



# SMARTPLANT 3D

(Diseño)



## Contenido del Curso

### 1. SP3D Common Training

#### DURACIÓN

1 día

#### User Interface

- Overview
- Layout

#### Session Management

- Session template
- Session File
- Options

#### View Manipulations

- Common Views
- Zoom Tool
- Window Area
- Refresh View
- Active View Control
- Rotate View
- Looking at Surface

#### Formatting Active View

- View Format
- Surface Style Rules

#### Filters

- System
- Spatial (Volume or Planes)
- Logical Permission Group
- Object Types
- Properties

#### Insert Options

- Control Points

#### Measure

- Distance
- Minimum Distance between Objects
- Angle



## Contenido del Curso (continuación)

## 2. SP3D Equipment Training

### DURACIÓN

1 día

#### Overview

- Standard Parametric/Non-parametric Equipment Placement
- Modeling of equipments using primitive shape
- 3rd party software – SAT format (Solid Edge v-14)

#### Aspects

- Physical, Insulation, Maintenance, and so on ...

#### Ports

- Piping port
- Ducting port
- Cableway port
- Conduit port
- Cable port
- Foundation Port

#### Placing Design Equipment

- Equipment from Catalog (standard)
- By Shapes

#### Relationships / Constraints

- Mate
- Align
- Connect
- Minimum Distance (E-W, N-S, Vertical)
- Parallel
- Mate to Tangent Plane

#### SmartSketch Options

- Pinpoint
- Locate on Display List
- Locate on List Only

#### Manipulation Commands

- Select Command
- Delete Command
- Undo Command
- Move Command
- Rotate Equipment
- Rotate Command
- Open the properties page
- Copy/Paste Command

#### Place Imported Shape from File

- Equipment From SAT file

#### Place Equipment From PID

- Retrieving PID
- Placing Equipment from PID
- Comparing Data
- Updating Data

#### Nozzle Placement

- Placing Nozzles with Graphics
- Nozzles with no Graphics
- Nozzles from PID

#### Modification

#### Property Page



Contenido del Curso (continuación)

### 3. SP3D Structural Training

#### DURACIÓN

2 días

#### Overview

- Grids
- Coordinate Systems
- Smart Plant Structure

#### Grids & Coordinates

- Grid Wizard
- Placing Coordinate System
- Modifying Grids
- Adding Grid Planes
- Rotated Coordinate Systems
- Rotated Planes

#### Member Types

- Beams
- Columns
- Braces

#### Member Properties

- Name Rule - Naming rule
- Parent System
- Type Category
- Type
- Priority
- Continuity
- Cross section
- Section Standard
- Section Type
- Section Name
- Material
- Grade
- Angle
- Cardinal Point

#### Place Linear Member System

- Place Member Ribbon Bar

#### Frame Connections

- Flush
- Seated
- Centerline
- Axis
- Corner Brace
- Surface
- Unsupported
- Manual or Automatic rule-based selection

#### Vertical Brace Connections

- Rule-based Offset

#### Assembly Connections

- Assembly Connection Ribbon Bar
- Base Plate
- Splice
- Fitted Assembly Connection
- Corner Gusset Plates

#### Modifications

- Attributes
- Generic Move Command
- PinPoint
- Point Along Tool
- Frame connection

#### Slabs

- Coincident plane
- Offset from plane
- Angle from plane
- Point/Normal Vector
- 3 Point plane



## Contenido del Curso (continuación)

### Sketch 2D

- Basic Sketch 2D overview

### Holes / Openings

- Sketch method
- Select an opening from Catalog

### Draw (Sketch 2D)

- Footings
- Footing Ribbon Bar
- Property Page
- Placement
- Modifications

### Equipment Foundations

- Equipment Foundation Ribbon Bar
- Property Page

- Placement
- Modifications

### Stairs/Ladders

- Settings
- Top Support
- Bottom Support
- Reference
- Position
- System
- Type
- Name
- Width
- Angle

### Handrails

- Settings
- Properties
- Sketch Path
- Type
- Modifying Path

## 4. SP3D Piping Training

### DURACIÓN

3,5 días

### Overview

- Pipeline
- Pipe Run
- Features
- Parts
- Port
- Path leg
- Connections

### New Pipe Run

- Define the Pipe Run properties

### Route Pipe Command

- Length Control Tool
- Route Pipe Run with PinPoint

- Angle Control Tool
- Pipe Run Smart Step Ribbon Bar

### Working Plane Control Tool

- Plane Lock Options

### Turn Type option

- Default Turn Options  
Selecting a Turn Type



## Contenido del Curso (continuación)

### Pipe Select Command

- Select Filter Options

### Delete Command

- Delete Pipeline
- Delete Pipe Run
- Delete feature

### Routing From End Features or Nozzle

- Connecting to End Feature
- Connecting to Nozzles

### Routing To or From a Straight Feature

- Branch on Pipe Run
- Intersect to Branch

### Insert Component command

- Selecting a Component
- Reference Position
- Point Along option
- Selecting Different Ports / Flip

### Edit Commands

- Edit Straight Features
- Edit End Features
- Edit Run Change Features
- Editing features

### Insert Split command

- Insert Split ribbon bar

### Edit Properties Command

- Flow Direction
- Insulation
- Relation Tab

### Route Pipe Run using the offset value

- Offset Control Tool

### Insert Component – Piping Specialty / Instruments

- Component by Tag
- Piping Specialty
- Instruments

### Routing Sloped Pipe

- Slope Format
- Route Sloped Run
- Turn Slope Lock On/Off

### Route Using Spherical Coordinates

- Relative Tracking Mode

### Routing Using PID (TEF)

- Retrieving PID
- Routing from PID
- Comparing Data
- Updating Data

### TAPS

- Insert Tap Command

### Interactive Clash

- Setting Local IFC

### Running Local IFC



## Contenido del Curso (continuación)

### 5. SP3D Electrical Training

#### DURACIÓN

0,5 días

#### Overview

- Electrical System
- Cableways
- Cable tray / Conduit
- Cables

#### Route Cableway

- Define Properties
- Using Pinpoint
- Using SmartSketch
- From End Features
- To End Features
- To Straight Features
- Using Relative Tracking
- Using Spherical Coordinates
- Using Offset Option
- Routing From Ports
- Placing Transitions / Size Change

#### Branches

- Branch on a Run
- Intersect to Branch
- Branch using Pinpoint

#### Insert Component command

- Selecting a Component
- Reference Position
- Point Along option
- Selecting Different Ports / Flip

#### Routing Cableway – No Part Spec

- Routing Cableway

#### Insert Transition

- Without offset
- With Offset

#### Edit Commands

- Edit Straight Features
- Edit End Features
- Edit Cross Sections

#### Routing Conduits

- Conduit System
- Route Options

#### Conduit Fittings

- Insert Conduit Fittings

#### Place Electrical Equipment

- Placing Pull-Pits

#### Placing Ducts

- Placing Ducts using Cableway

#### Insert Cables

- Selecting Equipment
- Selecting Cables
- Defining Properties

#### Define Cable Path

- Selecting Cableways
- Defining Exit/Entry points



Contenido del Curso (continuación)

## 6. SP3D HVAC Training

DURACIÓN

0,5 días

Route Duct Command

Start routing a Duct Run from:

- A point in space
- An existing Duct run
- An equipment HVAC port

Create Duct Run Dialog Box

Define the Duct Run properties

- System, Name, Spec, Required Flow rate, insulation, Max design velocity and Max. pressure loss.

Insert split Features

Insert Component Features

HVAC Division

Select the End Feature

Insert Transition Features

Insert surface mounted Features





Contenido del Curso (continuación)

## 7. SP3D Isometric Drawings Training

DURACIÓN

0,5 días

Extracting Pipeline Isometric Drawings

Creating Spools

Extracting Spool Drawings

Isometric Options Browser

Title block

- Mapping attributes to the border



Contenido del Curso (continuación)

## 8. SP3D Drawing and Reports Training

DURACIÓN

0,5 días

Creating Drawings

- Volume Drawings
- Snapshot Drawings
- Manual Drafting
  - Graphic
  - Annotation
    - Labels
    - Dimensions
  - Title blocks

Running Reports

## 9. SP3D Hangers & Supports Training

DURACIÓN

0,5 días

Overview

Place Hnagers and Supports

- Supports Positioned by Structure
- Supports Positioned by Point
- Building Designed Supports
- Editing Supports



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