Status of ATLAS ‘Fortran’ Software
the 98_2 release

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ATLAS software week in Ann Arbor

No changes in 98_2 since May to:

- SLUG (current version = 1.23)
- ATLSIM (current version = 1.40)
- ATRIG (current version = 4.02)

DICE 3.20

- correction 14 August to avoid too many steps in the tracking in some cases

ATUTIL

Version 1.41 introduced in July:

- Ready to use new muon ‘amdb’ database with additional inactive material – to be used with muonbox50101
- New steering routine for calorimeter unpacking and data preparation
- New pileup and calibration for calorimeters. See http://wwwcn.cern.ch/˜simions/pileup for documentation of the new pileup code.

ATRECON

Version 1.41 introduced in July:

- ARECON:
  - can choose to use the new JetFinder algorithms and/or the Combined Ntuple
- AXXXREC:
  - New precision-layer clustering working for different versions of the geometry - now all ID pattern recognitions use the same clustering principles, and xkalman and pilxrec use common code
  - For version ≥ 4, big pixels and interconnected pixels are used in the clustering, the clustering algorithm does not allow the splitting of the V-type clusters, and the clustering along the R-direction is introduced in the disks.

ATRECON 1.41, cont'd

- CALOREC:
  - EM shower identification has been introduced
  - new routines (Qgetpos, Qshdep) for Combined Reconstruction
  - The steering routine for the JetFinder algorithms is added as an optional call
  - The combined energy matrix of requested calorimeters is now implemented; it is one of the first steps for the Combined Reconstruction
- xKalman:
  - Interface with calorimeter for Combined Reconstruction
  - The fortran version of xKalman uses now the 'standard' clusters computed in AXXXREC
  - Correct shared hits and add b-layer information to unique, spoiled, wrong and shared hits
  - The b-layer information is added in the output common
  - there is a new (optional) steering routine to call xKalmanC (available only on test area)

ATRECON 1.41, cont'd

- PixlRec:
  - New version is faster - clusters are prepared at the initialisation stage
  - First hyperplane is filled now in the standard way without any tricks with KINE information
  - the seed function allows now to select the seed of any size (in previous versions the seed was limited to three wafers.)
- iPatRec:
  - code taken from the test area (due to conflicts on the srt/cvs repository between iPatRec and AgeToCxx) but binary available: atrecon_CIX (NB on hp only, not yet tested on other platforms)
- Combined Ntuple:
  - Two new patches CBNTCDES and CBNT
  - see http://wwwcn.cern.ch/˜droussea/cbnt/cbnt.html

ATRECON 1.41, cont'd

- Binaries available on hp:
  - atrecon_CXM (calorimetry, xKalMan, MuonBox)
  - atrecon_CXPM (calorimetry, xKalMan, PixlRec, MuonBox)
  - atrecon_CIX (calorimetry, iPatRec, xKalMan)
- Binary available on IBM, ALPHA-OSF: atrecon_CX

MUONBOX

Version 50101 introduced in July:

- New pattern recognition and reconstruction using a new version of the Muon database which includes additional inactive material (feet)

JetFinder

New algorithms introduced in July:
documentation available at
http://wwwinfo.cern.ch/~parkic/JetFinder