TotalPlant Solutions

R500—R530

US Implementation

Build Custom System Status Display

L53431T

LCN

TotalPlant

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This module supports **TotalPlant** Solution (TPS) system network.

TPS is the evolution of TDC 3000^{X}.

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References

Publication Title	Publication Number	Binder Title	Binder Number
Process Operations Manual	SW11-501	Operation	TPS 3050
Picture Editor Reference Manual	SW09-550	Implementation/Engineering Operations - 2	TPS 3032
Engineer's Reference Manual	SW09-505	Implementation/Startup and Reconfiguration - 2	TPS 3030

Introduction

Module Overview

Introduction

This module describes how to use the Picture Editor to build a Custom System Status display for a Universal Station console on the LCN.

Objectives

Given an LCN architectural diagram, create a Custom System Status display.

- Use subpicture SS_FRAME to add targets and status lines.
- Show all USs on the LCN, grouped by console.
- Build cable A and B connections and assign cable status behaviors.
- Add large and small node object boxes to the displays.
- Position redundant nodes next to each other.
- Build a second display page.

Sample test items

This course module's Criterion Test asks you to demonstrate successful completion of the lab exercise by loading the Custom System Status display and demonstrating its functionality to your instructor.

Build Custom System Status Display

Customizing System Status

Purpose

In this module you will use basic Picture Editor functions to create a Custom System Status display. You will also be introduced to several advanced custom display techniques.

Pre-R500 System Status

Before R500, the System Status display provided status information for one type of node or network at a time. Obtaining status information for various types of nodes required accessing different displays for each node type.

New System Status

In R500, the System Status display shows every LCN node and its node status information, without changing displays. It allows you to

- see a change in status for any node,
- perform loading, shutdowns, and dumps directly from System Status,
- view the LCN from any selected node's point of reference,
- obtain auxiliary information for all nodes, and
- directly access node status and detail status displays.

Custom System Status

The Custom System Status display gives you the ability to create a *functional* LCN architectural diagram with the capabilities of a Picture Editor schematic.

With these tools, the Custom System Status display enables you to

- organize and label groups of related nodes on the display,
- configure LCN cables to change intensity or color during a cable swap,
- add targets to access help screens, keystrokes, or other displays,
- develop up to five pages of Custom System Status displays,
- include schematic diagrams and nodes on the same display, and
- build jumps directly to network displays.

PSDP parameters

You can also incorporate PSDP (Processor Status Data Point) parameters in your custom displays.

Note: Rules for configuring the collection set of a schematic also apply to the Custom System Status display. When using PSDP parameters, plan your displays carefully to avoid overloading the system. Numerous PSDP requests can slow access to the Data Owner.

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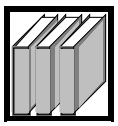


REFERENCE—Refer to the *Picture Editor Reference Manual*, and the *Engineer's Reference Manual*, Section 22, for more information. Course 4402, Advanced Graphics, also provides background in advanced Picture Editor techniques.

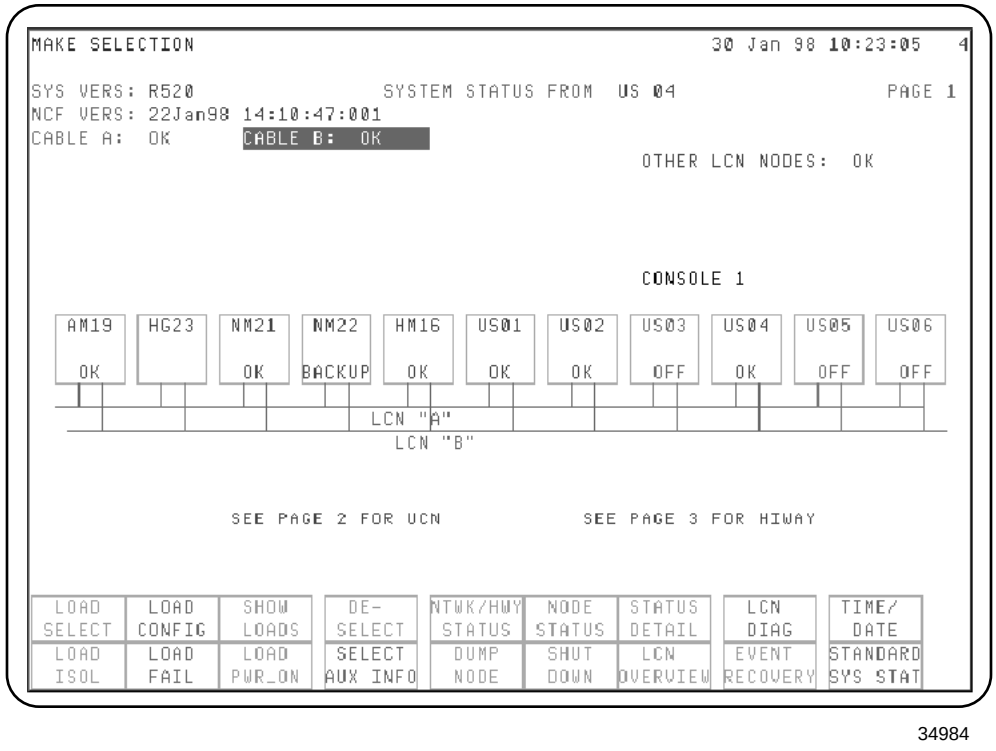
Display format

In Figure 1, the custom display shows

- USs grouped by console,
- redundant nodes grouped together,
- nodes and cables positioned in relationship to the LCN architecture, and
- text labels for the console and the LCN cabling.

In the lab following this course module, you will fill in node numbers for your assigned LCN nodes and build a functional custom display.

Figure 1 R500 Custom System Status Display



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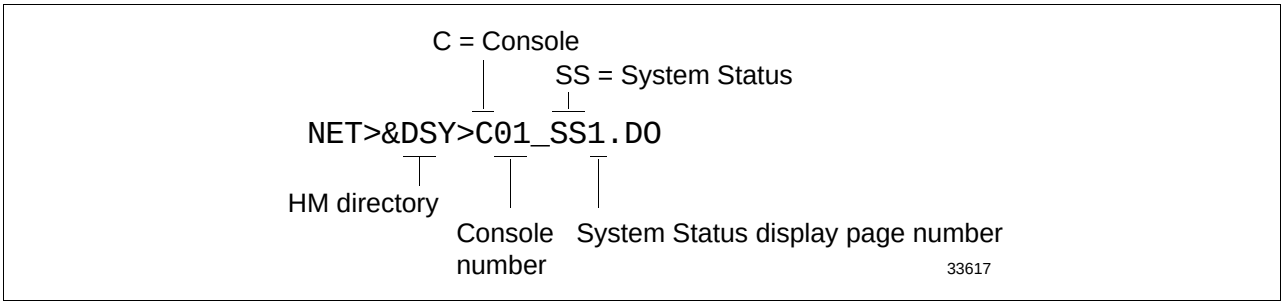
Custom file

The Custom System Status display file is created in the Picture Editor and is written to a source file, .DS. The source file is then compiled to an object file, .DO, in a working directory indicated by your instructor. The object files (one for each custom display page) are then copied to the &DSY directory on the History Module.

Figure 2 shows that the console number must be included in the file name. One custom display is built for each console. The page number of the display is also included and a separate file must be built for each custom display page, up to five pages.

Figure 2 Example Custom System Status Display File Name

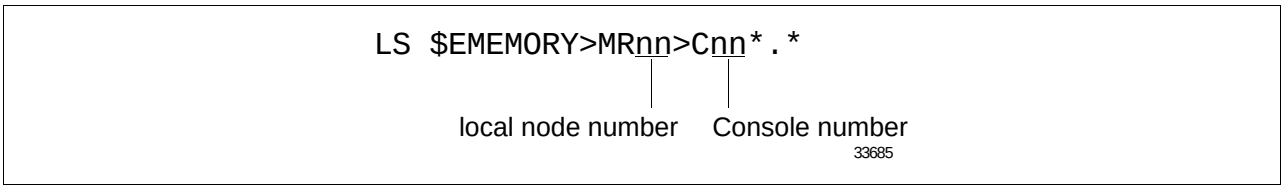


Loading display

When the object file is loaded into the &DSY directory, it becomes accessible to the Area Database. The custom display must be invoked at each station by making an Area change (from the Console Status and Assignments display) for each Universal Station in the console, one at a time.

The custom file is resident in US memory. To call up a list of all memory-resident custom display files, use the command in Figure 3

Figure 3 Command to List Memory-Resident Custom Display Files



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Customizing System Status, Continued

Procedure

The lab following this course module, L53431L, guides you through the following steps to build and execute a Custom System Status display.

Step	Action
1	Call up the Picture Editor from the Engineering Main Menu.
2	Add subpictures for background and nodes.
3	Add lines for cables and text for labels.
4	Compile the display.
5	Copy the .DO file into the &DSY directory.
6	Do an Area change.
7	Call up the new display by pressing the [SYST STATS] button.

Using the Custom Display

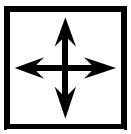
System Status navigation

When you call up your custom display, notice the target in the lower-right corner, STANDARD SYS STAT . When selected, this target invokes the standard display.

If you have configured more than one page of custom displays, use the [PAGE FWD] and [PAGE BACK] buttons to view additional display pages.

The custom display returns you to whichever custom display page you left. For example, if you start from page two of the Custom System Status display, then you move to another type of display, pressing the [SYST STATS] button will bring you back to Custom System Status display page two.

Directions



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

At this time, do the lab exercise named “Build Custom System Status Display” (document number L53431L), 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.

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