San Diego a Scalable Skills Certification Program in GIS
San Diego GIS Educational Consortium Steering Committee Meeting

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Meeting of December 20, 2004
11:00 AM Room 320 District Offices, 3375 Camino Del Rio S

MINUTES

PRESENT:

Anthony Howser	Graduate Student – San Diego State University
Bill Berggren	School to Career Specialist, San Diego Unified School Dist.
John Johnson	Principal Investigator (PI), Instructor – San Diego Mesa College
Jay Vavra	Biology/ROP Biotechnology Instructor – High Tech High
Ming-Hsiang Tsou	Co-PI, Assistant Professor, Geog. Dept– San Diego State University
Omar Garcia	Architecture and Civil Engineer Instructor - Construction Tech Academy at Kearny Educational Complex
Shirley Orsinelli	Chair, Computer Business &Technology – San Diego Mesa College
Tom Fehrenbacher	Humanities Instructor – High Tech High
Yinghui Li	Graduate Student, Note taker – San Diego State University

OVERVIEW

The purpose of this meeting was to announce project updates, receive feedback from members, discuss GPS equipment options for the project, and to schedule future events.

I. WELCOME, INTRODUCTIONS

J. Johnson noted that B. Berggren invited three new members to this group and asked members to introduce themselves.

Jay Vavra stated that Tom Fehrenbacher, a math teacher named Rouge Buenviage, and himself work as a team. They are working on a San Diego Bay project integrating math with the humanities.

Omar Garcia stated that he is working for a project which involves Civil Engineering. He needs help on mapping applications for the project.

Here is the contact list for new members:
- Jay Vavra
  Biology/ROP Biotechnology Teacher – High Tech High (http://www.hightechhigh.org/)
  Email: jvavra@hightechhigh.org
- Tom Fehrenbacher
  Humanity Teacher – High Tech High
  Email: tfehrenbacher@hightechhigh.org
- Omar Garcia

Architecture and Civil Engineer Teacher - Construction Tech Academy at Kearny Educational Complex
Email: ogarga@sandi.net

II.   ADOPTION OF THE MINUTES FOR THE 11-15-04 MEETING

The 11-15-04 meeting minutes has been sent to members via email. It's also available through our project website at: http://geoinfo.sdsu.edu/hightech/Documents/steeringMinutes111504.pdf

III.   REPORT FROM SDSU SUB-COMMITTEE MEETING OF 11-29-04

M. Tsou stated that SDSU team meets together every two weeks. The preliminary project website is ready for public's review. A few projects are still under development. The team is trying to identify a few application areas to extend to high school teachers and students. Based on C. Eckberg's advice, T. Howser made several changes to the project website. The website can automatically detect the bandwidth at the user side now. It will automatically direct users to the faster non-Flash content if their Internet connection is slow.

The 11-29-04 meeting minutes is available at:
http://geoinfo.sdsu.edu/hightech/Documents/sdsuMinutes112904.pdf

IV.   COMMENTS ON WESITE CONTENT & DESIGN

T. Howser stated that our goal is to keep the website professional and clean. M. Tsou pointed out that this website is a project website. We will create separate entry points depending on the audience. These entry points can lead to course modules and online quizzes for high school teachers and students, respectively. T. Howser outlined the tasks that the student group has completed and some of the tasks that are in-progress. The major task right now is to build an experimental learning module on the website, so we can evaluate it and receive recommendations of it.

Project home page: http://geoinfo.sdsu.edu/hightech/index.html
Any recommendations and suggestions please send email to:
Ming-Hsiang Tsou: mtsou@mail.sdsu.edu
Anthony (Tony) Howser: ahowser@rohan.sdsu.edu

V.   UPDATE/STATUS REPORT FROM MEMBERS

- Mesa College
  J. Johnson stated that he has been focusing on formal DACUM training and administration and preparation for the National Visiting Committee.

- SDSU
  M. Tsou stated that the team reviewed California K-12 curriculum standards and is trying to identify one or two representative ArcMap education modules to ArcIMS (ArcIMS is the solution for delivering dynamic maps, GIS data and services via the Web. It provides a highly scalable framework for GIS Web publishing that meets the needs of corporate Intranets and demands of worldwide Internet access.). We will finish the modules in next month.

- City Schools
  B. Berggren stated that he is focusing on contacting people and making people interested into GIS. He had identified and brought in the San Diego City Schools faculty members to the meeting.

VI.   REQUEST TO BE INVOLVED FROM HELIX CHARTER HIGH SCHOOL

J. Johnson stated that he recently received a letter from two teachers at Helix Charter High School. They are interested in getting involved with our project.

Action: B. Berggren pointed out that we should make contact with those two teachers and ask them what they need. We agreed that it would be worthwhile to allow them to join our project.

VII.   FEEDBACK ON ARCEXPLORER – JAVA EDITION FOR EDUCATION

J. Johnson gave a brief introduction of ESRI ArcExplorer – Java Edition for Education (AEJEE).

T. Howser noted that ArcExplorer differs from ArcVoyager. Java is platform independent. It can run on any computer that has a compatible Java runtime library. But this universal solution doesn't always work because Microsoft Windows is constantly being upgraded; Java is forced to release a newer Runtime library. AEJEE needs the newest Java library. This could be a problem if a user wants to install AEJEE, while some other software needs to use older version of runtime library. T. Howser also noted that AEJEE has a clean and well-designed interface with capabilities similar to ArcIMS (Internet Mapping Server). ArcIMS enables users to utilize a GIS interface, access and work with data using just a web browser and an Internet connection. He prefers choosing ArcIMS over AEJEE.

Y. Li noted that ArcExplorer Java Edition for Education is a lightweight GIS data viewer developed by ESRI. This freely available software offers an easy way to perform basic GIS functions. It has some great functionality and a good design/interface for a FREE product. The AEJEE runs well on Macintoshes too, while other ArcExplorer's only run on Windows. It also provides users with an excellent ArcIMS client, but it needs J2RE (Java 2 Runtime Environment) to install and run. It's an enormous system requirement. Some locations may not be able to meet these requirements. It requires onsite installation. Y. Li thinks that AEJEE is good for teaching Middle school students to learn what GIS is, because it's free and powerful just like ArcMap. But for students in higher education, ArcMap is better since it has more advanced features that reflect those available in industry.

J. Johnson is noted that he prefers using AEJEE since it runs fast after it is downloaded and installed. And it has clear interface for students to interact with.

M. Tsou pointed out that AEJEE also has catalog, projection function and some build-in data that everybody can use. He recommended that we can develop modules for both AEJEE and ArcIMS so that users can have choices.

Omar Garcia stated that AEJEE is user friendly based on his experience.

Action: J. Johnson indicated that we will have a two-hour GIS orientation workshop in late January for introducing GIS software to High Tech High teachers and students. Jay Vavra stated interest in participating.

Jay Vavra will provide data for creating modules for both AEJEE and ArcIMS.

VIII. REPORT ON DACUM SEMINAR & WORKSHOP

J. Johnson noted that he and Sarah Halstead from the Employee Training Institute (ETI) attended formal DACUM training in Las Vegas two weeks ago. He and Sarah Halstead will conduct our DACUM workshop which will be held on January 13 and 14. The place would be at the Holiday Inn in Mission Valley. We have seven people signed up so far. They are industry GIS technicians from around San Diego County. They initially didn't have any formal background with GIS. They will generate the entire set of skills and duties that are performed on their jobs. The two-day meeting is designed to find out what knowledge they use in order to do their jobs as GIS technicians. The first stage of the workshop is to produce charts with lists of duties, tasks and the breakdown of these tasks. Then we will make sure all of these tasks are addressed in our curriculum. All members are welcome to attend this meeting.

J. Johnson noted that he will attend the second stage of DACUM training in Ohio at the end of this month.

M. Tsou asked the info about those seven peoples who will attend to the DACUM. J. Johnson stated that all those people come from public organizations. He is trying to invite some people from private industry.

Action: The DACUM workshop will be held on January 13 & 14, 2005. The location is the Holiday Inn at Mission Valley. All members are welcome to attend this meeting.

J. Johnson will give Ming a list of participates of DACUM workshop. He will verify that the individual companies on the list provided by M. Tsou have been invited to the workshop. He will send members the copy of DACUM summary. He will add the three San Diego City Schools faculty members who attended today's meeting to the contact list.

IX. NATIONAL VISITING COMMITTEE MEETING

J. Johnson stated that five high-profile people, two from Redlands, two from Colorado, and one from LA are part of our NSF National Visiting Committee.
They are:
- o Dr. Joseph J. Kerski, Education/GIS Geographer from US Geological Survey
- o Dr. Karen K. Kemp, Director of the International Masters Program in GIS from the University of Redlands

- o Dr. Arthur Getis (Emeritus), Professor of Geography at SDSU
- o Ann B. Johnson, Higher Education Manager from ESRI
- o Warren Roberts, GIS department from Rio Hondo College

We will receive their input and feedback. We will share what we are doing with them. These committee members will serve for three years. This will be one of the three annual meetings.

Action: The National Visiting Committee Meeting will be held on March 24 & 25, 2005 at Mesa College. They will also visit SDSU and High Tech High.

M. Tsou will only come to this meeting on the morning of March 24 (Thursday) due to prior commitments.

X. QUARTERLY PROGRESS REPORTS DUE DECMEMBER 31, 2004

J. Johnson asked M. Tsou if he can give him the quarterly progress report which is due at Dec. 31, 2004. This is not the formal report for the National Committee.

Action: J. Johnson suggested that the meeting minutes might be useful for compiling quarterly progress reports.

XI. SCHEDULE NEXT MEETING

Action: The following meeting has been scheduled:
Steering Committee: January 24, 2005 9:30am – 11:00am at District Offices, 3375 Camino Del Rio S

XII. GPS HARDWARE & SOFTWARE

J. Johnson introduced two types of GPS units. One is Trimble GeoXT, which costs over $2000 and the software costs an extra $1000. This equipment is used by industry technicians to acquire precise GPS data. Another consumer-grade unit which costs $100 was demonstrated. This consumer-grade unit has lower accuracy, but it is good for teaching students how to use GPS equipment in class.

M. Tsou introduced a $3000's GPS solution. It's HP PocketPC with ESRI ArcPad software and a Wi-Fi Bluetooth GPS Receiver. This equipment has high accuracy and has cable connectivity for other peripherals so users can connect it to a laptop and download data. More details are available at
http://map.sdsu.edu/mobilegis/

Action: J. Johnson and M. Tsou will identify what kind of GPS hardware we are going to use in this project based on school teachers and students' needs. We also need to create a module teaching students how to use GPS equipment.

XIII. DISTRIBUTION OF EDUCATION BOOKS & MATERIALS

Six books were distributed and were provided by ESRI:
1. GIS for Everyone
2. Community Geography – GIS in Action
3. Community Geography – GIS in Action, Teacher's Guide
4. GIS in Schools
5. Mapping Our World – GIS Lessons for Educators
6. ESRI Map Book, Volume Nineteen

One CD:
GIS for Schools and Libraries, Version 5

XIV. ADJOURNMENT

The meeting was adjourned at 13:00.