SAMSUNG SDS
Nexplant 3D eXcellence

A collaboration platform facilitates 3D data use on site

Nexplant 3D eXcellence converts, integrates and visualizes various formats of 3D design data, as well as drives Digital Twin-based manufacturing innovation through combining IoT, production, construction and operation data with 3D data.

Exchange

30+ CAD formats are available for MFG, AEC and other industries. High performance data conversion facilitates easy data sharing and use across multiple devices.

Integration

Support to connect 3D design data with business data (ERP and/or SCM), and combine 3D data with IoT data to build a Digital Twin of the company.

Visualization

Provides rapid visualization with high performance ultra-lightweight streaming even for large data and an environment where VR·AR can be easily utilized.

*MFG : Manufacturing
*AEC : Architecture, Engineering & Construction

Use Case – Digital Product

Physical Sample
Sample production/logistics/ maintenance is costly

2D Manual/Video
2D manual is neither easy nor intuitive to understand. 2D video only gives flat images of a product as the recorded images are viewpoint-dependent

3D eXcellence

Digital Sample

3D Digital Manual

1. Assy Cover Evap-FRE 안착

Assy Cover Evap-FRE을 45도 정확히 기울인다

STEP 5
STEP 6

Digital Learning for Field Service Engineers
Without having a physical sample, engineers can study product structure with a digital sample. Process explained by 3D Work Manual is easier-to-understand-and-follow than that of 2D manual

Online Training (No-Contact)
Online training is available no matter where/when you work.
Just click the Work Manual you want to read on the web site, and use it instantly for both current and upcoming models
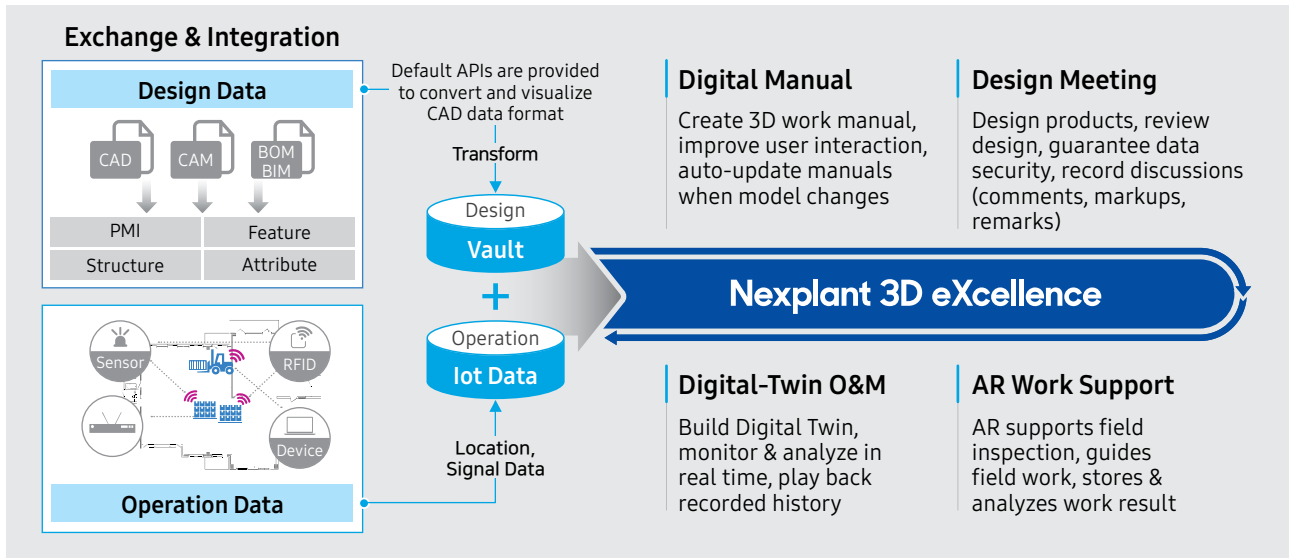
Digital Product Differentiators

· Simply open a web browser for quick and easy use of 3D data in numerous environments e.g. assembly line monitors, field workers' mobile devices, etc.

· Unlike typical videos, 3D digital manual's Play Back feature enables zoom in/out and gets you greater details of 3D model structure

· A digital manual authoring tool assigns tasks by phase to manage seamless workflow, helping you create easy-to-understand manuals.

Zoom In & Out	Manage parts by level
Write digital manual w/ 3D CAD data	a Hide Parts feature
Assign work by phase	Add Text/Image
Auto-update manual when design changes	Web/mobile environments

Digital Manual Authoring Tool

CAD Data
+
Work Process

SOP

Checklist

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3D eXellence Service Structure

Exchange & Integration

Design Data

CAD → CAM → BOM BIM

PMI | Feature
Structure | Attribute

Operation Data

Sensor | RFID | Device

Default APIs are provided to convert and visualize CAD data format

Transform

Design **Vault**

+

Operation **Iot Data**

Location, Signal Data

Nexplant 3D eXcellence

Digital Manual
Create 3D work manual, improve user interaction, auto-update manuals when model changes

Design Meeting
Design products, review design, guarantee data security, record discussions (comments, markups, remarks)

Digital-Twin O&M
Build Digital Twin, monitor & analyze in real time, play back recorded history

AR Work Support
AR supports field inspection, guides field work, stores & analyzes work result

Benefits

High data compatibility
Support 30+ CAD formats in MFG/AEC/other industries.

Interface with legacy system
Easily and freely interface with legacy data and customize your own service.

Outstanding visualization technology
Visualize ultra-lightweight streaming data without exposing raw data.

Functional scalability
A diverse range of services are provided on a single platform whose functions are easily scalable.

Requirements (Recommended Specifications)

Server			Client		
	CPU	Quad Core or above		CPU	Intel® Core™ i7 CPU 2.20GHz or above
	Memory	16GB (minimum)		Memory	16GB (minimum)
	Graphics	NVIDIA Geforce GTX/RTX or GRID GPUs		Graphics	NVIDIA Geforce GTX/RTX or GRID GPUs
	OS	CentOS 7.x or above		Browser	Chrome