



IDIMS Newsletter

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ESL INCORPORATED • A SUBSIDIARY OF TRW INC.

April 1980

1980 USERS GROUP MEETING

Las Vegas, Nevada is the site of this year's Third Annual IDIMS Users Group Meeting, scheduled for May 15-16. EG&G Aerial Measurements (one of our IDIMS installations) is the host. The two-day affair will be held at EG&G's facilities, located next to the airport. All of our IDIMS installations have been invited to send representatives and give presentations. Vendors of IDIMS components are also invited.

On the agenda are presentations by IDIMS users on various applications and techniques; talks on the direction of image processing technology development at ESL; discussions on the support of IDIMS facilities by ESL and other vendors, and a tour of the

EG&G facilities that includes a demonstration of their image processing applications and capabilities.

EG&G has arranged for special rates for attendees at one of the better hotels on "the strip." If you are interested in attending and would like assistance in obtaining accommodations, please call Mary Mattson at (408) 738-2888 X5553. (The reservation deadline for the special hotel rates is April 30.) Mary is also your contact for questions about the meeting or related activities.

Hope to see you there!



IDIMS users listening to a presentation at the 1979 IDIMS User's Group Meeting, held at Ames Research Center in Sunnyvale, California. Will you be in the 1980 audience?

IDIMS GOES INTERNATIONAL

ESL's third generation Interactive Digital Image Manipulation System is now being selectively offered to international organizations needing image analysis and data exploitation systems. The major thrust has been in association with the growth of LANDSAT downlink terminals and the increased volume of remote sensing applications using aircraft platforms and existing visible and infrared satellite sensors. The program's first accomplishment is an IDIMS 3 system for the Technical University of Denmark.

ESL/CI SYNERGISM

The international program was developed in early 1979 when ESL and TRW Components International Inc. (CI) managers found their LANDSAT activities to be very synergistic. CI headed TRW's involvement in the Japanese LANDSAT terminal's design, development, and implementation. They also sponsored TRW's design of a LANDSAT correction and data distribution system. The design has since become the EDIPS at EROS data center that produces the computer compatible tapes used by IDIMS. Other activities have given CI the business experience needed to properly serve international customers, a capacity that ESL was just beginning to develop.

BASED ON HP 3000

The basic system is built on the Hewlett Packard HP 3000 Series III computer and its peripherals and has the DeAnza IP5532 color processor and display units with three 512 X 513 image planes and four similar sized graphics overlay planes. The run-time software library includes the 4.21 release of IDIMS and the necessary HP software modules.

The most critical element for success with international IDIMS is insuring that vendor support is available and arranged for the final in-country site. All parties are agreed that proper support is a mandatory condition prior to sale. This criteria has lead to several "no bids;" however, the quoting activity steadily increases as word of our program is circulated.

The managers of the program are Norm Lyon at ESL and Rod Chatt at TRW CI. The program is organized into the system build phase (which results in a factory demonstrated IDIMS-3 system), the training phase (which can provide both operation and main-

tenance courses for the end-users), and the installation phase (which accomplishes final site installation, re-acceptance, and initial start-up support). Each phase is available to TRW CI as a standardized activity and also can be modified by re-bid to give CI flexibility in matching the international customer and contractual requirements. The standard approach minimizes risk, and modifications are examined to insure control of risks.

In most cases ESL passes inquiries to CI along with critique of the technical requirements indicated. CI then assesses the international business factors and may render a quote. ESL may quote independently or obtain other representation, but has seen no need to do so since the inception of this program with TRW CI.

. . . FIRST DELIVERY

The delivery of an IDIMS III to the Technical University of Denmark in August will be ESL's 22nd system installation and our first under the joint TRW/ESL International Program. The system will support remote sensing applications for the University's Electromagnetic Institute. The university and Professor Preben Gudmandsen of the institute are well known leaders of the European Association of Remote Sensing Laboratories — a part of the European Space Agency. The institute will use data types such as LANDSAT, NOAA, NIMBUS, and Passive Microwave to investigate oceans and ocean ice effects in the North Atlantic environments and surrounding Greenland. The IDIMS III system will be staged and tested at ESL and demonstrated to its new owners in June. A training phase will precede the August delivery to its site outside Copenhagen, Denmark. Professor Gudmandsen and E. Lintz Christiansen will manage the preparation for installation and the activities of the installed system. They regret that they will not be able to attend this year's User Group Meeting, but plan to actively participate in the future.

IDIMS AND MPE IV SUPPORT UPDATE

■ A new version of the HP operating system, due to be released later this year, is expected to force a rewrite of all ESL-supplied device drivers. Although not much information is available on the features of the new release — called the MPE IV — it is known that the internal tables dealing with I/O have been altered. Because the functioning of IDIMS on the HP-3000 and HP-30/33 is closely tied to information within the operating system on the computer, any alteration of the operating system requires a subsequent alteration of the IDIMS system. Until ESL is fully cognizant of all the modifications within the new release, we will not be able to determine completely its effect on IDIMS (or let you know when the modified IDIMS will be released). However, it does appear that the magnitude of the upgrade will be similar to the upgrade of MPE II to MPE III. We will make every effort to pass on any new information on the MPE IV as we receive it.

■ The IDIMS Product Support Department has expanded the Quality Assurance program for standard IDIMS software releases to make this program as relevant as possible to our customer's actual image processing environment. As part of this effort, we have requested that IDIMS customers provide ESL with the following:

1. A list of those functions that each customer considers to be critical to their operation.
2. Copies of command files or session histories (if available) that individual customers may use to test these functions.
3. Copies of the imagery data to which these functions are applied.

Standard IDIMS software is distributed to customers under contract to ESL only after it has successfully passed our rigorous in-house QA program. This program tests every IDIMS and ASAP function that can be exercised on ESL's IDIMS facilities. In addition, this program defines the functional capabilities that ESL will support under a standard IDIMS support agreement.

Bob Ferrie is the quality assurance engineer for the IDIMS Product Support Department at ESL. He is responsible for gathering the test data requested

from our customers and folding it into the QA program. If you have any questions or comments concerning the QA program, feel free to call Bob at (408) 738-2888 X5526.

■ The IDIMS software programming community set as its most immediate goal the task of making the next IDIMS release, 4.25, a very stable and reliable software package. Our newly defined quality assurance procedure has worked very well in fine tuning this next release. Many of the system, display, and ASAP subsystem problems were addressed. The new "QA" procedure, transparent to the IDIMS user community, finds and resolves software problems before they reach the analyst. For every formally reported software problem, there is one unreported problem resolved.

There have been several enhancements to the system software. Included in these enhancements are the capabilities of IDIMS sites to define their own welcome message and header information for IDIMS related line printer output. There are many repairs and enhancements including:

PLOG
PEXP
POWER
CLASFY
EXPFILT
TSSELECT
TSDEFINE
ZIP

and utilities:

ALLCOORD
DICOTAPE
LARSTAPE

The IDIMS support staff has initiated another mode of communication with the IDIMS user community. This is the "IDIMS Software Bulletin." This mode of communication is meant to share information concerning IDIMS software with all analysts. When we find problems or functional limitations, an immediate effort is made to transmit this information to you. We are keeping a file of all bulletins. So, if you haven't received a copy of a specific bulletin, let us know its number, and you will be sent a copy.

Dave West

BITS & PEOPLE

IDIMS Plus

ESL has just negotiated a contract to deliver a Digital Exploitation System based on our current IDIMS technology to a government customer. This will be the most sophisticated image processing system ESL has developed. The system includes an HP-3000 Series III with 1 MB of memory, an ASAP subsystem with DMIC, two high speed tape drives, and three image displays. The new specially-designed displays are based on the De Anza IP-5532. Each display will have three 512 x 512 x 16 bit image memories and eight graphic memories. Delivery of the system will occur in phases with the system completion scheduled for one year.

EROS Upgrade

The EROS Data Center at Sioux Falls, South Dakota is currently upgrading their HP-3000 CX-based IDIMS system, used to support principal investigator programs and techniques development efforts. This effort includes an upgrade to an HP-3000 Series III with a full megabyte of main memory and a dual-density high-speed Telex tape subsystem. The existing peripherals and a new Comtal Vision I display will be included in the final upgraded system.

Anchorage System

The Department of the Interior's system installation was completed in March at their Anchorage, Alaska location. The IDIMS III/ASAP system will be managed by Dave Carneggie and used to support various land use and off-shore inventory surveys. The system configuration includes an ESL Array Processor subsystem, two high-speed, high-density Telex tape drives, a De Anza IP-5532 display, and a GES subsystem including a Tektronix terminal and Talos digitizer for geographic data base work. Donald Orr was the BLM technical coordinator for this installation. Chuck Nelson was on-site monitor for installation and start-up.

EG&G Upgrade

An increasing workload generated by the Department of Energy motivated the EG&G group under Bill Ginsberg to upgrade its HP-3000 Series III IDIMS. The upgrade includes a Dual Memory Interface for their ASAP (using two 16-K bulk memories) and a memory upgrade to 640 K-bytes for their 21MXE. EG&G is also adding a Telex tape drive to the system and a second display -- a De Anza IP-5000 Series with a video processor and four image planes. Upgrading is expected to be complete around the first of May.

IDIMS



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