

# Status of G3 Hits and Digits

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- ❖ Global planning milestones:
  - G3 Digits available: April 2000
  - G3 Hits available: July 2000
  
- ❖ Digits milestone definition:
  - classes defined for digits and containers
  - definition of identifiers
  - minimal amount of detector description available
    - transformation matrices, readout channel dimensions, etc.

# Status of G3 Hits and Digits (2)

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## ❖ G3 Digits status:

- Inner Detector - available since beginning of 1999
  - TRT digits checked by Jim Loken and L. Vacavant
  - Pixel/SCT are beginning to be checked by users
    - Fixed bug in SiDigit this week (noise, threshold, dead channel bits)
- LAr - EM, HEC available since mid-1999
  - Checked by new C++ LAr reconstruction
- LAr - FCAL - only partially done
  - still waiting for tube to channel mapping
- TileCal - available since release 0.0.41
  - checked by Sasha, not yet by reconstruction(?)

# Status of G3 Hits and Digits (3)

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## ❖ G3 Digits status, cont.:

- Muons - MDT (since 1999), RPC (since 0.0.41)
  - Check of MDT and RPC by reconstruction under way
- Muons - TGC, CSC - remains to be done

## ❖ G3 Digits status summary

- InDet, LArEM are being used (what about HEC?)
- For April, succeeded in adding TileCal and RPC's
- High priority for FCAL and TGC
  - FCAL - Simion, Schaffer, TGC - Goldfarb + postdoc(?)
- CSC - first need simulation in a release

# Status of G3 Hits and Digits (4)

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## ❖ G3 Hits status

- Two elements to this:
  - Hits classes and containers
  - Hits to Digits transformations
- Hits classes and containers
  - Work remains to be done
  - Is straight-forward following digit example
  - Organization:
    - InDet - RDS, include InDet people (Stan)?
    - LAr - RDS, Simion
    - TileCal - Solodkov
    - Muons - Goldfarb, + (?)
  - Estimate that a good fraction will be done by end July 2000

# Status of G3 Hits and Digits (5)

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## ❖ G3 Hits status, cont.

- Hits to Digits transformations
  - This should be organized within the detector subsystems
  - Should be done ONLY AFTER a migration of the Hits and Digits to full-fledged Transient Event Store (TES) objects
    - Transformations will be Algorithms
- This raises the question of migrating Hits and Digits to the Transient Event Store
  - This should be incorporated in the plan - when and by whom?
  - Should probably wait until the Atlas version of the TES has stabilized
    - begin migration after the September release?

# Status of G3 Hits and Digits (6)

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## ❖ G3 Hits status summary

- Definition of a large fraction of Hits and Hit container classes possible by end July
- Plans needed for Hits to Digits transformations
  - May need to wait for framework (TES) developments
- Finally, evaluation of what is needed as far as pileup for G3 Hits/Digits within the framework remains to be done
  - Should this be done with G3 hits/digits or wait for G4 hits/digits?