

JANIS: NEA Java-based Nuclear Data Information System

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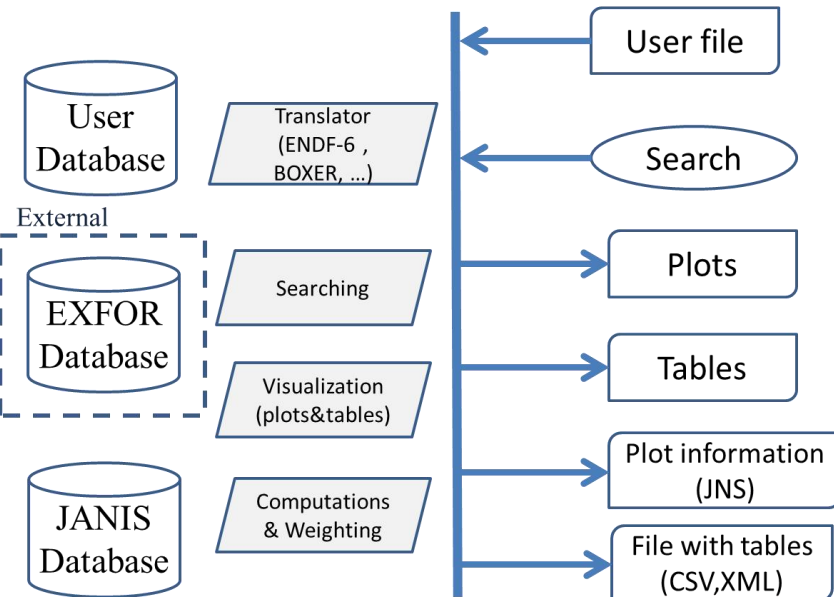
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ND2016 – International Conference on Nuclear Data for Science and Technology
11 - 16 September 2016
Bruges, Belgium

1. JANIS – Databases

- JANIS, a graphical interface giving access to (CINDA) - (EXFOR) – (Evaluated nuclear reaction and decay data) - (NUBASE)

Janis 4



Nuclear Properties	NUBASE-1997/2003/2012
Radioactive data	ENDF/B-VI.8/VII.0/VII.1 JEF-2.2, JEFF-3.1/3.1.1 GEFY-3.2/3.3/4.2/5.2 JENDL-4.0, JENDL-FPDD2000, JENDL/FPD-2011, JENDL/FPY-2011 TENDL-2010
Incident neutron data	EXFOR CENDL-2.1/3.1 BROND-2.2, *BROND-3.1 EAF-2007/.2010 ENDF/B-VI.8/VI.8-HE/VII.0/VII.1 FENDL-2.1/2.1MG, *FENDL-3.1b GEFY-3.2/3.3/4.2/5.2/5.3 IRDF-2002/2002MG, IRDFF-1.0/1.0640g, *IRDFF-1.05 JEF-2.2, JEFF-3.0/3.0A/3.1/3.1.1/3.1.2/3.2 JENDL3.3/4.0, JENDL-AC-2008, JENDL-FPY-2011, JENDL-HE-2007 RUSFOND-2010 TENDL2009/10/.../14/15 TSL-ENDF/B-VI.8/, TSL ENDF/B-VII.0, TSL-JEFF3.0/3.1
Incident gamma data	EXFOR ENDF/B-VII.0/VII.1 JENDL-PD-2004 TENDL2009/10/.../14/15
Incident proton data	EXFOR ENDF/B-VI.8/VI.8-HE/VII.0/VII.1 JEFF-3.1 JENDL-HE-2007 PADF-2007 TENDL2009/10/.../14/15
Incident deuteron & triton data	EXFOR ENDF/B-VI.8/ VII.0/VII.1 TENDL2009/10/.../14/15
Incident he3 data	EXFOR ENDF/B-VII.0/VII.1 TENDL2009/10/.../14/15
Incident alpha data	EXFOR JENDL-AN-2005 TENDL2009/10/.../14/15
Incident heavy particles, electron data, antiprotons, kaons(-,+), and pions(-,+)	EXFOR

*** Coming soon**

Fig. 1. Database, capabilities and input/output information flow in JANIS

2. JANIS – Integration NEA Tools

- Recent NEA software developments rely on JANIS features to access ND

2.1 JANIS – NDEC

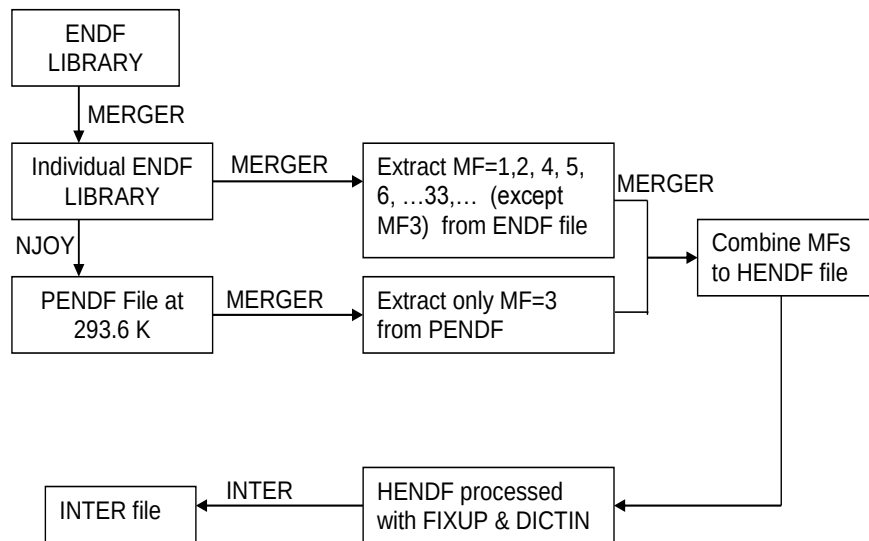


Fig. 2. Flowchart of processing JANIS database from ENDF tapes using **NDEC** tool (Nuclear Data Evaluation Cycle)
Ref. See in this conference, R026 (Tuesday 13)

2.2 JANIS – NDaST

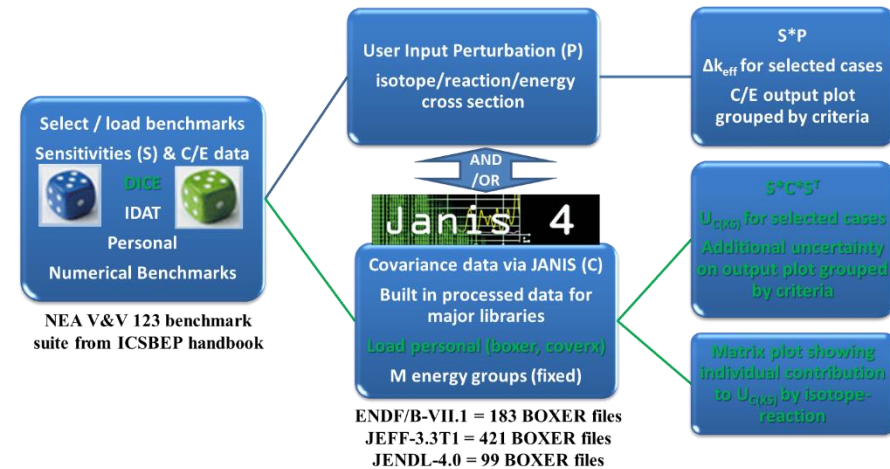
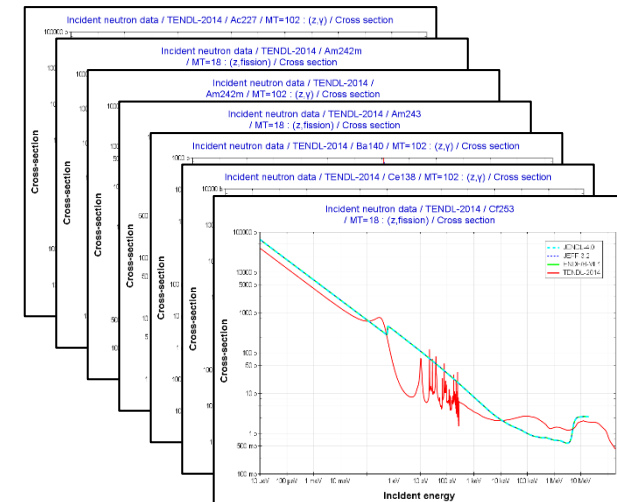


Fig. 3. Flowchart of **NDaST** Tool (Nuclear Data Sensitivity Tool)
Ref. See in this conference, S125 (Tuesday 13)

3. JANIS – Command line

- ❑ JANIS command line uses the basic syntax of the command line as:
 - ***“java -jar janis.jar <options>”***
- ❑ Command line argument uses JANIS identifiers (“-list” gives the identifiers that can be used). An example of command line to retrieve cross-section data in a table format:
 - ***“java -jar janis.jar -table NEA N JEFF-3.1.1 SIG U235 MT2”***
- ❑ The “-render” option to handle the conversion of JNS file into PNG graphics.
 - **JANIS** permits to save and restore the content of a renderer in an XML file (“JNS” file)
 - “JNS” is available through the menu “File> Save...” and “File> Open...”
 - **JANIS** allows automated plots generation through scripting via the command line execution:



“java -jar janis.jar -o FILE.png -render FILE.jns png 1024 768”