

DV6000 DAP Control Software

Procedures Manual

1054575 Rev B



**Procedures Manual
for
DV6000 DAP Control Software**



DV6000 DAP Control Software

Artel Document Number: 1054575, Revision B

Copyright © 2006 Artel Video Systems. All rights reserved.

Trademarks

DV6000 and the Artel logo are registered trademarks of Newfound Technology. Copyright © 2006 Newfound Technology. All Rights reserved. All other brand and product names are trademarks or registered trademarks of their respective companies.

Contents and specifications within this manual are subject to change without notice.

Contacting Technical Support

Contact Information

You can contact Artel by phone, e-mail, Internet, fax, or mail. When contacting Artel Technical Support, please be prepared to provide the information listed below:

- Your company name and address
- Your phone and fax number
- Your e-mail address
- The system location
- A description of the problem(s) you are experiencing
- Any equipment part/model numbers related to your specific problem(s)
- The best way to contact you (phone, fax, e-mail, or mail)
- The best time to contact you

Phone

Call Artel 24 hours a day, 7 days a week: **978.263.5775 and Press 1 for Technical Support.**

E-Mail

Send an e-mail, including all the information listed in **Contact Information** (above):
technical@artel.com

Internet

Visit us on the World Wide Web at:
<http://www.artel.com>

Fax

Send a fax with a cover sheet including all the information listed in
Contact Information (above): **978.263.9775**

Mail

Send your letter, including the information listed in **Contact Information**:

Attn: Customer Support
Artel Video Systems
A Division of Newfound Technology
330 Codman Hill Road
Boxborough, MA 01719

Repair Services

Contact Sales to request a Return Material Authorization (RMA) if you need to return a product for repair.

<http://www.artel.com> (Customer Support > RMA Request Form)

Technical Training

Contact Sales for inquiries concerning Product Training. Please be prepared to provide a list of products on which you would like training.

978.263.5775 X225 or customercare@artel.com

Providing Feedback on this Publication

Artel welcomes your suggestions and assistance in identifying any errors, inaccuracies, or misleading information. Please contact our *Technical Publications Department* with an e-mail referencing the document number and page number(s) to which the feedback applies.

Send your e-mail to:

technical@artel.com

Contents

Read This First

1.1. Important Rules for Safety	1-1
1.2. Related Documentation	1-2

Overview of the DAP Control Software

2.1 Introduction	2-1
2.1.1 Moving Through the DAP Control Software Screens	2-2
2.1.2 Function Key Operations	2-3
2.2 DAP Control Software Screens	2-4
2.2.1 Introduction Screen	2-4
2.2.2 Main Menu	2-5
2.2.3 DAP Control Screen	2-5

Installing and Using the DAP Control Software - Task Oriented Practice (TOP) Procedures

3.1 Using a TOP Document	3-1
3.2 Task List	3-2
CONFIGURE A DV6000 SHELF CONTAINING A DAP CIRCUIT CARD	3-3
CONNECT PC TO DAP AND LOAD DAP CONTROL SOFTWARE	3-4
INITIATE DAP CONTROL SOFTWARE	3-6
ACCESS THE HELP MENU	3-9
SET A PASSWORD AND LOCAL LABEL	3-10
LOAD A DAP SETUP FILE	3-12
DROP AN INCOMING DATA CHANNEL	3-14
ASSIGN AN INCOMING DATA CHANNEL TO PASS OR TERMINATE IN THE LOCAL DV6000 SYSTEM SHELF	3-16
ADD A SIGNAL	3-18
SELECT PATH, INBAND COMMUNICATIONS AND TIMING PARAM- ETERS	3-20
SAVE CHANNEL ASSIGNMENTS AS A DAP SETUP FILE	3-22
LOOPBACK TEST FOR ENCODERS AND DECODERS	3-23
EXIT DAP CONTROL SOFTWARE AND DISCONNECT PC FROM DAP	3-27

About This Manual

Who Should Use This Manual?

This manual is written to provide a system engineer/technician with information to install and operate the DV6000 *DAP Control Software*. It is designed to lead the user through the whole series of operations he/she may need to perform.

What Should I do First?

Read through Section 1 first. Familiarize yourself with the safety precautions and terms used throughout the manual. Also, make sure that you have all the necessary equipment and information to configure the system.

How is This Manual Organized?

- Section 1 states the safety precautions, the inspection process, and the related documentation.
- Section 2 gives an overview of the software structure and capabilities.
- Section 3 contains Task Oriented Practice (TOP) type procedures for configuring the DAP, and using the *DAP Control Software* to monitor and control your DV6000 system. We have made every effort to assure that everything you will need to install and operate the *DAP Control Software* is in Section 3.

SECTION

1




Read This First

1.1. Important Rules for Safety

NOTE: Please read this section carefully before beginning installation or operation.

Below is a description of the safety icons used throughout this document.

Table 1.1.
*Admonishments used
in this Documentation*

	Note	Designed to draw the user's attention to a particular part of a procedure or explanation that is considered to be of higher importance or worthy of extra attention.
	CAUTION	Designed to direct the user's attention to a specific task, which if not performed carefully, can lead to serious damage of equipment.
	WARNING	Designed to direct the user's attention to a procedure or task, which if not performed carefully, can lead to physical injury of the user.

1.2. Related Documentation

The following documentation is related to the information in this manual.

Literature Title

*DV6000 Digital Video Transmission System Installation
and Operation Manual*

SECTION

2

Overview of the DAP Control Software

2.1 Introduction

The DV6000 Drop/Add/Pass (DAP) Multiplexer board is the most intelligent and flexible component in the DV6000 Universal Digital Transport System. The programmed configurations of the DAP boards in a DV6000 system determine the overall configuration and function of the system. And the *DAP Control Software*, which is supplied with the DAP, enables the operator to set and change the system configuration easily.

The DAP Multiplexer functions both as a multiplexer and a demultiplexer. In a DV6000 system, the DAP:

- 1) Accepts digitally encoded broadband electronic signals from digital encoders in the local equipment shelf, and from other DV6000 sites in the system,
- 2) Multiplexes the encoded digital signals to the fiber-optic transmitter,
- 3) Demultiplexes the digital signals coming in from the fiber-optic receiver, and
- 4) Routes the digital signals to broadband decoders.

The *DAP Control Software* is used to program the DAP boards in a DV6000 system to route signals correctly to the individual sites in the system. Sixteen multiplexer time slots are available in each DV6000 equipment shelf for sixteen individual signal lines, or “channels.”

Using the *DAP Control Software*, each DAP is programmed to drop, add, and/or pass the signals in the system at the appropriate site.

To “drop” a channel is to route a digital signal to a decoder for local use.

To “add” a channel is to multiplex a digital signal that has been encoded at the local DAP’s equipment shelf into the outgoing digital fiber-optic data stream for transmission to the next site in the system.

To “pass” a channel is to accept a digital signal that has been encoded at a previous site in the system, and re-multiplex it into the outgoing fiber-optic data stream.

A “channel,” or signal/time slot, can be both dropped and passed at a DAP equipment shelf. If a signal does not need to be passed, it can be terminated at a DAP equipment shelf. If it is terminated, it is not multiplexed back out onto the outgoing fiber-optic data stream. This leaves an outgoing time slot open for a signal to be added.

The *DAP Control Software* runs on an IBM PC (or compatible), and allows a user to program one DAP at a time in the system. Complete sets of programming information for individual DAP configurations can be stored in files on the PC for reuse. The stored file option allows a technician to store basic configurations, and program multiple DAPs quickly, needing only minor changes at the different sites.

The *DAP Control Software* shows the signals coming in to the local DAP equipment shelf on the incoming fiber-optic data stream, the local shelf configuration, and the signals that are being multiplexed out onto the outgoing fiber-optic data stream. This information is all displayed in one main DAP screen, the DAP Control Screen. The *DAP Control Software* operator performs most tasks from this one screen.

2.1.1 Moving Through the *DAP Control Software* Screens

The following list shows the keystrokes that will move you through the DAP screens. Other keystrokes are prompted by screen messages, or listed at the bottom of the fields.

Keystroke Action

Up and Down arrows
Left and Right arrows

The arrow keys move the cursor from field to field, and allow positioning of the cursor over menu and field items.

ENTER

Selects an entry once the cursor has moved to the desired entry. This key moves the user to the *next* screen.

ESCAPE

Return the user to the *previous* screen.

2.1.2 Function Key Operations

The *DAP Control Software* uses function keys to bring up the dialog boxes that prompt the user through most of the tasks needed to configure the DAP equipment shelf.

These function key tasks can be performed from the *DAP Control Software* Main Menu:

F1 – Enter the DAP Control Screen.

F2 – Change the password.

F3 – Quit the program.

These function key tasks can be performed from the main DAP Control Screen:

F1 – Change the channel on an encoder or decoder for an add or drop

F3 – Toggle the pass/terminate status on an incoming channel.

F4 – Save the current channel settings as a file on the hard disk.

F5 – Load the channel settings of a Setup File into the local DAP card.

F6 – Access helpful information concerning the software.

F7 – Change the local DAP label.

F8 – Select the primary path, enable/disable inband communications, and set the DAP timers.

F9 – Enable/disable the loopback mode.

2.2 DAP Control Software Screens

2.2.1 Introduction Screen

The Introduction screen (Figure 2-1) gives the following basic information about the *DAP Control Software*:

1. Company name.
2. Software name.
3. Software version number. (Contact your sales representative for information on the latest *DAP Control Software* revisions.)
4. Part number.
5. Copyright notice.

The Introduction screen prompts the user for the password. The default password is *ALS*. The password can be typed in either upper or lower case. The procedures to change the password are in DLP-4 of Section 3 of this manual.

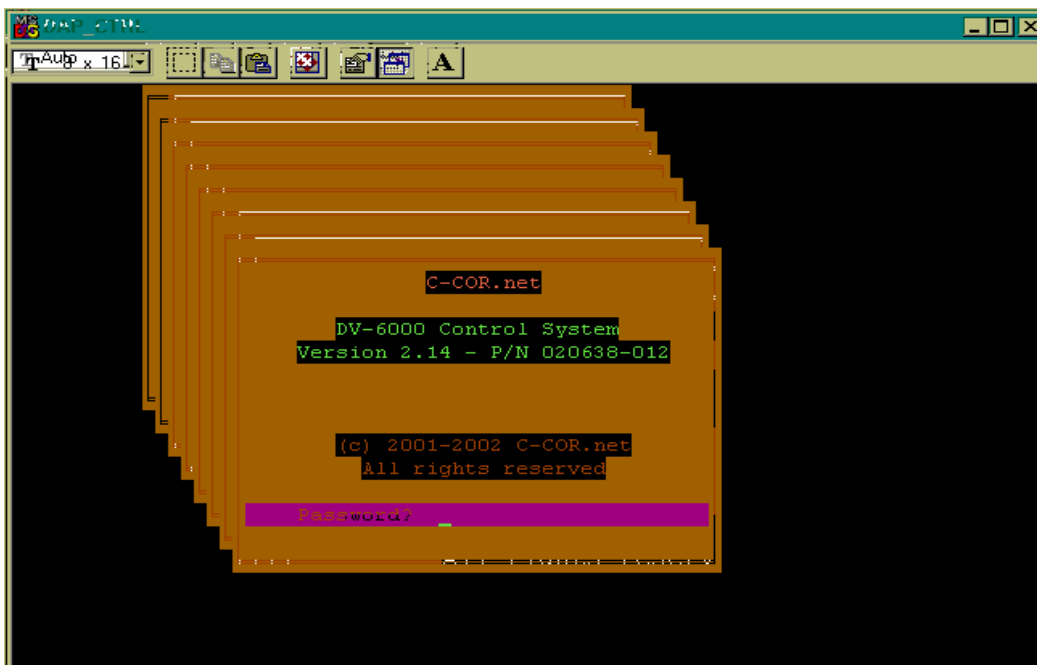


Figure 2-1. Introduction Screen

2.2.2 Main Menu

The Main Menu (see Figure 2-2) provides three functions. The user can set the password and the name of the local site (refer to DLP-4), exit the software (DLP-12), or go to the DAP Control Screen. All DAP control functions are performed from the DAP Control Screen.

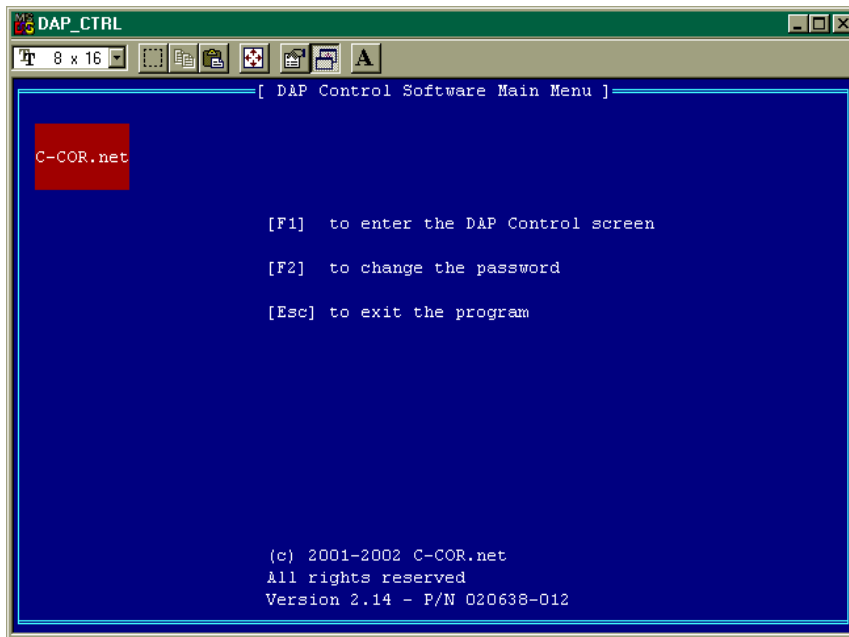


Figure 2-2. Main Menu

2.2.3 DAP Control Screen

The DAP Control Screen (see Figure 2-3) is divided into four fields. There are three channel status fields, Incoming, Local, and Outgoing, and the function field at the bottom of the screen. The left field displays the status of the incoming channels. The middle field shows the status of the local equipment shelf that contains the DAP that is physically connected to the PC at the time. The right field shows the status of the outgoing channels.

2.2.3.1 Incoming Channel Status Field

The Incoming Channel Status displays the sixteen available channel lines coming into the local DAP. For each channel, the field displays the channel number (1-16), the channel's name in ten characters or less, and a **P** or **T** for the channel's pass/terminate status. (*P* indicates that the incoming signal is being passed (multiplexed onto the outgoing data stream) to the next site. *T* indicates that the local site is the last site at which that channel can be decoded (dropped).

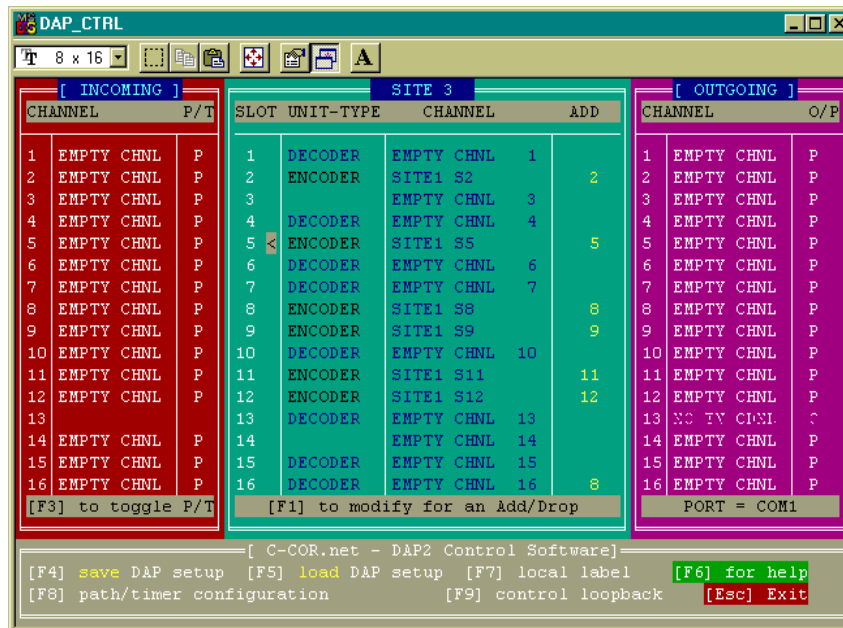


Figure 2-3. DAP Control Screen

2.2.3.2 Local Status Field

The Local Status field displays the sixteen available channel slots in the local equipment shelf. For slots 1 through 16, the field shows the type of board in the slot, if any, what channel is being encoded or decoded in that slot, and any locally added channels.

If a slot is empty, there is no text in the UNIT-TYPE column. Types of boards are shown as ENCODER08, ENCODER10, DECODER08, or DECODER10. The boards shown as -08s are 8-bit boards, the boards shown as -10s are 10-bit boards.

In the channel column is the name and number of the channel being encoded, decoded, or passed. The slot number for any channels that are being locally input are shown in the ADD column. Channels can be locally added on any time slot that has its incoming signal terminated. The time slot channels can be routed to any equipment shelf slot.

2.2.3.3 Outgoing Status Field

The Outgoing Status field shows the sixteen channel lines multiplexed out to the transmitter from the local DAP. The channel number and name are shown, and an O or P indicates whether the signal originated at the local site or is being passed from a previous site.

2.2.3.4 DAP Control Functions

The field at the bottom of the DAP Control Screen shows the function keys that are available for performing a variety of tasks. The main DAP control functions are dropping, adding, and passing channels. The function keys that perform these tasks are shown in the fields to which they are most pertinent, i.e., the Incoming and Local status fields.

Dropping a channel means to route a signal in the digital data stream to a decoder at the local site (refer to DLP-6). A dropped channel is still available to be passed to the next site, providing that it has not been terminated in the incoming box.

Adding a channel means to input a signal to an encoder for digital encoding so that it will be available to the DAP to multiplex onto the outgoing data stream (refer to DLP-8). In order to add a channel, an incoming signal/time slot must be terminated at the local equipment shelf. This leaves the outgoing time slot open (refer to DLP-7).

Passing a channel means to multiplex a previously encoded channel onto the outgoing data stream. A channel that is passed can be dropped for use at the local site or not dropped; it will be available to multiplex out in either case. If a channel is not needed at any further sites in the system, it can be terminated, which leaves the outgoing channel line empty.

2.2.3.5 Error Messages

When the user first enters the DAP Control Screen, the *DAP Control Software* attempts to establish communication with a DAP. If the software cannot establish the link, it displays a Communication Error message (see Figure 2-4). The Communication Error message box provides troubleshooting suggestions.

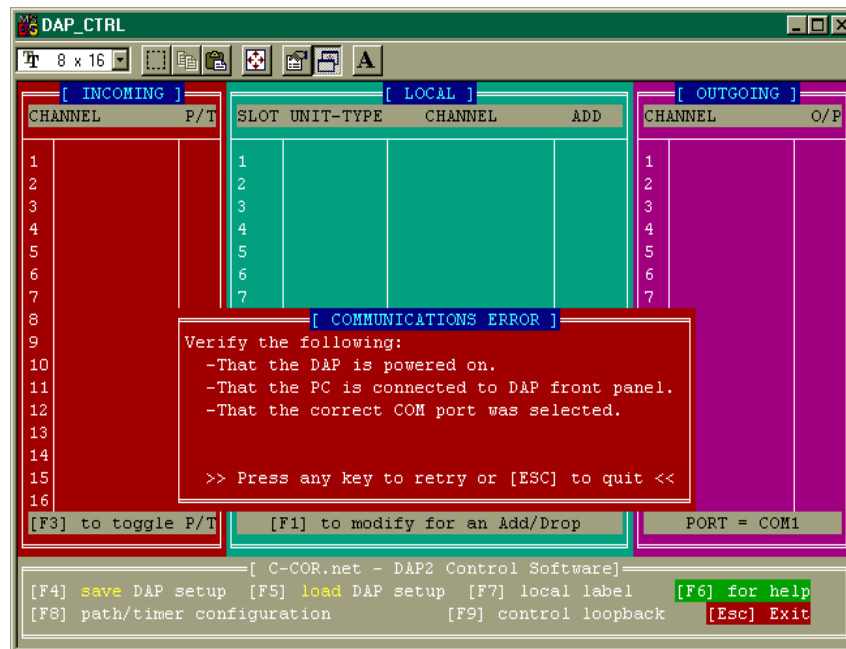


Figure 2-4. Communication Error Message

(This page intentionally left blank.)

SECTION

3

Installing and Using the DAP Control Software - Task Oriented Practice (TOP) Procedures

3.1 Using a TOP Document

The procedures in this section are written in the Task Oriented Practice (TOP) format. This is a method of presenting step-by-step instructions for the completion of individually specified tasks. The TOP procedures in this manual are organized in the following two levels:

1. NTP (Non Trouble-Clearing Procedure): This is a top-level list of Detailed Level Procedures (DLPs) to be performed to accomplish the main task. It directs you to individual Detailed Level Procedures (DLPs), one by one.
2. DLP (Detailed Level Procedure): This is a very detailed step-by-step procedure to which you are directed from the main procedure (NTP).

Refer to the Task List (IXL-001) to find a particular task.

3.2 Task List

Find Your Job In the List Below	Then Go To
--	-------------------

Configure a DV6000 Shelf containing a DAP circuit card	NTP-001
Connect the PC to the DAP and load the <i>DAP Control Software</i>	DLP-1
Initiate the <i>DAP Control Software</i>	DLP-2
Access the help menu	DLP-3
Set a password and local label	DLP-4
Load a DAP setup file	DLP-5
Drop an incoming data channel	DLP-6
Assign an incoming data channel to pass or terminate in the local DV6000 system shelf	DLP-7
Add a signal	DLP-8
Select path, enable/disable inband communications, and set timing parameters	DLP-9
Save the channel assignments as a DAP setup file	DLP-10
Loopback test for encoders and decoders	DLP-11
Exit the <i>DAP Control Software</i> and disconnect the PC from the DAP	DLP-12

CONFIGURE A DV6000 SHELF CONTAINING A DAP CIRCUIT CARD

Summary: The tasks required to configure a DAP for a particular DV6000 shelf according to site-plan documentation are listed below.

Find Your Job in the List Below	Then Go To
1. Load a PC with the <i>DAP Control Software</i> , and connect it to the DAP card	DLP-1
2. Initiate the <i>DAP Control Software</i>	DLP-2
3. Access the help menu	DLP-3
4. Set a password and local label	DLP-4
5. Load a DAP setup file	DLP-5
6. Drop an incoming data channel	DLP-6
7. Assign an incoming data channel to pass or terminate in the local DV6000 system shelf ...	DLP-7
8. Add a signal	DLP-8
9. Select path, enable/disable inband communications, and set timing parameters.....	DLP-9
10. Save the channel assignments as a new DAP setup file	DLP-10
11. Perform a loopback test for encoders and decoders in the DAP shelf.	DLP-11
12. Exit the <i>DAP Control Software</i> and disconnect the PC from the DAP	DLP-12

DLP-1

Page 1 of 2

CONNECT PC TO DAP AND LOAD DAP CONTROL SOFTWARE

Summary: In this procedure, the technician loads the DAP software into the hard drive of a personal computer (PC) and then connects that PC to the DV6016DAP2 circuit card using a 10-foot RS-232 cable.

1. Make sure that the PC in which the *DAP Control Software* is to be installed meets or exceeds the following minimum requirements:

IBM PC or equivalent, with a 286 processor, and MS-DOS Version 3.3


1 Mbyte of RAM

1 3.5-inch High Density Disk Drive

1 hard drive with 20 Mbytes of free storage

1 serial COM port

2. Use the DOS **mkdir** command to create a \DAP directory on the hard drive by typing **mkdir dap** and pressing **Enter** at the hard drive prompt (usually C:>).
3. Put the 3.5-inch disk that contains the *DAP Control Software* into the 3.5-inch disk drive of the PC (usually the A: drive).
4. Use the DOS **copy** command to copy the *DAP Control Software* files from the disk in drive A: into the \DAP directory by typing **copy A:*.* C:\DAP** and pressing **Enter**.

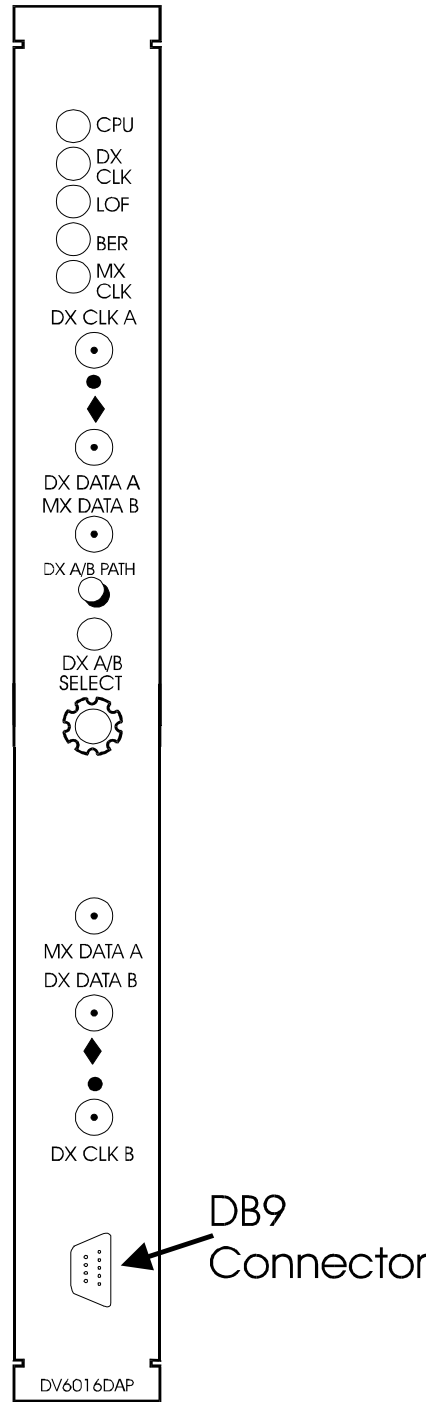
 **CAUTION:** *The DAP can be damaged by static electrical discharge. Before handling DAP card wear an antistatic discharge wrist strap to prevent damage to electronic components. Place DAPs in antistatic packing material when transporting or storing. When working on DAPs, always place the unit on an approved antistatic mat that is electrically grounded.*

5. If the DAP is not installed in the DV-6016-ES equipment shelf, the technician should install it now. Refer to the installation procedures in the DV6000 Installation and Operation Manual.
6. Connect the COM1 or COM2 RS-232 port (a DB9 connector) on the PC to the DB9 connector on the front panel of the DAP. Use a RS-232-C cable with a female DB9 connector on the computer end, and a male DB9 connector on the DAP end, part number DV6151CBL, to make the connection (see Figure DLP1-1).

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

DLP-1
Page 2 of 2

DROP/ADD/PASS
MULTIPLEXER



4480-B

Figure DLP1-1. Drop/Add/Pass Multiplexer Circuit Card

DLP-2 Page 1 of 3

INITIATE DAP CONTROL SOFTWARE

Summary: In this procedure, the technician activates the DAP software program, types in the default password, goes to the *DAP Control Software* Main Menu, then to the DAP Control Screen. Once the DAP Control Screen is displayed, the *DAP Control Software* begins to poll the screen.

You must complete DLP-1 before you do this procedure.

1. Be sure the host PC is turned on and that a DOS prompt for its hard drive (where the DAP software resides) is displayed. In many cases, this will be a C:\ prompt.
2. Change to the DAP directory by typing **cd <space> dap** and pressing **Enter**.
3. If the connector cable is attached at COM1 on the PC, type **dap_ctrl <space> 1** and press **Enter**. If the connector cable is attached at COM2 on the PC, type **dap_ctrl <space> 2** and press **Enter**. The DAP introduction screen, as shown in Figure DLP2-1, is displayed.
4. The DAP introduction screen prompts the user for a password of 10 characters or less.

The default password, which can be used unless another password has been set, is **ALS**. If another password has been set, you must use that password instead. Upper or lower case letters are equivalent.

Type the password and press **Enter**. The *DAP Control Software* Main Menu, as shown in Figure DLP2-2, appears.

5. Press **F1** to enter the DAP Control Screen, shown in Figure DLP2-3. In the middle field of the DAP Control Screen, the cursor travels down the screen as it polls each equipment slot. Allow at least one full polling of the equipment shelf before beginning any other task.
6. If the serial connection has not been completed yet, or if it is interrupted, the *DAP Control Software* displays a Communications error Message (see Figure DLP2-4). The screen prompts the user to verify:
 - That the DAP is powered.
 - That the PC is connected to the DAP front panel.
 - That the correct COM port is selected.

If necessary, repeat DLP-1.

NOTE: No settings are lost if the serial connection between the PC and the DAP is interrupted while programming the DAP. The user can resume programming when the connection is restored.

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

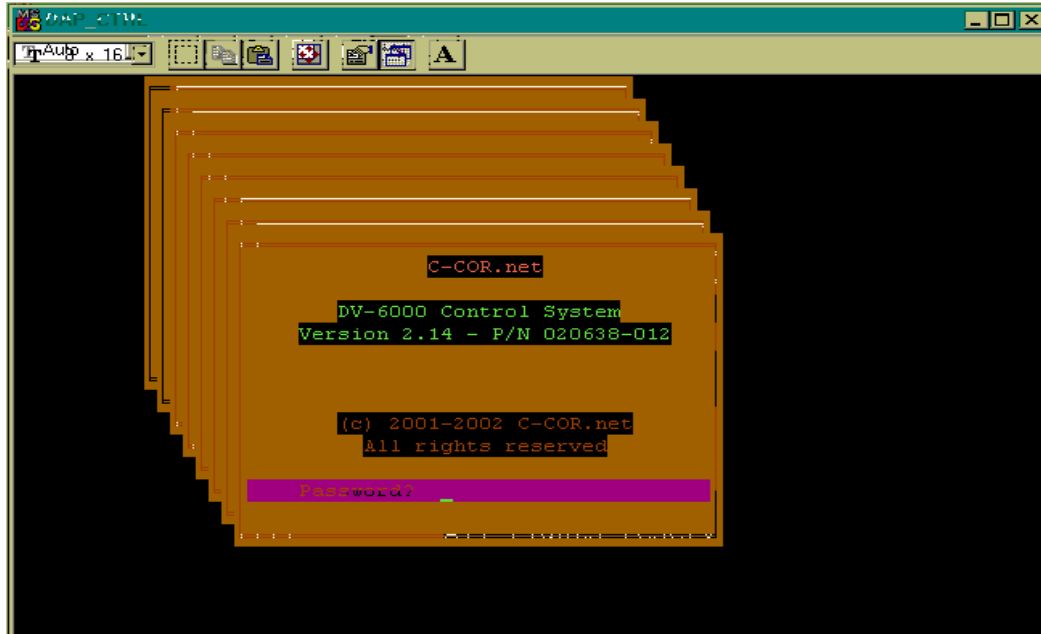


Figure DLP2-1. DAP Introduction Screen

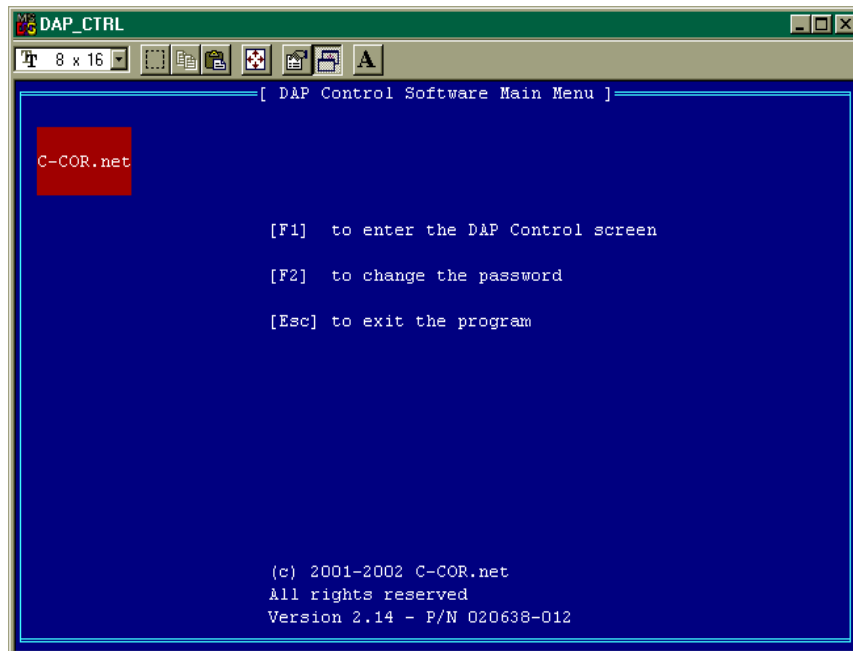


Figure DLP2-2. Main Menu Screen.

DLP-2
Page 3 of 3

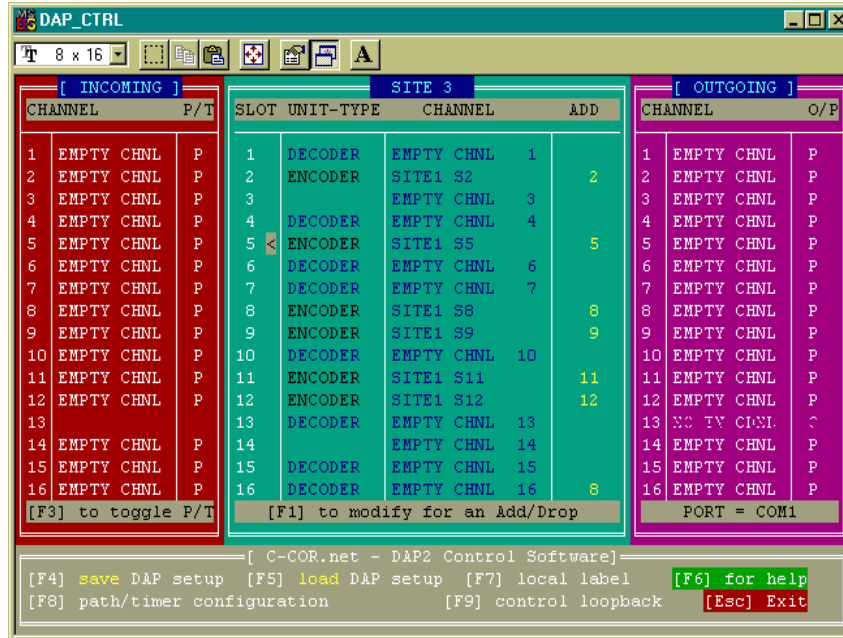


Figure DLP2-3. DAP Control Screen

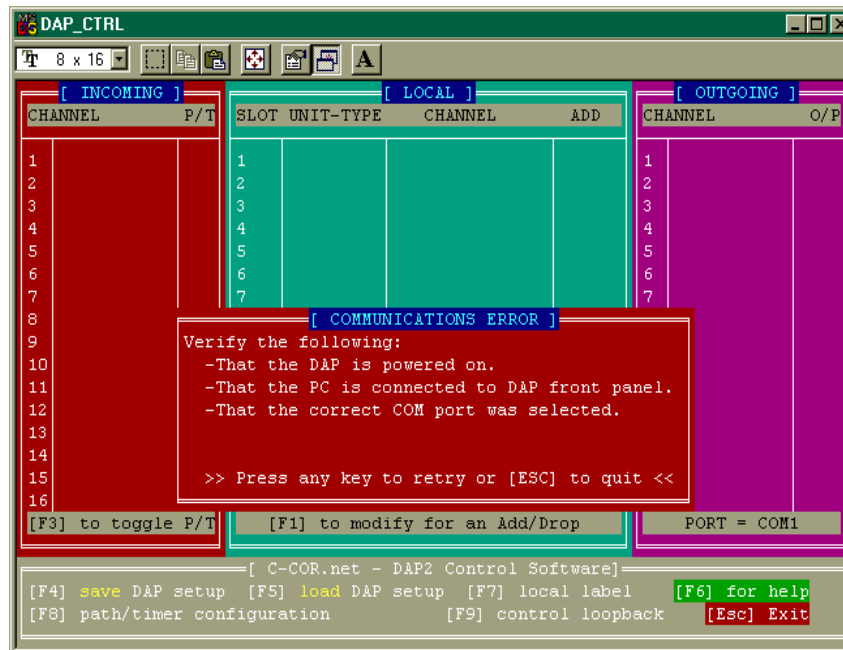


Figure DLP2-4. Communications Error Message

ACCESS THE HELP MENU

Summary: The Help Menu is accessible at the DAP Control Screen. The Help Menu briefly describes all the commands that can be invoked by pressing function keys.

You must complete DLP-1 and DLP-2 before doing this procedure.

1. At the *DAP Control Software Main Menu* screen, press **F1**. The DAP Control Screen is displayed.
2. At the DAP Control Screen, press **F6**. The Help Menu screen is displayed in the central part of the DAP Control Screen, as shown in Figure DLP3-1.
3. Study and/or record the contents of the menu screen as needed.
4. Press any key to return to the DAP Control Screen.

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

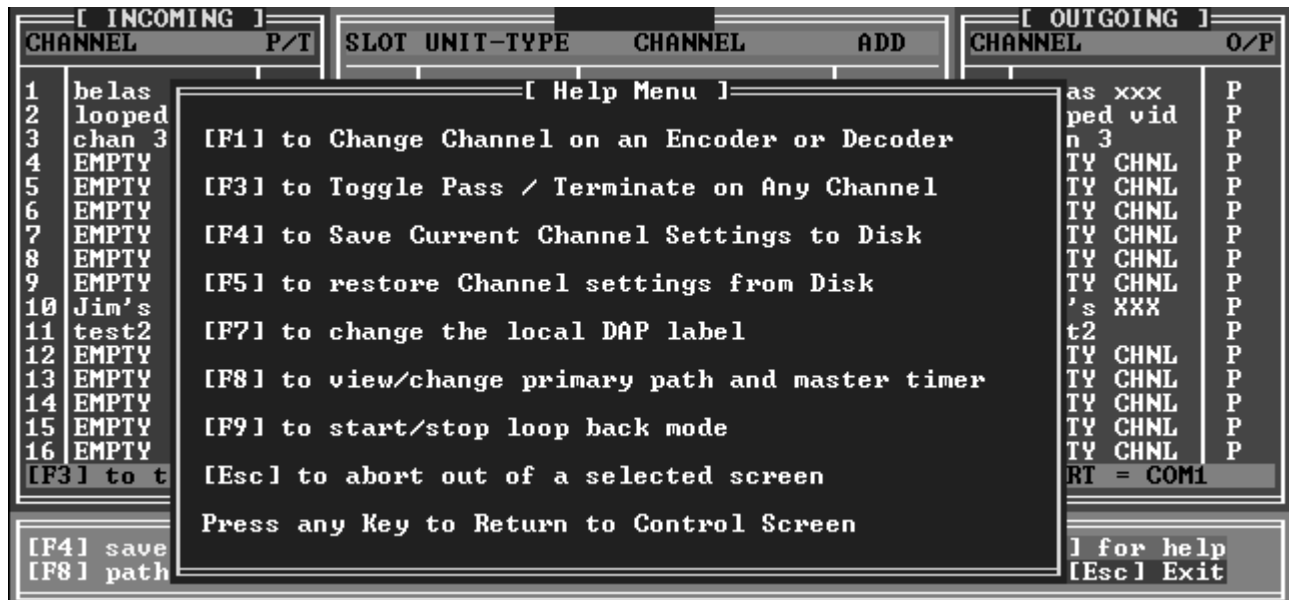


Figure DLP3-1. Help Menu

DLP-4

Page 1 of 2

SET A PASSWORD AND LOCAL LABEL

Summary: The user can set a unique password and local label for the DAP site. The local label is the name of the site, which appears at the top of the middle field of the DAP Control Screen.

You must complete DLP-1 and DLP-2 before doing this procedure.

Setting the Password

1. At the *DAP Control Software* Main Menu screen, press **F2**. The Password Change dialog box is displayed over the *DAP Control Software* Main Menu screen, as shown in Figure DLP4-1.
2. Type the new password and press **Enter**. The password must be 10 characters or less including spaces and/or underscores. Passwords can be set and used in either upper or lower case; the software does not differentiate.

NOTE: Once a password has been set, the default password is no longer valid. Make sure the newly set password is safely recorded.

3. Record the password as necessary.
4. Press **ESC** twice to return to the *DAP Control Software* Main Menu screen.

Setting the Local Label

5. At the *DAP Control Software* Main Menu screen, press **F1**. The DAP Control Screen is displayed.
6. At the DAP Control Screen, press **F7**. The Change Local Label dialog box is displayed over the DAP Control Screen, as shown in Figure DLP4-2.
7. Type the new local label and press **Enter**. The local label must be a 10 characters or less, including spaces and/or underscores.
8. Press **ESC** twice to return to the *DAP Control Software* Main Menu screen.

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

DLP-4
Page 2 of 2



Figure DLP4-1. Password Change Pane



Figure DLP4-2. Change Local Label Dialog Box

DLP-5

Page 1 of 2

LOAD A DAP SETUP FILE

Summary: This procedure describes how to use a stored DAP configuration file to configure a DV6000 DAP site. (You can make a DAP configuration file by setting the individual channel add/drop/pass conditions, and saving them to a file. Procedures to set the channel add/drop/pass conditions are in other DLPs of this NTP. Procedures to create a DAP configuration file are in DLP-10.)

You must complete DLP-1 and DLP-2 before doing this procedure.

1. At the *DAP Control Software* Main Menu screen, press **F1**. The DAP Control screen is displayed.
2. At the DAP Control Screen, press **F5**. The Load DAP Setup dialog box is displayed over the DAP Control Screen, as shown in Figure DLP5-1. The title bar for this dialog box reads **C:\DAP*.DAP**, or the name of the directory that contains the DAP software files.
3. To load one of the DAP Setup files listed in the Load DAP Setup dialog box, use the cursor arrow keys to highlight the file. Then press **Enter**. The Load DAP Set-Up dialog box closes and the chosen DAP Setup file loads into the DV-6016-DAP circuit card. The new configuration appears on the DAP Control Screen as the channels are polled.

NOTE: If the necessary encoders and decoders are not loaded in the appropriate equipment slots for the Setup file, the number of the equipment slots flash red until the necessary cards are installed. Also, if signals are added by the Setup file at equipment slots without the necessary encoder, the number of those added signals in the ADD column are yellow until the necessary cards are installed.

4. Press **ESC** to exit the DAP Control Screen and return to the *DAP Control Software* Main Menu screen.

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

DLP-5
Page 2 of 2

[INCOMING]							[OUTGOING]		
CHANNEL		P/T	SLOT	UNIT-TYPE	CHANNEL	ADD	CHANNEL		O/P
1	belas xxx	P	1	DECODER10	belas xxx	1	1	belas xxx	P
2	looped vid	P	2	DECODER10	looped vid	2	2	looped vid	P
3	chan 3	P	3	DECODER08	chan 3	3	3	chan 3	P
4	EMPTY CHNL	P	4		EMPTY CHNL	4	4	EMPTY CHNL	P
5	EMPTY CHNL	P	5		EMPTY CHNL	5	5	EMPTY CHNL	P
6	EMPTY CHNL	P	6		EMPTY CHNL	6	6	EMPTY CHNL	P
7	EMPTY CHNL	P	7	DECODER10	looped vid	2	7	EMPTY CHNL	P
8	EMPTY							TY CHNL	P
9	EMPTY							TY CHNL	P
10	Jim's							's XXX	P
11	test2							t2	P
12	EMPTY							TY CHNL	P
13	EMPTY							TY CHNL	P
14	EMPTY							TY CHNL	P
15	EMPTY							TY CHNL	P
16	EMPTY							TY CHNL	P
[F3] to t							RT = COM1		

[F4] save DAP setup	[F5] load DAP setup	[F7] local label	[F6] for help
[F8] path/timer configuration	[F9] control loopback	[Esc] Exit	

Figure DLP5-2. Load DAP Setup Pane

DLP-6

Page 1 of 2

DROP AN INCOMING DATA CHANNEL

Summary: When an incoming data channel is sent to a particular decoder in the equipment shelf, it is said to be “dropped.” A dropped data channel is always the input for a decoder slot. The same data signal can be “passed” on to the next DV6000 site, or “terminated” at the local site.

To decode the digital signal from the fiber-optic receiver, a decoder card must be installed in each equipment slot to which an incoming channel is directed. However, the *DAP Control Software* allows you to drop channels to unpopulated card slots. In this way, you can configure an equipment shelf in advance of a decoder card delivery. (The software does not, however, allow you to add channels unless an encoder is installed. See DLP-8.)

NOTE: Make sure to drop each signal to a decoder which matches the type of the encoder that digitized the signal. For example, a signal encoded by an 8-bit Video Encoder must be dropped to an 8-bit Video Decoder.

1. Consult office records to determine which incoming signal to send to each decoder slot.
2. At the *DAP Control Software* Main Menu, press **F1** to enter the DAP Control Screen.
3. At the DAP Control Screen, press **F1**. The Change Channel dialog box appears just below the middle field of the DAP Control Screen, as shown in Figure DLP6-1.
4. The Change Channel dialog box asks, “Slot Number to Change? (1 - 16).” Type the number of the slot to which the incoming channel will go for decoding. (If an encoder is installed at that slot, the software does not give you the option to drop a channel.) Press **Enter**.
5. The DAP software asks, “Channel Number to Drop.” Type the number of the incoming data channel that is to be decoded in the decoder card slot specified above. Press **Enter**.

The entry for the selected decoder slot in the middle field of the DAP Control Screen changes to show the data channel (incoming channel 12 in our example) that was sent.

6. Repeat steps 3, 4, and 5 for all incoming data channels to be decoded in the local DV6000 System shelf.
7. If the configuration is complete, the technician can save it as a DAP Setup file in the DAP directory on the PC. Refer to DLP-10 for procedures to create a DAP Setup File.

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

DLP-6
Page 2 of 2

[INCOMING]							[OUTGOING]		
CHANNEL		P/I	SLOT	UNIT-TYPE	CHANNEL	ADD	CHANNEL		O/P
1	belas xxx	P	1	DECODER10	belas xxx	1	1	belas xxx	P
2	looped vid	P	2	DECODER10	looped vid	2	2	looped vid	P
3	chan 3	P	3	DECODER08	chan 3	3	3	chan 3	P
4	EMPTY CHNL	P	4		EMPTY CHNL	4	4	EMPTY CHNL	P
5	EMPTY CHNL	P	5		EMPTY CHNL	5	5	EMPTY CHNL	P
6	EMPTY CHNL	P	6		EMPTY CHNL	6	6	EMPTY CHNL	P
7	EMPTY CHNL	P	7	DECODER10	looped vid	2	7	EMPTY CHNL	P
8	EMPTY CHNL	P	8		EMPTY CHNL	8	8	EMPTY CHNL	P
9	EMPTY CHNL	P	9		EMPTY CHNL	9	9	EMPTY CHNL	P
10	Jim's XXX	P	10	DECODER10	looped vid	2	10	Jim's XXX	P
11	test2	P	11		test2	11	11	test2	P
12	EMPTY CHNL	P	12		EMPTY CHNL	13	12	EMPTY CHNL	P
13	EMPTY CHNL	P	13		EMPTY CHNL	13	13	EMPTY CHNL	P
14	EMPTY CHNL	P	14		EMPTY CHNL	14	14	EMPTY CHNL	P
15	EMPTY CHNL	P	15		EMPTY CHNL	15	15	EMPTY CHNL	P
16	EMPTY CHNL	P	16		EMPTY CHNL	16	16	EMPTY CHNL	P

[F3] to toggle P/I [F1] to modify for an Add/Drop PORT = COM1

[Change Channel]

Slot Number to change? <1 - 16> 1

Channel Number to Drop? <1 - 16> 12

[F4] save DAP se [F6] for help
[F8] path/timer [Esc] Exit

Figure DLP6-1. DAP Control Screen with "Change Channel" Dialog Box Opened

DLP-7

Page 1 of 2

ASSIGN AN INCOMING DATA CHANNEL TO PASS OR TERMINATE IN THE LOCAL DV6000 SYSTEM SHELF

Summary: An incoming data channel that is passed at the local site enters the DAP and is transmitted to the next site in the DV6000 system. A channel that is passed appears on the same signal line of the incoming and outgoing channel status fields of the DAP Control screen.

An incoming channel that is terminated by the DAP is not transmitted to the next site. However, a new outgoing signal can be inserted (through an “add” operation, as explained in DLP-8) to fill the corresponding outgoing data channel. Both passed and terminated channels are available to be dropped (decoded and output) at the local site.

The pass/terminate status of a channel is exclusive. An incoming data channel is either passed or terminated; it cannot be both passed and terminated. (A channel can, however, be dropped at the present site whether it is passed or terminated.)

The pass/terminate command is a toggle function. When a channel is toggled, a channel that was previously passed (designated by P in the Incoming Channel pane of the DAP Control Screen) is terminated (designated by T in the Incoming Channel pane of the DAP Control Screen); a channel that was previously terminated is passed .

NOTE: A channel that is accidentally terminated without any input (EMPTY CHANNEL) appears with a blinking red numeral in the Slot column of the DAP Control Screen’s middle field.

1. Refer to office records to determine which incoming data channels to pass and which to terminate.
2. At the *DAP Control Software* Main Menu, press **F1** to enter the DAP Control Screen.
3. At the DAP Control Screen, press **F3**. The Pass/Terminate dialog box appears in the lower central area of the DAP Control Screen (see Figure DLP7-1).
4. The Pass/Terminate dialog box asks, “Channel to toggle? (1 - 16).” Type the number of the incoming channel whose Pass/Terminate status you want to change. Press **Enter**.

The Pass/Terminate dialog box closes and the channel’s new Pass/Terminate status appears in the Incoming Channel Status field of the DAP Control Screen.

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

DLP-7
Page 2 of 2

[INCOMING]							[OUTGOING]		
CHANNEL		P/T	SLOT	UNIT-TYPE	CHANNEL	ADD	CHANNEL		O/P
1	belas xxx	P	1	DECODER10	EMPTY CHNL	12	1	belas xxx	P
2	looped vid	P	2	DECODER10	looped vid	2	2	looped vid	P
3	chan 3	P	3	DECODER08	chan 3	3	3	chan 3	P
4	EMPTY CHNL	P	4		EMPTY CHNL	4	4	EMPTY CHNL	P
5	EMPTY CHNL	P	5		EMPTY CHNL	5	5	EMPTY CHNL	P
6	EMPTY CHNL	P	6		EMPTY CHNL	6	6	EMPTY CHNL	P
7	EMPTY CHNL	P	7	DECODER10	looped vid	2	7	EMPTY CHNL	P
8	EMPTY CHNL	P	8		EMPTY CHNL	8	8	EMPTY CHNL	P
9	EMPTY CHNL	P	9		EMPTY CHNL	9	9	EMPTY CHNL	P
10	Jim's XXX	P	10	DECODER10	looped vid	2	10	Jim's XXX	P
11	test2	P	11		test2	11	11	test2	P
12	EMPTY CHNL	P	12		EMPTY CHNL	13	12	EMPTY CHNL	P
13	EMPTY CHNL	P	13		EMPTY CHNL	13	13	EMPTY CHNL	P
14	EMPTY CHNL	P	14		EMPTY CHNL	14	14	EMPTY CHNL	P
15	EMPTY CHNL	P	15		EMPTY CHNL	15	15	EMPTY CHNL	P
16	EMPTY CHNL	P	16		EMPTY CHNL	16	16	EMPTY CHNL	P
[F3] to toggle P/T			[F1] to modify for an Add/Drop				PORT = COM1		
[F4] save DAP setup			[PASS/TERMINATE SCREEN]				e1 [F6] for help		
[F8] path/timer conf			Channel to toggle? <1 - 16> 2_				pback [Esc] Exit		

Figure DLP7-1. DAP Control Screen with "Pass/Terminate" Dialog Box Opened

DLP-8

Page 1 of 2

ADD A SIGNAL

Summary: To add a signal, the technician connects the signal to an encoder at the rear panel of the DV-6016-ES equipment shelf, and assigns an outgoing data channel to carry that signal.

Any terminated channel can have new data inserted through an encoder to transmit to the next site in the system. This process is called “adding” a channel. Any slot that contains an encoder can add onto any of the sixteen outgoing data channels that have been terminated.

This procedure assumes that cables carrying the signals to be added have already been connected to the rear panel of the DV-6016-ES equipment shelf at the BNC input connector for the designated encoder slot.

NOTE: The *DAP Control Software* does not allow the user to add a signal on a time slot (channel) that has not been terminated. Also, it does not allow the user to add a signal unless the designated equipment slot contains an encoder card. If the software detects no encoder in the slot, it does not offer the user the option of adding.

1. Refer to office records to determine the encoder slots where added signals will be sent. Be sure that the incoming status of any data channel on which a signal will be added is a T. If not, refer to DLP-7 for procedures to change the pass/terminate status of the channel.
2. At the *DAP Control Software* Main Menu, press **F1** to enter the DAP Control Screen.
3. At the DAP Control Screen, press **F1**. The Change Channel dialog box appears over the lower center area of the DAP Control Screen.
4. The Change Channel dialog box asks, “Slot Number to Change? (1-16)” as shown in Figure DLP8-1. Type the slot number of the encoder which will digitally encode the signal for transmission on the outgoing data stream. (This must be the encoder to which the added signal is connected at the back panel of the equipment shelf.) Press **Enter**.
5. Because the selected slot contains an encoder circuit card, the Change Channel dialog box asks, “Channel Number to Add? (1 - 16)” (see Figure DLP8-1). Type the number of the outgoing data channel for the added signal. Press **Enter**.
6. The Change Channel dialog box asks, “New Channel Name?” (see Figure DLP8-1). Type the name of the added signal. This name must be one to ten characters long. Press **Enter**.

In the Outgoing Channel field of the DAP Control Screen, the channel where the signal was added is marked with an O to show that a signal originating at the local equipment shelf was added to the data stream.

7. Repeat steps 3 through 6 for all signals that must be added at this site.

DLP-8
Page 2 of 2

- When all of the added channels are assigned, and the DAP configuration is complete, the technician can save this configuration as a DAP Setup file (refer to DLP-10).

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

INCOMING							OUTGOING		
CHANNEL		P/T	SLOT	UNIT-TYPE	CHANNEL	ADD	CHANNEL		O/P
1	belas xxx	P	1	DECODER10	belas xxx	1	1	belas xxx	P
2	looped vid	P	2	DECODER10	looped vid	2	2	looped vid	P
3	chan 3	P	3	DECODER08	chan 3	3	3	chan 3	P
4	EMPTY CHNL	P	4		EMPTY CHNL	4	4	EMPTY CHNL	P
5	EMPTY CHNL	P	5		EMPTY CHNL	5	5	EMPTY CHNL	P
6	EMPTY CHNL	P	6		EMPTY CHNL	6	6	EMPTY CHNL	P
7	EMPTY CHNL	P	7	ENCODER10	looped vid	2	7	EMPTY CHNL	P
8	EMPTY CHNL	P	8		EMPTY CHNL	8	8	EMPTY CHNL	P
9	EMPTY CHNL	P	9		EMPTY CHNL	9	9	EMPTY CHNL	P
10	Jim's XXX	P	10	ENCODER10	looped vid	2	10	Jim's XXX	P
11	test2	P	11		test2	11	11	test2	P
12	EMPTY CHNL	P	12		EMPTY CHNL	13	12	EMPTY CHNL	P
13	EMPTY CHNL	P	13		EMPTY CHNL	13	13	EMPTY CHNL	P
14	EMPTY CHNL	P	14		EMPTY CHNL	14	14	EMPTY CHNL	P
15	EMPTY CHNL	P	15		EMPTY CHNL	15	15	EMPTY CHNL	P
16	EMPTY CHNL	P	16		EMPTY CHNL	16	16	EMPTY CHNL	P

[F3] to toggle P/	[Change Channel]	PORT = COM1
[F4] save DAP set	Slot Number to change? (1 - 16) 14	
[F8] path/timer c	Channel Number to Add? (1 - 16) 2	
	New Channel Name? CMN	
		[F6] for help
		[Esc] Exit

Figure DLP8-1. DAP Control Screen with "Change Channel" Dialog Box Opened

DLP-9

Page 1 of 2

SELECT PATH, INBAND COMMUNICATIONS AND TIMING PARAMETERS

Summary: This procedure describes how to select the primary path (either A or B), to enable or disable inband communications, and to set the DAP timing parameters.

You must complete DLP-1 and DLP-2 before doing this procedure.

Selecting a Path

1. At the *DAP Control Software* Main Menu screen, press **F8**. The Set Up Screen is displayed over the *DAP Control Software* Main Menu screen, as shown in Figure DLP9-1.
2. The Enter Primary Path setting should be selected. If not, use the arrow keys to select it.
3. Type **1** to select the A as the primary path or type **2** to select the B as the primary path.
4. Press **ESC** twice to return to the *DAP Control Software* Main Menu screen.

Selecting a Inband Communications

1. At the *DAP Control Software* Main Menu screen, press **F8**. The Set Up Screen is displayed over the *DAP Control Software* Main Menu screen, as shown in Figure DLP9-1.
2. Use the arrow keys to select the last line of the Set Up Screen (INBAND:...).
3. Type **0** to enable inband communications or type **1** to disable it.
4. Press **ESC** twice to return to the *DAP Control Software* Main Menu screen.

Selecting a Timing Parameters

There are four timing parameters that you may set:

Invalid Data Timer – This timer determines the amount of time the DAP outputs invalid data when a switch from the primary to the secondary path receiver occurs. You may set this timer from 0 to 254 seconds; 255 causes continuous invalid data to be sent downstream until the primary path is restored. Demultiplexer operation is not affected by this parameter.

Mux Timer – This timer (also known as the Master Timer) determines the length of time between the loss of demultiplexer lock (due to invalid data on the primary and secondary paths) and the DAP switch to its internal oscillator (timing reference). During this interval, the DAP outputs invalid data. You may set this timer from 0 to 254 seconds; 255 causes continuous invalid data to be sent downstream until the DAP regains demultiplexer lock on either the primary or secondary path. Demultiplexer operation is not affected by this parameter.

DLP-9
Page 2 of 2

IPD WTR Delay – The IPD WTR (wait to restore) Delay determines the amount of time the DAP waits after IPD (InGaAs avalanche photodiode) is restored before it switches back to the primary receiver. You may set this timer from 0 to 254 seconds or you may disable it by setting it to 255.

Data WTR Delay – The Data WTR (wait to restore) Delay determines the amount of time the DAP waits after the event that caused a receiver data alarm is cleared before it switches back to the primary receiver. You may set this timer from 0 to 254 seconds or you may disable it by setting it to 255.

1. At the *DAP Control Software* Main Menu screen, press **F8**. The Set Up Screen is displayed over the *DAP Control Software* Main Menu screen, as shown in Figure DLP9-1.
2. Use the arrow keys to select the timing parameter you wish to set.
3. Type the desired value for that setting.
4. Use the arrow keys to select another timing parameter to set or press **ESC** twice to return to the *DAP Control Software* Main Menu screen.

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

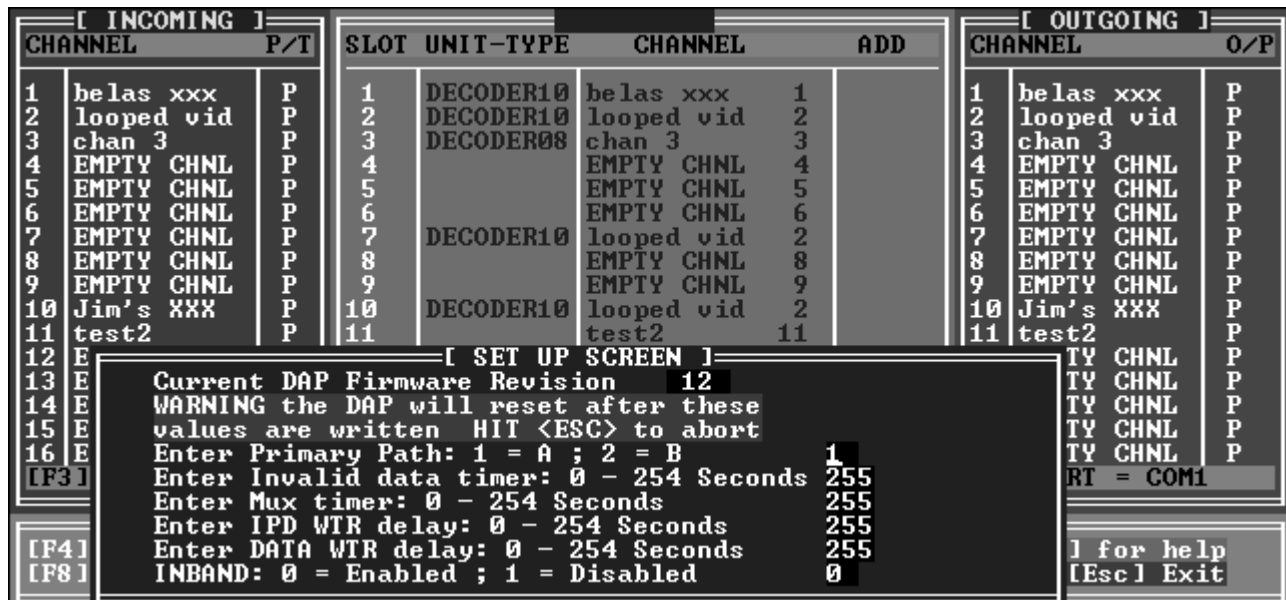


Figure DLP9-1. DAP Control Screen with "Set Up Screen" Dialog Box Opened

DLP-10
Page 1 of 1

SAVE CHANNEL ASSIGNMENTS AS A DAP SETUP FILE

Summary: This procedure provides instructions for saving a DAP setup file. To make a DAP setup file, you must set the individual channel add/drop/pass conditions, and save them to a file. Procedures to set the channel add/drop/pass conditions are in other DLPs of this NTP.

You must complete DLP-1 and DLP-2 before doing this procedure.

1. At the DAP Control Software Main Menu, press **F1** to enter the DAP Control Screen.
2. When all channel assignments are set, the technician should save the configuration as a DAP Setup file. To do so, press **F4**.
3. The Save Channels dialog box is displayed over the DAP Control Screen, as shown in Figure DLP10-1. Type a file name for the DAP setup. The file name must be one to eight characters long.
4. Press **Enter**. The DAP setup file is saved and the Save Channels dialog box closes.

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

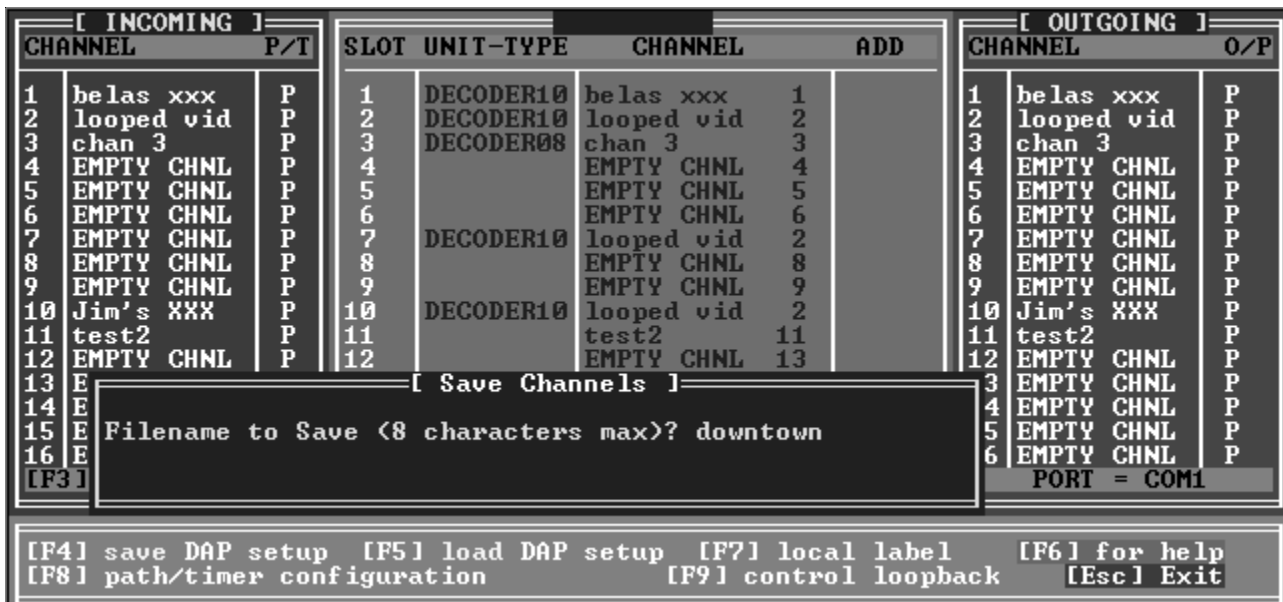


Figure DLP10-1. DAP Control Screen with "Save Channels" Dialog Box Opened

LOOPBACK TEST FOR ENCODERS AND DECODERS

Summary: The purpose of a loopback test is to test the operation of decoders and encoders at a single site. A decoder can be tested by looping back the output signal from an encoder that is known to be good. Likewise, an encoder can be tested by looping back its output to a decoder card that is known to be good. (The Loopback test may not be performed with double-width cards, e.g., DV6247, DV6270, DV6101PCE, DV6102PCD.)


To perform this test in a single DV6000 shelf, the encoder card and decoder card must be alike in type and word size (8-bit or 10-bit). For a loopback test on a DV6000 System shelf with a DV6016DAP2 card, you can put the encoder card and decoder card used in the test in any two of the sixteen encoder/decoder slots in the shelf, and set the *DAP Control Software* for the test.

You must complete DLP-1 and DLP-2 before doing this procedure.

NOTE: Either an encoder card or a decoder card can be tested through the loopback method. Bear in mind which card is under test, and which card is known to be good.

NOTE: If a decoder is used to test an outgoing channel in a DAP or a multiplexer, the loopback does not terminate the channel and the loopback does not affect the signal.


1. Determine which slot the encoder and decoder cards will be installed for the test.
2. Be sure the power supply in the DV6000 System shelf is on.

 **CAUTION:** *Encoder and decoder cards can be damaged by static electrical discharge. Before handling encoder or decoder cards, wear an antistatic discharge wrist strap to prevent damage to electronic components. Place encoder or decoder cards in antistatic packing material when transporting or storing. When working on encoder or decoder cards, always place the unit on an approved antistatic mat that is electrically grounded.*

3. Insert a decoder card into the chosen slot. The decoder card used must correspond in type and word size (8-bit or 10-bit) with the encoder used in the test.
4. Insert the encoder card into another decoder/encoder slot. The encoder card must correspond in type and word size (8-bit or 10-bit) with the decoder used in this test.
5. At the *DAP Control Software* Main Menu screen, press **F1**. The DAP Control Screen is displayed. The decoder and encoder inserted in steps 3 and 4 appear in the middle field of the DAP Control Screen. The word size (8-bit or 10-bit) of the decoder and encoder is indicated.
6. At the DAP Control Screen, press **F9**. The Loopback Screen dialog box is displayed over the lower middle field of the DAP Control Screen, as shown in Figure DLP11-1.

DLP-11

Page 2 of 4

7. The Loopback Screen dialog box (see Figure DLP11-1) asks, "Decoder Slot Number? (1 - 16)." Type the number of the slot where the decoder card was inserted in step 3. Press **Enter**.
 8. The Loopback Screen dialog box (see Figure DLP11-1) asks, "Encoder Slot Number? (1 - 16)." Type the number of the slot where the encoder card was inserted in step 4. Press **Enter**. The DAP has set up a communication path between the encoder and decoder to allow testing.
 9. Connect the output of a video signal generator to the Video Input/Output BNC connector for the encoder card involved in this test (see Figure DLP11-2). The Video Input/Output BNC connectors are located on the rear panel of the DV-6016-ES equipment shelf.
 10. Turn on the video generator and set it to produce a video test signal.
 11. Connect the input connector of a video test set to the Video Input/Output BNC connector for the decoder involved in this test (see Figure DLP11-2). The Video Input/Output BNC" connectors are located on the rear panel of the DV-6016-ES equipment shelf.
 12. Turn on the video test set and set it to detect the presence of video.
 13. Check the following items to make sure the test is valid. Make sure that:
 - The test signal is live,
 - The connections between the signal generator and the shelf's BNC connector are secure,
 - The connections between the video test set and the shelf's BNC connector are secure,
 - The encoder and decoder cards are properly seated in their equipment shelf sockets, and
 - The DAP card has been properly seated in its equipment shelf socket.
-  **Caution:** *Encoder and decoder cards can be damaged by static electrical discharge. Before handling encoder or decoder cards wear an antistatic discharge wrist strap to prevent damage to electronic components. Place encoder or decoder cards in antistatic packing material when transporting or storing. When working on encoder or decoder cards, always place the unit on an approved antistatic mat that is electrically grounded.*
14. Check for the presence of decoded video signal with the video test set. If no signal is present, consider the card under test to be faulty. Replace any faulty encoder/decoder card with an encoder/decoder card known to be operational. Return any faulty encoder/decoder card to C-COR.net.
 15. Remove the encoder or decoder card under test and test additional cards of the same type in the same slot, as needed, by repeating step 14 for each tested card.

DLP-11
Page 3 of 4

16. If it is necessary or desirable to change the loopback slot numbers (perhaps to allow testing all of the cards in the shelf), repeat this procedure from step 1.
17. When all loopback testing has been completed, be sure that all encoder and/or decoder cards are installed in the correct slots for the site-plan documentation, and press F9 to cancel loopback testing mode.
18. Turn off the power for the signal generator and the video test set and disconnect them from the DV6000 System equipment.

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

INCOMING			LOOPBACK SCREEN				OUTGOING		
CHANNEL		P/T	SLOT	UNIT-TYPE	CHANNEL	ADD	CHANNEL		O/P
1	belas xxx	P	1	DECODER10	belas xxx	1	1	belas xxx	P
2	looped vid	P	2	DECODER10	looped vid	2	2	looped vid	P
3	chan 3	P	3	DECODER08	chan 3	3	3	chan 3	P
4	EMPTY CHNL	P	4		EMPTY CHNL	4	4	EMPTY CHNL	P
5	EMPTY CHNL	P	5		EMPTY CHNL	5	5	EMPTY CHNL	P
6	EMPTY CHNL	P	6		EMPTY CHNL	6	6	EMPTY CHNL	P
7	EMPTY CHNL	P	7	ENCODER10	looped vid	2	7	EMPTY CHNL	P
8	EMPTY CHNL	P	8		EMPTY CHNL	8	8	EMPTY CHNL	P
9	EMPTY CHNL	P	9		EMPTY CHNL	9	9	EMPTY CHNL	P
10	Jim's XXX	P	10	ENCODER10	looped vid	2	10	Jim's XXX	P
11	test2	P	11		test2	11	11	test2	P
12	EMPTY CHNL	P	12		EMPTY CHNL	13	12	EMPTY CHNL	P
13	EMPTY CHNL	P	13		EMPTY CHNL	13	13	EMPTY CHNL	P
14	EMPTY CHNL	P	14		EMPTY CHNL	14	14	EMPTY CHNL	P
15	EMPTY CHNL	P	15		EMPTY CHNL	15	15	EMPTY CHNL	P
16	EMPTY CHNL	P	16		EMPTY CHNL	16	16	EMPTY CHNL	P

[F3] to toggle P/T	[F1] to modify for an Add/Drop	PORT = COM1
--------------------	--------------------------------	-------------

[F4] save DAP setup	[LOOPBACK SCREEN]	[F6] for help
[F8] path/timer confi	Decoder Slot Number? <1 - 16> 1	back
	Encoder Slot Number? <1 - 16>	[Esc] Exit

Figure DLP11-1. Loopback Screen

DLP-11
 Page 4 of 4

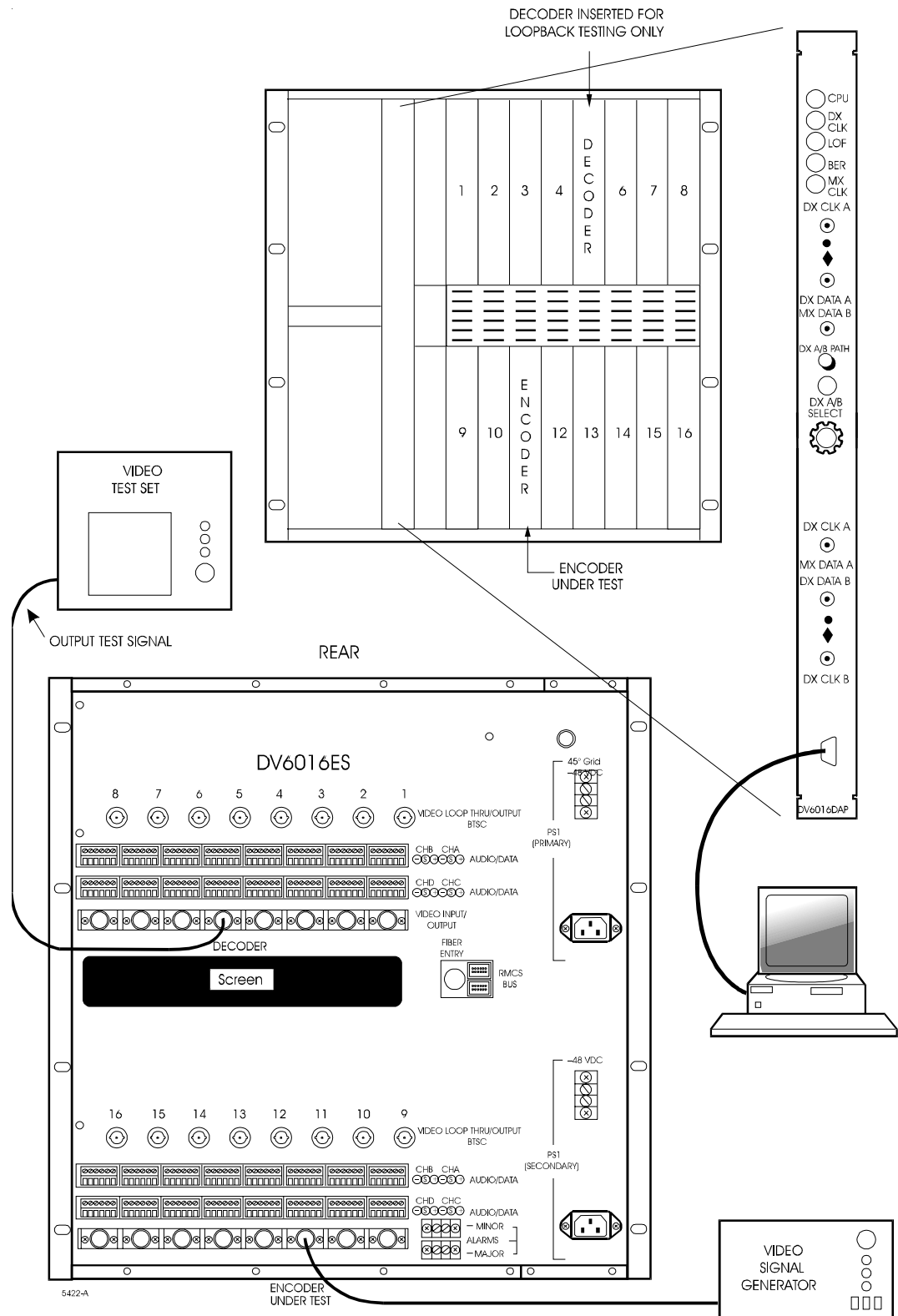


Figure DLP11-2. Equipment Set-Up for Encoder/Decoder Loopback Testing in a DV6000 Shelf Equipped with a DV-6016-DAP Drop/Add/Pass Circuit Card

EXIT DAP CONTROL SOFTWARE AND DISCONNECT PC FROM DAP

Summary: Exiting the *DAP Control Software* program and returning to the DOS prompt of the host PC is done by using the Escape (ESC) key at the DAP Control Software Main Menu. (The Escape key also returns the user to the previous display screen from any point in the *DAP Control Software*.)

1. At the *DAP Control Software* Main Menu, press **ESC** to exit the *DAP Control Software*. The DAP Exit Confirmation Screen appears, as shown in Figure DLP12-1.
2. The DAP Exit Confirmation Screen asks, “Do you really want to exit?” To exit, type **Y** and press **Enter**. If you type N, the *DAP Control Software* Main Menu appears and allows you to reenter the program.
3. After you exit the program, disconnect the cable that connects the PC to the DV-6016-DAP circuit card.

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

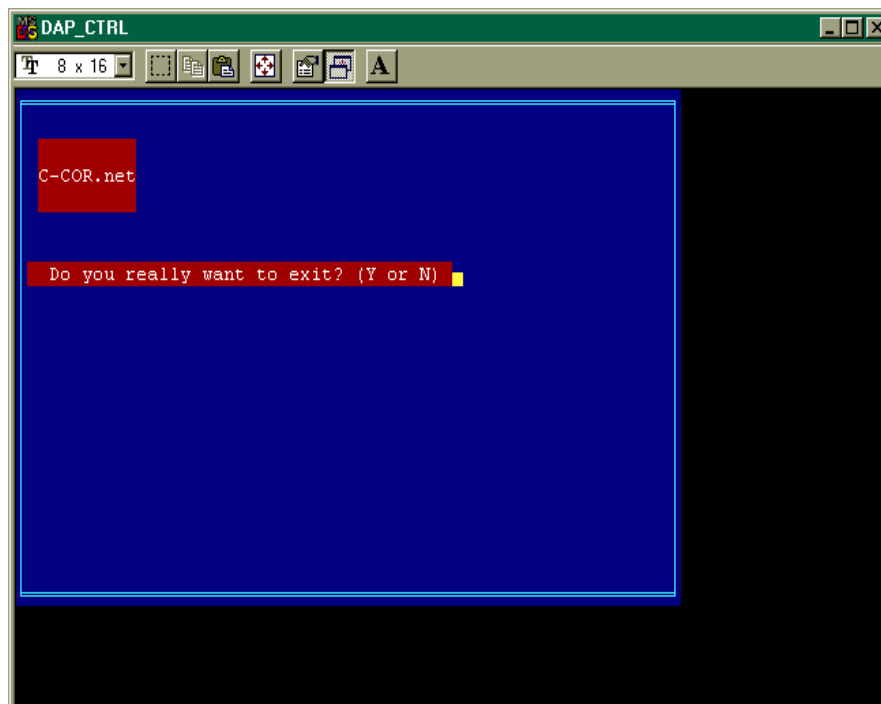


Figure DLP12-1. DAP Exit Confirmation Screen

(This page intentionally left blank.)