NJOY Status

A. C. (Skip) Kahler & R. E. MacFarlane

T-2, Nuclear & Particle Physics, Astrophysics and Cosmology Group

Theoretical Division

Los Alamos National Laboratory

CSEWG Meeting
November 2010



NJOY Status

NJOY99

- The historical code version. Originally released in 1999 with updates periodically published through the t2.lanl.gov web site.
 - Latest version, 99.336, released to the User community in early April.
 - Updated from 99.304.
 - Current in-house version is 99 347 and will be released later this month

NJOY2010

- A new code version, currently undergoing final testing and debugging.
- New User manual
 - Final draft has 26 chapters, is 737 pages long, contains 580 equations and includes 128 citations.
- "Processing ENDF/B-VII.0 with NJOY" review paper has been accepted for publication in the December 2010 issue of Nuclear Data Sheets.



NJOY Status

Recent Revisions

- Improved R-M processing in ERRORJ (consistent with RECONR coding);
- Refined beta mesh in THERMR for free gas scattering (consistent with forthcoming NJOY2010);
- Eliminate array overflow error in ACER/PTLEG (only occurred when Legendre order was 64);
- More robust processing of IRDF (MF10) sections in RECONR, GROUPR & ACER;
- Improved processing in RECONR, BROADR & ACER for TENDL-2009 photonuclear and charged particle files;
- Scattering radius uncertainty processing in ERRORR (via User input or from November, 2009 format revision);
- MF=40 processing in ERRORR & COVR;
- Include basic ENDF parameters in opening records of PENDF files;
- Various patches to support JENDL-4 processing (in progress);
- MODER ascii only processing now ascii or binary for MF34, 35 and 40;
- More scratch space in various modules.

