Crestron Timing Debug – Plotly Script Cheat Sheet

Basic Usage

```
py plot_crestron_debug_steps.py <debug_log.txt>
```

Time Window Controls (milliseconds)

```
--tmin 1500   --tmax 3000
```

Time Axis Behavior

When --tmin or --tmax is used, time is normalized so the plot starts at 0 ms (recommended).
Keep absolute timestamps from the log:

```
--absolute-time
```

Signal Filtering

Include only matching signals (regex):

```
--only "_btn$|_fb$"
```

Exclude noisy signals:

```
--exclude "_formatted_"
```

Digital Rendering Modes

```
--mode edges   (fast ordering, default)
--mode steps   (true digital steps)
```

Performance Controls

```
--max-signals 30
```

Output Control

```
--out nav_timing_edges.html
```

Recommended Workflows

- `Overview: --mode edges --max-signals 40`
- `Button → Feedback timing: --only "_btn$|_fb$" --mode edges`
- `UI page changes: --only "page_name\$|Popup" --mode edges`
- `Deep dive: --tmin 2000 --tmax 2600 --mode steps --max-signals 25`
- `Audit absolute timestamps: --absolute-time`

Tip: Use edges mode first, then steps mode to analyze pulse width and glitches.