

Views, Cameras, Viewing

Pre-defined Views

12 - Top, Bottom, Left, Right, Front, Back, Isometric (SE,SW, NE, NW), Diametric (SE, SW, NE, NW)

12 - Top, Bottom, Left, Right, Front, Back, Isometric (SE,SW, NE, NW), Diametric (SE, SW, NE, NW)

By Workplane
By World

Yes
Yes

Yes
Yes

Camera Movements

10 - Left, Right, Up, Down, Turn Right, Turn Left, Turn Up, Turn Down, Rotate Right, Rotate Left

10 - Left, Right, Up, Down, Turn Right, Turn Left, Turn Up, Turn Down, Rotate Right, Rotate Left

Camera Object Views

10 - Left, Right, Up, Down, Turn Right, Turn Left, Turn Up, Turn Down, Rotate Right, Rotate Left

10 - Left, Right, Up, Down, Turn Right, Turn Left, Turn Up, Turn Down, Rotate Right, Rotate Left

Cursor Move

3 - Normal to View, Parallel to View, By 2 Points

3 - Normal to View, Parallel to View, By 2 Points

Pan
Perspective
Previous
QuickTime Movie Creation
Orthographic
Origin

2- Pan to Point, Vector Pan
Yes
Yes
Yes - Object and Panoramic
Yes
Yes

2- Pan to Point, Vector Pan
Yes
Yes
Yes - Object and Panoramic
Yes
Yes

Walkthrough

Yes - Examine, Roll, Turn, Slide, Walk

Yes - Examine, Roll, Turn, Slide, Walk

Zooms

Discrete levels and including smooth **infinite zoom**

Discrete levels and including smooth **infinite zoom**

Workplane Settings

Auto Workplane

Yes

Yes

By 3 Points
By Entity/Object

Yes
Yes

Yes
Yes

By Facet
 By View
 By World
 By Z Axis
 Named
 Origin
 Orthographic
 Previous
 Show/Hide

Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes

Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes

General Editing Tools, Other

Align

Yes, 7 types - Bottom, Top, Center, Left, Right, Middle, Along Line.

Yes, 7 types - Bottom, Top, Center, Left, Right, Middle, Along Line.

Batch File Converter

Yes

Yes

Copy

Yes, 9 types - Array, Linear, Radial, Array Fit, Linear Fit, Radial Fit, Mirror, Offset, Vector.

Yes, 9 types - Array, Linear, Radial, Array Fit, Linear Fit, Radial Fit, Mirror, Offset, Vector.

Database Connectivity Manager/Palette

Yes

No

Distribute

Yes, 8 types - Bottom, Top, Center, Left, Right, Middle, Distance, Space

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Drawing Compare Utility

Yes - Platinum ver.

No

Draw Order

Yes - Bring to Front, Send to Back, Forward One, Back One

Yes - Bring to Front, Send to Back, Forward One, Back One

Geometric Aids

Yes - Extended Orthogonal, Apparent Extensions

Yes - Extended Orthogonal, Apparent Extensions

Explode

Yes

Yes

Group

Yes

Yes

Hidden Line Settings

Yes

Yes

Integrated Calculator

Yes

Yes

Line Width Scaling

Yes

Yes

Macro Recorder

Yes

Yes

Multiple UNDO/REDO

Yes

Yes

MultiText

Yes

Yes

Org Chart Wizard
 Page Setup Manager
 Plotting/ Plot Style Manager
 Pre-defined Drawing Templates
 Print Style Manager
 Raster to Vector Tracings (integrated)

Yes
Yes
Limited
17
Yes
Yes
Yes - selected text or entire drawing
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes - 4
Yes

Yes
Yes
Limited
17
Yes
Yes
Yes - selected text or entire drawing
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes - 4
Yes

Spell Checker

Symbols/Block Editors
 Table Styles
 Tables
 Simple Text
 Multi Text
 Text Along a Curve
 Transforms
 Transform Recorder

Layers

Create Custom Layer Sets
 Layer Filters

Yes
Yes
8 - Active, Color, Line Style, Lock, Pen Width, Order, Print Style, Visible
Yes
Yes
Yes
Yes
Yes
Not pre-defined; however can be customized

Yes
Yes
8 - Active, Color, Line Style, Lock, Pen Width, Order, Print Style, Visible
Yes
Yes
Yes
Yes
Yes
Not pre-defined; however can be customized

Layer Properties

Layer Properties Manager
 Lock/Unlock
 Plotstyle
 Layer Order
 Set Color, Linetype, Lineweight, Name

Workspace Settings

2D Drawing Tools

Arcs

13 tools
Yes
8 types
Yes
Yes - 8 tools
3 tools
Yes
Yes
5 tools
Yes - 8 tools
Yes
Yes

13 tools
Yes
8 types
Yes
Yes - 8 tools
3 tools
No
Yes
5 tools
Yes - 8 tools
Yes
Yes

Bezier curve
 Circles
 Construction Lines
 Double Lines
 Ellipses
 Gear Contour generator
 Irregular Polygon
 Lines
 Multilines
 Parallel Lines
 Perpendicular Lines

Geometric Analysis

Yes - Volume, Base Moments of Inertia, Base Section Modulus, Center of Gravity, Radius of Gyration, Main Axis, Area, Moment of Inertia relative to Axis, Section Modulus relative to Axis
Yes
Yes

No
Yes
Yes

Surface Area and Volume of 3D Surfaces
Volume

Blocks, Symbols and Parametric Parts

2D and 3D Symbols

Block Editor
Compound Profiles, Constraints in Blocks
Dynamic Blocks
In-place Editing of Blocks and Groups
Parametric Part Libraries
Parametric Parts Manager and Scripting Language
Pre-defined Blocks
Relocate Block Reference Point
Specify Block Insertion Point, Rotation and Scaling
Surface Roughness Symbol
Visibility Control
Weld Symbol (parametric)
Xclip support
XREFs
XREF Binding
XREF Manager

Thousands
Yes
Yes
No
Yes
Yes
Yes
0
Yes
Yes
Yes
Yes
No
Yes
Yes
Yes
Yes
Yes

Hundreds
Yes
No
Yes
Yes
No
Yes
Yes
Yes
Yes
Yes
Yes
No
Yes
Yes
Yes
Yes

Constraints and Tolerances

Automatic Dimensions
Driving Dimensions
Dimensional Constraints
Geometric Constraints
Geometric Tolerances
Tolerance symbols

Yes
Yes
Yes
Yes -16 different types
Yes
1

No
No
No
No
No
No

Dimensions

Types	16 - Angular, Angular for Arc (new), Baseline, Continuous, Datum, Diameter, Distance, Incremental, Leader, Orthogonal, Parallel, Quick, Radius, Rotated, Smart, Surveyor Linear (new)	16 - Angular, Angular for Arc (new), Baseline, Continuous, Datum, Diameter, Distance, Incremental, Leader, Orthogonal, Parallel, Quick, Radius, Rotated, Smart, Surveyor Linear (new)
Associative	Yes - plus editable driving dimensions	Yes - plus editable driving dimensions
Automatic	Yes	Yes
Center Mark tool	Yes - if center snap enabled	Yes - if center snap enabled
Dimension Style Manager/Editor	Yes	Yes
Fractional	Yes	Yes
Multileader	Yes	Yes
Non-associative	Yes	Yes
Set Tolerances to Dimensions	Yes	Yes

Hatching and Fills

Associative	Yes	Yes
Calculate Hatch Areas	Yes	Yes
Edit Hatch boundaries	Yes	Yes
Gradient fills	Yes - 5 types, plus unlimited custom creation	Yes - 5 types, plus unlimited custom creation
Hatch Patterns	Comes with 76, additional can be created	Comes with 76, additional can be created
Hatch Pattern editor (user definable)	Yes	Yes
Island detection	Yes	Yes
Path	Yes	Yes
Pick point	Yes	Yes

Printing and Paper Space Lay-out

Create Named Viewports, Insert into Paper Space	Yes	Yes
CTB Print Style Support	Yes	Yes

Polylines
 Press/Pull (Quick Pull)
 Primitives - solid and surface
 Revolve
 Section
 Shell solid
 Splines
 Surfaces from 2D profiles
 Sweeps
 Thread tool
 Tube Bend
 Tube Flange
 Twisted Extrude
 Unbend Sheet
 Unfold Face

Yes
No
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes - Platinum ver.
Yes - Platinum ver.
Yes - Platinum ver.
Yes - Platinum ver.
Yes - Platinum ver.

Yes
No
TC Surfaces only
Yes
No
No
Yes
No
No
No
No
No
No
No

3D Modeling

Solid Modeler
 Deformable Modeling

Yes - ACIS® v20
Yes

No
No

Rendering and Visualization

256-color Shading
 Alpha Channel support on PNG and GIF file exports
 Apply different materials to different facets of the same object
 Advanced Render Styles, including Sketch Rendering
 Ambient Lights
 Camera position
 Color Transparency

Yes
Yes
Yes
Yes
Yes
Yes
Yes

Yes
Yes
Yes
No
Yes
Yes
Yes

Director/Editor/Palette for managing environments

Yes

Yes

Environment/Reflection Maps

Yes - including Environments Editor

Yes - including Environments Editor

Index Color Support

Yes

Yes

Lighting Variables

Dozens including: Angle, Color, Direction, Intensity, LOD (Skylight only), Penumbra (Spot only), Position, Umbra (Spot only)
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Dozens including: Angle, Color, Direction, Intensity, LOD (Skylight only), Penumbra (Spot only), Position, Umbra (Spot only)
--

LightWorks Archive support

Yes

Yes

Luminance of Objects

Yes - including Luminance Palette/Manager

Yes - including Luminance Palette/Manager

Lighting , Luminance Editor

Yes

Yes

Material Editor

Yes

Yes

Material Types for rendered objects*

Over 700 Materials

Over 700 Materials

Material mapping to surface type

No

No

Motion Path Animation

No - requires Animation Lab plug-in

No - requires Animation Lab plug-in

Open GL rendering

Yes

Yes

Photometric Lighting settings

Yes, 5 types - Candela, Empirical, Kilocandela, Kilolumen, Lumen
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Yes, 5 types - Candela, Empirical, Kilocandela, Kilolumen, Lumen
--

Photorealistic Rendering

Yes - LightWorks® v7.5

Yes - LightWorks® v7.5

Photo Ray trace Rendering

Yes - LightWorks®

Yes - LightWorks®

Procedural Maps for Materials

Yes

Yes

Quick Time VR Support

Yes

Yes

Ray tracing

Yes

Yes

Render Styles

Yes

Yes

True Color Support

Yes

Yes

Architectural, Civil Tools

- Convert double polyline to wall
- Doors - Parametric**
- Edit Profile for Doors and Walls
- Import of DWG files with AutoCAD Architecture/ADT Extensions
- Integrated Building Materials Scheduler (1st Pricing)
- Markers
- Multi-Component Walls
- Muntins
- Rail tool
- Roof tool

Yes
Yes
Yes
Yes
Yes - for Doors, Windows and Glass Blocks
Yes - 4 styles
Yes
Yes - for Doors and windows, Platinum ver.
Yes - Platinum ver.
Yes
Yes - for Windows, Doors, Walls and Slabs - Plat ver.
Yes - Platinum ver.
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes
Yes

Yes
Yes
Yes
Yes
Yes - for Doors, Windows and Glass Blocks
Yes - 4 styles
Yes
No
No
Yes
Yes
No
No
No
Limited
No
Yes
No
No
Yes
No
No

Schedule

- Slab Tool
- Sections and Elevations Tool
- Stairs - Parametric**
- Style Manager Palette
- Terrain tool
- Walls - Curved and Straight
- Wall Bottom and Top Modifier tools
- Wall Dimension tool
- Wall Linking
- Windows - Parametric**
- Woodworking Layout Wizard and tool
- Join/Split/Modify/Dimension Walls

Interoperability

- File Open, Insert or attach Bitmap
- File Save as or Export
- HTML Publishing Formats
- Proxy Object Support

31 formats, see separate table
31 formats, see separate table
JPG, DWF, PNG
Yes

17 formats, see separate table
19 formats, see separate table
JPG, DWF, PNG
Yes

Programmability

- Included SDK
- Macro Recorder

Yes
Yes

No
No

Documentation, Online Help, Tutorials, and Support

- Context-sensitive Help
- Free Email and Web-based support
- Free Telephone Support
- PDF Reference Manual
- Printed Getting Started Guide
- Searchable, Indexed Online Help

Yes
Yes
Yes
Yes
Yes
Yes

Yes
Yes
Yes
Yes
Yes
Yes

* See Material Libraries Tab for full listing
 ** See Stairs, Windows and Doors tab for full listing

