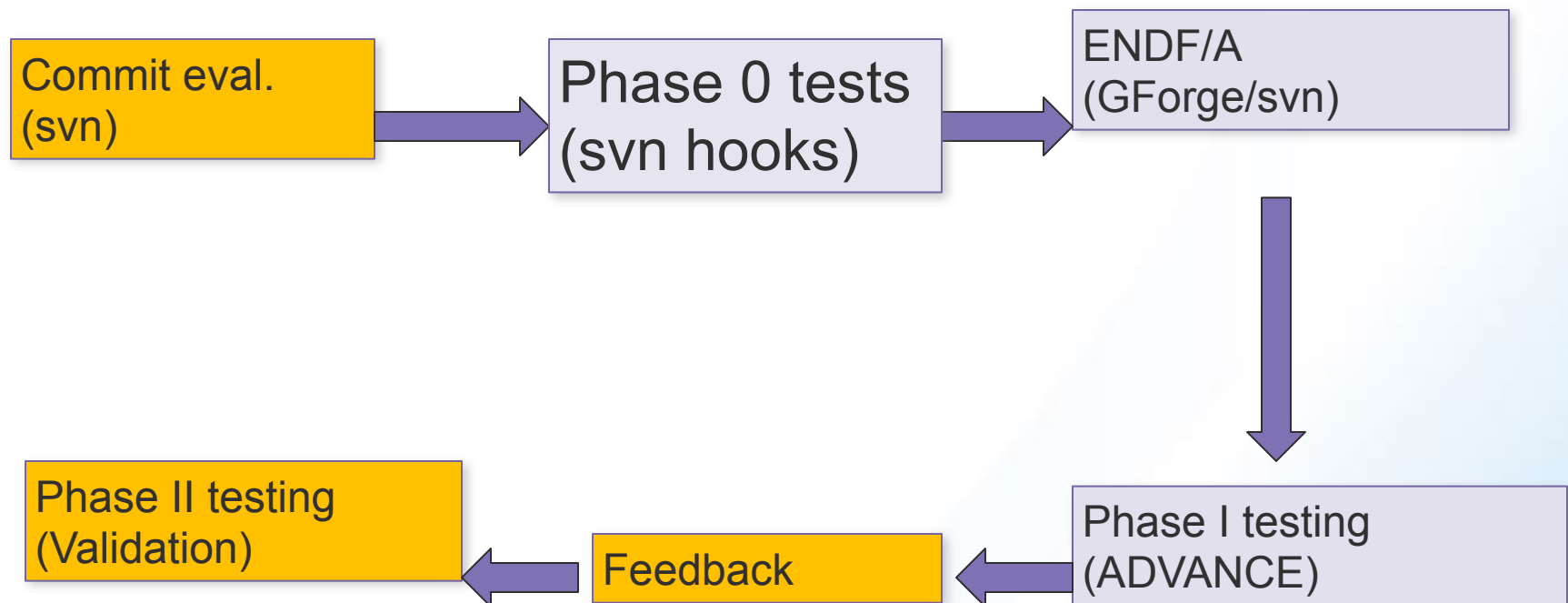


BNL ADVANCE System Update

David Brown (BNL),



Current ENDF/B workflow



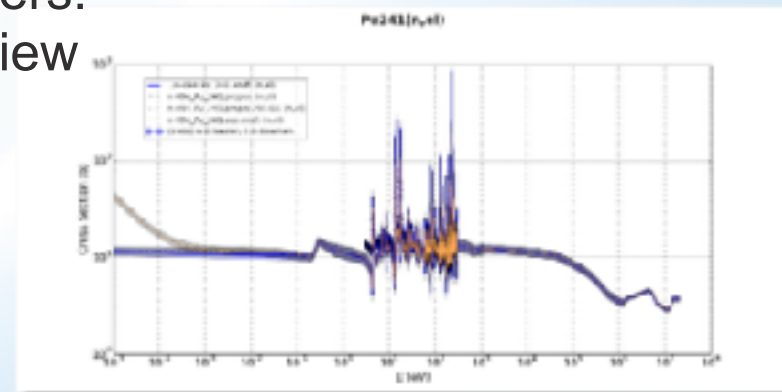
Phase 0 testing: evaluations are now rejected automatically if...

- Commit differs from trunk by only line numbering
- Commit contains illegal characters (non-printing ASCII like TAB characters and BACKSPACE)
- Non-UNIX LF feeds used
- svn keywords in first line missing

**If you get rejected & can't figure it out,
send it to me or Ramon. We can fix it
and/or override the hooks**

ADVANCE quality assurance system for ENDF

- On every commit of every evaluation in ENDF
 - Check out evaluation
 - Run through a battery of tests
 - Process with customer processing codes
 - Generate comparison plots
 - Generate HTML report of evaluation
- Automation is better!
 - Find data problems before the customers!
 - Far faster/better than old PHASE I review
- Available at <http://www.nndc.bnl.gov/endf/b7.dev/qa/index.html>

The screenshot shows a 'Periodic Table' interface. It has a 'Periodic Table' tab and a 'Material List' tab. The periodic table is displayed with elements color-coded by groups. The 'Material List' tab is currently selected, showing a list of materials with their symbols and names. The list includes elements like H, He, Li, Be, B, C, N, O, F, Ne, Na, Mg, Al, Si, P, S, Cl, Ar, K, Ca, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Br, Kr, Rb, Sr, Y, Zr, Nb, Mo, Tc, Ru, Rh, Pd, Ag, Cd, In, Sn, Sb, Te, I, Xe, Ba, La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Hf, Ta, W, Re, Os, Ir, Pt, Au, Hg, Tl, Pb, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and many others.

FY16 Updates

- Full library ACE file tarballs
- Per-isotope release note PDFs
- Aesthetic improvements
 - Code groups
 - MathJax
- FUDGE-4.2.1
 - GND-1.7
 - Improved checking
- PREPRO
 - Added GROUPIE
- Rewrite INTER, using FUDGE libraries

Quick tour of build reports

- Activity feed (RSS)
- PDF summary
- Test results
 - Color coded by severity
- Fancy MathJax ;)

The screenshot displays the ADVANCE Continuous Integration System interface. At the top, there's a navigation bar with tabs: OVERVIEW, BUILDING, MONITOR, BUILD PROJECT, ADVANCE, and BUILD. The main header reads "The ADVANCE Continuous Integration System" and features the Brookhaven National Laboratory logo.

The central section is titled "27-M Neutrons Sublibrary" and includes a 3D visualization of a neutron source. To the right, a "Latest Updates" box lists recent build events with timestamps and status indicators.

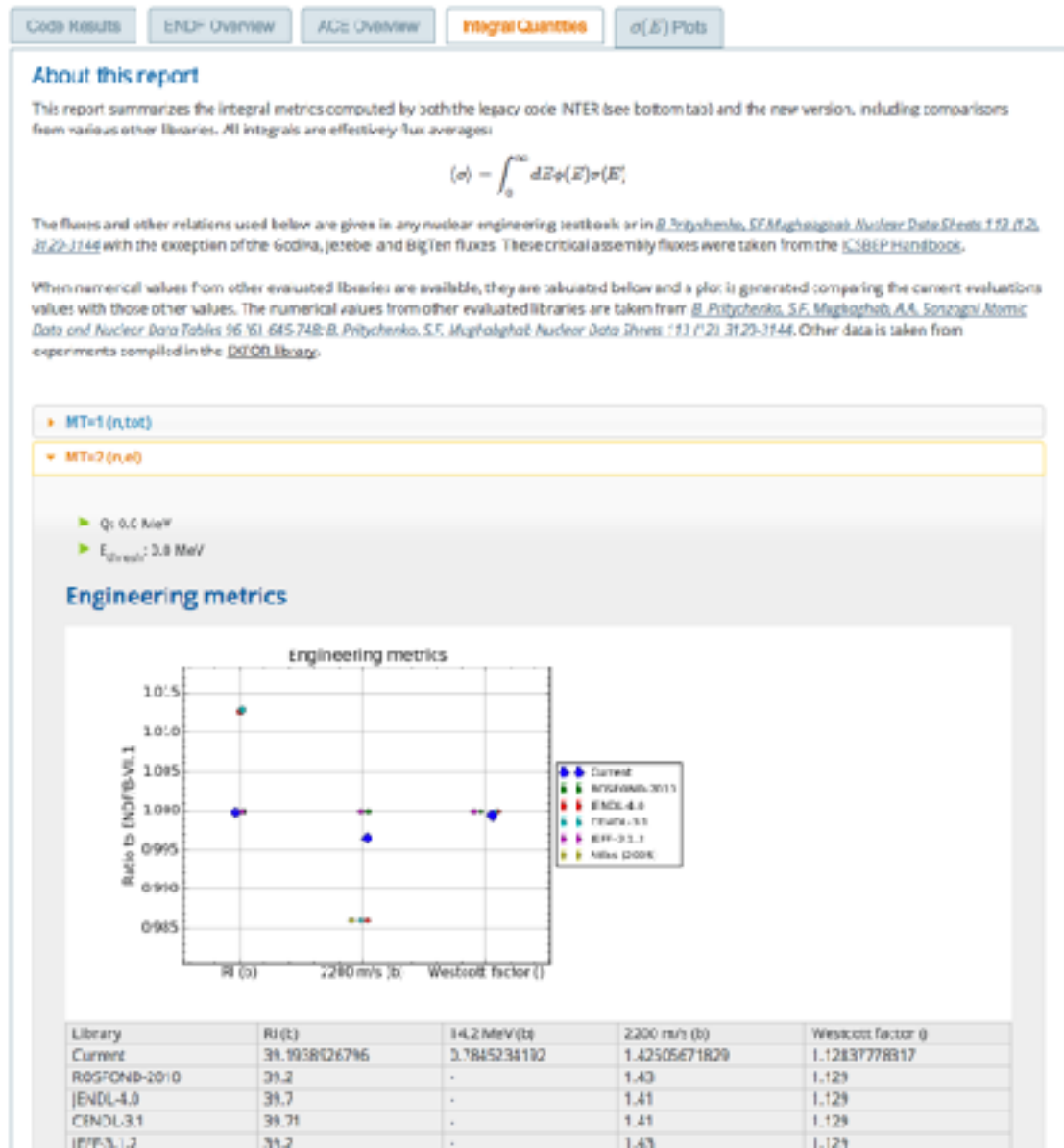
Below the main title, a "General Information" section provides details about the build process, including the build number (100), the build date (2016-05-14 10:00:00), and the build status (SUCCESS). A "Build Status" section shows the build progress with a green bar indicating completion.

At the bottom, a "Summary of all tests on this evaluation" table is displayed, showing test results for various code groups. The table includes columns for Code group, Status, Code, # tests, # passed, # failed, Run time (sec), and Files. The tests are color-coded by severity: green for success, yellow for warning, and red for failure.

Code group	Status	Code	# tests	# passed	# failed	Run time (sec)	Files
Activity Code	✓	START	0	0	0	0.000	START file
	✓	STARTUP	0	0	0	0.014	
	✓	CHECK	278	0	0	0.008	
	✓	INITIAL	278	0	0	0.001	
	?	RESET	342	0	0	0.000	LOG
FECPPD	✓	INITIAL	1	0	0	0.000	init file
	✓	UNCLAR	1	0	0	0.000	uncl file
	✓	EGUANT	1	0	0	0.000	eguant file
	?	RESET	1	0	0	0.000	Log, reset file

New version of INTER

- Integral metrics (RI, MACS, etc)
- Compare to other libs, experiment
- Major reaction channels
- Code part of FUDGE



To do...

- ***NOTIFICATIONS:*** Would you like an email to the ADVANCE build reports so you can review them?
- ***NEW:*** Alpha sublibrary
- ***Fix ENDF Manual deploy:*** its going to the wrong place
- ***UPDATE NJOY2012:*** up to revision 50, ADVANCE still at 10

Big upgrades I really would like to do

- **More codes**
 - AMPX
 - LEGEND
 - SIXPAK
- **Covariance QA report**
- **Resonance report**
- **Level scheme report**
- **Plotting more observables**
 - Nubar
 - PFNS
 - Angular distributions
 - Energy spectra
- **Automated Benchmarking**
 - Made progress last summer, but still incomplete
 - Need a summer student ;)