



MICE Tracker Software

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The tasks associated with the tracker software may be divided up as:

- ▶ **Data Structure** (definition and class implementation)
- ▶ **Geometry** (definition, querying CDB, storing in memory, verifying known data, cabling)
- ▶ **Monte Carlo (MC)**
- ▶ **Reconstruction**
 - ▶ **Unpacking, Mapping and Calibration** (Real data):
Raw data → Digits
 - ▶ **Digitisation** (MC): Hits → Digits
 - ▶ **Make Clusters**: Digits → Clusters
 - ▶ **Make Spacepoints**: Clusters → Spacepoints
 - ▶ **Pattern Recognition** (PR): Spacepoints → PR Tracks
 - ▶ **Final Track Fitting**: Clusters + PR parameters → Tracks

Current status



- ▶ **Unpacking** (DA, ES, YK) - done ✓
- ▶ **Mapping and Calibration** (ES) - mostly done (but will need re-doing when move to MICE hall) ✓
- ▶ **Make Clusters** (ES) - mostly done ✓
- ▶ **Make Spacepoints** (ES) - mostly done ✓
- ▶ **Class Structure** - first draft complete up to Spacepoints and in use
- ▶ **Geometry** (AW, ML, KL, OL) - geometry defined, CDB API working implemented for Python and C++, work ongoing
- ▶ **MC and Digitisation** (ABz, AD, CR, ES, PK) - some bugs to overcome, but progressing well
- ▶ **Pattern Recognition** (AD, SB) - first draft done, now converting to class system
- ▶ **Track Fitting** (ES, KL) - not done
- ▶ **Documentation and Testing** - begun, but lots to do