

KB00113 TERMRPAM for Terminal Concentrator

This article provides details about the TERMRPAM Executable and how it is used in the Terminal Concentrator environment:

- TERMRPAM and Terminal Concentrator
- Basic functionality of TERMRPAM.286
- Startup messages displayed by TERMRPAM
- Diagnostic / logging capabilities of TERMRPAM

The information in this article applies to:

- Terminal Concentrator platforms running POS terminals using IBM 4690 OS and IBM-supported peripherals

MORE INFORMATION

TERMRPAM and Terminal Concentrator:

In order for TC to function, the POS terminals attached to the Controller running TC must execute a "Client" program. This program is a small "I/O Handler" that is loaded into the terminal. The Client program opens the I/O devices, communicates that status to Terminal Concentrator, and then begins the process of collecting any input from devices like the keyboard, MSR, scanner, etc. and sending it to the Terminal Sales application running under TC. At the same time, it is reading output from the Sales application (prints, displays, etc.) and routing those to the intended device physically attached to the terminal.

TERMRPAM is the Client program for the 4690/OS environment, as well as other environments that can run 4690/OS programs. Written in the "C" language, TERMRPAM is less than 1/10th the size of a typical POS application: it loads and executes faster as a result.

Basic functionality of TERMRPAM.286:

Upon initialization, TERMRPAM will perform the following operations:

- Execute various ADXSERVE calls to determine the terminal address, type of printer attached, and other information needed to function properly with Terminal Concentrator.
- Attempt to open all devices attached to the terminal.
- Establish PRS pipe communications with Terminal Concentrator
- Notify TC that the terminal is up and advise the status of attached devices.

Once these operation have been completed, TERMRPAM enters a loop performing the following actions:

- Issue waits for all devices that are open and unlocked. Process any data that is entered and forward to Terminal Concentrator.
- Issue waits for the pipes that TC may write to. Process any data that is transmitted and write it to the intended device.

- Poll certain devices (printer, cash drawer) that may change status spontaneously and report any changes to TC.

Startup messages displayed by TERMRPAM:

TERMRPAM is loaded into the terminal using the same load logic used by the Terminal Sales Application. Once loaded, it establishes communication with TC, communicates status, and starts the process of bringing up the Sales Application under TC. As a result, there is no discernable difference between the two applications until TERMRPAM is loaded and takes control of the terminal displays. Once TERMRPAM is running, it will display a number of status messages to indicate progress toward completion. The table below will document the messages you should see when TERMRPAM is loaded and the operations that take place at that time.

- **U001 - U007:** Standard IBM IML messages
- **W008:** This message is displayed twice on IBM terminals in the TC environment. If this is the first time that this message is seen (right after U007), then TERMRPAM is being loaded into the terminal.
- **Q001:** TERMRPAM is loaded and is starting Initialization
- **Q002:** Terminal Information has been acquired from the OS. A "hang" at this point is most likely due to a required device missing condition (keyboard, printer, cash drawer)
- **Q003:** Required devices have been opened
- **Q004:** Communication pipes to Concentrator have been opened
- **Q005:** I/O Processor has been initialized. If multiple terminals are being loaded, you may see the message "Q004 IOPROC R xx PLEASE WAIT", where "xx" is the number of retries. Load will not progress until this completes.
- **Q006:** The alphanumeric translation table has been loaded.
- **Q007:** The Offline application has completed its initialization and is now trying to establish communication with Terminal Concentrator. If the terminal hangs with this prompt displayed, the most likely cause is that TC is not running on the Controller or that this terminal is not attached to the Controller running TC.
- **Q010:** The controller has been notified that terminal IML is complete and that TC can initialize the application

**** Note **** From this point forward, the TC screen should match the terminal display

- **W008:** TC is loading EAMTS10L

All messages from this point forward are generated by EAMTS10L.