SourcERA

NX CAD Electrical Routing Wiring Harness Basic Course

Instructor-Led Online Training

Course Curriculum (Duration: Lectures: 20 Hrs. / Practicals: 20 Hrs.)

Chapter 1: UG NX Electrical Routing

1.1] Introduction to Electrical Routing

a. Basics of Electrical harness
b. Usage and functionality of electrical routing
c. Technical aspects of Harness design
d. Basic calculation of wire bundle diameter
e. Selection of wires
f. Calculation of wire min bend radius, bend to wire ratio
g. Understanding the types of cables
h. Voltage values and application of cables
i. Usage of circuits
j. Study of electrical wire diagrams
k. Understand the wire connection types
l. Connector id and specifications
m. Understand the wiring design and flatten harness
n. Form board diagram study
o. Routing cables through cableways

1.2] Electrical Workbench

a. Menus and Toolbars
b. Part navigator
c. Creating path segments
d. Spline path
e. Transform path
f. Creating linear path
g. Subdivide segment
h. Space reservation/adding stock
i. Editing line segment
j. Edit stock
k. Deleting routing paths or objects
l. Editing the cables and adding points for smooth curves
m. Enabling cable identities
n. Create connection points for connector connection points
o. Routing connection points
p. Usage of Compass for spline path
q. Graphic Properties
r. Changing the Graphic Properties
s. Hide/Show
t. Help Documentation

1.3] Qualify Components

a. Creating parts in modeling workbench
b. Adding sketches/point
c. Qualify the part for electrical workbench
d. Adding ports and assigning unique Id's

1.4] Create the connection and component list

a. Use a schematics package capable of generating the files
b. Use the Electrical Connection or Component Wizards

1.5] Place qualified components (devices) into the assembly:

1.6] Create a new part for the wiring harness subassembly

1.20] Qualifying parts

1.21] Placing parts

1.22] Routing segments

Chapter 2: Electrical Routing operating of toolbars and commands

2.1] create a linear path

a) create a simple linear path using
b) Specify Points
c) Axis Parallel

2.2] Spline Path

2.3] Heal Path

2.4] Delete Routing Objects

2.5] Subdividing segments

2.7] Adding Stock

2.8] Edit stock

2.9] Transform Path

2.10] Place Part

2.11] Remove Part

Chapter 3: Form board/ Harness drawings

3.1] Form board drawings

a. Form board allows Routing Electrical users to create a manufacturing drawing for Routing Electrical harnesses.

3.2] Exercise and Workshops

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