

Bei dem hier beschriebenen Training handelt es sich um ein Cadence Standard Training. Sie erhalten eine Dokumentation in englischer Sprache. Die Trainingsprache ist deutsch, falls nicht anders angekündigt.

Allegro PCB Editor SKILL Programming Language

Overview

Description

The PSD SKILL Programming course combines five modules.

The first module introduces the user to the core SKILL programming language as it exists in both the ConceptHDL schematic editor and the Allegro Printed Circuit Board design tools.

The second and third modules teach the user how to use the SKILL programming language to write interactive and batch functions that access and manipulate the Allegro user interface and database.

The fourth and fifth modules teach the user how to use the SKILL programming language to write interactive and batch functions that access and manipulate the ConceptHDL user interface and database.

The highlights of this class include the following:

- Overview of the Allegro SKILL environment
- Controlling program flow
- Working with lists
- Accessing the Allegro database
- Interacting with the user through the Allegro user interface
- Building menus and forms with Concept SKILL
- Registering new Allegro commands
- Overview of the Concept SKILL environment
- Accessing the Concept database
- Interacting the user through the Concept user interface
- Building menus and forms with Concept SKILL
- Creating new Concept commands

Audience

This course is for

- CAD programmers
- Tools integrators
- System Administrators
- Allegro and Concept users who wish to customize the Allegro and/or Concept environments

Software

- Allegro Version 13.6 or higher
- ConceptHDL Version 13.6 or higher

Prerequisites

- A working knowledge of schematic capture
- A working knowledge of PCB design
- Some programming experience is helpful, but not required
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Related Courses

- [ConceptHDL Front to Back Design Flow](#)
- [Allegro PCB Layout System](#)
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Course Agenda

SKILL Fundamentals

- The SKILL programming language
- Build and retrieve lists
- User-defined functions
- Control the program flow
- Read and write input and output files
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Allegro SKILL Database access

- SKILL interpreter within Allegro
- Read and modify the Allegro database
 - Add lines and circles
 - Create and add paths
 - Add shapes
 - Add DRC markers and vias
- Set the Allegro find filter
- Add and delete elements from the selection set
- Modify the selection set by point, window and name

Allegro SKILL user interface

- Solicit
 - text input from the user
 - mouse events from the user
 - angle from the user
- Display text files
- Define Allegro forms
- Create a callback function to control a form
- Manipulate an Allegro form
- Register a new Allegro command

Concept SKILL Database access

- Connect a Concept session to a SKILL server
- Send a simple command to Concept
- Describe how SKILL views the Concept database
- Optional arguments to the *cnSendCommand()* function
- Drawing name functions
- Get message function
- Extract informations from Concept: Wire, Arc, Property, Note, Symbol

Concept SKILL user interface

- Request
 - text inputs from the user
 - mouse events from the user
- Create a callback function to interpret the user's inputs
- Functions used to extract informations from an *Event Object*
- *mpsSleep()* function to create a synchronous user request
- Learn how to
 - add new commands to the Concept command set
 - create and display forms, pop-up menus, vertical and horizontal fixed menus
 - create a dialog box