

Highlights of Center Activities as The CAD/BIM Technology Center

2007 has been an exciting year for the CADD/GIS Technology Center as we have worked with our sponsors and partners to recharter the Center as the CAD/BIM Technology Center. The reorganized Center is adding a technical focus area on the implementation of Building Information Modeling (BIM) technologies. In addition, the Office of the Secretary of Defense (OSD) Engineering Senior Executive Panel will provide executive oversight and leadership to the Center's yearly work plan. A new focus and improved coordination with OSD will ensure that the Center provides support that is timely and beneficial to the CAD/BIM/GIS community.

Center Organization. Just like the original Center, the CAD/BIM Center will provide guidance on implementation of automation products, promote communication across Federal agencies, promote standards, interface with professional organizations and industry, recommend necessary CAD/BIM/Computer-aided Facilities Management (CAFM) policy, and provide access to the latest technology. The Center interfaces with agency partners, industry, and standards organizations, as shown in Figure 1. At the core of the organization is the multi-discipline Center staff who are very committed to responding to the needs of field users and providing useful guidance in adopting enterprise-wide technology solutions.

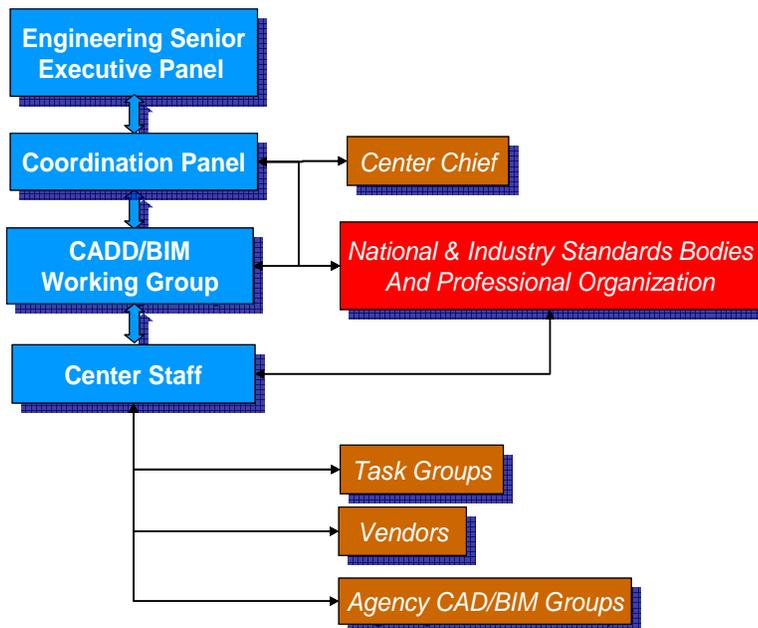


Figure 1. The organizational chart for the CAD/BIM Technology Center

BIM. Like the transition from hand drafting to CAD, BIM is the next technology step that adds information to three-dimension graphics. In the development of a BIM model, data is collected that can be used throughout the entire life cycle of a facility. During the FY07 transition period, the Center staff rose to meet these challenges of rechartering head-on by quickly developing guidance and training in support of BIM-related technologies.

This past year, the Center focused on BIM strategy and implementation for the Department of Defense and providing guidance and training on BIM technologies. In addition, the Center provided core services such as development of CAD standards, a wide range of contract services, and Web development in support of our mission and functions. Highlights of these focus areas are summarized in the following paragraphs.

Standards. The A/E/C CADD Standard is always expanding to meet the DOD's CAD requirements. With input from our user community, we are continuously updating the A/E/C CADD Standard with new symbology, level/layer assignments, and file naming in support of building design through the construction and maintenance phases. A key effort during FY08 will be updating the A/E/C CADD Standard with the upcoming Version 4.0 of the National CAD Standard (NCS) to the A/EC CADD Standard.

BIM Implementation Plan. BIM is an emerging technology that has been adopted within the tri-services in the planning, design, construction, operation, and maintenance of facility structures. A phased approach of implementing BIM, called the BIM Road Map, has been developed specifically for the U.S. Army Corps of Engineers to keep pace with the evolving technology changes and better manage costs and risks. The BIM Road Plan is available at:
https://ten.usace.army.mil/Files/1/1/2/7/ERDC_TR-06-10.pdf

The next release of the BIM Road Map will be available in January 2008 from the Center Web site. Figure 2 shows the BIM Road Map's long-term goals for BIM implementation across the Corps of Engineers.

Building Information Modeling

Overview: U.S. Army Corps of Engineer Roadmap

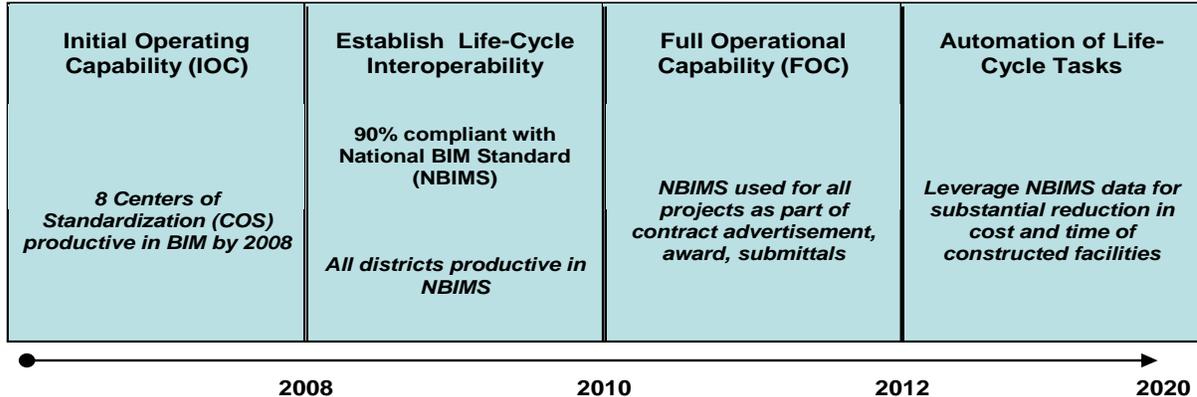


Figure 2. BIM Strategic Goals for the US Army Corps of Engineers.

Training. During FY07, the Center conducted two BIM Managers Workshops. The week-long workshop included an executive overview of BIM, BIM methods, and practical exercises in software installation and dataset management.

In the coming year, the Center will provide BIM to GIS training concentrating on the issues of interoperability between the systems. Core software applications used by Districts and military installations to develop training materials and exercises include Autodesk Revit, Bentley Architecture, ESRI ArcGIS 9.2, and Oracle Spatial.

Real Estate Guidebook. If you are involved in real estate activities such as acquisition, management, and disposal of lands for the Corps of Engineers or other government-owned properties, the Center has assembled a comprehensive guidebook to standardize the methods of moving documents into a digital environment. The guide also provides implementation steps for the content management tool (Projectwise), as well as steps to move from hard-copy maps to CAD and GIS environments. A pilot project conducted at the U.S. Army Engineer District, Walla Walla was used to document the implementation steps in using commercially-available applications to move disparate data and documents into the CAD and GIS environments. The guidebook will be available from the Center Web site in January 2008.

Useful Web Links. Many resources are available online through the Center's Web sites and those of affiliated agencies. The following tabulation lists key Web links with a wealth of information supporting CAD/BIM/GIS technologies.

Web Site Name	Type of Information	URL
BIM Road Map for Corps of Engineers	Outlines the strategic and implementation plans for BIM technology.	hcadbim.usace.army.mil/Myfiles/1/ERDC_TR-06-10.pdf
CADD & BIM USACE Communities of Practice (CoP) Portal	To facilitate the sharing of technical information for CAD and BIM	https://ten.usace.army.mil/TechExNet.aspx?p=s&a=COPS;14
National BIM Standard (NBIMS) project	NBIMS publications and related activities	http://www.facilityinformationcouncil.org/bim/
Corps Geospatial Data Clearinghouse Node	Corps locator for metadata and GIS resources	http://corpsgeo1.usace.army.mil/
Engineering Knowledge Online	The USACE Installation Support Community of Practice Portal serving the Army Engineering Community	https://eko.usace.army.mil/
USACE Professional Awards Site	Nomination for Architect, Landscape Architect and Interior Designer of the Year is available online.	https://profawards.wes.army.mil/
The Chief of Engineers Design and Environmental Awards Program	Submission and judging process is one online to recognize and promote excellence in design achievements by the Corps of Engineers.	https://ceawards.wes.army.mil/

Please visit the Center's Web site often to see the many exciting products and services provided by the rechartered DoD CAD/BIM Technology Center. The Center looks forward to working with all its partners and users in FY2008.