



USACE CADD NEWSLETTER



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CADD Newsletter

This unofficial newsletter, is authorized under the provisions of AR 25-30, and is intended to keep all Corps personnel who are involved in the use and management of CADD informed of CADD related issues throughout the Corps as well as HQUSACE changes and initiatives which will affect the Engineering business process. The Newsletter will be issued electronically on a quarterly basis. Articles on CADD issues with a broad area of interest are solicited from the field. Send all submissions and/or comments to jean.a.mcgin@usace.army.mil.

The CADD/GIS Technology Center Corporate Staff Meeting

The Center Corporate Staff held a virtual meeting using Placeware on 20 November. ACSIM, USACE, NAVFAC, USMC, GSA, USDA, NIBS, NASA, and the Center participated. The Center Chief presented an update on the current project and funding status. Revisions to the Business Plan were presented by Paul Bouley, USMC, and were accepted by the group, with minor revisions. After the revisions are made the Business plan will be signed by the chair of the Corporate Staff.

CADD/GIS Symposium 2004

The 2004 Symposium will be held in San Antonio, TX 16-19 August 2004. If you have a presentation on interesting CADD uses at your district, please get an abstract ready for submission when the website for submittals goes online 2 January 2004. Registration for the Symposium will be open on 15 March. The "Corps" hotel will be the Hilton, and reservations must be made five weeks before the Symposium in order to guarantee a room.

CADD/GIS Technology Center Board of Directors Meeting

The Board of Directors (BOD) of the CADD/GIS Technology Center met at the CADD/GIS Technology Center (the Center) in Vicksburg, MS on 9 December. BOD members from USACE, USACE R&D, GSA, USGS, NIBS and the Smithsonian attended in person. Members from NASA, USDA and USMC participated by Placeware and phone. Discussions were held on the need for the board to more actively participate in assuring that the goals of the Business Plan are in line with the strategic goals the board has for the Center. The Center chief gave a report on the FY04 project status, outyear funding projections, and the FY04 Symposium. A presentation was given on the International Alliance for Interoperability (IAI) progress in developing Industry Foundation Classes (IFCs) for 3-D object-based CADD, and the benefits that these standards will provide to the engineering and construction industry. The director of ITL gave an overview of the services available at the laboratory, and the Center demonstrated results of various ongoing projects. CERL gave a presentation by video teleconference on their Fort Future project. The next BOD meeting is planned for April 2004.

SAC Committee/FAC Chairs Meeting

The SAC Committee and the FAC Chairs met on 4-5 December at Jekyll Island, GA. The SAC group has 6 new members, Thomas Trainer, SPK, Howard Jones, NWP, Michael Bart, NWW, Bob Fitzgerald, MVK, John Jaeger, LRH, and David Steele, SWT. Currently there is a SAC member from each MSC except for POD. The committee will try to get a member from POD by contacting Frank Oliva and all the district Chiefs of Engineering in the division. Messrs. Trainer, Bart, Fitzgerald, and Jaeger were able to attend the meeting as well as John Bailen, MVP, Arthur Connolly, NAN, and Jean McGinn, HQ. The FAC Chairs reported to the SAC on their FY03 accomplishments and plans for FY04. The results of a survey on A/E/C CADD Standard Implementation were presented to the group, and the SAC agreed to make standards implementation one of their priorities. Presentations were given on the NAD Virtual Teaming Pilot Project, the HQ initiatives of SET, TEN and CeA, and the upcoming call for projects from the Center. Steve Hutsell, SWF Systems FAC member, showed a demonstration of a project that he has accomplished using MicroStation TriForma (a 3-D CADD program) and Bob Fitzgerald showed what they are doing using 3-D CADD in their district, using MicroStation v8 and Structural Triforma. Stan Shirk, Architectural FAC chair, showed slides of a project which he was working on using ArchiCAD (another 3-D CADD program). The SAC group developed goals for the coming FY. John Bailen, St. Paul, was selected to be the new SAC chair, and it was agreed that the term for this position should be two years. He will also serve on the Corporate Staff of the Center. John Jaeger will be the alternate Corporate Staff member.

SAC Committee Members

The current SAC Committee members are:

- John Bailen, CEMVP, Chair
- Arthur Connolly, CENAN
- Thomas Trainer, CESPCK
- Howard Jones, CENWP
- Ralph Barrett, CESAS
- Michael Barat, CENWW
- Bob Fitzgerald, CEMVK
- John Jaeger, CELRH
- David Steele, CESWT
- Jean McGinn, HQUSACE

Field Action CAD (FAC) Committees Notes:

Systems and Structural FAC Committee Meetings

The Systems and Structural FACs met 2-3 December at Jekyll Island, GA. The System FAC discussed issues related to the implementation of MicroStation v8, NetSPEX and ProjectWise at various districts, as well as the status of the contract to evaluate the utilities currently being used at the districts. MicroStation is the CADD software used by most districts in the Corps. NetSPEX is a workspace software that works with both MicroStation and Autocad to aid in the implementation of standards. ProjectWise is a process management software. Representatives from Bentley Systems were at the meeting and provided updates on new features in upcoming releases of ProjectWise as well as giving a demonstration on progress being made on interoperability between CADD & GIS.

The Structural FAC concentrated on working with a representative of the CADD/GIS Technology Center (the Center) in proposing additional level/layer names to the A/E/C CADD Standard relative to civil works structures. This group also discussed possible themes for the FAC booth at the CADD/GIS Center Symposium in August 2004, MicroStation v8 lessons learned, facility support for a military customers, and Corps wide software purchases.

Geotechnical Database Project

The USACE GTFAC committee is in the process of developing a multi-user multi-tasking geotechnical “open architecture” database. The database will be a warehouse for soils data and would rely on RDBM systems like Oracle, Informix or ACCESS to store, retrieve, and edit subsurface and soil laboratory data. The user interface program would automatically setup the database selected and allow the user to enter, edit, verify and generate reports. The database will be based on the spatial data standards (SDSFIE) but expanded if necessary to allow for soil laboratory data and stratigraphy that is not currently supported by the standard.

EarthSoft Corporation is under contract to developing the first phase of the database. EarthSoft has surveyed seventeen Corps of Engineers Districts that are currently using a database, spreadsheet, or commercial programs to record subsurface and/or soil laboratory test data. Each District contacted provided EarthSoft with information as to their use, application, and specification of geotechnical data (“geotechnical data requirements”) used within their District. EarthSoft is performing the final assimilation and review of District geotechnical requirements and will develop a document that identifies the geotechnical data requirements of each District. The District Geotechnical Data Requirement Summary (DGDRS) document will be used to identify commonality between SDSFIE and District geotechnical requirements. It is expected that the superset of geotechnical requirements outlined in the DGDRS will exceed that currently contained in SDSFIE. EarthSoft will both add corresponding SDSFIE data elements to the DGDRS as well as propose new elements for the SDSFIE. In addition the to DGDRS EarthSoft will include a hardcopy schema for the Geotechnical Database that will be utilized in the future development of the Geotechnical Database as described in the paragraph above. The District Geotechnical Data Requirement Summary document and hardcopy schema will be finalized by January 31, 2004.

Funding to complete the geotechnical database is not certain for FY 2004. If it becomes available the project will proceed with the development of the user interface program that would automatically setup the database selected and allow the user to enter, edit, verify and generate reports. *Submitted by Paul D. Madison, St. Paul District.*

FAC Committees Chairs

Architectural	Stan Shirk (NWO)	Stanton.L.Shirk@usace.army.mil
Civil	Ed Murphy (SWF)	Edward.A.Murphy@usace.army.mil
Cost & Specification	Gareth Clausen (NWW)	Gareth.M.Clausen@usace.army.mil
Geotechnical	Glenn Kato (TAC)	Glenn.K.Kato@usace.army.mil
Mechanical/Electrical	Kendall Waldie (SWF)	Kendall.R.Waldie@usace.army.mil
Structural	Lori Taylor (MVP)	Lorilee.K.Taylor@usace.army.mil
Systems	John Kincaid (MVR)	John,A.Kincaid@usace.army.mil

Contact one of them to join a committee and get involved in making a difference in the Corps CADD world.

Survey on Standards Use

On 22 October a request was sent out to a POC in all districts to fill out a web-based survey on CADD Standards usage. Twenty-eight districts plus TAC responded. Among the questions on the survey was one asking what software was being used in the district. Twenty-six offices (of those responding) are using MicroStation, twenty of these are using version 8 and two plan to upgrade to v8 in 04. Eight offices are using AutoCAD – some offices use both MicroStation and AutoCAD. Six offices are using ProjectWise (PW) for Process Control and six more plan to implement PW in 04. 28% of those responding indicated that they are using the A/E/C Standard, and 55% are using the standard “somewhat.” To aid in implementing the standards, 11 offices are using the CADD/GIS

Technology Center Workspace, 3 are using NetSPEX, 5 are using Sitemenu, and 13 are using locally developed tools. If you wish to get a copy of the report, send a message to Jean McGinn at jean.mcgin@usace.army.mil or Lori Taylor at lorilee.k.taylor@mvp02.usace.army.mil.

NAD Virtual Teaming Pilot Project

NAD initiated a pilot project in October to test Virtual Teaming between NAU and NAO. The need for this test is in part due to the uncertainty about the future stationing of the United States Armed Forces within Europe. In FY03 many of the construction projects in Europe have been put on-hold and NAU is awaiting final decisions from the Department of Defense (DOD). The NAD Regional Business Center (RBC) initiated action to aid in managing resources, minimize potential risks to staff while continuing to execute the on-going Military and Civil Works missions. While this effort was originally focused on NAU, this is a corporate opportunity to explore and develop virtual teaming and collaboration among all Districts as well as with Iraq. Contact was made with three large A/E firms to determine how they address virtual teaming. CH2MHILL made a presentation at NAD and Jacobs Engineering held a teleconference with members of the PDT. The PDT includes representatives from Engineering and Construction and Information Management at NAD, NAO, NAU, LRH, WES, and HQ. Representatives from HQ E&C, NAD, NAO, and NAU participated in a trip to Bechtel on 6 October for an all day presentation on their system, which included information on their work processes and engineering procedures and standards. Bentley's ProjectWise is being used for file management and sharing. Huntington District was selected to manage administer, monitor, migrate and train staffs in the use of this software as they have significant experience in use of Projectwise, and have set up a work process and file management system for the software. The PDT for this project has initiated weekly conference calls to coordinate progress. Monitored testing of file transfers between sites at NAU and Huntington was accomplished 7-14 November. The time required to transfer files is acceptable, which eliminates the need to upgrade circuits at this time. VSATs have been installed in Iraq, and tests of ftp transfer of files have been accomplished, also showing acceptable file transfer times. The ProjectWise hardware and software was moved and set up at the Vicksburg Central Processing Center, and the system is operational. A New York District project at Picatinny Arsenal has been selected for the pilot, and the kick-off meeting for the project was held at Picatinny 3 December, with the members of the design PDT present. A design charrette was held 4-5 December with an outbrief on 8 December. Projectwise training was held at New York district on 9-10 December. The team has been tasked to develop a duplicate secure system using the SIPRNET for future Iraq projects. .

SDSFIE Training Workshops for FY04

The CADD/GIS Technology Center for Facilities, Infrastructure, and Environment has scheduled SDSFIE Training Workshops for FY04. The Basic Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) Workshop stresses the fundamentals of GIS, SDSFIE organization, and use of three core SDSFIE tools, the Browser, Filter Maker, and Access Builder.

The Advanced SDSFIE class focuses on implementation of the SDSFIE as it pertains to ESRI Geodatabase structure. Other course topics cover data-processing issues such as spatial references, feature level metadata, and data migration. Many students gain the confidence and skills to undertake the data conversion and migration into an SDSFIE database.

Schedule of classes is as follows: Basic SDSFIE Implementation – 9-11 Feb, 14-16 June, and 17-18 Aug 2004; Advanced SDSFIE Implementation 11-13 Feb, 16-18 June and 17-19 Aug 2004. Alasses are limited to 18 people. Further information concerning these workshops can be found online at: <http://tsc.wes.army.mil/news/classes/ClassRegistration/>. Classes fill quickly; please sign-up early.

Submitted by Laurel Gorman, CADD/GIS Technology Center

Available on Center Web Site

The following items of interest are now available on the CADD/GIS Technology Center web site at <http://tsc.wes.army.mil>:

- The fall issue of the Center Newsletter, Insights, which includes articles on, the use of GIS in Anti-Terrorism/Force protection, Emergency Environment response Tool, Geospatial Risk Assessment Modeling System, GIS-Based Dispatch, Highlights from the ESRI 2003 Users Conference plus other articles.
- A report on “Data Integration, Interoperability, and Conversion Services”, along with a Metadata Collection and Bulk Loading System (MCABLS) Software, which was prepared for USACE under the Army ADCS contract, is available for download.
- The Draft release of the "Contract Language Guidelines for Acquiring Geospatial Data (CADD, GIS, CAFM) System Deliverables from Architect-Engineer (A-E) Consulting Firms" document. Review comments have been collected and are being evaluated

Call for Articles

I encourage anyone in the field who has CADD related information of general interest to Corps personnel to submit articles for the next issue, which should be issued the end of March 2004. Since I, Jean McGinn, will be retiring next year, I need a volunteer to take over putting this newsletter together. Send e-mail to jean.a.mcgin@usace.army.mil prior to 31 January 2004.