

Timestamp Record

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1. Introduction and Distribution

The timestamp record takes its own EPICS timestamp and converts it, using a choice of formats, into a displayable ASCII string in its VAL field. You can download the software by anonymous ftp at ftp.slac.stanford.edu: [groups/controls/soft/epics/timestampRecord.tar](ftp://groups/controls/soft/epics/timestampRecord.tar).

The timestamp record fields fall into the following categories:

scan parameters
operator display parameters
alarm parameters
run-time parameters

2. Scan Parameters

The timestamp record has the standard fields for specifying under what circumstances it will be processed. These fields are listed in [Scan Fields, Chapter 2, 2](#). In addition, [Scanning Specification, Chapter 1, 1](#), explains how these fields are used.

3. Operator Display Parameters

See [Chapter 2, Fields Common to All Record Types](#), for more on the record name (NAME) and description (DESC) fields.

Field	Summary	Type	DCT	Initial	Access	Modify	Rec Proc Monitor	PP
NAME	Record Name	STRING [29]	Yes	Null	Yes	No	No	No
DESC	Description	STRING [29]	Yes	Null	Yes	Yes	No	No
TST	Time Stamp Type	RECCHOICE	Yes	YY/MM/DD HH:MM:SS	Yes	Yes	No	No

[Appendix A, Menu Choices](#) provides general information about RECHOICE. The following choices are currently available for the time stamp type (TST) field:

timestampTST

```

choice(timestampTST_YY_MM_DD_HH_MM_SS,"YY/MM/DD HH:MM:SS")
choice(timestampTST_MM_DD_YY_HH_MM_SS,"MM/DD/YY HH:MM:SS")
choice(timestampTST_MM_DD_HH_MM_SS_YY,"Mon DD HH:MM:SS YY")
choice(timestampTST_MM_DD_HH_MM_SS,"Mon DD HH:MM:SS")
choice(timestampTST_HH_MM_SS,"HH:MM:SS")
choice(timestampTST_HH_MM,"HH:MM")
choice(timestampTST_DD_MM_YY_HH_MM_SS,"DD/MM/YY HH:MM:SS")
choice(timestampTST_DD_MM_HH_MM_SS_YY,"DD Mon HH:MM:SS YY")
choice(timestampTST_VMS,"DD-Mon-YYYY HH:MM:SS")
choice(timestampTST_MM_DD_YYYY,"Mon DD, YYYY HH:MM:SS.ns")
choice(timestampTST_MM_DD_YY,"MM/DD/YY HH:MM:SS.ns")

```

4. Alarm Parameters

The timestamp record has the alarm parameters common to all record types. [Alarm Fields, Chapter 2.3](#), lists other fields related to a alarms that are common to all record types.

5. Run-time Parameters

These parameters are used by the application code to provide the timestamp to the operator interface. The VAL field holds the timestamp string.

Field	Summary	Type	DCT	Initial	Access	Modify	Rec Proc Monitor	PP
VAL	Value Field	STRING [40]	No	Null	Yes	Yes	Yes	Yes
OVAL	Old Value	STRING [40]	No	Null	Yes	No		Yes
SEC	Raw Value in Seconds Field	ULONG	No	Null	Yes	Yes	Yes	Yes
NSEC	Raw Value in Nanoseconds Field	ULONG	No	Null	Yes	Yes	Yes	Yes

6. Record Support Routines

process

Gets the current EPICS timestamp, translates it to a TS_DETAIL structure using tsStampToLocal, and formats the VAL string based on TST value. Monitors are invoked if VAL is different from OVAL. No alarm monitors are invoked.

get_value

This function fills in the structure valueDes so that it refers to VAL.

EPICS Record Reference Manual – 19 MAY 1998

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