

# ePIC Software Development Planning

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## Moving towards TDR readiness

- Overview for the April campaign
- Projections for the further progress
- Discussion to identify the other ongoing development – reveal weak spots

# April release

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- Tagged ePIC [24.04.0](#) geometry, select notable changes:
  - pfRICH implementation (Bill, Kolja)
  - Adjusted dRICH rotation (Wouter)
  - Implemented barrel and forward flux return endcaps (Wouter)
  - Revamped FF beam and vacuum system (Alex)
- Tagged EICrecon [1.12.0](#), select notable changes:
  - Tracking initial covariance improvements (Jeet, Barak)
  - Initial implementation of the electron finder (Daniel, Tristan, Tyler)
- Many other advancements by Derek, Dmitry, John, Maria, Michael, Nico, Nilanga, Simon, Shujie
- **The 24.04.0 container (will be) released**
  - ONNX runtime (Wouter, example of how to use at [EICrecon #1358](#))
  - ROOT 6.30 should now be writing backwards-compatible .root files (Wouter)

# Development Milestones per Campaign deadlines

- **May (24.05 milestones): Deadline Monday, May 6.**
  - Data model for TDR (pending on discussion at the CERN meeting)
  - **ePIC geometry**:
    - Updated tracker services [#661](#) (Wouter)
    - Services and support integration (pending on dRICH to be narrowed in azimuthal angle, a new material map which makes the services passive layers, and testing).
  - **Detector simulation and digitization:**
    - Realistic timeframe support (pending on <https://github.com/eic/EICrecon/pull/1359>)
    - Calorimeter gains and calibrations that are user-configurable via expressions [#1349](#) (Dmitry)
  - **EICrecon**:
    - Fix truth-cluster association for HCals in DD4hep (Derek, Peter)
    - Fix clustering bug in ScFi [#1289](#) (Akshaya)
    - Clustering optimization (backwards HCal DSCs?)
    - Duplicate track removal (Minjung?)
    - Use of real tracks in the electron finder (Daniel, Tristan)
    - Tabulated PID factory [#1365](#) (Nathan, Markus, et al.; will be tested in April by SIDIS WG)
  - List of physics processes / **MC samples** needed for TDR finalized and documented.
- **June (24.06 milestones: ePIC geometry, EICrecon)**
  - **Deadline for the software and simulation readiness.**