



READ ME FIRST!!

DT-SAM

**Multiple Protocol
Inter-Networking Device Interface
Product / Release Notes**

Build 25.0

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IMPORTANT SAFETY INSTRUCTIONS



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

When installing, operating, or maintaining this equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

- Read and understand all instructions.
- Follow all warnings and instructions marked on this product.
- For information on proper mounting instructions, consult the User's Manual provided with this product.
- The telecommunications interface should not leave the building premises unless connected to telecommunication devices providing primary and secondary protection.
- This product should only be operated from the type of power source indicated in the User's Manual.
- This unit must be powered from either -48 V DC or AC voltage sources. See User's Manual before connecting to the power source.
- The -48 V DC input terminals are only provided for installations in Restricted Access Areas locations.
- Do not use this product near water, for example, in a wet basement.
- Never touch non-insulated wiring or terminals carrying direct current or leave this wiring exposed. Protect and tape wiring and terminals to avoid risk of fire, electric shock, and injury to service personnel.
- To reduce the risk of electrical shock, do not disassemble this product. Only trained personnel should perform servicing. Opening or removing covers and/or circuit boards may expose you to dangerous voltages or other risks. Incorrect re-assembly can cause electric shock when the unit is subsequently used.
- For a unit intended to be powered from -48 V DC voltage sources, read and understand the following:
 - This equipment must be provided with a readily accessible disconnect device as part of the building installation.
 - Ensure that there is no exposed wire when the input power cables are connected to the unit.
 - Installation must include an independent frame ground drop to building ground. Refer to User's Manual



This symbol is marked on the DT-SAM, adjacent to the ground (earth) area for the connection of the ground (earth) conductor.

- This Equipment is to be Installed Only in Restricted Access Areas on Business and Customer Premises Applications in Accordance with Articles 110-16, 110-17, and 110-18 of the National Electrical Code, ANSI/NFPA No. 70. Other Installations Exempt from the Enforcement of the National Electrical Code May Be Engineered According to the Accepted Practices of the Local Telecommunications Utility.
- For a unit equipped with an AC Wall Plug-In Unit, read and understand the following:
- Use only the K'TRON, Model KA-52A Wall Plug-In Unit or comparable, approved unit.
 - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
 - Do not staple or otherwise attach the power supply cord to the building surfaces.
 - Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.
 - The socket outlet shall be installed near the equipment and shall be readily accessible.
 - The Wall Plug-In unit may be equipped with a three-wire grounding type plug, a plug having a third (grounding) pin. This plug is intended to fit only into a grounding type power outlet. Do not defeat the safety purpose of the grounding type plug.
 - Do not allow anything to rest on the power cord. Do not locate this product where persons walking on it may abuse the cord.
 - Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a) When the power supply cord or plug is damaged or frayed.
 - b) If liquid has been spilled into the product.
 - c) If the product has been exposed to rain or water.
 - d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by qualified technician to restore the product to normal operation...
 - e) If the product has been dropped or the cabinet has been damaged.
 - f) If the product exhibits a distinct change in performance.

Save These Instructions



IMPORTANT!!

The reseller of this product has tried to insure that the power option you need for your configuration, either AC to 5V DC or 48V DC, has been set at the factory. However, after attaching power to the product, if the power light does not illuminate, verify the power option selected is correct. Refer to the latest Datatek DT-4000 User's Manual for instructions on changing this factory setting. (The DT-SAM is the same hardware as a DT-4000 but with different firmware.)

USER DOCUMENTATION IS AVAILABLE AT OUR WEB SITE.

Documentation:	http://www.datatekcorp.com
Sales:	sales@datatekcorp.com

A software key is required to register the software. When the DT-SAM is upgraded with a new software build, the DT-SAM will be in a restricted command mode until the software is properly registered. The DT-SAM will continue to run properly. However, if the DT-SAM is removed from service, the DT-SAM cannot be restored to service until the registration process is completed.



1 INTRODUCTION

These release notes highlight the product features, modifications, known caveats and any special considerations for the DT-SAM product. For detailed information on this product, reference the DT-SAM User's Manual.

2 PRODUCT FEATURES

The **DT-SAM** is a *software* product used to replace the standard firmware of the **DT-4000**. This document assumes that the reader has familiarity with the **DT-4000** User's Manual.

The **DT-4000** is a Multiple Protocol Inter-Networking device, which can function as part of either a BNS¹ or an IP infrastructure, or access *both* infrastructures *simultaneously*. It has 16 asynchronous / synchronous / isochronous ports supporting speeds up to 115.2 Kbps (asynchronous) or 56 Kbps (synchronous).

The **DT-SAM** software replaces the **DT-4000** firmware. The **DT-SAM** operates *exclusively* in a BNS infrastructure, and may use the IP infrastructure as a BNS trunk in either simplex or duplex configurations. The **DT-SAM** provides for an extension of the BNS SAM created by the **DT-4000** to more than 16 ports. This is done by attaching one or more additional **DT-4xxx** devices of any density to the **DT-4000** via the GATE ether port. A maximum number of 112 ports are supported via a single or duplex BNS trunk using three **DT-4232** or **DT-4280** devices.

The **DT-SAM** may be used as a drop-in replacement for any density SAM. With 48 ports, it is only 2U in size (i.e. a **DT-4000** and a **DT-4232** or **DT-4280**), 3U for 80 ports, and 4U in total for 112 ports. The allowed extension units may be **DT-4000**, **DT-4180**, or **DT-4280** units, and when available, **DT-4216**, **DT-4232** or **DT-4284** units. Each extension unit is represented as a SAM "board". Consequently, the **DT-SAM** is a 4 board BNS SAM.

Only base level configuration is performed on the **DT-4000** with DT-SAM software, or the **DT-4xxx** extension units. All user port configuration is performed by the BNS control computer. The User Ports are only BNS ports. The **DT-4xxx** "port" and "verify port" commands are not supported. The IP-GATE is not supported as it is replaced with the extension board downlink.

The **DT-4xxx** extension unit configuration has been reduced to a single command without arguments. A configuration command **samext** is available on all of the supported devices. This single command is entered without options. It requires a password for confirmation, and then configures the unit to act as an extension board to the **DT-SAM**.

A more comprehensive description of the features of a DT-SAM can be found in the **DT-SAM Multiple Protocol Inter-Networking Device User's Manual** available for download from the Datatek web site.

¹ Throughout this document, the term **BNS** encompasses both BNS-2000 and BNS-2000 VCS type nodes.



3 RELEASE CHANGES

3.1 NEW FOR BUILD 25.0

3.1.1 NEW AND CHANGED COMMANDS

- This is the first release of the DT-SAM product. Since the DT-SAM and DT-4000 use the same hardware, build numbers for DT-SAM and DT-4000 will closely track each other.
- When configuring the DT-SAM itself (not its ports), there are four commands: **board**, **dlink**, **restore** and **remove** that are the only ones available. **Remove** and **restore** are different than the “traditional” remove and restore commands. See the DT-SAM User Manual for details. The ports are configured in the BNS node only, not on the DT-SAM.
- The function of resetting a password has been deleted from the **install** command. Instead, use the new **rstpass** command that is always available, i.e. both when logged in and not logged in.

Syntax: rstpass <key="a one-time key">

Run the command to obtain the information needed to generate a key, call Datatek to get the key, then rerun the command with the **key=xxxx** on the command line. The key will only work once. This key is different than the key needed to install a new software release used in the **install** command.

3.1.2 COMMAND OUTPUT CHANGES

3.1.3 OTHER CHANGES

- The enterprise object ID of the DT-SAM is **1.3.6.1.4.1.3791.3.17**.

4 INSTALLATION ADDENDUM

4.1 SOFTWARE REGISTRATION IMPACT

When the DT-SAM is upgraded with a new software build, the DT-SAM will be in a restricted command mode until the software is properly registered. The DT-SAM will continue to run properly. However, if the DT-SAM is removed from service, **the DT-SAM cannot be restored to service until the registration process is completed.**

4.2 AC TO 5V DC OR -48V DC POWER OPTION

The DT-SAM is powered through either of two interfaces: -48V DC or -5V DC input. The interface used is determined by an option set at the factory that can be changed by the customer. Typically, the -5V DC interface is used when a customer uses an 115/240V AC to -5V DC power supply. The reseller of this product has tried to insure that the DT-SAM has been optioned at the factory for the power interface you need for your configuration. After attaching power to the DT-SAM, and the power light does not illuminate, reconfigure the power input option. Refer to the latest Datatek DT-4000 User's Manual for instructions on changing this factory setting.



4.3 OBTAINING INFORMATION FROM DATATEK

Load modules for all the Datatek migration products are no longer available on the Datatek web site. They must be obtained only by sending email to either Bill Arndt at arndt@datatekcorp.com or Dan Conklin at conklin@datatekcorp.com. All other documentation, including release notes, user manuals, "white-papers", etc. can be still be accessed on the Datatek web site and downloaded for your use.

To insure that the correct version of the binary load module file have been retrieved and has not been corrupted during the transmission process, the UNIX® "**sum**" command can be used. After unzipping (if necessary) and transmitting the file to the target UNIX host server from the PC to which the load module was initially sent from Datatek, on the UNIX host

key-in **sum** < name of downloaded file>.

The values returned must match the number shown below:

Key-in: **sum dt_SAM.25**

Response: **14446 1890 dt_sam.25.0**

5 DOCUMENTATION

The current version of the DT-SAM user manual is **Build 25**, which is the first issue. The user manual is available and posted on the Datatek web site under the *Support* link.

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6 HARDWARE WARRANTY

The warranty period for hardware shall be ninety (90) days from the date of delivery of this hardware. Replacements and repairs are guaranteed for the longer of the remaining original warranty period or 30 days.

7 END-USER LICENSE AGREEMENT FOR SOFTWARE

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