VTLOGANL is a project to enhance and develop new methods and computer software to aid the social science researcher using video tape. This paper describes the latest release of the VTLOGANL program and provides a brief description of its capabilities. VTLOGANL is a BASIC program designed for an MS-DOS computer system. It uses Indexed Sequential Access Method data files within memory buffers for high speed data retrieval and access. The four basic data elements defined in the VTLOGANL system are: (1) project description; (2) tapes or reels; (3) codewords to attach meaning to segments of action or speech for information logging; and (4) quickkeys to map codewords. The minimum system needed, installation, configuration, and use are described, and sample use screens are illustrated. (SLD)
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Thank you for your interest in VTLOGANL: Video Tape Logging and Analysis. VTLOGANL is a project to enhance and develop new methods and computer software to aid the social science researcher using video tape. This package contains the latest release of the VTLOGANL program.

These notes are intended to provide a brief introduction to the capabilities of the VTLOGANL system. You will also learn some of how to use the program, and how the program might be applied to a particular research effort. Each research project is different, as is each researcher's perceptions about what data is important and how best to capture and analyze that data. Hopefully, the VTLOGANL process will provide some useful techniques and time saving strategies for your project.

Legal Stuff

As a development program it must be clearly understood that VTLOGANL has been provided to you for your use only, without any rights of ownership or property interests. You may use VTLOGANL on any or all of the computer system under your direct control. You may not, however, copy or distribute VTLOGANL -- whether for profit or for free -- in any form whatsoever. VTLOGANL is a copyrighted work of Dr. Jeffrey B. Hecht at the Technological Innovations of Educational Research (TIER) Laboratory, Mail Code 5900, Illinois State University, Normal, Illinois 61790-5900.

You must also understand that VTLOGANL carries no warranties, guarantees, or statements of fitness for any particular purpose. VTLOGANL was designed for Dr. Hecht to be used with the computers and video machinery available in the TIER laboratory on the research projects that the laboratory was (and is) engaged in. Expressing an interest in the program and being allowed to use this copy of VTLOGANL does not make VTLOGANL appropriate, usable, or even workable on your computers, video machinery, or research projects. You use VTLOGANL at your own risk, and accept any and all of the consequences of using this program, including: lost data, lost time, and the need to reanalyze information. Neither Dr. Hecht, the TIER laboratory, or Illinois State University can be held liable for your use of this program, or for any bugs or errors in the program or its output. PLEASE USE THE PROGRAM CAREFULLY AND ALWAYS DOUBLE-CHECK YOUR RESULTS!
Technical Support

Neither Dr. Hecht nor the TIER laboratory are in business to create, sell, or support computer software, including VTLOGANL. We are interested, however, in improving the functionality of the system and in correcting known bugs in the program. If you are experiencing difficulties in setting up or running the VTLOGANL program, or have a new application for the methodology that you would like to discuss, please feel free to contact us. Regular mail can be sent to:

Dr. Jeffrey B. Hecht, Principal Investigator
The Technological Innovations in Educational Research Lab
Mail Code 5900
Illinois State University
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You can also call, fax, send e-mail, or visit with us in person at the following numbers/addresses:

FAX: (309) 438-8683
Address the FAX to the "TIER Lab - VTLOGANL"

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ftp: anonymous ftp to rs6000.cmp.ilstu.edu
subdirectory tierlab/vtloganl

Visit: 304 DeGarmo Hall
Illinois State University
VTLOGANL v 2.81

Technical Requirements

VTLOGANL was designed to be used on a MS-DOS computer system. The software was written in the Microsoft Professional Development System (PDS) BASIC language (v 7.10) and has been tested under MS-DOS version 6.0 and greater. The development system is a 486/33DX computer with 8MB of memory, 240MB of hard disk space, dual floppy drives (3.5" and 5.25"), a VGA color monitor, a mouse, two serial ports, and a parallel printer port. VTLOGANL has been run successfully on as small a system as a 386/25SX with 4MB of memory and 80MB of hard disk space.

VTLOGANL uses Indexed Sequential Access Method (ISAM) data files with in memory buffers for high speed data retrieval and access. In its logging mode VTLOGANL must be constantly communicating with the slaved video tape recorder/player (VTR), its own ISAM data base, and the user operating the keyboard and mouse controls. A minimum of 2MB of memory beyond the 640KB of base memory found in most MS-DOS machines is required for adequate performance. In addition, the faster the processor the better able VTLOGANL is to keep up with the demands of the equipment and user at high speeds. Finally, a minimum of one available serial port is needed in order to connect a VTR to the computer for real-time playback and control.

For these reasons we recommend the following minimum configuration of computer equipment:

**MS-DOS Computer:**
- 486/33DX processor
- 4MB of memory
- 120MB of hard disk
- VGA color monitor
- Mouse
- At least one free serial port
- Printers on LPT1: (first parallel port)
- One floppy disk drive (3.5" HD preferred)

VTLOGANL will also interface with selected video tape decks that are capable of being controlled through the standard RS-232 serial port on the computer. The TIER lab has tested two decks to date. Others may be configurable as well - contact the TIER lab for specific configuration information.

**Video tape deck:**
- Panasonic AG-1960 with RS-232 serial control
- Panasonic AG-5700 with RS-232 serial control
- SONY Control-L camcorders and decks
  (these require a special interface cable)
Installation

All of the files needed to run the VTLOGANL program are contained on the single, 3.5" high density distribution diskette. These files are not compressed or otherwise encoded and may be copied directly from the diskette. There is also a setup program that will automatically copy these files from the floppy diskette to your hard disk. To run this program, follow these steps:

(1) Insert the floppy diskette into either Drive A or Drive B.
(2) Type a:setup or b:setup then press ENTER

The setup program will ask you which floppy diskette drive you are installing from and which hard disk you would like to install to. It will then copy all of the programs from the floppy to the hard disk.

Normally, VTLOGANL is installed into a top level directory named C:\VTLOGANL, although the program can be installed and will run from other directory locations. After you have installed the program you may want to modify your AUTOEXEC.BAT file in the following two ways:

(1) Add C: \VTLOGANL to the path command line. This will allow DOS to search the C:\VTLOGANL directory for programs it might need when running VTLOGANL from another directory.
(2) Add the command SET VTLOGANL=C:\VTLOGANL somewhere in the AUTOEXEC.BAT file. The VTLOGANL program will use the path specified in the VTLOGANL environment variable to search for configuration and other utility files when it runs.

Not making these modifications to the AUTOEXEC.BAT file will not prevent VTLOGANL from running. However, it will require that you attach to the installed directory before starting the program. You would do this by typing the commands:

    CD \VTLOGANL
    VTLOGANL

Finally, while it is possible to run VTLOGANL from a floppy disk drive it is not recommended. VTLOGANL is a time sensitive program, and the response speed from floppy disks is generally so slow that VTLOGANL performance will be severely affected. Install VTLOGANL to a hard disk drive, and run it from a hard disk drive, for the best performance.
vtlogenl v 2.81

configuration

vtlogenl can also be configured to suite the particular needs of your computer system and project. vtlogenl uses two different configuration files: one describes general system parameters, the other defines video tape decks that might be connected to the computer and used with vtlogenl.

vtlogenl.cfg

the file vtlogenl.cfg is the general configuration file for the vtlogenl system. it may be modified by any text editor (such as edit or wordperfect in text mode). it is typically located in the c:\vtlogenl directory, although it may be placed in another directory if desired (see above for the set vtlogenl= command). the file can contain up to three different settings:

one of the following:

vtr=xxxxxxx.xxx  (specify the use of a particular vtr configuration file named xxxxxxxxxx.xxx)
vtr=novtr  (do not use any vtr)

one of the following:

mon=vga  (configure for a vga monitor)
mon=ega  (configure for an ega monitor)

one of the following:

col=mono  (configure for a monochrome display)
col=color  (configure for a color display)

each of these settings describes the usual configuration of the computer system. these settings are typically configured once then left alone, although they may be overridden by command line options when starting the vtlogenl program.

ag5700.cfg or ag1960.cfg or lanc.cfg

specific configuration files tell vtlogenl how to interact with a video tape deck connected to the computer system. currently configuration files exist for these three different video sources, although configuration files for other units can be written and tested. if you are using one of these decks the only change that normally needs to be made is to the one com line in the configuration file. depending on which com port your vtr is connected to, and the speed at which it is operating, you may need to change the line that reads:

com2:9600,n,8,1

you will also need to modify the vtlogenl.cfg file line vtr=xxxxxxx.xxx so that it matches the vtr configuration file.
you want to use. Detailed information on creating and configuration file for a video tape deck is contained within the AG5700.CFG, AG1960.CFG, and LANC.CFG configuration files. Note that the use of a LANC (or SONY Control-L video source) requires a special interface cable. DO EXERCISE CAUTION IN MODIFYING THESE FILES, HOWEVER, SINCE INCORRECT PARAMETERS CAN CAUSE INCONSISTENT SYSTEM PERFORMANCE OR A COMPLETE FAILURE FOR THE COMPUTER TO INTERACT WITH THE VTR!

Utility Programs

The VTLOGANL distribution diskette also contains several utility programs useful when using VTLOGANL. Several of these programs are designed to help maintain the VTLOGANL data files, while other are used when transferring data from VTLOGANL to Dbase (or other programs).

ISAMxxxxx programs

Four programs, distributed by Microsoft, can be used to help maintain your VTLOGANL ISAM data files. Complete documentation about these programs are available from Microsoft, and from the TIER lab. These programs are:

ISAMIO.EXE Moves text data directly into a VTLOGANL ISAM data file. Not recommended except when rebuilding a data file from a severe system crash.

ISANCVT.EXE Moves VTLOGANL ISAM data into a data file of another format. Useful for converting data from another logging system to VTLOGANL (and vice versa).

ISAMREPR.EXE Repairs errors to a VTLOGANL ISAM data file. Normally VTLOGANL is insensitive to even the most severe system crashes; however, this program can recover data from extreme cases.

ISAMPACK.EXE Removes unused space from a VTLOGANL ISAM data file. Normally VTLOGANL will reuse space in a very efficient manner. Deleting a large number of records can leave significant amounts of unused space which ISAMPACK will reduce.
VTLOGANL v 2.81

XXXXXXXXX.DBF and XXXXXXXXX.PRG

VTLOGANL has the ability to import and export data from "comma-delimited" formatted text files. This feature allows data stored in a VTLOGANL ISAM data file to be easily moved to and from data files of other formats, including Dbase and Lotus 1-2-3 (copyright their respective companies). An example the VTLOGANL distribution diskette contains sample DBF Dbase data files set up to receive data from a VTLOGANL ISAM data file. The .PRG files are Dbase programs that will cause Dbase to write Dbase-formatted data files in a "comma-delimited" format that VTLOGANL can read.

Introduction Summary

Installing and configuring the VTLOGANL system is a relatively straightforward and painless process. It begins by running the SETUP program to copy the VTLOGANL files from the distribution diskette to your computer's hard disk. You may then elect to edit your system's AUTOEXEC.BAT file to allow VTLOGANL to be accessed from directory locations other than the default C:\VTLOGANL directory. Finally, you might have to edit the VTLOGANL.CFG file (and other configuration files) to describe to the VTLOGANL program the kind of computer and video tape deck you are using.

Take your time as you go through this process. If you have particular questions or problems don't hesitate to contact the TIER laboratory for assistance. With just a little patience and effort you will have VTLOGANL up and running for your project!
Using VTLOGANL

After VTLOGANL has been successfully installed and configured you are ready to begin to use the program. You can begin VTLOGANL by typing the following commands:

CD \VTLOGANL
VTLOGANL

[NOTE: If you modified your system's AUTOEXEC.BAT file you will need to reboot your computer (for these commands to take effect), and then may start VTLOGANL from any directory without having to give the CD command first.]

The first screen you will see will look like:

VTLOGANL v 2.81 on 04/01/95
Video Tape Logging and Analysis
Dr. Jeffrey B. Hecht

Copyright (c) 1993, 1994, 1995 All Rights Reserved
Technological Innovations in Educational Research Laboratory
Department of Educational Administration & Foundations
Illinois State University, Normal, IL 61790-5900 (309) 438-5849

< Continue >

Touch the <ENTER> key once to continue. The screen will clear, and you will then be presented with the VTLOGANL Main Menu:


Initially, you will only be allowed to select the File or Exit menu options. Once you have told VTLOGANL that you want to work with a particular project file other options will become available.

You can select menu options in one of several ways. The first method is to use a combination of the <ALT> key and the first letter of the menu option. For example, to select the file menu you would type <ALT>F. Another method is to use your computer's mouse (if your computer has a mouse). Position the mouse cursor on the menu option desired and "click" the left mouse key once.
The File Menu

The first menu typically used is the File menu, allowing you to select a project file you want to use or to create a new project data file. You may also change disk drives or directories, and may display a screen telling you the status of the VTLOGANL system in general. The File menu appears like:

{VTLOGANL} File Maintenance Log Report Utilities Exit

Open an existing project
Close the current project
Create a new project
Delete an old project
Change disk drive
Change subdirectory
Display system status
Exit

If you select to create a new project VTLOGANL will prompt you for a project file name (from 1 to 8 alphabetic characters, no spaces or punctuation please) and a description of the project. VTLOGANL will then create a new file with that name in your current hard drive directory. Please note that all VTLOGANL data file names must end in the suffix .VTL. VTLOGANL will automatically create this suffix for you. Do not manually rename files to another suffix ending or VTLOGANL will be unable to identify the file as a VTLOGANL data file.

You may also select to Exit from VTLOGANL from the File menu. This option was added to maintain consistency with other MS-DOS programs that allow the user to exit from the File menu.

Before doing any project operations you must either open an existing project or create a new project. Once you have successfully opened a project file the name of that project will appear on the upper most right hand portion of the computer screen. VTLOGANL will not allow you into another other menu options until a valid project file has been opened. Only one project file may be opened at a time, and you must close the opened project before changing disk drives or directories. Exiting out of VTLOGANL automatically closes any open project files.
Display System Status

This option gives the user descriptive information about the functioning of VTLOGANL on the current computer system. The amount of disk space and memory available is displayed, as well as configuration options from the start up of VTLOGANL. Users experiencing start up or run time problems with VTLOGANL might gain useful information by consulting this screen. A printed copy of this screen is available as one of the standard reports.

<table>
<thead>
<tr>
<th>Display System Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today is: 04-01-1995 at 18:30:00</td>
</tr>
<tr>
<td>Version Numbers: MS-DOS v 6.20, VTLOGANL v 2.81</td>
</tr>
<tr>
<td>Environment Var Path: C:\VTLOGANL</td>
</tr>
<tr>
<td>Current Disk Drive: C:</td>
</tr>
<tr>
<td>Current Directory: \VTLOGANL</td>
</tr>
<tr>
<td>Disk Storage: 382304 Kb total, 112960 Kb free</td>
</tr>
<tr>
<td>Base Memory: 640 Kb total, 211 Kb free</td>
</tr>
<tr>
<td>Expanded Memory: 7744 Kb total, 2704 Kb free</td>
</tr>
<tr>
<td>Stack Memory: 962 bytes free</td>
</tr>
<tr>
<td>Display Type: VGA in Color</td>
</tr>
<tr>
<td>VTR Type &amp; Port: AG5700.CFG on COM2:9600,N,8,1</td>
</tr>
<tr>
<td>Command Line Options: /COLOR</td>
</tr>
</tbody>
</table>

The Maintenance Menu

After a project file has been opened VTLOGANL will allow you to perform basic maintenance operations on the data in that file.

[VTLOGANL] File Maintenance Log Report Utilities Exit (TESTPROJ)

Project description
Quickkeys (<ALT>key)
Codeword definitions
Tape descriptors
Display project status
VTLOGANL v 2.81

Four basic data elements are defined within the VTLOGANL system:

Project description

This is the description you gave to the project when the project was first created. You may edit this description at any time. The project description helps you identify the project and keep it separate from other project files.

Tapes (or reels)

VTLOGANL is designed to log information captured on video tapes. Before you can do any logging you must define the video tape to be logged to VTLOGANL. VTLOGANL will ask you for a tape number (from 1 to 999), and for a description of the kind of information recorded on that tape.

Codewords

Logging of information is done through the use of codewords. A codeword is an eight character (max) shorthand for the meaning you attach to a particular event observed on a video tape. Codeword maintenance allows you to edit the codewords in the VTLOGANL system, changing their definition and basic characteristics. VTLOGANL will allow a maximum of 9999 codewords in any single project file.

Quickkeys

Coding speed is greatly improved when codewords are "mapped" onto simple keystrokes. VTLOGANL allows the user to create up to 45 quickkeys (combinations of the <ALT> key and another key on the keyboard) which can be used to indicate particular codewords during the logging process.

Keystroke Conventions

Certain consistent convention are followed in each of these maintenance screens. In general, each screen is divided into an upper, middle, and lower sections -- the upper section of the screen containing the "key" information for that particular data component, the middle section contains the detailed information to be maintained for that "key", and the lower section containing commands to VTLOGANL. The <TAB> or <SHIFT><TAB> keys will move the cursor from one section of the screen to another section, and among the options in the bottom half of the screen. Use the <TAB> and/or <SHIFT><TAB> keys to navigate among the sections of the maintenance screens.
Certain keys are available during editing whenever the cursor is positioned in the top section of the editing screen:

- `<PGDN>` Get the next record from the data file and display it in the top and middle sections of the screen.
- `<PGUP>` Get the last record from the data file and display it in the top and middle sections of the screen.
- `<CTRL><PGDN>` Get the last record from the data file and display it in the top and middle sections of the screen.
- `<CTRL><PGUP>` Get the first record from the data file and display it in the top and middle sections of the screen.

**NOTE:** Entering a data value in the top section of the editing screen will cause VTLOGANL to search for that record in its data file. If a match is found the record will be retrieved and you will be able to edit the record. If it is not found you will be asked if you want to create a new record using that key information.

Certain keys are available during editing whenever the cursor is positioned in the top or middle sections of the maintenance screen:

- `<UP-ARROW>` Move the cursor up to the previous field of data.
- `<DOWN-ARROW>` Same as the `<ENTER>` key -- moves the cursor to the next field of data.
- `<LEFT-ARROW>` Move the cursor left one character position.
- `<RIGHT-ARROW>` Move the cursor right one character position.
- `<BKSP>` Move the cursor left one character position and delete a single character along the way.
- `<DEL>` Deletes the single character underneath the cursor but do not move the cursor.
- `<HOME>` Move the cursor to the first position on the line.
- `<END>` Move the cursor to the last position on the line.
- `<CTRL><END>` Erase the entire line of input, positioning the cursor to the beginning of the line.
Certain buttons are available during editing whenever the cursor is moved into the bottom section of the editing screen. If the <TAB> or <SHIFT><TAB> keys are touched while the cursor is in the top section of the editing screen the cursor will be moved to the bottom section of the screen and the following option buttons will be available:

取消 <CANCEL> Close the edit screen. If <CANCEL> is selected the user will be returned to the Maintenance menu screen. No changes will be made to the current record.

删除 <DELETE> Removes the current data record from the VTLOGANL data file. First, use the <TAB> key to move the cursor into the bottom section of the editing screen. Then use the <SHIFT><TAB> key combination to highlight the <DELETE> button. Touching <ENTER> will then delete the current record. NOTE: DELETING A CODEWORD REMOVES ALL LOGGED REFERENCES TO THAT CODEWORD! DELETING A TAPE REMOVES ALL LOGGED REFERENCES TO THAT TAPE!

If the <TAB> or <SHIFT><TAB> keys are touched while the cursor is in the middle section of the editing screen the cursor will be moved to the bottom section of the screen and the following option buttons will be available:

否 <NO UPDATE> Abandon the editing operation in progress. No changes will be written to the VTLOGANL data file. This option is useful when the user does not want to save changes made to the information entered.

是 <UPDATE> Save the currently displayed information to the VTLOGANL data file. The current record will be updated to reflect the new information.

维护项目描述

The Maintenance Project Description editing screen is the simplest of the four editing screens as it only contains a single field of data: the project description.

<table>
<thead>
<tr>
<th>Maintenance Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description: {This is a test demonstration project }</td>
</tr>
<tr>
<td>&lt; Update &gt;</td>
</tr>
</tbody>
</table>
Maintenance Quickkeys (<ALT>keys)

The user can speed logging operations by designating <ALT>key combinations to stand for certain predetermined codewords. The table of these designations is maintained as Quickkeys:

<table>
<thead>
<tr>
<th>Maintenance Quickkeys (&lt;ALT&gt;key)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;ALT&gt; 1 = {</td>
</tr>
<tr>
<td>&lt;ALT&gt; 2 =</td>
</tr>
<tr>
<td>&lt;ALT&gt; 3 =</td>
</tr>
<tr>
<td>&lt;ALT&gt; 4 =</td>
</tr>
<tr>
<td>&lt;ALT&gt; 5 =</td>
</tr>
<tr>
<td>&lt;ALT&gt; 6 =</td>
</tr>
<tr>
<td>&lt;ALT&gt; 7 =</td>
</tr>
<tr>
<td>&lt;ALT&gt; 8 =</td>
</tr>
<tr>
<td>&lt;ALT&gt; 9 =</td>
</tr>
<tr>
<td>&lt;ALT&gt; 0 =</td>
</tr>
<tr>
<td>&lt;ALT&gt; A =</td>
</tr>
<tr>
<td>&lt;ALT&gt; B =</td>
</tr>
<tr>
<td>&lt;ALT&gt; C =</td>
</tr>
<tr>
<td>&lt;ALT&gt; D =</td>
</tr>
<tr>
<td>&lt;ALT&gt; E =</td>
</tr>
</tbody>
</table>

< Update > < No Update >

Up to 45 different quickkey combinations may be declared. Quickkey designations may be updated as often as desired, depending on the needs of the user and the project being coded. It is also not necessary to create a codeword before designating a quickkey for that codeword -- the first time the codeword is used by the quickkey VTLOGANL will ask the user to create a definition for that new codeword. It is also possible to use several quickkeys for the same codeword.

Maintenance Codeword Definitions

Codewords, being only from 1 to 8 characters in length, are necessarily a shorthand for the conceptual meaning being attached to a segment of video tape. Codeword maintenance allows the user to create a longhand definition for a codeword, and to attach certain characteristics to that definition.
Each codeword must have a unique name. For each codeword the user may also define the following attributes:

Outline #

This is a value that can be used to help organize codewords in later reports. Normally, codewords are presented in alphabetical order. Assigning a codeword an outline number value allows for sequencing codewords according to a sense of their conceptual organization.

Description

The codeword description is a longhand textual description of the codeword. It helps to define the user's intent for that codeword.

Default Time

This is the default amount of time the codeword will be present in a logged data element. If the default time is set to zero (00:00:00), VTLOGANL allow the codeword to remain on the logging screen until the user "turns off" the codeword. This strategy is useful for open-ended events that do not have predetermined durations. For events of known duration the user should enter the amount of time the duration takes. A special case of default time occurs when a user is simply interested in counting events that do not have a useful duration. In this circumstance the default time should be set to one second (00:00:01).

Default Slot

During logging the user has 30 codeword "slots" into which codewords may appear as events are logged. If not default slot is specified (a value of 0) a codeword will normally occupy the first available slot on the logging screen. Indicating a default slot (from 1 to 30) will cause that codeword to always appear in that slot position on the logging screen.
Maintenance Tape Descriptors

Before any logging of video taped events can occur the user must define one (or more) tapes to be logged. Tapes are numbered from 1 to 999, with the user entering descriptive information about how VTLOGANL should regard each tape.

<table>
<thead>
<tr>
<th>Tape number: {  }</th>
<th>0 Tapes Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td></td>
</tr>
<tr>
<td>Restrict:</td>
<td>duration every</td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
</tr>
<tr>
<td>Start</td>
<td>Stop</td>
</tr>
<tr>
<td>Scn 1</td>
<td>Scn 2</td>
</tr>
<tr>
<td>Scn 4</td>
<td>Scn 5</td>
</tr>
<tr>
<td></td>
<td>&lt; Delete &gt;</td>
</tr>
</tbody>
</table>

Description
The tape description is a longhand textual description of the tape number. It helps to define the user's intent for that tape.

Restrict ...
VTLOGANL allows coding either in a "free" format or a "fixed" format. Entering zeros for both of the restrict values allows the user to log codewords of any length during any portion of the tape. Sometimes a research project wants to restrict observations to only a certain amount of time every so often (for example, only one minute out of every ten minutes). For that kind of a tape the user can specify the restriction in these two fields, with VTLOGANL forcing all codings into the restriction parameters.

Scn 1 ...
Up to six scenes may be described for each tape. This information (the date and time of the scene, who it was recorded by, the start and stop times on the tape, and a brief description) are only to remind the user what is recorded on the tape. VTLOGANL does not use this information.
Display Project Status

This option gives the user descriptive information about the current VTLOGANL project data file. The amount of disk space taken up by the project file is displayed, as well as the amount of available storage for data elements within the project. A printed copy of this screen is available as one of the standard reports.

<table>
<thead>
<tr>
<th>Display Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disk Drive: C:</td>
</tr>
<tr>
<td>Directory: \VTLOGANL</td>
</tr>
<tr>
<td>File Name: TESTPROJ.VTL</td>
</tr>
<tr>
<td>File Size: 96 Kb</td>
</tr>
<tr>
<td>VTL Ver #: 2.81</td>
</tr>
<tr>
<td>Created: 04/01/95</td>
</tr>
<tr>
<td>Updated: 04/01/95</td>
</tr>
</tbody>
</table>

Description: This is a test demonstration project
Quickkeys: 0 keys, 45 maximum, 100% available
Codewords: 0 words, 9999 maximum, 100% available
Tapes: 0 tapes, 999 maximum, 100% available
Events: 0 logged

< Continue >

The Log Menu

After at least one tape has been defined to a VTLOGANL project the user may enter logged events into that tape's record. VTLOGANL allows logging to occur either in real time (with a video tape deck slaved to the computer system) or in virtual time (with the computer simulating the operation of the video tape deck). The user chooses the logging mode from the log menu:

[VTLOGANL] File Maintenance Log Report Utilities Exit {TESTPROJ}

Log using VTR
Log without VTR
Change logged codewords

After choosing the logging mode the user will be asked to enter a valid tape number. If a valid tape number is entered the computer will display the logging data entry and edit screen; otherwise, an error message will be given and the user will be asked to select a logging mode again.

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The Logging Edit Screen

After entering a valid tape number the computer will display the logging edit screen. This screen is nearly identical whether using a real VTR or a virtual VTR, the only difference is the message displayed on the bottom right hand portion of the screen: VIRTUAL when operating without a real VTR and ACTUAL when operating with a real VTR.

<table>
<thead>
<tr>
<th>Command: ( )</th>
<th>Description: Free coding</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>&lt;SHIFT&gt;</th>
<th>&lt;CTRL&gt;</th>
<th>&lt;ALT&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slots 1 - 10</td>
<td>Slots 11 - 20</td>
<td>Slots 21 - 30</td>
</tr>
<tr>
<td>F1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F6</td>
<td></td>
<td></td>
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<tr>
<td>F7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The top right hand portion of the logging edit screen displays the project name, the number of the tape being logged, and whether the tape is a "free" or "fixed" duration tape (according to the definition created for that tape). Up to 30 "slots" are available for codewords, with any number of these slots being in use at any moment. NOTE: although VTLOGANL will, by default, place codewords in the first available (unused) slot, users might want to designate certain codewords (or classes of codewords) to particular slot locations, using the display locations on the computer screen as another means of organization.

Controls for the VTR are displayed as graphic images along the bottom of the screen. The controls may be toggled by either

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the mouse cursor or touching the appropriate function key.

The following VTR controls are available:

- <F1> Rewind
- <F2> Play fast reverse
- <F3> Play reverse
- <F4> Play slow reverse
- <F5> Play slow forward
- <F6> Play forward
- <F7> Play fast forward
- <F8> Fast Forward
- <F9> Pause
- <F10> Stop
- <ALT>/ Calibrate (the VTR will rewind to the start of the tape and the time index will be reset to zero)

In actual mode VTLOGANL will send the appropriate command to the VTR, while in virtual mode VTLOGANL will adjust the automatic incrementing of the virtual clock. Since VTLOGANL reads the current state of the VTR directly from the VTR it might take a moment or two before the graphic display indicates a change in operation. Be patient, since sending VTR commands too fast to an actual VTR may result in disrupted operation.

Regardless of whether in virtual or real mode the current tape time index will be displayed in the lower right hand portion of the computer screen. Moving the tape (forwards or in reverse) will change the time index when operating in both actual and virtual modes. In addition, the time index may be changed in virtual mode by using the following keystrokes:

- <PGDN> Increment by one second
- <PGUP> Decrement by one second
- <CTRL><PGDN> Increment by one minute
- <CTRL><PGUP> Decrement by one minute
Logging Codewords

Attaching meaning to segments of action and/or speech on a video tape is accomplished in VTLOGANL by placing one or more codewords on the logging edit screen. Since VTLOGANL is a time sensitive system, each codeword has both a starting time and an ending time. The starting time denotes when the user wishes to indicate the beginning of a certain event and the ending time the conclusion of the event. Although many prosumer and professional quality video tape decks are capable of resolving time in increments of up to 1/60th of a second, VTLOGANL (in this current version) restricts coding to intervals of one second.

At the top left hand portion of the logging edit screen VTLOGANL will ask the user to enter a "Command:". The command may be: a codeword, a quickkey key combination, a VTR control key, or a slot turn-off key combination.

If the user enters a codeword or a quickkey VTLOGANL will attempt to place the codeword into either the first available slot or that codeword's designated slot. If a codeword already exists in a codeword's designated slot that codeword will be removed (turned off) and replaced by the typed codeword. If the user types a new codeword (one not already in the VTLOGANL data file) the user will be asked to define that codeword before it is placed into a slot on the logging screen.

Typing <F1> through <F10> or <ALT>/ is interpreted by VTLOGANL as a VTR command. In actual mode the appropriate command will be processed and sent to the video tape deck. In virtual mode the time clock will be changed immediately. Likewise, typing <PGUP>, <PGDN>, <CTRL><PGUP>, or <CTRL><PGDN> while in virtual mode will have an immediate effect on the clock.

Once a codeword has been placed into a slot it will remain active in that slot until one of three things occurs:

(1) The codeword turns itself off.

If the codeword has been defined with a default time the codeword will automatically acquire an ending time and will remove itself from the display screen once that time is reached.

(2) The codeword is replaced.

Placing a new codeword into a slot occupied by an existing codeword will turn off that codeword and remove it from the display.
Each slot has a function key combination that will turn off whatever codeword is currently being displayed in the slot. Slot numbers 1 through 10 are turned off by the key combinations <SHIFT><F1> through <SHIFT><F10>, slot numbers 11 through 20 by the key combinations <CTRL><F1> through <CTRL><F10>, and slot numbers 21 through 30 by the key combinations <ALT><F1> through <ALT><F10>. Regardless of the default time of a codeword the user may always turn off a codeword at any time using these key combinations.

It is possible to change the ending time of a coded event's codeword. Simply wind the tape to the desired time index (or adjust the clock in virtual mode), then manually turn off the codeword at the new desired ending time. While this is relatively straightforward to accomplish while coding in actual mode it is somewhat easier (and more accurate) in virtual mode. Each user will have to experiment to find their own best way for altering a codeword's ending time.

It is not possible to change the starting time of a coded event's codeword. VTLOGANL uses the starting time as an important identifier for each and every coded event. Instead, you must delete the coded event's codeword then re-enter it with a new starting time. Deleting a logged codeword is best accomplished in virtual mode. Adjust the system clock so that the time index is identical to the starting time of the codeword, then manually turn off the codeword. This action will cause VTLOGANL to see a coded event with the same starting and ending time. Since a requirement of the system is that all coded events must have at least some duration (a minimum of one second), VTLOGANL will remove this coded event from the data file.

VTLOGANL can also be a useful tool for coding events not recorded on video tape, or in situations where a video tape deck cannot be interfaced with the computer. In these cases the user would operate VTLOGANL in its virtual mode, adjusting the rate of the automatic clock index to match the playback rate of the video or audio tape source. Although not nearly as accurate as a direct connection with a video deck would be, this method can be useful for timing the duration of specified events (where the starting and stopping criteria are clearly defined), or for recording conceptual codes where order and overlap are more important than exacting duration.

Touch the <ESC> key once to exit from the logging edit screen.
Change Logged Codeword

It is not uncommon during the analysis of any project for a researcher to change their mind about the structure and representation of their codes. Reorganizing, condensing, and reordering of codewords are commonplace. VTLOGANL supports this natural refinement of the analytical process in two ways.

The first method concerns the use of codeword outline numbers. When each codeword is initially created the user is given an opportunity to indicate an outline number for that codeword. For most operations this outline number is ignored, as VTLOGANL maintains the codeword list in alphabetical order for easy searching and retrieval. The codeword list report and the log summary report, however, can produce output either in alphabetical order or according to the user designated outline number. By assigning (and reassigning, as meaning and organization changes) the outline number on each codeword the user can move codewords, and coded events, within an organized outline structure.

The exact values to use for outline numbers, the amount of spacing between these values, and rate of progression in value between one codeword and the next are decisions each user will have to address for themselves. Since the system will handle fairly large number values it is recommended that generous value spacing be allowed between outline categories. This will make additions and minor restructurings easier without the need for renumbering the entire codeword data list. Outline renumberings take place as a feature of codeword maintenance.

A second method of reorganizing allows for condensing two codewords into one. It is not uncommon for coding to begin with different codewords representing apparently different meanings, only to discover later on that the different codewords are really that different after all. In other cases a project may begin with a level of specificity too detailed to maintain over the length of the project. In both cases it becomes necessary to reduce several codewords into one. In a third case a desired codeword has a clear conceptual meaning although the 1 to 8 character codeword name is confusing or misleading. In this circumstance it is necessary to change the name of the codeword to something more easily recognized.

While all of these functions could be handled within codeword maintenance a problem occurs if events have been coded using these codewords. When logged events rely on certain codewords a different procedure must be used to change the codewords in both the codeword file and the logged events file.
Change logged codeword allows the user to automatically recode previously logged and coded events using one codeword into a new codeword. The user specifies the old codeword and a new codeword, then indicates that a change is desired. NOTE: accessing the change button is similar to accessing the delete button while in maintenance, due to the immediate change nature of this operation. Both codewords, old and new, must exist in the codeword file (see codeword maintenance) before a change will be allowed. Change logged codewords will update the entire logged events file to reflect the new codeword, and will modify the codeword file to delete the old codeword as well.

### The Report Menu

The report menu allows for basic level reporting of the data stored in the current project file. The current version of VTLOGANL only support basic reporting options. More detailed reporting is accomplished by exporting selected data to a comma-delimited text file, importing the text data into either Dbase or SPSS, and using those programs to perform the higher level analysis. Development work is underway to improve the reporting capabilities of VTLOGANL.

Five reports are currently available:

<table>
<thead>
<tr>
<th>Report Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quickkey List Report</td>
<td>Prints a listing of the current quickkey codeword assignments</td>
</tr>
<tr>
<td>Codeword List Report</td>
<td>Prints a listing of the currently defined codewords. This report may be selected to appear in either alphabetic or outline number order.</td>
</tr>
<tr>
<td>Tape List Report</td>
<td>Prints a listing of the currently defined tapes (reels).</td>
</tr>
</tbody>
</table>

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Log Summary Report  Prints a summary of codeword usage for logging coded events. This report may be selected to appear in either alphabetic or outline number order.

Log Detail Report  Allows the use to select certain reels of tape (either individually or in ranges), codewords (either individually or in ranges), and/or outline numbers (either individually or in ranges). The report can either summarize the information in the log file or can produce each instance of a logged event. The report can also contain certain basic descriptive statistics for the events reports. Report format is selectable to either the printer, an Edit Decision List (EDL) file (suitable for use with on-line video editing systems), or to a text file.

Status Report  Prints the current system status and project status displays.

The reporting option assumes that a printer is connected to the first parallel printer port (LPT1:) of the computer, and that it is turned on and on-line. Printer problems (such as out of paper and being turned off or taken off line unexpectedly) are handled with varying degrees of success by VTLOGANL, depending on the nature and severity of the problem. Try to insure that sufficient paper is available in the printer before beginning to print a report.

The VTLOGANL reports have been developed and tested on Hewlett Packard Laserjet II and III printers. Since these reports use certain graphical characters for borders and line drawing the reports might appear somewhat garbled or with strange printing if printed on other kinds of printers. In general printers that are capable of supporting the IBM PC character set
should not have any problems printing VTLOGANL reports.

The Utilities Menu

The utilities menu consists of VTLOGANL features not typically used every day, but nonetheless useful over the life of a project. Current utilities allow for: rebuilding project file indices (useful in the event of unexpected file corruption or system problems), exporting data to a comma-delimited text file, or importing data from a comma-delimited text file. These last two options provide VTLOGANL an easy way to exchange data with other programs. It also allows for a user to create data elements in one project then to move those data elements to another project.

In the normal course of operation it should not be necessary to ever rebuild a project's indices. Project indices maintain the data elements in the proper order for VTLOGANL to quickly access them. Inconsistent behavior from VTLOGANL, the unexpected loss of data elements, or a problem with the computer's hard disk might create a need to rebuild a project's indices.

Before rebuilding it is strongly recommended that at least one backup copy of the project file (projectname.VTL) be made before a rebuild is attempted. The rebuild procedure overwrites the entire data file. If severe problems exist in the data file's structure or integrity the indices rebuild may fail, leaving the file worse off than before. In these circumstances the external Microsoft utility programs ISAMREPR and/or ISAMPACK might be needed to recover the damaged data file. In the worst case the data may be exported to comma-delimited text files then imported into a newly created project database. The kind and severity of each situation will dictate the actions needing to be taken.
Exporting data to a comma-delimited text file requires the user to specify a valid MS-DOS filename prefix (VTLOGANL will automatically append the suffix .TXT to the filename). Since VTLOGANL stores quickkeys, codewords, tapes, and logged events as separate data elements each must be exported into their own text file. After indicating a filename the user will be queried about whether to overwrite the file (equivalent to creating a new file) or append the existing file (if there is one). Exporting data may be a somewhat time consuming process, depending on the amount of data to be exported and the speed of the computer. When finished the user will have a text file containing that element of data specified from the VTLOGANL project file.