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I N D C **INTERNATIONAL NUCLEAR DATA COMMITTEE**

Workshop on Advanced Nuclear Data Online Services

Summary Report

IAEA Headquarters, Vienna, Austria
29 November - 3 December 1999

O. Schwerer (ed.)

September 2000

IAEA NUCLEAR DATA SECTION, WAGRAMER STRASSE 5, A-1400 VIENNA

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September 2000

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Summary Report

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Abstract

This report summarizes the Workshop on Advanced Nuclear Data Online Services held in Vienna, Austria, 29 November to 3 December 1999. It includes the main topics of the agenda, the list of participants, and general comments and recommendations.

September 2000

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Workshop on Advanced Nuclear Data Online Services

IAEA, Vienna, 29 November to 3 December 1999

Introduction

Background

In December 1997, a first IAEA workshop on nuclear data online services was organized with the objective to encourage the wider and more effective use of the Agency's Internet-based nuclear data services by working with nuclear data specialists from developing countries with little online experience. The 1999 workshop addressed this topic from the viewpoint of the Internet technology as of 1999 and of users who have already had some experiences with online nuclear data retrievals. The workshop program combined topical lectures, practical demonstrations and hands-on exercises.

Objectives

The objective of the Workshop was to acquaint the participants with the Internet technologies, nuclear data libraries and retrieval methods necessary to obtain the required nuclear data information for their field of application, and thereby to encourage the wider and more effective use of the IAEA's Internet-based nuclear data services which are directed primarily to users from developing countries. A main topic was demonstrations and practical exercises with the Web-based major nuclear databases. These were to be supplemented by lectures and demonstrations on topics such as: nuclear data libraries in general, other relevant online information resources, related media such as CD-ROM, and others. Furthermore, the workshop was used to obtain feedback from the participants about their previous experiences with online nuclear data services.

Main Elements of the Program

- Lectures on nuclear data types and libraries available from the IAEA; various types of Internet services and how they are accessed; bibliographic and other relevant services available from various sources
- Brief presentations by participants on their nuclear data needs and the main relevant working areas of their home institutes, as well as participants' feedback on their experience with online nuclear data services
- Demonstrations of a range of IAEA nuclear data services and of selected databases available on CD-ROM; selected examples from other relevant Internet sites
- Guided exercises on retrieval strategies and concrete examples of complex retrievals from the main databases such as ENSDF, NUDAT, EXFOR, ENDF, NSR, CINDA and others

Participation

14 participants from 13 developing countries were selected from among more than 30 applicants. Lecturers included 2 experts from the National Nuclear Data Center in Brookhaven, USA, and the OECD NEA Data Bank in Issy-les-Moulineaux, France, respectively, and several IAEA staff members.

**Workshop on Advanced Nuclear Data Online Services
IAEA Headquarters, Vienna, 29 November to 3 December 1999**

Room F-0534 (Computer Training Room II)

Program Schedule

Morning sessions: 9 a.m. to 12:30 p.m. (except Monday); Afternoon sessions: 2 p.m. to 5:30 p.m.

All durations are approximate. Morning and afternoon sessions will each include a (coffee-) break of about 15 minutes.

Monday	Tuesday	Wednesday	Thursday	Friday
9:30 Opening and announcements (30 min)	9:00 Nuclear Structure Databases I (<i>Burrows</i>) (Wallet Cards, NUDAT, MIRD, ENSDF) (1 hr 30 min)	Introduction to INIS (<i>V. Galatanu, B. Negeri, A. Kist, INIS Section</i>) (1 h 30 min)	Scientific Resources on Internet (<i>E. Price, VIC Library</i>) (30 min)	Other interesting websites (<i>Herman</i>) (30 min)
Introduction to Nuclear Data Libraries and Online Services (<i>Schwerer</i>) (1hr 45 min)		Participants' Presentations, Part II (1 hr 45 min)	Reaction databases I (<i>Schwerer</i>) (1 h 45 min)	Introduction to NEA-DB services (<i>Kellett</i>) (30 min)
			Introduction to the Graphics tool ZVView (<i>Zerkin</i>) (2 h 15 min)	LINUX (<i>Herman</i>) (30 min) Technical Cooperation Nuclear Data Projects (<i>Paviotti</i>) (20 min) Free exercises (1 hr)
LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
Internet Terminology (<i>Burrows</i>) (1 hr)	Nuclear Structure Databases II and NSR (<i>Burrows</i>) (2 hr 15 min)	Reaction databases II (<i>Schwerer</i>) (2 h)	Specific retrieval exercises (<i>Schwerer</i>) (1 h 45 min)	Closing discussion (1 hr 30 min)
A Guided Tour through the IAEA-NDS website (<i>Schwerer</i>) (30 min)		Free exercises (1h 15 min)		Free exercises (1 h 30 min)
Participants' Presentations, Part I (1 hr 45 min)	Participants' Presentations, Part III (1 hr)			

General Comments and Recommendations

The workshop was attended by 14 participants from 13 developing countries, 2 external lecturers and several IAEA staff members (see List of Participants and Workshop Staff). The selection of participants was done in consideration of their area of work and use of nuclear data, access to the Internet and some work experience with it, and considerations of geographical distribution. Participants who did not attend the 1997 workshop, in particular those who had applied but could not be accommodated, were given priority.

The background and interests of the participants were, as expected, rather diverse. But while the heterogeneity of the participants' computer experience presented occasional problems at the first online workshop held in 1997, at the present workshop all participants had enough computer experience and nuclear data background to take full advantage of the lectures and exercises.

In a closing discussion at the end of the workshop, the participants were given the opportunity to present their assessment of the workshop and their needs and experiences for obtaining nuclear data. These comments may be summarized as follows:

- The workshop itself was found to be quite useful and this activity should be continued in the form of future workshops to give more scientists this opportunity.
- The importance of having enough time for hands-on exercises can hardly be overestimated. Future workshops should give even more emphasis to both "guided exercises" (with specific retrieval problems to solve) and time to try retrievals of the participants' own interests.
- Because of the technical limitations of the Internet as of today, local nuclear data networks, based on databases on CD, should be supported.
- New software for graphical representation of nuclear data was met with particular interest.
- It was noted that access to the IAEA Nuclear Data Services in Vienna from Latin America is still very unsatisfactory, and therefore the Agency project of a mirror server in Brazil is highly welcomed.
- It was suggested that for a next workshop on this topic, the participants should be sent the WWW addresses and basic information on the databases in advance, to enable them to better familiarize themselves with the main topics before coming.

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See also separate list of Workshop Staff

Workshop Staff

Scientific Secretary: Otto Schwerer

External lecturers: Thomas W. Burrows, Brookhaven National Laboratory, USA
Mark Kellett, NEA Data Bank, Issy-les-Moulineaux, France

IAEA lecturers: V. Galatanu, B. Negeri, A. Kist, INIS Section
E. Price, VIC Library
Victor Zerkin, NDS
Mike Herman, NDS
Vladimir Pronyaev, NDS
Raquel Paviotti-Corcuera, NDS

Workshop secretary: Monica Wirtz

Computer support: Kevin McLaughlin
Mark O'Connell
Liam Costello (DEC-AlphaServer system manager)
Computer Section staff on floor F05

NDS Head Office: Douglas W. Muir (Section Head)
Elisabeth Baumgartner (Secretary)

Participants' Presentations

FUGA Perparim Acad.of Sciences, Tirana, Albania	Nuclear data measurements and evaluation activities at the Inst. Of Nuclear Physics, Tirana, Albania
HARUN-AR-RASHID A.K.M. Igashira Laboratory, Tokyo, Japan	Study on neutron cross sections of Er isotopes
GOULO Valery Sosny Center, Minsk, Belarus	LAN and information system of the Sosny Center (Minsk) and the nuclear data requirements for R&D
CABEZAS SOLORZANO Roberto Inst.de Pesquisas Energeticas e Nucleares, Sao Paolo, Brazil	Nuclear data processing and needs at IPEN
GE Zhigang and SUN Zhengjun China Nuclear Data Center, Beijing, China	The Online Service and Computer Network at CNDC
LOPEZ ALDAMA Daniel Center of Nuclear Technology, La Habana, Cuba	Importance of the nuclear data services to prepare data bases for applications
SRIVENKATESAN R. Bhabha Atomic Research Centre, Mumbai, India	Interactions with IAEA-NDS site from BARC, India
BEN-ZION Shabtai Tel-Aviv Univ., Israel	Radio-Isotopes Section, Radiation Safety Division, Ministry of the Environment, Israel: A general review, and future developments
MATASI Wellington Manyonge Egerton Univ., Njoro, Kenya	Nuclear data and charge transport in radiation detectors
SALAHUDDIN Asif Pakistan Atomic Energy Commission Islamabad, Pakistan	PINSTECH Research Activities and Need for Online Nuclear Data Services
FRANKLYN Christopher B. Atomic Energy Corporation Pretoria, South Africa	Incorporation of nuclear data libraries for neutron activation analysis and fast neutron scattering
MEDINTSOV Vladimir Slavutitch Laboratory, Ukraine	Slavutitch Nuclear Data Base: status, tasks, perspectives
SAJO-BOHUS Laszlo Univ. Simon Bolivar, Caracas, Venezuela	Ongoing nuclear reaction studies in collaboration with Florida State Univ., Birmingham Univ., and Univ. of Padova

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Online: TELNET or FTP: iaeand.iaea.org
username: IAEANDS for interactive Nuclear Data Information System
usernames: ANONYMOUS for FTP file transfer;
FENDL2 for FTP file transfer of FENDL-2.0;
RIPL for FTP file transfer of RIPL;
NDSOVL for FTP access to files sent to NDIS "open" area.

Web: <http://www-nds.iaea.org>
