

# MPC Obs Film Studio Manual

OBS80, ADES, WAMO, charts, reports, and movie production

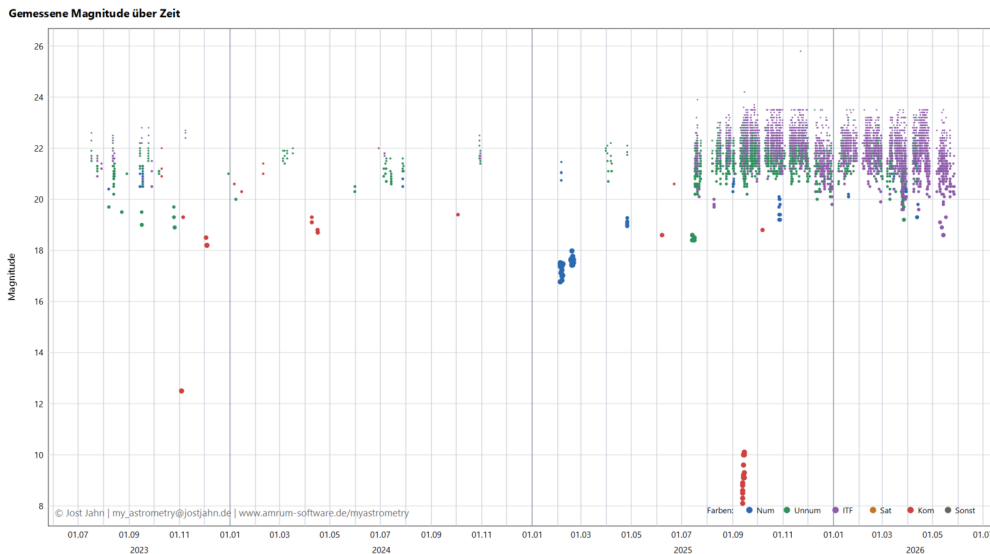
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# 1. Overview

## 1.1 Purpose



MPC Obs Film Studio is a classic Windows MDI application for optical MPC observations. It reads OBS80 directly, converts ADES to OBS80 when needed, and performs the analysis from the fixed OBS80 columns.

The application is meant for large observation files, charts, WAMO submission deltas, reports, and movies.

- OBS80 is the internal source of truth.
- All windows can be moved and arranged.
- Durable files are kept in the project workspace.

## 1.2 Workflow

Load a file, convert and analyze it, review warnings, adjust charts, load WAMO deltas from cache or API, then create a report or movie.

- Open file
- Analyze
- Charts
- WAMO
- Report
- Movie

## 2. Data And Analysis

### 2.1 OBS80 And ADES

OBS80 lines are normalized to 80 columns. ADES is converted to OBS80 before astronomical values are computed.

Date/time, RA, DEC, magnitude, band, notes, discovery mark, and observatory code are read from fixed OBS80 columns.

- Non-optical records are rejected.
- Rows without RA/DEC can be rejected.
- Magnitude limits are configurable.

### 2.2 Sun, Moon, And Horizon

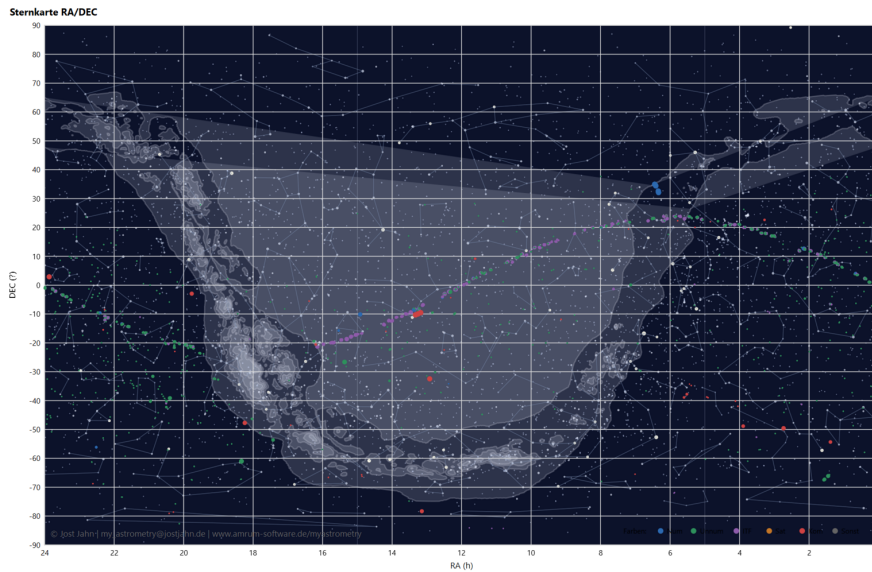
The app computes Sun and Moon position, elongations, lunar illumination, and azimuth/altitude of Sun, Moon, and object.

Twilight and Moon conditions are marked in the table and charts.

- Civil, nautical, and astronomical twilight are distinguished.
- Sun above horizon marks observations as invalid for this purpose.

## 3. Charts

### 3.1 Chart Controls

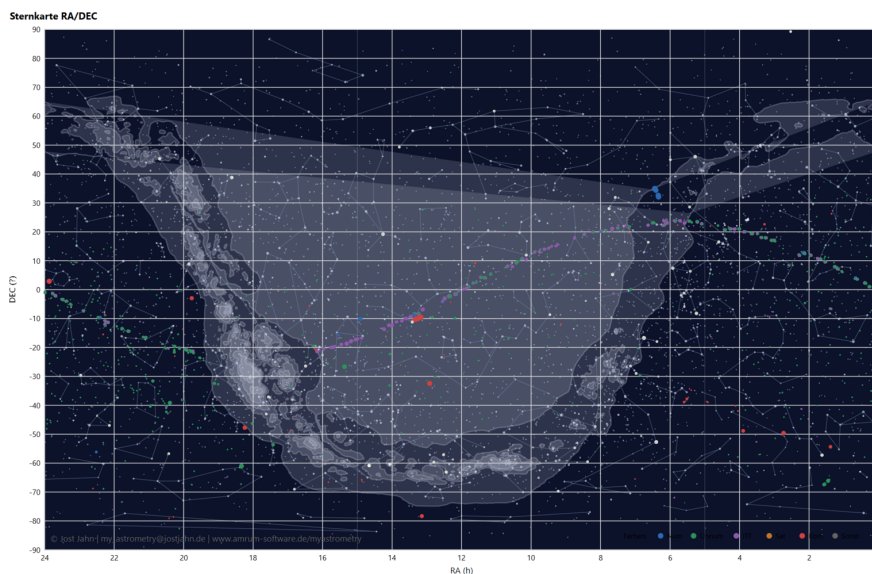


Each chart is an MDI child window. Open-circle range handles restrict the x/y range. Mouse-wheel zoom is centered at the mouse position.

Class filters are additive; mono disables class colors for one chart.

- Reset restores the view.
- Remember stores the window state.
- Histograms have a Log button.

### 3.2 RA/DEC Sky Map



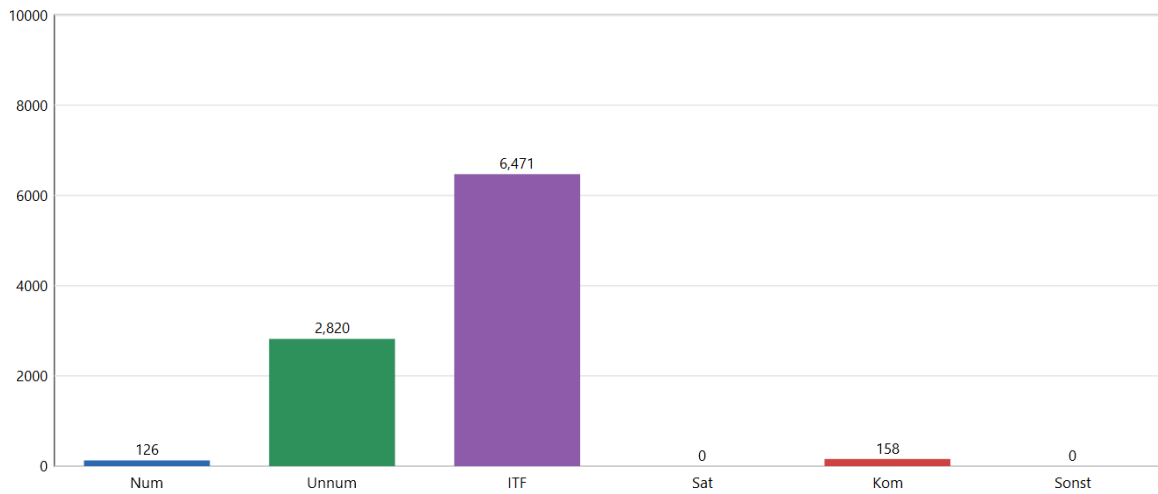
RA runs from right to left. The background sky can be faded while the observation points remain coordinate based.

- 24 h is left, 0 h is right.

- The Stars button toggles stars.

### 3.3 Object Classes

**Objektklassen**



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Classes are numbered, unnumbered, ITF, planetary satellite, comet, and other. Lists are sortable and show unpacked designations.

Numbered objects include packed permanent numbers, including extended tilde numbers in the first five OBS80 columns. ITF names are loaded from the daily [jostjahn.de](http://jostjahn.de) index.

- Other should only contain real leftovers.
- ITF names are cached daily.



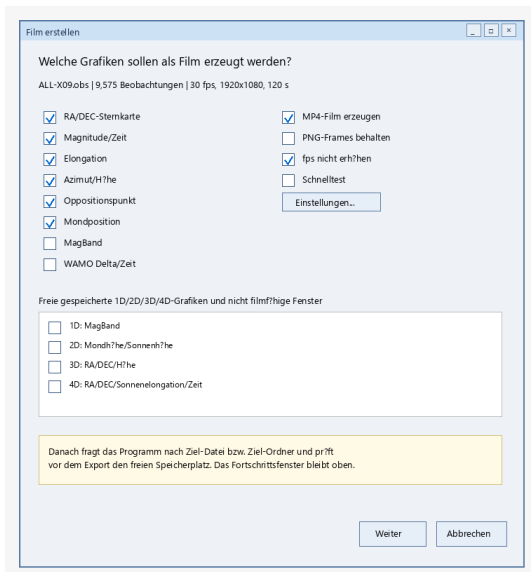
## 5. Reports And Movies

### 5.1 HTML Report

The HTML report is written to the reports folder and contains charts but no analysis table. It can use the current GUI state or base chart settings.

- Filenames follow report\_filename\_yyyymmdd\_hhmmss.html.

### 5.2 Movie Creation



The movie wizard asks for charts, chart state, MP4 target, PNG workspace, disk space, music, and render progress.

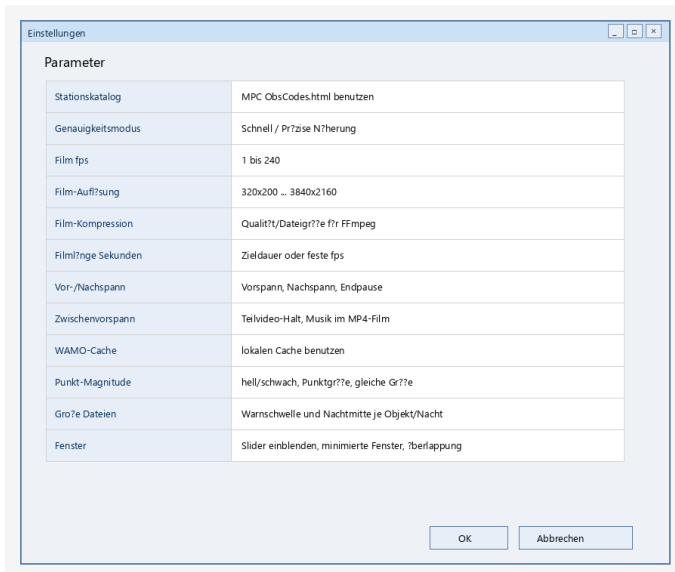
Quick test is only for small trial runs. Final movies should use the configured resolution, duration, fps, compression, and music.

- Full HD is 1920x1080.
- FFmpeg creates MP4 from PNG frames.
- Music is selected from the Free Music Library when enabled.



## 6. Settings And Troubleshooting

### 6.1 Settings



Settings are stored in the project folder and the last known settings file is loaded on startup.

- Important movie settings are fps, resolution, compression, duration, intro, outro, end pause, and music.

### 6.2 Log File

The log records startup, file loading, reports, WAMO blocks, movie options, music paths, FFmpeg, and errors.

- Log: outputs/logs/my\_astrometry.log.

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