

# LibManager: Library Management Platform

LibManager is a web-based library management system. This system is used to import, search and manage various libraries, including HDL, IPD and PDK. The system provides operational history information and version control of the library. As a web application system based on B/S architecture, it's simple to set-up and maintain. Anyone with IE browsing experience can get accustomed to it in a matter of minutes. LibManager ensures data access consistency by introducing a version control system, publishing and updating HDL libraries regularly to file servers throughout the whole company. LibManager can automatically compare and match the PDM systems when users enter and import library files, or produce complete and consistent library files, instead of manual maintainance to improve library correctness and productivity. Powerful component search and download features help users to find, modify, re-use devices and review library documents. Statistical graphs help users to see detailed data about library category, device number, utilization ratio, and even library management effort.



## **LibManager Solution**

As a web based library management platform, LibManager uses three layer distributed architecture to ensure system scalability and flexibility. The presentation layer is the first layer to interact with business layer via TCP/IP, Java, and automated test scripts to provide excellent user experience. The business layer in charge of priority, queue management and service processing. The last data layer is used to manage databases, FTP servers and more.



System Architecture

## **Key Points**

- A unified platform to search and manage your IP address and libraries, including HDL, IPD, PDK library and more.
- Based on B/S architecture, so it's simple to install, upgrade and play.
- Supports the three major browsers for better usability; Chrome, IE and Firefox.
- Built-in version control system ensures library data access consistency and keeps operation and modification history to allow effortless traceability.
- Ensures system stability and security with residency services, monitoring services and communication services.
- Distributed file and database management service will produce complete and consistent library files instead of manual maintainance to improve library correctness and productivity.



- Supports several user roles with different access permission, including administrator, manager, and basic user.
- Publishing and updating HDL, PDK and IPD library regularly to unified share paths, and monitored by a timing service.
- Statistical graphs help users getdetailed information about library management.

## **FEATURES**

### **User Login**

Supports user login with both English and Chinese versions, and default settings are consistent with your browser. LibManager supports the three major browsers for better usability; Chrome, IE and Firefox.

Lib Manager	
User Login	
Account:	
Password:	
Login	
	User Login Account:

User Login

### **Component List**

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LibManager powerful lookup and download modules help users to quickly go through library databases and gather what they want. The search style is quite similar to EDA design



tools for quick start-up, and LibManager uses regular expressions to match search strings. All device categories properties arelisted in the search table.

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#### **Component List**

### **Component Document**

In the component document page, it's simple for users to search and download device description documents, and also review library change background and history.

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Component Lib	Component Management Configuration Statisti	cs Account Management			
Component List	Component Document				
HDL	Code JEDEC_TYPE	Fuzzy Match Search Reset			
	Refresh			14 -4 Page 1 of 1 ->> >> 15>>	
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	Welcome to its manager system				

#### **Component Document**

### **Component Import**

The components of LibManager can be imported with single or batch mode. For single mode, users need to fill in key and inserted properties, and upload or reuse existing library files. For batch mode, one Excel file with predefined keys and inserted properties will be



imported into LibManager, the component importing service will extract, analyze and import this data automatically. All imported components, operation history and comments will be managed under the version control system for quick traceability and data consistency.

Component Lib	Component Management Component Input   Batch In									
⇒HDL	Data Import	Data Import								
	Normal Manut	facture								
	Code *	Check Enter code								
	Type •	Select   Select component type								
	HDL Lib File •	Browse Reuse Select lib file package								
	Symbol •	Enter symbol								
	Pack Type *	Enter pack type								
	JEDEC_TYPE •	Enter jedec_type								
	Class *	Enter class								
	Alt Symbol									
	DEVICE									
	VENDER									
	MANU_PU									
	HIGH MAX									
	VALUE									
	VERIFICATION									
	Flow Remark	Browse Select file for flow and remark								
		Submit Reset								

#### **Component Import**

#### **Account Management**

LibManager supports users to customize user roles with different base priority and access permission in role management page. LibManager has several built-in user groups, including administrator, manager and basic user. Administrators are in charge of LibManager system maintenance and configuration. Managers have the permission to manage user accounts and email addresses, import domain users via batch mode into LibManager. It's very flexible to define user's access permissions according to user role and user group.



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Componen	t Lib Compo	nent Management	Configuration	Statistics							
					User Management   F	Role Management					
User List											
🚷 Refresh 🛔 )	Add user 🖁 Batch	Add User					H	Page 1	of 1 🕨 🕨 15	×	View 1 - 2 of 2
User Name	Role Name	Group Name	Email Addres	5	Create Date	Full Name	Active	External	Reset Passwor	Modify	Delete
dee	user	Administrators		1	2017-01-10 11:17:41		$\checkmark$		2	7	×
webmng	manager	Administrators		2	2017-01-25 09:31:26		$\checkmark$		2	7	×

#### Account Management

### **Component Configuration**

LibManager component key and inserted properties ares different per device category, so they are all configurable and customizable based on user requirements. User can also define code conventions and add display options to uniquely identify devices.

	: HDL							
Navi	Property Name	Туре	Length	Alias(EN)	PTF Column	PDM Column	Modify	Delete
1	Code	String	64	Code	CODE	CODE		
2	Cell	String	128	Cell	Cell	Cell		
3	原理图符号	String	128	Symbol	SYMBOL	SYMBOL		
4	封装类型	String	64	PackType	PACK_TYPE	PACK_TYPE	2	×
5	Device	String	128	Device	DEVICE	DEVICE	2	×
6	JEDEC_TYPE	String	64	JEDEC_TYPE	JEDEC_TYPE	JEDEC_TYPE	2	×
7	器件类型	String	64	Class	CLASS	CLASS	2	×
8	AltSymbol	String	128	AltSymbol	ALT_SYMBOLS	ALT_SYMBOLS	2	×
9	Description	String	200	Description	DESCRIPTION	DESCRIPTION	2	×
10	厂家	String	64	Manufacturer	VENDOR_NAME	VENDOR_NAME	2	×
11	厂家型号	String	128	Model	MANU_PU	MANU_PU	2	×
12	小类名称	String	64	SubClass	SUBCLASS	SUBCLASS	2	×
13	ROHS	String	64	ROHS	ROHS	ROHS	2	×
14	无铅	String	64	PbFree	PB_FREE	PB_FREE	2	×
15	优选等级	String	64	PriorityLevel	PRIORITYLEVEL	PRIORITYLEVEI	7	*

#### Component Configuration

## **Publish Configuration**

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LibManager will sync with PDM system to keep library consistency, and publish HDL library, PDK and IPD to user specified share path at regular interval.

	Fields Management   Property S	ettings   Display Settings	Code Management   Lib Pu	Iblish   PTF Config   Task Schedu	le   Component Types
Navi : HD	L				
Туре	Publish Location				
HDL	E:VAppCache\LibMngUpdate				
Builtin	h3c_builtin	_			
Capacitor	h3c_capacitor				
厚膜电路	h3c_circuit				
连接器	h3c_connector				
显示器件	h3c_display				
滤波器	h3c_filter				
IC	h3c_ic				
电感	h3c_inductor				
光器件/光耦	h3c_laser				
机械器件	h3c_manufacture				
时钟	h3c_oscillator				
二次电源	h3c_power				
保护	h3c_protection				

#### Publish Configuration

### **Statistical Graph**

Statistical graph help user get detailed information about library categories, device numbers, utilization ratio, and even library management efforts.



Statistical Graph



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