# PL7014
# Continuous Improvement of Autodesk PLM 360: After the Honeymoon

Orrin Bourne, CAD/PLM Administrator
Michael Pares, Systems Development Manager
Mark Keilholz, Vice President of Information Technology

# Class summary

This class provides a customer perspective regarding the ease of enhancing and maintaining a Autodesk PLM 360 software tenant. After go-live, Greenpoint Technologies, Inc., has continually developed and expanded its use of PLM360, enhanced its tenant reporting capabilities, and tightened Vault software integration. In this class we will discuss what was easy, what was difficult, and what you should look out for.

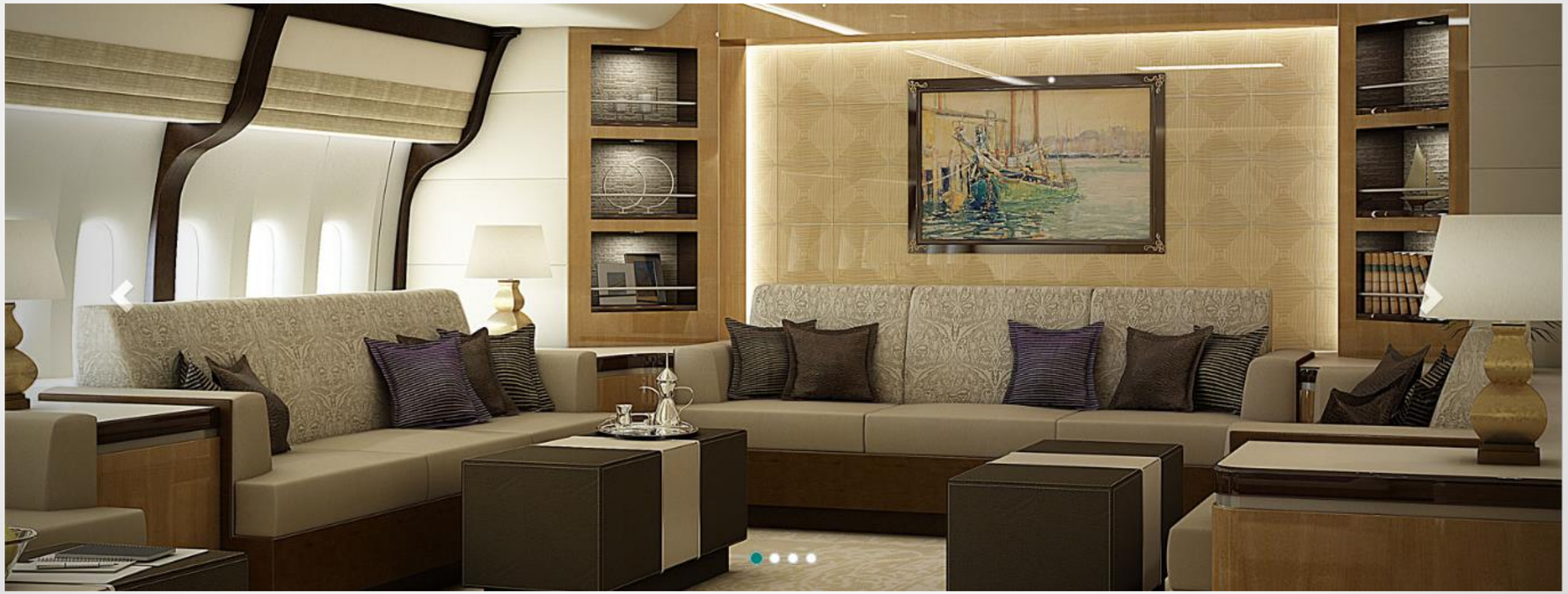
# Key learning objectives

At the end of this class, you will be able to:

- Establish a process intended to identify prime target areas for enhancing the Autodesk PLM 360 software tenant.
- Understand effective practices for introducing changes and new features to your existing tenant, post “go-live”.
- Examine and explore challenges faced when integrating with other systems, for instance, Vault software and SQL.
- Learn how to manage the process for user adoption.

# Greenpoint Technologies

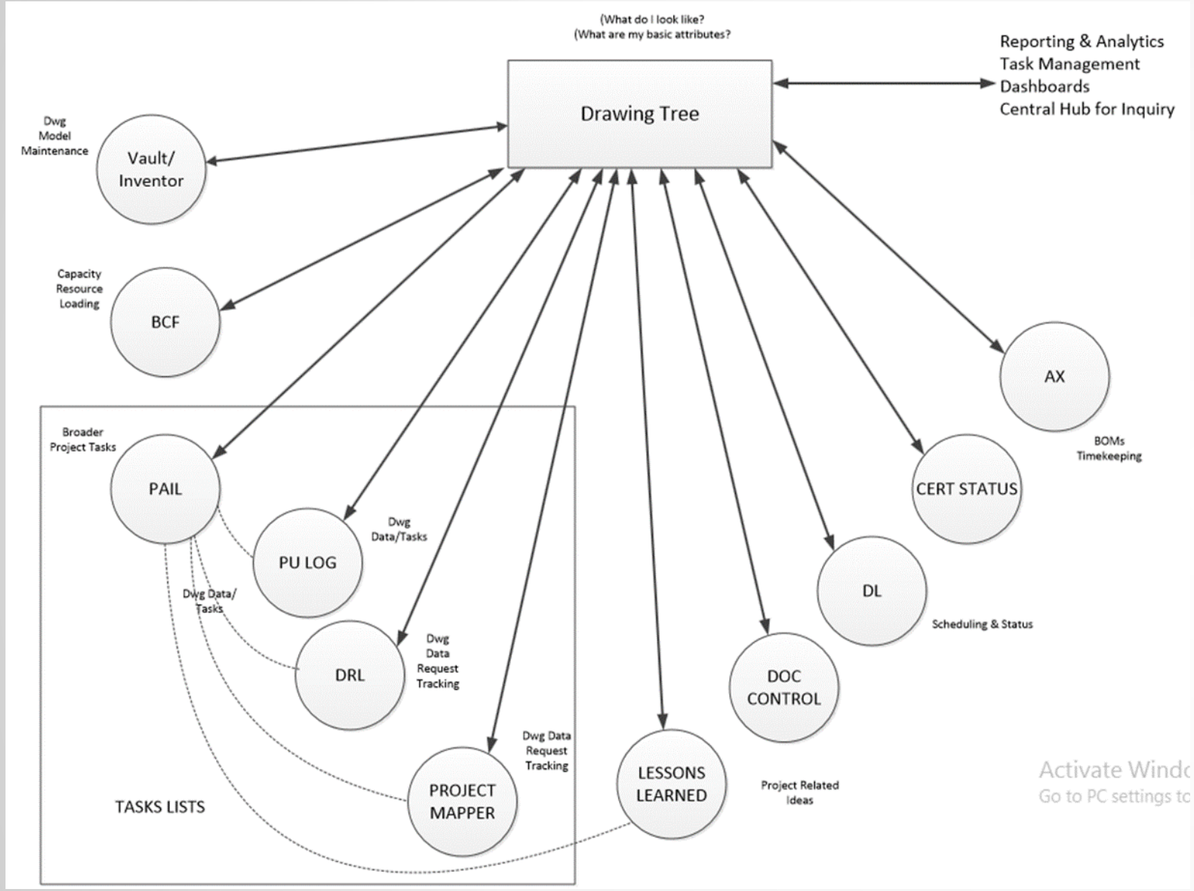
Greenpoint Technologies is a Boeing Business Jet (BBJ) Completion Center which provides turnkey interior completions for high-net-worth individuals and Heads-of-State.

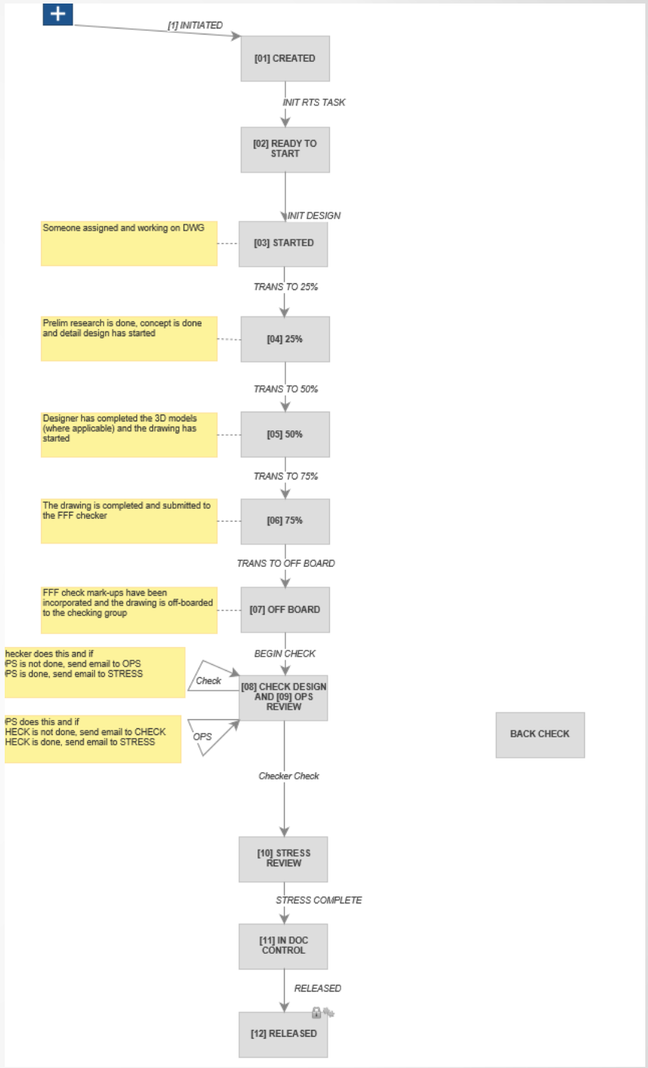


# Greenpoint Technologies

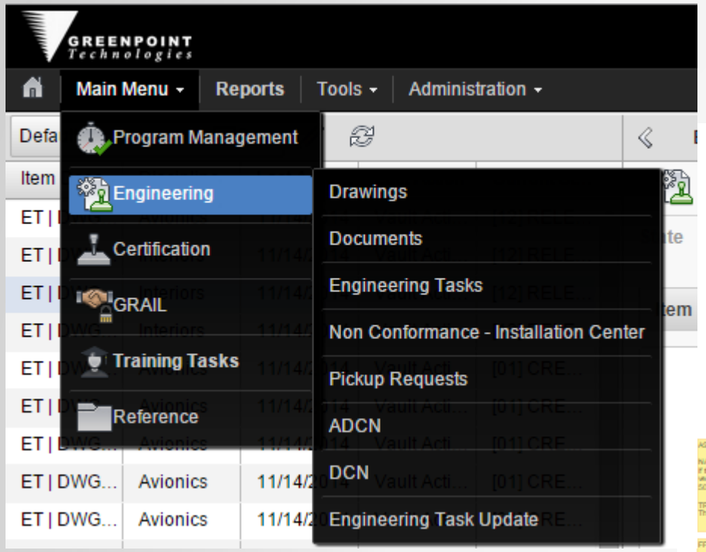
- 4 locations (WA, TX)
- Interior Design
- Engineer (200+)
- Certification
- Manage
- Manufacture
- Install

# Where We Started: This was us 1 year ago

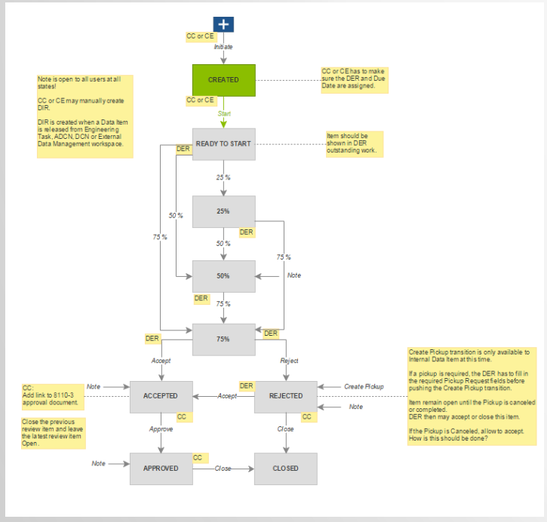


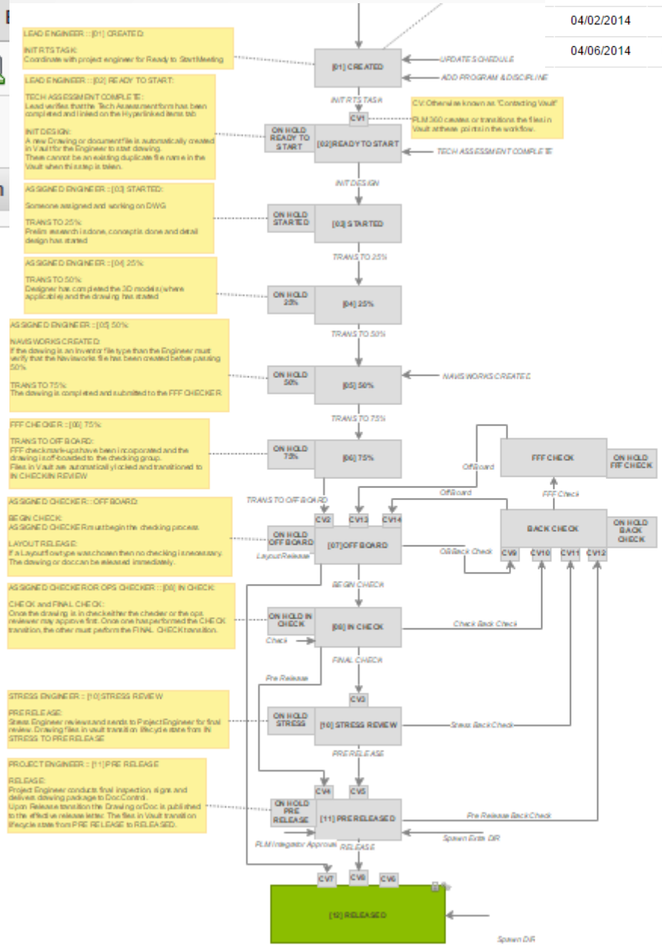



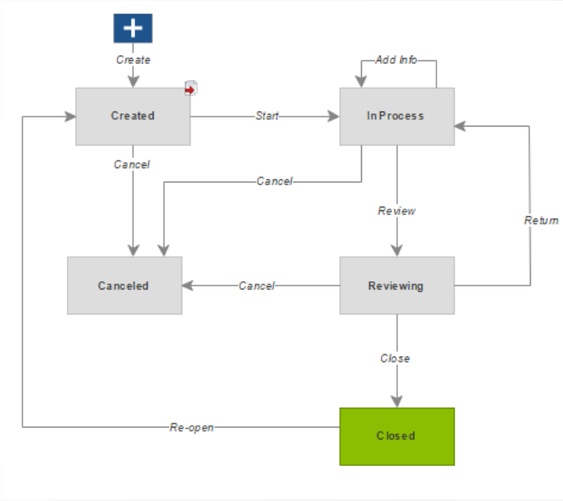
# Where We Are Today

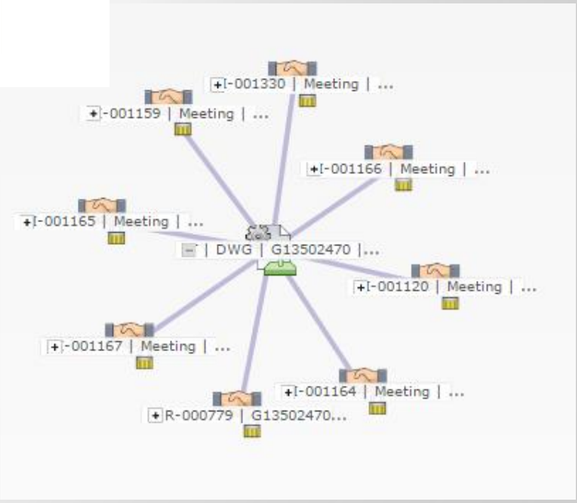



| | | | | | |
|---|---|---|---|---|---|
| 03/27/2014 | 04/28/2014 | 32d | [12] RELEASED | 100% | 100% |
| 03/27/2014 | 04/28/2014 | 32d | [12] RELEASED | 100% | 100% |
| 03/30/2014 | 09/17/2014 | 171d | [12] RELEASED | 100% | 100% |
| 03/30/2014 | 09/23/2014 | 177d | [12] RELEASED | 100% | 100% |
| 03/31/2014 | 05/29/2014 | 59d | [12] RELEASED | 100% | 100% |
| 04/01/2014 | 04/22/2014 | 21d | [12] RELEASED | 100% | 100% |
| 04/01/2014 | 06/12/2014 | 72d | [12] RELEASED | 100% | 100% |
| 04/02/2014 | 05/04/2014 | 32d | [01] CREATED | 0% | 0% |
| 04/02/2014 | 10/28/2014 | 209d | [12] RELEASED | 100% | 100% |
| 04/06/2014 | 05/04/2014 | 28d | [01] CREATED | 0% | 0% |



# GTI's Tenant Configuration: Let's take a tour.

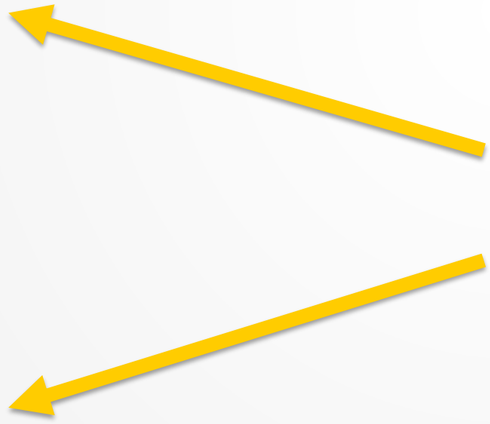
# Initial Set Up

- Automated User Account Creation Tool
- SSO using ADFS
- Create a service account to handle automation/scripts
- 3 Tenants
  - Production
  - DEV
  - Preview

# Focused Primarily on the production and management of Revision Controlled items.

## Deliverables
Rev Controlled

- Drawings
- Documents

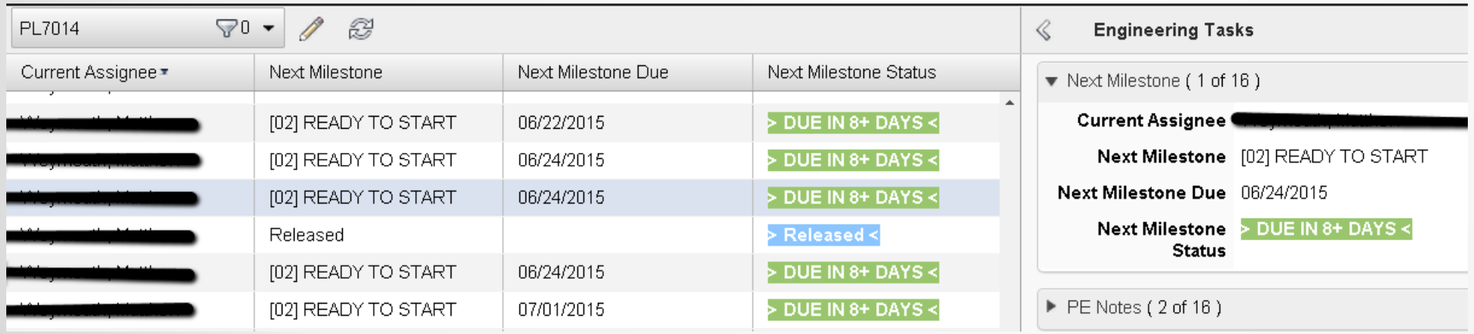


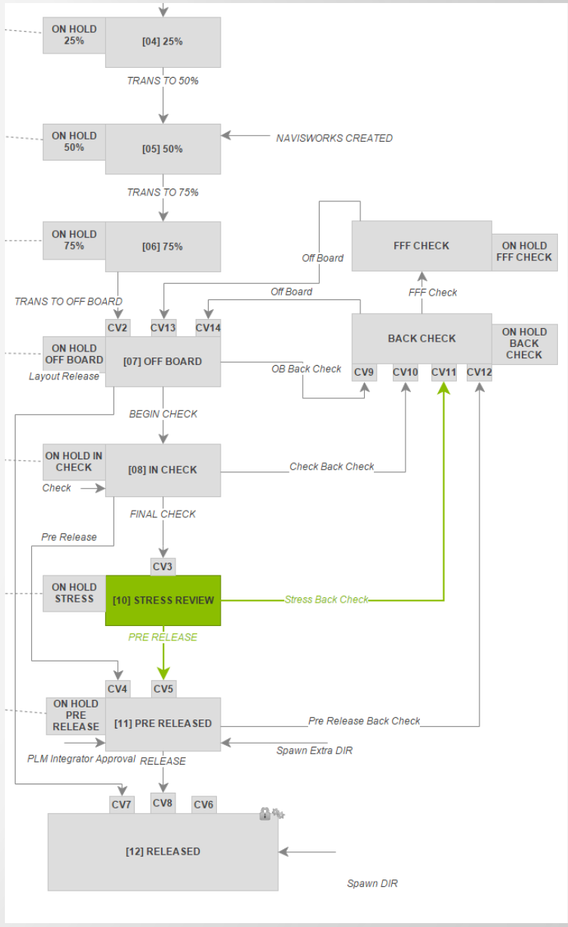
## Activities
Revisioning Items

- Engineering Tasks (IR)
- DCN (Primary Revs)
- ADCN (Secondary Revs)

# Support Existing Engineering Process and Metrics

- Workflow determined by existing processes.
- PLM states align with Vault states.
- Item details reflect current status of item.



# Support for Ancillary Processes

- Project “Set Up” Items
- Task Management & Action Items
  - Internal/External requests for data
  - Engineering coordination
- FAA Regulatory Reviews
- Change Request Processes
    - Pick Ups
    - Non-Conformance

# Develop New PLM “Functions”

- Precondition script supporting “Role” based permissions
- Vault integration via JitterBit orchestrations
- Script method used to back fill milestone dates
- Multiple methods for determining status
  - Automatically updated milestones upon schedule change
  - Simplified task status
  - Elapsed time calculator
  - Methods for creating notes
- “Hidden” properties used to manage script behavior

# GTI’s Vault Integration

# Why Integrate with Vault?

- Vault excels at PDM and state based security
- Leverage Existing investment in Autodesk technologies

# Viewing Vault and PLM 360 as a Single Integrated System

- Approach to integration intended to enforce rules in PLM while not diluting the benefits of Vault PDM
  - Vault lifecycle states should align (more or less) with PLM workflow states
  - File security should align with role based security model in PLM
  - Transition security should be restricted to PLM service account only

# Vault Integration Implementation

- Action script “builds” the request and calls the Jitterbit HTTP endpoint
- JB uses data passed to endpoint and runs the orchestration
- Data is transformed and the Vault API is called
- JB uses the Rest API to communicate success/failure to PLM item

# DEMO

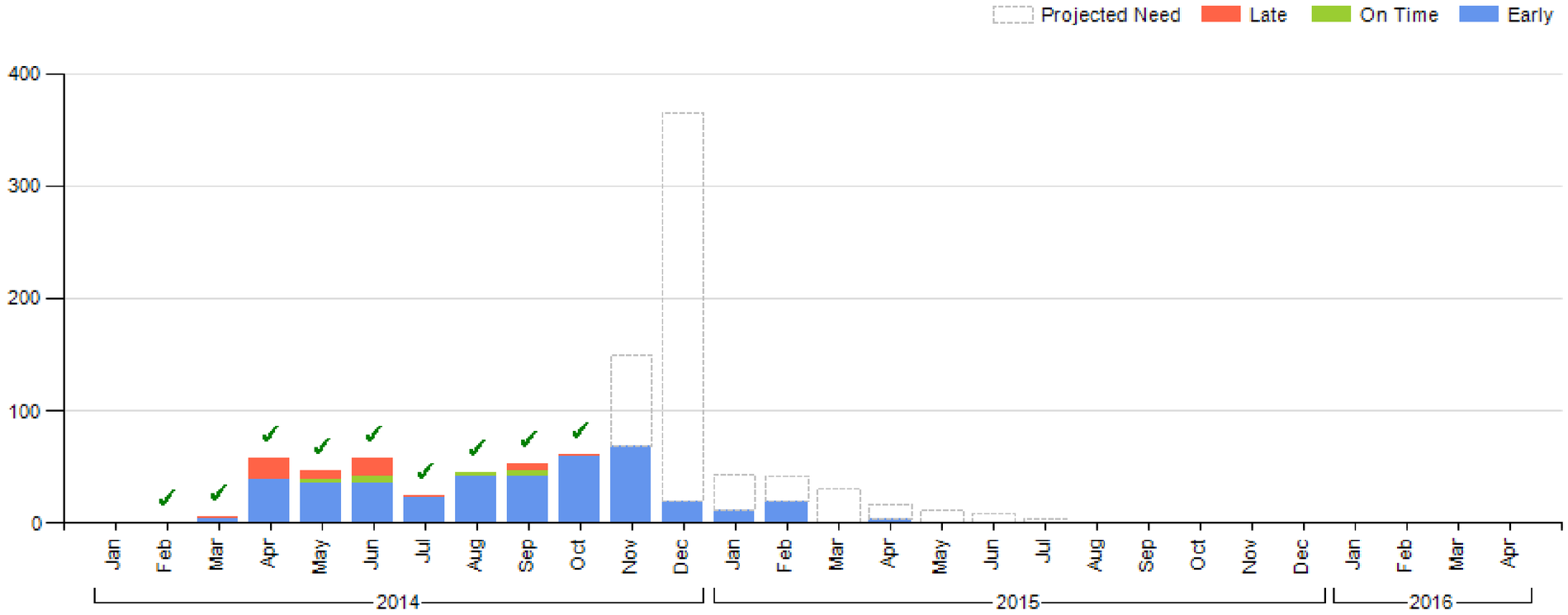
# PLM 360 Strengths

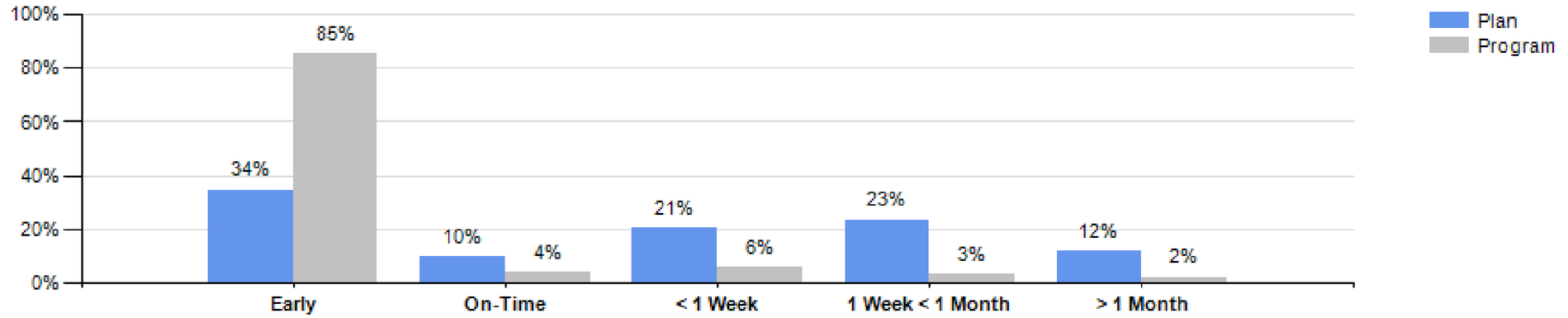
- Workflow
  - Best in class
  - Rises to any challenge
- Scripting
  - Easy to learn
  - Automate simple or complex tasks and add value immediately
- API
  - Integration is only limited by imagination
  - Let the API do heavy lifting when your scripts slow down users

# PLM 360 Challenges and Opportunities

- Introducing new features or changes is Manual
  - Work done in Dev tenant must be re-done in Production tenant
    - Rely heavily on release notes
    - Checking each others work
    - Source code control outside of PLM (aka Developer Discipline)
  - Introducing new features may require massaging existing data
    - Rely on reporting and views to find data that needs to be upgraded
    - Use PLM import tools to update
    - Use push button scripting and elbow grease (brute force method)
- Testing is manual
  - Rely on good structured test cases
  - Refresh data from production back to test
- Built-in Reporting tools do not support all of our complex requirements
  - Rely on Jitterbit integration to pull data from multiple workspaces
  - Aggregate data in SQL
  - Use Reporting Services or other advanced tools to author more complex reports
  - PL7014 Tomorrow at 1:00 PM

# Released Drawings to Program Need Date



# Implementing PLM 360 using Agile/Scrum Methodology

# Why Use AGILE?

- Work closely with stakeholders to collect their needs
- Coalesce their needs into a “release” plan
- Rapidly deploy workspaces that have business value

# How PLM can help with Agile

- Prototype the process using the PLM 360 workflow diagram
  - A 30 minute meeting with a stakeholder can result in a nearly complete PLM workflow
  - We gather remaining user stories and can develop the rest of the workspace in 2 to 4 weeks
  - The workflow diagram is the common reference point for developer and stakeholder to share
  - As the workflow diagram comes to life the stakeholder can validate, test, provide feedback, and be thrilled on release day