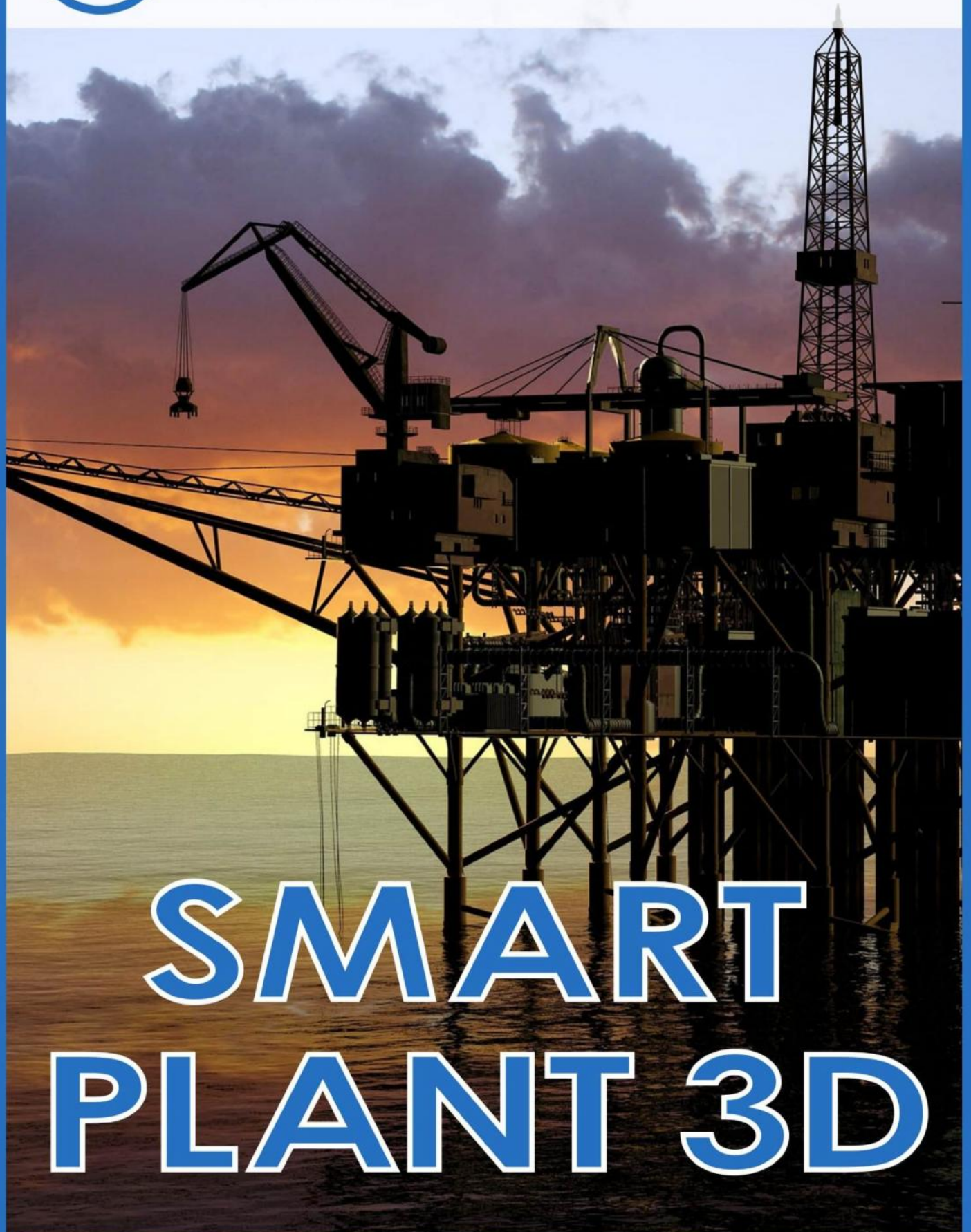




**KAGIRA DRAWING SOLUTION<sup>®</sup>**

The Pioneer in Quality Piping Education



# SMART PLANT 3D

# Kagira Drawing Solution®

The Pioneer in Quality Piping Education

ISO 9001:2008 Certified Training Institute

## Smart Plant 3D

<b>Name</b>	
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<b>Course</b>	
<b>Batch</b>	
<b>Date of Join</b>	

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**SP3D**

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## *Syllabus*

- ✓ **Volume-I**      Equipment
- ✓ **Volume-II**     Piping & ISO DRAFT
- ✓ **Volume-III**    Grid
- ✓ **Volume-IV**    Structure
- ✓ **Volume-V**     Electrical
- ✓ **Volume-VI**    HVAC
- ✓ **Volume-VII**   Hangers & Supports
- ✓ **Volume-VIII**   REPORT (MTO)
- ✓ **Volume-IX**    DRAFT
- ✓ **Volume-X**     Commands



## VOLUME-I

## EQUIPMENT

### CHAPTER-01

Introduction about Plant Design, sp3d, login, and workspace define, Assign Filter and filter properties, create hierarchy order, equipment and equipment component modelling using shapes and how to store your drawings to your database.

### CHAPTER-02

Equipment Coordinate, Nozzle Creation, Selection of Pressure rating as per the standard code and placement type, basic tool such mirror, copy, Move, orientation, and store designed equipment into the catalogue.

### CHAPTER-03

Global co-ordinate Property and types of co-ordinates, change global co ordinate as temporary, Relative move, measurements and its type, Place standard Equipment & Equipment components and its Modification

### CHAPTER-04

Clipping and types of clipping, views and its type like Named view, common view, Centre View by object, Change view style, navigation view, view mode settings,

### CHAPTER-05

Stile and color settings, style modification, the view axis, show hide option clash checking, view Equipment Insulation, operation, Maintenance and Center line aspect types of window and smart sketch option

## VOLUME-II

## PIPING & ISODRAFT

### CHAPTER-01

Introduction about piping and Piping fundamental, Pipe work Hierarchy, creation of pipe run, Route run by Equipment Reference, Pipe standard and specification, Direction of pipe flow, Set Temperature & pressure of pipe, insert piping components and types, insulation material.

### CHAPTER-02

Pipe creation using explicit method, insert split on the pipe & add joints like weld joint and flange joint modification of specification, insert instrumentation component, slope pipe run and component. Error list (To do list)

### CHAPTER-03

Maintain pipe to pipe distance and changes of cardinal points, offset cardinal point (BOP / TOP), sequence number, spool generation, material takeoff and how to convert ISO draft 3d model to 2d drawing.



## **VOLUME-III**

## **GRID**

### **CHAPTER-01**

Grid System and Grid Co-ordinate system, grid types Rectangular & cylindrical Grid, Grid elevation Plan setting, Radial Plan setting, Edit Grid origin, Grid Reference, Grid Offset & copy and Nesting level.

## **VOLUME-IV**

## **STRUCTURE**

### **CHAPTER-01**

Creation of column, beam, curve beam, bracing, Member category, member creation by position, member connection, footing, fire proofing, framing member, splitting, vessel support and how to create column at grid intersection and modifications.

### **CHAPTER-02**

Place assembly connection and types of assembly connection, slab create by 3D and 2D Method, types of slab creation method and how to create wall, toggle wall, slab and wall opening and equipment foundation.

### **CHAPTER-03**

Create handrail by member, handrail by point, ladder & staircase creation, handrail creation by member, Handrail convert, and how to modify staircase, handrail, and ladder.

## **VOLUME-V**

## **ELECTRICAL**

### **CHAPTER-01**

Electrical-system, cable tray routing, types of cable tray, cable way routing, duct bank system, conduits, Insert tray & conduits components, Route run by equipment reference, insert cable marker, auto connect, splitting methods, duct bank system shapes and how to modify width and height.

## **VOLUME-VI**

## **HVAC**

### **CHAPTER-01**

HVAC System, create ducting used on specification, Transition type & size, insert in-line component & surface mount component, Generate spool,



## VOLUME-VII

## HANGERS AND SUPPORTS

### CHAPTER-01

Type of Hangers & support, Place support by structure, point and reference, Place support part and Reselect part, Primary & secondary support creation, how to design support.

## VOLUME-VIII

## REPORT

### CHAPTER-01

Run & catalogue Report, Generate equipment Nozzle sorted by equipment, take pipe, pipe fitting, valve Material Take-off, Pipe line list, structure Member itemized MTO, Handrail, Ladder and Stair properties, electrical cable tray, cable, HVAC MTO

## VOLUME-IX

## SPACE MANGEMENT & DRAFT

### CHAPTER-01

Space management volume creation for convert 3d model to 2d drawing and types of volume creation, Place Volume by four points, Window, Plane & offset and Graphic Selection, modify the volume.

### CHAPTER-02

Convert 3d design to 2d drawings, use of drawing console, create associate method, create snap shot method, volume drawing, create detail view, sheet setup, create dimensions, types of dimensions, layout selection, drawing editing tools, create detail view, region setup, view copy paste, hide show options, place labeling, relationship indicator and alignment indicators, create & modify layer.

## VOLUME-X

## SP3D OVERVIEW & SHORTCUT KEY

### CHAPTER-01

How to use sp3d shortcut key, type of shortcut key and SP3D overview for all task

End

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