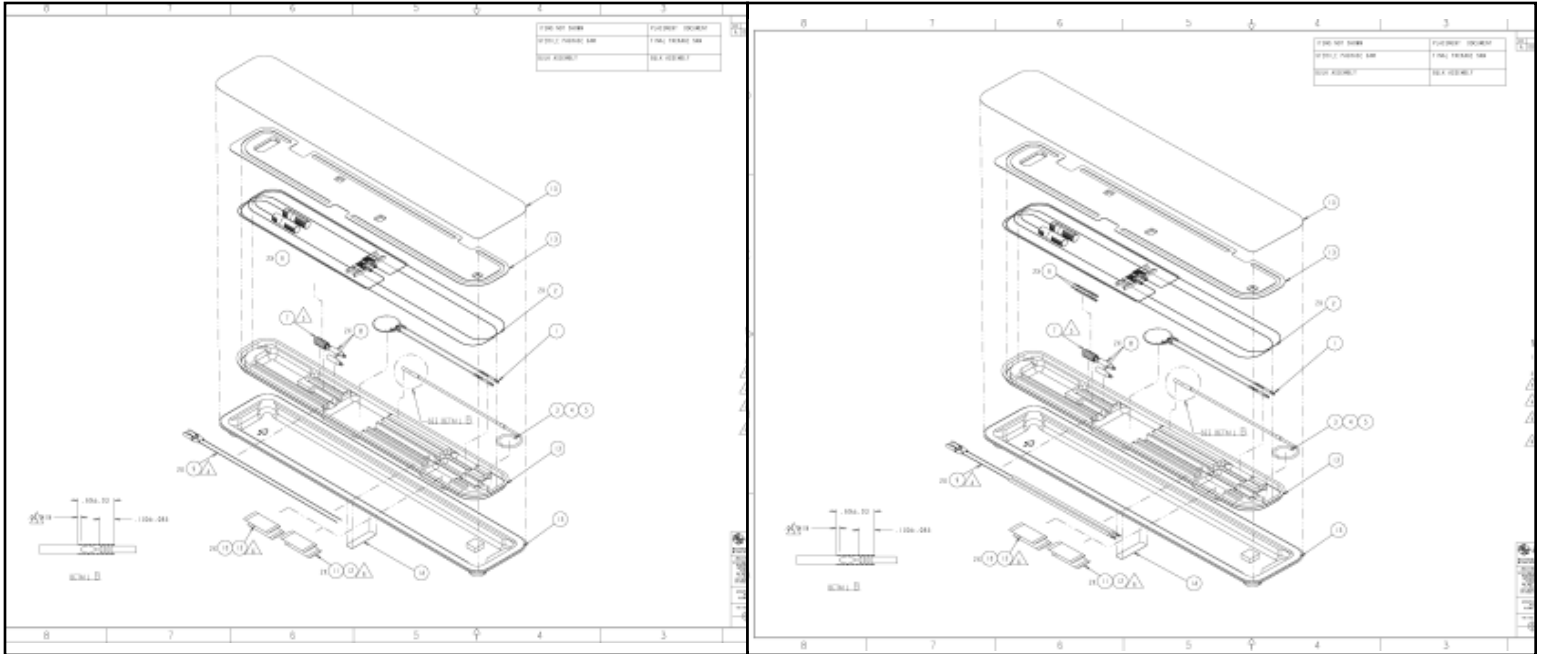


Automate Your Validation of Pro/ENGINEER® Drawings After a Migration or Upgrade to Windchill® PDMLink™.



Can you tell the difference between these two drawings? *HPGL Compare Can.*

Business Problem

Migrating Pro/ENGINEER drawings from Pro/INTRALINK to PDMLink can cause irregular changes to your drawings. Since software validation is a requirement of the FDA's Quality Systems Regulation, Fishbowl has developed a solution to help automate the validation of Pro/ENGINEER drawings during a migration or upgrade.

Solution

As an add-on to our linkTuner solution, HPGL Compare creates HPGL files of any drawing used during a linkTuner run. Once created, HPGL Compare will run a secondary process to compare the files to insure a pre-migrated data set matches a post migrated data set. HPGL Compare then outputs an image identifying where on the drawing changes occurred. HPGL Compare can also leverage ProductView, where installed, to highlight changes on the Pro/ENGINEER drawing itself.

Current Features

linkTuner HPGL Compare validates data during:

- Migrations from Pro/INTRALINK 3.4 to PDMLink 9.x
- Upgrades from PDMLink 8.0 to 9.x
- Upgrades from Pro/ENGINEER Wildfire 1.0 to 5.0 and everything in between.

Use Case

A medical device company was migrating thousands of Pro/ENGINEER drawings from Pro/INTRALINK 3.4 to PDMLink 9.1. As they began their migration, they became aware that Pro/ENGINEER drawings can change during a migration or upgrade. This was of great concern to them because, as a medical device company, they are required to comply with the FDA's Quality Systems Regulation, which requires them to perform software validation to ensure accuracy, reliability, and the ability to discern invalid or altered records.

Knowing that some of their drawings had changed, the company was faced with the task of manually validating every Pro/ENGINEER drawing pre and post migration to insure their data was accurate. This was a daunting task that they estimated would take hundreds of man hours to complete. At a burden rate of \$75 /hour and an estimated 5,000 drawings, the cost for manual validation would be upwards of \$37,500.

Using Fishbowl Solutions' HPGL Compare, the company was able to validate their Pro/ENGINEER drawings in a single day. HPGL Compare automates the drawing validation process by creating HPGL files of the drawings and then comparing the pre and post representations, validating nothing has changed. If HPGL Compare finds inconsistencies it provides a graphical representation of changes to the drawing.

HPGL Compare saved the medical device company approximately \$37,500 in manual validation costs, and helped mitigate risks associated with system audits and non-compliance to the FDA's Quality Systems Regulation.

HPGL Compare GUI

HPGL Compare GUI

Src Path: C:\ValidationData\Before

Dst Path: C:\ValidationData\After

Status:

Save Bitmaps

Shrink Image

Exclude Titleblock

Width (Inches): 6.750

Height (Inches): 3.750

Allowed Pixel Diffs: 3

Compare Show results

Summary of Results

```
File Edit Format View Help
-->PltMatches -->BomMatches a01540.plt E 0
-->PltMatches -->BomMatches a12926.plt B 0
-->PltMatches -->BomMatches a16699.plt B 0
-->PltMatches -->BomMatches a36518.plt 1 6
-->PltMatches -->BomMatches m925565a.plt 2 2
-->PltMatches -->BomMatches m929695a.plt C 0
-->PltMatches -->BomMatches m929784a.plt E 0
-->PltMatches -->BomMatches m930274a001.plt 1 0
-->PltMatches -->BomMatches m930864a.plt 4 3
-->PltMatches -->BomMatches m932089a001.plt A 3
-->PltMatches -->BomMatches m934553a.plt A 0
-->PltMatches -->BomMatches m937437a.plt A 0
-->PltMatches -->BomMatches neu000196.plt A 1
-->PltMatches -->BomMatches neu000216.plt A 0
-->PltMatches -->BomMatches neu001413.plt 1 3
-->PltMatches -->BomMatches pr0100112.plt A 0
PlotDataDiffs -->BomMatches 3708200.plt B 0
PlotDataDiffs -->BomMatches a02679.plt B 2
PlotSizeDiffs -->BomMatches 411658.plt I 0
```

Ln 1, Col 1

Images Identifies Where Changes Occurred on the Drawing

