NJOY Info on Internet

NJOY Workshop and User Group Meeting
15 May 2001

NJOY Versions

- **The versions distributed by RSICC to the NEA Data Bank are as follows:**

- **PSR-0480 NJOY-99** (up 50 @ t2.lanl.gov) - 09.04.2001
- **PSR-0368 NJOY-97** (up 115 @ t2.lanl.gov)
- **PSR-0355 NJOY-94** (up 105 @ t2.lanl.gov)
- **PSR-0171 NJOY-91** (up 118 @ t2.lanl.gov)

- Older versions are kept as they may be needed to reproduce processing carried out in producing application libraries in the past, (QA - tracing)

- The next version will be **NJOY-2001**

Distribution of NJOY

- **Distribution** of NJOY versions by the NEA Data Bank to (number of establishments)

- NJOY99: 48
- NJOY97: 82
- NJOY94: 75
- NJOY91: 68

Links to NJOY Web Pages and Sites

NJOY: Data Processing System of Evaluated Nuclear Data Files in ENDF format.

- NJOY official Web Site
- Understanding NJOY
- NJOY99 Issue Tracker
- NJOY Listserver Archive (NEA Data Bank)
- NJOY Notebook (RSICC)
- Proceedings of the Seminar on NJOY and THEMIS 1989
- ProceedingsNJOY91 & Themis Seminar 1992
- NJOY User Notes Archive (1991-2000)
- NJOY-2001 Workshop and User Group Meeting, 15 May 2001

last updated: 9 April 2001

NJOY 99 Issue Tracker

This is the issue-tracking page for Vers. 99 of the NJOY Nuclear Data Processing System. Issues are entered by the developer (ryxm@lanl.gov) in response to postings to the NJOY list (njoy@nea.fr), items reported directly by email, observations by NJOY users at Los Alamos, problems noted by the developer, or new ideas from the developer. The summary table includes an issue number, issue status, and issue title. Click on the issue number to jump to a more detailed description of the issue and its resolution, if any. Issue status can be S (submitted), P (pending, meaning there are some comments posted on the problem), or R (resolved, meaning that there is an NJOY update that handles the issue).

Issue Summary

Number	Status	Title
81	R	Incorrect initialization in HEATR
82	R	Allow more Legendre terms in HEATR
83	R	Vertical segments in File 6 distributions
84	R	Incorrect law=61 distributions
85	R	More compact charged-particle energy-angle distributions
86	R	Possible infinite loop in PLOTR
87	R	MT=0 in ACER message
88	R	Interpolation for JENDL-3.2 U-235 nubar

Issue Tracker - Cont.

104	R	PDF same as CDF for law-7 charged-particle emission
105	R	Problems processing recent EFF-3.0 Be-9 evaluation
106	S	Make MT=875-890 available to MCNP
107	R	Problems with multigroup runs for 150 MeV data
108	S	ACER has problem opening some scratch files under Forte6
109	S	Problem with 181-point tabulated angulur distributions in MF=4
110	R	GROUPR error when running with 300 gamma groups
111	R	Failure for Pb-208 from ENDF/B-VI Release 6
112	R	RECONR fails with 100 GeV photoatomic data
113	R	Charged-particle heating zero for some parts of Be-9 ACE file.
114	R	ACE interpolation-law printout
115	R	Excess timers in PURR listing.
116	R	Heating zero at first energy point in ACE file.
117	R	Allow for larger ACE files
118	R	Length of some ACE thermal files too large by one word
119	R	ACE parameter LANDH wrong for Be-9
120	R	Problem with ACE law3/33 for isomeric targets
121	R	Error message for JENDL photonuclear evaluations

Issue Descriptions

Number	**81**
Status	Resolved
Submitted	23 Jul 2000
By	Margarete Mattes (mattes@ike.uni-stuttgart.de)
Title	Incorrect initialization in HEATR
Details	To process Ni-58 of JEFF-3.0, I had to make a small correction....
Comments	The parameter ir was being initialized incorrectly.
Impact	Unknown beyond the case cited.
Resolution	Fixed in up15 (31 Jul 2000).

Number	**82**
Status	Resolved
Submitted	31 Jul 2000
By	Bob MacFarlane (ryxm@lanl.gov)
Title	Allow more Legendre terms in HEATR
Details	Saw a crash in heatr/h6ddx while testing the proposed JEFF-3T evaluation for Fe-56.

Archives of NJOY@WWW.NEA.FR

NJOY users

- Search the archives
- Send an email to the list at NJOY@nea.fr
- Request to subscribe NJOY-request@nea.fr (Please be sure to indicate your full name and address)

Discussion archives by month

- April 2001
- March 2001
- February 2001
- January 2001
- December 2000
- November 2000
- October 2000
- September 2000
- July 2000
- June 2000
- May 2000
- April 2000
- March 2000

Scope of NJOY Listserver

1. Exchanging relevant information on experience with NJOY (evaluated nuclear data processing system)
2. Reporting and documenting problems encountered with NJOY and proposing corrections
3. Reporting of experience on data processing methods other than NJOY for comparative purposes with NJOY
4. Reporting on application library generation with NJOY and their performance
5. Expressing wishes or needs for special developments in NJOY
6. Reporting bibliographic references related to NJOY and/or other processing codes

Excluded will be topics that are judged not relevant for evaluated data processing.

The official Website for NJOY can be found by accessing: NJOY site

List of NJOY User Group Notes

20 January 2000

Note: This archive was frozen on 20 January 2000. In March 2000 a listserver was set up that represents a new way of storing the notes of NJOY Users.

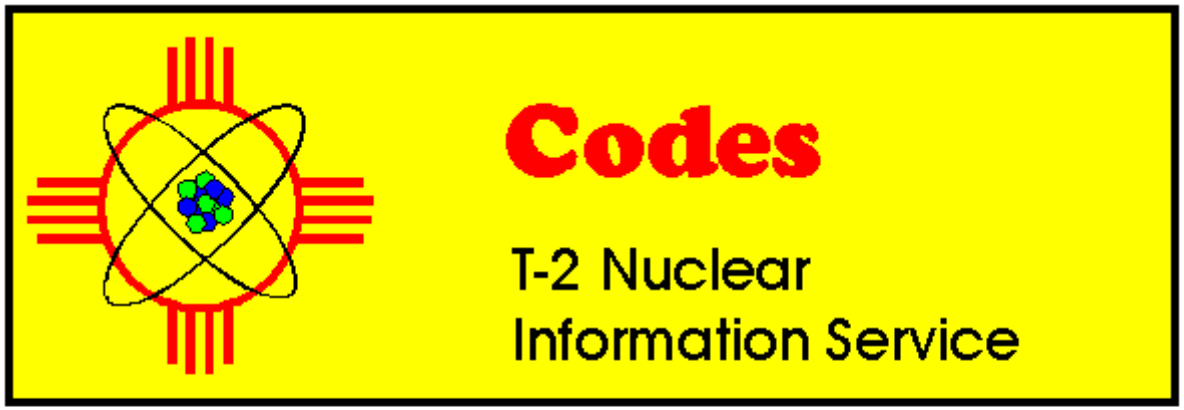
The notes contained herein, record the history of changes and discussions that have taken place over 10 years between the author and the users of NJOY. They should help identifying the reasons behind the changes, which are now included in the most recent version of NJOY.

1991 1992 1993 1994 1995 1996 1997 1998 1999 2000

Id.	Author: Title

1991

NJOY/NEADB-00	E. Sartori: The NEA NJOY User Group; It's Role and Working Method, 6 December 1991
NJOY/DEAN-00	C.J. Dean, C.R. Eaton: - Installation of NJOY89.62 in Double Precision on SUN4 Workstations, - Modifications to NJOY89.62 Made at Winfrith, September 1991
NJOY/PANINI-01	G.C. Panini: Corrections to NJOY-91.13 ENEA-Bologna, Italy - 4 November 1991



The computer codes available here are used by our Group for preparing nuclear data libraries for applications in nuclear technology and nuclear engineering (NJOY, TRANSX), for general data work (T2COMPARE, ZOTT), or for working with our Sun computers (Sun Stuff).

NJOY97

This section provides user support, such as code updates, for NJOY 97. It is a cleaned up version of NJOY 94.105 with both F77 and F90 compatibility. It has been explicitly double precisioned so as to run equally well on 32-bit and 64-bit machines. NJOY 97 runs on many different unix workstations, including linux, and we now have a DOS version also. For more information on the code, installation instructions, *etc.*, see Readme0. A tutorial on NJOY 97 is also available. *ryxm@lanl.gov*.

NJOY99

NJOY 99 is the latest release of the NJOY Nuclear Data Processing System. It is a cleaned up version of NJOY 97 with more progress towards Fortran-90 style block constructs, but it still contains lots of statement numbers! The bulk of the changes are in the ACER module to support high-energy cross sections, incident charged particles, and photonuclear data. These new features will be important for users of MCNP-4c (which will be available early in 2000) and MCNPX. This version has good portability between machines, and it has been tested thoroughly on Sun, SGI Origen 2000, Linux (g77 and Portland Group pgf90), and DOS (Lahey LF95 and Absoft f90). For more information on the code, installation instructions, *etc.*, see Readme0. This area is only to supply user support, such as updates and sample problem outputs. To obtain an official package of NJOY99 including the source, contact one of the code centers (RSICC, NEA Data Bank, *etc.*). *ryxm@lanl.gov*.

Index of /codes/njoy99

Name	Last modified	Size	Description
Parent Directory	19-Jan-00 15:35	-	
Issues.html	10-Apr-01 11:32	104k	
Issues.html.save	12-Feb-01 08:22	82k	
Readme0	22-Mar-00 10:56	32k	
Readme14	02-Aug-00 12:38	10k	
Readme17	02-Aug-00 12:37	12k	
Readme24	04-Oct-00 15:52	22k	
Readme32	05-Feb-01 11:20	20k	
Readme5	18-May-00 10:24	5k	
Readme50	10-Apr-01 11:39	26k	
Readme9	12-Jun-00 10:01	7k	
Userinp	19-Jan-00 15:35	216k	
ace07	10-Apr-01 11:51	1.1M	
ace07-0	19-Jan-00 15:35	1.1M	
ace10	10-Apr-01 11:51	604k	
ace10-0	19-Jan-00 15:35	604k	
ace13	10-Apr-01 11:51	2.3M	
ace13-0	21-Mar-00 14:06	2.3M	

Understanding NJOY

The NJOY Nuclear Data Processing System is used to convert evaluated nuclear data in ENDF format into forms useful for applications. As a bridge between physics and engineering, it is best used by people with some knowledge of things like nuclear reaction theory, resonance theory, or scattering theory on one side, and some knowledge of things like particle transport codes, reactor core calculations, or radiation medicine on the other. In this short course, we will introduce you to the NJOY system, give you a quick outline of the physics of nuclear data, and show you how some of the main applications in nuclear technology link to NJOY results.

Understanding NJOY uses online web pages to introduce you to the subject of nuclear data processing. Normally, you can just follow the NEXT links. To browse through the pages in other orders, use the INDEX links.

If you have an operating version of NJOY 97 and the appropriate data files, you can work through a set of EXERCISES designed to illustrate some of the important features of the code. To do the exercises in order, just follow the NEXT links. To browse through the pages in other orders, use the INDEX links.

NEXT EXERCISES INDEX

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28 March 2000 T-2 Nuclear Information Service *ryxm@lanl.gov*