | Basic              | X | X | X | X | X | X | X |