

# Execution\_blocks Table

The execution-blocks table is the top level of the tables that hold science data for the observations. Each execution block is attached to a project, and contains one or more scans. The scans, in turn, contain subscans, which are connected to files.

## Definition:

| Column                | Type                 | Collation | Nullable | Default   |
|-----------------------|----------------------|-----------|----------|---|
| execution_block_id    | integer              |           | not null | nextval ('execution_blocks_execution_block_id_seq'::regclass) |
| ost_exec_block_id     | integer              |           |          |   |
| filegroup_id          | integer              |           | not null |   |
| calibration_level     | character varying    |           | not null |   |
| telescope             | character varying    |           | not null |   |
| configuration         | character varying    |           |          |   |
| scheduling_block_id   | integer              |           |          |   |
| ngas_filesset_id      | character varying    |           |          |   |
| project_code          | character varying    |           | not null |   |
| starttime             | double precision     |           |          |   |
| endtime               | double precision     |           |          |   |
| calibration_status    | character varying    |           | not null | 'Unknown'::character varying                                  |
| scheduling_block_type | character varying    |           |          |   |
| band_code             | character varying    |           |          |   |
| ingestion_complete    | boolean              |           | not null | false   |
| segment               | character varying(2) |           |          |   |

### Indexes:

"execution\_blocks\_pk" PRIMARY KEY, btree (execution\_block\_id)

### Check constraints:

"evla\_ngas\_filesset\_id" CHECK (telescope::text = 'EVLA'::text AND ngas\_filesset\_id IS NOT NULL OR telescope::text <> 'EVLA'::text)

### Foreign-key constraints:

"calibration\_status\_fk" FOREIGN KEY (calibration\_status) REFERENCES calibration\_status\_values(status)

"filegroups\_execution\_blocks\_fk" FOREIGN KEY (filegroup\_id) REFERENCES filegroups(filegroup\_id) ON UPDATE CASCADE ON DELETE CASCADE

"projects\_execution\_blocks\_fk" FOREIGN KEY (project\_code) REFERENCES projects(project\_code) ON UPDATE CASCADE ON DELETE CASCADE

### Referenced by:

TABLE "configurations" CONSTRAINT "execution\_blocks\_configurations\_fk" FOREIGN KEY (execution\_block\_id) REFERENCES execution\_blocks(execution\_block\_id) ON UPDATE CASCADE ON DELETE CASCADE

TABLE "scans" CONSTRAINT "execution\_blocks\_scans\_fk" FOREIGN KEY (execution\_block\_id) REFERENCES execution\_blocks(execution\_block\_id) ON UPDATE CASCADE ON DELETE CASCADE

## Columns:

**execution\_block\_id:** and auto-generated id to uniquely identify the execution blocks.

**ost\_exec\_block\_id:** if the execution block has an id in the Observation Scheduling Tool, it should be listed here.

**filegroup\_id:** each execution block has a filegroup containing a tree of files for the execution block.

**calibration\_level:** the level of calibration that the data has undergone. values can be 0 through 3, defined in ObsCore as:

0: raw data, possibly in proprietary format

1: instrumental data in standard format (FITS, ASDM, etc) Standards tools can handle it.

2: Science ready data, with calibration status defined on all axes.

3: Enhanced data products such as mosaics, image cubes, etc.

**telescope:** the instrument used to collect the data, eg. VLA, VLBA

**configuration:** the configuration that the instrument was in for the observation, if applicable. for the VLA, this could be A, B, C, or D.

**scheduling\_block\_id:** the scheduling block id listed in John's DB, if any

**ngas\_fileset\_id:** The fileset id for this group of files in NGAS. for backward compatibility, the Data Fetcher can retrieve by fileset id.

**project\_code:** the project that this execution block is attached to. See the Projects table for more details.

**starttime:** the start time of the earliest observation in the execution block, in mjd.

**endtime:** the end time of the latest observation in the execution block, in mjd.

**calibration\_status:** whether the execution block has been/will be calibrated, eg. "Calibrating", "Do Not Calibrate".

**scheduling\_block\_type:** "OBSERVER", "EXPERT", or "OBSERVATORY"

**band\_code:** the observing band is not always indicated by the receiver used, so it is also recorded here.

**ingestion\_complete:** whether all of the files for this execution block have been ingested. this is used internally for calibration.

**segment:** for VLBA data, the segment is similar to an execution\_block count within a project.