

Engineering Design Tools Selection Guide

TECHNOLOGY SELECTION GUIDANCE WITH COMPREHENSIVE EVALUATION CRITERIA

MAKE INFORMED, FACT-BASED TECHNOLOGY SELECTIONS

The energy sector, including oil & gas and power generation (fossil, nuclear, and alternative energy) is clearly driving much of the new projects in plants and infrastructure.

Here, Engineering Design Tool (EDT) suppliers offer a wide range of design/construct/operate/maintain applications and solutions for plant design and infrastructure. These EDT solutions often represent cutting edge technology in 3D design modeling, laser scanning and point cloud modeling, geo-spacial mapping, procurement and materials management, construction sequencing and management, and many others.

Currently, the EDT market serves both EPCs and owner-operators across the entire CAPEX to OPEX lifecycle.

Executing these massive projects often requires joint ventures or partnerships between engineering, construction, and owner-operator organizations. Faced with a large and varied selection of design/build applications and suppliers from which to choose, engineering firms and owner-operators alike often need guidance to make the right choices.

Beyond the project phase, asset owners are now seeing the additional value that engineering design tools can provide during the much longer operations phase of assets in both plants and infrastructure.

For more information, please visit us at www.arcweb.com/technology-evaluation-and-selection.

STRATEGIC ISSUES

The plant and infrastructure domains each have different market dynamics. Users need to know the capabilities and strategies of suppliers for their particular market. Additionally, both EPCs and owner-operators need to be aware of the market and relevant technologies. This study answers key questions, such as:

- How do users successfully implement EDT technology in their operations?
- How do technologies like laser scanning impact both greenfield and brownfield projects?
- What is the present status of “integrated engineering”?
- How is new technology changing EDT offerings?
- What are the key criteria for selecting an appropriate EDT solution?

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TECHNOLOGY AND SUPPLIER SELECTION CRITERIA

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Market Shares of the Leading Suppliers

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EMEA

Asia

Latin America

Market Shares by Revenue Type

Software

Services

Market Shares by Deployment

On Site

Hosting

On Demand

Market Shares by Market Sector

Plant Design

Infrastructure & AEC

Market Shares by Industry

Oil & Gas E&P

Refining

Chemical

Electric Power Generation

Mining & Metals

Shipbuilding/Marine/Offshore

Market Shares by Infrastructure

Electric Power T&D

Water & Wastewater

Buildings

Oil & Gas Pipeline/Distribution

Heavy & Civil Engineering

Construction

Market Shares by Application

2D Design

3D Design

Collaborative Engineering

Engineering Analysis

Project/Implementation Services

Project Management and Planning

Market Shares by Customer Type

SUPPLIER PROFILES

Profiles for the major suppliers are included. Each profile concisely reviews the company’s business, products, and services as it applies to this market.

Engineering Design Tools Solution Requirements Criteria

Size of Company	Range & Variety of Projects
Deployment Time Required	Complexity of Processes
EDT Solutions Budget	Complexity of CAPEX/OPEX Lifecycle
Engineering Resources	Data Management Requirements
EDT Solutions Training	User Requirements
Complexity of Projects	Ease of Use Requirements

