

AD-DA.ca, Timer Tools

Plugin Description

The [AD-DA.ca](https://ad-da.ca) Tools Timer plugin provides multi-mode timing workflows for Q-SYS systems. It supports countdown, interval, pulsetrain, and freerun operation with direct control-page commands and pin-access outputs for system logic.

This plugin is intended for operational timing tasks where reliable state indication, periodic triggers, completion signaling, and straightforward runtime control are required.

Configuration Overview

Plugin version

This document is written for the plugin:

- [AD-DA.ca](https://ad-da.ca) Tools Timer

QDS compatibility

This plugin has been developed and tested on:

- Q-SYS Designer version 10.4

Release note

2026-07 : 1.0.0.0

- Initial release

Properties

License

Type: String

Default value: *Empty*

Description: License key activated for the main core.

Licenses are issued on a "per core" basis, as in each core needs its own license to run as many instances of the plugin as needed on this particular core and licenses are not transferable from core to core.

License keys can be added while in Offline mode, in the Properties pane on the right. To purchase licenses, go to <https://ad-da.ca>.

The plugin can be emulated for free, allowing you to prepare everything without requiring you to have access to a core.

License Backup

Type: String

Default value: Empty

Description: License key activated for the backup core.

If your main Q-SYS Core fails, the backup Core automatically takes over without needing a license to function as a temporary replacement. However, if the design boots from the backup Core, a valid license is required. Additionally, if the backup Core is restarted (due to power loss or other reasons), the plugin instances cannot initialize without a valid license.

Dev

Type: String

Default value: Empty

Description: Development option.

Debug Print

Type: Enum

Choices: None, All

Default value: None

Description: Controls runtime debug logging verbosity.

Controls

Control Page

AD-DA.ca Tools Timer 1.0.0.0

Version 1.0.0.0

Timers Tools



OK - Running

Setup

Mode

interval

Speed

1x

Pulses

5

HH:MM:SS

00

00

30

HH:MM:SS

00:00:30

Commands

Start

Pause

Resume

Stop

Reset

Restart

Auto-start

Loop

State

Running



Paused



Stopped



Interval



Time

Elapsed

17

00:00:17

Remaining

13

00:00:13

Steps

0/5

Progress



58%

STATUS

Control name: **Status**

Type: **Indicator**

Controls Pin: **Output**

Description: Displays plugin health and current runtime status.

Typical values:

- OK: Ready, Running, Paused, Stopped, Finished
- FAULT: Missing License

SETUP

Mode

Control name: Mode

Type: Text ComboBox

Controls Pin: Input / Output

Default value: countdown

Choices: countdown, interval, pulsetrain, freerun

Description: Selects timer behavior.

Speed

Control name: Speed

Type: Text ComboBox

Controls Pin: Input / Output

Default value: 1x

Choices: 1x, 2x, 3x, 4x, 5x, 6x, 7x, 8x, 9x, 10x

Description: Applies a runtime speed multiplier to timer progression.

Notes:

- Changing Speed while running does not reset or restart the timer.

IntervalHours

Control name: IntervalHours

Type: Text ComboBox

Controls Pin: Input / Output

Default value: 00

Choices: 00 to 168

Description: Hour component of the shared H:M:S time setting.

IntervalMinutes

Control name: IntervalMinutes

Type: Text ComboBox

Controls Pin: Input / Output

Default value: 00

Choices: 00 to 59

Description: Minute component of the shared H:M:S time setting.

IntervalSecondsPart

Control name: IntervalSecondsPart

Type: Text ComboBox

Controls Pin: Input / Output

Default value: 01

Choices: 00 to 59

Description: Seconds component of the shared H:M:S time setting.

IntervalSeconds

Control name: IntervalSeconds

Type: Text Input

Controls Pin: Input / Output

Default value: 1

Description: Single formatted time input in HH:MM:SS.

Notes:

- Accepts HH:MM:SS input and keeps the H:M:S combo controls synchronized.
- Numeric seconds input is also accepted for compatibility.

PulseCount

Control name: PulseCount

Type: Text Input

Controls Pin: Input / Output

Default value: 5

Description: Number of pulses/steps to run in pulsetrain mode.

COMMANDS

Start

Control name: Start

Type: Button Trigger

Controls Pin: Input / Output

Description: Starts timing based on selected mode.

Pause

Control name: Pause

Type: Button Trigger

Controls Pin: Input / Output

Description: Pauses a running timer.

Resume

Control name: Resume

Type: Button Trigger

Controls Pin: Input / Output

Description: Resumes a paused timer.

Stop

Control name: Stop

Type: Button Trigger

Controls Pin: Input / Output

Description: Stops timing and keeps current values.

Notes:

- Pressing Stop does not emit IntervalTrigger or DoneTrigger pulses.
- Pressing Stop clears any active pulse output and cancels pending loop restart.

Reset

Control name: Reset

Type: Button Trigger

Controls Pin: Input / Output

Description: Resets state and values to current inputs.

Restart

Control name: Restart

Type: Button Trigger

Controls Pin: Input / Output

Description: Performs a reset and immediate start.

AutoStart

Control name: AutoStart

Type: Button Toggle

Controls Pin: Input / Output

Default value: false

Description: If enabled, timer starts automatically at plugin initialization.

Loop

Control name: Loop

Type: Button Toggle

Controls Pin: Input / Output

Default value: false

Description: In countdown mode, automatically restarts after completion.

STATE

Running

Control name: Running

Type: Indicator LED

Controls Pin: Output

Description: On while timer is actively running.

Paused

Control name: Paused

Type: Indicator LED

Controls Pin: Output

Description: On while timer is paused.

Stopped

Control name: Stopped

Type: Indicator LED

Controls Pin: Output

Description: On when timer is stopped or finished.

IntervalLed

Control name: IntervalLed

Type: Indicator LED

Controls Pin: Output

Description: UI pulse indicator for interval events.

IntervalTrigger

Control name: IntervalTrigger

Type: Button Trigger

Controls Pin: Output

Description: Output trigger pulse for interval events.

This control is not visible on the plugin UI and is intended for external pin access.

TIME

ElapsedSeconds

Control name: ElapsedSeconds

Type: Indicator Text

Controls Pin: Output

Description: Elapsed time in whole seconds.

RemainingSeconds

Control name: RemainingSeconds

Type: Indicator Text

Controls Pin: Output

Description: Remaining time in whole seconds.

FormattedElapsed

Control name: FormattedElapsed

Type: Indicator Text

Controls Pin: Output

Description: Elapsed time in HH:MM:SS format.

FormattedRemaining

Control name: FormattedRemaining

Type: Indicator Text

Controls Pin: Output

Description: Remaining time in HH:MM:SS format.

StepCount

Control name: StepCount

Type: Indicator Text

Controls Pin: Output

Description: Pulsetrain step display as current/target (example: 3/10).

PROGRESS OUTPUTS

ProgressPercent

Control name: ProgressPercent

Type: Indicator Text

Controls Pin: Output

Description: Progress percentage display.

In freerun, this control remains visible but disabled.

ProgressBar

Control name: ProgressBar

Type: Indicator Meter

Controls Pin: Output

Description: Graphical progress meter.

In freerun, this control remains visible but disabled.

Mode Behavior

countdown

- Uses the shared H:M:S value as target duration.
- Remaining decreases to zero.
- Completion triggers DoneTrigger pulse and transitions to Stopped.
- IntervalTrigger pulses according to the configured period.
- If Loop is enabled, timer restarts after completion pulse.
- Speed multiplier scales timer progression.

interval

- Runs continuously.

- Uses the shared H:M:S value as interval period.
- IntervalTrigger pulses every interval period.
- Speed multiplier scales timer progression.

pulsetrain

- Runs interval pulses for a fixed number of steps defined by PulseCount.
- Stops automatically after the final step.
- StepCount displays current step versus target.
- The final step emits completion pulse behavior.
- Speed multiplier scales timer progression.

freerun

- Runs continuously until manually stopped.
- Does not use time-setting controls.
- Remaining controls are disabled.
- ProgressBar and ProgressPercent stay visible but are disabled.
- Speed multiplier scales elapsed-time progression.

manual stop behavior

- Stop is a hard stop action in all modes.
- Stop does not generate completion or interval pulse events.
- If a loop restart was queued from a completion pulse, Stop cancels it.