How can a trace recording be saved for offline analysis?

2026-10-28 - Comments (0) - TRACE32 PowerView

First, save the trace recording data using the `Trace.SAVE` command:

```
Trace.SAVE <trace_file>.ad
```

By default, this saves the complete trace recording to the specified file.

To save only a specific range of trace records, specify the record number range. For example:

```
Trace.SAVE mytracedata (-107032.)--(-21243.)
```

Here, only the trace records within the specified range are saved.

Method 1: Analyze the data in TRACE32 Simulator

Yes, a previously saved trace recording can be loaded and analyzed using the **TRACE32 Instruction Set Simulator**, without requiring any TRACE32 trace hardware. The TRACE32 Simulator is a software-only product and can be used independently of Lauterbach hardware.

For instructions on how to start TRACE32 in Simulator mode, please refer to the FAQ: How can I start TRACE32 in Simulator Mode?

Loading a Saved Trace File (*.ad)

If the trace recording was saved using the `Trace.SAVE` command (resulting in a `.ad` file), follow these steps to load it into the Simulator:

- Start the TRACE32 Simulator for your target processor architecture.
- Select the target CPU, either:
  - Using the command `SYStem.CPU`
  - Or via the menu: **CPU > System Settings...** → click the **CPU** button.
- Switch to “Up” mode:
  - Command: `SYStem.Up`
  - Or via the **Up** radio button in the **SYStem** window.
- Load the trace file:
  - `Trace.LOAD <filename>.ad`
  - Or use the menu: **Trace > Load Reference Data...**

- Load the program symbols and debug information, e.g.: `Data.LOAD.Elf mydemo.elf`

- If a target operating system is used, load the OS awareness using the `TASK.CONFIG` command, example: `TASK.CONFIG ~~/demo/arm/kernel/freertos/freertos.t32`

  Depending on the operating system, additional configuration may be required. Refer to the appropriate TRACE32 OS-awareness documentation for details.

- Display the trace contents, e.g. using the `Trace.List` command.

Note: Loading a Raw Trace Data

The TRACE32 Simulator also supports loading and decoding **raw trace recordings** for selected processor architectures. Refer for more information to description of the `LA.IMPORT` command group in the General Commands Reference Guide L.

Loading raw trace recordings in the Simulator requires a specific license. Please refer to the article: TRACE32 Simulator License.

Method 2: Export the displayed data to a text file

If you only need a textual representation of the trace contents, you can export the trace data in ASCII format using:

```
Trace.EXPORT.ASCII filename.txt
```

Alternatively, you can export the contents of a TRACE32 window to a file using the `WinPrint` command. For more information, refer to the article How can I save the contents of a TRACE32 window to a file?

Method 3: Export to other formats

The `Trace.EXPORT` command group provides additional commands for exporting trace data in different formats. For example:

```
Trace.EXPORT.CSVFunc myfunc.csv
Trace.EXPORT.cycles mytracedata.ad
```

For more information, refer to the documentation of the `Trace.EXPORT` command group in the General Commands Reference Guide T