NIST | **UNITED STATES DEPARTMENT OF COMMERCE**
National Institute of Standards and Technology
Gaithersburg, Maryland 20899

May 15, 1991

TO: X3T9.2 Membership

FROM: Fernando Podio
        Project Leader,
            Optical Media Research,
        Computer Systems Laboratory,
        Data Storage Group

SUBJECT: Workshop on monitoring and reporting techniques for error rates and error distributions in optical disk systems.

In response to the needs of Federal Government agencies, the Computer Systems Laboratory of the National Institute of Standards and Technology (NIST) is hosting a workshop on monitoring and reporting techniques for error rates and error distributions in optical disk systems. A workshop announcement is attached.

Most optical disk subsystems have no provision for reporting information through the interface to the host on error rates, error distributions, etc. However, this information would be of great use to data managers. Error rate information would include parameters such as the total number of correctable errors, maximum number of errors per interleave versus time, and the location of these errors. This information would provide data managers with a better understanding of the status of their data and indicate when it is prudent to recopy the data onto new media. Monitoring the status of data recorded on optical media is particularly important because of its anticipated use in archival applications.

The workshop will be on August 5th, in Colorado Springs, CO, in conjunction with the meeting of Technical Committee X3B11 (Optical Digital Data Disks) which takes place in the same location August 6th to 8th. The workshop will identify the state of the art on error rates monitoring and reporting techniques, and promote discussions on possible future implementations. One discussion item will be the feasibility of forming a Government/industry working group to achieve some level of consensus across industry on future error reporting techniques. I believe that this would increase the user confidence in the utilization of optical systems. The success of this effort depends in large measure on industry support.

253

Most optical disk drives use the SCSI interface, therefore this work may be of interest to X3T9.2 members. Although SCSI-2 has provisions that would allow the transfer of some error information through the bus, industry consensus on the subject may result in material to be incorporated in SCSI-3.

I would like to invite any interested party to participate in this workshop. If you wish to make a presentation at the workshop please inform me.

If the result of the workshop indicates sufficient interest, I intend to organize a working group with technical representatives from industry and government to develop consensus guidelines on future error monitoring and reporting techniques.

In order to reduce meeting costs, I expect to convene the working group meetings during the same week as the X3B11 meetings. The result of the working group will be a NIST publication. I expect that some of the work can be done through the mail. Your company's participation in a possible working group would be a major contribution to the success of this activity.

Another aspect of this program includes our putting together a demonstration platform at NIST (in Gaithersburg, MD) to show the state of the art in error rates monitoring and reporting techniques, and the present interface capabilities. The current available hosts are a Compaq 25e computer and a SUN SPARC Station IPC, both with SCSI interfaces. I invite contributions of drives and software which demonstrate error reporting capabilities.

You can contact me at 301-975-2947. My FAX number is 301-590-0932.

Workshop

on

Monitoring and Reporting Techniques for Error Rates and Error Distributions in Optical Disk Systems

Hosted by NIST

Date: 5 August 1991   Time: 0900-1700

Location: Colorado Springs Marriott
           5580 Tech Center Drive
           Colorado Springs, CO
           USA

PURPOSE: Identify the state of the art on error rates monitoring and reporting techniques in optical disk systems and promote discussions on possible future implementations.

Preliminary Agenda

1. Welcome and Introductions

2. Overview and Current Status

   Error Measurement Capabilities on Current Logic Chips

   Error Recovery Techniques

   Capabilities of the Drives/Interfaces to Transfer Information

3. Plans for an Industry/Government Working Group

   Feasibility

   Goals and Scope of Work

4. Adjourn   255

Registration Form

Workshop
on
Monitoring and Reporting Techniques for Error Rates and Error Distributions in Optical Disk Systems

Please fill out the information requested below and return it to:

> Fernando Podio
> NIST
> Computer Systems Laboratory
> Bldg. 225, Room A61
> Gaithersburg, MD 20899
> Phone No.:   (301) 975-2947
> FAX No.:   (301) 590-0932

1. Full Name_____

2. Company/Affiliation _____
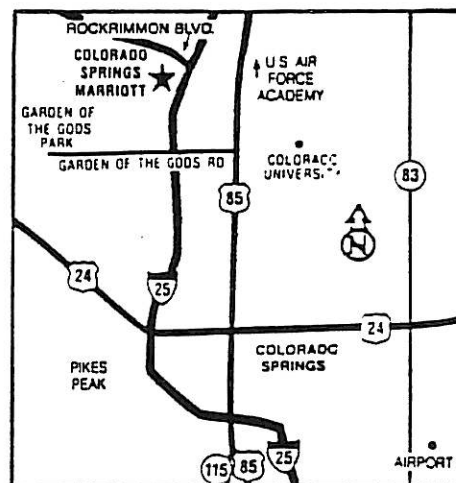
   Address   _____

                   _____

                   _____

   Telephone: _____

   FAX: _____

Please register before July 15th.

256

COLORADO SPRINGS Marriott.

5580 Tech Center Drive, Colorado Springs, CO 80919 • (719) 260-1800

LOCATION	Conveniently situated just off of I-25 in the Colorado Springs Technology Center, 2 miles south of the U.S. Air Force Academy and just minutes from scenic Garden of the Gods.
310 GUEST ROOMS AND SUITES	Deluxe guest rooms. Concierge level and eight suites, in-room movies, free HBO, cable, CNN and ESPN, remote control television, alarm clocks, AM/FM radios. Non-Smoking and Women's Executive rooms.
RESTAURANTS/ LOUNGES	*Gratzi's Seafood Grill*—Serving breakfast, lunch and dinner, offering pasta and seafood specialties; *Chats*—Enjoy an intimate atmosphere with fine wines by the glass; the popular *Cahoots Lounge*—Open seven nights a week, high excitement, high energy is the format.
RECREATIONAL FACILITIES	Indoor and outdoor pools and whirlpools, exercise room, sauna, tennis and golf nearby.
SERVICES	Commercial airport limousine, room service, gift shop, valet/laundry service, free parking, free ice, secretarial service, soft drink machines, safety deposit boxes, photocopy service.
SPECIAL PLANS	Escape, Honeymoon, Military, and Two for Breakfast plans. Advance reservations required on a space available basis.
PLACES TO SEE/THINGS TO DO	U.S. Air Force Academy, Garden of the Gods, Cave of the Winds, U.S. Olympic Training Center, ProRodeo Hall of Champions, Flying W Ranch, Pikes Peak Cog Railway.
DIRECTIONS	From Colorado Springs Municpal Airport take Fountain Blvd. west to Circle Drive South, to I-25 North, exit 147 Rockrimmon Blvd., left at Tech Center Drive.

257