



## PTC Global Maintenance Support

### *Software Technology Improvement Metrics*

Active Maintenance Support customers are entitled to each new release of the software they are using as it becomes available. Therefore, customers who adopt the newest releases, benefit from the key productivity enhancements built into each one. Below is a compilation of metrics from various PTC sources demonstrating performance and quality improvements in PTC software.

### **Pro/ENGINEER Wildfire 3.0**

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##### *Work Faster, Work Smarter*

- ⊙ Pro/ENGINEER Wildfire Product Strategy
  - Driving Personal Productivity
  - Driving Process Productivity
- ⊙ Pro/ENGINEER Wildfire 3.0 is the highest quality release in the history of Pro/ENGINEER
- ⊙ Overall **system performance was increased by 9.5%**, measured by the OCUS Benchmark

##### Why Upgrade to Pro/ENGINEER Wildfire 3.0?

Sketcher performance improved by **70-80%**  
Ability to sketch standard shapes **55% Faster**

Fast, flexible component assembly → **5x Faster**  
Detect component collisions **200% Faster**

Retrieve assemblies **45% Faster**

Detail **62% Faster**, Place Views **63% Faster**

Create Sheetmetal features **80-90% Faster**

Generate machine paths **300% Faster**



## Pro/ENGINEER Wildfire 4.0

(From the "[Top 10 Reasons to Buy Pro/ENGINEER Wildfire 4.0](#)" Brochure)

### 1. Faster Design

For a rounding exercise that would take an intermediate user 90 minutes or an expert user 20 minutes to accomplish, **Auto Round can complete the entire task in 40 seconds!** Accelerate your design process with Auto Round™. Streamline repetitive tasks and reduce the time to create round features on your model. Pro/ENGINEER analyzes the selected edges and then creates an optimal sequence of round features.

### 2. Smarter Large Assembly Management

You will see up to 40% less memory consumption! Leverage Automatic Memory Management for fast, on-demand retrieval of the large assemblies and automated selection of required levels of detail for assembly models. The usability of simplified representation preview is also improved with a new Reference Viewer, clearer indication of active components, and the part/assembly replacement of any component.

**"Importing a complex design that used to take over 3 hours to complete now only takes 13 minutes in Pro/ENGINEER Wildfire 4.0!"**

- Jon Sprang, Engineer, Daktronics

Activity	Minutes in Pro/ENGINEER Wildfire 3.0	Minutes in Pro/ENGINEER Wildfire 4.0	Time Saved (min)	Dollars Saved
Opening a moderately complex assembly	60.00	30.00	30.00	\$25
Rounding a model	75.00	4.25	70.75	\$58.96
Clean-up Imported Geometry	85.00	8.50	76.50	\$63.75
Create Annotations	5.00	1.00	4.00	\$3.33
Prepare model for Analysis	22.00	1.10	20.90	\$17.41
		<b>TOTAL</b>	<b>202.15</b>	<b>\$168.46</b>

**Savings of \$44,000 or 875 hours each year *for every user***



## **Pro/INTRALINK 9.0**

(From the "[Pro/INTRALINK 9.0](#)" Data Sheet)

### **Superior Performance & Usability**

- Fewer mouse clicks for common data management tasks
- Robust Local Area Network Performance
- Up to 5X greater WAN performance over previous generations of Pro/INTRALINK

### **Distributed Product Development**

- Superior WAN performance and support for replicated file vaults
- Maintain system performance as user numbers increase, by leveraging resource redundancy, load balancing, and caching

## **Pro/INTRALINK 9.0 [FAQs](#)**

Pro/INTRALINK 9.0 provides many improvements over Pro/INTRALINK 3.x. The most notable enhancements include the following:

- Improved distributed (WAN) performance
- New Web-based architecture and advanced security/ firewall/ LDAP capabilities
- Streamlined Pro/ENGINEER interactions
- Faster visualization with data management of viewables (for those users who have ProductView)



## PTC Global Maintenance Support

### *Software Technology Improvement Metrics*

#### **Windchill 8.0**

(From the “Focus on Windchill Performance 8.0 M040” ppt)

#### **Windchill 8.0 M020 Pro/ENGINEER Data Management Performance Improvements**

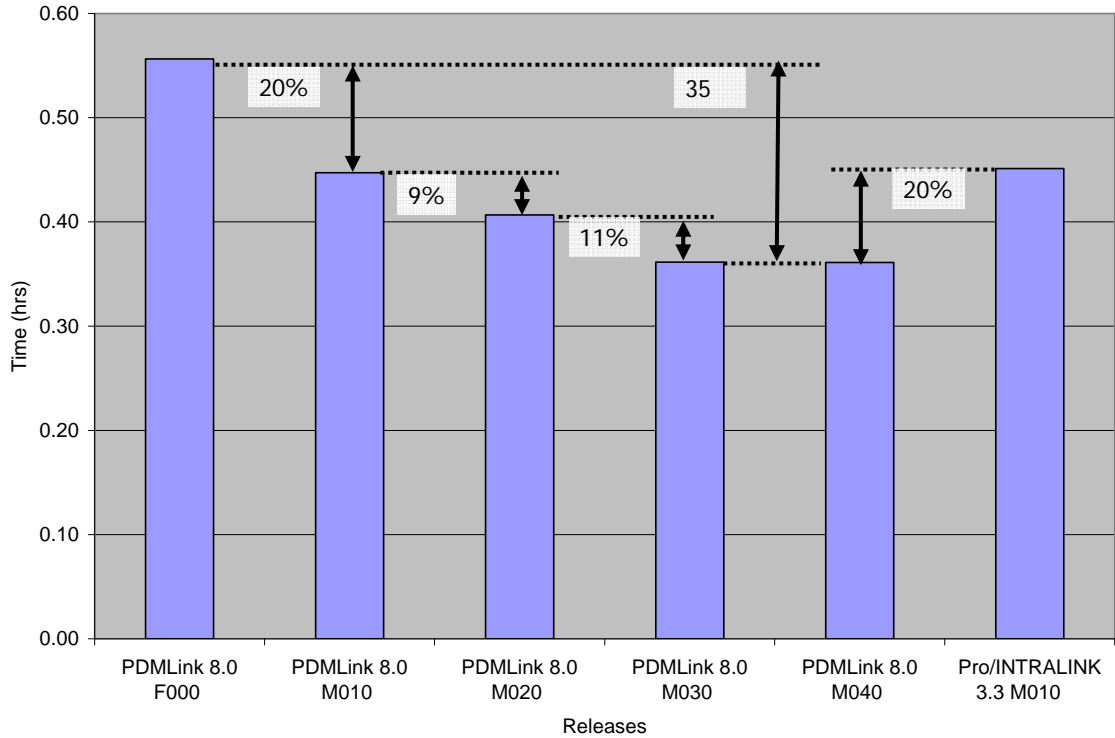
##### **Results**

##### **Pro/ENGINEER Data Management Performance Improvements**

- 9% improvement (Excluding Pro/ENGINEER Working Time) **over M010**
- 27% improvement (Excluding Pro/ENGINEER Working Time) **over F000**
- ~10% faster than Pro/INTRALINK 3.3 M022(Excluding Pro/ENGINEER Working Time)
- ~3% improvement (Including Pro/ENGINEER Working Time) **over M010**
- ~20% improvement in Workspace display and refresh times; affects
  - Check-in (form display time)
  - Check-out & Add to Workspace (form display time)
  - Revise
  - Rename



**Windchill 8.0 Pro/ENGINEER Data Management  
 Continuous Performance Improvements**



**Windchill 8.0 M030 Performance**

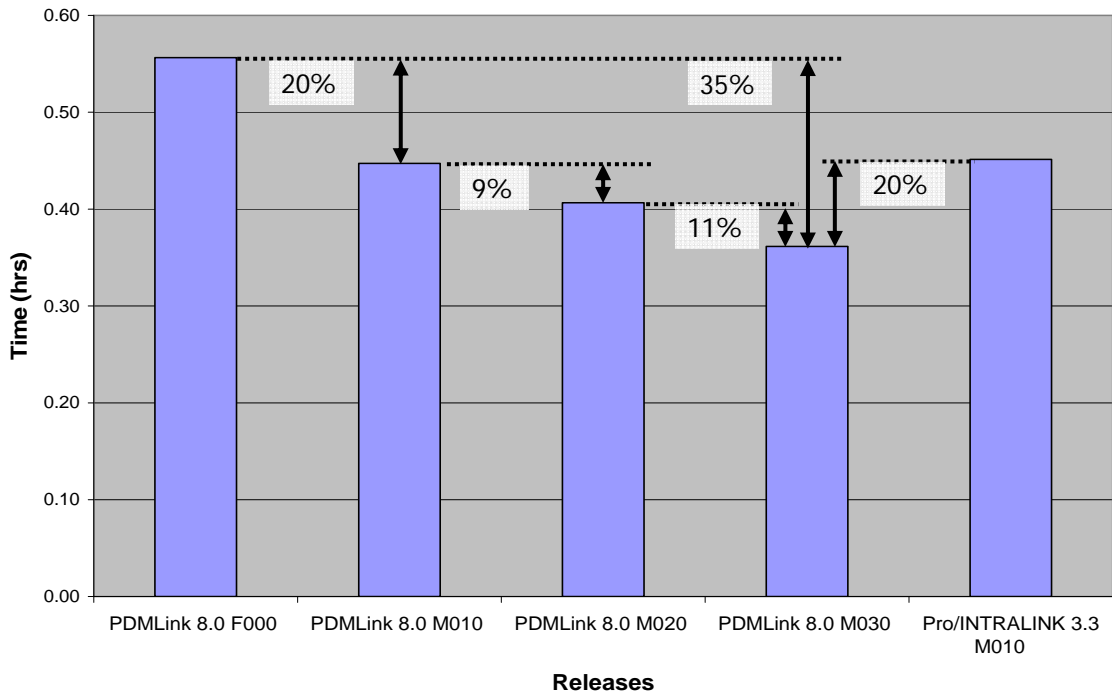
**Pro/ENGINEER Data Management Performance**

- ☒ “Day in the Life” Performance Model
  - 11% Faster w/o Pro/ENGINEER Work
  - 2% Faster w/o Pro/ENGINEER Work

**Areas of Improvement**

- List workspace (-36%)
- Promote (-17%)
- Demote (-19%)
- Checkin Modified (-19%)
- Model Structure Report (-25%)

**Windchill 8.0 M030 Performance (continued)**



**Windchill 8.0 vs. Windchill 9.0**

**Benefits**

- ⊗ Reduced data entry errors
- ⊗ More efficient experience
- ⊗ 51% average less clicks for tasks measured
- ⊗ 56% average reduction in time-on-task for tasks measured



## PTC Global Maintenance Support

### *Software Technology Improvement Metrics*

#### **Windchill 8.0 vs. Windchill 9.0 (continued)**

##### Usability Comparison Test

##### **Create workspace and add 2 parts to it**

- 8.0: Create workspace and then search for objects to add
- 9.0: Select object, then directly create workspace

**33% Less Clicks  
44% Less Time**

##### **Subscribe to 3 Objects**

- 8.0: Subscribe to one object at a time
- 9.0: Multi-object action – can select multiple-objects and subscribe to all of them with one action

**64% Less Clicks  
58% Less Time**

##### **Switch to another product**

- 8.0: First navigate to the list of all products, then select product of interest
- 9.0: Easy access to list of recently accessed products

**33% Less Clicks**

##### **Check-out items already in Workspace**

- 9.0: Less intervening steps

**50% Less Clicks  
68% Less Time**



## Windchill 8.0 vs. Windchill 9.0 (continued)

### Usability Comparison Test (continued)

#### Add 39-Part Assembly to Baseline

- 8.0: One item at a time! (unless there is a common name or number that allows you to formulate a smarter search)
- 9.0: Collector finds all children for you

**88% Less Clicks  
76% Less Time**

#### Change Object: Routing History

- Want to see where an ECR is in the process and who's done what on it
- 8.0: User opens the Process Monitor (Java Applet)
- 9.0: Any workflows completed or in process and any tasks completed or pending are viewable from HTML client

**81% Less Time**

#### Add Existing Part to Structure

- 8.0: Have to use PSE (Java Applet)
- 9.0: Can edit structure from HTML Client

**43% Less Clicks  
68% Less Time**

#### Add New Part to Structure

- While editing a structure, want to create a new part within the structure
- 8.0: Have to use PSE (Java Applet)
- 9.0: HTML structure editor with smart action "Create New Part and Add to Structure"

**29% Less Clicks  
63% Less Time**





## PTC Global Maintenance Support

### Software Technology Improvement Metrics

## Windchill 8.0 vs. Windchill 9.0 (continued)

### Usability Comparison Test (continued)

#### Attach Existing Document to a Part

- 8.0: Use search
- 9.0: Smart “Paste” action – Paste will behave as “Associate Document”

**20% Less Clicks**  
**6% Less Time**

#### Attach New Document to a Part

- Want to upload a design spec document that’s on the hard drive and attach it as a describing document to a Part
- 8.0: Navigate to Folder Browser, create doc, back to part, and “Associate Document” – two create wizards are involved plus other navigation
- 9.0: From Part, invoke action “Upload and Attach Doc.” Only one wizard and no navigation

**58% Less Clicks**  
**72% Less Time**

#### Check out / Edit / Check in

- Want to correct a simple typo in the description of a document
- 8.0: Requires 3 actions: Checkout, Edit, and then Checkin
- 9.0: Smart action “Checkout and Edit,” the update wizard has a “Checkin” button.

**56% Less Clicks**  
**62% Less Time**

## Streamlined Pro/ENGINEER Wildfire Interaction

### Benefits

- 40% fewer clicks for everyday tasks
- Easier to perform common operations