

Rules-Based Design: Inventor vs. SolidWorks March 2009

Inventor iLogic technology dramatically simplifies rules-based design for any Inventor user – even those with little or no programming experience - and shatters complicated barriers to adoption that are prominent in competitive offerings.

Available exclusive to Inventor subscription customers, the Inventor iLogic Extension enables Inventor users to easily create “smart” parts and assemblies that define multiple product configurations and automatically update in real-time based on logical relationships between design parameters. With Inventor iLogic, rules are created graphically from native Inventor parameters and embedded directly into the Inventor data model for the ultimate in simplicity and portability.

For example, Inventor iLogic lets you easily create a design rule that lengthens a cross-beam, adds an additional support strut, and changes the material of an entire structure from aluminum to steel if the mass of the load it supports exceeds 200 kg. This simple example illustrates only a small part of Inventor iLogic’s extensive capabilities.

Make sure your customers and prospects know about the tremendous value Inventor iLogic adds to their investment in Autodesk Subscription and how they can use Inventor iLogic to:

- Increase engineering productivity by automating tedious tasks
- Define complex product configurations with many variants
- Ensure compliance with technical design standards
- Optimize designs to meet required design goals
- Maintain design knowledge directly in their Digital Prototypes

Competitive Intelligence

Inventor iLogic gives you a clear competitive advantage against SolidWorks. SolidWorks includes the third-party plug-in DriveWorks Xpress, as an enticement to get customers hooked on the idea of rules-based design. To get the full set of rules-based design tools, SolidWorks customers must purchase the third-party DriveWorks add-on separately and further complicate their software implementation with an external database.

The table below shows how Inventor iLogic, included with Inventor subscription, is the scalable, attainable, and cost effective way to add higher levels of design intelligence to your digital prototypes. SolidWorks' DriveWorks add-on simply doesn't match up.

Rules-Based Design Functionality	Inventor iLogic	SolidWorks with DriveWorks Xpress	SolidWorks With DriveWorks
Basic Tools:			
Create rules using rules wizard	Y	Y	Y
Create single linear input form with basic controls	Y	Y	Y
Control dimensions, features, and custom properties	Y	Y	Y
Create a new drawing for each part/assembly	Y	Y	Y
Most Customers Need More:			
Create multiple drawings for each part/assembly	Y	N	Y
Control instances and swap alternatives	Y	N	Y
Control scale, view positions, view scales, layers	Y	N	Y
Run macros automatically	Y	N	Y
Design multiple customizable forms with navigation based on rules	Y	N	Y
Perform look ups/calculations on external data (database, spreadsheet)	Y	N	Y
Use tables, constants and variables (rule re-use)	Y	N	Y
Drive or generate Excel, Word, XML, PDF, Text, HTML	Y	N	Y
Pass data to corporate systems	Y	N	Y
The Autodesk Digital Prototyping Advantage:			
Cost Effective: Included with subscription	Y	Y	N
Scalable: Single digital model; single offering for full functionality	Y	N	N
Attainable: No programming expertise or external database required.	Y	N	N

Note: Inventor iLogic is focused on delivering the desktop productivity benefits of rules-based design for Inventor users working at the individual and workgroup levels. It is not an enterprise solution. For enterprise-level opportunities, such as sales automation and order engineering, Autodesk Inventor Automation Profession (formerly known as Autodesk Intent) is available through Autodesk Consulting.

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