

STANFORD
UNIVERSITY

CENTER FOR INTEGRATED FACILITY
ENGINEERING

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CIFE - Center for Integrated Facility Engineering

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The CIFE mission is to be the world's premier academic research center for Virtual Design and Construction of Architecture - Engineering - Construction (AEC) industry projects ... to support exceptionally reliable engineering and management practices to plan, design, construct and operate sustainable facilities.

CIFE EVENTS

- September 30, 2011**
[CIFE Student Open House](#)
- October 13, 2011**
[Industry Advisory Board Meeting](#)
- December 14, 2011 - December 15, 2011**
[CIFE - CCC Virtual Design and Construction Conference](#)

CIFE NEWS

- September 20, 2011**
[CIFE Bulletin September 2011](#)
The CIFE Bulletin - September 2011 is now available - with news on the CIFE Seed Research Awards...
- June 15, 2011**
[CIFE Summer Program 2011](#)
We were pleased to have a terrific turnout at the CIFE Summer Program 2011, June 14-15, with...
- June 10, 2011**
[Ray Levitt appointed as Kumagai Professorship in the School of Engineering](#)
Dean James Plummer of the Stanford University School of Engineering made the following announcement:

more

Strengthening the Message between CRE and the C-Suite

John Kunz, CIFE

Big Idea

- Seek breakthrough performance: define it
- Use visualizations to show proposals/issues to non-engineering stakeholders
- Show proposal/issue clearly; relate it to impacts on value and costs of business
- Collaborate ... early and often
- Big Idea: make it very clear



(Multiple) Predictable performance objectives:

**Changed in 2010*

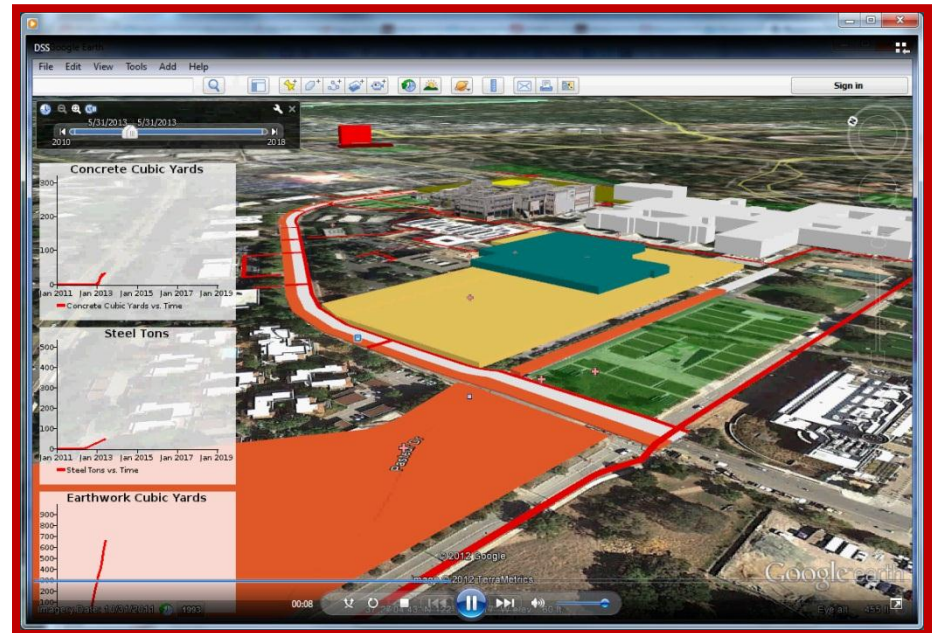
<i>Controllable</i>	<i>Process</i> <i>[Conformance to plans]</i>	<i>Outcome</i> <i>[Performance]</i>
Product, organization, process designs	Latency: mean ≤ 1 ; 95% within 2 working days	Safety: 0 lost hours
Coordination activity: planned, explicit, public, informed > 90%	Field-generated Requests for Information: 0	Schedule: 1 y Design < .5 y Construct 95% on-time performance
Facility managed Scope: 100% of items with > 2% of value, time, cost or energy	Rework volume: 0 (for field construction work); objective = 10-20% (virtual work)	Cost: $\geq 95\%$ of budgeted items within 2% of budgeted cost
Prediction basis: > 80% of predictions founded	*Function (quality) conformance (%): $\geq 99\%$	Quality - Delivered Scope: 100% satisfaction by POE
Design versions: 2 or more $\geq 80\%$	Schedule conformance (%): $\geq 80\%$	*Sustainability: >75% better energy, water, materials, than 2002, profitably
Staff trained in VDC: ≥ 4 /project	Cost conformance (%): $\geq 95\%$	Globalization: $\geq 50\%$ of supply and sales

4D+analytics:

Show proposal/issue clearly;
relate it to impacts on value and
costs of business

4D+analytics enables:

- Multi-disciplinary teams
- to visualize construction of large (or small) projects and
- View multi-disciplinary predictions of value and costs
- Over time



Integrated Concurrent Engineering (ICE):

Collaborate ... early and often

ICE Enables:

- Multi-disciplinary teams
- to do integrated design and analysis
- Extremely rapidly
- With exceptionally low latency
- Very good design development

