

Allegro Design Workbench

A collaborative environment to improve design team productivity

Part of the Cadence® Allegro® PCB and IC packaging design technologies, the Allegro Design Workbench provides a collaborative environment that can improve the productivity of local and/or global design teams by up to 50 percent. Ideal for library, engineering, and PCB design groups, the Workbench is comprised of two main products—a server and an application option.

Allegro Library Workbench

Allegro Library Workbench is a library development and management environment that enables PCB librarians to create, validate, manage, and distribute library parts and their associated data for use with Allegro Design Authoring (schematic symbols), Allegro PCB SI (signal integrity models), and Allegro PCB Designer (PCB footprints). As parts are created or modified, Allegro Library Workbench automatically creates revisions and distributes the updated design libraries to company or specified design sites. This keeps all design centers up to date with the latest component and library information. Allegro Library Workbench works in conjunction with Allegro PCB Librarian and incorporates all of the capabilities of Allegro Design Workbench, allowing the librarian to act as a super-user. This permits the librarian to test the library elements in the same environment that is used in production and perform all of the tasks that a designer will perform when using the libraries.

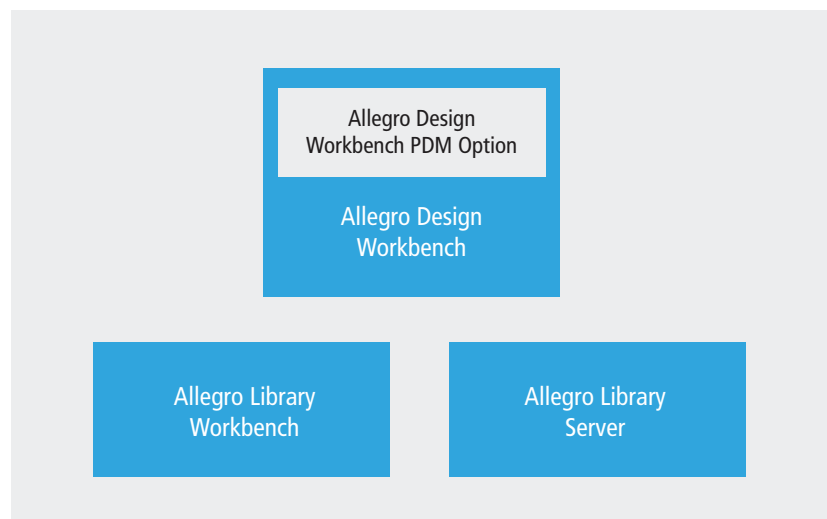


Figure 1: One Allegro Library Server is required per site or LAN. The Allegro Design Workbench PDM option enables design data management (WiP)

Benefits

- Reduces the time to create, validate, and manage large-pin-count devices—from days to minutes—by employing an all-encompassing librarian toolbox
- Decreases design ECOs by verifying the accuracy of logical symbols and physical footprints using automatic library part validation
- Eliminates design errors due to out-of-date or defective libraries by automatically synchronizing logical and physical reference libraries across the enterprise
- Increases librarian productivity and company purchasing power by eliminating redundant components and suppliers

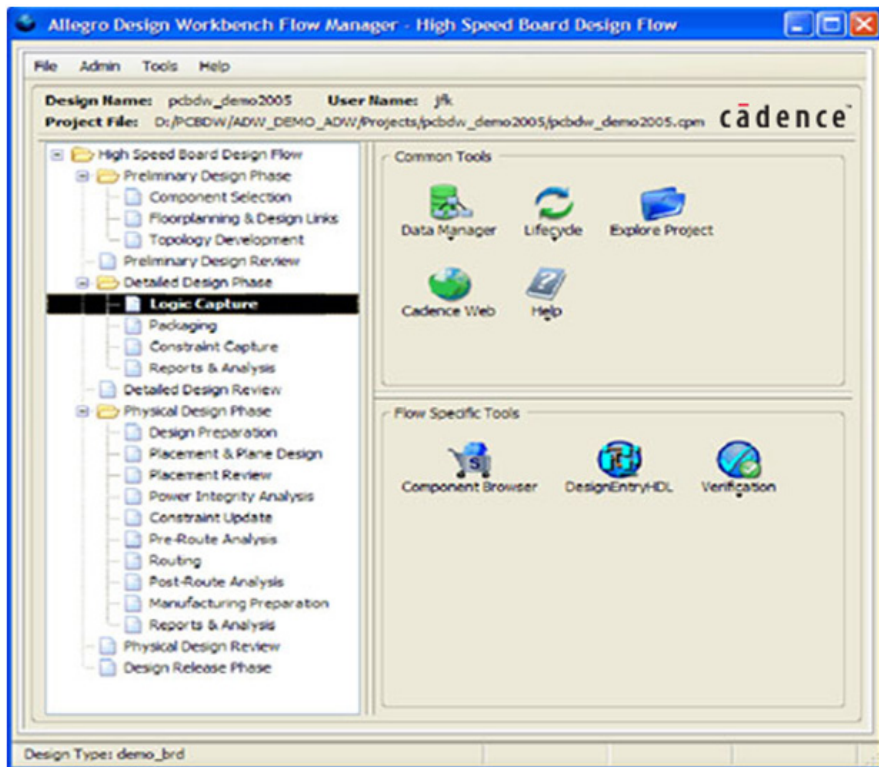


Figure 2: Configurable design flow guides users through the design process and brings appropriate design tools to their desktop at each step

- When connected to an enterprise product lifecycle management (PLM) system through the PLM vendor's supplied gateway, enables holistic part creation, management, and synchronization across the ECAD and PLM business data management worlds
- Supports joint development model (JDM) methodologies commonly used between OEMs and ODMs/EMSs through partial library distribution, synchronization and management

Features

Configurable Work Environment

Enables common cross-organization, cross-company methodologies by defining standard design flows across a variety of design types, such as standard, high-speed, analog, and prototype. Each flow is defined to enable access to appropriate design tools and aids for each step in the flow. These flows can act as a checklist that helps shorten learning curves and

makes casual users more productive, ensuring that important steps and checkpoints are not overlooked.

Component Browsing

Parametric component search ties into your company's preferred components database, providing access to approved and preferred parts. This helps lower costs and reduce inventory. Users can search and select parts based on parametric and business data and view schematic symbols, PCB footprints, and component data sheets during the selection process. The selected parts are used to build a preliminary bill of materials (BoM). Parts from this BoM can then be added directly into the schematic.

Library Development Flow

The ability to set up standard part-creation methodologies through a graphical user interface streamlines the library development process. Users can define standard flows for multiple types of parts, each with a different flow and access to different tools (e.g., schematic symbols vs.

layout footprints). Selecting a step in the flow displays the tools appropriate for that step. This acts as a checklist, creating a shorter learning curve, improving productivity, and ensuring consistency in part creation. Library verification steps, with their appropriate tools, are built in to the flow to facilitate rapid verification of components.

Multi-Site Library Distribution

Allegro Design Workbench maintains a central master library of preferred parts and associated known-good library data that is automatically distributed to various design sites as new parts and updates appear in the library. This keeps all design sites up to date with the latest library additions and changes, ensuring that all designers have access to the most current library and component information.

Regulatory Compliance

Regulatory compliance directives (such as RoHS) are a top concern for electronics designers. Allegro Design Workbench captures RoHS and other regulatory compliance component information, making it searchable in the component browser. Designers can search for compliant parts in the library or specify a preferred parts list that contains only compliant parts. Where-used functionality can be employed to find non-compliant parts in previously completed designs. Regulatory compliance information can be automatically sourced or synchronized with a corporate PLM system through the PLM vendor's gateway (which integrates directly with the Allegro Library Workbench).

Allegro Library Server

Provides a central server capability for librarians using Allegro Library Workbench, one server is required for each design site or LAN. The library server connects to a PLM server for the synchronization of business-metric data that provides the design engineer with real-time decision data.

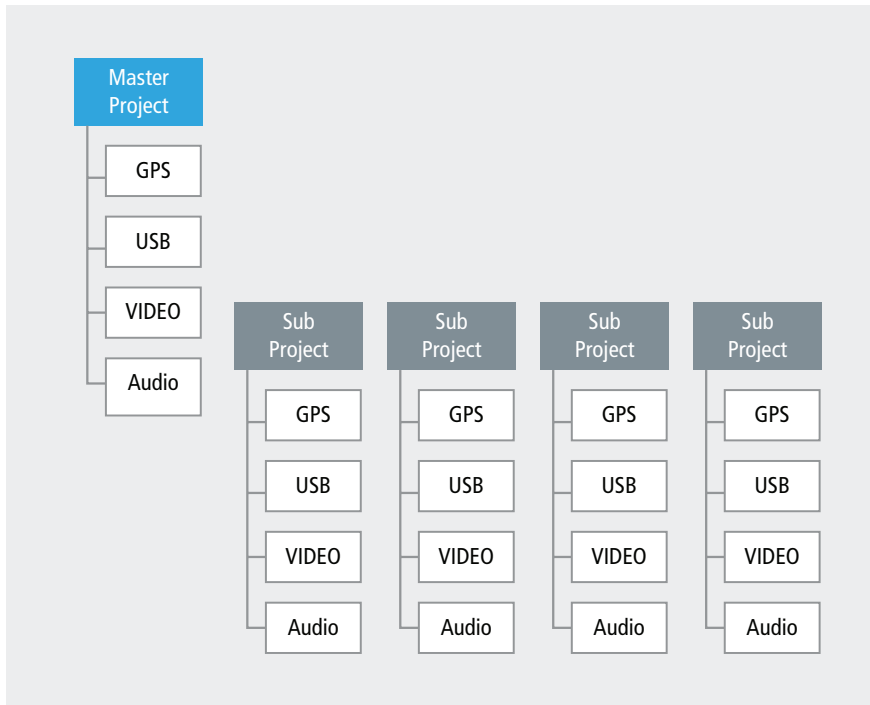


Figure 3: The initial master project is automatically replicated in each team members own area. This allows team members to develop and validate asynchronously without disrupting other team members, or the master project, until requested or required.

Allegro Design Workbench

Tightly integrated with Allegro Design Authoring, Allegro PCB SI, and Allegro PCB Designer, Allegro Design Workbench provides a configurable team design work environment that allows companies to define and implement standard design methodologies across multiple design disciplines. Use of common design tools and best practices maximizes individual productivity and reduces design throughput time. Allegro Design Workbench allows parametric component searches that tie into your company's preferred components database, promoting the use of approved and preferred parts and reducing component research time by as much as 75 percent.

Team design authoring enables multiple design engineers to collaborate asynchronously in the hierarchical development of a logical designs definition. A design can be partitioned into user defined levels of hierarchy and distributed to the defined members of the engineering team provid-

ing them with an isolated "sandbox" for the development and verification of their partition(s).

Benefits

- Cuts training and support costs by providing a common user interface and design methodology across the enterprise
- Improves productivity of engineers, designers, component engineers, procurement, and others by expanding access to component information and design data
- Improves quality and reduces board spins by providing common access to "known-good" library data
- Eliminates design errors due to out-of-date or defective libraries by interactively synchronizing logical and physical reference libraries with logical and physical design projects
- Enables asynchronous concurrent design and reduces development time by managing schematic and layout data separately during the design process

- Software serviceability capability enables efficient management, tracking and debugging of software infrastructures

Allegro Design Workbench Integration PDM Option

Enables direct integration with a corporate PLM system (PLM vendor-supplied gateway required), providing work-in-progress (WIP) data management. Facilitates team collaboration by letting users control change adoption and maintain design revision history. In addition, Allegro Design Workbench PDM Option provides access to the most current design data; "where-used" visibility allows all team members to see where components are used in both production and archived designs. Because it manages schematic and board files separately, Allegro Design Workbench PDM Option facilitates concurrent design and collaboration including secure shared workspaces for both local and globally dispersed design teams.

Specifications

System Requirements

- Software requirements
 - SPB 16.5
 - Java 1.6.14 or above
 - IE 6.x or Firefox 1.5
- Hardware requirements
 - Client configurations
 - 2.0GHz Pentium processor
 - 1GB RAM memory
 - 30GB hard disk
- Server configurations
 - Windows 2008
 - 3.0GHz Pentium processor
 - 4GB RAM memory
 - 100GB hard disk (IDE or SCSI)
 - Solaris 10
 - Sun Ultra 45 UltraSPARC IIIi CPU
 - 8GB RAM memory
 - 250GB SATA hard disk
 - Linux

Platform/OS

- Windows XP Pro SP3, Vista enterprise/ premium 32 bit, Win 2008 Server 32 Bit, Win 7 32/64 bit
- Windows 2003 Server only for GXL Server Installation
- Solaris 10
- Linux RHEL 4

Cadence Services and Support

- Cadence application engineers can answer your technical questions by telephone, email, or Internet—they can also provide technical assistance and custom training
- Cadence certified instructors teach more than 70 courses and bring their real-world experience into the classroom
- More than 25 Internet Learning Series (iLS) online courses allow you the flexibility of training at your own computer via the Internet
- Cadence Online Support gives you 24x7 online access to a knowledgebase of the latest solutions, technical documentation, software downloads, and more

For More Information

Contact Cadence sales at 1.800.746.6223 or visit www.cadence.com for additional information. To locate a Cadence sales office or channel partner in your area, visit www.cadence.com/contact_us.



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