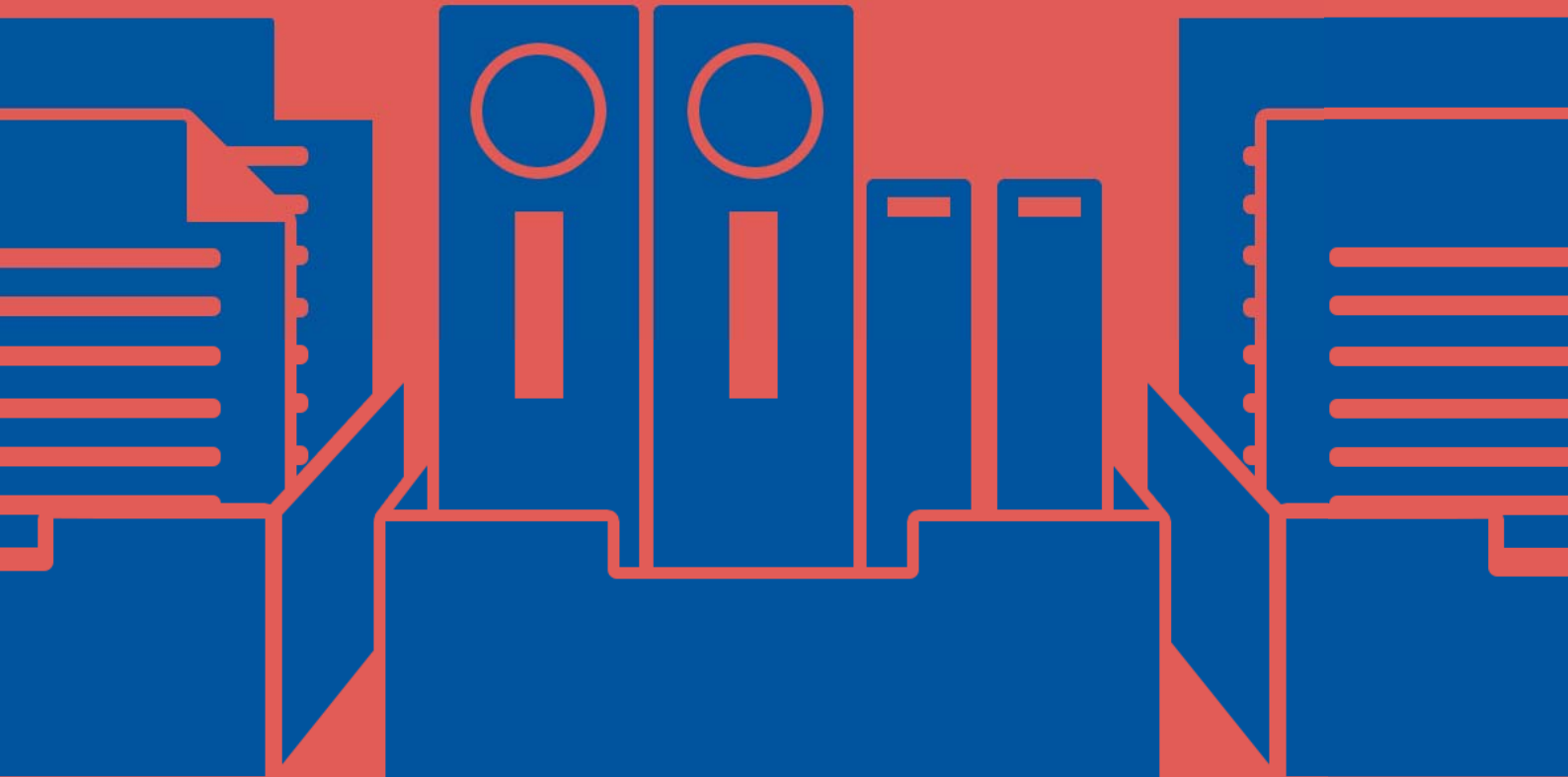# Altium®

Effortlessly Bridging Altium Designer and Agile Environments

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EFFORTLESSLY BRIDGING ALTIUM DESIGNER AND AGILE ENVIRONMENTS

OVERVIEW

A product lifecycle management (PLM) tool allows users to access all data related to corporate products. This includes all component and design data, but also other critical data such as cost, preferred suppliers and other relevant corporate data. They integrate data, processes, business systems, and ultimately people, offering unrivaled transparency into extended enterprise. PLM systems allow companies to manage information throughout the entire lifecycle of a product efficiently and cost-effectively, from concept to design and manufacture, through service and disposal/recycling. The benefits of PLM are only as good as the input data, which is often mottled by the challenges of corporate-wide acceptance and integration.

Historically the genesis of most PLM systems is from mechanical design. Because of this, the initial data models did not lend themselves well to ECAD. On top of that, the means to get ECAD data into PLM is cumbersome and foreign to most electrical designers. PLM suppliers have made efforts to improve this experience with many of them relying on third parties to create interfaces. Regardless of the investment made by PLM vendors, the process to get ECAD BOM, assembly, fabrication, variant, and assorted content into PLM continues to be a cost and efficiency challenge for many companies.

FIND, USE, PUBLISH

The sole function of EDAConnect® is to provide an accurate, usable, and intuitive connection between ECAD and PLM (figure 1). It contains no persistence layer and stores data as indices from the electrical and enterprise domains ensuring a single source of truth. The primary strength of EDAConnect is its ease of use and intuitive workflow for the designer.
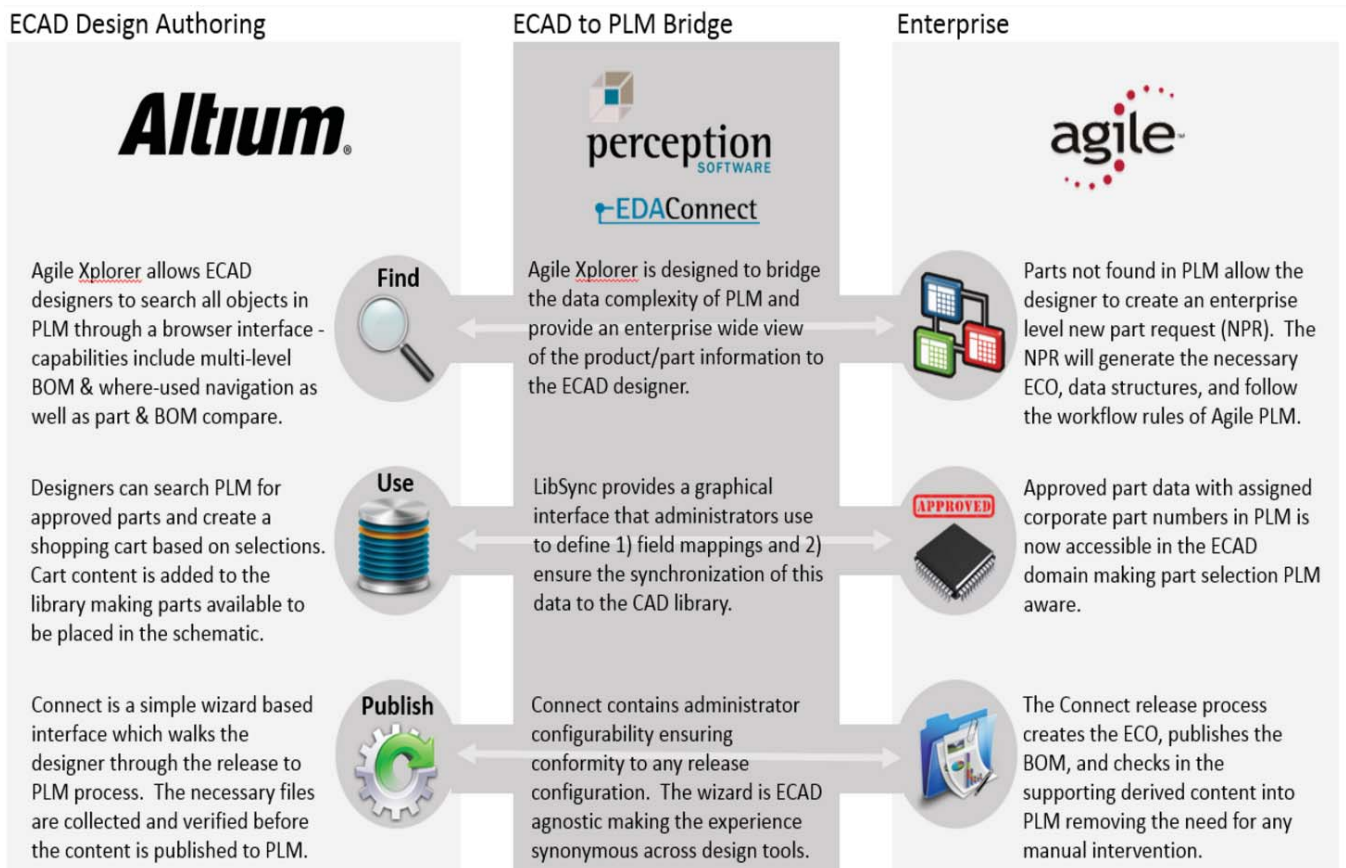

Figure 1: EDAConnect — Altium to Agile

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Engineers spend 30-40% of their time looking for the right information because enterprise data is typically spread across multiple sources. EDAConnect enables the engineer to find the information they need using modern search technology with a browser based interface. This straightforward interface also makes it accessible to users beyond just engineering. The interface is similar to Amazon, supporting search by keywords, parameters, or combinations. EDAConnect provides an enterprise view of all product data content.

Once the desired information has been located, users can compare part and BOM content to understand changes, or to assess for reuse. Selected parts can be added to a shopping cart, which pushes critical part selections to the ECAD environment for use.

EDAConnect also keeps the critical PLM metadata in sync with the ECAD library. When an engineer locates a part that is not yet approved for use, EDAConnect simplifies the process of making an enterprise part request. Once approved, the PLM part information can be used in the schematic. It can take a designer two to three times as long to use a suitable part if it's not in the CAD library and synchronized with PLM (i.e. the part they originally wanted may not be available so they have to search for an alternate; the alternate may not yet be in CAD so they have to make or request the CAD models).

When the engineer is ready to publish the design to PLM, the process is equally as simple, driven natively from a menu within Altium Designer®. The wizard-based interface walks the designer through the publish process collecting the necessary data, generating the ECO, and creating the supporting data structures in PLM. A manual process takes 3 to 5 times longer. Additionally, a manual process may take several iterations to release content. EDAConnect automation reduces the release-to-PLM time from an hour to a few minutes, and does it in one cycle.

CONCLUSION

EDAConnect automates the interaction between Altium Designer and Agile by focusing on three simple concepts:

- **Find** – easily search and locate exactly what you're looking for through a familiar interface

- **Use** – now that I've found the approved part let me apply it to my design and keep the metadata in synch

- **Publish** – wizard-based interface to guide you through the automated release-to-PLM process

EDAConnect removes the manual intervention in today's conventional release-to-PLM process through a native CAD interface familiar to the designer.   EDAConnect has been in use since 2006 and is a mature product with a proven track record used by hundreds of customers — Google, Cisco, Harris, Sensata, Life Technologies, and others. Importantly, it is the only Oracle OEM certified EDA-to-PLM interface.

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