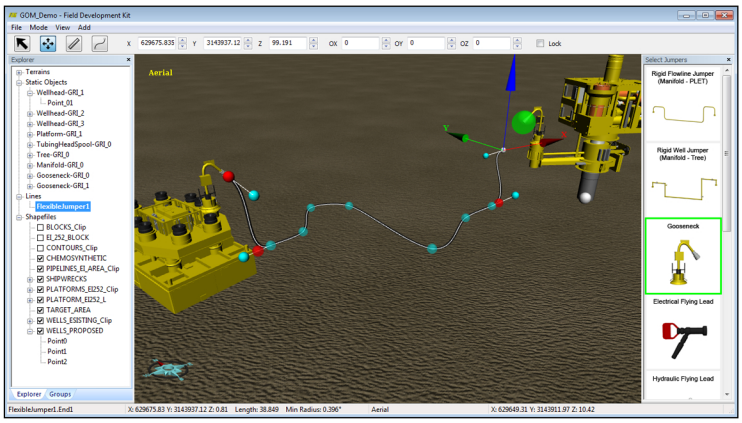
IDEA-FDK

Interactive Design, Engineering & Analysis Field Development Kit

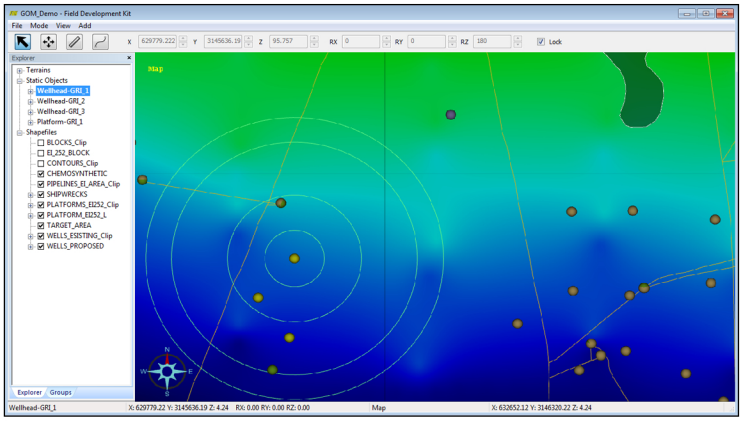
The IDEA-FDK is an advanced 3D design and visualization tool for offshore oil and gas projects. It equips users with a powerful set of tools tailored to provide solutions for the design and visualization needs of offshore oil and gas developments and their associated operations, thus increasing overall project awareness and enhancing operational safety and productivity.



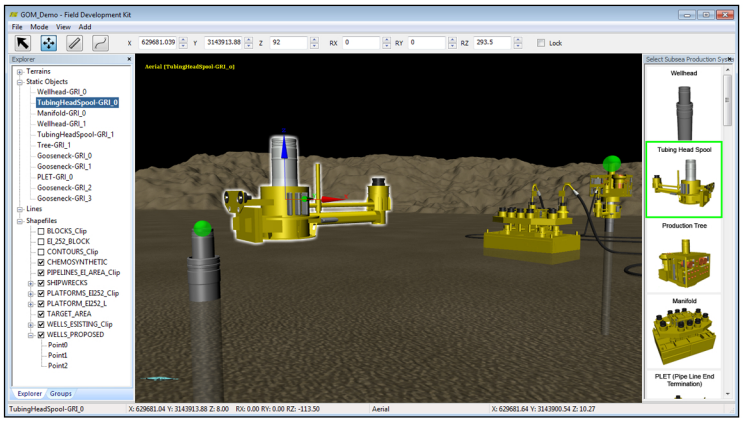
Custom flexible jumper creation

Applications

- Flowline and Cable (Flying Lead) Routing
- Field Expansion Planning
- Integrated Data Visualization (GIS, Seismic, Bathymetry, etc.)
- ROV Accessibility Testing / Clash Detection
- Simple Desktop Jumper Metrology
- Mission Planning and Rehearsal



Map view displaying imported GIS shapefile data



Field assembly using predefined equipment snap points

Features

Import bathymetric data generated from real-world surveys to create a 3D terrain and geo-reference the scene accordingly

Plan and visualize equipment layouts, including pipe and cable routing, by adding and positioning 3D equipment models and creating 3D jumpers, flying leads, flow lines, and umbilicals to interconnect the equipment

Import GIS (Geographic Information System) shapefiles to enhance the scene with real world mapping data for pipelines, equipment positions, geo-hazards, exclusion zones, etc.

Export GIS shapefiles containing mapping and equipment positioning information based on the bathymetry, 3D equipment positions and orientations, and line layouts designed in the FDK. These shapefiles can then be used in other GIS applications

Capture screenshots, videos and simulation log files which can be used for review, collaboration and marketing purposes

Add a dynamic ROV model to the scene and switch to simulation mode, allowing the user to “fly” the ROV through the 3D environment and interact with equipment models for the purposes of accessibility testing and mission planning

Integrated engineering analysis tools

iDEA Field Development Kit