Typical ELAN structure of an experiment

1. The "main" ELAN file sets up receiver and data processing

myelan.elan

1.1 Define the setup command (MyMain)

```
BLOCK MyMain { {Height 290} } {

    set ... ;#helper variables

    SYNC  -5.0
    load ...;#devices & the scan ELAN file

    SYNC  3.0
    start ...;#devices

    SYNC  2.0
    callblock MyScan $Height ;#call antenna loop
}
```

1.2 Give the setup command (MyMain)

```
eval callblock MyMain [argv]
```

2. The "scan" ELAN file defines an infinite antenna motion loop

myscan.elan

```
BLOCK MyScan { Height } {
    DO -1 {
        SYNC 60.0
        pointrheight  170  77   $Height
        setpolariser

        SYNC 60.0
        pointrrange  190  77  $Height
        setpolariser
    }
}
```

3. The experiment is executed by a command like

```
U: runexperiment  myelan.elan "Aug 16 08:00" 250.0
```

ELAN program command at known time using SYNC and AT

AT time

⇔

C-TIME = time

Wait until UT ≥ C-TIME, then continue

SYNC seconds

⇔

C-TIME = C-TIME + seconds

Wait until UT ≥ C-TIME, then continue

...

AT 8:02:15

Command

...

...

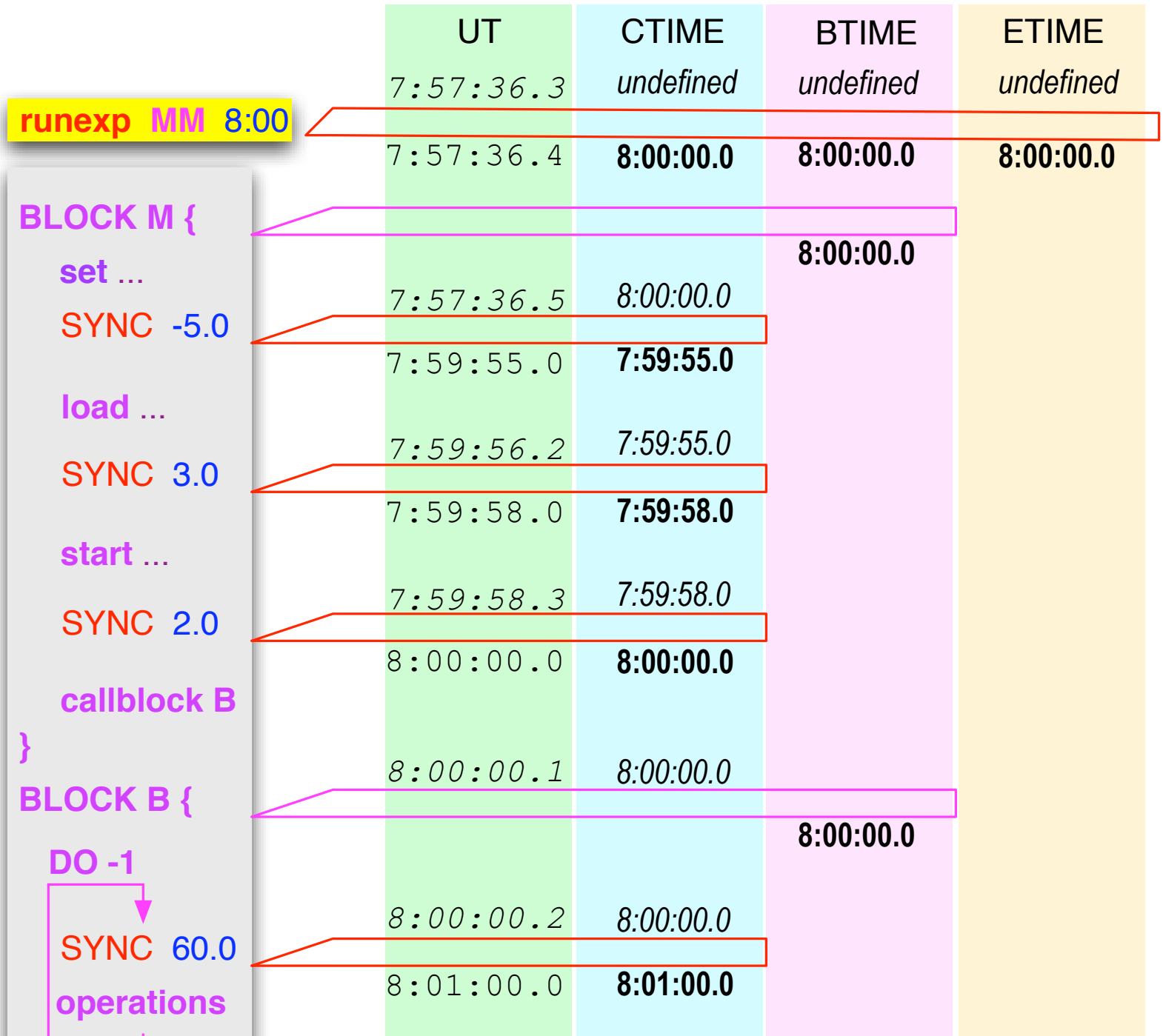
SYNC 3.0

Command

...

Note! C-TIME is initialized to exp start time (E-TIME) by the runexp command.

Time-syncronisation in an ELAN program



ELAN command reference

www.sgo.fi/~jussi/eiscat/