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Geospatial Data Computer-Based Training

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Introduction

The U.S. Army Corps of Engineers uses geospatial data in all facets of its mission. At present, the geospatial data is not properly documented or managed and the potential loss of information is great. Engineering Division of Headquarters, U.S. Army Corps of Engineers (HQUSACE) is working toward assisting USACE elements with geospatial data management and documentation via the Federal Geographic Data Committee (FGDC) Content Standard for Geospatial Metadata. Metadata is the documentation of the data that describes the accuracy, content, applicability, and distribution information about the geospatial data.

To facilitate the creation of metadata, HQUSACE developed a training program to teach USACE personnel the metadata standard. This program was successful, but expensive due to travel requirements of the instructors; and many of the employees who needed the training were unable to attend because of scheduling conflicts. To make the training available to a wider audience, ERDC developed a computer-based training module.

The module covers several topics related to geospatial data such as metadata, standards, and the geospatial

data clearinghouse. The module is located on the USACE Geospatial Data server at <http://corpsgeo1.usace.army.mil> and is available free to any USACE employee or contractor.

Development Background

The program was developed with Macromedia Authorware 5* in Windows NT/95 environments. It allows developers to quickly and easily create media-rich training programs. Adding sound, digital movies, or high-resolution graphics is done by dragging and dropping icons to the flow-chart window. The development process is very intuitive and extremely powerful. One key feature of Authorware is its built-in programming language that allows users to add complicated features, such as video and audio, to the project.

This module was designed for use over the Internet. It is located on the USACE Geospatial Data server; people can access it by using their web browser. To run the module, the user needs to install an Authorware plug-in. The plug-in is available for download along with the course module from the USACE Geospatial Data server.

* For more information on Authorware 5 visit www.macromedia.com

User Interface

The user interface has a simple design. Each screen within the module is in the same format regardless of what section you are in or what feature you are using. Each screen has black top and bottom borders. Within the top border is the page's title. Within the bottom border is a set of buttons applicable to that screen. The content is displayed in the middle of the screen. Links, supplementary information, and graphics are included in the content section.

The user begins the training at the main index, which allows access to each section. The user may proceed through the lessons linearly or may skip around to any desired section. Each section is clearly marked with an opening page that introduces the lesson and displays important concepts that will be introduced. Each section ends with a special page that lets the user know the lesson is complete; important terms are reiterated.

The user's main control functions are located on buttons at the bottom of the screen. The user may proceed to the next screen via the "Next" button. If the user is at the last page of a section, pushing "Next" will display the first page of the next section. "Prev" allows the user to go back to the previous page in the section. Clicking on "Index" will take the user back to the main index of sections. "Jump to Page" allows the user to jump to any page within the current lesson. "Quit" allows the user to quit the program at any time.

The content section of each page contains many different types of information. For example, the most common type of page will contain black text with, perhaps, a graphic or two. Special types of text allow the user to access more information. World Wide Web links are commonly found within the content section. Also, the user can click on important terms

to bring up definitions. Content Standards for Digital Geospatial Metadata (CSDGM) examples can be displayed as well. Hot links to different parts of the module are also included.

Many functions can be accessed in a number of ways. For example, the module makes use of the menu bar and has a few features that can be accessed via menus. The user can open the "Jump to Page" screen that provides a connection to any page within the entire module. Also "Next" and "Prev" are available within the menu system. The module also makes wide use of keyboard shortcuts for various functions. The user should consult the help system for specific keys.

The module comes with a complete help system that helps the user become acquainted with the interface. Help screens can be accessed via the menu system.

Conclusion

The metadata computer-based training course is the first of many courses planned for deployment via the Internet and available at no cost to USACE personnel. As the program matures, the number of modules will increase, exams and self-study quizzes will be developed, and the user will be able to apply for continuing education units through the University of Illinois.