



ENGINEER **3D!**  
TRAINING+TECHNOLOGY  
**CONFERENCE**

OCTOBER 2-3  
MILWAUKEE, WI



# PDM FIRST-LOOK WORKSHOP

Max “Hans” Kent, PDM Applications Engineer, GSC  
Joe “Franz” Krupski, PDM Applications Engineer, GSC



# We are here to Pump...



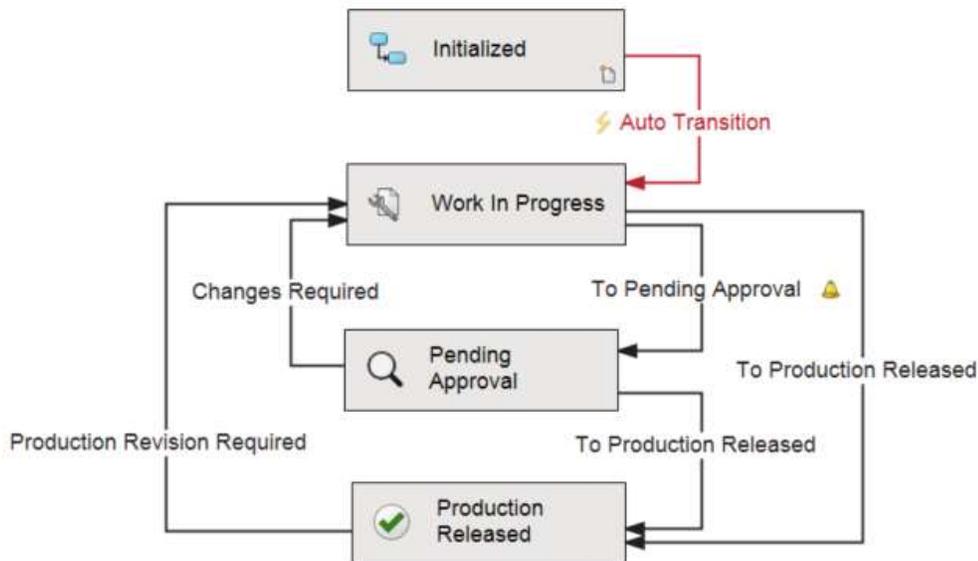
## ...YOU UP on PDM!



# Welcome

In this session, we will introduce you some of the basic functionality of PDM.

Through hands-on experience with a PDM Vault, you will learn how to:



- View vaulted files and associated 'Metadata'
- Easily see and understand relationships between files
- View file version and revision history
- Create new versions of files
- Automate creation of new project folders and documents using templates
- Search the Vault for Files
- Understand Workflows and Changing States

# PDM – Product Data Management

- Organizes and manages files and associated data
- Secures access to your Digital Engineering IP
- Maintains a complete change history
- Automates and tracks your business processes (e.g. Engineering Change)
- Integrates with other Applications (e.g. ERPs)
- Manages your part numbering system



# SOLIDWORKS PDM Flavors



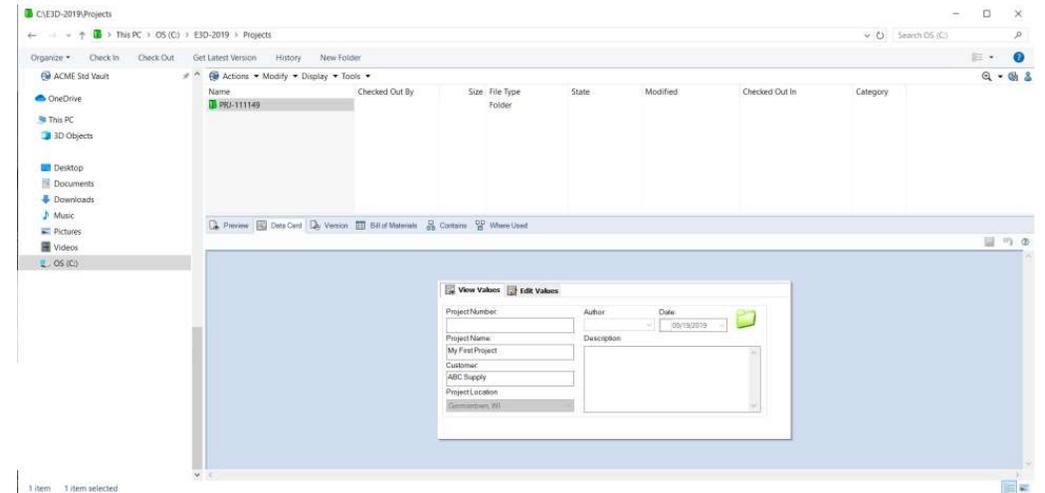
# Some PDM Terminology

- Vault
- Vault View
- Check-in/out and Local Cache
- Metadata
- Workflow



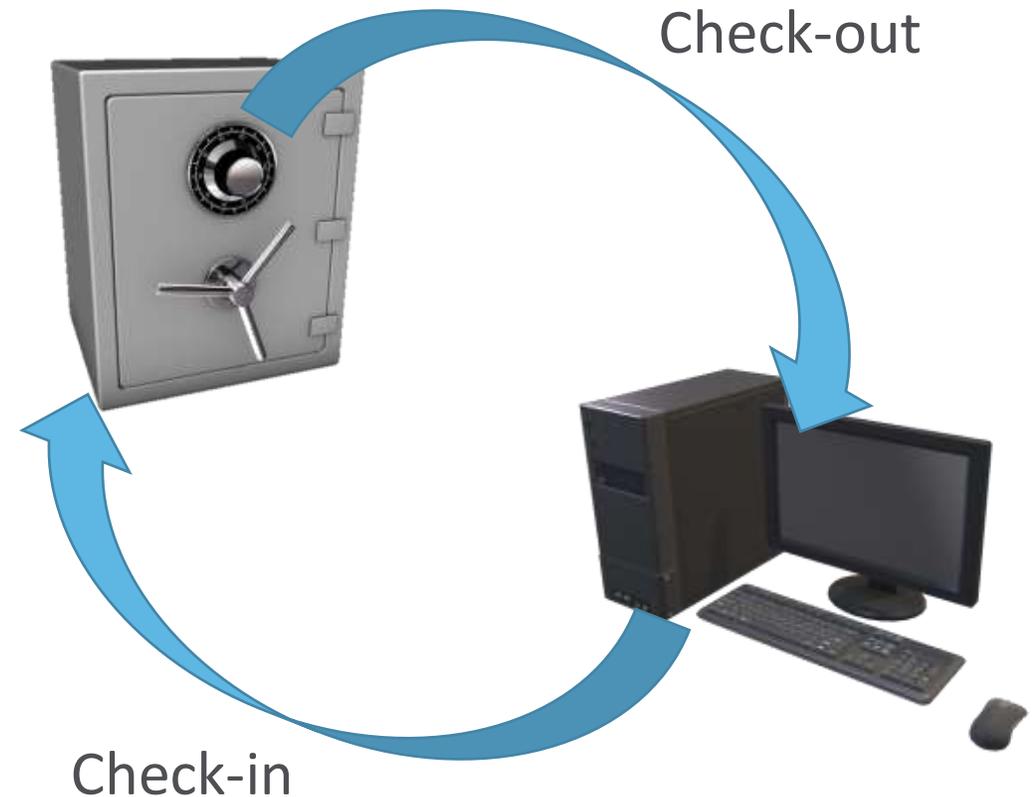
# Some PDM Terminology

- Vault
- **Vault View**
- Check-in/out and Local Cache
- Metadata
- Workflow



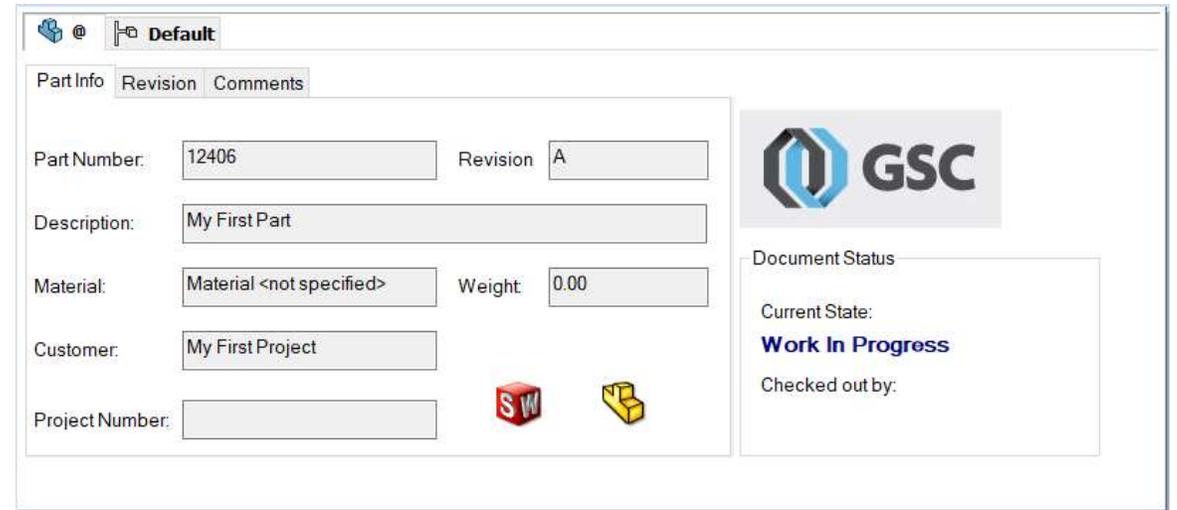
# Some PDM Terminology

- Vault
- Vault View
- **Check-in/out and Local Cache**
- Metadata
- Workflow



# Some PDM Terminology

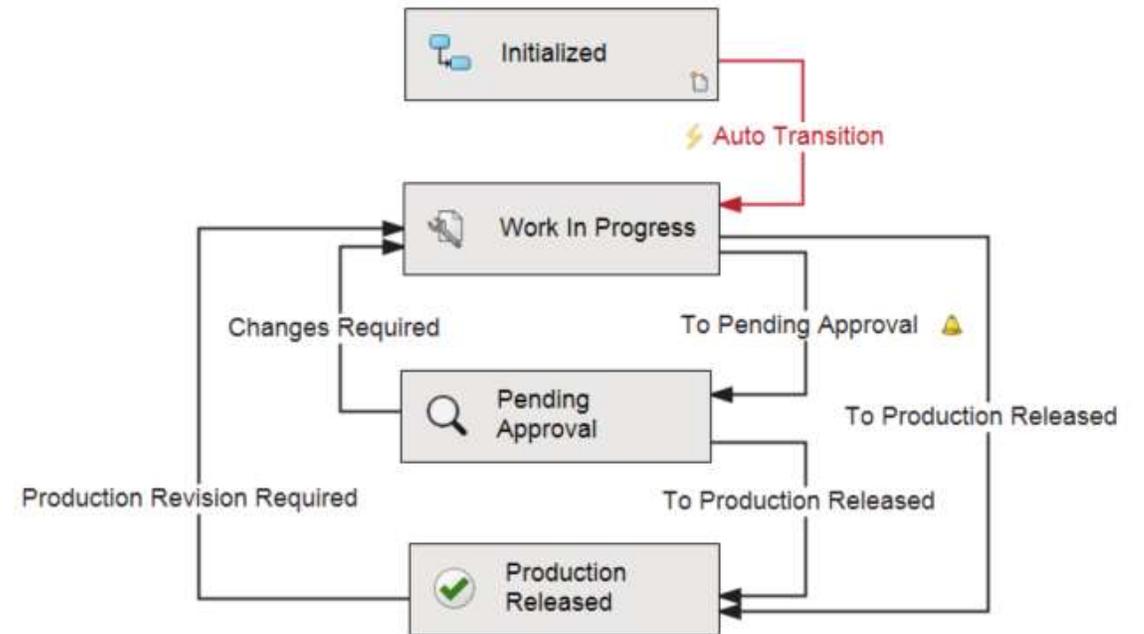
- Vault
- Vault View
- Check-in/out and Local Cache
- **Metadata**
- Workflow



The screenshot displays a software interface for managing part metadata. At the top, there is a navigation bar with a home icon, an '@' symbol, and a 'Default' label. Below this, there are three tabs: 'Part Info', 'Revision', and 'Comments', with 'Part Info' currently selected. The main area contains several input fields: 'Part Number' (12406), 'Revision' (A), 'Description' (My First Part), 'Material' (Material <not specified>), 'Weight' (0.00), 'Customer' (My First Project), and 'Project Number' (empty). To the right of these fields are two icons: a red cube with 'SW' and a yellow cube. On the far right, there is a 'GSC' logo and a 'Document Status' section. The 'Document Status' section shows 'Current State: Work In Progress' and 'Checked out by:'.

# Some PDM Terminology

- Vault
- Vault View
- Check-in/out and Local Cache
- Metadata
- **Workflow**



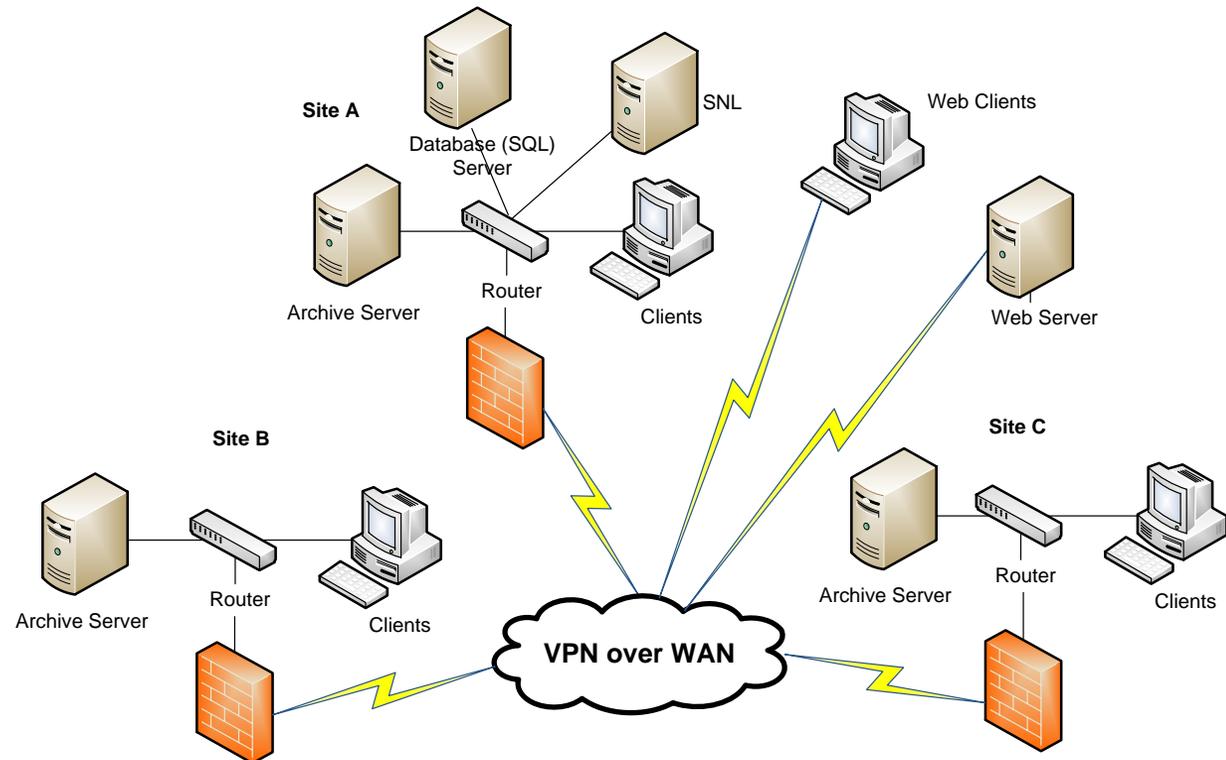
# SOLIDWORKS PDM Server Components

## Required:

- License Server
- Database Server
- Archive Server

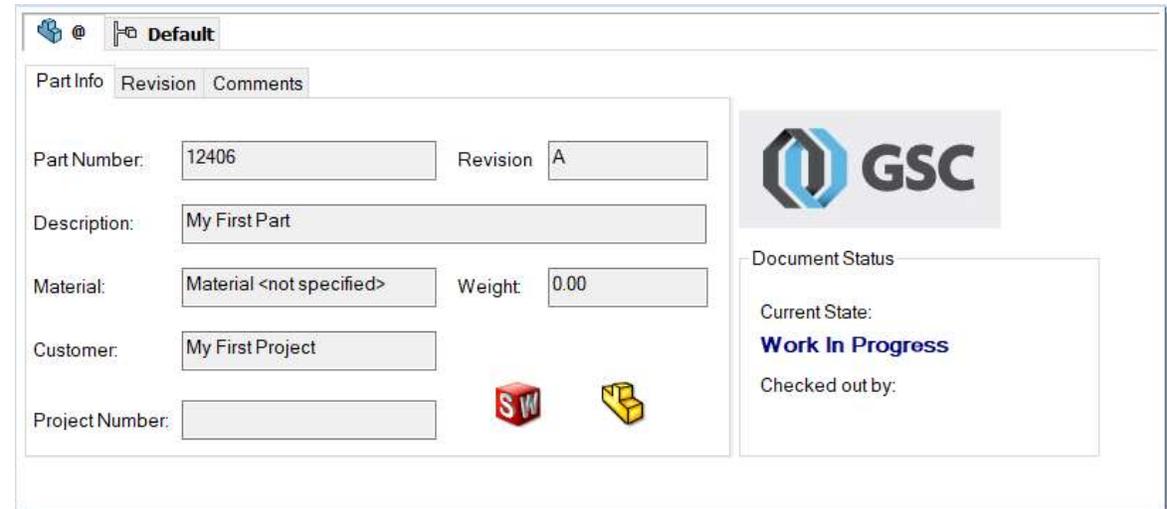
## Optional:

- Replicated Archive Server
- Web2 Server
- SQL Server Replication



# PDM Primary 'Configurable' Components

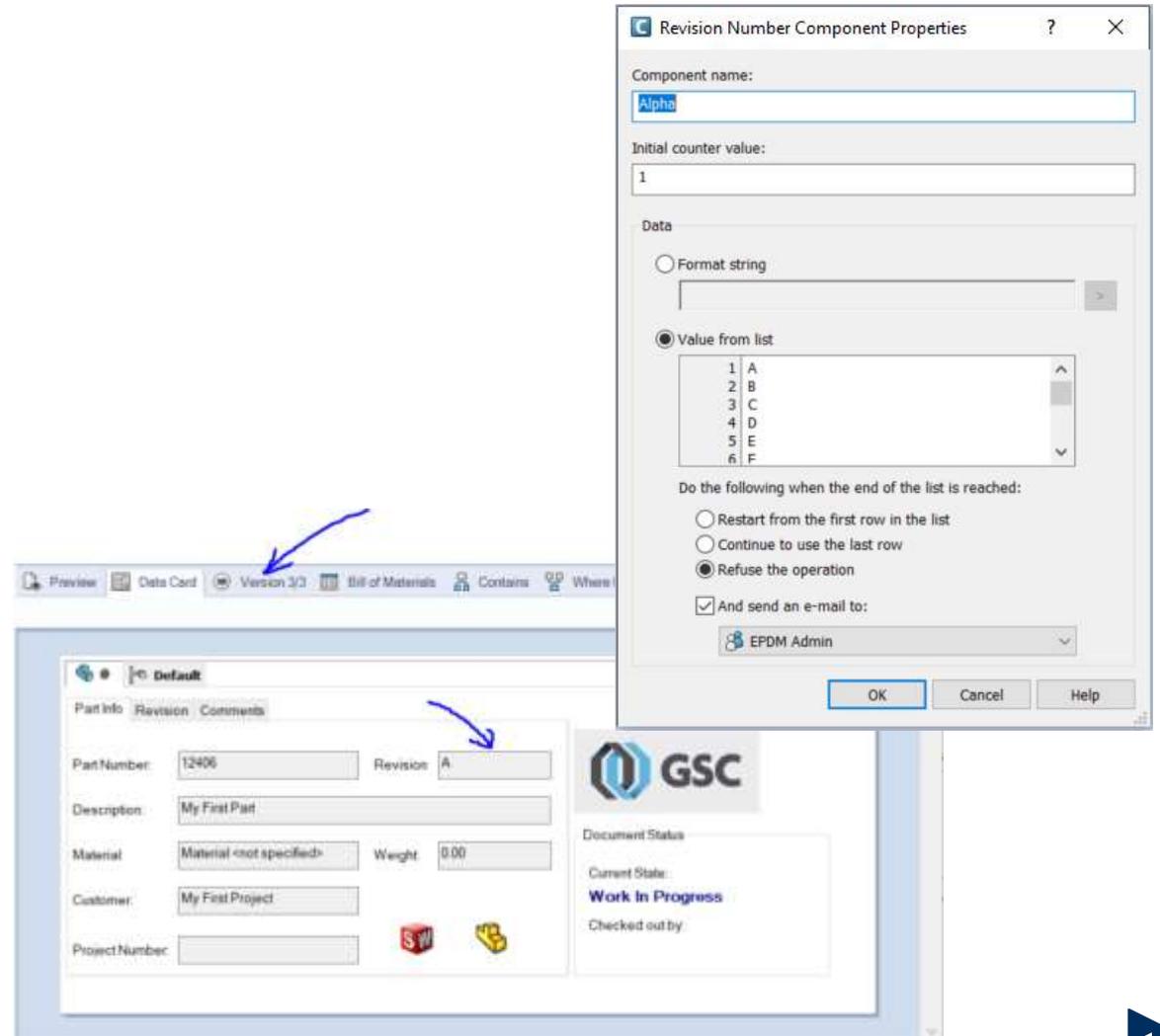
- **Cards** (Folder, File, and Search)
- Versioning and Revisioning
- Permissions (Administrative, Folder, State, Transition)
- Workflows



The screenshot displays a software interface for managing part information. At the top, there is a navigation bar with a home icon, an '@' symbol, and a 'Default' dropdown menu. Below this, there are three tabs: 'Part Info', 'Revision', and 'Comments'. The 'Part Info' tab is active, showing several input fields: 'Part Number' (12406), 'Revision' (A), 'Description' (My First Part), 'Material' (Material <not specified>), 'Weight' (0.00), 'Customer' (My First Project), and 'Project Number' (empty). To the right of the input fields, there is a GSC logo and a 'Document Status' section. The 'Document Status' section shows 'Current State: Work In Progress' and 'Checked out by:'. There are also two small icons, a red cube with 'SW' and a yellow cube with 'VE', located below the 'Project Number' field.

# PDM Primary 'Configurable' Components

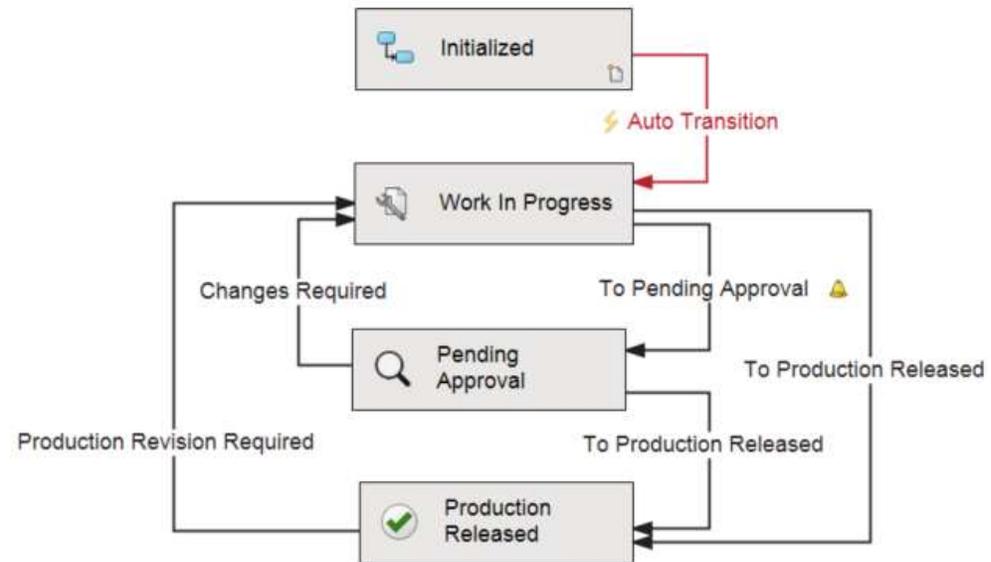
- Cards (Folder, File, and Search)
- **Versioning and Revisioning**
- Permissions (Administrative, Folder, State, Transition)
- Workflows





# PDM Primary 'Configurable' Components

- Cards (Folder, File, and Search)
- Versioning and Revisioning
- Permissions (Group/User, Folder, State, Transition)
- **Workflows**



# PDM Test Drive



**Are you Ready to Take a Test Drive?**

# PDM Test Drive

1. Double-click the E3D-2019 Blueberry icon on your Desktop
2. User name: ManagerX (where x=1 to 12)
3. No Password
4. Click the Log In arrow to get started



E3D-2019

A screenshot of the E3D-2019 login window. The window has a blue background and a title bar with the text 'E3D-2019' and a close button. Below the title bar, there are two input fields: 'User name:' with the text 'admin' and 'Password:'. At the bottom left, there is a 'Work Offline' checkbox. At the bottom right, there is a 'Log In' button with a right-pointing arrow icon.

E3D-2019

User name: admin

Password:

Work Offline

Log In →



# PDM Explorer-Integrated User Interface

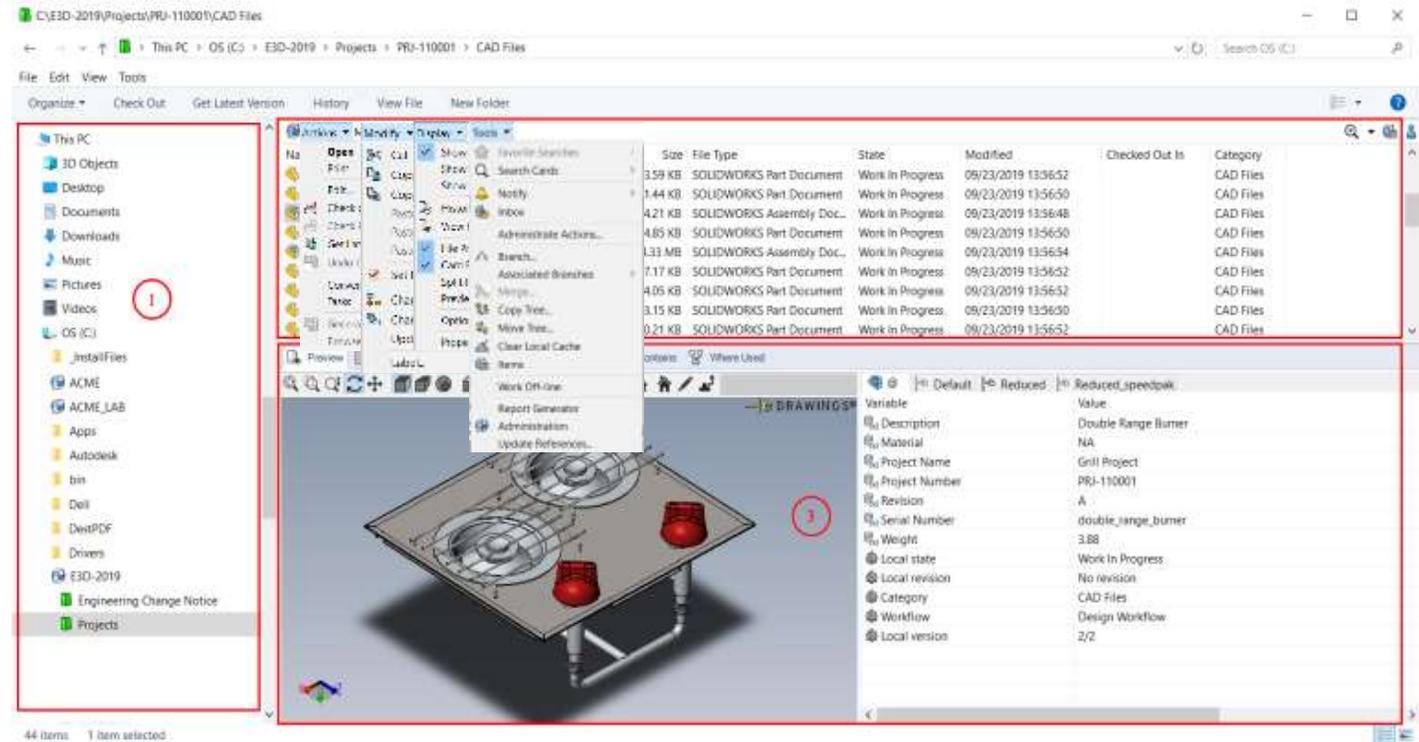
Navigate to:

`\Projects\PRJ-1100xx\CAD Files\double_range_burner.SLDASM`

(where xx=your assigned Manager #)

The PDM User Interface Layout displays:

1. Navigation Pane
2. File and Folder View Pane
3. Tabbed Sub-Menu Pane (with Preview, Data Card, Version, Bill of Material, Contains, and Where Used tabs)



# PDM Explorer-Integrated User Interface

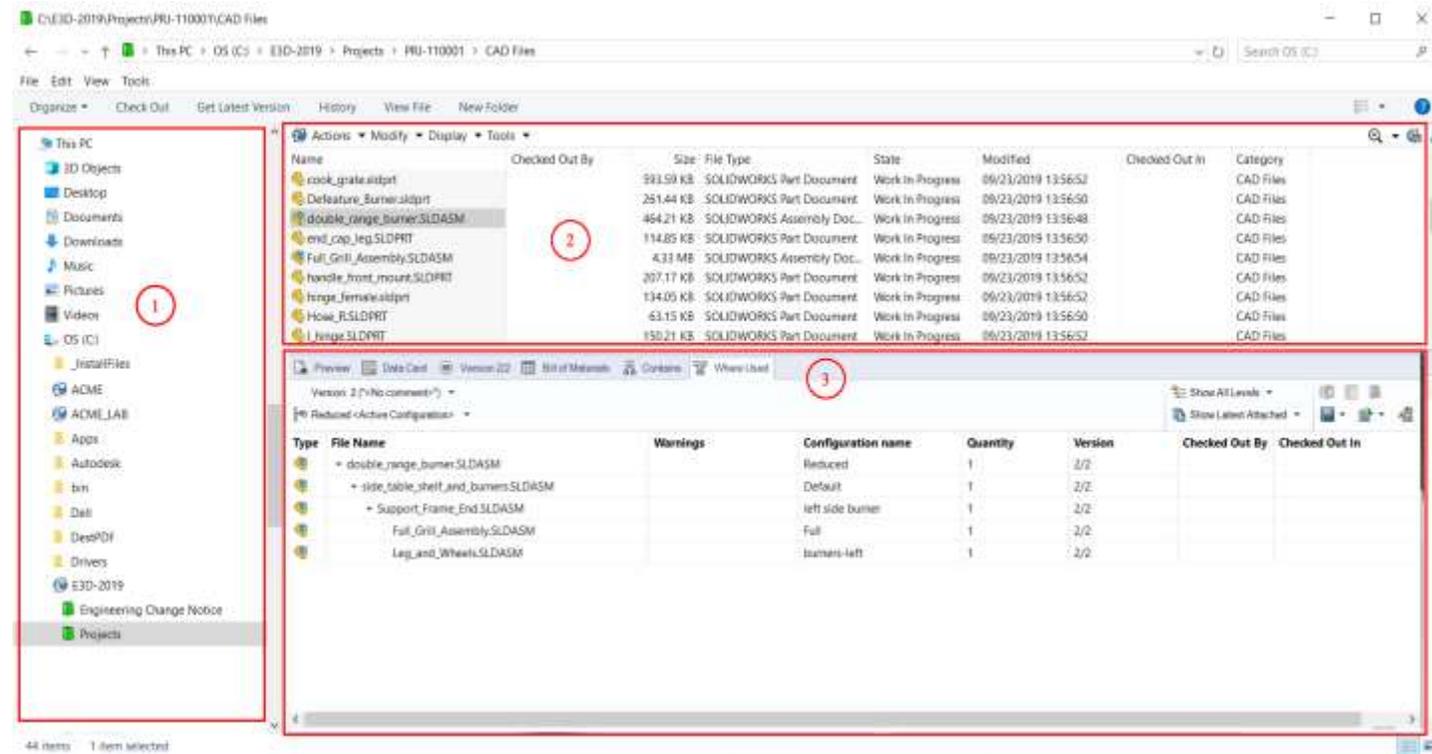
Navigate to:

`\Projects\PRJ-1100xx\CAD  
Files\double_range_burner.SLDASM`

(where xx=your assigned Manager #)

The PDM User Interface Layout displays:

1. Navigation Pane
2. File and Folder View Pane
3. Tabbed Sub-Menu Pane (with Preview, Data Card, Version, Bill of Material, Contains, and Where Used tabs)



# PDM Explorer-File History and Versioning

- View File History
- Version vs. Revision
- Version a File

The screenshot displays the PDM Explorer interface for a file named 'double\_range\_burner.SLDASM'. The main window shows a table of file history with the following data:

Event	Version	User	Date	Comment
Checked in	2	Admin	09/23/2019 13:55:48	
Transition from 'Initialized' to 'Work In Progress'	1	Admin	09/23/2019 13:55:48	State changed by automatic transition.
Initial transition to 'Initialized'	1	Admin	09/23/2019 13:55:48	State changed by automatic transition.
Created	1	Admin	09/23/2019 13:55:24	

Below the table, there is a 'Details' section with fields for Name, User, Comment, Version, and Date. The bottom of the window features a 3D model of a mechanical part, a navigation pane on the left, and a metadata panel on the right showing properties like Local state, Local revision, Category, Workflow, and Local version.



# PDM Explorer-File History and Versioning

- View File History
- **Version vs. Revision**
- Version a File

The screenshot displays the PDM Explorer interface for a CAD file. The top window shows the file history for 'double\_range\_burner.SLDASM'. The history table is as follows:

Event	Version	User	Date	Comment
Checked in	2	Admin	09/23/2019 13:55:48	
Transition from 'Initialized' to 'Work In Progress'	1	Admin	09/23/2019 13:55:48	State changed by automatic transition.
Initial transition to 'Initialized'	1	Admin	09/23/2019 13:55:48	State changed by automatic transition.
Created	1	Admin	09/23/2019 13:55:24	

The bottom window shows the 'Properties' dialog for the selected file, 'double\_range\_burner'. The 'Part Info' section includes:

- Part Number: double\_range\_burner
- Revision: A
- Description: Double Range Burner
- Material: PA6
- Weight: 3.88
- Project Name: DfP Project
- Project Number: PRJ110001

The 'Document Status' section shows:

- Current State: Work In Progress
- Checked out by:

The interface also shows a tree view on the left with 'Projects' selected, and a status bar at the bottom indicating '44 items, 1 item selected'.



# PDM Explorer-File History and Versioning

- View File History
- Version vs. Revision
- **Version a File**

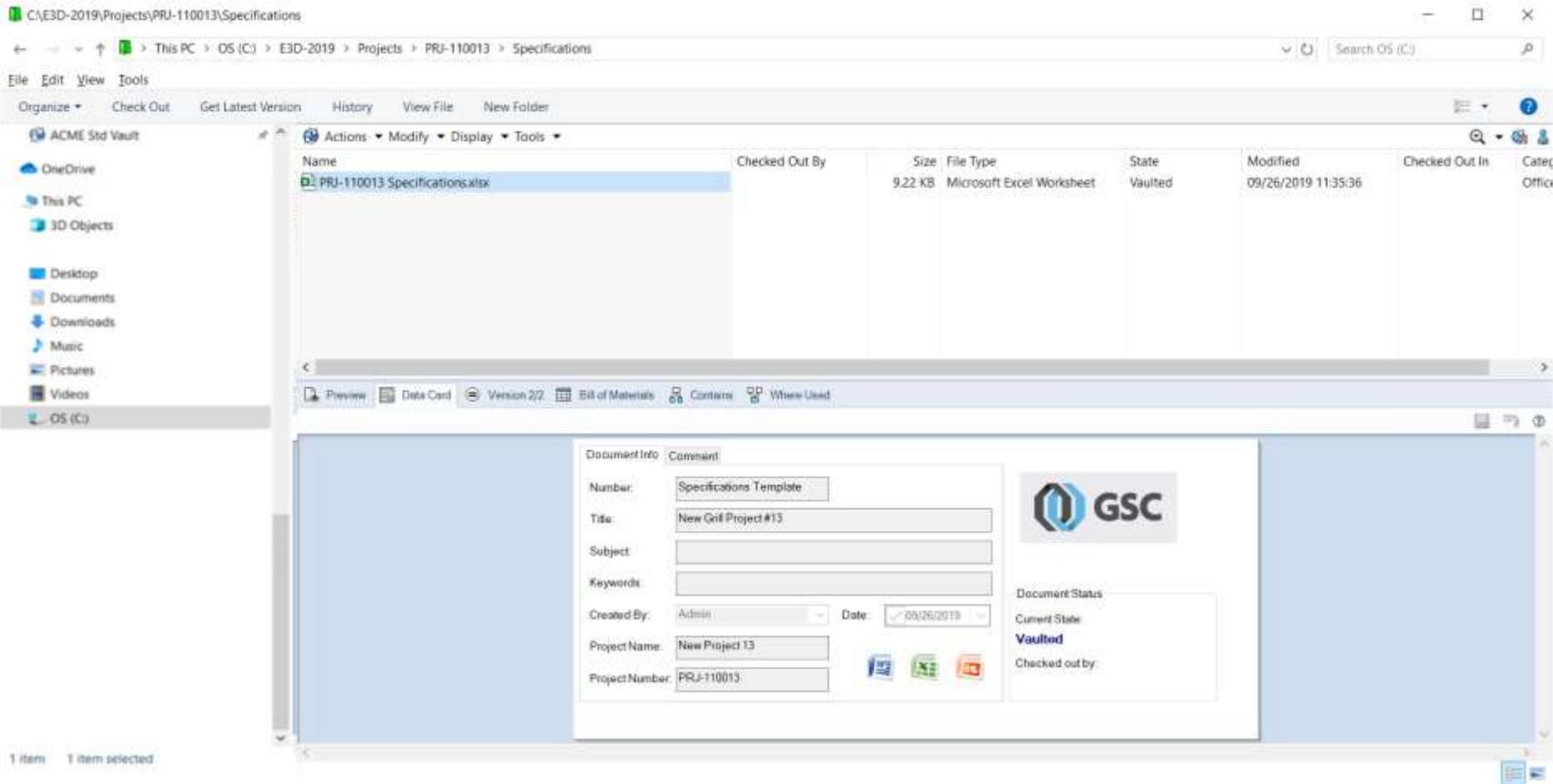
The screenshot displays the 'Check Out' dialog in PDM Explorer. The main area shows a table of file history for 'double\_range\_burner.SLDASM'. The table has columns for 'Event', 'Version', 'User', 'Date', and 'Comment'. The history shows a sequence of events: 'Checked in' (Version 3, Admin, 06/23/2019 09:49:13), 'Checked in' (Version 2, Admin, 06/23/2019 11:56:48), 'Transition from 'Released' to 'Work In Progress'' (Version 1, Admin, 06/23/2019 11:56:48), 'Initial transition to 'Initialed'' (Version 1, Admin, 06/23/2019 11:56:48), and 'Deleted' (Version 1, Admin, 06/23/2019 11:53:24). Below the table is a 'Check in details' section with fields for Name, User (Admin), Version (3), and Date (06/20/2019 09:49:13). At the bottom, there are fields for Project Name (Golf Project) and Project Number (PRJ-110001), along with a 'Current State' section showing 'Work In Progress' and 'Checked out by: Admin'. A context menu is visible at the bottom of the dialog with options: Delete, Rename, and Properties.

Event	Version	User	Date	Comment
Checked in	3	Admin	06/23/2019 09:49:13	
Checked in	2	Admin	06/23/2019 11:56:48	
Transition from 'Released' to 'Work In Progress'	1	Admin	06/23/2019 11:56:48	State changed by automatic transition.
Initial transition to 'Initialed'	1	Admin	06/23/2019 11:56:48	State changed by automatic transition.
Deleted	1	Admin	06/23/2019 11:53:24	



# PDM Explorer-Using Templates

Templates automate the Creation of Folders, Folder Structure, and Files



# PDM Explorer-Searching

The screenshot displays the PDM Explorer interface. The search criteria are set to 'range' in the 'C:\E3D-2019\Projects' directory. The search results table is as follows:

Name	Checked Out By	Size	File Type	State	Modified	Found In	Fo...	Checked Out In
range_burner_valve_feed.SLDPRT		104.71 KB	SOLIDWORKS Part ...	Work In Progress	09/23/2019 13:56:46	C:\E3D-2019\Projects\PRJ-110001\CAD Files	2	
range_burner_valve.SLDPRT		112.62 KB	SOLIDWORKS Part ...	Work In Progress	09/23/2019 13:56:46	C:\E3D-2019\Projects\PRJ-110001\CAD Files	2	
range_burner_insert.SLDPRT		314.83 KB	SOLIDWORKS Part ...	Work In Progress	09/23/2019 13:56:46	C:\E3D-2019\Projects\PRJ-110001\CAD Files	2	
range_burner_head.SLDPRT		168.77 KB	SOLIDWORKS Part ...	Work In Progress	09/23/2019 13:56:47	C:\E3D-2019\Projects\PRJ-110001\CAD Files	2	
range_burner_grill.SLDPRT		229.08 KB	SOLIDWORKS Part ...	Work In Progress	09/23/2019 13:56:47	C:\E3D-2019\Projects\PRJ-110001\CAD Files	2	
range_burner_bowl.SLDPRT		111.29 KB	SOLIDWORKS Part ...	Work In Progress	09/23/2019 13:56:47	C:\E3D-2019\Projects\PRJ-110001\CAD Files	2	

The preview pane for the selected file 'range\_burner\_valve.SLDPRT' shows the following details:

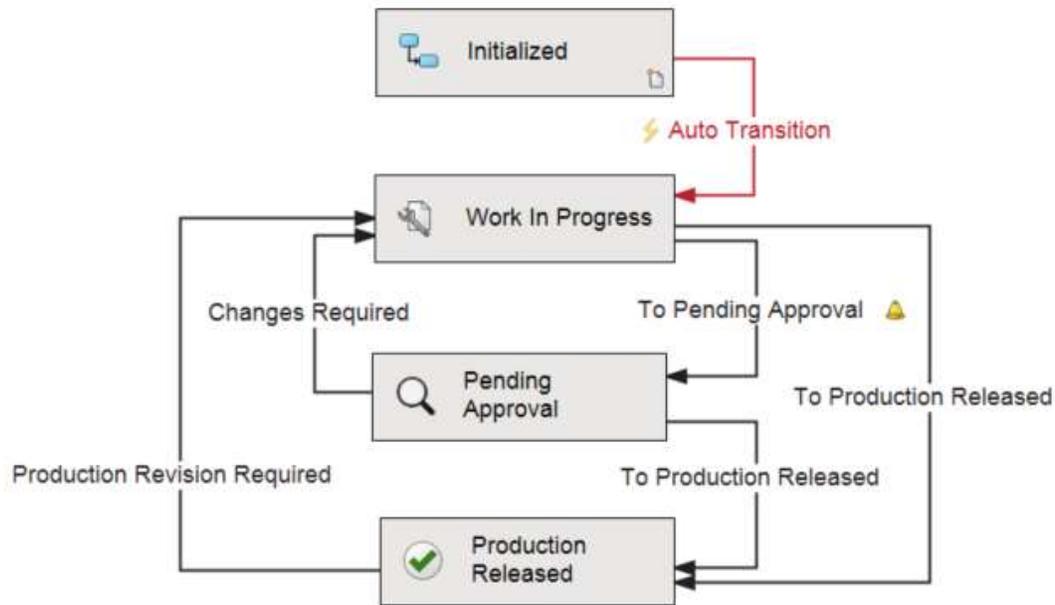
- Part Number: range\_burner\_valve
- Revision: A
- Description: Range Burner Valve
- Material: 3003 Alloy
- Weight: 0.142
- Project Name: GdL Project

The GSC logo is visible in the preview pane, and the document status is 'Work In Progress'.

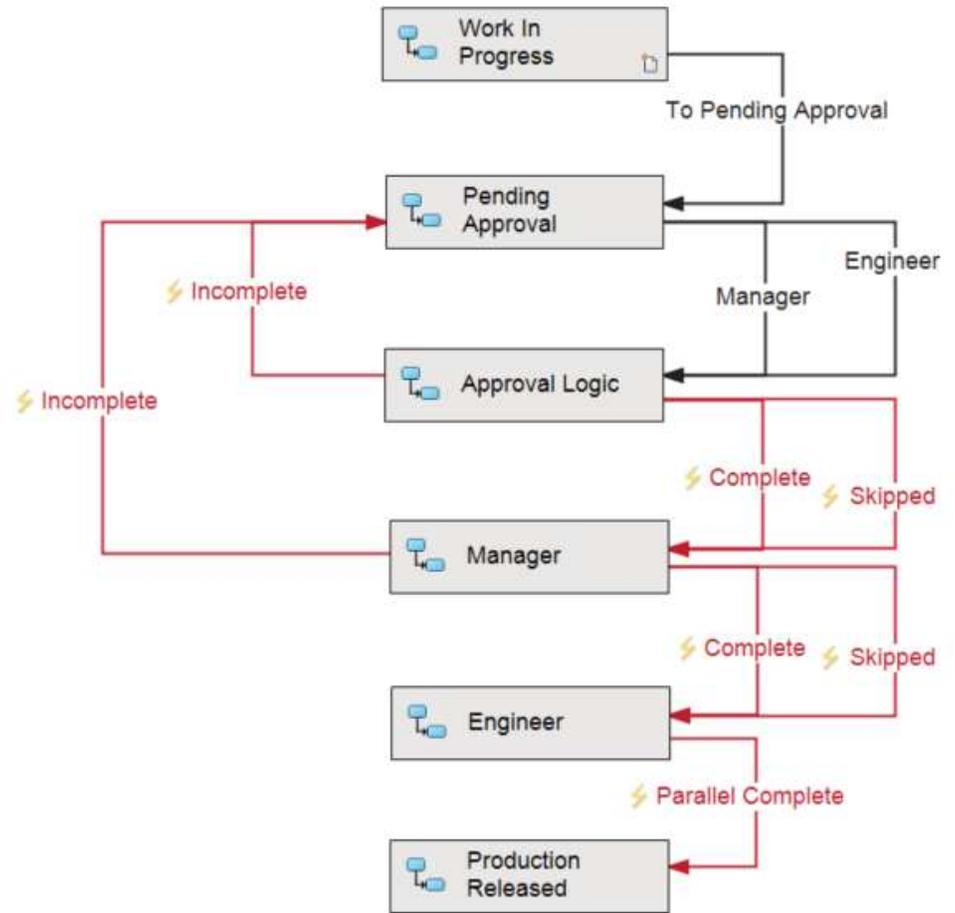


# PDM Workflows

## Example Engineering Change Workflow



Typical CAD Document Workflow



# PDM Workflows

C:\E3D-2019\Projects\PRJ-110014\CAD Files

This PC > OS (C:) > E3D-2019 > Projects > PRJ-110014 > CAD Files

File Edit View Tools

Organize Check Out Get Latest Version History View File New Folder

History on Full\_Grill\_Assembly.SLDASM

View Get Save Compare Print

Event	Version	User	Date	Comment
Revision: B	5	Manager15	09/30/2019 19:15:54	
Transition from 'Work In Progress' to 'Production Released'	5	Manager15	09/30/2019 19:15:54	File Re-release
Checked in	5	Manager15	09/30/2019 19:15:54	
Checked in	4	Manager15	09/30/2019 19:01:49	
Transition from 'Production Released' to 'Work In Progress'	3	Manager15	09/30/2019 19:01:49	
Revision: A	3	Manager15	09/30/2019 18:59:43	
Transition from 'Pending Approval' to 'Production Released'	3	Manager15	09/30/2019 18:59:43	
Checked in	3	Manager15	09/30/2019 18:59:43	
Transition from 'Work In Progress' to 'Pending Approval'	2	Manager15	09/30/2019 18:59:17	
Checked in	2	Admin	09/30/2019 11:45:14	
Transition from 'Initialized' to 'Work In Progress'	1	Admin	09/30/2019 11:45:14	State changed by automatic transition.
Initial transition to 'Initialized'	1	Admin	09/30/2019 11:45:14	State changed by automatic transition.

Details

Name:  Version:

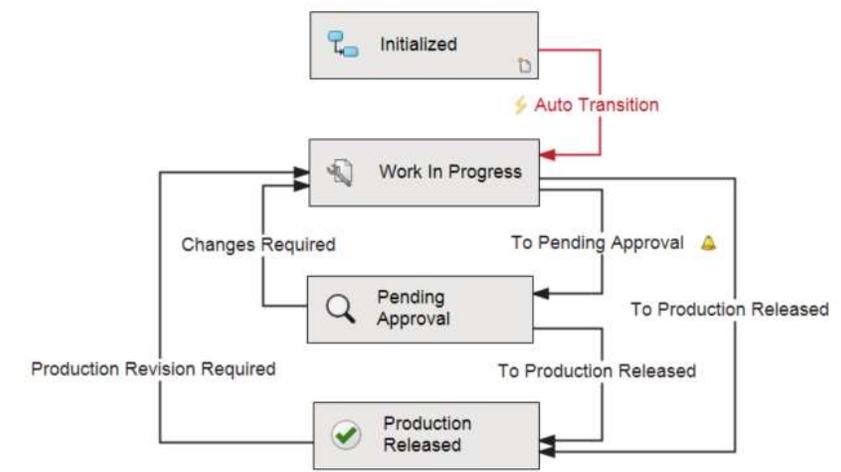
User:  Date:

Comment:

Update Help Close

44 items 1 item selected

Delete Rename Properties



**Hear us now and believe us later...**

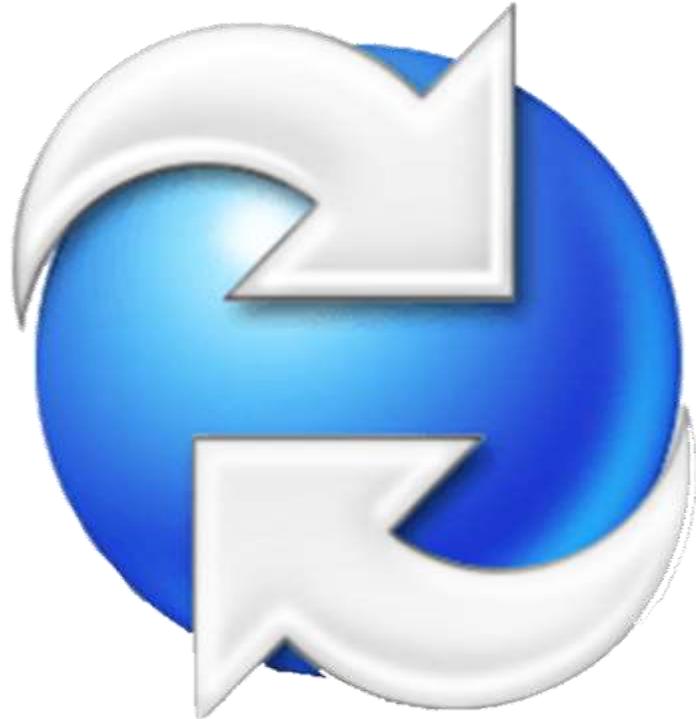


**...PDM is the BEST tool for managing your Engineering Data and Intellectual Property!**

**And if you don't believe us...you HAVE to believe Aaron!**

# Thank you for Attending!

Please remember to fill out your survey form



## Questions on PDM or Other Features to Discuss?

MAX “Hans” KENT

Max.Kent@gsc-3d.com

262.780.1080 x1124

JOE “Franz” KRUPSKI

Joe.Krupski@gsc-3d.com

262.780.1080 x1154