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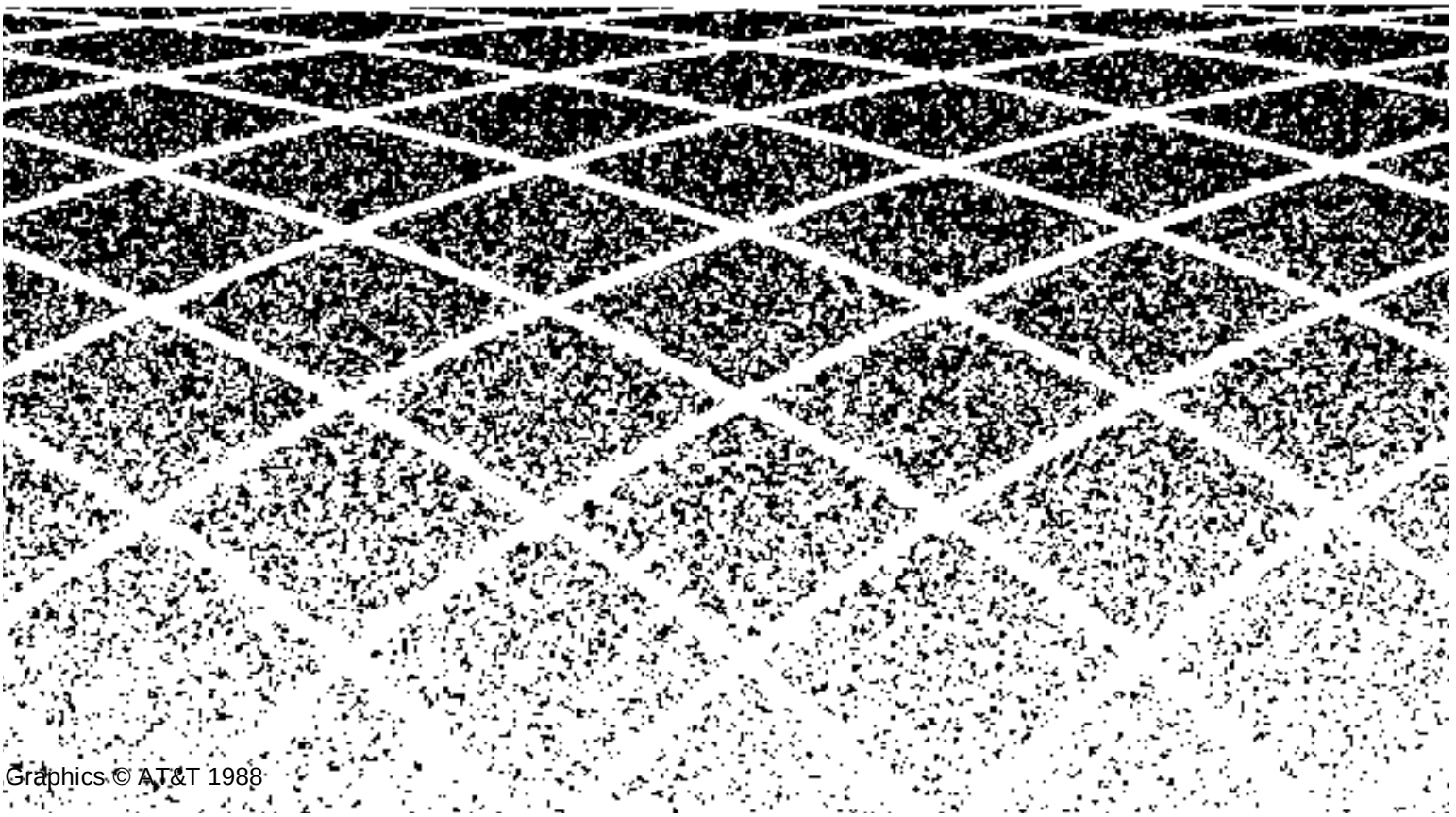
Intuity CONVERSANT VIS Version 5.0 Upgrades



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About This Book

Purpose

This book, *Intuity CONVERSANT VIS Version 5.0 Upgrades*, 585-310-152, describes the procedures for upgrading to AT&T Intuity™ CONVERSANT® Voice Information System Version 5.0.

Intended Audiences

The primary audiences for this book are as follows:

- On-site technician — The on-site tech uses the upgrade book to meet his/her main objective; upgrade a pre-V5.0 system at the end-customer site.
- Technical Service Organization (TSO) — The TSO associate uses this book to provide customer support to both the on-site technician, the end-customer, and for configuration support. If necessary, they use the book to walk the party in need of support through the procedures to upgrade a customer's system.
- End-customer — The end-customer uses this book to upgrade a pre-V5.0 system, much like the on-site technician. Some customers prefer to service their system, rather than use a support group from AT&T or elsewhere. If this is the case, the end-customer will use the book's procedures to upgrade a pre-V5.0 system to V5.0.

How This Book Is Organized

This book is organized into the following chapters:

- About This Book

  This chapter is designed as a preface to the rest of the book, including such information as the book purpose, its intended audiences and organization, conventions, terminology, trademarks and service marks, and related resources. This chapter also explains how to make comments about the book.

- Chapter 1, "Introduction to Upgrades"

  This chapter describes some different approaches to upgrades and how to decide which approach to use. There is also a section on things to do before starting an upgrade, and a section of helpful hints.

- Chapter 2, "Assisted Software Upgrades"

  This chapter describes the Software Upgrade Assistance package introduced in Version 5.0. Checklists in this chapter describe the steps necessary to upgrade to V5.0 from either a V3.0, V3.1, or V4.0 source system.

- Chapter 3, "Manual Software Upgrades"

  This chapter describes how to perform a manual software upgrade. A single checklist describes the steps necessary to upgrade to V5.0 from a V2.1 source system.

- Chapter 4, "Hardware Upgrades"

  This chapter describes the hardware upgrade issues that are part of an upgrade to V5.0.

- Chapter 5, "Verification and Troubleshooting"

  This chapter describes what steps to take to verify the upgrade. It also includes a section of troubleshooting guidelines.

- Appendix A, "Procedures"

  This appendix contains several procedures that are used to upgrade to V5.0. These procedures are referenced from the checklists in Chapters 2 and 3.

- Appendix B, "Files and Directories"

  This appendix contains a list of all files and directories saved by the Upgrade Assistance Package as part of your assisted upgrade to V5.0.

- Abbreviations
- Glossary
- Index

Conventions Used in This Book

The following typographic conventions are used in this book:

- Terminal keys
  - — Terminal keys are shown in rounded boxes. For example, an instruction to press the enter key is shown as

    Press ENTER.

  - — Function keys (also known as *soft* keys) are shown in rounded boxes followed by the function of that key in parentheses. For example, an instruction to press function key 3 is shown as

    Press F3 (CHOICES).

  - — Two or three keys that you press at the same time (that is, you hold down the first key while pressing the second and/or third key) are shown as a series of rounded boxes. For example, an instruction to press and hold ALT while typing the letter **d** is shown as

    Press ALT D.

- User input
  - — The word *enter* means to type a value and press ENTER. For example, an instruction to type **y** and press ENTER is shown as

    Enter **y** to continue.

  - — The word *type* means to press the key or sequence of keys specified. For example, an instruction to type **y** is shown as

    Type **y** to continue.

    Do *not* press ENTER after you type the value specified.

  - — The word *select* is used to mean the following: move to the desired menu item using the arrow keys and press ENTER. For example, an instruction to select an item from a menu and press ENTER is shown as

    Select Configuration Management from the Voice System Administration menu.

  - — Information that you enter or type from your terminal keyboard is shown in **bold** type; for example

    Enter **root** at the `Console Login` prompt.

— Command and file names and their parameters are shown in **bold** type. Variable parameters are shown in ***bold italic*** type when they are part of a user input and in *regular italic* type when they are not. All are illustrated in the following example:

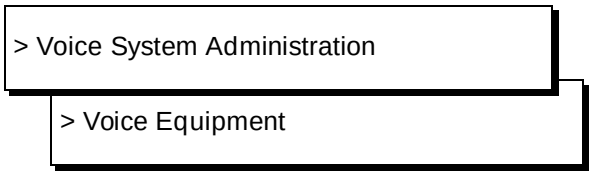
> Use the **print** command to print your report. The command syntax is **print *reportname***, where *reportname* is the name of the report to be printed.

- Screen displays
  - — Information that is displayed on your terminal screen — including screen displays, field names, prompts, script code, and system messages — is shown in `typewriter-style` type; for example

    ```
    Installation is in progress -- do not remove
    the floppy disk.
    ```

  - — The sequence of menu options that you must select to display a specific screen is shown as follows:

    Begin at the CONVERSANT Administration menu, and select the following sequence:

    In this example, you would first access the CONVERSANT Administration menu. Then you would select the Voice System Administration option to display the Voice System Administration menu. From that menu, you would select the Voice Equipment option to display the Voice Equipment screen.

  - — The screens shown in the Intuity CONVERSANT library are only examples. Your screens may not appear exactly as illustrated.

Related Resources

The following books must be used in conjunction with this book:

- *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151
- Upgrade kit documentation for 386 CPU upgrade to 486 CPU
- Upgrade kit documentation for ESDI upgrade to SCSI
- Upgrade kit documentation for MAP/40 386 CPU and IDE
- The hardware installation book specific to your platform (for example, *MAP/100 Voice Processing Hardware Installation*, 585-310-148)
- *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153
- *Intuity CONVERSANT VIS Ve5.0 Operations*, 585-310-550
- *Intuity CONVERSANT VIS V5.0 Application Development*, 585-310-227
- *Intuity CONVERSANT VIS V5.0 Script Builder*, 585-310-727
- *NOVELL UnixWare Documentation Set*, 585-350-908
- Chapter 3 of *3270 Administration Guide*, 585-350-912

Technical Updates

Every effort was made to ensure that the information contained in these books is technically accurate, and will guide readers in the normal operation of the system. There are instances however, when the Intuity CONVERSANT VIS V5.0 product behaves differently than is documented in the core library.

To help with this, an on-line bulletin board is available to all Intuity CONVERSANT VIS V5.0 customers that provides supplemental information about this product in an electronic mail format. These updates include hints, tips, and exception conditions about all aspects of the Intuity CONVERSANT VIS V5.0 product that were discovered after the core library was published.

This service is called ACCESS, and is available 24 hours-a-day, seven days-a-week to anyone who subscribes to it. To gain access to electronic Intuity CONVERSANT VIS V5.0 ACCESS articles, call 1-800-242-6005, and ask for department 186.

Trademarks and Service Marks

The following trademarked products are mentioned in this book:

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- Intuity, Voice Power, and FlexWord are trademarks of AT&T.
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Introduction to Upgrades

1

What's in This Chapter

This chapter provides an introduction to upgrades for Version 5.0. In this chapter, you will learn what upgrades are supported, the two mechanisms for upgrading, as well as other places in the documentation you can find necessary and useful information.

Supported Upgrades

The following upgrades are supported for Version 5.0:

- Version 4.0 to Version 5.0
- Version 3.1 (or Version 3.1.1) to Version 5.0
- Version 3.0 (or Version 3.0.1) to Version 5.0
- Version 2.1 (or Version 2.1.1) to Version 5.0

NOTE:
Throughout the remainder of this book, when you see a reference to a release name, any maintenance release associated with that release is assumed. For example, when you see Version 3.1, it also refers to Version 3.1.1, unless stated otherwise.

Upgrades to Version 5.0 are considerably more complex and time consuming than many earlier CONVERSANT upgrades. Several reasons are:

- Every field upgrade involves some kind modification to hardware (for example, replacing an obsolete component or updating firmware on a component.
- Existing configurations may be rendered obsolete due to hardware upgrades and/or new features in V5.0.
- V5.0 is on a new operating system, UnixWare, that implies that every field upgrade includes a full system reinstallation of the software. Also, any C-programs (such as custom application DIPs) in the system must be recompiled to be ANSI-C compliant.
- Script Builder applications that do not include custom DIPs are fully portable to V5.0. Other applications (for example, native script language applications and external functions) require recompilation. Some application modification may be required to accomplish this.

The delivered product includes tools and documentation to help you accomplish your upgrade as quickly and easily as possible. There are many things you can and should do to facilitate a successful upgrade. Refer to “Preparing for Any Upgrade” found later in this chapter to prepare for the upgrade process.

Supported Hardware

Upgrades may involve a change of the underlying hardware platform, referred to as a *platform migration*. An example of a platform migration is moving from a MAP/40 to a MAP/100. Supported Version 5.0 upgrades do not include platform migration from a 6386 WGS to a MAP/40/100/100C.

In addition to a platform migration, you also need to consider the individual hardware components installed in your source system:

- Obsolete hardware components — Some components you currently have in your system have been replaced in Version 5.0 by a newer component and are no longer supported; in other words, they are *obsolete*.
- Reusable hardware components — Some components you currently have in your system have been replaced in Version 5.0 by a newer component, but are still supported in upgrade situations. There are also components that have not changed physically, but require a change in configuration or setup for use with Version 5.0. These components are *reusable*.
- Unchanged hardware components — These components have remained unchanged and do not need any special attention for upgrade purposes.

This book addresses obsolete and reusable hardware components for upgrade purposes. Hardware upgrade issues including configuration issues, for both obsolete and reusable hardware components, are covered in Chapter 4, "Hardware Upgrades".

IMPORTANT:

Version 5.0 cannot run on platforms with obsolete hardware components. If you have any obsolete components, you need to replace them with newer components before you bring up your V5.0 system. Precisely when this should be done during an upgrade depends on your specific upgrade scenario and is noted in the upgrade scenario tables. Replacement components and/or hardware you intend to add to your system may affect the configuration of your upgraded system. Be sure you have a supported V5.0 configuration available before installing V5.0 software. See Chapter 4 for more information on hardware issues.

Mechanisms for Software Upgrades

There are two mechanisms for upgrading software: assisted and manual.

Assisted software upgrade — Version 5.0 software includes a program, the Software Upgrade Assistance Package, designed specifically for performing a upgrade to Version 5.0. This program assists you with many of the steps that historically have been the most error-prone and time-consuming. The program does *NOT* perform every step, nor can it run without user interaction. The upgrade program is available *only* to those customers upgrading from Version 4.0, Version 3.1 or Version 3.0. The assisted program does not support platform migration from a 6386 WGS platform.

Manual software upgrade — A manual upgrade is executed entirely by the customer or field technician with consultation from the TSO using documentation as the roadmap to upgrade the system. Customers upgrading from Version 2.1 *must* do so using the manual upgrade procedures documented in Appendix A, 'Procedures" of this book. There is no support for a platform migration from a 6386 WGS platform.

Upgrade Scenarios and Tables

The supported scenarios that use the Software Upgrade Assistance Package are found in Chapter 2, "Assisted Software Upgrades" and include:

- Upgrade from Version 4.0, Version 3.1, and Version 3.0 software to Version 5.0 software on a MAP (40/100/100C) platform – see Table 2-1

The Software Upgrade Assistance Package, once installed and run, manages the installation of your Version 5.0 software and any Intuity CONVERSANT VIS optional packages you had prior to running the program.

The supported scenarios that require total manual execution are found in Chapter 3, "Manual Software Upgrades" and include:

- Upgrading from Version 2.1 software to Version 5.0 software on a MAP/100 or MAP/100C platform – See Table 3-1

NOTE:
If you have CONVERSANT CVMS — Interface For VIS Development Machines and CONVERSANT CVMS Interface Version 3.0, you cannot perform an upgrade to Version 5.0 unless you first remove those packages manually. Version 5.0 does *not* support CVMS and you *cannot* run CVMS on a Version 5.0 system.

The tables are designed as checklists to guide you through the upgrade procedures. Each checklist includes references to other books where you can find additional information. Many of the referenced sections are located in this book.

Special Notices in the Upgrade Tables

Two items to watch for in each table:

- Point of no return — (⟶) There is a point in each upgrade that is "the point of no return." Up until this point of the upgrade, you could restore your source system if for some reason your upgrade failed. However, once you go *past* this point, restoring your source system is extremely difficult.

  Make sure you have followed all the steps prior to this point and verified that you have everything to complete the upgrade on site to insure that the upgrade can be completed successfully.

- Shaded areas — There are steps in each table that are shaded. If you have an Upgrade Image Tape provided from the TSO, do not perform the shaded steps as they are documented in the tables. Instead, substitute the steps in the procedure, "Installing the Image Tape" found in Appendix A of this book.

The first step in each table is to complete the steps in "Preparing for Any Upgrade" found in chapter. If, and only if, you have already completed the steps in "Preparing for an Upgrade" (including any "Getting Started" and "Helpful Hints" specific to your upgrade), you can skip Step 1 and continue with the next steps in the checklist.

Preparing for Any Upgrade

The steps in this section are applicable to all upgrade situations, regardless of the type of upgrade you are doing. All of these steps should be completed before your upgrade occurs. Most steps require customer knowledge and can be completed even before a technician is scheduled to visit your site to perform the upgrade.

IMPORTANT:

Performing the steps in this section can significantly reduce the down time associated with an upgrade.

1. Identify a person in your organization who can serve as a contact to the Technical Service Organization (TSO) and the field technician assigned to your upgrade. This person should have a basic understanding of the operation of your source system and aware of the applications and other capabilities on your source system.
2. Call the Technical Service Organization (TSO) at 1-800-344-9670 to register your upgrade. Make contact with them as early as possible. They can help verify that you have everything you need to complete your upgrade successfully. They will ask you for the following information:
   - Company name, IL number, contact name and phone number, and the number and location of the machine(s) to be upgraded
   - Modem dial-up number and passwords (for **root** and **install**)
   - Current system information (platform type, disk type and number of disks, software version, what cards are installed, and what software packages are installed)
   - Number and type of applications currently installed and/or running on the system (especially custom DIPs, non-CONVERSANT packages, any non-standard software, etc.)
   - Software and upgrade resources available on-site (blank tapes and/or floppies needed for the upgrade, tapes and floppies containing packages to be upgraded)
3. Remove any user files from your system that you no longer need. Remove any packages you do not want to move to your target system. That is, remove from your current system any obsolete files, applications, and speech.
4. Make sure all the applications you intend to carry over to the target system compile and run on your source system (that is, no source code changes have been made since the application(s) were last updated/installed; all required speech is available, etc.). If you are not sure if an application has changed, recompile and test it. It is a very important that you know how each application on your source system behave.

In addition, check your source system for the Feature Test Script Package and/or other testing production scripts. Note your source system's behavior so you have a baseline to test against once the system is upgraded.

5. Collect any ACCESS bulletin board articles that apply to the system being upgraded. Read these articles.
6. Make sure you know the passwords on your system, for root, ORACLE, Form Filler, etc. You must have this information to perform your upgrade successfully.
7. Identify features and applications on your system that require additional effort on your part. For example:
   - If you have custom grammars on a pre-V4.0 system. contact the grammars' provider for upgraded grammars and instructions on installing them. The pre-V4.0 grammars do not work on V5.0 and must not be installed on your V5.0 system.
   - If you have coresident applications (other than AUDIX Voice Power or FAX Attendant), the upgrade program does not backup or restore these applications.

     Coresident applications (other than AUDIX Voice Power or FAX Attendant) are non-CONVERSANT software package installed on your system. If you want these packages on your target system, you must:

     a. Use the backup procedures specific to those packages to save the application(s) and any files associated with them.
     b. Determine their compatibility with V5.0 (you may need the software vendor or software provider for assistance). If your current version of the application is not compatible, request and if possible, acquire a compatible replacement package.
   - If you have user files to preserve, backup these files. *Do not rely on the mkimage tape to preserve these files for your upgrade.* See "Saving User Files" in Appendix A of this book.

- If you have
  - — Applications written in native script language
  - — Applications with custom database interface processes (DIPs)
  - — Custom external functions
  - — Any other non-standard files

  you must move the source code into a sub-directory of **/att/trans/sb** (or into **/vs/bin/ag/lib**) or copy it to a user's login ID directory so that the upgrade assistance package can restore the source code on the target system. You may also request assistance through the TSO, SDO, or other AT&T service organizations to upgrade these applications.

8. Clean your cartridge tape drive. Do this by following the procedure in "Preventative Maintenance" in Chapter 5 of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153 (or refer to the maintenance book associated with your source system, such as V3.1).
9. If you have a modem, administer it in case you require remote technical support.
10. To reduce your down time, perform a disaster backup (mkimage) during off hours. Do this backup prior to the upgrade, as close to the start of the upgrade as feasible (for example, a day or two before the upgrade).
11. Assemble the necessary items needed to perform the upgrade. The items you need depend on the type of upgrade you are performing, as well as the upgrade scenario. Some helpful items to have are as follows:
    - Blank cartridge tapes; 2 for the mkimage and 3 for the assistance program. These tapes must be compatible with the current type of cartridge tape unit (for example, 525 Mbyte for SCSI units)
    - Blank floppy diskettes, including blank labels
    - A pen, preferably with permanent ink
    - Set of UnixWare operating system software (3 diskettes and 1 tape)
    - Set of Version 5.0 upgrade software (tapes and/or floppy diskettes)
    - Upgrade-specific materials from the TSO
      - — Target configuration
      - — Upgrade image tape, if provided
      - — Hardware upgrade checklist
    - Replacement hardware items (see Table 4-1 in Chapter 4), if any
    - Hardware upgrade kits (for example, ESDI to SCSI) with the required tools and user documentation

- Copies of the books (applicable to your upgrade) listed in “Related Resources” section at the beginning of this book.

12. Read “Helpful Hints” in this chapter.
13. Read the “Helpful Hints” section specific to your upgrade type (assisted or manual).

    For helpful hints specific to assisted upgrades, see Chapter 2.

    There are no helpful hints specific to manual upgrades.
14. Complete the steps in “Getting Started — Assisted Upgrades” specific to your upgrade type (assisted or manual).

    For getting started steps specific to assisted upgrades, see Chapter 2.

    There are no getting started steps specific to manual upgrades.

Helpful Hints

Some V5.0 packages and specific upgrade scenarios have idiosyncracies. This section provides some hints to remember before and during the upgrade that will ensure that you lose as little data and have as little difficulty as possible. Some items apply to only a small set of upgrade scenarios.

The hints in this section are applicable to all upgrade types, both assisted and manual. For hints specific to assisted upgrades, see Chapter 2.

The following information is provided as hints to remember prior to performing your upgrades:

- Interrupt 2 shows up in some files and in output from some query-type commands as interrupt 9. They refer to the same interrupt.
- If you have more than one machine that you are upgrading, be sure to mark the machine name and date on any floppies and tapes you create as part of the upgrade. These floppies and tapes only apply to the machine on which they were created.
- Save a listing of all the speech on your source system by:
    a. Entering **list phrase all in talkfile all>/tmp/phraselist**

       This command creates the file *phraselist* with a list of all the speech phrases present on your source system.

    b. Insert a formatted diskette into the floppy disk drive.

    c. Enter **ls /tmp/phraselist | cpio -ocvBo /dev/rdsk/f0**

       This command pipes or copies the file *phraselist* on the diskette.

    d. Label the floppy *phraselist* and note the machine name and the date.
- Many of the Intuity CONVERSANT VIS V5.0 software packages ask questions of the installer during the installation. Refer to the installation for the particular package in *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151, as well as the target configuration provided by the TSO for help in answering these questions.

NOTE:
If you encounter any difficulties or problems during your upgrade, many of the potential problems are documented with solutions in the "Troubleshooting" section in Chapter 5, 'Verification and Troubleshooting" of this book.

Assisted Software Upgrades

2

What's in This Chapter

This chapter outlines what you need to do prior to performing an assisted software upgrade, as well as procedures required to perform the upgrade with the help of the upgrade assistance program.

The two most important items in this chapter are:

- The upgrade checklist in Table 2-1 that details the steps required to upgrade to V5.0
- The checklist in Table 2-2 that details the steps required to complete the entire upgrade process to V5.0

What is the Assistance Program?

The assistance program, or the official name, Software Upgrade Assistance Program, is delivered on a single diskette with your V5.0 system. As the name implies, the program “assists” you to complete an upgrade to V5.0. This program is referred to as a the “upgrade program, “the program,” or the “assistance program” throughout the rest of this book.

At this point, you can skip ahead in this chapter to “Getting Started — Assisted Upgrades.” However, if you want to know more about the assistance program, continue reading.

- Phase 1 —

    1. Performs a system backup, for disaster recovery of your source system, at user’s discretion.
    2. Asks questions to obtain information required to perform setup and other operations.
    3. Gets the system configuration and parameter data required to determine [re]installation configuration and stores this information so it is available.
    4. Saves customer and other source system data, such as: an identified set of user files; database information; applications (including speech); configurations/parameter data. All speech stored on the source system is preserved *except* pre-recorded speech associated with installable CONVERSANT software programs; this speech is replaced when the V5.0 package is installed. See Appendix B, "Files and Directories" for a list of files and directories preserved.

        NOTE:
        For upgrades to V5.0, no packages are actually removed, since all upgrades involve at least an operating system change that overwrites the existing contents of the disk

    5. Creates an installable package to be installed on the target system that includes all control and data files needed to complete the assisted upgrade procedure.
    6. *MANUAL STEPS* — Peform required hardware upgrades and/or install CPU or tape drive firmware updates, repartition disk, install operating software (including network software, if applicable).

- Phase 2 —
    7. Assists in installing the replacement of all VIS packages (and backed up ORACLE database tables) that were installed on the source system, taking into consideration order dependencies. In this phase, the program helps to install packages up to the first package that requires the kernel to be rebuilt.
    8. Rebuilds operating system kernel; reboots system.
- Phase 3 —
    9. Installs the remainder of the packages to replace source system functionality.
- Phase 4 —
    10. Restores customer data, such as: preserved user files, speech, applications, configuration/parameters.
    11. Performs upgrade conversion operations: converts Script Builder applications and attempts to verify and install them, and reports any native language application script incompatibilities.

Getting Started — Assisted Upgrades

In addition to “Preparing for Any Upgrade” in Chapter 1, "Introduction to Upgrades", perform the activities below to avoid losing application speech during the upgrade.

- Disable mirroring if your source system has 2 SCSI disks, and you have SCSI mirroring enabled. You cannot use the Software Upgrade Assistance Program until you disable mirroring. Refer to *CONVERSANT VIS SCSI Mirroring*, 585-350-204 for instructions on disabling mirroring.
- If you have any user applications named:
  - monitor
  - FFtemplate
  - transcribe
  - dc_sample
  - feature_tst

  you *must* determine the talkfile each application uses, and perform a backup of the speech.

Helpful Hints — Assisted Upgrades

The following hints are specific to assisted upgrades:

- The upgrade program does *not* add any new packages, nor does it give you an opportunity to do so. Any *additional* packages or hardware components you want to add (such as FlexWord Toolkit), must be installed after you complete the upgrade. The program gives you an opportunity to install any hardware upgrade kits or firmware upgrades that are part of the upgrade scenario, and to swap out obsolete hardware. It *does not* give you an opportunity to add cards that provide additional functionality. However, replacement components and/or hardware you intend to add to your system may affect your target configuration. See Chapter 4, "Hardware Upgrades" for more information on hardware issues.
- All questions that are asked by the upgrade program provide help and quit options. Anytime you are prompted to enter data, you may access Help by entering **?** or you may quit the upgrade at any point by entering **q**

  If you quit out of the upgrade during Phase 1, you must start again from the beginning once you restart the upgrade assistance package. (The assistance program asks to you repeat everything you did up to the point where you quit.) If you quit out of the upgrade after the beginning of Phase 2, you can pick up the upgrade where you left off.
- The upgrade program prints a large amount of output to the screen. You have the option to save all this output. You should answer *yes*. All screen information is saved in the file **/usr/lib/upgrade/output.lst**

In verbose operations, such as the list of files the Software Upgrade Assistance Program is copying to a tape, only one line displays on the screen, but that line changes as the operation proceeds. All the individual lines are saved in **output.lst** if you chose to save this screen output. *It is strongly recommended that you save the screen output.* It can be useful when reviewing the upgrade for errors.

- The upgrade program creates files in the **/usr/lib/upgrade** directory that keep track of its progress. (Refer to the **upg** command in *Intuity CONVERSANT VIS Version 5.0 Command Reference*, 585-310-230, for more information.) These files can be useful in determining the upgrade history if needed for troubleshooting or upgrade verification.
- The upgrade program may modify the path and/or environment in which you are running. If you need to access local commands from any shell controlled by the program (for example, the **CVIS.info** file containing configuration information) you may need to use full pathnames to access these commands.
- Each step in the tables in this chapter is labeled either “Assisted” or “Manual.” Assisted steps are actions that the upgrade assistance program performs. Any activity on your part during these steps is specifically directed by the screen prompts issues by the program. Manual steps are *not* directed by the program.

Table 2-1. Upgrade from V4.0, V3.1, or V3.0 to V5.0 on MAP Platform

Step	✓	Task	Assisted or Manual		Where to Find Required Information
1.		Follow the steps in "Preparing for an Upgrade"		X	"Preparing for an Upgrade" in Chapter 1 of this book.
2.		Install and start the Software Upgrade Assistance package		X	"Installing and Starting the Assistance Program" in Appendix A of this book.
3.		Save existing speech	X		
4.		Save the ORACLE data base	X		
5.		Save predetermined set of existing system configuration and files	X		
6.		Upgrade hardware, as required		X	Chapter 4 in this book. Go through *each* item in Table 4-1 to insure ALL obsolete hardware is replaced or updated.

If you have an Upgrade Image Tape available, perform "Installing the Image Tape" found in Appendix A instead of the shaded steps below. After completing the procedure for installing the image tape, return to this table at Step 11.

7.		Install operating system software and related software: UnixWare VERITAS SMC EtherCard driver, if the system has network capabilities		X	Chapter 1 of *Intuity CONVERSANT VIS V5.0 Software Installation,* 585-310-151.
8.		Install and start the Upgrade Phase II package		X	"Installing and Starting the Upgrade Assistance Program" in Appendix A of this book.
9. *		Install the VIS V5.0 base system software packages	X		■ **CVIS.info** file ■ TSO-provided target configuration or image tape

Continued on next page

Table 2-1. Upgrade from V4.0, V3.1, or V3.0 to V5.0 on MAP Platform — *Continued*

Step	✓	Task	Assisted or Manual		Where to Find Required Information
10.		Use SYSADM to create a user login called **install** If you intend to install AUDIX Voice Power and/or FAX Attendant, you may also need to create a user login called **audix**			Chapter 1 of the *NOVELL UnixWare System Administration User and Group Management*, 585-350-908, document.
11.		Restore the ORACLE data base contents	X		
12.		Install the V5.0 optional software packages	X		Chapter 3 in *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151.
13.		Restore system configuration and files	X		
14.		Restore speech	X		
15.		Convert, compile, and install Script Builder applications	X		
16.		Perform upgrade completion steps		X	Checklist in Table 2-2 at the end of this chapter.
17.		Verify the upgrade		X	Chapter 5 of this book.
18.		Install additional hardware and software for new functionality		X	Hardware installation book and *Intuity CONVERSANT VIS V5.0 Software Installation,* 585-310-151.

*If you do not have a target system configuration from the TSO, use the Configuration Program to obtain one. Refer to "Getting a Target System Configuration" in Appendix A.

Table 2-2. Finishing the Upgrade (Note: ALL steps are manual)

If you upgraded from:	✓	Then you must:	Where to find procedures and data to accomplish this:
Any source system		Restore user files manually preserved due to non-standard location on the source system.	Refer to "Restoring User Files (Manually)" in Appendix A of this book.
Any source system		Restore non-standard user and non-CONVERSANT packages and files.	Refer to "Restoring User Files (Manually)" in Appendix A of this book.
Any source system		Readminister operating system logins for users who had logins on the source system. Source system login ids are in the **/etc/o.passwd** file on the target system.	Refer to Appendix A in *Intuity CONVERSANT VIS V5.0 Operations*, 585-310-550.
Any source system		Move the user login directory files brought forward by the upgrade program to the target system home directory for all source system users.	Use the command, **/usr/lib/upgrade/bin/findHomes** Refer to *Intuity CONVERSANT VIS V5.0 Command Reference*, 585-310-230 for more information.
V3.0 with customer programs		Upgrade custom software such as application DIPs to new logging environment (including custom explain text).	Refer to "Upgrading Message Handling in DIPs" in Chapter 6 of *Intuity CONVERSANT VIS V5.0 Application Development*, 585-310-227.
Any source system		Recompile DIP code to be ANCI-C compliant. Recompile and/or reinstall DIPs.	Refer to "Upgrading an Application" in Chapter 6 of *Intuity CONVERSANT VIS V5.0 Application Development*, 585-310-227.
Any source system		Recompile and/or reinstall native language (TAS) applications.	Refer to Chapter 6 of *Intuity CONVERSANT VIS V5.0 Application Development*, 585-310-227.
Any source system		If you had ORACLE add-on packages (such as SQL*Forms) installed on your source system, reinstall them.	Refer to Chapter 3 of *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151.

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Table 2-2. Finishing the Upgrade (Note: ALL steps are manual) — *Continued*

If you upgraded from:	✓	Then you must:	Where to find procedures and data to accomplish this:
Any source system		Restore any data or files associated with ORACLE add-on packages that you preserved from source system.	Refer to "Restoring User Files (Manually)" in Appendix A of this book.
Any source system		Modify profiles for root and users from system default as required.	Use **o.*files*** (the *o.* version of the *dot* or hidden files from the login directories on the source system in **/** and **/home/*login_id*** directories for reference.
Any source system with a customer application that used a reserved name (see "Getting Started — Assisted Upgrades" in this chapter)		Restore speech for applications backed up due to naming conflicts with VIS-package applications.	Restore the speech through Script Builder or the **spres** command. Refer to *Intuity CONVERSANT VIS V5.0 Command Reference*, 585-310-230, for more information.
Any source system with modified messages, destinations, priorities, or message thresholding, and/or added logger messages (in APPL message class)		Install the changes on the target system.	Use the **o.*files*** in **/usr/spool/log**, **/usr/spool/log/formats**, and **/usr/spool/log/head** directories for reference. (If no modifications were made on the source system, remove these **o.*files***.)
MAP/100C with V3.0 or later		Administer alerter configuration settings on the target system.	Use the **o.*files*** in **/vs/etc/default/alerter** and **/vs/data/alarms** directories.
Any source system with modified 3270 host access helper program		Reapply any changes made to hostdip/helper program source code.	Use the **o.helper.c** and **<other>.c** and makefile in **/att/ag/hostdip/helper**

Continued on next page

Table 2-2. Finishing the Upgrade (Note: ALL steps are manual) — *Continued*

If you upgraded from:	✓	Then you must:	Where to find procedures and data to accomplish this:
Any pre-V4.0 source system with custom grammars		Replace your custom grammars with upgraded grammars.	Contact the source who provided you the grammar.
Any V4.0 source system with custom grammars		Once you have upgraded to a new grammar, recompile the **findbest** source program.	1. Enter **cd /att/asr** 2. Enter **cp findbest.c n.findbest.c** 3. View the old findbest file, now saved in **o.findbest.c** 4. Now view the **n.findbest.c** and merge any changes from the **o.findbest.c** file into the **findbest.c** file. 5. Make sure you are in the **/att/asr** directory, and enter **make** Rebuild and reinstall **findbest**, if modified.
Any source system with user-defined **cron** and/or **at** jobs		Readminister **cron** and **at** jobs.	Use data preserved in **o.*files*** in **/usr/spool/cron** directories.
Any source system with network capabilities		Readminister network configuration.	Use **/etc/hosts** and **/etc/network** files, and special 'ifconfig' entries in **/etc/rc2.d/S86win386**
Any source system with modem or printer capabilities		Readminister modems and printers.	Use data preserved in **/usr/lib/upgrade/CVIS.info**, if needed and refer to Appendix A, "System Administration Features" in *Intuity CONVERSANT VIS V5.0 Operations*, 585-310-550.
Any source system		Perform the steps in "Verifying Your Upgrade"	Refer to Chapter 5 of this book.
Any source system, after verifying your upgrade		Perform a mkimage of your upgraded system and store it in a safe place.	Refer to Appendix A, "System Administration Features" in *Intuity CONVERSANT VIS V5.0 Operations*, 585-310-550.

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Table 2-2. Finishing the Upgrade (Note: ALL steps are manual) — *Continued*

If you upgraded from:	✓	Then you must:	Where to find procedures and data to accomplish this:
Any V3.1 or V4.0 source system with SCSI mirroring		Readminister SCSI mirroring.	Refer to Appendix C, “Disk Operations” in *Intuity CONVERSANT VIS V5.0 Operations*, 585-310-550.

After completing the upgrade, log off and log on for the restored information to take effect (especially if you upgraded to SCSI as part of the upgrade).

Manual Software Upgrades

3

What's in This Chapter

This chapter outlines the manual software upgrade procedure.

The two most important items in this chapter are:

- The upgrade checklist in Table 3-1 that details the steps required to upgrade to V5.0
- The checklist in Table 3-2 that details the steps required to complete the entire upgrade process to V5.0

Manual Upgrade Process

Realize that with a manual upgrade, each step must be completed using the information given in the table (or information elsewhere in the user documentation). The table is your key to performing a successful manual upgrade. Follow it very closely, and never skip a step.

Table 3-1 provides a detailed checklist to the upgrade scenario. The checklist includes references to the book in the V5.0 set where the detailed procedure is found. Many of the referenced sections are located in Appendix A of this book.

Table 3-1. Upgrade from V2.1 to V5.0 (Note: ALL steps are manual)

Step	✓	Task	Where to Find Required Information
1.		Follow the steps in "Preparing for Any Upgrade"	"Preparing for Any Upgrade" in Chapter 1 of this book.
2.		Save non-standard user and non-CONVERSANT packages and files	"Saving User Files" in Appendix A of this book.
3.		Save existing speech	"Speech Backup/Restore" in Version 2.1 *Installation and Field Service Guide*.
4.		Save existing system configuration and files	"Saving System Configuration" in Appendix A of this book.
5.		Save applications	"Saving Applications" in Appendix A of this book.
6.		Save error files, if necessary	"Saving Errors File" in Appendix A of this book.
7.		Save custom Explain text, if any	"Saving Explain Text" in Chapter 7 of *Intuity CONVERSANT VIS V5.0 Application Development,* 585-310-227.
→ 8.		Install the ORACLE Migration package.	"Installing the Migration Package" in Appendix A of this book.
9.		Perform the ORACLE data migration *save* procedure	"Saving ORACLE Migration Data" in Appendix A of this book.
10.		Upgrade hardware, as required	Chapter 4 in this book. Go through *each* item in Table 4-1 to insure ALL obsolete hardware is replaced or updated.

If you have an Upgrade Image Tape available, perform "Installing the Image Tape" instead of the shaded steps below. After completing the procedure for installing the image tape, return to this table at Step 13.

11.		Install operating system and related software: ■ UnixWare ■ VERITAS ■ SMC EtherCard driver, if the system has network capabilities	Chapter 1 of *Intuity CONVERSANT VIS V5.0 Software Installation,* 585-310-151.

Continued on next page

Table 3-1. Upgrade from V2.1 to V5.0 (Note: ALL steps are manual) — *Continued*

Step	✓	Task	Where to Find Required Information
12. *		Install VIS Version 5.0 software base packages	■ Chapter 2 of *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151 ■ TSO-provided target configuration or image tape
13.		Install the VIS V5.0 optional software packages	Chapter 3 of *Intuity CONVERSANT VIS V5.0 Software Installation,* 585-310-151.
14.		Readminister operating system logins	Appendix A in *Intuity CONVERSANT VIS V5.0 Operations*, 585-310-550.
15.		Restore user files	"Restoring User Files (Manually)" in Appendix A of this book.
16.		Reinstall the ORACLE Migration package.	"Installing the Migration Package" in Appendix A of this book.
17.		Perform ORACLE data migration *restore* procedure	"Restoring ORACLE Migration Data" in Appendix A of this book.
18.		Restore applications	"Restoring Applications" in Appendix A of this book.
19.		Verify, compile, or install applications including Script Builder scripts, native script language scripts, and DIPs	"Restoring Applications" in Appendix A of this book.
20.		Restore system configuration	"Restoring System Configuration" in Appendix A of this book. Consider your target configuration when performing this restoration.
21.		Restore non-standard user and non-CONVERSANT packages and files	"Restoring User Files (Manually)" in Appendix A of this book.
22.		Restore custom Explain text, if any	"Restoring Explain Text" in Chapter 6 of *Intuity CONVERSANT VIS V5.0 Application Development,* 585-310-227.
23.		Perform "Finishing the Upgrade"	Checklist at the end of this chapter.
24.		Verify the upgrade	Chapter 5 of this book.
25.		Install hardware and software for new functionality	Hardware installation book and *Intuity CONVERSANT VIS V5.0 Software Installation,* 585-310-151.

* If you do not have a target system configuration from the TSO, use the Configuration Program to obtain one. Refer to "Getting a Target System Configuration" in Appendix A.

Table 3-2. Finishing the Upgrade (Note: ALL steps are manual)

If you upgraded from:	✓	Then you must:	Where to find procedures and data to accomplish this:
Any source system		Readminister operating system logins for users who had logins on the source system.	Refer to Appendix A in *Intuity CONVERSANT VIS V5.0 Operations*, 585-310-550.
Any V2.1 source system		Upgrade custom software such as application DIPs to new logging environment (including custom explain text).	Refer to "Upgrading Message Handling in DIPs" in Chapter 6 of *Intuity CONVERSANT VIS V5.0 Application Development*, 585-310-227.
Any source system		Modify DIP code to be ANCI-C compliant. Recompile and/or reinstall DIPs.	Refer to "Upgrading an Application" in Chapter 6 of *Intuity CONVERSANT VIS V5.0 Application Development*, 585-310-227.
Any source system		Recompile and/or reinstall applications.	Refer to "Upgrading an Application" in Chapter 6 of *Intuity CONVERSANT VIS V5.0 Application Development*, 585-310-227.
Any source system		If you had ORACLE add-on packages (such as SQL*Forms) installed on your source system, reinstall V5.0 compatible versions.	Refer to Chapter 3 of *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151.
Any source system		Modify profiles for root and users from system default as required.	Use hidden files from the login directories on the source system in **/** and **/home/*login_id*** directories for reference.
Any source system with user-defined **cron** and/or **at** jobs		Readminister **cron** and **at** jobs.	
Any source system with network capabilities		Readminister network configuration.	Use **/etc/hosts** and **/etc/network** files, and special 'ifconfig' entries in **/etc/rc2.d/S86win386**

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Table 3-2. Finishing the Upgrade (Note: ALL steps are manual) — *Continued*

If you upgraded from:	✓	Then you must:	Where to find procedures and data to accomplish this:
Any source system with modem or printer capabilities		Readminister modems and printers.	Refer to Appendix A, "System Administration Features," in *Intuity CONVERSANT VIS V5.0 Operations*, 585-310-550
Any source system		Perform the steps in "Verifying Your Upgrade".	Refer to Chapter 5 of this book.
Any source system, after verifying your upgrade		Perform a mkimage of your upgraded system and store it in a safe place.	Refer to Appendix A, "System Administration Features," in *Intuity CONVERSANT VIS V5.0 Operations*, 585-310-550

After completing the upgrade, log off and log on for the restored information to take effect (especially if you upgraded to SCSI as part of the upgrade).

Hardware Upgrades

4

What's in This Chapter

This chapter provides information on hardware components from an upgrade perspective and includes information on both obsolete and reusable hardware components.

Hardware Upgrade Components

The following are the types of hardware components to consider the individual hardware components installed in your source system:

- Obsolete hardware components — Some components you currently have in your system have been replaced in Version 5.0 by a newer component and are no longer supported; in other words, they are *obsolete*.
- Reusable hardware components — Some components you currently have in your system have been replaced in Version 5.0 by a newer component, but are still supported in upgrade situations. There are also components that have not changed physically, but require a change in configuration or setup for use with V5.0. These components are *reusable*.

Go through each item in Table 4-1 and follow the directions documented there in order to successfully upgrade your hardware as part of your V5.0 upgrade. Use the TSO-provided Hardware Upgrade Checklist to determine which of these upgrades apply to your upgrade scenario and also to determine in what order to perform them.

NOTE:
If your target system configuration is different from your source system, be sure to modify the switch settings and/or jumper settings as needed to accommodate the new configuration. Whenever possible, use the same slot, jumper settings, DIP switch settings, etc. for the replacement component(s). For a general listing of the supported address settings, refer to Chapter 2, "Hardware," of the *Intuity CONVERSANT VIS V5.0 System Description*, 585-310-225.

To remove components, refer to *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153. Information on option settings (jumpers and switches) for each of the replacement component(s) is detailed in the table below:

Table 4-1. Hardware Upgrades

If you have:	Then you must:	As described in:
386 CPU	Upgrade to a 486 CPU with BIOS version 2.1c and 32 Mbyte	■ For a MAP/100(C) — *CONVERSANT VIS 486 CPU Upgrade Kit for MAP/100 and MAP/100C*, 585-350-211 ■ For a MAP/40 — *CONVERSANT VIS Upgrade Kit for MAP/40*, 585-350-213
486 CPU with BIOS earlier than version 2.1c and/or 16 Mbyte of memory	■ Update the BIOS to version 2.1c ■ Add 16 Mbyte of memory to equal at least 32 Mbyte	■ "Checking the CPU Memory BIOS Version" and "Upgrading the CPU Memory BIOS" procedures in this chapter ■ Chapter 10 of the *Intuity CONVERSANT VIS V5.0 Hardware Installation* book specific to your platform
ESDI components, including hard disk drives, cartridge tape drives, and controller cards	Upgrade to SCSI components	*CONVERSANT VIS SCSI Upgrade Kit*, 585-350-212
IDE components, including hard disk drives, cartridge tape drives, and controller cards	Upgrade to SCSI components	*CONVERSANT VIS Upgrade Kit for MAP/40*, 585-350-213

Continued on next page

Table 4-1. Hardware Upgrades — *Continued*

If you have:	Then you must:	As described in:
Wangtek SCSI tape drive(s) with firmware KS23569	Update the firmware on the tape drive(s) to 5525ES REV7	"Checking the SCSI Tape Drive Firmware Version" and "Upgrading the SCSI Tape Drive Firmware Version" procedures in this chapter
SCSI hard disk drive with disk usage greater than 80%	Upgrade to larger SCSI hard disk drive or plan to add an additional hard disk drive	V5.0 Hardware Installation book specific to your platform
Dual/multiple SCSI hard disk drive	Low-level format all non-boot SCSI hard disk drive(s)	"Low-Level Formatting a SCSI Hard Disk Drive" procedure in this chapter
WDXLR83160 Video controller card	Remove jumper block from JP3	Appendix D of the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153
WDXLR831124 Video controller card	Remove jumper block from JP5	Appendix D of the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153
T1 cards in your system and you plan to add a Token Ring card	Reset the base I/O address switch settings on your T1 card(s)	Refer to "Product Exceptions" in the *Intuity CONVERSANT VIS V5.0 Change Description*, 585-310-406.
planned to have more than 8 Tip/Ring cards in your target V5.0 system and your power supply was manufactured prior to March 1, 1993	Upgrade your power supply	Check the manufacture date by looking at the label that is affixed to the rear of the MAP/100 or on the top of the MAP/100C. The "Date of Manufacture" is handwritten on the label of the platform. Contact the TSO.
2 PC/XL host communication cards for dual host connectivity	Replace both cards with FIFO/SIB cards	Appendix D of the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153
2 PC/XL host communication cards for support of more than 32 LUs to the same host	■ You may reuse 1 PC/XL card* (save the one you remove for a spare) OR ■ Remove both PC/XL cards and replace with 1 FIFO/SIB card	Appendix D of the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153

Continued on the next page.

Table 4-1. Hardware Upgrades — *Continued*

If you have:	Then you must:	As described in:
PC/XL host communication card prior to Revision D (look for *assembly Revision D* hand-written on the back side of the card near the RS232 connector)	■ Replace with a PC/XL (Revision D or later) OR ■ Replace with a FIFO/SIB card	Appendix D of the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153
EMULEX host communication card	Replace with a FIFO/SIB card	Appendix D of the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153
AYC3 T1 card	Replace with a AYC3B or AYC11 T1 card	Appendix D of the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153
AYC2 SP card	Replace with a AYC2B or AYC2C SP card	Appendix D of the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153
AYC6 IVP4 T/R card	Install the TDM Upgrade for each IVP4 card, if it is not already installed	"Upgrading IVP4 Cards With the Time Division Multiplexer Adapter Kit" found in this chapter.
AYC16 IVP6IU T/R card†	Replace with AYC28 IVP6 T/R card	Appendix D of the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153
AYC26 IVP6IA T/R card†	Replace with AYC28 IVP6 T/R card	Appendix D of the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153
AYC1 VRS6 T/R card	Replace with AYC28 IVP6 T/R card	Appendix D of the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153
Ethernet and StarLAN cards	Replace with EtherCard interface card	Appendix D of the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153

*A single PC/XL (must be Revision D or later) can support up to 128LUs in Version 5.0.

†These cards are not supported in a domestic market.

Other reusable hardware items that require *NO* physical or software changes in order to use them in your V5.0 target system are as follows:

- AYC6B IVP4 T/R card
- AYC5/5B IVP6 T/R card
- AYC3B and AYC11 T1 card
- AYC2B, AYC2C, and AYC9 SP card
- ACY7 CMP card
- PC/ISDN Interface (previously known as IPCI) card
- PC/PBX Interface (previously known as DCP) card
- ICP-900 or Gemini-1000 asynchronous card
- External Alarm card (for use with MAP/100C only)
- Brooktrout TR114-I4L FAX card
- 1.2 Gbyte SCSI hard disk drive

Checking the CPU Memory BIOS Version

The 486 CPU in your (pre-V5.0) source system is reusable in your V5.0 system, but only if the BIOS has been updated using the software provided with your upgrade. This software update corrects a timing problem with the BIOS.

Use the following procedure to check the BIOS version of your 486 CPU card:

1. If the voice system is running, enter **stop_vs**
2. Enter **shutdown -g0 -y** to shutdown the machine and start a reboot.
3. When prompted, press the RESET button to reboot.

   When the memory test information comes on the screen, look for this message in the bottom center of the screen:

   ```
   Press <ESC> to enter Set-Up
   ```

   Press ESC. The message blanks out after you press ESC and the power up continues. After memory diagnostics have completed during power up, the Set-Up screen appears as shown in Figure 4-1.

   WARNING:
   Do not press ESC more than once. If you do, the system exits setup and you must begin the process again.

4. Locate the line, *BIOS Version*. Verify that the CPU BIOS version is 2.1c or later.

If the BIOS version is anything prior to 2.1c (for example, 2.1, 2.1a, 2.1b...), you *must* perform the BIOS upgrade during the Upgrade Hardware step in the upgrade checklist from which you were working. Go to the next procedure, "Upgrading the CPU Memory BIOS".

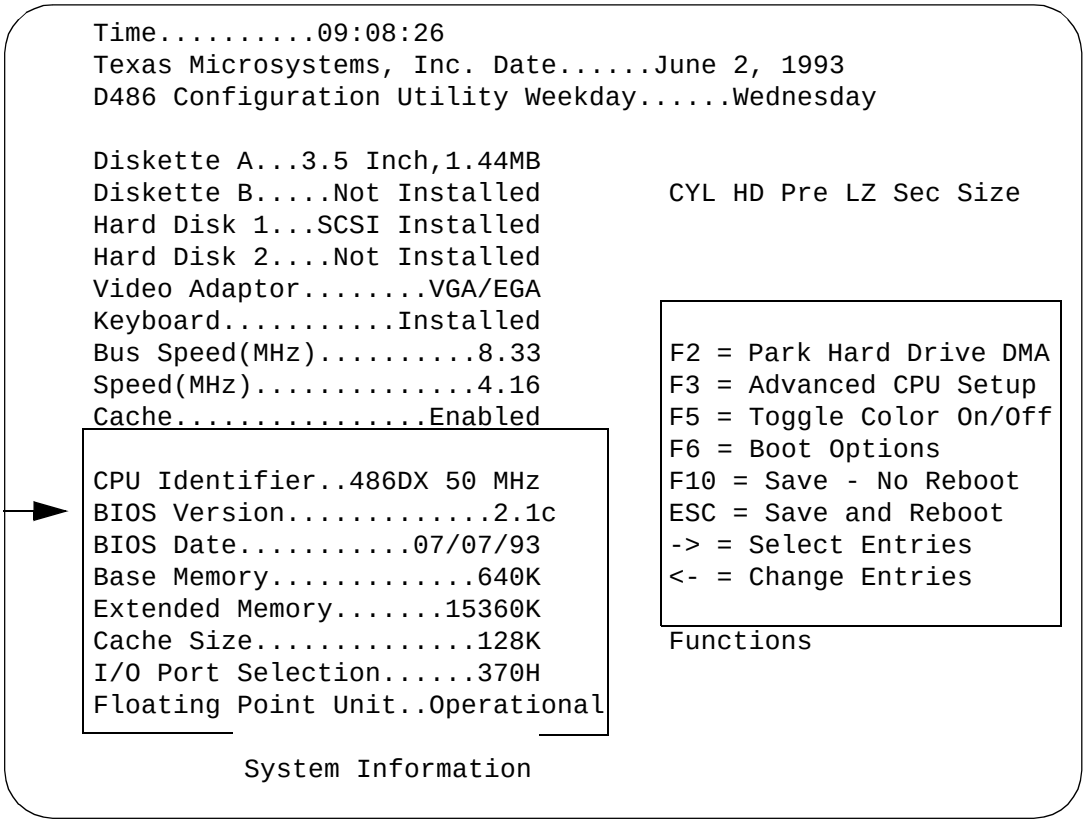


Figure 4-1. The 486 CPU Set-Up Screen

Upgrading the CPU Memory BIOS

Use the following procedure to upgrade the BIOS version of your 486 CPU card:

1. Insert the diskette labeled *486 CPU BIOS Upgrade* into the floppy disk drive.
2. If the voice system is running, enter **stop_vs**
3. Press the platform RESET button to reboot the system.

   As the system comes up, it boots from the diskette in the floppy drive. You see the following system prompt:

   ```
   This is the boot disk containing the utilities to
   update the 486 CPU board with Version 2.1c BIOS.

   Press any key to continue...
   ```

4. Press ENTER.

   The screen changes to a full color display with a green window in the center of the screen:

   ```
   ENTER:  Program New BIOS

   ESC:  Abort and Reset System
   ```

5. Press ENTER. When the red Programming Status bar reaches 100%, the green window in the center of the screen displays:

   ```
   The system will Need
   to be Reset

   Press any key to Reset.
   ```

6. Remove the diskette from the floppy disk drive and press ENTER. The system reboots and, once up, displays the system prompt #.

Checking the SCSI Tape Drive Firmware Version

The SCSI tape drive in your (pre-V5.0) source system is reusable in your V5.0 system, but only if the firmware has been updated using the software provided with your upgrade.

Use one of the following procedures to check the firmware version of your SCSI tape drive:

On Systems With the UnixWare 1.1 Operating System Installed

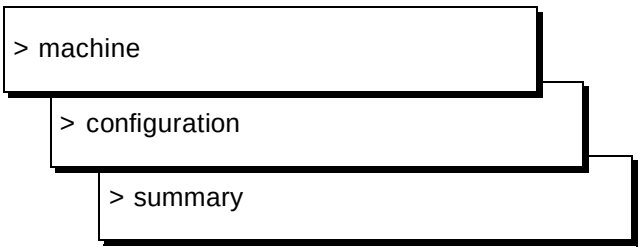
1. From the system prompt, enter **sysadm**

   The UNIX System V Administration menu appears as shown in Figure 4-3:

```
                    UNIX System V Administration
>backup_service    - Backup Scheduling, Setup and Control
 file_systems      - File System Creation, Checking and Mounting
 machine           - Machine Configuration, Display and Shutdown
 network_services  - Network Services Administration
 ports             - Port Access Services and Monitors
 preSVR4           - Peripherals Setup
 printers          - Printer Configuration and Services
 restore_service   - Restore From Backup Data
 schedule_task     - Schedule Automatic Task
 software          - Software Installation and Removal
 storage_devices   - Storage Device Operations and Definitions
 system_setup      - System Name, Date/Time and Initial Password Setup
 users             - User Login and Group Administration
 volume_mgmt       - VERITAS Volume Manager Administration
```

Figure 4-2. UNIX System V Administration menu

2. From this menu, make the menu following selections:



The System Configuration Management screen appears as shown in Figure 4-3.

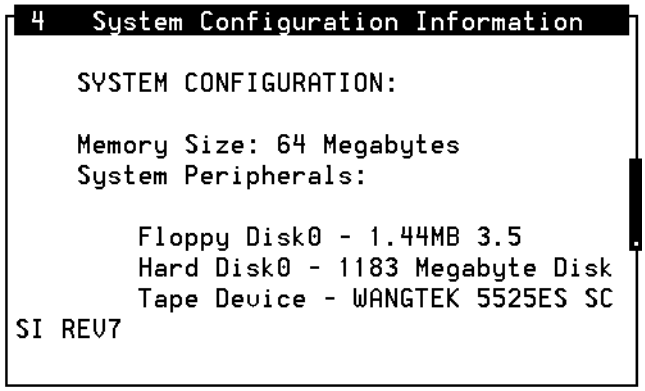


Figure 4-3. System Configuration Management Screen

3. Check the Tape Device line. If the entry is:
   - WANGTEK 5525ES SCSI REV7 — Do not perform the firmware upgrade
   - WANGTEK KS23569 — You *must* perform the firmware upgrade during the Upgrade Hardware step in the upgrade checklist from which you were working.
4. Press F6 (CANCEL) three times to return to the UNIX System V Administration menu.
5. Press F7 (CMD-MENU). The Command Menu appears.
6. Select exit and press ENTER to return to the system prompt.

If you must perform the tape drive firmware upgrade (determined in Step 3) go to the next section, “Upgrading the SCSI Tape Drive Firmware Version”.

On Systems Without the UnixWare 1.1 Operating System Installed

During boot up, check the last line on the boot up screen (before it goes to the operating system loading screen).

`WANGTEK 5525ES SCSI REV7` (other characters may appear also) — Do not perform the firmware upgrade

`WANGTEK KS23569` — You *must* perform the firmware upgrade during the Upgrade Hardware step in the upgrade checklist from which you were working.; go to the next section, “Upgrading the SCSI Tape Drive Firmware.”

Upgrading the SCSI Tape Drive Firmware Version

Use the following procedure to upgrade the firmware version of your SCSI tape drive:

1. Insert the diskette labeled *WANGTEK SCSI Tape Drive* into the floppy disk drive.
2. If the voice system is running, enter **stop_vs**
3. Press the platform RESET button to reboot the system.

   As it system comes up again, it boots from the diskette in the floppy drive. You see the following system prompt:

   ```
   This floppy disk WILL change your WANGTEK TAPE DRIVE if you continue
   ```

4. Press any key to continue.

   The screen changes to a multiple color display.

   Read the rest of the screen.

5. At the A:\> prompt, enter **type ATTTO00.LOG**
6. Look for two lines beginning with *lsl*; after those two lines you should see a message:

   ```
   ** Check Condition: Unit Attention
   ```

   This line indicates the installation if the firmware upgrade is successful. If if is not successful, check “Troubleshooting for All Upgrades” in Chapter 5, "Verification and Troubleshooting" of this book.

7. Remove the diskette from the floppy disk drive.
8. Reboot the system or continue with other required hardware modifications.

Low-Level Formatting a SCSI Hard Disk Drive

You must perform a low level format on the disk by completing the following steps:

1. Insert the diskette labeled *Low Level Format V1.3* into the floppy disk drive.
2. If the voice system is running, enter **stop_vs**
3. Press the platform RESET button to reboot the system.

   As it system comes up again, it boots from the diskette in the floppy drive.
4. At the A:\> prompt, enter **debug** at the DOS prompt. The system responds by changing the prompt to a dash.
5. Enter **g=c800:6**

   The system responds with a menu and requests a menu choice.
6. Choose option 2 repeatedly until you have selected your second hard disk drive.
7. Choose option 3 to format the selected disk. This operation takes approximately one hour, depending on the size of the disk.
8. When the format is completed, choose option 5 to quit the menu.
9. Remove the diskette from the floppy disk drive.
10. Reboot the system or continue with other required hardware modifications.

Upgrading IVP4 Cards With the Time Division Multiplexer Adapter Kit

The IVP4 Time Division Multiplexer (TDM) Adapter Kit includes:

- 1 integrated circuit chip labeled 327DA
- 1 integrated circuit chip labeled 320G
- 2 integrated circuit chip labeled 320H
- 2 resistor termination chips
- 1 set of TDM Bus connector latches
- 1 12-position TDM Bus Cable

Use the following procedure to upgrade your AYC5 IVP4 card(s):

1. Remove the IVP4 card(s) from your platform using the procedure, “Removing a Circuit Card” in the *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153.
2. Orient the IVP4 card with the metal face plate to the right, component side up as in Figure 4-4.

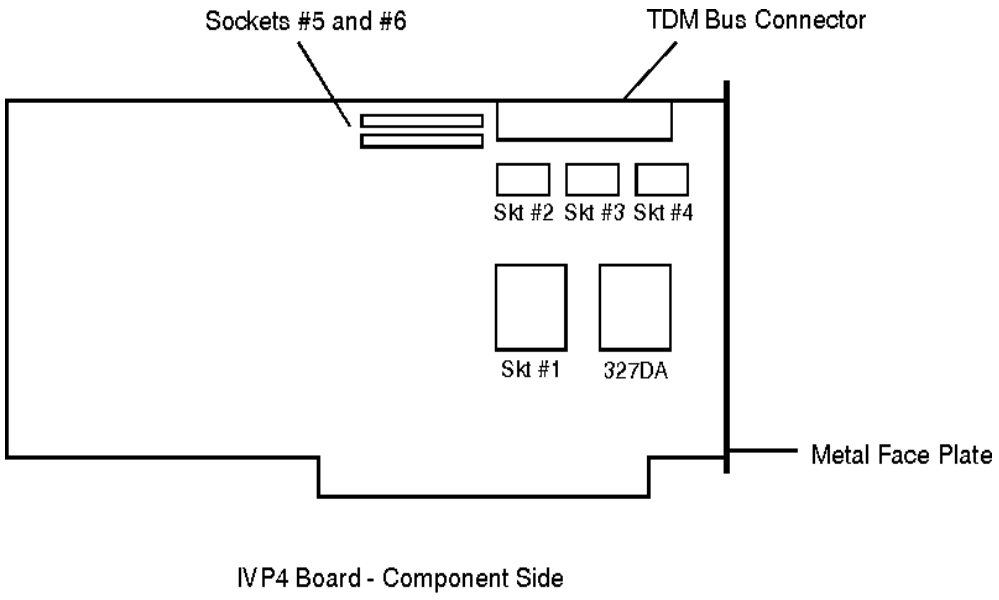


Figure 4-4. IVP4 Circuit Card

3. Plug the integrated circuit chip labeled 327DA into socket #1. Be sure to orient the markings on top of the chip in the same manner as those on the 327DA chip just to the right of socket #1. See Figure 4-4. Align the chip squarely and firmly snap it into the socket.
4. Plug the integrated circuit chip labeled 320G into socket #2. To orient the chip correctly, the U-shaped notch should be to the left.
5. Plug the two integrated circuit chips labeled 320H into sockets #2 and #3. Again, to orient the chips correctly, the U-shaped notch should be to the left.
6. Determine whether or not your IVP4 card, once installed in your platform, is at either end to the TDM Bus (that is, whether it will be the last card that the TDM Bus connects to on either end). If the answer is no, do not install the terminating resistors on the card. If the card is at either end of the bus, install the terminating resistors into sockets #5 and #6. Orient the terminators so that the pin 1 marking on the side of the chip is to the left.

   NOTE:
   Note that only two cards (the cards at either end of the TDM Bus) can have termination resistors. The two cards at either end of the bus *must* have the resistors.

7. Slide the TDM Bus connector latches into the slots at either end of the TDM Bus connector on the card.
8. Install the TDM Bus cable into the TDM Bus connector. (This cable connects to all the VIS circuit cards, such as T/R, T1 and SP circuit cards.)

Verification and Troubleshooting

5

What's in This Chapter

This chapter provides information on steps you should take to finish the upgrade.

In addition, this chapter provides some assistance in the form of troubleshooting guidelines for some specific conditions/problems you may see during the course of the upgrade.

Verifying Your Upgrade

The following is a list of several things to do to verify your upgrade:

- Check Script Builder installation output for failures. Do this by using the output found in:
  - — For assisted upgrades: **/usr/lib/upgrade/output.list** file
    1. Enter **vi /usr/lib/upgrade/output.list**
    2. Once you are in the file, enter **/converting**
       This instruction searches the file for all instances of the text converting. You can then read the file for information on the success of the VERIFY and INSTALL.
  - — For manual upgrades: output on screen when executing Script Builder VERIFY action

  Investigate and correct any errors. Once you resolve any problems, verify and install the applications again manually.

- Readminister configuration information, parameters, etc. Depending on whether your upgrade was assisted or manual, many parameters and configuration information will already be correctly in place. Things to look at are as follows:
  - — Analog and digital switch interface parameters
  - — Service-to-channel assignments
  - — Service-to-DNIS assignments
  - — Card options
  - — Display options
  - — Network connectivity information
  - — Host configuration information
- Repeat any verification you did as part of Getting Started (on your source system) on the target system to verify that all test/applications behave the same way.
- Run the tests provided in the Feature Test Script Package on the target system.
- Run each of your applications in a test mode to verify their behavior.

Troubleshooting

The following troubleshooting information is divided into 2 sections: all upgrades, and assisted upgrades.

Troubleshooting for All Upgrades

- *Problem*: You see messages and announcements regarding run level or state changes when you stop and restart the ORACLE database and voice system during the upgrade. These messages are often intermingled with the output from the other operations that are going on in the same time frame.

  Solution: These messages can be ignored.
- *Problem*: Warning message(s) appear on the screen while you are installing the Intuity CONVERSANT VIS V5.0 Application Software Package:

  ```
  UX: cpio: WARNING: Cannot link "/usr/spool/oldLog/..."
  ```

  Solution: These are normal messages and may be ignored.

- *Problem*: You have upgraded a pre-V3.1 CONVERSANT VIS to a V3.1 or later system, and your SCCS message alerting has stopped working.

  Solution: CompuLert/SCCS uses patterns to screen the CONVERSANT messages to select those on which to alert. The format of VIS messages was modified in V3.1. Therefore, you should inspect the pattern files on the SCCS machine receiving the messages to determine the pattern modifications required.

- *Problem*: You have upgraded to V5.0 and you are not able to bring the system up after a reboot. The system may start to boot, but then seems to hang.

  Solution: Check the floppy disk drive. If there is a diskette in the drive, remove it. Press the RESET button to reboot the system.

- *Problem*: You have upgraded to V5.0 and you are not able to bring the system up after a reboot. The system may have started to boot, and partially displayed the red UnixWare Loading screen, but then quits.

  Solution: If you have a WDLXR831124 or WDLX83160 video controller card, a jumper must be removed in order for these cards to work properly in a V5.0 system. Refer to Table 4-1 on page 4-2 in Chapter 4 of this book to correct this jumper problem.

- *Problem*: You are reinstalling your FAX Attendant packages as part of the upgrade to V5.0 and the system produces a warning about “phrases present in talkfiles 40 and 46.” You are asked if you want to proceed with the installation and overwrite these talkfiles, or abandon the installation.

  Solution: There are no phrases present although directories in /home2 do exist at this time. Proceed with the installation.

- *Problem*: After upgrading, Speech Recognition doesn't work.

  Solution:

  1. Enter **display card sp** and examine the output.
  2. Check the Function assigned to the SP cards in the system. At least one SP card (with at least one Companion card) must be assigned function WW_RECOG or WW_RECOG+VOICE.
  3. Check the service status of the SP and Companion cards. If the Companion card(s) indicate “Not diag,” then
     a. Enter **remove ca *n*** (where *n* is the card number of the SP card identified above).
     b. Enter **diagnose ca *n*** to diagnose the SP card and its attached Companion card(s).
     c. After they have passed diagnostics, if still the cards are in the Out-Of-Service state, enter **restore ca *n***

- *Problem*: You have EtherCard hardware and software in your target system and notice that your T1 card(s) are reporting PANICs (TWIP022 errors).
- *Solution*: When the **smc_setup** utility is run while the Voice System is running, it causes this error. Enter **stop_vs** and wait until the system has come down before running **smc_setup** to examine, verify and/or reset network card resource (IRQ, RAM and I/O address) status.
- *Problem*: The ASAI link does not come up after the upgrade is complete.

  Solution: On the switch side (DEFINITY), the CRV length of the extension associated with the BRI link to the system *must* be set to 2. If the DEFINITY is properly administered and the wiring is correct, call the CALLVISOR PC Hot-line number at (303) 538-5622.
- *Problem*: You are using FlexWord Recognition and you see control characters in your return phrases. For example, “Operator” is returned as “^Cperator.”

  Solution: The control characters are an indicator that you may be using older, non-shielded SP-to-CMP cables. All FlexWord packages are shipped with AYC2C SP cards and new shielded SP-to-CMP cables, but if you are reusing older hardware, you may have some obsolete, non-shielded cables. Replace any non-shielded cables with newer, shielded cables (comcode 601412828).
- *Problem*: You are trying to upgrade the firmware on the SCSI Tape Drive and it fails.

  Solution: Perform the following steps:

  1. Insert the diskette labeled *WANGTEK SCSI Tape Drive* into the floppy disk drive.
  2. Enter **README.TXT** and read the instructions.
  3. Repeat the “Upgrading the SCSI Tape Drive Firmware Version” procedure.

- *Problem*: You are reinstalling AUDIX Voice Power and/or FAX Attendant application software and you are confused as to which Switch Integration software package you should install.

  Solution: There are several different switch integration software packages associated with each switch type.

  — If your target system will have AUDIX Voice Power, but NOT the FAX Attendant package for use *with* AUDIX Voice Power, install the Switch Integration software package labeled *AUDIX Voice Power Switch Integration Package for Switch_Name* (where *Switch_Name* is the name of the specific switch).

  — If you target system will have FAX Attendant packages for use *without* AVP (in other words, you are NOT installing AVP), install the Switch Integration software package labeled *FAX Attendant R2.5 Switch Integration Software for Switch_Name (For Use Without AVP)*. *Switch_Name* is the name of the specific switch.

  — If you target system will have *both* AUDIX Voice Power and FAX Attendant software packages, install the Switch Integration software package labeled *FAX Attendant R2.5 Switch Integration Software for S25 (For Use With AVP)*. *Switch_Name* is the name of the specific switch.

Troubleshooting for Assisted Upgrades

- *Problem*: You are at a system prompt after determining the current configuration of your system and you are not sure what to do.
- *Solution*: **CVIS.info** is created during the first phase of the upgrade. It contains important information on configuration and set up of your source system. If the configuration of your source system is valid for the target system (V5.0), you need the information discussed here.

  The file **/usr/lib/upgrade/CVIS.info** contains information you may need when (re)installing upgraded VIS packages. You will need to be able to view the file during the re-installation phases. How you provide yourself access to this file depends on the capabilities of your specific machine.

  — Print the file: Use whatever print command you normally use.

  — Move the file to another machine:

  1. Transfer it over a network if your machine is networked.
  2. Copy the file onto a diskette;
     enter **cpio -ocvB > /dev/rdsk/f0**
  3. Copy the file on the diskette onto the other machine;
     enter **cpio -icvBd < /dev/rdsk/f0**

- *Problem*: You attempt to run the upgrade program and it tells you that you cannot proceed on a mirrored system and to turn SCSI Disk Mirroring off. You do not have SCSI Disk Mirroring on your system.

  Solution: There is some indication to the upgrade program that mirroring is running on the source system. It may be that mirroring was on the system and active at one time, but it did not clean up properly when mirroring was disabled/removed. To work around this incorrect indicator of active SCSI Disk Mirroring, perform the following steps:

  1. Log in to the system as **root**, if you have not done so already.
  2. Enter **cd /etc/scsi**
  3. Enter **ls -l mirrortab**
  4. Look at the fifth column in the output on the screen (the number just before the date).
  5. If this number is not zero (0), enter **mirrortab o.mirrortab**
  6. Enter **cd -** to go back to the previous location.
  7. Enter **/usr/lib/upgrade/bin/upg** to start the upgrade program again.

- *Problem*: In the midst of installing a software package, you discover that you have inserted floppies for the wrong software package.

  Solution:

  1. DO NOT attempt to abort the installation. Complete the installation of the incorrect package.
  2. At the next prompt for user input (for example, the program asks for the first diskette of the next package), enter **q** to exit from the upgrade program.
  3. Remove the incorrectly installed package:
     a. Enter **removepkg**
     b. Select the incorrectly-installed package from the list.
  4. Enter **/usr/lib/upgrade/bin/upg** to restart the upgrade procedure. You are prompted for the next software package you should install.

- *Problem*: When the upgrade tool converts/verifies/installs your Script Builder applications, unrecorded speech errors are reported for the FFtemplate application.

- *Solution*: FFtemplate is a sample application delivered with the Form Filler Plus optional software package. There is no speech associated with this sample application. These errors may be ignored. (If you copy this template to create a Form Filler application, you need to record speech for your application. Be sure to rename the speech pool your application uses to the name of your application.)

- *Problem*: After installing the IPC-900 driver package on your target system (but before the system has been rebooted), the screen is flooded with messages indicating that ports cannot be opened.

  Solution: Ignore the messages. Within a few minutes, the system is rebooted by the Assisted Software Upgrade package. The messages will cease after the reboot.

- *Problem*: You are installing FAX Attendant Speech. The following warning message appears on the screen:

  `Speech exists in talkfile 40 application UNKNOWN application_name.`

  `46 application UNKNOWN application_name.`

  `To continue the installation, possibly overwriting speech phrases, type c, or to abort type a: [a/c]`

  Solution:

  — If you have installed AUDIX Voice Power Speech, enter **c** to continue installing the FAX Attendant Speech installation. You will NOT overwrite any speech.

  — If you have NOT installed AUDIX Voice Power Speech:

  1. Enter **a** to abort the FAX Attendant Speech installation.
  2. At the next available prompt for user input, enter **q** to exit the upgrade program.
  3. Identify the application that is using the talkfile that FAX Attendant requires.
  4. Backup the speech stored in talkfile 40 and/or 46.

     OR

     Move the speech to an unused talkfile. (Consult your source system version of the Command Reference book and/or the Script Builder book for more information on moving and/or preserving speech.)
  5. Enter /**usr/lib/upgrade/bin/upg** to restart the assisted upgrade procedure.
  6. Install the FAX Attendant Speech package when prompted to do so. If/when you see the speech warning shown above, enter **c** to continue the installation.
  7. When upgrade is complete, restore the saved speech to a talkfile number other than 40 and/or 46.

- *Problem*: During software reinstallation, you are prompted for a software package that you cannot or do not want installed on your target system. For example, you do not have the upgraded software for the package.

  Solution:

  1. When you are prompted for the first diskette of the package, do not put a diskette into the floppy disk drive.
  2. Press ENTER.

     You are asked to `Press <ESC> to stop or <CR> to continue`.
  3. Press ESC.

     The screen displays a message indicating that the package installation FAILED! A prompt asks if you wish to try manual installation.
  4. Enter **n**

     The tool skips to the next package it expects you to install.

- *Problem*: You are upgrading from V4.0 and recovering your system from an image tape. During the start up of the voice system, you receive error messages that the database is not running.

  Solution: Check for the existence of the **S98voice** file.

  1. Enter **cd /etc/rc2.d**
  2. Enter **ls -CFa**

     Check for the **S98voice** file.

     If it is not there, it may be recovered from the **/etc/init.d** directory or from the **/oracle/dist** directory.
  3. To recover from the **/etc/init.d** directory, enter

     cp /etc/init.d/S98voice /etc/rc2.d/S98voice

     To recover from the **/oracle/dist** directory, enter

     cp /oracle/dist/S98voice /etc/rc2.d/S98voice
  4. Reboot your system.
  5. Start the voice system again.

- *Problem*: You are at a system prompt and you do not know how to get the assistance program started. (Either the system has been rebooted automatically as part of the assisted upgrade program, or you used q to quit in response to a question.

  Solution: Enter **/usr/lib/upgrade/bin/upg** to continue the assistance program, beginning at the point where it stopped.

- *Problem*: You have just completed the hardware upgrades and installed the operating system, and you do not know how to get the assistance program restarted.

  Solution:

  1. If you are in the graphical login screen interface, press ALT E.

     System response:

     ```
     Welcome to USL UNIX System V
     Release 4.2 Version 1
     Console Login:
     ```

  2. Enter **root**
  3. Enter your root password. The system responds by displaying the system prompt #.
  4. Place the diskette labeled *Upgrade Phase II* into the floppy disk drive.
  5. Enter **installpkg**
  6. Enter **/usr/lib/upgrade/bin/upg** to restart the upgrade assistance program.

- *Problem*: You are installing one or more packages from a tape. You see no screen output for a long time (as much as 5 or 6 minutes).

  Solution: As long as the tape drive seems to be reading the tape, this problem is of no concern.

- *Problem*: You need help with a question asking during package installation and using Help (**?**) doesn't meet your expectation.

  Solution: Do not use Help and Quit while answering questions during package installations. Use the information found in **/usr/lib/upgrade/CVIS.info** file, and the TSO-provided target configuration data, if you have any. Also, use the package installation instructions found in *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151.

- *Problem*: The following error appears when you restart the upgrade program after the disk change operations:

  ```
  This system, <UNIX_SV> does not have the same name
  as the system upon which the upgrade began, <name
  of source system>.

  Press <Enter> to reset this system name <UNIX_SV>
  to the original source system name <name of source
  system>, or type the new system name then press
  <ENTER>: [<name of source system>]
  ```

  Solution:

  1. Press ENTER to accept the name of the source system

     System response:

     ```
     The system name is set to <name of source system>.

     Are you sure you want to continue phase II of the
     upgrade on this system? (y/n) [n]
     ```

  2. Enter **y**

  These steps correct the default system name installed with the operating system software and also continue the upgrade.

- *Problem*: You don't know how to answer questions on package installation.

  Solution: Most information needed for package reinstallation can be found in **/usr/lib/upgrade/CVIS.info** file, the TSO-provided target system configuration, and/or the package installation instructions found in *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151.

  The **CVIS.info** file contains interrupt settings, RAM addresses, etc., but the data needed may be in the TSO target system configuration.

- *Problem*: You try to view the **/usr/lib/upgrade/output.lst** file in the middle of the upgrade program but cannot; the lines are too long for the editor and clears the screen if printed to screen.

  Solution: This file gets cleaned up at the end of each phase and when the upgrade program is exited. Wait to view the file until after the upgrade program is exited. If you need to view the file at other times, you must translate much of the UNIX syntax.

- *Problem*: Script Builder applications fail to verify and install due to database errors.

  Solution: Check the **/att/trans/sb/*application*/symbols** file (*application* is the name of your application). If referenced tables are in the remote database, manually re-verify and reinstall the applications after the host network connections are re-established.

- *Problem*: Your shell programs do not work on your target system.

  Solution: The change in the operating system may cause shell programs to break. Make sure kshell is running on your system. Check your **.profile** file for SHELL=/usr/bin/ksh.

  Refer to ACCESS and consult the UnixWare documentation for commands to use to repair your shell scripts on the target system.

- *Problem*: Application speech is missing on your target system.

  Solution:

  1. Determine the talkfile that was not carried to the target system.
  2. Insert the speech tape created during the most recent mkimage disaster backup.
  3. Enter **spres -t talkfile *<talkfile#>***

- *Problem*: The network does not come up after the upgrade is complete.

  Solution: Verify the network setup and configuration by performing the following steps:

  1. Enter **uname -S *<machine_name>***
  2. Enter **setuname -s *<machine_name>* -n *<machine_name>***
  3. Migrate the **/etc/hosts** and **/etc/networks** files.
  4. Modify the **/etc/rc2.d** file.
  5. Enter **stop_vs**
  6. Enter **/usr/bin/smc_setup**

     The system responds by displaying the setup file and prompts:

     ```
     Do you want to change the setup? (y)→
     ```

  7. Enter **y**

     System response:

     ```
     I/O base address? (280)→
     ```

  8. Press ENTER.

     System response:

     ```
     IRQ? (15)→
     ```

  9. Press ENTER.

     System response:

     ```
     RAM base address (0D8000)→
     ```

10. Press ENTER.

    System response:

    ```
    Add wait states? (y)→
    ```

11. Press ENTER.

    System response:

    ```
    Network Connection:

    1 = BNC or 10BaseT
    2 = AUI or 10BaseT
    3 = Twisted Pair - No Link Integrity

    ?(3)→
    ```

12. Enter **3**

    System response:

    ```
    ROM disabled? (y)
    ```

13. Press ENTER.

    System response:

    ```
    Save the new setup? (y)→
    ```

14. Press ENTER.

    The system responds by displaying the system prompt #.

15. Enter **/etc/contnet.d/configure -i**

16. Enter **shutdown -g0 -y** to shutdown the machine and start a reboot.

17. When prompted, press CTRL ALT DEL simultaneously to reboot.

- *Problem*: You receive vtoc or other disk write problems when booting the system from the UnixWare for Intuity Boot Floppies (while installing UnixWare or a CONVERSANT image tape).

  Solution: Try Selection 1 (Overwrite system master boot code) in the Hard Disk Partitioning screen menu. If the problem persists, low level format the disk and attempt the installation again.

- *Problem*: You get errors during the “Activating the Volume Manager” procedure (running **volinstall**) from **volassist** or other Volume Manager commands.

  Solution: The Volume Manager has encountered something that it did not expect to see. You need to low-level format the second hard disk. Refer to the procedure found in Appendix A of this book.

Troubleshooting for Manual Upgrades

- *Problem*: You are executing the ORACLE Migration procedure as documented in Chapter 3. The ORACLE **imp** and **exp** utilities fail to recognize end of medium for input and output files.

  Solution: Check the amount of data you need to back up first. If the data is more than 1.4 Mybte, it does not fit on one floppy disk. In this case, use either a cartridge tape.

- *Problem*: After installing the IPC-900 driver package on your target system, (but before the system has been rebooted), the screen is flooded with messages indicating that ports cannot be opened.

  Solution: Ignore the messages. The messages cease after the system goes through a reboot.

Procedures

A

What's in This Appendix

This appendix contains all the general procedures referenced as part of the upgrade scenarios. This appendix is designed to be a centralized location for all the individual procedures that may be performed during an upgrade. The procedures here are NOT intended to be used in the order documented.

Use the upgrade checklists in Chapter 2 and Chapter 3 for specific information on the use of the procedures in this chapter.

Installing and Starting the Assistance Program

1. If you are not already logged in as **root**, do so now.
2. At the system prompt, enter **installpkg**

   System response:

   ```
   Please indicate the installation medium you intend to
   use.  Strike 'C' in install from CARTRIDGE TAPE or 'F'
   to install from FLOPPY DISKETTE.
   ```

3. Press F.

   System response:

   ```
   Please insert the floppy diskette.
   ```

4. If you are in Phase 1 of the upgrade on the source system, to install the package on your source system, insert the diskette labeled *Intuity CONVERSANT VIS V5.0 Software Upgrade Assistance Package* into the floppy disk drive.

   If you are in Phase 2 of the upgrade on the target system, to restart the upgrade program on your target system, insert the diskette labeled *Upgrade Phase II* into the floppy disk drive.

5. Press ENTER.

   The program installs on your system. Several path names will scroll down your screen while it is installing. At the end of the installation, the program will provide some information and instructions and put you back at the system prompt.

6. Enter **/usr/lib/upgrade/bin/upg** to start the upgrade program.
7. Return to the appropriate step in the upgrade checklist in which you were working (assisted upgrades, Chapter 2 or manual upgrades, Chapter 3).

NOTE:
At any point during the upgrade when the program performs a reboot of the system, you must enter **/usr/lib/upgrade/bin/upg** to restart the upgrade from the point at which it stopped before the reboot.

Installing the Image Tape

This Image Tape for upgrades is an image of the UnixWare operating system, the VIS base system software, and the Script Builder package. It has been built with a standard set of parameters:

- Keyboard Nationality (US/ASCII)
- World Zone (North/South America)
- Continent Location (US/Eastern)
- Default ORACLE database names and sizing
- Port enabling
  - — First serial port enabled
  - — Second serial port disabled
  - — Parallel printer port enabled
- Daylight savings time (yes)
- Bridging enabled (yes)
- Voice system disabled
- Interrupt for Tip/Ring driver (2)

These parameter settings will not require modification for most customers. However, if you wish to change these setting, you are given the opportunity later in this procedure.

NOTE:
Any required default passwords will be provided by your TSO contact when you need them.

Use the following procedure to install the image tape:

1. Perform all the steps in “Preparing the Disk for the UnixWare Operating System” found in Chapter 1 of the *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151, book. Return to this procedure after you remove the third boot diskette.
2. At the Application Server Media Type screen, the following menu is displayed at the bottom of the screen:

   ```
   1. Diskette Drive 1
   2. Cartridge Tape Drive
   3. Network Install Server
   4. CONVERSANT Image Tape
   ```

3. Enter **4** for CONVERSANT Image Tape

   The system responds with the Insert Application Server Tape screen.

4. Insert the image tape into the cartridge tape drive.

5. Enter **1** to indicate the tape has been inserted.

   The system installs the image tape. This operation takes approximately 45–60 minutes.

   A three-line message appears at the bottom left-hand corner when the installation is complete. The message says:

   ```
   CONVERSANT Image has been loaded onto boot disk.  Any
   cpio errors can be found in /image.errors after reboot.
   Reboot the system now.
   ```

6. Once this completion message is visible on the screen, remove the cartridge tape (ignore the flashing *working* behind the main screen).
7. Press the RESET button to reboot the system.
8. Log in as **root** (contact the TSO for the **root** password).
9. Enter **uname -S *<name of source system>***
10. Enter **setuname -s *<UNIX_SV>* -n *<name of source system>***
11. Reset the **root** password.

    Enter **/usr/bin/passwd <*default_root_pwd*> <*your_root_pwd*>** (where *default_root_pwd* is the **root** password set by the image tape, and *your_root_pwd* is the **root** password to which you want to change).

12. Reset the **install** password.

    Enter **/usr/bin/passwd <*default_install_pwd*> <*your_install_pwd*>** (where *default_install_pwd* is the **install** password set by the image tape, and *your_install_pwd* is the **install** password to which you want to change).

13. Reset the **sysadm** password.

    Enter **/usr/bin/passwd <*default_sysadm_pwd*> <*your_sysadm_pwd*>** (where *default_sysadm_pwd* is the system administration password set by the image tape, and *your_sysadm_pwd* is the system administration password to which you want to change).

14. If you plan to install AUDIX Voice Power and/or FAX Attendant on your target system, refer to the information to add the **audix** login id described in "Installing the AUDIX Voice Power Co-residency Package."
15. Perform all the steps in "Activating the Volume Manager" found in Chapter 1 of the *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151, book.
16. Modify the parameters set by the Image Tape as desired. All of the procedures referred to below are in the *NOVELL UnixWare System Administration System Setup and Configuration* document.

- — If you wish to change your timezone from US/Eastern, refer to the "Changing the System Date and Time" procedure. Use the **date** command to change the date and time. Use the **TZ=** command to change the timezone.
- — If your serial ports and/or parallel port configuration differs from the default, contact the TSO.
- — If you do not want call bridging enabled, enter **xferdip_off** to disable it.
- — If you need to use an interrupt other than 2 for the Tip/Ring driver, contact the TSO to modify this parameter.

17. If you have an EtherCard installed, perform all the steps in "Installing the EtherCard Driver Package" found in Chapter 1 of the *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151, book.

    If you do not have an EtherCard card nor a need for its driver, continue with the next step in this procedure.

18. Go to "Installing and Starting the Assistance Package" found in this chapter. You are now ready to continue with the upgrade to V5.0. You have completed the procedure to restore from an image tape.

Getting a Target System Configuration

If you do not have a target system configuration from the TSO, you can run the Configuration Program, once it is installed. Use the following procedure to get a target system configuration for use with the rest of the assisted upgrade procedure:

1. The upgrade program assists you to install the Configuration Program. When this is complete, quit out of the upgrade program. Enter **q** when prompted to continue.
2. Use the procedure, "Specifying a New Configuration," found in Chapter 4 of the hardware installation book specific to your platform. Use the configure new command to create a new configuration for your target system.
3. While creating your configuration, use the information in the **CVIS.info** file to preset the interrupts, I/O, RAM addresses, etc. for as many of the hardware components in your target configuration as possible.

   There are some hardware components that will probably not the information to present the attributes. For example, if you are adding a Token Ring card to your target system configuration, you will not any information in **CVIS.info** to preset any attributes on this component. For these new components, and also for replacement components, such as the new EtherCard, let the Configuration Program select the attribute settings.

4. Once the Configuration Program is complete, use the **show_config** command to view (and possibly print) the new configuration output.
5. Use the configuration output when you resume the upgrade program. Go back to the step to install the VIS base software in the upgrade checklist (Table 2-1 or Table 3-1).
6. Enter **/usr/lib/upgrade/bin/upg** to restart the upgrade program.

Saving Applications

Saving an application involves making copies (to diskette or cartridge tape) of all files associated with an application.

An application may be in one of the following forms: a Script Builder application, or an application developed using script language. An application may also have associated with it speech data and/or a supporting data interface process (DIP).

Script Builder applications can be saved using the BACKUP function of Script Builder. The BACKUP function saves the application in its entirety. If the application has a supporting DIP, BACKUP also saves the DIP and all its associated files if those files are located in the **/att/trans/sb/*application_name*** directory (where *application_name* is the name of the Script Builder application) as they normally are. For more information, see “Backing Up an Application” in Chapter 3 of your source system version of the *CONVERSANT VIS Script Builder* book.

Files associated with an application that has been developed using the script language can be saved using backup utilities supplied as part of the FACE interface. The FACE interface also has a utility for saving speech. For more information, see “Backup” in Appendix A, “FACE Features,” of your source system version of the *CONVERSANT VIS Operations* book.

Saving User Files

User files are those files created by users on your system. Saving user files involves making copies of these files on diskette or cartridge tape.

In assisted upgrades, the program saves user files for you (if they are in standard locations) as listed in Appendix B. If some user files are not listed in Appendix B that you want to carry to your target system, save these files by using the information in this section.

In the case of manual upgrades, consider preserving:

- all data in your system users' home directory
- cron and at jobs
- **/usr/local/lib** files (source code only)
- shell scripts for reports and their previous output

WARNING:
For all upgrade types: Do NOT save executable scripts or C programs.

Applications

User files are separate from files associated with either Script Builder applications or applications developed using the script language. Save applications as described the section, "Saving Applications", in this chapter.

Speech

The FACE interface on your source system has a utility for saving speech, if you have speech data that is not part of any application and that you wish to save. For more information, see "Backup" in Appendix A, "FACE Features," of your source system version of the *CONVERSANT VIS Operations* book.

Other User Files

Other user files may be saved using backup utilities supplied as part of the FACE interface. For more information, see "Backup" in Appendix A, "FACE Features," of your source system version of the *CONVERSANT VIS Operations* book.

Saving System Configuration

Your present Version 2.1 system is *customized* as determined by the settings in both software and hardware. These settings, such as parameters in certain files or jumper settings on add-on cards, collectively make up the system configuration. It is preferable to preserve this configuration, and an optimal upgrade should minimally disturb it.

In assisted upgrades, much of this information is saved for you.

Your first source in obtaining configuration information for your present system is the **configure** command. If you have a system that is up-to-date (that is, if all hardware on the system has been assigned slots or IRQ numbers based on output from the **configure** command), then you should use that output as your primary reference when installing your V5.0 system after verifying with the TSO that the configuration is still valid in the V5.0 environment. For more information on using the **configure** command, see "Running the Configuration Program" in Chapter 4 of the appropriate *Voice Processing Hardware Installation* book.

Information Needed During Software Installation

If your system has been modified without the use of the **configure** command, complete the following to capture information that you need during the software installation:

1. Carefully review the procedures for Version 5.0 base software installation (Chapter 2 of *Intuity CONVERSANT VIS V5.0 Software Installation,* 585-310-151) and optional software installation (Chapter 3 of *Intuity CONVERSANT VIS V5.0 Software Installation,* 585-310-151) for the packages that you are installing. This software can only be installed in a machine that has UnixWare installed.

   You are prompted to enter information that is used in setting the system configuration of your Version 5.0 system. Capture this information from your present system before removing any packages. Reference this information later during Version 5.0 installation.

2. Print a copy of **/etc/conf/cf.d/sdevice** file found on your system. Do this by entering **lp /etc/conf/cf.d/sdevice** if you have a printer connected to your system.

3. Print a copy of **/configuration** file. Do this by entering **lp /configuration** This file may be in a different location on your machines, depending on where the configuration program was last run.

NOTE:
The **/configuration** file is only useful if it matches the hardware on your source system. The file is up-to-date *only* if your **/configuration** file was updated using the source system Configuration Program every time your system configuration changed since the initial installation of the system.

The **/configuration** file contains IRQ numbers for hardware you currently have installed on your system (column 6), and it contains other information as well.

NOTE:
You also may want to copy these files (**sdevice** and **/configuration**) to diskette.

4. Make a note of the current database size in blocks. Do this by entering: **ls -l /oracle/dbs/dbsA.dbf** The system responds with a single line of information that looks similar to the following:

   `rw-r--r-- 1 dbs` *XXXXXXXX* `Apr 15 9:00 dbsA.dbf`

   XXXXXXX is the number depicting the size of database. Divide that number by 512 to get the size in blocks. You may need this information when installing the Version 5.0 ORACLE package.

   Use the same command as above for the log files:

   ls -l /oracle/dbs/log1A.dbf

   ls -l /oracle/dbs/log2A.dbf

Information Needed to Restore the System Configuration

To capture information you need when restoring the system configuration, complete the following steps (in assisted upgrades, the **CVIS.info** file contains all the information from this procedure):

1. Make a note of the service-to-channel assignments, equipment-options settings, etc. that are associated with your present system. You may observe these through the menu structure displayed by the **cvis_menu** command. Other information, such as Network Interface Administration (if applicable), may be found in the menu structure displayed by the face command.
2. Alternatively, you can also enter **display card all**

   Print this information by entering **display card all | lp**
3. Use the **displaypkg** command to get a list of currently installed packages.

   Print this list by entering **displaypkg | lp**

Use the output **displaypkg** to compare to packages installed after the upgrade is complete.

NOTE:
The Kornshell (ksh) package does not show up as a separate package in the **displaypkg** output after the Version 5.0 upgrade. However, it is still present and usable on the system.

4. Use the **cvis_menu** command to get to the switch interface screens and write down the parameters for both analog and digital interfaces.
5. Save the serial ports administration. Refer to Appendix A of your source system operations book for information on getting to the serial port settings screen. Once you get to this screen, write down all the field entries so that you can put this information back in after the upgrade.

Saving Errors File

If your applications interface with ET (that is, if you have a DIP and it contains **et_send ()** calls), you need to upgrade to the new logging environment. You many also see errors files referred to as *explain text*. To successfully perform that upgrade, you must first copy the file **/gendb/data/errors** to an external medium (such as a diskette) before the current software is removed or your hard disk drive is replaced or reloaded. See Chapter 6, “Upgrade Considerations,” in *Intuity CONVERSANT VIS V5.0 Application Development*, 585-310-227.

In assisted upgrades, the program migrates the **/gendb/data/errors** file to the target system for you.

Saving the ORACLE Data Base

This section applies to Version 3.0 and Version 4.0 source systems upgrading manually.

Save the ORACLE Data Base by completing the following:

1. Enter **stop_vs**
2. If you do not want to save traffic data, it can be removed by entering **sqlplus \@/oracle/dist/cdh**
3. Enter **exp**

   When you are asked for the login, enter **sti/sti**

   Refer to Chapter 1, “Exporting Data,” of the V6.0.30 *ORACLE DBMS Utilities User’s Guide*, 585-350-902, for further information on the **exp** command.
4. Enter **start_vs**

ORACLE Data Base Migration Procedures

NOTE:
You do not need to use these procedures if you are upgrading from Version 3.0, Version 3.1, or Version 4.0.

The format with which the ORACLE database manages data changed starting with CONVERSANT VIS Version 3.0.* Database data created in an ORACLE 5 system (pre-V3.0) that now needs to be used within a new version of ORACLE needs to undergo a one-time special processing, called "migration," on both the source and the target version. If you are upgrading from Version 2.1 to Version 5.0, use the procedure described here.

Migration routines are delivered in an installable package titled "Database Migration Package for Version 5.0;" installing the package is described in the next section. Note that this package is designed to be used on both the source and target systems.

Installing the Migration Package

Use the following steps to install the migration package on your system:

1. Insert the floppy disk for database migration in your floppy disk drive.
2. Enter **installpkg**

   Follow the prompts as they appear on the screen to install the package.
3. After the package is installed, enter **displaypkg**

   The list of packages includes "Database Migration Package for Version 5.0."
4. You must log off, then log on again before you can start to use this package.

* CONVERSANT VIS versions earlier than 3.0 use ORACLE 5.1.22; Versions 3.0, 3.1, and 4.0 use ORACLE 6.0.30; and Version 5.0 uses ORACLE 7.0.12.

Saving ORACLE Migration Data

NOTE:
The procedures described in this section destroys the database on your system as part of database migration.

The procedures described here must be performed on your Version 2.1 system.

1. Install the database migration package as described in the previous section.

   This procedure is a destructive operation that leaves your current database unusable. Therefore, the program first creates a backup of your database before proceeding with database migration.

2. Enter **sav_v5data**

   System response:

   ```
   1. Exit.
   2. Save migration data only (no backup).
   3. Backup database to tape and save migration data.
   4. Backup database to floppy and save migration data.
   ```

   NOTE:
   Option 2 is only provided for those installations that have modified their ORACLE configurations to store data on UNIX file system raw slices. If you have such an installation, exit the **sav_v5data** program and perform a separate backup of the raw slices where your database is stored. Rerun **sav_v5data** command and select option 2.

3. Choose option 3 or 4. Either option creates a backup of the database (to tape or floppy diskettes). This backup is a safety net in case the migration procedure fails for any reason. It ensures that the database can be recovered in such situations (see “Recovering ORACLE Migration Data” in this chapter). You are not required to make use of the output from the backup phase; the tapes or floppy diskettes containing the backup should be set aside as a safety net.

   Option 3 or 4 automatically continues with the migration *save* procedure once the backup procedure is complete. The backup procedure constitutes the first phase of options 3 and 4. The second phase invokes the actual database migration *save* procedure.

   You are prompted to specify the output media.

4. Choose tape. (Do not use the same tapes used in the backup phase. Use a separate set of tapes for the database migration phases.) This second set of output is used to migrate the database to your V5.0 system.

Restoring ORACLE Migration Data

Perform the *restore* procedure on your Version 5.0 system after you have installed at least the Intuity CONVERSANT VIS V5.0 Application Software.

To restore the ORACLE database migration data saved earlier, enter **res_v5data** and follow the prompts. Restore the database using the tapes created during the *save* procedure.

Recovering ORACLE Migration Data

CAUTION:
Once you have completed the first phase of the upgrade procedure and have passed the point of no return, you cannot execute this procedure on your V5.0 system. This procedure only works to recover the data on the source system.

If the ORACLE database migration procedure fails for any reason and you need to restore the database on the source system, use the tapes created during the backup portion of the *save* procedure. Execute the following procedure:

1. Enter **/oracle/bin/ior c**

   This step stops the database system if it is still operational.

2. Enter **cd /oracle/dbs**

   This step takes you to the home directory for the database.

3. Insert the first tape into the tape drive.

4. To restore from tape*, enter **cpio -icvdul /dev/rmt/c0s0r**

   This step restores from the appropriate media the entire database directory.

* If you are recovering from floppy diskettes, enter **cpio -icvBdul /dev/rdsk/f*{X}*t** where {X} is 0 or 1, depending on the floppy disk drive you use.

Restoring the ORACLE Database (Manually)

Use the following procedure to restore the ORACLE database:

1. Enter **stop_vs**
2. Enter **imp**

   When you are asked for the login ID, enter **sti/sti**

   Refer to Chapter 1, "Exporting Data," of the *ORACLE DBMS Utilities User's Guide*, 585-350-902, for further information on the **imp** command.
3. Enter **start_vs**

Restoring User Files (Manually)

In assisted upgrades, the program restores user files for you (if they were saved from standard locations) as listed in Appendix B. If some user files are not listed in Appendix B that you saved in the "Saving User Files" section, restore those files using the information in this section.

In the case of manual upgrades, you may have saved the following in the "Saving User Files" procedure:

- all data in your system users' home directory
- cron and at jobs
- **/usr/local/lib** files (source code only)
- shell scripts for reports and their previous output

Applications

Restore applications as described the section, "Restoring Applications", in this chapter.

Speech

Speech files that have been saved with the use of the FACE interface backup utilities must be restored using the **spres** command. Refer to the *Intuity CONVERSANT VIS V5.0 Command Reference*, 585-310-230, for more information.

Other User Files

User files that have been saved with the use of the FACE interface backup utilities cannot be restored using UNIX V System Administration features that replace FACE in V5.0. User files must be restored manually using the **cpio** command:

- To restore from cartridge tape, insert the tape into the tape drive.

  Enter **cpio -icvBd -Hodc < /dev/rmt/c0s0**

- To restore from diskette, insert the diskette into the floppy disk drive.

  Enter **cpio -icvBd -Hodc < /dev/rdsk/f0**

Restoring Applications

This section applies only to manual upgrades.

Script Builder applications that have been saved on floppy disks can be restored using the RESTORE function of Script Builder. RESTORE restores the application in its entirety and automatically performs the "Script Builder Compatibility/Conversion Procedure" on the application being restored in order to upgrade the application to be compatible with Script Builder Version 5.0. For more information, see "Restoring an Application" in Chapter 11 of *Intuity CONVERSANT VIS V5.0 Script Builder*, 585-310-727.

Since you only perform this procedure manually when you are upgrading from Version 2.1, *do not* perform the database component of the Script Builder restore procedure. This step was covered by the ORACLE data migration procedure, performed earlier.

You must VERIFY and INSTALL each application after it is converted or after correcting any errors indicated during the assisted application installation. See "Verifying and Installing the Application" in Chapter 11 of *Intuity CONVERSANT VIS V5.0 Script Builder*, 585-310-727.

Source files associated with an application that has been developed using the script language and that has earlier been saved by FACE interface backup utilities cannot be restored using UNIX V System Administration features that replace FACE in V5.0. These files must be restored manually using the **cpio** command:

- To restore from cartridge tape, insert the tape into the tape drive.

  Enter **cpio -icvBd -Hodc < /dev/rmt/c0s0**

- To restore from diskette, insert the diskette into the floppy disk drive.

  Enter **cpio -icvBd -Hodc < /dev/rdsk/f0**

Application executables (DIPs with compiled scripts) will not run. All script language applications and associated programs must be recompiled for V5.0. Refer to Chapter 6, "Upgrade Considerations," in *Intuity CONVERSANT VIS V5.0 Application Development*, 585-310-227.

Restoring System Configuration

Use the information you collected in "Saving System Configuration" to restore your system configuration (IRQ settings, RAM and I/O addresses, etc.). You need the V5.0 target configuration from the TSO if you added or replaced any hardware components during the upgrade.

1. Use the information from the display card all command to do the following:
    a. Assign services to channels: refer to "Assigning Services to Channels" in Chapter 3, "Configuration Management," of the operations book.
    b. Assign functions to SP cards: refer to "Assigning Functions to SP Cards" in Chapter 3, "Configuration Management," of the operations book.
    c. Assign equipment groups to channels: refer to "Assigning Channels to Equipment Groups" in Chapter 3, "Configuration Management," of the operations book.
    d. Assign services to called numbers: refer to "Assigning Services to Called Numbers" in Chapter 3, "Configuration Management," of the operations book.
2. Use the information you saved about serial ports to assign the serial ports. See Appendix A, "System Administration Features" of *Intuity CONVERSANT VIS V5.0 Operations*, 585-310-550.

Recompiling Application DIPs

NOTE:
You need not complete this step if you have already recompiled your applications earlier as part of upgrading to the new logging environment.

If a Script Builder application is supported by a DIP, the DIP must be recompiled once it is restored on a Version 5.0 system. This recompilation is necessary since supporting system libraries have changed in Version 5.0. For instructions on recompiling applications, see "Compiling a DIP" in Chapter 4, "Data Interface Process," of *Intuity CONVERSANT VIS V5.0 Application Development,* 585-310-227.

Files and Directories

B

What's in This Appendix

This appendix lists the files and directories that, if found on the source system, the upgrade assistance program attempts to migrate in some fashion to the target system. In the case of a file name, only that file is migrated. In the case of a directory name, that entire directory tree on the source system is affected.

The following operations are associated with each listed file or directory tree:

- *NoChange* — The file or directory tree is migrated to the target system with no changes. When these files are reinstalled, they overwrite any like-named files that may be on the target system.
- *SvNotFiles* —The file or files in the directory tree are migrated without change only if they do not "belong" to an Intuity CONVERSANT software package which is currently installed on the source system. When these files are reinstalled, they overwrite any like-named files that may be on the target system.
- *SvAsOld* — The file or files in the directory tree are migrated to the target system (in the same directory), but are found on the target system with the name **o.*file***.
- *SvOldNotFiles* —The file or files are migrated as **o.*files*** only if they do not "belong" to an Intuity CONVERSANT software package that is currently installed on the source system.
- *MvToNew* — The file or files are migrated, but are installed with a different file name and/or in a different directory on the target system.
- *MvDirToNew* — The file or files are installed in a new location on the target system. For these entries, the second file/directory named is the target system location.

- *NoSave* — The file or files is deliberately NOT migrated to the target system, even if it would have been preserved according to another operation coming later in the list.
- *MergeOp* and *TransOp* — The file or files may pass through a conversion or merge operation to transform the information provided in them into a format which accomplishes the same purpose on the target system. At this time, those merge operations which are notated (*) are simply placeholders. Files with notated merge operations may be migrated without change or as **o.*files***. Some manual action may be required to configure the associated feature to mimic it's source system behavior.

Files and Directories Listing

Table B-1. All Upgrades to Version 5.0

Operation	File or Directory	Comment
SvNotFiles	/vs/bin/ag/lib	# user-defined external functions
MergeOp	/vs/data/CONVERSANT	
SvAsOld	/vs/data/alarms/alarm[1-6]	
NoChange	/vs/data/alarms/masks	
MergeOp	/vs/data/alarm_flags	# for NetView
NoChange	/vs/data/asai/chantbl	# asai control files
NoChange	/vs/data/asai/domaintbl	#
NoChange	/vs/data/asai/Parameters	#
NoChange	/vs/data/cadm/cca.opts	# options for display-type
NoChange	/vs/data/cadm/cd.opts	# screens for cvis_menu
NoChange	/vs/data/cadm/cdsum.opts	
NoChange	/vs/data/cadm/evlog.opts	
NoChange	/vs/data/cadm/shutwait	
NoChange	/vs/data/cadm/traf.opts	
NoChange	/vs/data/cadm/voicedspopt	
NoChange	/vs/data/cadm/waittime	
NoChange	/vs/data/console_stat	# for SCCS
MergeOp*	/vs/data/etStub.rules	# etStub msg conversion files
SvNotFiles	/vs/data/ff	# Form Filler Records
NoChange	/vs/data/fts_config	# File Transfer Configuration
MergeOp	/vs/data/hostsvc	
NoChange	/vs/data/trhypot	
NoChange	/vs/data/mtc.rc	
NoChange	/vs/data/sb_databases	# database dip information
SvAsOld	/vs/data/spchconfig	# speech fs configuration
MergeOp	/vs/data/t1_config	
MvToNew	/vs/data/tsm.rc /vs/data/irAPI.rc	# parameters for IRAPI
NoChange	/vs/data/wdogOff	# SCCS control files
NoChange	/vs/data/Aru_tty	#
NoChange	/vs/data/Machname	#
NoChange	/vs/data/Sccs_tty	#

Table B-1. All Upgrades to Version 5.0 — *Continued*

Operation	File or Directory	Comment
SvAsOld	/vs/etc/iCk.rules	
SvAsOld	/vs/etc/default/iCk	
SvAsOld	/vs/etc/default/alerter	# alerter configuration settings
NoChange	/gendb/data/datafile	# pre-3.1 custom error/explain
NoChange	/gendb/data/message_file	#
NoChange	/gendb/data/errors	#
NoChange	/gendb/data/appl.explain	#
MergeOp*	/gendb/data/explain/translateLst	# msgID to explain src mapping
TransOp	/gendb/shmem/devtbl	# binary config/setup info
TransOp	/gendb/shmem/transconfig	# services -> channel assignments
NoChange	/gendb/switch/analog/noDTtrain	# analog switch parameter
NoChange	/gendb/switch/analog/cad.timing.B	#
NoChange	/gendb/switch/analog/cad.pattern.B	#
NoChange	/gendb/switch/analog/current	#
MergeOp	/gendb/switch/analog/userTunable	#
SvAsOld	/att/ag/hostdip/helper/*.c	# user hostdip changes
SvAsOld	/att/ag/hostdip/helper/makefile	#
SvAsOld	/att/asr/findbest.c	# user recognizer changes
NoChange	/att/msgipc/etmsgs/appl_et.h	# custom et error messages
MergeOp	/usr/lib/3270/host.cfg0	# config for host boards
MergeOp	/usr/lib/3270/host.cfg1	#
SvAsOld	/usr/spool/log/formats/APPLmsg	# logger control files
SvNotFiles	/usr/spool/log/formats/*msg	#
MergeOp*	/usr/spool/log/formats/formats.mk	#
SvAsOld	/usr/spool/log/head/logAPPL.h	#
SvNotFiles	/usr/spool/log/head/log[A-Z]*.h	#
SvAsOld	/usr/spool/log/dataDictLog	#
SvAsOld	/usr/spool/log/ddMapLog	#
MergeOp*	/usr/spool/log/kMsgsScript	#
MergeOp*	/usr/spool/log/msgDst.rules	#
MergeOp*	/usr/spool/log/thresh.rules	#
SvAsOld	/usr/spool/log/cmpLogFmt	#
SvAsOld	/usr/spool/log/textLogFmt	#
TransOp*	/usr/spool/log/data	# logger data

Table B-1. All Upgrades to Version 5.0 — *Continued*

Operation	File or Directory	Comment
NoChange	/usr/spool/oldLog	# logger data
SvNotFiles	/att/ag/hostdip/helper/*.c	
SvNotFiles	/att/include	
NoSave	/speech/talk/list.avp	# phrase lists for VIS package applications
NoSave	/speech/talk/list.fax	#
NoSave	/speech/talk/FFtemplate.pl	#
NoSave	/speech/talk/transcribe.pl	#
NoSave	/speech/talk/feature_tst.pl	#
NoSave	/speech/talk/dc_sample.pl	#
NoSave	/speech/talk/monitor.pl	#
NoChange	/speech/talk/*.pl	# Phrase lists for applications
SvNotFiles	/att/trans/sb	# sb applications src
NoChange	/usr/ocdb	# AVP and FAX configuration data files and messages;
NoChange	/usr/vmdb	#
NoChange	/avp/data	#
NoChange	/usr/faxdb	#
NoChange	/etc/fax/faxconfig.cfg	#
SvNotFiles	/gendb/data/explain/[A-Z0-9]/*	# customer explain files
NoSave	/etc/default/boot	
NoSave	/etc/default/default.*	
SvAsOld	/etc/default/*	
SvOldNotFiles	/etc/init.d	
SvAsOld	/etc/profile	# system wide profile
SvAsOld	/oracle/dbs/initA.ora	
SvNotFiles	/vs/bin/ag/eaforms	
SvNotFiles	/vs/bin/ag/eascripts	
SvAsOld	/vs/data/conf_data	
SvAsOld	/etc/passwd	# user login information
SvAsOld	/etc/shadow	
SvAsOld	/etc/gettydefs	# getty terminal behavior
SvAsOld	/etc/hosts	# LAN network hosts
SvAsOld	/etc/networks	# LAN networks known
NoSave	/usr/add-on/ksh	

Table B-1. All Upgrades to Version 5.0 — *Continued*

Operation	File or Directory	Comment
SvNotFiles	/usr/add-on	
SvAsOld	/usr/spool/cron	# cron & at jobs
NoChange	/usr/spool/uucp	# uucp log files, etc.
NoChange	/usr/spool/uucppublic	# files from uucp
SvAsOld	/usr/lib/uucp/[DMPS]*	# files controlling uucp
SvAsOld	/.profile	# root .profile
SvAsOld	/.env	# root .env
SvAsOld	/.alias*	# root .aliases
SvAsOld	/*.rc	
SvAsOld	{home directories for all users with logids in /etc/passwd}	# to repopulate login directories, enter **/usr/lib/upgrade/bin/findHomes**

Table B-2. Upgrades from Version 3.0, 3.0.1 or 3.1 to Version 5.0

Operation	File or Directory	Comment
MergeOp	/vs/data/ldbdip.rc	# database dip parameters

Table B-3. Upgrades from Version 3.1.1 to Version 5.0

Operation	File or Directory	Comment
NoChange	/vs/data/ldbdip.rc	#database dip parameters

Table B-4. Upgrades from Version 4.0 to Version 5.0

Operation	File or Directory	Comment
NoChange	/vs/data/sr_file	# Customer grammars
NoChange	/vs/data/ldbdip.rc	# database dip parameters
NoChange	/vs/pack/cmp.seg	# Customer grammars
MvDirToNew	/att/asr/wordlists/ /att/asr/wordlists/active/	# FlexWord wordlists
NoChange	/att/asr/sr_files/sr_file.sw	# Flexword
NoChange	/att/include/sr_grammar.h	# Customer grammars

Abbreviations

A

AC
Alternating current

ACD
Automatic call distributor

AD
Application Dispatch

AD-API
Application dispatch application programming interface

ADPCM
Adaptive differential pulse code modulation

ADU
Asynchronous data unit

AGL
Application generation language

ALERT
VIS Alerter process

ANI
Automatic number identification

API
Application programming interface

ARU
Alarm relay unit

ASAI
Adjunct/Switch Application Interface

ASCII
American Standard Code for Information Interchange

ASI
Analog switch integration

B

BB
Bulletin board

bps
Bits per second

BRDG
Call bridging process

BSC
Binary synchronous communication

C

CCA
Call classification analysis

CDH
Call data handler

CELP
Continuously Excited Linear Prediction

CGEN
Voice system general message class

CICS
Customer Information Control System

CMP
Companion circuit card

CMS
Call Management System

CO
Central office

CPE
Customer provided equipment or customer premise equipment

CPN
Calling party number

CPT
Call progress tones

CPU
Central processing unit

CSU
Channel service unit

CVS
Converse vector step

D

dB
Decibels

DB
Database

DBC
Database checking process

DBMS
Database management system

DC
Direct current

DCE
Data communications equipment

DCP
Digital communications protocol

DIO
Disk input and output process

DIP
Data interface process

DMA
Direct memory access

DNIS
Dialed number identification service

DSP
Digital signal processor

DTE
Data terminal equipment

DTMF
Dual tone multi-frequency

DTR
Data terminal ready

E

EBCDIC
Extended Binary Coded Decimal Interexchange Code

EIA
Electronic Industries Association

EISA
Extended Industry Standard Architecture

EMI
Electromagnetic interference

ESD
Electrostatic discharge

ESDI
Extended Serial Data Interface

ESS
Electronic Switching System

ET
Error tracker

EXTA
External alarms feature message class

F

FCC
Federal Communications Commission

FDD
Floppy disk drive

FEP
Front end processor

FFE
Form Filler Plus feature message class

FIFO
First-in-first-out processing order

foos
Facility out-of-service state

FTS
File transfer process message class

G

GEN
PRISM logger and alerter general message class

GSE
Graphical Speech Editor

GUI
Graphical user interface

H

HDD
Hard disk drive

HLLAPI
High Level Language Application Programming Interface

HOST
Host interface process message class

hwoos
Hardware out-of-service state

Hz
Hertz

I

IBM
International Business Machines

ICK
Integrity checking process message class

ID
Identification

IDE
Integrated Disk Electronics

IE
Information element

INIT
Voice system initialization message class

inserv
In-service state

IPC
Interprocess communication

IPC
Intelligent Ports Card (IPC-900)

IPCI
Integrated personal computer interface

IRAPI
Intuity Response Application Programming Interface

IRQ
Interrupt request

ISA
Industry Standard Architecture

ISDN
Integrated Services Digital Network

ISV
Independent Software Vendor

ITAC
International Technical Assistance Center

IVP4
Integrated Voice Processing card with 4 analog channels

IVP6
Integrated Voice Processing card with 6 analog channels

IVPSS
Integrated Voice Processing System Software

K

Kbps
Kilobites per second

Kbyte
Kilobyte

L

LAN
Local area network

LDB
Local database

LED
Light-emitting diode

LIFO
Last-in-first-out processing order

LN
Load number

LOG
VIS logger process message class

LST1
Line side T1

LU
Logical unit

M

manoos
Manually out-of-service state

MAP/100
Multi-Application Platform 100

MAP/100C
Multi-Application Platform 100C

MAP/40
Multi-Application Platform 40

Mbps
Megabits per second

Mbyte
Megabyte

ms
Millisecond

msec
Millisecond

MHz
Megahertz

MTC
Maintenance process

N

NCP
Network Control Program

NEBS
Network Equipment Building Standards

NEMA
National Electrical Manufacturers Association

netoos
Network out-of-service state

NFAS
Non-Facility Associated Signaling

NFS
Network file sharing

NMVT
Network Management Vector Transport

NM-API
Network Management - Application Programming Interface

nonex
Nonexistent state

NRZ
Non Return to Zero

NRZI
Non Return to Zero Inverted

O

OEM
Original equipment manufacturer

OGA
Operator generated alert

P

PBX
Private branch exchange

PC
Personal computer

PCB
Printed circuit board

PCM
Pulse code modulation

PEC
Price element code

PRI
Primary rate interface

PSTN
Public switch telephone network

PS&BM
Power supply and battery module

R

RAM
Random access memory

RECOG
Speech recognition feature message class

RDBMS
ORACLE relational database management system

REN
Ringer equivalence number

RFS
Remote file sharing

RM
Resource manager

RMB
Remote maintenance board

RTS
Request to send

S

SBC
Sub-band coding

SCCS
Switching Control Center System

SCSI
Small Computer System Interface

SDLC
Synchronous Data Link Control

SDN
Software Defined Network

SID
Station identification

SIMM
Single inline memory module

SLIP
Serial Line Interface Protocol

SNA
Systems Network Architecture

SNMP
Simple Network Management Protocol

SP
Signal processor circuit card

SPIP
Signal processor interface process

SPPLIB
Speech processing library

SQL
Structured Query Language

SR
Speech recognition

SYS
UNIX system calls message class

sysgen
System generation

T

tas
Transaction assembler

TCC
Technology Control Center

TCP/IP
Transmission control protocol/internet protocol

TDM
Time division multiplexing

TE
Terminal emulator

THR
Threshold message class

TKR
Token Ring

TLI
Transport layer interface

TLP
Transmission level plan

T/R
Tip/Ring circuit card

TRIP
Tip/Ring interface process

TSO
Technical Service Organization

TSO
Time Share Operation

TSM
Transaction state machine process

TTS
Text-to-Speech

TWIP
T1 interface process

U

UK
United Kingdom

USOC
Universal service ordering code

UVL
Unified Voice Library

V

VDC
Video display controller

VIS
Intuity CONVERSANT Voice Information System

VPC
Voice processing comarketer

VRU
Voice response unit

VROP
Voice response output process

Glossary

Numerics

3270 interface
A link between one or more Intuity CONVERSANT Voice Information System (VIS) machines and a host mainframe. In Intuity CONVERSANT VIS documentation, the 3270 interface means the link between one or more VIS machines and an IBM host mainframe.

4ESS
A large AT&T central office switch used to route calls through AT&T's telephone network.

A

ACD
See "automatic call distributor."

ADPCM
See "adaptive differential pulse code modulation."

adaptive differential pulse code modulation
A means of encoding analog voice signals into digital signals by adaptively predicting future encoded voice signals. This adaptive modulation method reduces the number of bits required to encode voice. See also "pulse code modulation."

adjunct products
Products (for example, Adjunct/Switch Application Interface) that the Intuity VIS administers via cut-through access to the inherent management capabilities of the product itself; this is in opposition to CONVERSANT VIS's ability to administer the switch directly.

Adjunct/Switch Application Interface
An optional feature package that provides an Integrated Services Digital Network-based interface between AT&T PBX's and adjunct processors.

affiliate
A business organization that AT&T controls or which with AT&T is in partnership.

alarm relay unit
A unit used in central office telecommunication arrangements that transmits warning indicators from telephone communications equipment (like the Intuity CONVERSANT VIS) to audio.

alerter
A system process that responds to patterns of events logged by the "logdaemon" process.

analog
An analog signal, such as voice or music, that varies in a continuous manner. An analog signal may be contrasted with a digital signal, which represents only discrete states.

application
Made of several components that provide an automated version of the communication between a caller and an attendant. The Intuity CONVERSANT VIS provides several methods for creating applications, including Script Builder, the Intuity Response Application Programming Interface (IRAPI), and transaction state machine (TSM) script language.

application administration
The component of the Intuity CONVERSANT VIS that provides access to the applications currently available on your system and helps you to manage and administer them.

application installation
A two-step process in which the Intuity CONVERSANT VIS invokes the TSM script assembler for the specific application name and files are moved to the appropriate directories.

application verification
A process in which the Intuity CONVERSANT VIS verifies that all the components needed by an application are complete.

ASCII
An acronym for American Standard Code for Information Interchange, a standard for data representation. ASCII code represents alphanumeric characters as binary numbers. The code includes 128 upper- and lowercase letters, numerals, and special characters. Each alphanumeric and special character has an ASCII code (binary) equivalent that is 1 byte long.

asynchronous communication
A method of data transmission in which bits or characters are sent at irregular intervals and are spaced by start and stop bits and not by time. See also “synchronous communication.”

asynchronous data unit
An electronic communications device that allows computer systems to communicate over asynchronous lines more than 50 feet in length.

AUDIX Voice Power
A complete voice-mail messaging system accessed and operated by touch-tone telephones and integrated with a switch or “Private Branch Exchange.”

automatic call distributor
A telephone system that recognizes and answers incoming calls and completes these calls based on a set of instructions contained in a database. The Automatic Call Distributor can send the call to an operator or group of operators as soon as the operator has completed a previous call or after the system has played a message to the caller.

automatic number identification
A method of identifying the calling party by automatically receiving a string of digits that identifies the calling station of a particular customer.

B

back up
The preservation of the information in a file in a different location, so that the data is not lost in the event of hardware or system failure.

backing up an application
A utility that makes an archive copy of a completed application or makes an interim copy of an application in progress. The backup copy can be restored to the VIS if the online version is damaged, or if you make revisions and wish to go back to the previous version.

barge-in
A capability provided by WholeWord speech recognition that allow callers to speak their responses to the VIS prompt and have those responses recognized before the prompt has finished playing.

batch file
A file containing one or more lines, each of which is a command executable by the UNIX shell.

binary synchronous communications
A character-oriented synchronous link protocol.

blind transfer protocol
A protocol in which a call is completed as soon as the extension is dialed, without having to wait to see if the telephone is busy or if the caller answered.

bridging
The process of connecting one telephone network connection to another telephone network connection over the Intuity CONVERSANT VIS TDM bus. Bridging decreases the processing load on the system since an active bridge does not require speech processing, database access, host activity, etc., for the transaction.

BSC
See “binary synchronous communication.”

bundle
In the context of the Enhanced File Transfer package, this term is used to denote a single file, a group of files (package), or a combination of both.

byte
A unit of storage in the computer. On many systems, a byte is 8 bits (binary digits), the equivalent of one character of text.

C

call classification analysis
An optional feature package that allows application developers to classify the disposition of originated and transferred calls.

call data event
A parameter that specifies a list of variables that are appended to a call data record at the end of each call.

call data handler process
A software process that accumulates generic call statistics and application events.

called party number
The number dialed by someone making a telephone call. It can be used by telephone switching equipment to selectively route an incoming call to a particular department or agent.

caller
The party that calls for a service, gets connected to the Intuity CONVERSANT VIS, and interacts with the system. As the Intuity CONVERSANT VIS is also capable of making outbound calls for service, the caller can also be the person who responds to those outbound calls.

call progress tones
Standard telephony sounds that indicate the status of the call. These sounds include busy, fast busy, ringback, reorder, etc.

card cage
An area within a Intuity CONVERSANT VIS platform that contains and secures all of the standard and optional circuit cards used in the system.

cartridge tape drive
A high-capacity data storage/retrieval device that can be used to transfer large amounts of information onto high-density magnetic cartridge tape based on a predetermined format. This tape can be removed from the system and stored as a backup, or used on another system.

caution
An admonishment used when there is a possibility of a service interruption or a loss of data.

CCA
See “call classification analysis.”

CDH
See “call data handler process.”

central office
An office or location in which large telecommunication machines such as telephone switches and network access facilities are maintained. These locations follow strict installation and operation requirements.

central processing unit
A component of the Intuity CONVERSANT VIS that is based on either the Multi-Application Platform 100 (MAP/100), MAP/40, or MAP/100C.

channel
See “port.”

CICS
See “Customer Information Control System.”

circuit card upgrade
A new circuit card that replaces an existing one in the platform. Usually the replacement is an updated version of the other card, and the replacement is designed to deal with technology made obsolete by industry trends or a new VIS release.

cluster controller
A bisynchronous interface that provides a means of handling remote communication processing.

command
An instruction or request given by the user to the VIS software to perform a particular function. An entire command consists of the command name and options.

CompuLert/SCCS interface
An optional feature that enables remote or console monitoring of error messages generated from the Intuity CONVERSANT VIS. CompuLert is a centralized maintenance system for monitoring minicomputers, computer mainframes, etc. The Switching Control Center System (SCCS) is similar to the CompuLert system, but is used to support 4ESS local switching systems.

configuration
The arrangement of the software and hardware of a computer system or network. The Intuity CONVERSANT VIS configuration includes either a standard or custom processor, peripheral equipment (for example, printers, modems), and software applications. Configuration also refers to the way the switch network is set up; that is, the types of products that are in the network and how those products communicate.

configuration management
The component of the VIS that allows you to manage the current configuration of voice channels, host sessions, and database connections, assign scripts to run on specific voice channels or host sessions assign functionality to SP and T1 cards, and perform various maintenance functions.

Converse Data Return (conv_data)
A Script Builder action that supports the DEFINITY call vectoring (routing) feature by enabling the switch to retain control of vector processing in the VIS environment. It supports the DEFINITY "converse" vector command to establish a two-way routing mechanism between the switch and the VIS to facilitate data passing and return.

controller circuit card
A circuit card used on a computer system that controls its basic functionality and makes the system operational. These cards are used to control magnetic peripherals, video monitors, and basic system communications.

copying an application
A utility in which information from a source application is directed into the destination application.

coresidency
The ability of two products or services to operate and interact with each other on a single hardware platform. An example of this is the use of AUDIX Voice Power along with Intuity CONVERSANT on the same VIS platform.

CPU
See "central processing unit."

crash
An interactive utility for examining the operating system core and for determining if system parameters are being exceeded.

custom speech
Unique words or phrases to be used in Intuity CONVERSANT VIS voice prompts that AT&T records for a customer on a custom basis.

custom vocabulary
A specialized package of unique words or phrased created on a per-customer basis and used by WholeWord or FlexWord speech recognition.

Customer Information Control System
Part of the operating system that manages resources for running applications (for example, IND$FILE). Note that TSO and CMS provide analogous functionality in other host environments.

D

danger
An admonishment used when there is a possibility of personal injury.

data interface process
A software process that communicates with Script Builder applications.

database
A structured set of files, records, or tables.

database field
A field used to extract values from a local database and form the structure upon which a database is built.

database table
A structure, made up of columns and rows, that holds information in a database. Database tables provide a means of storing information that changes too often to "hard-code," or permanently store, in the transaction outline.

debug
The process of locating and correcting errors in computer programs. This process is also referred to as "troubleshooting."

default
The way a computer performs a task in the absence of other instructions.

default owner
The owner of a channel when no process takes ownership of that channel. The default owner holds all idle, in-service channels. In terms of the IRAPI, this is typically the Application Dispatch process.

diagnose
The process of performing diagnostics on Tip/Ring, T1, or SP circuit cards or a bus.

dialed number identification service
A service that allows incoming calls to contain information about the telephone number for which it is destined.

directory
A type of file used to group and organize other files or directories.

DNIS
See "dialed number identification service."

DIP
See "data interface process."

display errdata
A command that displays system errors sent to the logger.

DTMF
See “dual tone multi-frequency.”

dual 3270 links
A feature that provides an additional physical unit (PU) to allow a cost-effective means of connecting to two host computers. The customer can connect a VIS to two separate FEPs or to a single FEP shared by one or more host computers. Each link supports a maximum of 32 LUs.

dual tone multi-frequency
A touch tone.

dump space
An area of the disk that is fixed in size and should equal the amount of RAM on the system. The operating system “dumps” an image of core memory upon system crashes. The dump can be fetched after rebooting for analysis of what may have caused the crash.

E

editor system
A system that allows speech phrases to be displayed and edited by a user. See “Graphical Speech Editor.”

Enhanced File Transfer
A feature that allows the transferring of files automatically between the Intuity CONVERSANT VIS and a synchronous host processor on a designated logical unit.

Enhanced Serial Data Interface
A software- and hardware-controlled method used to store data on magnetic peripherals.

error message
A message on the screen indicating that something is wrong and possibly suggesting how to correct it.

Error Tracker process
See “etStub.”

Ethernet
A name for a local area network that uses 10BASE5 or 10BASE2 coaxial cable and InterLAN signaling techniques.

etStub
A system process that processes pre-Version 3.1 error message logging requests. These requests are transformed and passed on to the “logdaemon” process.

event
The notification given to an application when some condition occurs.

external actions
Specific tasks and interfaces controlled by Intuity CONVERSANT VIS software that allow a Script Builder application script to invoke processes and interact with other products or services. For example, a Intuity CONVERSANT VIS application script can invoke AUDIX Voice Power functionality through the used of an external action within an application script.

F

feature
A function or capability of a product or an application within the Intuity CONVERSANT VIS.

feature package
An optionally purchased package that may contain both hardware and software resources, which provides additional functionality to a standard system.

feature_tst script package
A standard CONVERSANT VIS software program that allows a VIS user to perform self-tests of critical hardware and software functionality.

field
A “slot” in a VIS window that holds one column of information in a row.

file
A collection of data treated as a basic unit of storage.

file transfer
An option that allows you to transfer files interactively or directly to and from UNIX using the File Transfer System.

filename
Alphabetic characters used to identify a particular file.

FlexWord speech recognition
A type of speech recognition based on subword technology that recognizes phonemes or parts of words of American English vocabularies. See “subword technology.”

Form Filler Plus
An optional feature package that provides the capability for application scripts to record caller’s responses to prompts for later transcription and review.

function key
A key, labeled F1 through F8, on your keyboard to which the Intuity CONVERSANT VIS software gives special properties for manipulating the user interface.

G

Graphical Speech Editor
A window-driven, X Windows/Motif based, graphical user interface (GUI) that can be accessed to perform different functions associated with the creation and editing of speech files to be used by VIS applications.

H

hard disk drive
A high-capacity data storage/retrieval device that is located inside a computer platform. A hard disk drive stores data on nonremovable high-density magnetic media based on a predetermined format for retrieval by the system at a later date.

hardware
The physical components of a computer system. The central processing unit, disks, tape and floppy drives, etc., are all hardware.

hardware upgrade
Replacement of one or more fundamental platform hardware components (for example, the CPU or hard disk drive), but the existing platform and other existing optional circuit cards remain.

High Level Language Applications Programming Interface (HLLAPI)
An application programming interface that allows user to write custom applications that can communicate with the host via an API.

HLLAPI
See “High Level Language Applications Programming Interface.”

host computer
A computer linked to a network providing a range of services, such as database access and computation. The host computer operates in a time-sharing manner with other computers linked to it via the network.

I

iCk
The system integrity checking process.

idle channel
A channel that either has no owner or is owned by its default owner and is onhook.

IND$FILE
The standard SNA file transfer utility that runs as an application under CICS, TSO, and CMS. IND$FILE is independent of link-level protocols such as BISYNC and SDLC.

indexed table
A table that, unlike a nonindexed table, can be searched via a field name that has been indexed.

initialize
To start up the system for the first time.

Integrated Services Digital Network
A network that provides end-to-end digital connectivity to support a wide range of voice and data services.

Integrated Voice Processing circuit card
The IVP4 or IVP6 circuit card.

intelligent transfer protocol
A transfer protocol that monitors the line after dialing is complete to determine whether a busy, reorder (fast busy), or other failure has been encountered. It also recognizes when the extension is answered or if the extension is not answered after a specified number of rings.

interface
The access point of a system. With respect to the Intuity CONVERSANT VIS, the interface is designed to provide you with easy access to the software's capabilities.

interrupt
The termination of voice and/or telephony functions when some condition occurs.

Intuity Response Application Programming Interface
A library interface the provides a standard development interface for voice-telephony applications.

ipcs
A command that reports interprocess communication facilities status.

IRAPI
See "Intuity Response Application Programming Interface."

ISDN
See "Integrated Services Digital Network."

K

keyboard mapping
In emulation mode, this feature enables the keyboard to send 3270 keyboard codes to the host according to a configuration table set up during installation.

keyword spotting
A capability provided by WholeWord Speech Recognition that allows the VIS to recognize a single word in the middle of an entire phrase spoken by a caller in response to a prompt.

L

LAN
See "local area network."

library states
The state information about channel activities maintained by the IRAPI.

line side T1
A digital method of interfacing a Intuity CONVERSANT VIS to a PBX or switch using T1-related hardware and software.

listfile
An ASCII catalog that lists the contents of one or more talkfiles. Each application script is typically associated with a separate listfile. The listfile maps speech phrase strings used by application scripts into speech phrase numbers.

local area network
A data communications network in a limited geographical area. The local area network provides communications between computers and peripherals.

local database
A database residing on the Intuity CONVERSANT VIS.

logical unit
A type of SNA Network Addressable Unit.

logdaemon
System information and error logging process.

logger
See “logdaemon.”

logging on/off
Entering or exiting the Intuity CONVERSANT VIS software.

LU
See “logical unit.”

M

magnetic peripherals
Data storage devices that use magnetic media to store information. Such devices include hard disk drives, floppy disk drives, and cartridge tape drives.

main screen
The Intuity CONVERSANT VIS VERSION 5.0 screen from which you are able to enter System Administration or Voice System Administration.

maintenance process
A software process that runs temporary diagnostics.

Manual Configurator Program
A software program that resolves or blocks the allocation of CPU and memory resources for controlling and optional circuit cards.

masked event
An event that an application can ignore (that is, the application can ask not to be informed of the event).

master
A board that provides clock information to the TDM bus.

megabyte
A unit of memory equal to 1,048,576 bytes (1024 x 1024). It is often rounded to one million.

MergeOp
The file or files may pass through a conversion or merge operation to transform the information provided in them into a format which accomplishes the same purpose on the target system. At this time, those merge operations which are notated (*) are simply placeholders. Files with notated merge operations may be migrated without change or as **o.*files***. Some manual action may be required to configure the associated feature to mimic it's source system behavior.

Microsoft
A company that manufactures software products, primarily for IBM-compatible computers.

mirroring
A method of data backup that allows all of the data transactions to the primary hard disk drive to be copied and maintained on a second identical drive in near real time. If the primary disk drive crashes or becomes disabled, all of the data stored on it (up to 1.2 billion bytes of information) is accessible on the second mirrored disk drive.

MS-DOS
A personal computer disk operating system developed by the Microsoft Corporation.

MTC
See “maintenance process.”

multi-threaded application
A single process/application that controls several channels. Each thread of the application is managed explicitly. Typically this means state information for each thread is maintained and the state of the application on each channel is tracked.

MvDirToNew
The file or files are installed in a new location on the target system. For these entries, the second file/directory named is the target system location.

MvToNew
The file or files are migrated, but are installed with a different file name and/or in a different directory on the target system.

N

NetView
An optional feature package that transmits high-priority (major or critical) messages to the host as Operator-Generated Alerts (OGAs) over the 3270 host link. The NetView Alarm feature package does not require a dedicated LU.

new error logging environment
A more flexible and informative environment for logging errors and status messages (introduced in CONVERSANT VIS Version 3.1). Customer applications created earlier than V3.1 that log messages require conversion to this new environment.

new operating system
The UnixWare operating system being introduced in Intuity CONVERSANT VIS V5.0.

NoChange
The file or directory tree is migrated to the target system with no changes. When these files are reinstalled, they overwrite any like-named files that may be on the target system.

nonindexed table
A table that may be searched only in a sequential manner and that cannot be searched via a field name.

nonmasked event
An event that must be sent to the application. Generally, an event is nonmaskable if the application would likely encounter state transition errors by trying to ignore the event.

NoSave
The file or files is deliberately NOT migrated to the target system, even if it would have been preserved according to another operation coming later in the list.

null value
An entry containing no value. A field containing a null value is normally displayed as blank and is different from a field containing a value of zero.

O

obsolete hardware
Hardware that is no longer supported on Intuity CONVERSANT VIS V5.0.

on-line help
Messages or information that appear on the user's screen when a "function key" (F1 through F8) is pressed.

Operator Generated Alerts
System monitoring messages transmitted from the CONVERSANT VIS or other computer system to an IBM host computer that are classified as critical or major.

option
An argument used in a command line to modify program output by modifying the execution of a command. When you do not specify any options, the command will execute according to its default options.

ORACLE
A company that produces Relational Database Management software. It is also used as a generic term that identifies a database residing on a local or remote system that is created and maintained using an ORACLE RDBMS product.

P

PBX
See "private branch exchange."

PCM
See "pulse code modulation."

peripheral (device)
Equipment such as printers or terminals that is in addition to the basic processor.

permanent process
A process that starts and initializes itself before it is needed by a caller.

phoneme
A single basic sound of particular spoken language. The English language contains 40 phonemes that represent all basic sounds used with the language. As an example, the word "one" can be represented with three phonemes, "w" - "uh" - "n." Phonemes vary between languages because of guttural and nasal inflections and syllable constructs.

phrase filtering
The rejection of unrecognized speech. The WholeWord and FlexWord speech recognition packages can be programmed to reprompt the caller if the spoken response was not recognized by the VIS.

phrase tag
A string of up to 50 characters that identify the contents of a speech phrase used by an application script.

platform migration
See "platform upgrade."

platform upgrade
The process of replacing the existing platform with a new platform.

poll
A message sent from a central controller to an individual station on a multipoint network inviting that station to send if it has any traffic to send.

polling
A network arrangement whereby a central computer asks each remote location whether they wish to send information. This arrangement enables each user or remote data terminal to transmit and receive information on shared facilities.

port
A connection or link between two devices that allows information to travel to a desired location. See "telephone network connection."

Primary Rate Interface
An optional feature package that provides a digital interface capable both of receiving and originating telephone calls directly from/to an AT&T 4ESS switch.

private branch exchange
A private switching system, either manual or automatic, usually serving an organization, such as a business or government agency, and usually located on the customer's premises.

processor
In Intuity CONVERSANT VIS documentation, the computer on which UnixWare and Intuity CONVERSANT VIS software runs. In general, the part of the computer system that processes the data. Also known as the "central processing unit."

ps
A command that shows active processes. This command displays the process table and can be used to determine which processes are consuming large amounts of system resources, such as CPU time.

pseudo driver
A driver that does not control any hardware.

pulse code modulation
A digital modulation method of encoding voice signals into digital signals. See also “adaptive differential pulse code modulation.”

R

recovery
The process of using copies of the VIS software to reconstruct files that have been lost or damaged. See also “restore.”

remote database
The component of the VIS that provides access to information not currently on the VIS.

remote maintenance board
A Intuity CONVERSANT VIS board that is equipped standard on all new MAP/100 and MAP/40 platform purchases. This card, available with a built-in modem, allows remote personnel (for example, field support) to access all Intuity CONVERSANT VIS machines with a standard simplified process.

reports administration
The component of the VIS that provides access to system reports, including VIS call classification reports, call data detail reports, call data summary reports, message log reports, and traffic reports. In addition, if AUDIX Voice Power R2.1.1 is installed on your system, the reports administration component gives you access to AUDIX Voice Power reports.

restore
The process of recovering lost or damaged files by retrieving them from available backup tapes or from another disk device. See also “recovery.”

restore application
A utility that replaces a damaged application or restores an older version of an application.

reuse
The concept of reusing an existing system component after a software upgrade or platform migration.

roll back
To cancel changes to a database since the point at which changes were last committed.

rollback segment
A portion of the database that records actions that should be undone under certain circumstances. Rollback segments are used to provide transaction rollback, read consistency, and recovery.

S

sar
A command that is associated with the system activity report package.

screen pop
A method of delivering a screen of information to a telephone operator at the same time a telephone call is delivered. This is accomplished by a complex chain of tasks that include identifying the calling party number, using that information to access a local or remote ORACLE database, and pulling a "form" full of information from the database using an ORACLE database utility package.

script
The set of instructions for the Intuity CONVERSANT VIS to follow during a transaction.

Script Builder
An optional software package that provides a menu-oriented interface designed to assist in the development of custom voice response applications on the VIS.

SCSI
See "Small Computer System Interface."

shared database table
A database table that is used in more than one application.

shared speech
Speech that is a part of more than one application.

shared speech pools
A parameter that allows the user of a voice application to share speech components with other applications.

Single Inline Memory Modules
A method of containing random access memory (RAM) chips on narrow circuit card strips that attach directly to sockets on the CPU circuit card. Multiple SIMMs are sometimes installed on a single CPU circuit card.

single-threaded application
An application that runs on a single voice channel.

slave
A circuit card that depends on the TDM bus for clock information.

Small Computer System Interface
A disk drive control technology in which a single SCSI adapter card plugged into a PC slot is capable of controlling as many as seven different hard disks, optical disks, tape drives, etc.

software
The set or sets of programs that instruct the computer hardware to perform a task or series of tasks — for example, UnixWare software and the Intuity CONVERSANT VIS Version 5.0 software.

software upgrade
The installation of a new version of software. The existing platform and circuit cards are kept.

source system
The system from which you are upgrading (that is, your system as it exists *before* you upgrade).

speech energy
The amount of energy in an audio signal. Literally translated, it is the output level of the sound in every phonetic utterance.

speech envelope
The linear representation of voltage on a line. It reflects the sound wave amplitude at different intervals of time. This envelope can be plotted on a graph to represent the oscillation of an audio signal between the positive and negative extremes.

speech file
A file containing an encoded speech phrase.

speech filesystem
A collection of several talkfiles. The filesystem is organized into 16-Kbyte blocks for efficient management and retrieval of talkfiles. The Intuity CONVERSANT VIS speech filesystem is not consistent with standard UNIX filesystems, and can not be referenced with standard UNIX commands such as **ls**, **cat**, etc.

speech modeling
Creating WholeWord speech recognition algorithms by collecting thousands of different speech samples of a single word and comparing them all to obtain a statistical average of the word. This average is then used by a WholeWord speech recognition program to recognize a single spoken word.

speech phrase
A continuous speech segment encoded into a digital string.

speech space
An area that contains all digitized speech used for playback in the applications loaded on the system.

standard speech
The speech package containing simple words and phrases produced by AT&T for use with an Intuity CONVERSANT VIS. This package includes digits, numbers, days of the week, and months, each spoken with initial, medial, and falling inflection. The speech is in digitized files stored on the hard disk to be used in the voice prompts played by the VIS.

standard vocabulary
A standard package of simple word speech models provided by AT&T and used for WholeWord speech recognition purposes. These phrases include the digits “zero” through “nine,” “yes,” “no,” and “oh.”

string
A contiguous sequence of characters treated as a unit. Strings are normally bounded by white spaces, tabs, or a character designated as a separator. A string value is a specified group of characters symbolized by a variable.

Structured Query Language
A standard data programming language used with data storage and data query applications.

subword technology
A method of speech recognition that recognizes phonemes or parts of words of American English vocabularies. See “whole-word technology.”

SvAsOld
The file or files in the directory tree are migrated to the target system (in the same directory), but are found on the target system with the name **o.*file***.

SvNotFiles
The file or files in the directory tree are migrated without change only if they do not "belong" to an Intuity CONVERSANT software package which is currently installed on the source system. When these files are reinstalled, they overwrite any like-named files that may be on the target system.

SvOldNotFiles
The file or files are migrated as **o.*files*** only if they do not "belong" to an Intuity CONVERSANT software package that is currently installed on the source system.

switch
A software and hardware device that controls and directs voice and data traffic. A customer-based switch is known as a "private branch exchange."

switch hook
The device at the top of most telephones that is depressed when the handset is resting in the cradle (on hook). The device is raised when the handset is picked up (the telephone is off hook).

switch hook flash
A signaling technique in which the signal is originated by momentarily depressing the "switch hook."

switch interface administration
The component of the VIS that enables you to define the interaction between the VIS and switches by allowing you to establish and modify switch interface parameters and protocol options for both analog and digital interfaces.

switch network
Two or more interconnected switching systems.

synchronous communication
A method of data transmission in which bits or characters are sent at regular time intervals, rather than being spaced by start and stop bits. See also "asynchronous communication."

System 75
An advanced digital switch supporting up to 800 lines that provides voice and data communications for its users.

System 85
An advanced digital switch supporting up to 3000 lines that provides voice and data communications for its users.

system administrator
The person assigned the responsibility of monitoring all VIS software processing, performing daily system operations and preventive maintenance, and troubleshooting errors as required.

system architecture
The manner in which the Intuity CONVERSANT VIS software is structured.

system message
An event or alarm generated by either a VIS or end-user process.

system monitor
A component of the VIS in which tests are performed to verify that each incoming telephone line and its associated tip/ring or T1 card is functional. Through the "System Monitor" component, you are able to see displays of the Voice Channel and Host Session Monitors.

T

T1
A digital transmission link with a capacity of 1.544 Mbps.

table
A collection of records that are logically grouped together.

talkfile
An ASCII file that contains the speech phrase tags and phrase tag numbers for all the phrases of a specific application. The speech phrases are organized and stored in groups. Each talkfile can contain up to 65,535 phrases and the speech filesystem can contain multiple talkfiles.

target system
The system to which you are upgrading (that is, your system as you expect it to exist *after* you upgrade).

TDM
See "time-division multiplex."

telephone network connection
The point at which a telephone network connection terminates on an Intuity CONVERSANT VIS. Supported telephone connections are Tip/Ring and T1.

Terminal Emulator
Software that allows the VIS to temporarily transform itself into a "look alike" of an IBM 3270 terminal. In addition to providing full 3270 functionality, the Terminal Emulator enables you to transfer files to and from UNIX.

Text-to-Speech
An optional feature that allows an application to play speech directly from ASCII text by converting that text to synthesized speech. The text can be used for prompts or for text retrieved from a database or host, and can be spoken in an application with prerecorded speech. Text-to-Speech application development is supported through Script Builder.

ThickNet
A 10-millimeter (10BASE5) coaxial cable used to provide InterLAN communications.

ThinNet
A 5-millimeter (10BASE2) coaxial cable used to provide InterLAN communications.

time-division multiplex
A method of serving a number of simultaneous channels over a common transmission path by assigning the transmission path sequentially to the channels, with each assignment being for a discrete time interval.

Tip/Ring
A term used to denote analog telecommunications using four-wire media.

Token/Ring
A ring type of local area network that allows any station in the network to communicate with any other station.

trace
A command that can be used to monitor the execution of a script.

traffic
The flow of information or messages through a communications network for voice, data, or audio services.

transaction
Comprised of the exchanges between the caller and the voice system. A transaction can involve one or more telephone network connections and voice responses from the Intuity CONVERSANT VIS. It can also involve one or more of the VIS optional features, such as speech recognition, 3270 host interface, FAX response, etc.

transaction state machine process
A multi-channel IRAPI application that runs applications driven by script information.

transient process
A process that is created dynamically only when needed.

TransOp
The file or files may pass through a conversion or merge operation to transform the information provided in them into a format which accomplishes the same purpose on the target system. At this time, those merge operations which are notated (*) are simply placeholders. Files with notated merge operations may be migrated without change or as **o.*files***. Some manual action may be required to configure the associated feature to mimic it's source system behavior.

troubleshoot
The process of locating and correcting errors in computer programs. This process is also referred to as debugging.

TSM
See “transaction state machine process.”

TTS
See “Text-to-Speech.”

U

UNIX Operating System
A multiuser, multitasking computer operating system developed by the Bell Telephone Laboratories division of AT&T.

UNIX shell
The command language that provides a user interface to the UNIX operating system.

upgrade image tape
A tape, optionally provided to you by the Technical Service Organization, containing the new operating system and Intuity CONVERSANT VIS V5.0 base software in a standard configuration which is compatible with your target system.

upgrade scenario
The particular combination of current hardware, software, application and target hardware, software, applications, etc.

V

vi editor
A screen editor used by the Intuity CONVERSANT VIS to create and change electronic files.

virtual channel
A channel that is not associated with an interface to the telephone network (Tip/Ring, T1, or PRI). Virtual channels are intended to run "data only" applications which do not interact with callers but may interact with DIPs. Voice or network functions (for example, coding or playing speech, call answer, origination, or transfer) will not work on a virtual channel. Virtual channel applications may be initiated only by a "virtual seizure" request to TSM from a DIP.

VIS
See "Voice Information System."

vocabulary
A collection of words that a VIS is able to recognize using either WholeWord or FlexWord speech recognition.

vocabulary activation
The set of active vocabularies that define the words and wordlists known to the FlexWord recognizer.

vocabulary loading
The process of copying the vocabulary from the system where it was developed and adding it to the target system.

voice channel
A channel that is associated with an interface to the telephone network (Tip/Ring, T1, or PRI). Any Intuity CONVERSANT VIS application can run on a voice channel. Voice channel applications may be initiated by being assigned to particular voice channels or dialed numbers to handle incoming calls or by a "soft seizure" request to TSM from a data interface process (DIP) or the **soft_szr** command.

Voice Information System
A computer connected to a telephone network that handles touch-tone input, voice response, and line transfer. The Voice Information System uses a screen-based, menu-driven user interface to interact with the system operator or administrator.

voice processing co-marketer
A company licensed to purchase voice processing equipment, such as the Intuity CONVERSANT VIS, to market and sell based on their own marketing strategies.

voice response output process
A software process that transfers digitized speech between system hardware (for example, Tip/Ring and SP cards) and data storage devices (that is, hard disk, etc.)

Voice System Administration
The means by which you are able to administer both voice- and nonvoice-related aspects of the system.

VROP
See “voice response output process.”

W

warning
An admonishment used when there is a possibility of equipment damage.

WholeWord speech recognition
An optional feature based on whole-word technology that provides speaker independence, connected digit recognition, key word spotting, prompt interrupt, and DTMF support functionality. See “whole-word technology.”

whole-word technology
The ability to recognize an entire word, not the phoneme or a part of a word. See “subword technology.”

wink signal
An interruption of current to a busy lamp indicating that there is a line on hold.

word
A unique utterance understood by the recognizer.

wordlist
A set of words identified by a wordlist name. If the wordlist is part of an active vocabulary, the wordlist name appears as a recognition type in the Prompt & Collect mode field.

word spotting
The ability to search past extraneous speech during a recognition.

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