## 2015 VS. 2014 DIFFERENCES DOCUMENTS

### 1. NEW PRODUCT DEVELOPMENT WORKFLOWS

- **SOLIDWORKS**® Model Based Definition (MBD) enables drawingless product detailing with 3D PMI annotations; output to eDrawings® or 3D PDF
- **SOLIDWORKS** Treehouse provides visual assembly structure planning, creation, editing, and viewing
- Prepare models automatically for export to popular AEC applications

**Benefits**
Reduce time to market and comply with new industry standards.

### 2. INTEGRATED CAPABILITIES CONNECT DESIGN AND MANUFACTURING

- **SOLIDWORKS** Inspection automates inspection drawing and report creation
- **SOLIDWORKS** Costing supports sensors and costing of weldments, plastic/cast parts, machined castings, and 3D printed parts
- Print directly to 3D printers in AMF and 3MF formats
- Use advanced techniques to flatten surfaces

**Benefits**
Speed downstream manufacturing and bridge the gap between design and manufacturing.

### 3. SOLIDWORKS PERFORMANCE

- File size reduced by ~50%
- Faster component patterning and hide/show of assemblies
- **SOLIDWORKS** Simulation supports Intel® Solver and multi-core contact detection
- Define specific graphic regions to render in PhotoView 360
- **SOLIDWORKS** Enterprise PDM manages large data sets more efficiently

**Benefits**
Faster modeling, analysis, and rendering capabilities leaves more time to improve designs.

### 4. PART AND SURFACE MODELING

- Sketch: Line from mid-point; rectangle with horizontal/vertical construction lines
- Splines: Improved Spline on Surface; convert Style Spline to Spline Points
- Patterns: Improved Fill, Linear, and Variable Pattern
- Advanced geometry: Asymmetric Fillets, split surfaces; sketch plane normal to view

**Benefits**
Create sketches, complex patterns, and advanced geometry faster and with less effort.

### 5. ASSEMBLIES

- Mates: Center components on faces; select geometry to limit Width Mate
- Routing for rectangular sections, e.g., HVAC ducts, cable trays and chutes
- Simulate roller/energy chains using patterns along open or closed loops
- Exploded View: Radially and along axis; space components on drag

**Benefits**
Faster, easier, more intuitive assembly creation, control and view creation.
6 DRAWING IMPROVEMENTS

- Track view locations with automated drawing sheet zone annotations
- Enhanced formatting control of drawing and table notes
- Omit layers from printing; use splines as leaders
- Improved angle dimensioning and command of decimal rounding

Benefits

Find drawing views faster, and experience more automation and control.

7 DESIGN SIMULATION

- Predict product durability under dynamic loading in SOLIDWORKS Simulation and Load Case Manager for loads combination
- View your nonlinear results during the solve in SOLIDWORKS Simulation to ensure convergence
- Rotating mesh regions in SOLIDWORKS Flow Simulation delivers enhanced simulation of rotating machinery
- SOLIDWORKS Plastics improves plastic part design with up-front Venting Analysis

Benefits

Simulate real-life scenarios to predict product performance prior to manufacturing.

8 ELECTRICAL DESIGN

- Dynamic Connector tools simplify the design and use of connectors
- Advanced access to user-based controls for key tools
- In-line 3D routing diagnostics identifies and resolves routing issues
- Advanced Formula Manager provides access to system and mathematical variables in complex formulas

Benefits

Accelerate the development, creation, and integrity of electrical systems designs.

9 USER EXPERIENCE

- Dynamic Reference Visualization shows a graphical view of relationships between features
- Selection Sets let you select multiple entities and save them for reuse
- Isolate components while editing in context within an assembly
- Temporarily preview hidden bodies or components from the FeatureManager

Benefits

Work more efficiently and better understand/visualize the design intent of your models.

10 EXPANDED COMMUNICATION AND COLLABORATION

- SOLIDWORKS Enterprise PDM Web2 client connects browser-ready devices to a vault
- eDrawings now has a UI adapted for touchscreen and supports SOLIDWORKS Plastics result plots
- MgSolidWorks offers enhanced online learning and certification, ability to share/view designs online and search a global manufacturing network
- Collaborative Sharing uses community-based social innovation to provide greater connectivity to SOLIDWORKS, eDrawings, and DraftSight®

Benefits

Expand the reach of your design tools with faster, easier data connections and better social collaboration - anytime, anywhere.

See the full range of SOLIDWORKS software for design, simulation, technical communication, and data management at www.solidworks.com/products2015.

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