



# ECAD Library Management – Altium 365 Workspace – Scope : Managed Library

### Application : Components Library Management

ECAD stands for electronic computer-aided design. Libraries are containers to store components in. Components may consist of schematic symbols, PCB footprints (shapes), simulation models and a lot of other parameters, like MPN (Manufacturer Part Number), manufacturer, value, etc.

Components Library Management is to ensure every team has access to the correct component information ondemand. This helps designers to stay productive and focus on designing great new products, Components engineers to handle the up-to date list with revision history of components and Procurement team to maintain the sourcing of components based on the stock availability.





# Client's situation before the project commencement

The client used multiple library files with different standards to cater to the diverse design needs of multiple design teams. They kept several spreadsheets to document details about each part and its parameters. In the beginning, there weren't any issues among different teams, such as components engineering and procurement.

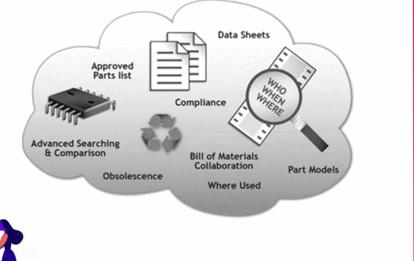
Over time, managing the library became challenging as the number of files and spreadsheets increased. It became a hectic task to collaborate with multiple teams. All of the teams faced struggles in handling these files efficiently.



- Ease of use
- Versatility
- Adaptability
- Customization
- Detailed Information



- Risk of Inconsistency
- No revision control
- Complexity Over Time
- Coordination Challenges
- Increased Overhead



An ISO-27001 ISM Certified Compan



# Managed Library - SoW

**Challenges** 



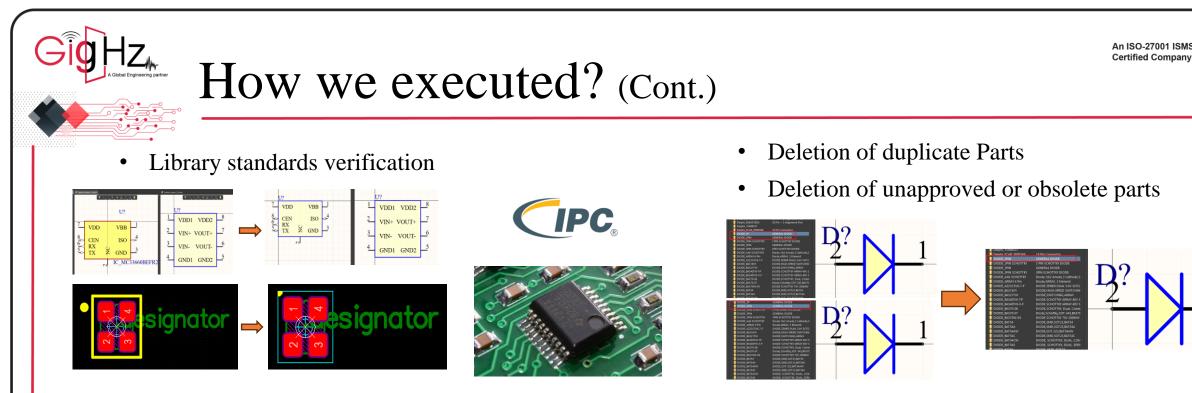
- Multiple standalone library files
- Multiple spreadsheet for the component details
- Own variant of Library Design Standards
- BOM Management
- Part duplication
- Unapproved or Obsolete parts
- Collaboration among different teams
- Manage vendor part data and relationships
- Lacking structure



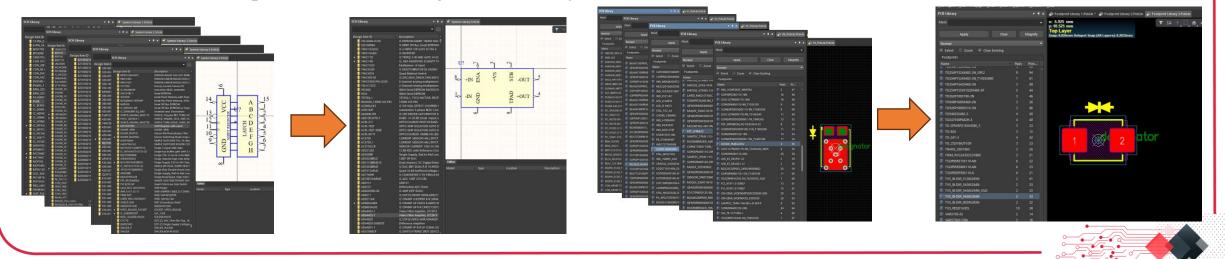


- Managed Library Centralized Content
- Simultaneous access to Different Design teams
- Relationship between different teams
- Access to Design centres at multiple locations
- Ensure Consistency
- Revision History / Lifecycles
- Up-to-date supply chain data





• Combine multiple libraries into organized library



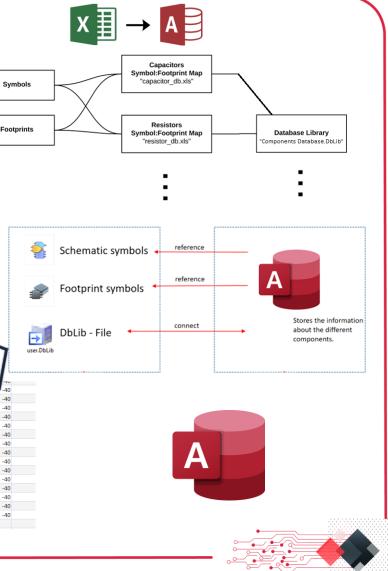


# How we executed? (Cont.)

- Split the components into types (capacitor, resistor, IC, etc.)
- Added common and specific parameters for every type
- Introduced Plm Part Numbers for ease of identification of components
- Component details in the spreadsheet are converted to Access Tables
- Creation of Access database and Database Library (Altium Designer)

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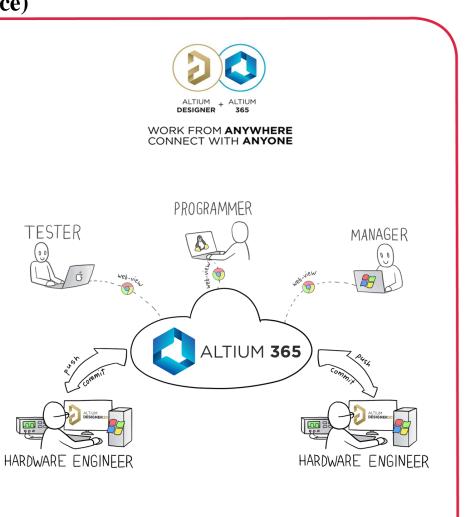




#### How we executed? (Cont.) Component Library Management – (Altium 365 Workspace)

Database Library imported into centralized location (preferable – Altium 365 Workspace) for the ease of usage and application between all the teams .

- Workspace in the cloud (Altium 365 Cost effective connected cloud based platform)
- Import the Database Library into Workspace by the Library Importer
- Validate and resolve the import issues
- Update the library details as per usage by the respective teams.
- Make the connection with Altium 365 workspace to synchronize every time before the application (to make it up-to date files)



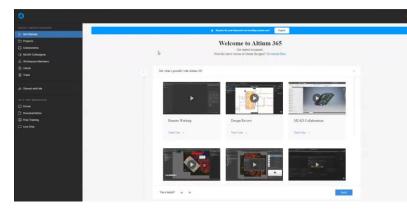




#### How we executed? (Cont.) Component Library Management – (Altium 365 Workspace)

#### Altium 365 Workspace

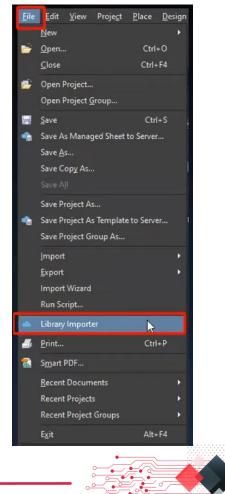
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#### Altium Designer – Library Importer





# How we executed?



#### Altium Designer – Library Importer – Steps to import the database library

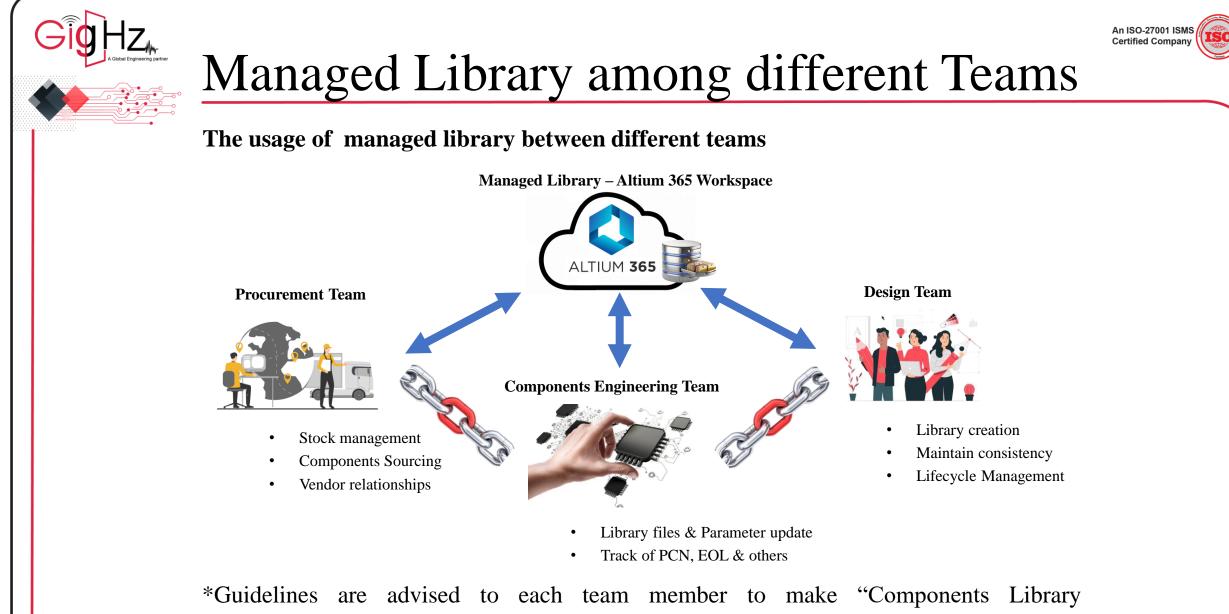
#### Altium Designer – Components Panel

An ISO-27001 ISMS

Certified Company

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Management" as a smoother and more streamlined process.





# Gight Engineering partner

# Workspace - Administrator Process

rupert@sli

Enter or select roles

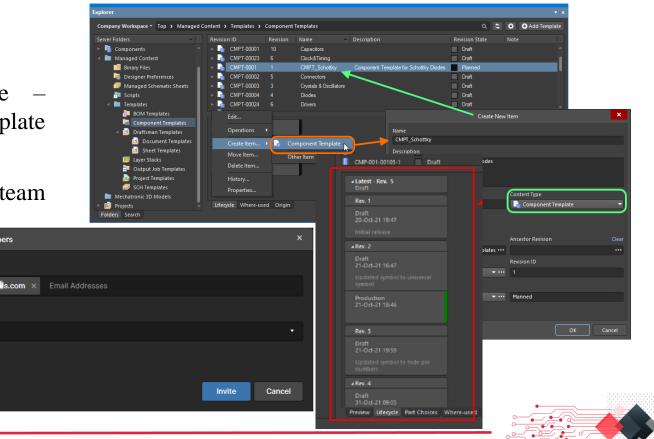
Add Roles

Add a Note

Workspace administrator can have control over providing accessibility for the respective team members, and who can invite the team members through mail and provide controls to them. Everyone in different team, should provide details – release notes related to the task carried on during saving the file to the server, it will provide the revision history of files and ease for traceability.

#### Workspace Administrator

- Have control over the library architecture Component Types, Folder structures and Template files, etc.,
- Invite and provide access to the different team members.
- Templates management.
- Revision history check.
- Lifecycle management of component.





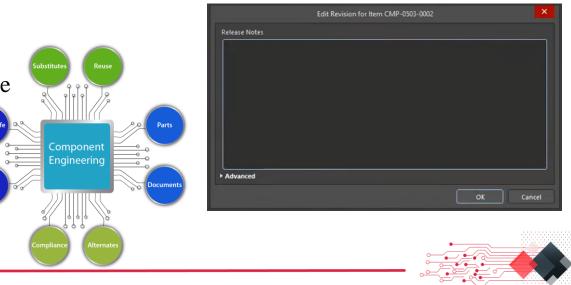


## **Components Engineering Team Process**

#### **Components Engineering Team**

- Rise a new request to the design team to create the Library, for the mapping of symbol, footprint and other files to the respective component.
- Keep track of PCN, EOL, redundancy, obsolete information and compliance status for the components in the database.
- Update the part choice details for the parts.
- Manage vendor part data and relationships.
- Add release notes while saving the files to the workspace (server).





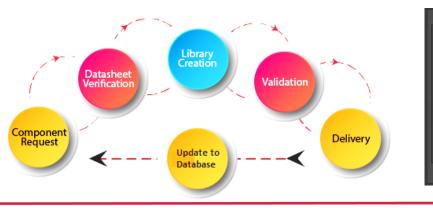


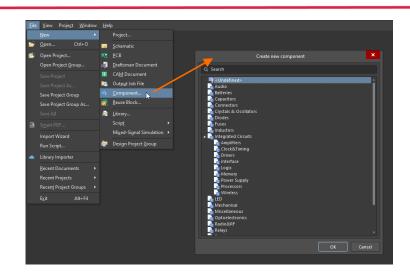


## **Design Team Process**

#### **Design Team**

- Check for the existing Symbol & Footprint, that can match with the requested component.
- Create required Library files Symbol and Footprint.
- Use Library design standards with best practices and IPC.
- Add release notes while saving the files to the workspace (server) with respective task details as a log.
- Ensures data consistency across multiple ECAD tools



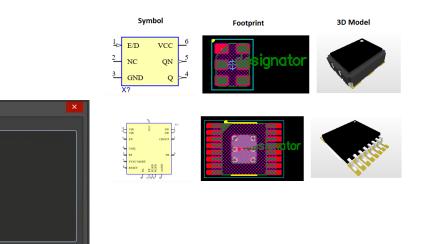


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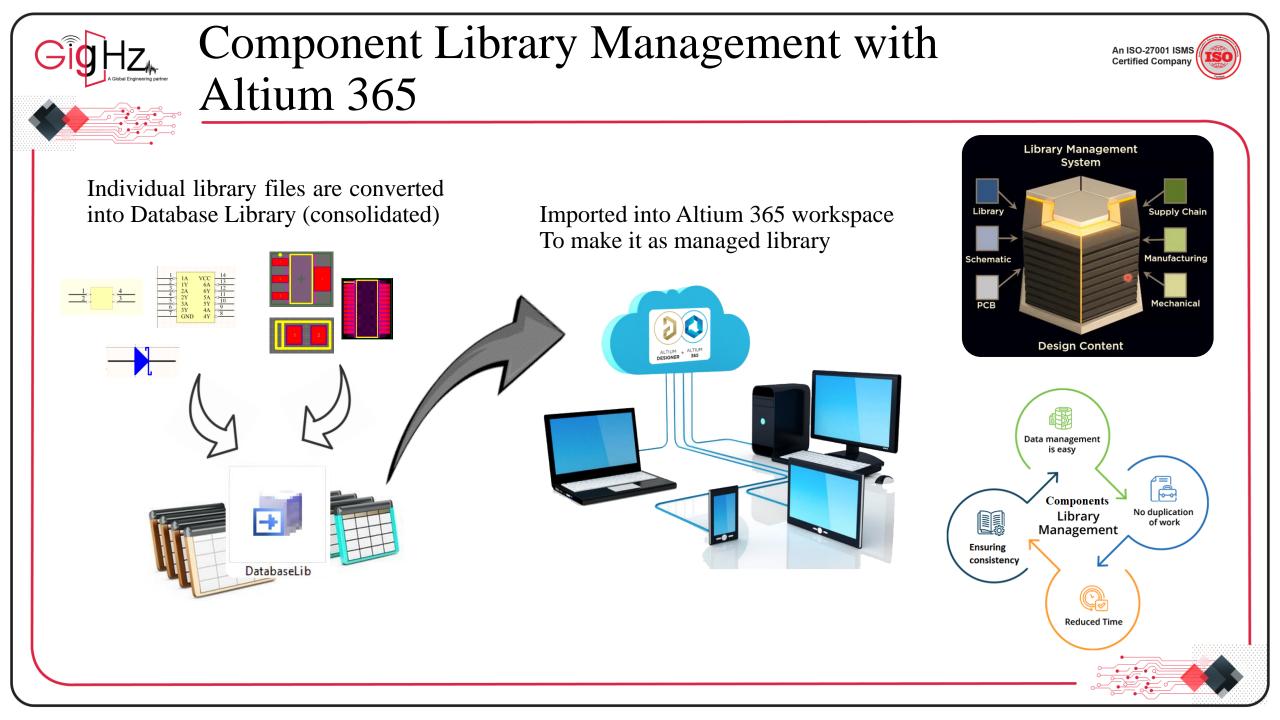
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Release Note:

Advanced











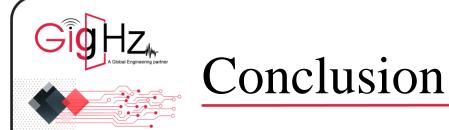
## **Customer Testimonial**

Delighted to share a satisfied client's testimonial that serves as strong evidence of success and impact of the Components Library Management.

"We asked them to take care of managing multiple libraries, deals with many spreadsheets full of details about components, and libraries with different library standards. They not only fulfilled our requirements, went beyond our expectations. They adeptly optimized our Library Management processes in cost-effective way, that minimized errors, and ensured consistency across our projects. The seamless ability to update and share components across the team has resulted in substantial time savings. Furthermore, their commitment to on-time deliveries has made us trust them to oversee challenging projects."







We provided the client with a Managed Library (Components Library Management) that exactly fit their requirements. Displayed our strong commitment to delivering high-quality work and our technical expertise.

Our collaboration extends beyond technical aspects; it involves optimizing the Library Management process by combining our expertise with a thorough understanding of the client's requirements.

We're dedicated to providing excellent Library Management services, which proves our skill and trustworthiness in achieving outstanding results.

