CCRC08-1

ATLAS' plans and intentions

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ATLAS tests

- Throughput Tests
  - Test T0-T1 throughput with generated data
- Cosmic Ray tests M4, M5, M6, M7(?)
  - Primarily (sub)detector integration, 1st week
  - But also data collection, 2nd week
- Full Dress Rehearsal FDR0, FDR1, FDR2
  - Primarily a trigger & streaming test
  - But also data collection and distribution
- Functional Tests FT
  - Dq2 functionality test

Full Dress Rehearsals

- Simulate 1 day's worth of real data
- Inject into the tdaq and run from SFO onwards
- Run the T0 as complete as possible
  - Merging, tape writing, calibration, processing, etc
- Run the CM as complete as possible
  - Data distribution, re-processing, analysis, etc
- Run full MC production simultaneously
  - T2-T1 data upload, reconstruction in T1, etc.
- FDR-1 in February and FDR-2 in April/May

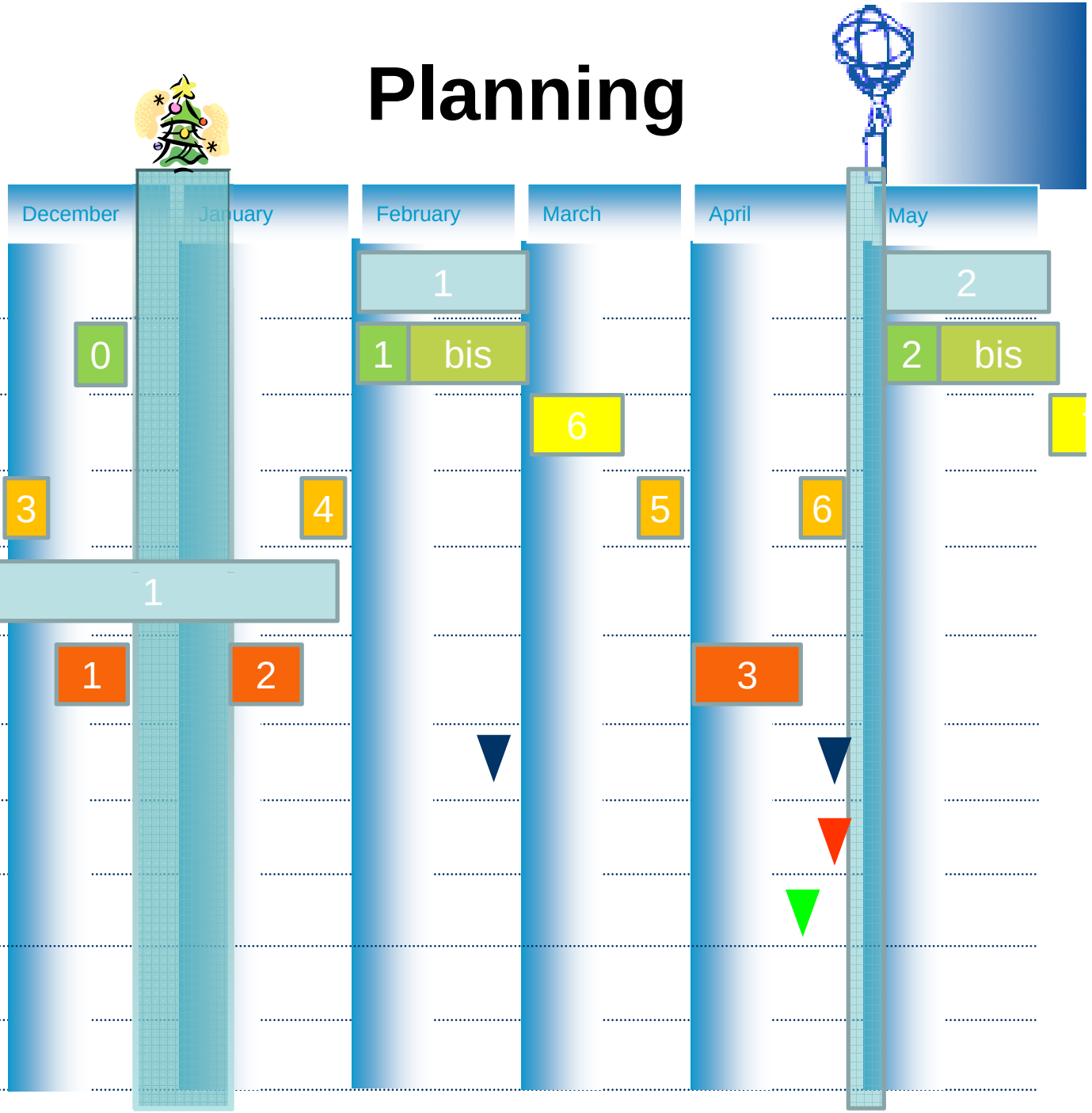
Byte Stream Data for FDR-1

- Use all RDO files from release 12
  - ~150 TByte
- Currently copying those files to CERN
- Merge them at CERN into right mix: mixing
  - 1 day of data is ~20 TByte
- Produce Byte Stream output files
  - Mixing may take several weeks
- Inject those into the SFOs
- Datasets per Stream are registered by T0

FDR-2

- Same as FDR-1 but at higher Luminosity
- RDO's need to be produced with rel.13 MC
  - Takes ~10 weeks, ~150 TB again
  - Mixing takes again ~4 weeks, output ~20 TB
  - Validation rlse 13 MC foreseen end January
- FDR simulates 1 day of data taking
- But can repeated over and over again
- SFO's can only be reserved for 1 week max

Planning


December
January
February
March
April
May
CC Readiness Challenge
Full DressRehersal
Cosmic Ray tests
Functional Tests
SRMv2 testing
Time for fixes and updates
S&C Week
Jamboree 2 (?)
WLCG Workshop
0
1
1 bis
2
2 bis
6
3
4
5
6
1
1
2
3

M5 data instead

- It may be too optimistic to have FDR Feb. 1st
- We can use M5 data in stead for CCRC
- We will select 20 TB worth 1 day's data taking
- Rename and use it again every day
- M5 data is less interesting
  - Only straight tracks, no physics
  - Calibration not meaningful, even impossible
  - (re-) processing is trivial, no AOD's, but possible
  - Analysis is trivial also, but possible

Block 1: T0

- Data collection in CASTOR
- Archive to TAPE
- Calibration processing *)
- merging
- Processing → ESD, AOD *), DPD *)
- Subscriptions

*) only when we can use FDR data

Block 1 T0 storage req.s

- FDR data: 20 TB, M5 data: 20 TB
- Calibration pool *)
- Merge pool: 50 TB
- 5 day export buffer: 100 TB
- CAF: 300 TB
- Analysis pool
- *More accurate numbers soon*

Block 2: T1's

- Store RAW (share) on TAPE
- Store ESD (share) on DISK
- Store full AOD & DPD copy on DISK
- Export AOD &DPD to Tier-2's on request
- *Re-processing has to worked out in detail*
- *Production processing has to be worked out in detail*
- *More accurate numbers will follow*

Block 2 T1 Storage req.s

- Want to use real (not test) endpoints
- ~20 TB/day → ~600 TB/month
- Roughly 50% Tape and 50% Disk
- ~300 TB/month for 10 Tier-1's
- So a 10% Tier-1 should have ~30 TB disk
- Data can be removed shortly after Feb.
- Will provide more precise numbers
- *This accounts for primary RAW data only*
- *Re-processing & production will follow*

Oct 2007 shares

	Share(%)	Block1 Data
BNL	25	75
IN2P3	10	30
SARA	15	45
RAL	15	45
FZK	10	30
CNAF	5	15
ASGC	5	15
PIC	5	15
NDGF	5	15
TRIUMF	5	15
Total	100	300

Block 3: T2's

- MC Simulation
- HITS merging and upload to T1
- Download AODs from T1
- *Analysis to worked out in detail*
- *More numbers will follow*

Storage classes

- To be presented by Simone