

***TDC 3000X R500
US Implementation***

***Add History Values to a
Custom Schematic***

**L5437T
LCN**

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References

Publication Title	Publication Number	Binder Title	Binder Number
<i>Picture Editor Reference Manual</i>	SW09-550	Implementation & Engineering Operations-2	TDC 3032-2
<i>Actors Manual</i>	SW09-555	Implementation & Engineering Operations-2	TDC 3032-2

Introduction

Module Overview

Introduction

This module describes how to add historical averages to your custom schematic displays.

Objectives

Given a description of history data requirements for a schematic, build the schematic to meet the requirements, using these R500 enhancements:

- indirect collectors, and
 - the history collection actor.
-

Sample test items

This course module's Criterion Test asks you to demonstrate successful completion of the lab exercise and to answer specific questions related to the Picture Editor collectors and actor used to add historical averages to a custom schematic display.

Add History Values to a Custom Schematic

History Values in Schematics

Description

With R500, you can use the existing Free Format Log (FFL) history collectors to display history averages and snapshots in schematics.

In addition, “indirect” versions of the FFL history collectors are now available in the Picture Editor. The “indirect” versions of the previous collectors allow the operator to enter the entity and parameter or just the entity at operating (run) time. You can refer to your existing FFLs and use the same start time and offset values in the Picture Editor collectors.

New indirect collectors have also been added to the Picture Editor that allow you to indirectly reference both the entity name and the historized parameter through a DDB variable (VARnn).

A new actor is used to initiate the history retrieval.

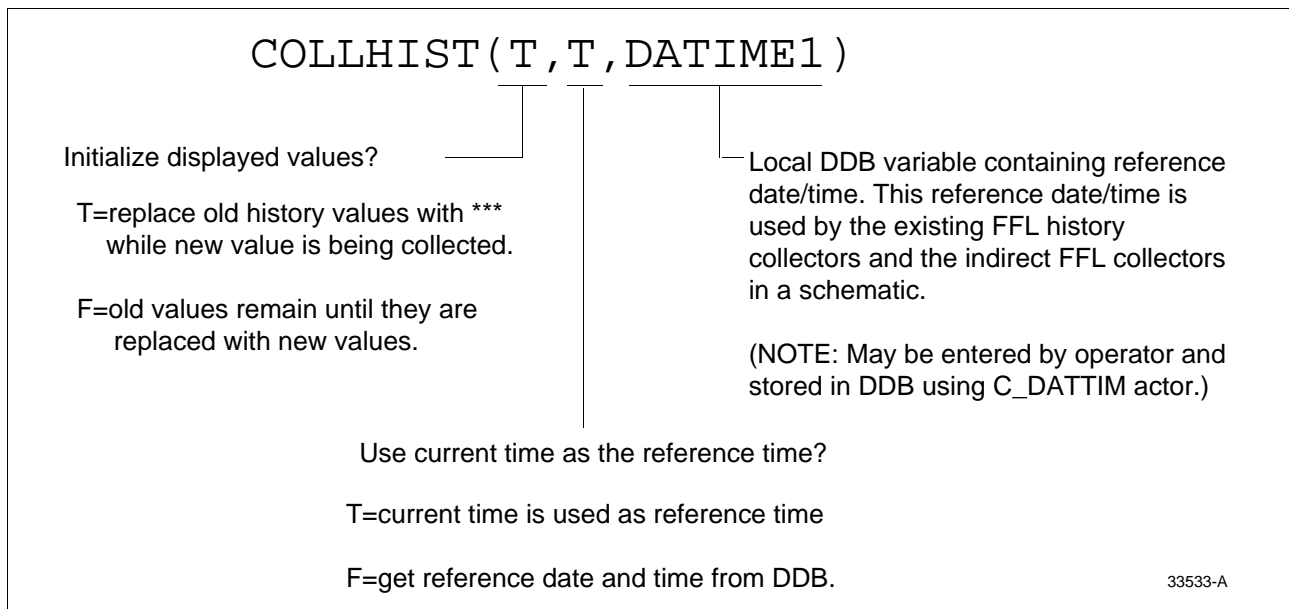
Actor

The new COLLHIST actor is used to activate the history retrieval and establish the reference time.

Put the actor in a target that can be used to collect history on demand by the operator. The existing UPDATE actors will not collect history.

Figure 1 shows the format of the COLLHIST actor.

Figure 1 Format of COLLHIST Actor



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History Values in Schematics, Continued

Collectors

You can use the “old” FFL history collectors if you want to specify the entity and parameter or just the entity *at schematic build time*.

Use the “indirect” history collectors if you want DDB single-level indirection for just the entity name or for both the entity name and the parameter to be retrieved.

The “indirect” collectors can also be used in background and foreground overlays.

Format of indirect collectors

Table 1 shows the indirect collectors that allow you to indirectly reference both the entity and the parameter. Figure 2 shows their format.

Table 1 Indirect History Collectors

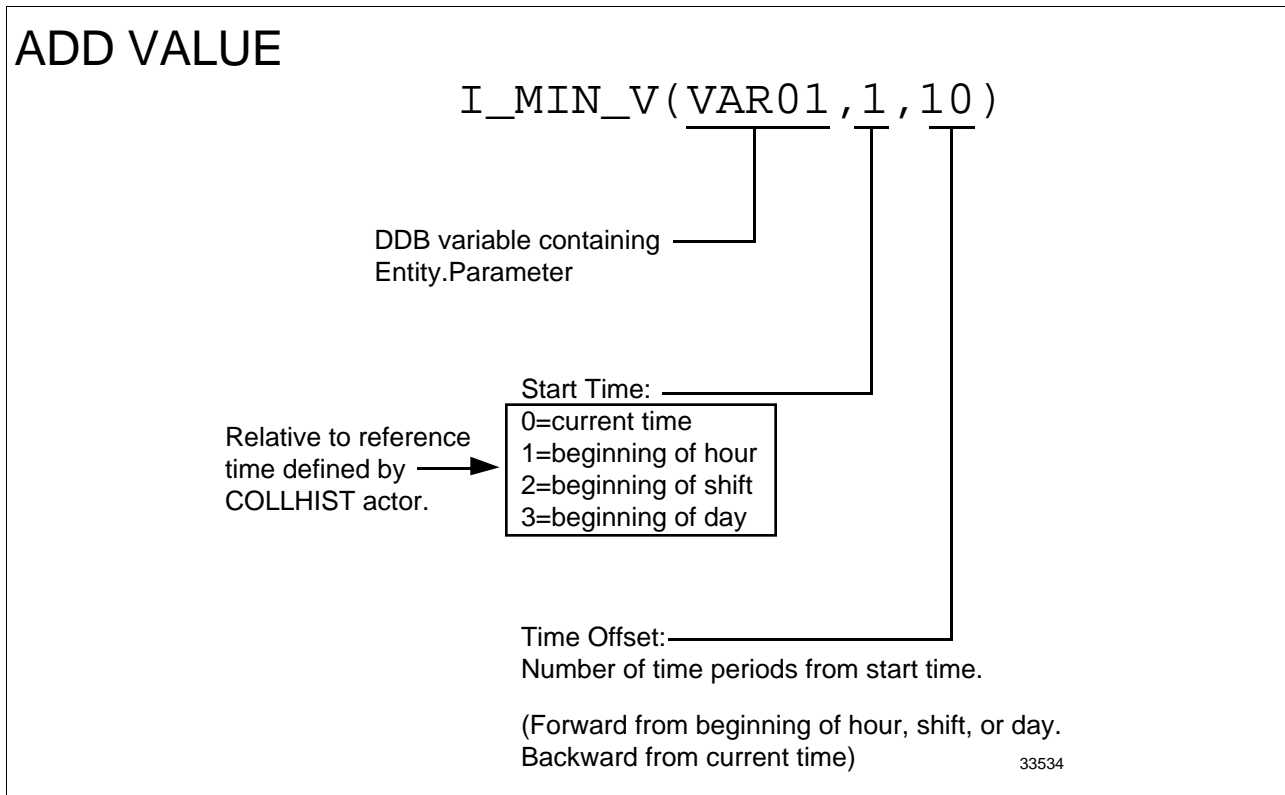
Value Collectors	Time Collectors	Status Collectors
I_USER_V	I_USER_T	I_USER_S
I_MIN_V	I_MIN_T	I_MIN_S
I_HOUR_V	I_HOUR_T	I_HOUR_S
I_SHFT_V	I_SHFT_T	I_SHFT_S
I_DAY_V	I_DAY_T	I_DAY_S
I_MON_V	I_MON_T	I_MON_S

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History Values in Schematics, Continued

Example

Figure 2 Indirect History Collector Example



Advantages of indirect collectors

With the new “indirect” history collectors, you can build general purpose “history collection” schematics, or add general purpose history collection subpictures to existing schematics by using local and global DDBs.

You can invoke “history collection” subpictures by using Variants.

After invoking the schematic, the operator can select the points and parameters to be retrieved (the entity/parameter pair can be supplied through a local DDB variable), or the entity can be provided as part of INITIAL action.

The operator can specify the retrieval starting data and time. A global or local DDB would be the repository. The date/time defaults to the current date/time if it is not changed by the user.

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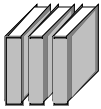
History Values in Schematics, Continued

Helpful hints

Remote history collection across a Network Gateway is OK.

Digital values are stored as an integer value. You can convert them by using a variant as shown in the example below.

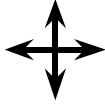
If HOUR_V(digpnt.PV,0,1,1)=1 then "OFF" else "ON"



REFERENCE—For future reference, the following documents provide detailed information for building a schematic with history data.

Document Title	(Section) Topic Subtopic	Binder Number
Picture Editor Reference Manual	(Appendix H) Collectors (H.4) History Collectors (Appendix A) Value Formats (A.8) Date Time Formats	TDC 3032-2
Actors Manual	(Section 2) Display Actors (2.47) Collect History Actor	TDC 3032-2

Directions



DIRECTIONS—This is the end of the study material for this course module.

At this time, do the lab exercise named “Add History Values to a Custom Schematic” (document number L5437L), located immediately following this course module. Discuss questions concerning the study material or lab exercise with a colleague or your course manager.

After completing the lab exercise, if you are satisfied that you have achieved the objective of this course module, continue with the Student Proficiency Evaluation.
