

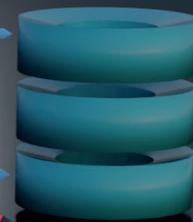
# OMNYA Integration Platform

public library



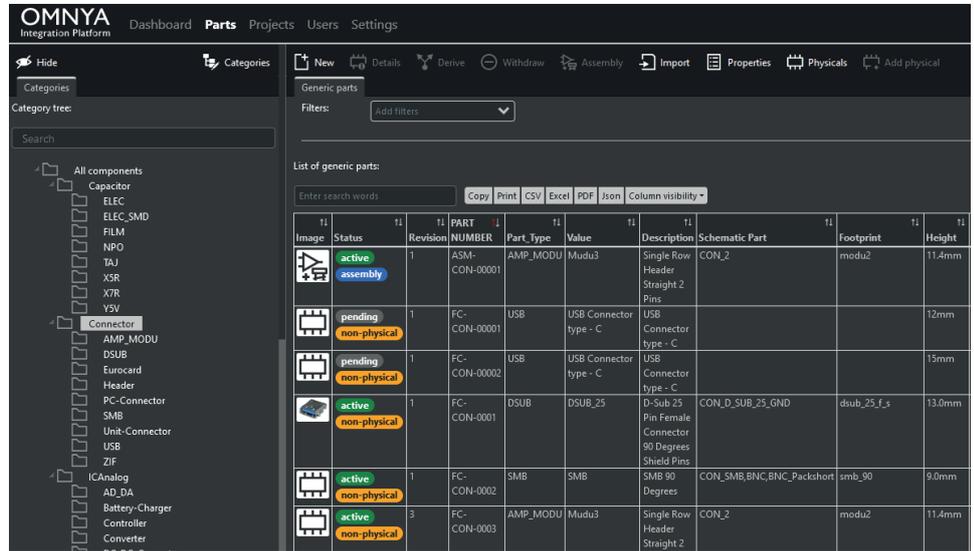
ERP

SQL



PLM

Product Description



Manage electronic data integrated into design environment

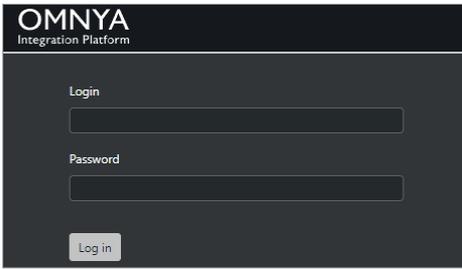
### Efficient Team Collaboration by Integration of Data in Real Time

OMNYA is a scalable integration platform between Cadence tools and your corporate data used in a PLM, ERP, or ordering database. With OMNYA it is easy to enrich your components with external part information. For example, prices and End-of-Life (EOL) information helps to select the right components for your design. With Library Management or BOM Management you can take it a step further and optimize your manufacturing process and overall cost.

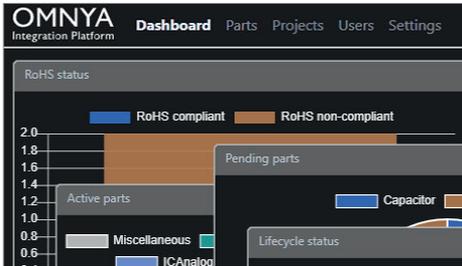
OMNYA offers a single source of truth to provide consistent and accurate data to the engineers. Easy access inside the design environment enables the best information quality at any time in a standardized format.

OMNYA can be installed and configured out of the box on premise or in a secure cloud.

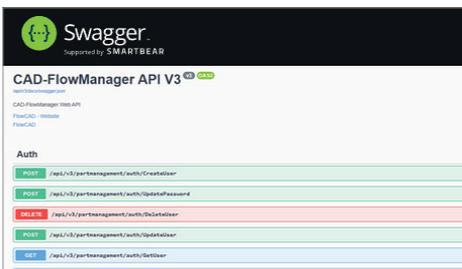




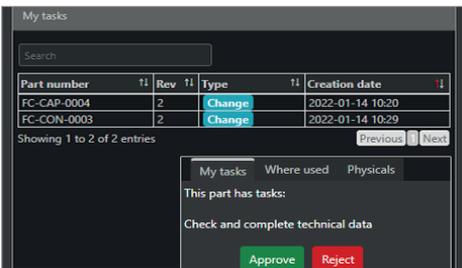
Cloud Login



Dashboard and Reports



ERP / PLM Integration



Part to be approved

Project name	Revision	Creation date
ARM	A	2022-01-13 18:30
IXP2800	A	2022-01-13 18:30

Where Used Report

Image	Status	Revision	PART NUMBER	Part_Type	Value	Description	Schematic Part
	active	2	FC-CAP-0002	X7R	100nF	Ceramik Capacitor 100n 10% 25V 0805	CAP_V_Ca

Generic Parts

## Cloud vs. On Premise Solution

OMNYA is by default offered as a cloud-based solution available for users from different sites located around the world. The dedicated VPN connection assures the data flows in secure way. Cloud solution requires a minimal effort from customer side and literally no investments in hardware or servers. An access can be granted just by delivering credentials at once. On premise installation is also an option if preferred. It is all then installed inside of customer network. In both cases OMNYA is central web-based service offering design data and libraries.

## Dashboard and Reports

OMNYA comes with a number of predefined widgets displayed in common dashboard, which will most likely be used by all customers. Additional custom reports can be generated by forms or by certain filter setting. All reports can be exported as tab or comma separates files to external tools (like Excel, Word, ERP, PLM, ...).

Reports can be generated manually or externally by using the API from the outside. Dashboard displays the system healthy and user's waiting tasks.

## ERP / PLM Integration of Corporate Data

In small companies OMNYA can work as a stand-alone solution, but when there is a ERP or PLM system installed it will work as a subordinate. Through the access to the MSSQL server by using APIs the external system can control the data and the eCAD library. In this case OMNYA is working like a preprocessor and eCAD adapter. Tool integration into Cadence schematic, PCB Editor and library will still be handled by OMNYA, because it is easy to customize and flexible for changes required from the eCAD side. Data will be offered to the external system in a defined way, which will not change. After the initial setup the interface to the PLM / ERP system requires no more changes.

## Four-Eyes Principle for New Part / Change

Introducing a new part or a part change usually requires at least two different engineer to check for validity. For example, when an engineer wants to introduce a new part, it might make sense, that the librarian first verifies, if such a part already exists. If not, librarian will create the symbol, footprint and add all meta data before the part is finally released. Such new part request flow is implemented in OMNYA as a four eyes principle. Per default configuration nobody should be able to introduce the new part or change any existing one without involving somebody else for verification. The expected approvals are listed for users on the dashboard.

## Traceability – “Where Used”

Manufacturers are changing electronic parts during their lifetime. If a change in a Product Change Notification (PCN) has some implication to the designs where the part was used, some engineering changes are required. To trace back, where a part was used, each project has an associated bill of material with the different revisions of that part. OMNYA will scan the BOM and to show affected designs. If a part enters the End of Life (EOL) status, OMNYA will inform the designer, that the part will be or is already discontinued. Designs still in production need to be redesigned. The tool allows early planning of redesigns.

## Generic Parts

Parts are provided on a very high level as generic parts. They can be attached to one of many physical (real parts with manufacturer information) implementations or be not attached at all. Generic part includes usually used for a given type of component electrical properties along with schematic symbol and footprint. No manufacturer information. Generic part can be used on the schematic directly even without any physical implementation attached. Typically, discrete components where the exactly definition of source or MPN are not critical, can be defined in this way.

Name	Value	Expand	Status	Manufacturer
Available Quantity	39202			KEMET
Datasheet	<a href="#">Link</a>			
Description	Multilayer Ceramic Capacitors MLCX7R +/-10% 50v 0805 AEC-Q200			
Distributor Key				Murata Electronic
Distributor Name	Mouser			Samsung Electro
Distributor Part Id	abid4700-4ds-4771-9175-e7189d			Mechanics
Distributor Part Number	187-CL218104KRFW9JE			Description: Multilayer Cer X7R +/-10% 50
Image				Who assigned: Jacek Klimaszc
				When assigned: 2022-01-14 13
				Synchronization date: 2022-01-14 13
				Action: Unassign

Physical Part

List of parts found:

TO-220 STM LM317T

Select	Image	DistributorName	DistributorPartNumber	DistributorKey	Manufact
<input type="checkbox"/>		Arrow	LM317T		
<input type="checkbox"/>		Arrow	LM317T		
<input type="checkbox"/>		Arrow	LM317T-DI		
<input type="checkbox"/>		Arrow	LM317T		
<input type="checkbox"/>		Farnell.de	9756027		

Part details: External Search Selected generic part

Search from third-party suppliers:

Adjustable Vol Reg 1.2-25V 1A SOT223 SMD

Mouser  
 Arrow  
 Octopart  
 Digi-Key  
 Farnell

Search Reset

External Search

Image	Status	Revision	PART NUMBER	Part_Type	Value	Description	Sche
	active	2	FC-ASM-0001	X7R	100nF	Ceramic Capacitor 100n-10v	CAP_

Quick view Tasks Where used Physicals External Search

List of parts in the assembly:

Showing 1 to

Search

PartNumber	Revision	Quantity
FC-CAP-0002	2	1
FC-MECH-0001	1	1

Part Assemblies

Generic parts

Filters: Add filters Applied: Active parts

List of generic parts:

10p

Image	Status	Revision	PART NUMBER	Part_Type	Value	Description	Sc
	active	1	FC-CAP-0013	X7R	10p	X7R Ceramic Capacitor 10p 10% 50V 0603	C

Advanced Filtering

Properties for the category: All components

Origins	Name	Type	Required On Request	Required On Release
omni	PART NUMBER	part number	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
omni	Part_Type	text	<input checked="" type="checkbox"/>	<input type="checkbox"/>
omni	Value	value	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
omni	Description	text	<input type="checkbox"/>	<input type="checkbox"/>
omni	Schematic Part	symbol	<input type="checkbox"/>	<input checked="" type="checkbox"/>
omni	Footprint	footprint	<input type="checkbox"/>	<input checked="" type="checkbox"/>
omni	Height	text	<input type="checkbox"/>	<input type="checkbox"/>
omni	ALT_SYMBOLS	text	<input type="checkbox"/>	<input type="checkbox"/>
omni	IPC_Footprint	text	<input type="checkbox"/>	<input type="checkbox"/>
omni	STEP_Model	text	<input type="checkbox"/>	<input type="checkbox"/>
omni	EDA_Status	text	<input type="checkbox"/>	<input type="checkbox"/>
omni	CLASS	text	<input type="checkbox"/>	<input type="checkbox"/>

DE HDL Integration

Name	Value
Part Number	FC-CAP-0001
Part Type	X7R
Value	10p
Description	X7R Ceramic Capacitor 10p 10% 50V 0603 SMD
Schematic Part ID	CAP_V

Place Derive

Footprint	Height	ALT_SYMBOLS	IPC_Footprint
cap_100p	100mm	cap_100p_gd	CAPC10100N
cap_100p	10mm	cap_100p_gd	CAPC10100N
cap_0805	10mm	cap_0805_gd	CAPC010805N

Footprint: cap\_0603

1C12

OMNYA FastPlacer

## Multiple MPN and Alternate Parts

Physical parts are assigned to generic parts and provide information about real parts available on the market. They come with manufacturer and distributor information like the actual part name, ordering number, price, lead time and many other including environmental characteristic and also EOL if defined. Multiple MPN parts assigned to the same generic part are considered as an alternative, second source selection.

## Integration with Distributors

OMNYA is integrated on API level with leading part distributors services. It allows to search physical parts and next introducing them in the system for further usage. The synchronization of already saved information is also possible in order to get current EOL status (if provided), prices or lead time. The integration is based on end customer's credentials what makes possible to take into account any special conditions agreed between the distributor and end customer.

## Part Assemblies

Assemblies are assignments between electric parts and other non-electric part types. Assemblies can be placed on the schematic like any other parts and are visible with all non-electrical parts attached in the BOM. For example, this OMNYA feature allows to place MOSFET transistor "together" with heat sink and accompanying screw on the schematic.

## Search and Advanced Filtering

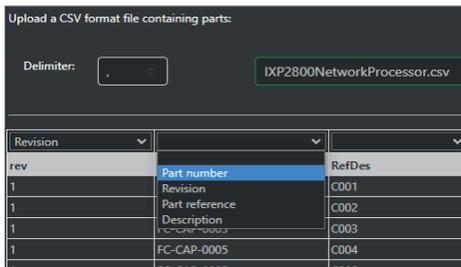
Usability and fast reaction time are key features to improve the user acceptance of a data base application. OMNYA provides a fast and intelligent filtering. To search in large table the right values user can simply input multiple words (space separated) and the result will match rows containing those words. Even typing a few characters of the unique string will offer the correct search result. This kind of searching is available in all OMNYA tables.

## Cadence DE HDL Integration

OMNYA can generate physical part table files (PTF) for the Cadence schematic tool Design Entry HDL. OMNYA can be configured, that each part category (like Cap, R, IC) can have different attributes, which are used as key or injected properties for all CELLS in the PTF file.

## FastPlacer for OrCAD Capture

OMNYA FastPlacer allows OrCAD Capture users parametric filtering of parts from the central OMNYA part database. After selecting the part it can be placed directly onto the schematic page. The selection decision can be made based on a preview of schematic symbol and footprint as well as all the metadata information and availability of the manufacturer part (MPN). This enables part selection based on all available information while placing components.

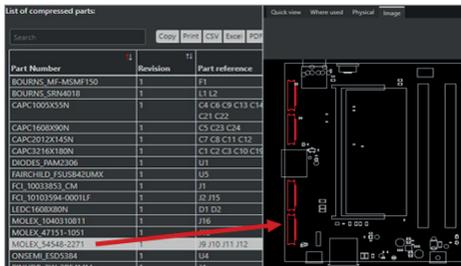


## BOM Import

Universal and vendor agnostic OMNYA CSV BOM import allows to enable where-used functionality for parts. BOM accepts following properties: Part Number, Revision, Part Reference, Description.

BOM may include parts not defined in parts database, however such parts will not be listed in where-used report. Lists are imported on project level, projects have to be defined in OMNYA prior importing. This creates a very usable link between parts and projects.

BOM support

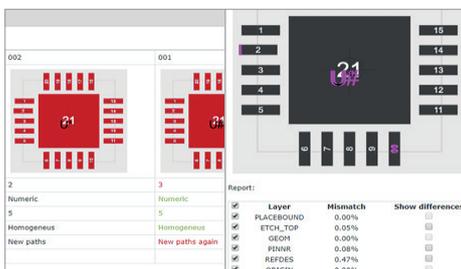


## Cross Probing Between BOM and Board View

OMNYA supports the importing of PCB boards saved in IPC-2581 format. This allows the graphical operations like selecting given part or parts of the same type in the BOM in order to get them highlighted in board preview.

This feature is available in OMNYA WEB interface and make possible to see the board displayed inside of web browser without entering any eCAD tools. This enables fast searching for affected parts in case of EOL or from any other reason.

IPC-2581 support



## Library Management

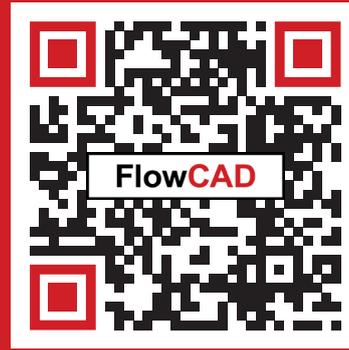
OMNYA provides a unique library management with version control for schematic symbols and footprints. All library parts are subject of strict control what provides a high level of confidence especially when symbols are placed in schematic or on PCB design. This is essential that symbols are stored in common library and there no room for anything what was not validated during certain process. OMNYA provides such sophisticated operations like checking in which project the given padstack or customs pad shape was used. The graphical compare between different library part's revision is also available.

Footprint Compare

Watch the OMNYA video on YouTube



EN



DE

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