

# C3D – Visual Project Control

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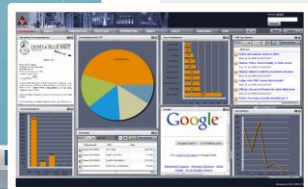
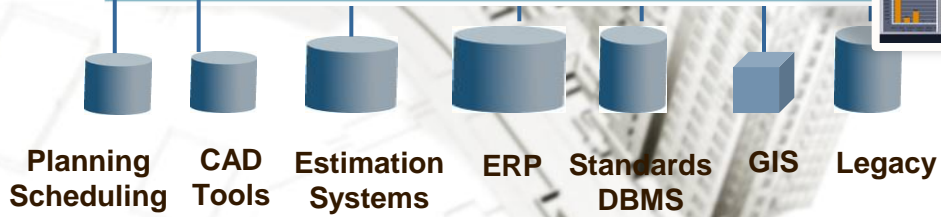
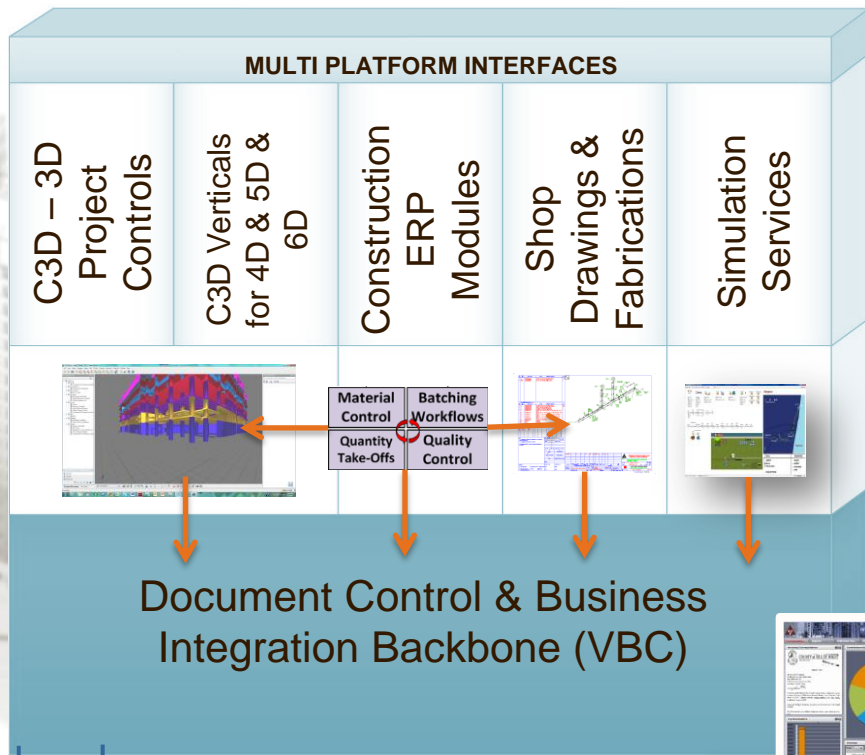
# Solutions Map



**Energy: Oil & Gas, Plants and Pipelines**

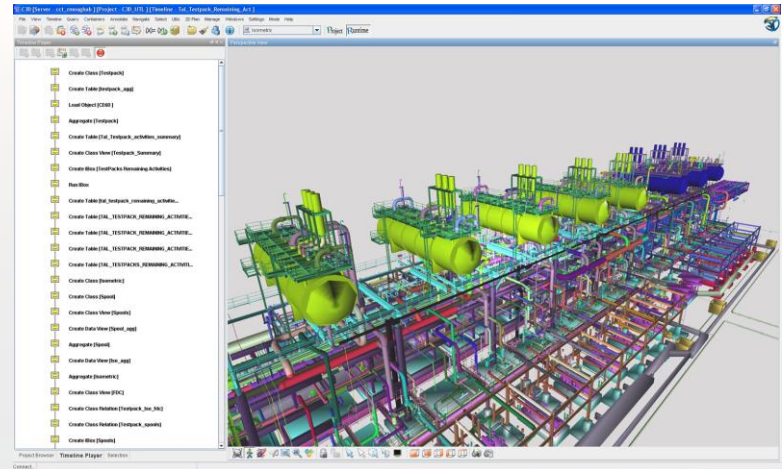
**Gen. Construction, Heavy Civil**

**Enterprises**



# What is C3D

- C3D Solutions provides users with the ability to custom control a project with tools including:
  - Massive Model Visualization
  - Custom Data and CAD grouping
  - Systems Integration
  - Reporting tools
  - Dynamic 3D and Data Link
  - Workflow Builder
  - Model Review Tools
  - Simulations (what-if scenarios) and model verification.



# C3D – Visual Project Controls

Smooth 3D Navigation optimized for very large models

View BIM data hierarchies in any structure you wish

Properties on the fly

The screenshot displays the C3D software interface. The central 3D view shows a complex industrial structure with blue and yellow components. The Project Explorer on the left shows a hierarchical tree of components, including 'site: STABILIZER', 'plantarea: EQUIP', and various 'equipment' and 'nozzle' items. The Object Properties panel on the right shows details for a selected component, such as 'id', 'modelname', and 'layer'. The Component Properties table at the bottom provides a tabular view of the selected component's data.

Color	Loaded	Volume	component_id	modelname	timeline_id	id	Object	TagName	PersistentID	_native_color	layer
			17	STABILIZER.xml	scenarioX00000000	P_15392128	equipment	C1101	P_15392128	0	equipment

Sort BIM components as needed and by any class or value

Colorize according to construction requirements (progress, material shortage, WFP)

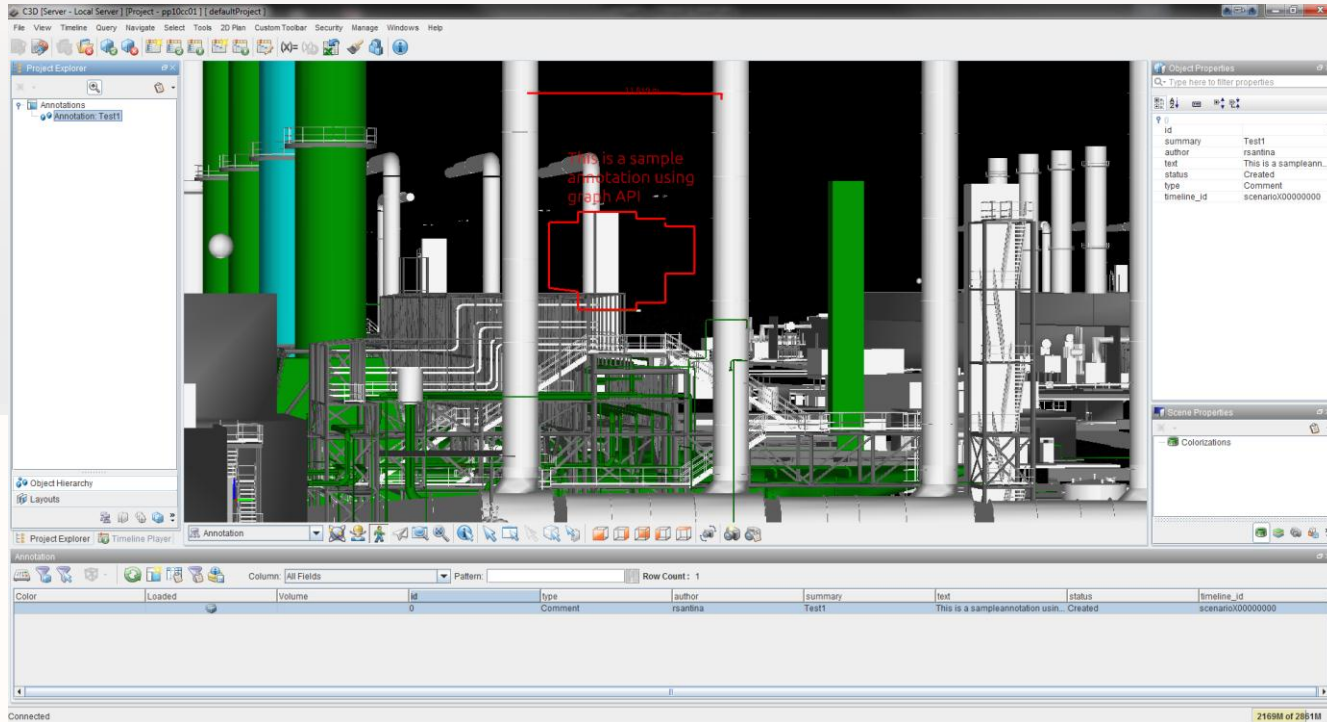
# Why we use JOGL?

- Low level API Binding to OpenGL
- Ability to develop a (Native-Like) graphics engine using Java
- Performing and lightweight
- Clear separation between graphic pipeline and the Windowing System. (NEWT)
- Cross-platform (Windows, MacOS, Linux, Android)

# Annotations & Markups

## Jogl Graph API usecase

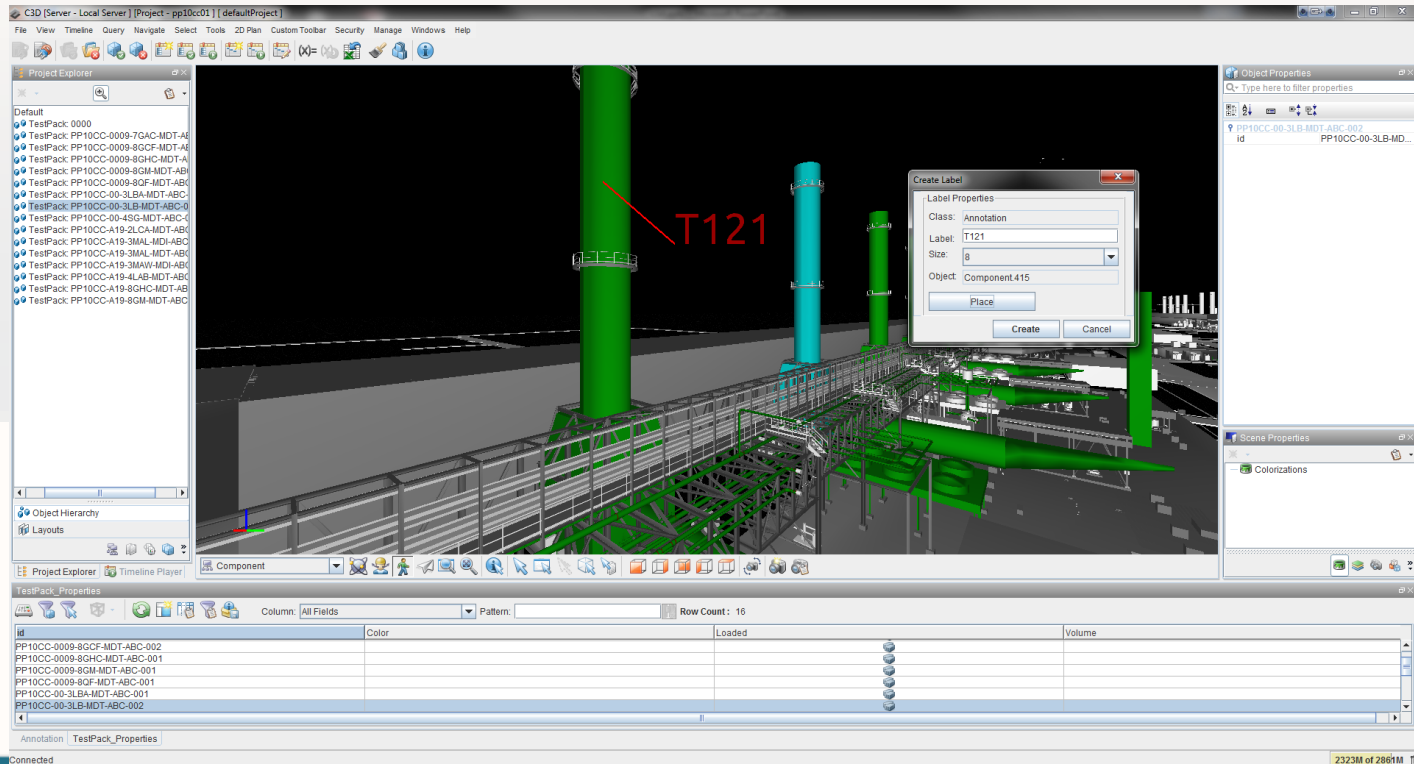
- Utilize JOGL - Graph API for Real time Resolution Independent Annotations and markups.



# Annotations & Markups

## Jogl Graph API usecase

- Utilize JOGL - Graph API for Real time Resolution Independent Annotations and markups.



# C3D Mobile

- Portability:
  - Mobile application with full BIM 3D and data viewing capabilities.
  - To be publicly released in Q3 2013



## Usage:

- Visualize progress status
- Visualize Material availability
- Check BOQ and estimate at the component level.
- Visualize all possible constraints.

## Why:

- Cant predicate all needed info before going to site
- More informed on-site decisions.

Towards a paperless Lean construction site.



# C3D Mobile



- Uses latest Android SDK features, including new UI and widgets.
- Supports Action Bar & Option Menu for older devices.
- Integrate Android's Fragments on-top of the fullscreen Newt Window with traversable control

# Thank you

- More info:
  - Website: <http://c3d.com>
  - Email: [info@c3d.com](mailto:info@c3d.com)