Chapter 6 – Utilities

Utilities Overview

Use the *Utilities* tab functions to exchange data with CDC and to maintain VACMAN database tables for optimal performance. Access these functions from the *VACMAN At a Glance - Utilities* tab or the **Utilities** menu options. The following table describes these functions.

Function	Description	Recommended Frequency
Exchange Data with the CDC via the Internet	Receive status updates from CDC, and transmit new orders to CDC, via the CDC Secure Data Network (SDN).	Daily
Backup Database Tables	Make a copy of your current data. (*****) The person performing this function must have exclusive access to the VACMAN system; other users must exit the system.	Daily; especially after Exchanges
Pack Database Tables	Delete VACMAN records that have been marked for deletion. The person performing this function must have exclusive access to the VACMAN system; other users must exit the system.	Weekly
Restore Database Table(s) from a Back up file	Retrieve the most recent backup copy of your data. Do this in the event of data corruption or system malfunction. (*****) The person performing this function must have exclusive access to the VACMAN system; other users must exit the system.	As needed
Data Doctor	Do any of the following: Search for corrupted tables, re-index tables, and re-calculate inventory. The person performing this function must have exclusive access to the VACMAN system; other users must exit the system.	As needed
Display VACMAN file locations	View your current VACMAN system version number, and the locations of your VACMAN database, configuration and other files, and system resources.	As needed
Run another program – Area Code	Make mass changes to telephone numbers in your system when the telephone company changes or adds area codes. The person performing this function must have exclusive access to the VACMAN system; other users must exit the system.	As needed
Run another Program – Surgery	Involves direct access to your database. Contact the VACMAN Help Desk for assistance. The person performing this function must have exclusive access to the VACMAN system; other users must exit the system.	As needed
Import Data into VACMAN	Bring data into VACMAN; e.g., from a spreadsheet. The person performing this function must have exclusive access to the VACMAN system; other users must exit the system.	As needed
Export Data from VACMAN	Send data from VACMAN; e.g., to a spreadsheet. The person performing this function must have exclusive access to the VACMAN system; other users must exit the system.	As needed

(*****) The CDC VACMAN team **cannot restore** databases. Your project must keep current backups in order to restore your database.

Figure 6 –1. Utilities tab.
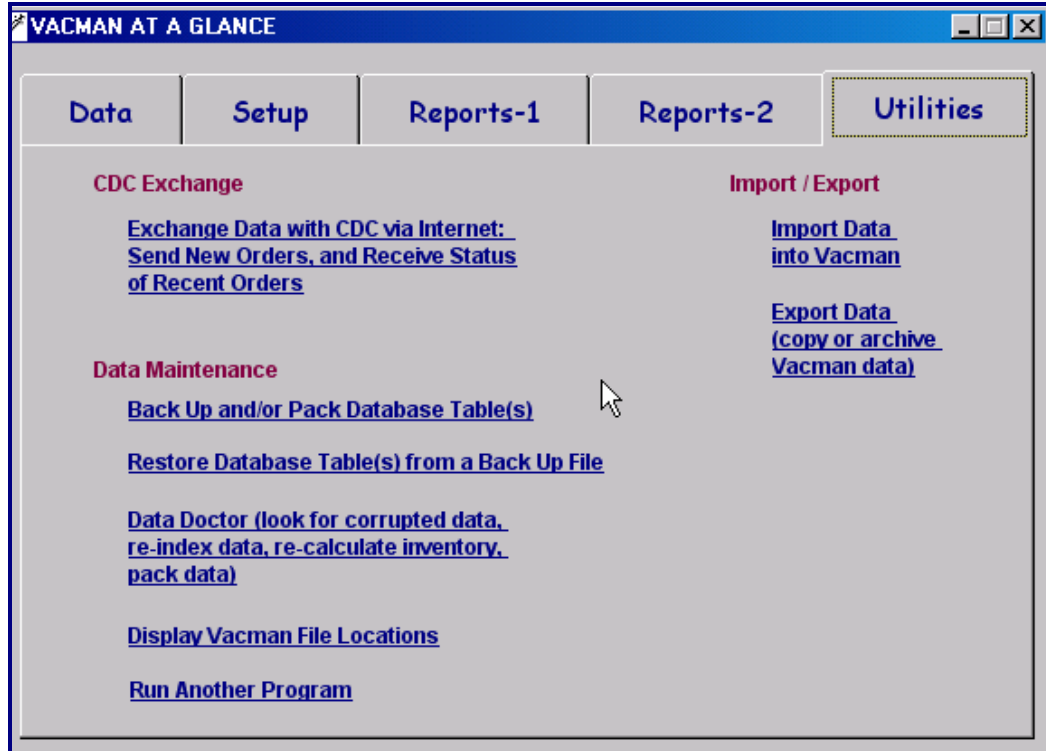
Data Maintenance

Backup and Pack Database Tables

These two functions, backup database tables and pack database tables, share the same screen. Back up data on a daily basis, especially after exchanges with CDC. Pack data at least weekly.

- The VACMAN backup function backs up files in your database.
- The VACMAN pack function purges records that you have marked for deletion.
- Backup and pack functions can be performed either independently or together.

When you perform a restore function, the system automatically prompts you through an additional backup and pack before the restoration begins.

If you are not able to perform the backup or pack function, contact the VACMAN Help Desk.

Note: The CDC VACMAN team **cannot restore databases**. Your project must keep current backups, in the event that you have to restore your database.

Figure 6 –2. Backup and Pack Databases screen, both functions selected.

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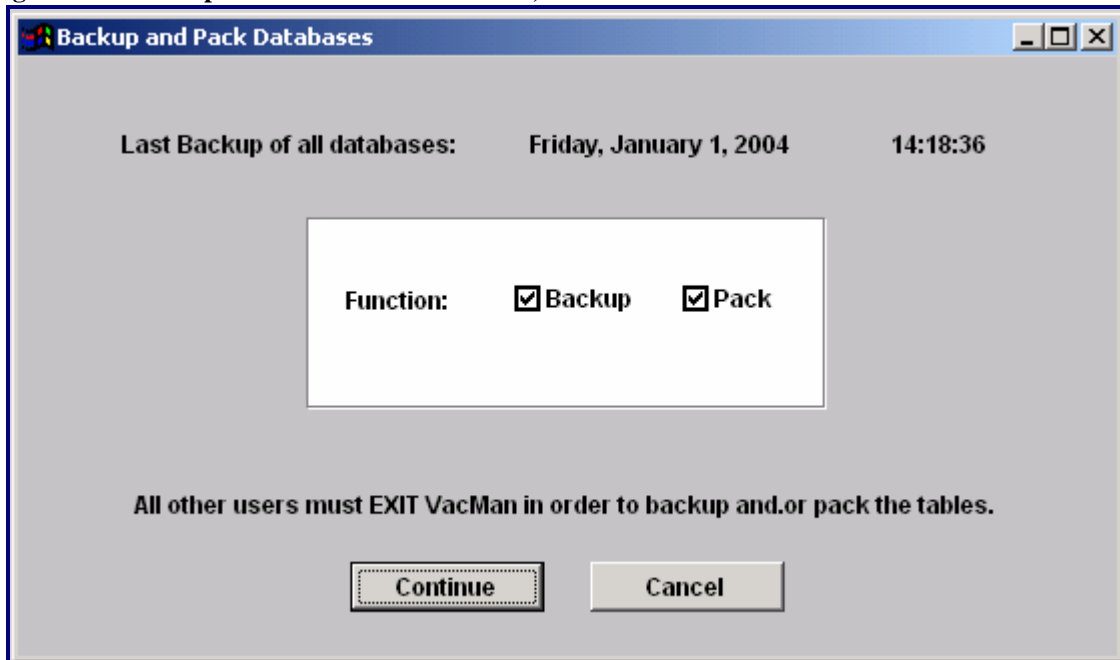
Backing Up Database Tables

System and power failure, transmission failure, user error, and other events can cause loss or corruption of your data. As a precaution against those instances, the backup function copies all VACMAN tables onto your servers. Your most recent backup is what you retrieve when you need to restore data.

The more current the backup, the less data you lose.

Notes:

- The VACMAN team recommends that you backup after each exchange of data with CDC. This ensures that your system would reflect current order status after a restore.
- The VACMAN team recommends that you backup at least once a day; e.g., at close of business, regardless of whether you exchanged data.
- The system prompts you through a backup when you perform the restore function.
- The VACMAN team recommends backing up prior to certain other VACMAN functions. The backup function is referenced in the applicable topics.

Unless you specify otherwise, the system stores backup files in your project's VACMAN data directory.

Backup file names

Each backup routine copies all of your VACMAN tables into a **.ZIP** file. The VACMAN system automatically names each backup file according to the current date. The file name format is: yyyymmdd.zip .

However, if you perform multiple backups on one day, rename each backup file with a unique, identifiable name. Include the date, but incorporate the time, or such identifiers as POSTX (after exchange of data with CDC) or COB (close of business day).

Examples: yyyymmddpostx.zip, yyyymmddcob.zip

Use these instructions to back up your database tables.

Prerequisite

The person performing this function must have exclusive access to the VACMAN system. This means that no other users should be logged in to the system during the process.

Step	Action
1	Ensure that no other users are logged into the VACMAN system.
2	On the *VACMAN At a Glance* screen, click the *Utilities* tab. **Result:** The system displays the *Utilities* tab.
3	On the *Utilities* tab, click the **Backup and/or Pack Database Table(s)** option. **Result:** The system displays the *Backup and Pack Databases* screen. The screen indicates the date of the last backup of all databases.
4	On the *Backup and Pack Databases* screen, click the **Backup** check box. **Note:** You can choose both the **Backup** and **Pack** functions. If you do, the system performs the backup routine first. See the previous topic.
5	Click the **Continue** button. **Results:** The system does the following: • Indicates that each of these functions apply to all databases. Click the **OK** button. • Displays a standard Windows® *Save As* screen. It indicates the system's default backup file name and location. The default file name is yyyymmdd.zip.

Step	Action
6	On the *Save As* screen, do any of the following: • Accept the default backup location and file name. • Navigate to another backup location. To do this, click the **Open** button; then navigate to the appropriate destination. The VACMAN team recommends that you do not backup to the C drive. • Give a unique name to backup files that are generated on the same date.
7	On the *Save As* screen, click the **Save** button. **Result:** The system does the following: • Indicates that that the system is preparing files for backup. • Prompts you to make certain other users have exited the VACMAN system; click the **OK** button to continue. • Indicates the progress of the archiving process. • Indicates that the backup is complete.
8	Do each of the following: • Click the **OK** button to close the indicator box. • Press the **Cancel** button to exit the backup function. **Note:** If you selected both the **Backup** and **Pack** check boxes, the system immediately begins the pack process. Go to the next topic, "Packing Database Table(s)."

Packing Database Tables

The pack function deletes all records that have been marked for deletion, and then re-indexes the database tables. This function optimizes VACMAN performance by eliminating unneeded records.

As you work with VACMAN records, use the **Delete** ✗ button to mark unneeded records. The system does not actually purge them until you perform this pack routine.

Note: The VACMAN system handles <u>vaccine orders</u> that are marked for deletion differently. They are purged each time you exchange data with CDC.

Use these instructions to pack your database.

Prerequisite

The person performing this function must have exclusive access to the VACMAN system. This means that no other users should be logged in to the system during the process.

Step	Action
1	Ensure that no other users are logged into the VACMAN system.
2	On the *VACMAN At a Glance* screen, click the *Utilities* tab. **Result:** The system displays the *Utilities* tab.
3	On the *Utilities* tab, click the **Backup and/or Pack Database Table(s)** option. **Result:** The system displays the *Backup and Pack Databases* screen.
4	On the *Backup and Pack Databases* screen, click the **Pack** check box. **Note:** You can choose both the **Backup** and **Pack** functions. If you do, the system performs the backup routine first; see the previous topic.
5	On the *Backup and Pack Databases* screen, with only the **Pack** box checked, click the **Continue** button. **Result:** The system does the following: • Purges all records that have been marked for deletion • Displays progress indicator messages • Displays a progress complete message
6	Do each of the following: • Click the **OK** button to close the message box. • Press the **Cancel** button to exit the backup function.

Restoring Data

System and power failure, transmission failure, user error, and other events can cause loss or corruption of your data. As a precaution against those instances, the backup function copies all VACMAN tables onto your servers. Your most recent backup is what you retrieve when you need to restore data.

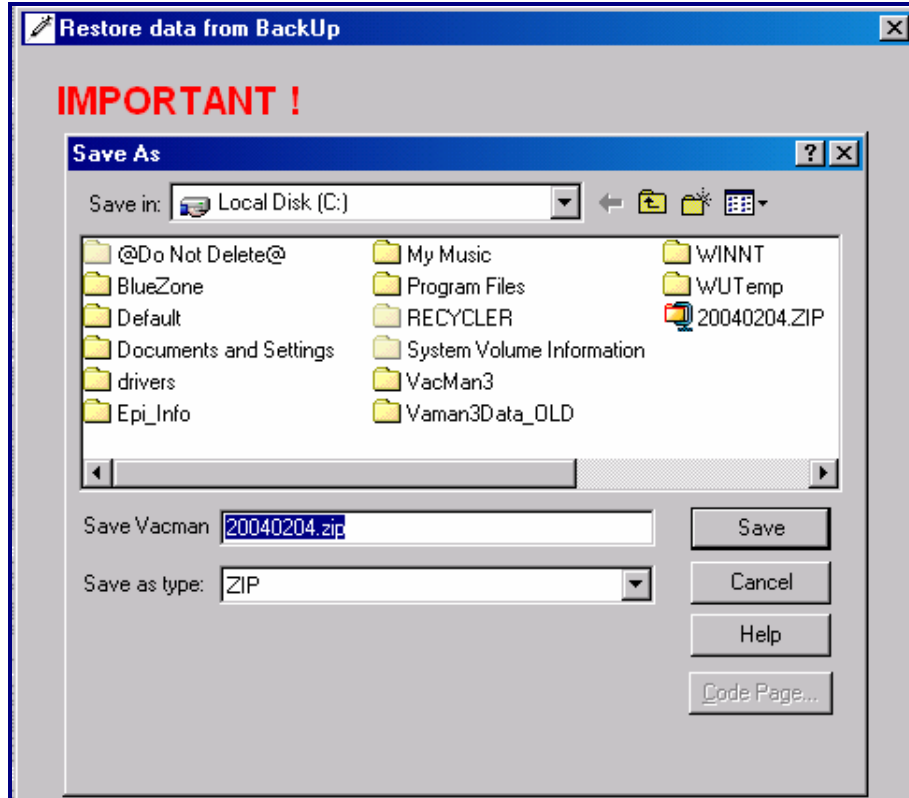**The more current the backup, the less data you lose.**

Use these instructions to restore your data.

Prerequisite

The person performing this function must have exclusive access to the VACMAN system. This means that no other users should be logged in to the system during the process.

Step	Action
1	Ensure that no other users are logged into the VACMAN system.
2	On the *VACMAN At a Glance* screen, click the *Utilities* tab. **Result:** The system displays the *Utilities* tab.
3	On the *Utilities* tab, click the **Restore Database Tables(s) from a Backup File** option. **Result:** The system does the following: • The system automatically initiates a pre-restore backup and pack procedure. • The system superimposes a *Save As* screen over the *Restore data from Backup* screen. The *Save As* screen displays the default save-to location and file name. • The system cautions you that backing up only to the C drive can result in loss of the backup. To save to a different location, see Step 4; otherwise go to Step 5.

Figure 6 –3. Save As screen, superimposed over Restore data from Backup screen (Steps 1-3)**.**

Step	Action
4	On the *Save As* screen, do any of the following: • To save the backup file to a different location, navigate to the appropriate location. • To change the default backup file name, key a unique name for this backup file in the *Save Vacman* field. Do this if more than one backup file is being generated for the current date.
5	On the *Save As* screen, click the **Save** button to continue. **Result:** The system does the following: • Indicates that that the system is preparing files for backup. • Prompts you to make certain other users have exited VACMAN. Click the **OK** button to continue. • Indicates the progress of the archiving process. • Indicates that the backup is complete.
6	Click the **OK** button to close the indicator box. **Result:** The *Restore data from Backup* screen is accessible.

Figure 6 –4. Restore data from Backup screen (Steps 7-10)**.**
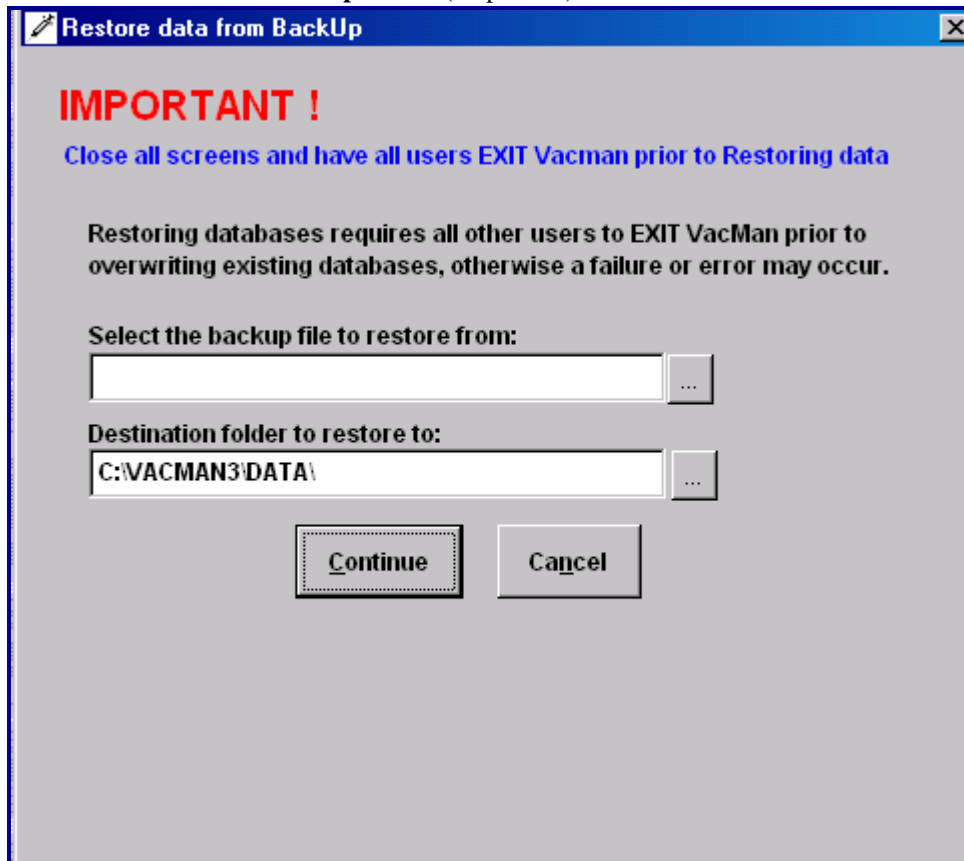
Step	Action
7	On the *Restore data from Backup* screen, select the top [...] button, **Select the backup file to restore from**. **Result:** The system displays a file selection screen, *Open*.
8	On the *Open* screen, navigate to, and select, the zip file that is your most recent backup. This is the data that the function will restore to your VACMAN system. Then click the **Select** button.

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Step	Action
9	The VACMAN team recommends that you restore the backup data to the default folder, which displays in the *Destination folder to restore to:* field.
	If you need to restore to a different location, contact the VACMAN Help Desk for assistance.
10	Click the **Continue** button.
	Result: The system does the following:
	• Indicates the progress of the restore process.
	• Indicates that the restore process is complete.
11	Click the **OK** button to close the indicator box.

Data Doctor

The data doctor utility provides the ability to search for corrupted tables, re-index tables, and recalculate inventory. You can perform these functions in any combination or independently. You also can select whether to perform these functions on all database tables, or on selected database tables.

Prerequisite

The person performing this function must have exclusive access to the VACMAN system. This means that no other users should be logged in to the system during the process.

Figure 6 –5. Data Doctor screen.
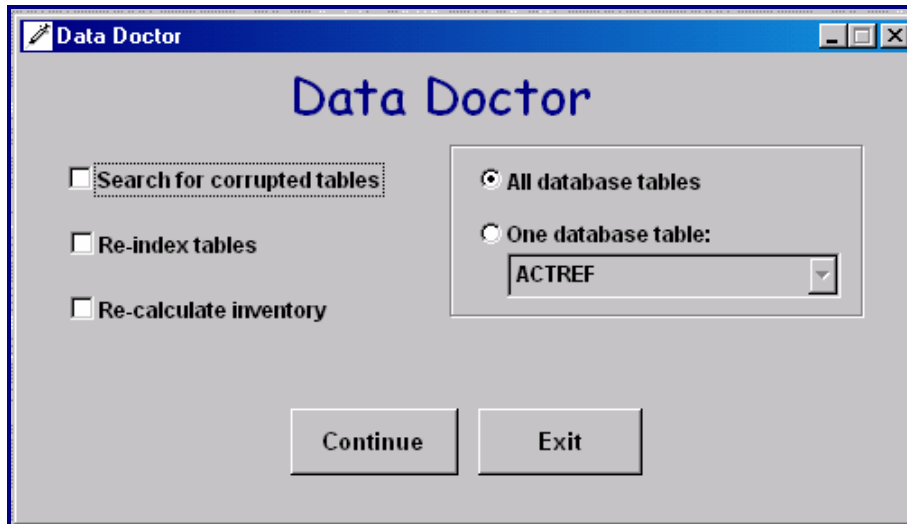
Search for Corrupted Tables

Corrupted tables occur when the table's record count is different from the physical number of records in the table. When this occurs, the VACMAN system displays the message "Not a table/dbf." When you select the Data Doctor *Search for corrupted tables* check box, and click the **Continue** button, the system searches and fixes either all, or selected, corrupted tables.

Re-Index Tables

*.CDX represents an index file. While index files have the same name as their database files, each index file contains a key that is separate from its database table. The *Re-Index Tables* field re-creates index files for the database tables you select. If table navigation does not operate properly, your index files probably are corrupted and you need to re-index them.

Recalculate Inventory

Note: The VACMAN team recommends that you perform a backup immediately before you recalculate inventory.

When you recalculate inventory, the VACMAN system automatically replaces your old data files with new, recalculated data files. These changes are permanent, and are recoverable only by restoring your entire system from your last backup.

Display File Locations

The *File Locations* screen displays information and locations of important VACMAN application files.

Figure 6 –6. File Locations screen.
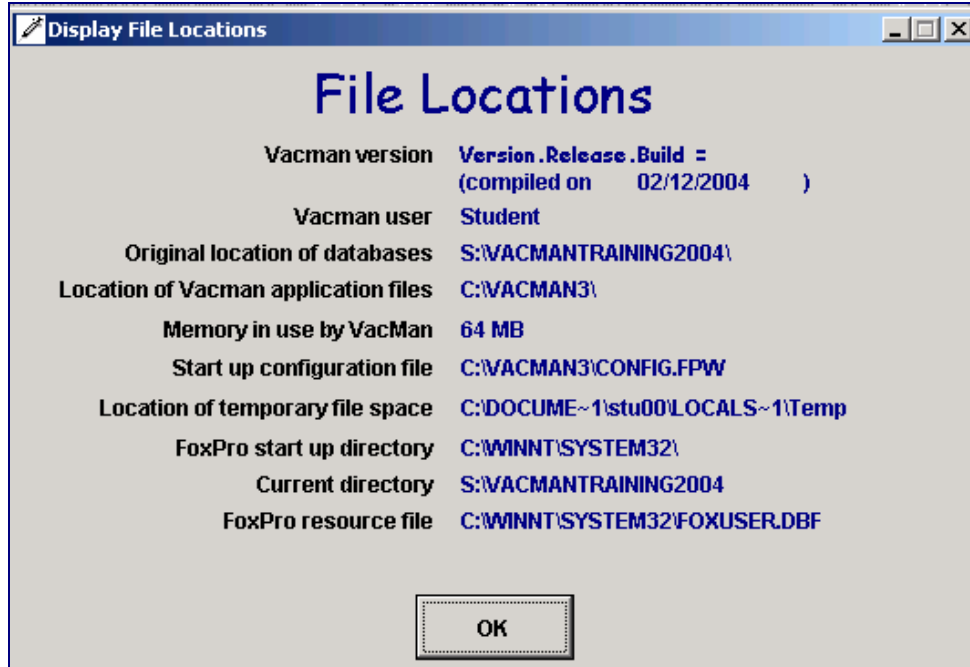
The VACMAN technical support team uses this data to help you troubleshoot. Information on the *File Location*s screen includes:

- The version of VACMAN
- The user who is currently logged onto VACMAN
- The file location of the VACMAN database files (C drive is not recommended)
- The location of the VACMAN application files
- The amount of physical memory used by VACMAN
- The location of the VACMAN startup configuration file
- The location of temporary file space
- The location of the FoxPro start up directory
- The location of the current VACMAN directory (C drive is not recommended)
- The location of the FoxPro resource file

Run Another Program (Area Codes, Surgery)

The *Run Another Program* screen provides access to two functions that are of occasional use.

Area Code – Allows mass updates to telephone area codes. Use this feature when the telephone company reassigns telephone number prefixes to different area codes.

Surgery – Allows direct access to VACMAN database tables. This feature requires the assistance of the VACMAN Help Desk.

Figure 6 –7. Run Another Program screen.
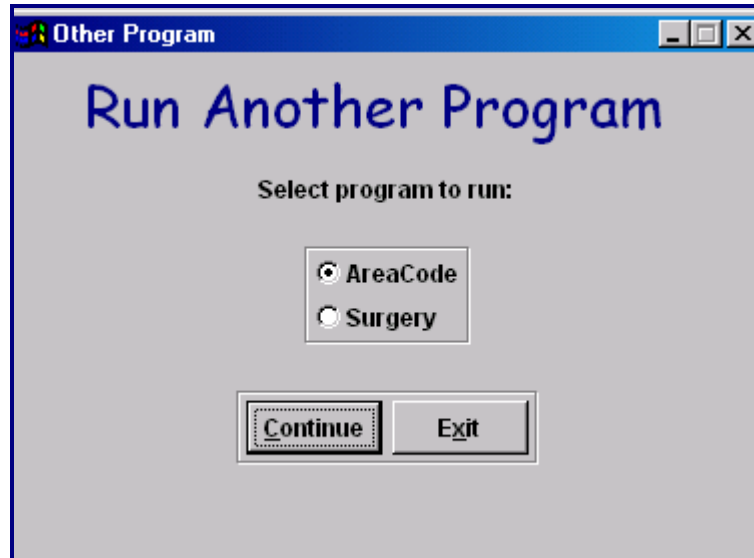
Running Another Program

Prerequisite

The person performing either of these functions must have exclusive access to the VACMAN system. This means that no other users should be logged in to the system during the process.

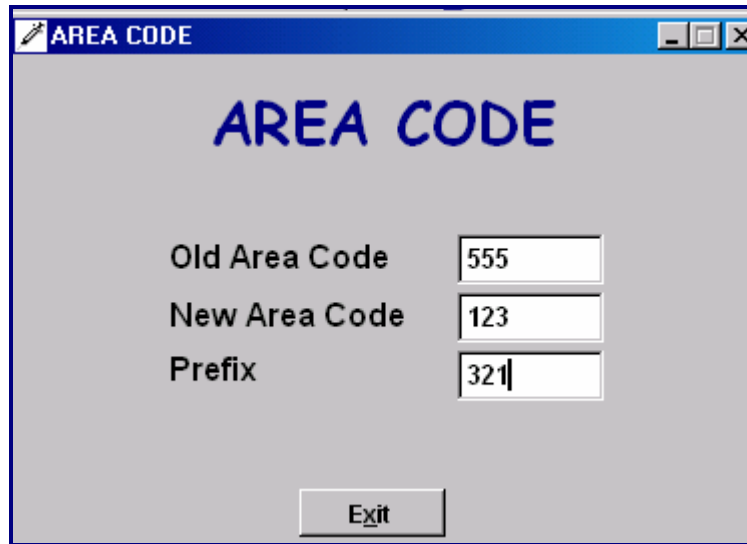| Step	Action
1	Ensure that all other users have exited the VACMAN system.
2	On the *VACMAN At a Glance* screen, click the *Utilities* tab.
3	On the *Utilities* tab, click the **Run Another Program** option.
4	On the *Run Another Program* screen, click either the **Area Code** button or the **Surgery** button, then click the **Continue** button.

Area Code Utility screen

This screen accesses functions that allow you to make mass updates to telephone area codes based on prefixes. Use this utility when the telephone company reassigns prefixes to different area codes.

The buttons on the *Area Code Utility* screen are in logical top-to-bottom order, and reflect the five phases of the process.

Phase	Button and Description
1	**Add/Edit/Delete Area Code Records** Add, edit or delete one area code and its replacement; specify the one, applicable prefix.
2	**Update VACMAN Providers using Area Code Records** Update the affected telephone numbers throughout your database.
3	**Delete All Area Code Records (Start a New Record set)** Delete the temporary file containing the current set of old and new area codes and prefix. This allows you to work with another set of area codes and prefix.
4	**Pack and Re-Index Area Cord Records** When all changes have been made, use the last button to delete records that are now obsolete, and re-structure your Area Code table
5	**Exit** Use this button to exit the screen.

Notes:

- This function assumes that the phone number prefix (the second set of three digits in a seven-digit phone number) remains constant.

- This function is not appropriate for editing the number for an individual provider. Use the *Enroll Provider* screen - *Addresses* tab to edit contact information for an individual provider.

Figure 6 –8. Area Code Utility screen.
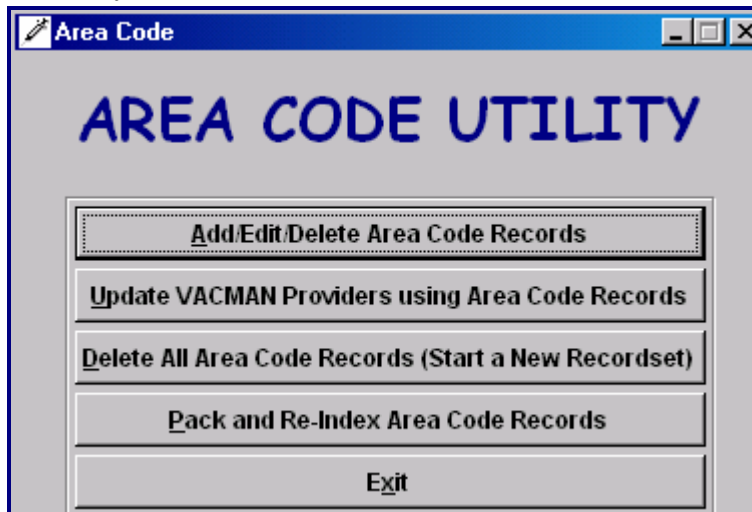
Making Mass Updates to Telephone Area Codes

Use the **Add/Edit/Delete Area Code Records** button to enter mass updates to telephone number area codes.

Examples:
- All telephone number prefixes in area code 555 need a different area code. Enter the old and new area codes, and each affected prefix, to make this change.

- Some telephone number prefixes in area code 555 get a different area code; e.g., area codes 555 with a prefix of 123 (555-123-xxxx) become 999-123-xxxx. Enter the old and new area codes, and the affected prefix, to make this change.

Step	Action
1	Ensure that all other users have exited the VACMAN system.
2	On the *VACMAN At a Glance* screen, click the *Utilities* tab. **Result:** The system displays the *Utilities* tab.
3	On the *Utilities* tab, click the **Run Another Program** option. **Result:** The system displays the *Other Program* screen.
4	On the *Other Program* screen, click the **Area Code** button. **Result:** The system displays the *Area Code Utility* screen.
5	On the *Area code Utility* screen, click the **Add/Edit/Delete Area Code Records** button. **Result:** The system displays the *Area Code* screen, along with the VACMAN toolbar.
6	On the *Area Code* screen, click the **Add** ✛ button on the VACMAN toolbar. **Result:** The system opens the enterable fields.
7	Enter the current (old) area code. This is the area code you need to replace.
8	Enter the replacement (new) area code.

Figure 6 –9. Area Code Utility screen.

Making Mass Updates to Telephone Area Codes (Continued)

Step	Action
10	Enter the three-digit prefix that is affected by the change in area code.
11	On the VACMAN toolbar, click the **Save** 💾 button. **Result:** The system saves the change you specified to a temporary file. The system has not updated the database.
12	On the *Area Code* screen, click the **Exit** button. **Result:** The system returns you to the *Area Code Utility* screen.
13	Repeat these steps for each area code change you need to make.
14	If you need to edit or delete any of the changes you entered, use the VACMAN toolbar **Edit** 📝 button and **Delete** ❌ button.
15	When you have entered all area code changes affected by the telephone company's change, re-access the *Area Code Utility* screen. Click the **Update VACMAN Providers using Area Code Records** button. **Result:** The system scans all provider telephone numbers in your database, and updates all records affected by the changes indicated in the temporary file (see Step 11). The system indicates its progress and notifies you when the updates have been completed.
16	Verify provider records to ensure that the desired changes occurred. If No, see Step 14. If Yes, see Step 15.
17	On the *Area Code Utility* screen, click the **Delete All Area Code Records (Start a New Record Set)** button. **Result:** The system marks for deletion the records you saved to the temporary file during this maintenance session (see Step 11). An informational message instructs you to Pack and Re-Index to complete the deletion (see Step 18).
18	On the *Area Code Utility* screen, click the **Pack and Re-Index Area Code Records** button. **Result:** The system does the following: • Empties the temporary file (see Steps 11 and 17). • Reorganizes your Area Codes table.

Surgery

Some issues can be resolved only with the VACMAN Surgery function, which allows users direct access to the project's VACMAN database. You can add, change, and delete data as required.

Surgery requires the assistance of the VACMAN Help Desk for the following reasons:

- It is a password-protected function, and the password changes every day.

- A manual edit of the database must not occur without an analysis of the potential impact throughout the database. Only a VACMAN programmer can perform this analysis.

All other users, other than the person performing the surgery, must exit the VACMAN system during this function.

Contact the VACMAN Help Desk for further information about, and assistance with, this function.

Figure 6 –10. Surgery Password screen.
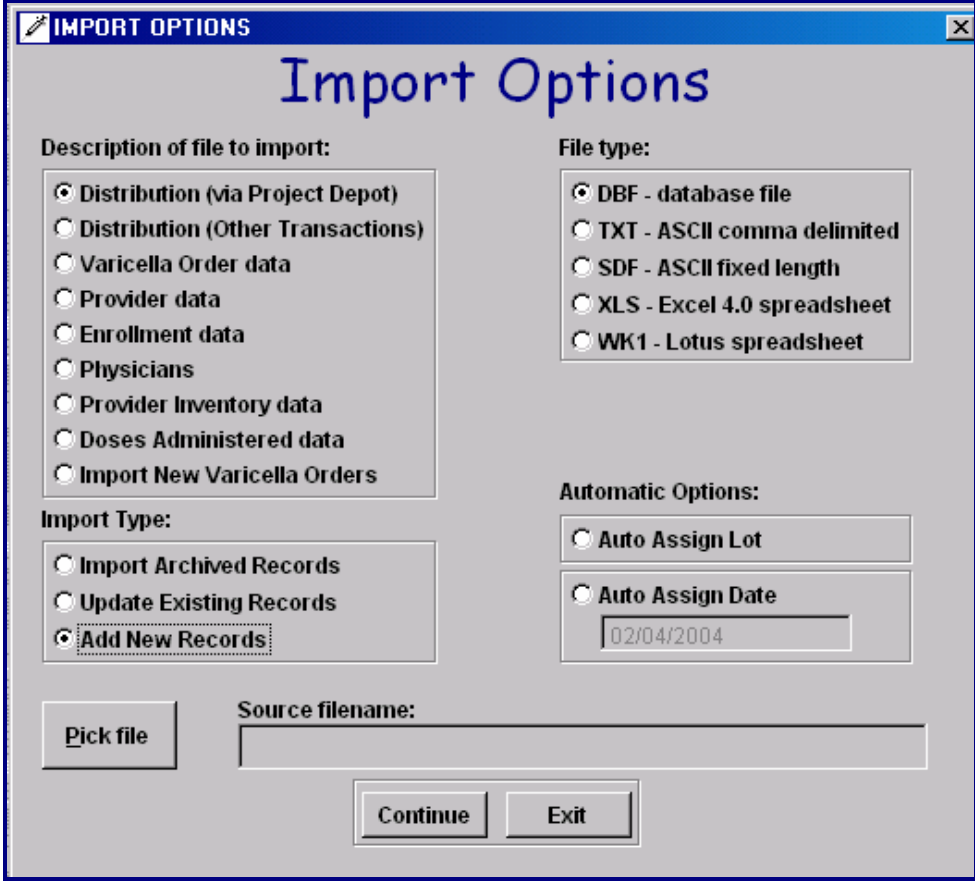
Import and Export

Prerequisite

The person performing either the import or export functions must have exclusive access to the VACMAN system. This means that no other users should be logged in to the system during the process.

Import

The import utility provides a means of importing data files into the VACMAN system from a variety of externally-created data formats. The system can import any of the following data sets:

- Distributions from project depots
- Other distributions – non-depot, including returns of vaccines, reporting of spoilage, waste, expiration, or transfers between providers
- Varicella order data
- Provider information
- Enrollment information
- Physician information
- Provider inventory
- Doses administered
- New varicella orders

You can import these files in the following formats:

Data set	Output file formats
.dbf	**Database format** allows use of a standard database file – either a legacy version of FoxPro, Dbase, or the latest version of FoxPro.
.txt	Comma delimited format is a **text** based file that separates each data element with a comma.
.sdf	**Standard data file** is also a text based file that separates each data element with a specific number of spaces.
.xls	**Excel** spreadsheet file.
.wk1	**Lotus** spreadsheet file.

Notes:

- The import function does not import old VACMAN data into a new release of VACMAN. Data conversion to a new release occurs during the new release installation of the VACMAN system.

- If the target file is an Excel or Lotus worksheet, the VACMAN system does not copy more than 16,383 or 8,191 records, respectively.

For more information, see "Import Functional Specifications," Appendix E.

Importing Data

Prerequisite

The person performing the import function must have exclusive access to the VACMAN system. This means that no other users should be logged in to the system during the process.

Step	Action
1	Ensure that all other users have exited the VACMAN system.
2	On the *VACMAN At a Glance*, click the *Utilities* tab.
3	Select **Import Data into VACMAN**.

Figure 6 –11. Import Options screen.
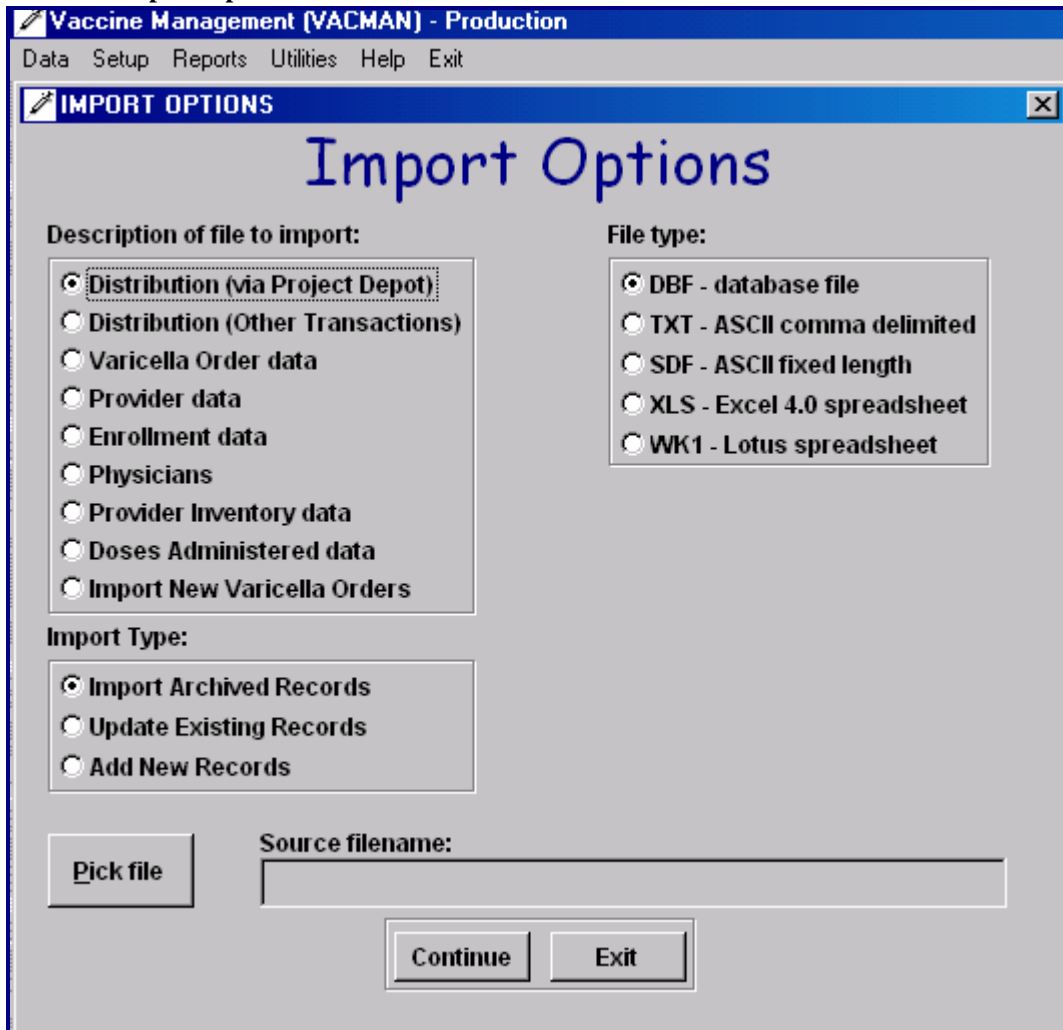
5	On the *Import Options Screen*, select the data set you wish to import.
6	Select the Import file format you wish to use.
7	For all data sets other than *Import New Varicella Orders*, an option box is available in the bottom left corner of the screen, It allows you to select an import operation.

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Use this Import Type option…	To do the following:
Import Archived Records	Reinsert records previously moved out of VACMAN with the **Export** – **Move** option. **Warning** – Data imported using this option is **not** error checked, other than to insure that the file used for import is properly formatted. The VACMAN team strongly recommends that you do not alter these export files in any way, since you may damage the integrity of your active data.
Update Existing Records	Permit data which has been changed after export to update the active records. New records which cannot be matched to an existing record are ignored. ALL data which is imported using this method is be subjected to the same error checking as would be used during standard keyboard entry. If any critical errors are found, they are recorded to a separate table which the user may save and review later, and the system rejects the entire import file.
Add New Records	Import only new records. Duplicates are ignored.
Adding New Records via Project Depot	**Figure 6 –12. Import Options screen, Add New Records option selected.** Note that the *Automatic Options* fields are visible.
Auto Assign Lot	Use the **Auto Assign Lot** radio button to permit the program to automatically assign a lot number to the vaccine if that data has been left blank in the import file.
Auto Assign Date	Use the **Auto Assign Date** radio button to activate a text box that you may enter a date into. If you leave the *Date* field blank, the program enters the current date into the incoming records automatically.

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If you are importing new varicella orders, an option box allows you to select a Fund Code and State PO number. The system subsequently provides this data of the applicable fields are blank.

Figure 6 –13. Import Options screen, Import New Varicella Orders option selected. Note that the *Auto-Assign* fields are visible.

Notes:

- **File format is very important.** To prevent any possibility of harm to the active data files, the import facility first checks in incoming data file for proper format. If the file does not match the expected structure, you will be alerted and the import operation will be aborted. Please review the appendices for detailed instructions on the proper formats for each data set and file type. One easy way to make sure the proper format is being used is to use the export utility to build a dummy file and then use this file as a template for the new data.

- **Error checking is extremely detailed.** Older data may not be able to be imported without extensive corrections as the error checking criteria in some older variations of VACMAN were not as stringent as they are in the latest release of VACMAN.

- If a critical error occurs in imported data, the system rejects the entire file and aborts the operation. You can review the errors, and save the errors in a standard database formatted file of your choice. You can review the data by importing it into Excel or Access.

Export

The Export Utility provides a way to exporting data files from VACMAN into a different data format for use in external applications such as Excel, or for use in other data-centric programs. The Export Utility exports any of the following data sets:

- Distributions from project depots
- Other distributions – non-depot, including returns of vaccines, reporting of spoilage, waste, expiration, or transfers between providers
- Varicella data
- Provider information
- Enrollment information
- Physician information
- Provider inventory
- Doses administered

You can export these data sets in the following file formats:

Data set	Output file formats
.dbf	There are two **database formats** – legacy format for older version of FoxPro and Dbase, and visual format for the latest version of FoxPro (these data also can be reviewed with Access).
.txt	Comma delimited format is a **text** based file that separates each data element with a comma.
.sdf	**Standard data file** is also a text based file that separates each data element with a specific number of spaces.
.xls	**Excel** spreadsheet file.
.wk1	**Lotus** spreadsheet file.

Exporting Data

Prerequisite

The person performing the export function must have exclusive access to the VACMAN system. This means that no other users should be logged in to the system during the process.

Step	Action
1	Ensure that all other users have exited the VACMAN system.
2	On the *VACMAN At a Glance* screen, click the *Utilities* tab.
3	Select **Export data (copy or archive VACMAN data)**.

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Figure 6 –14. Export Options screen.

4	On the *Export Options* screen, select the file you need to export, from the top left of the screen.
5	Select the file format you are exporting to, from the bottom left of the screen.
6	You can optionally select to export all data, or specify a date and PIN range, from the right of the screen.
7	Select either the move or copy option. **Warning!** – The **Move** option copies data to your export file and then **removes** that data from your active files. The VACMAN team recommends that you **Back Up and Pack** before performing the **Move** option, so that you can restore your data in the event the files are lost or corrupted.
8	If you choose the **Distribution (Other)** dataset, the system activates a final option set on the bottom right corner of the screen. This allows you to export all files or a subset of them.
9	After making your selections, you can preview the data to be exported. To do this, click the **Preview** button. Click the **Continue** button to initiate the export action. **Result:** The system does the following: • Provides the opportunity to either use the VACMAN-generated file name, or rename the file. • Exports your data to the file you selected.

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Exchange Data with CDC via Internet

Prerequisites

- **You must know the location of your project's VACMAN system data directory.** To determine the location, do either of the following:

  - On the *VACMAN At a Glance – Utilities* tab, click the **Display Vacman File Locations** option. On the *File Locations* screen, note the **Original Location of Databases** field. This is where your VACMAN data directory is located. If the file path is lengthy, the information might be truncated on this screen.

  - Contact your IT Support staff.

- **You must have a Secure Data Network (SDN) digital certificate to perform this function, and know your SDN challenge phrase.** The certificate and phrase are associated with a specific user and computer. This allows access to the CDC SDN, which is the means of exchanging data with CDC on the internet.

  Your challenge phrase should be on the VACMAN *Add/Modify Users* screen; see "Authorizing a User to Transmit," Chapter 1.

  Your project manager can authorize up to three people at your project to access the VACMAN system through the SDN. These three people request digital certificates with access to your project's vaccine management activity on the SDN.

  If you do not already have a digital certificate, contact your project manager or the VACMAN Help Desk for assistance.

  For more information about requesting a certificate, see "SDN Enrollment," Appendix C.

CDC SDN Technical Support	CDC VACMAN Help Desk
Phone: 800-532-9929 (770-216-1276 in Atlanta) **Email:** cdcsdn@cdc.gov	**Phone:** 400-639-8303 **Fax:** 404-638- 5413 or 404-639-8555 **Email:** vacman@cdc.gov **Web:** http://www.cdc.gov/nip/vacman

Recommendations
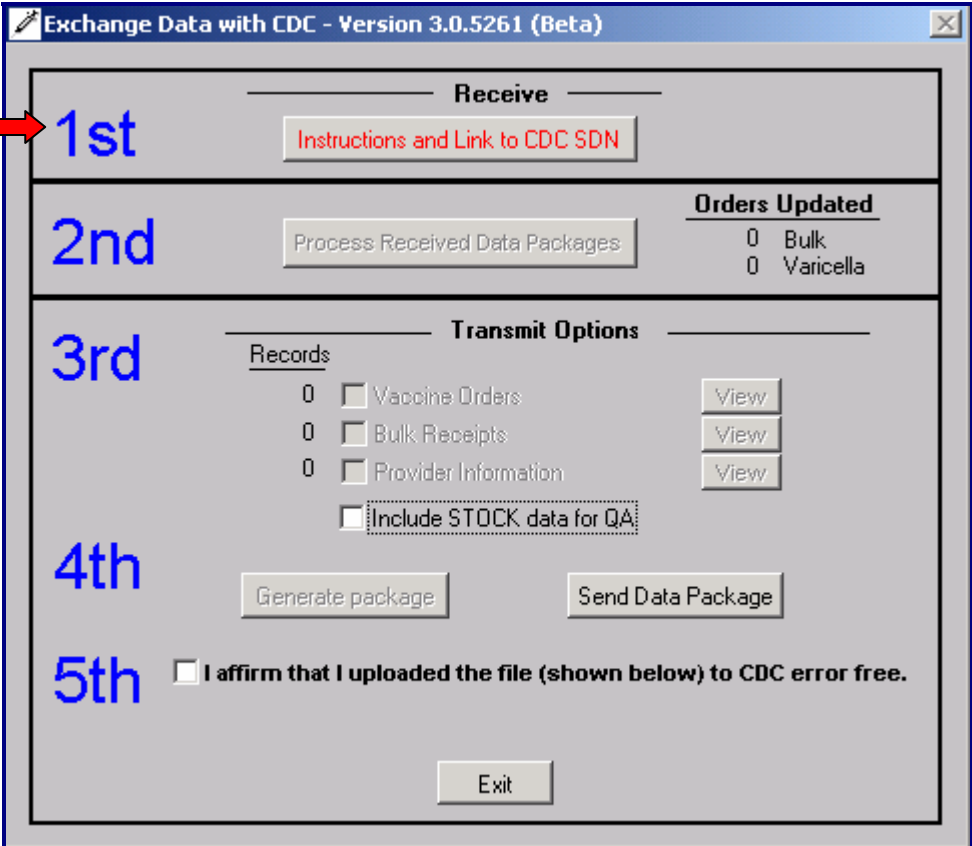
For best results, the VACMAN team recommends the following:

- Exchange data with CDC at least once within the <u>first five days</u> of each calendar month. The Exchange process automatically sends the information needed for the *Vaccine Allocation Summary* report, but CDC must receive the data on or before the fifth of the month.

- Exchange data with CDC at least once a day.

- Perform the exchange function when the fewest number of VACMAN users are **adding** or **editing** records.

- Perform the backup function immediately after exchanging data with CDC. For more information, see "Backup and Pack Database Tables," Chapter 6, Utilities.

Accessing the Exchange Function

Use these instructions to access the exchange function.

Step	Action
1	On the *VACMAN at a Glance* screen, click the *Utilities* tab.
	Result: The system displays the *Utilities* tab.
2	On the *Utilities* tab, click the **Exchange Data with CDC via Internet** option.
	Result: The system displays the VACMAN *Exchange Data with CDC* screen. Note that the steps for the exchange process are sequentially numbered, **1st** through **5th**.
	Figure 6 - 1. VACMAN - Exchange Data with CDC screen.
3	On the VACMAN *Exchange Data with CDC* screen, click the **1st** step button, **Instructions and Link to CDC**.
	Result: The system displays the *Exchanging Data with CDC – Microsoft Explorer Provided by the National Immunization Program – Exchange Instructions* screen, Figure 6 - 2.

Accessing the Exchange Function (continued)

Step	Action
4	On Figure 6 - 2 below, note these links: **Receive data from CDC** Click here to connect to the VacMan SDN Secure WebSite to download files. **Send data to CDC** Click here to connect to the VacMan SDN Secure Website to send the above file(s)

Figure 6 - 2. Exchanging Data with CDC – Microsoft Explorer Provided by the National Immunization Program – Exchange Instruction*s* screen (partial view).

Accessing the Exchange Function (continued)

Step	Action
4 cont.	On the *Exchange Data with CDC -- Exchange Instructions* screen, Figure 6 - 2, previous page, click this link to **receive** data from CDC:

Receive data from CDC
Click here to connect to the VacMan SDN Secure WebSite to download files.

Note: You <u>must</u> perform the **Receive Data** process first, regardless of whether there are data to receive.

Result: The system displays the SDN *Login - Client Authentication* screen, with your SDN certificate name.

Figure 6 - 3. SDN Login - Client Authentication screen.

Step	Action
5	On the SDN *Login - Client Authentication* screen, verify that the system is displaying <u>your</u> SDN certificate, then click the **OK** button.

Result: The system displays the SDN *Login - Challenge Phrase* screen, Figure 6 - 4.

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Accessing the Exchange Function (continued)

Step	Action
5 cont.	**Figure 6 - 4. SDN Login - Challenge Phrase screen.**

Step	Action
6	On the SDN *Login - Challenge Phrase* screen, type your SDN challenge phrase, then click the **Submit** button.

Note: If you forget your challenge phrase, you can click the indicated link and enter a replacement phrase. **The system then disables all activities until the program administrator approves the certificate.**

The VACMAN team recommends that if you forget your challenge phrase, call the Help Desk for assistance before you begin the exchange. The phrase should be on the VACMAN *Add/Modify Users* screen; see "Authorizing a User to Transmit," Chapter 1.

Result: The system verifies the phrase, then displays the *SDN Activity List* screen.

Figure 6 - 5. SDN – Activity List screen.
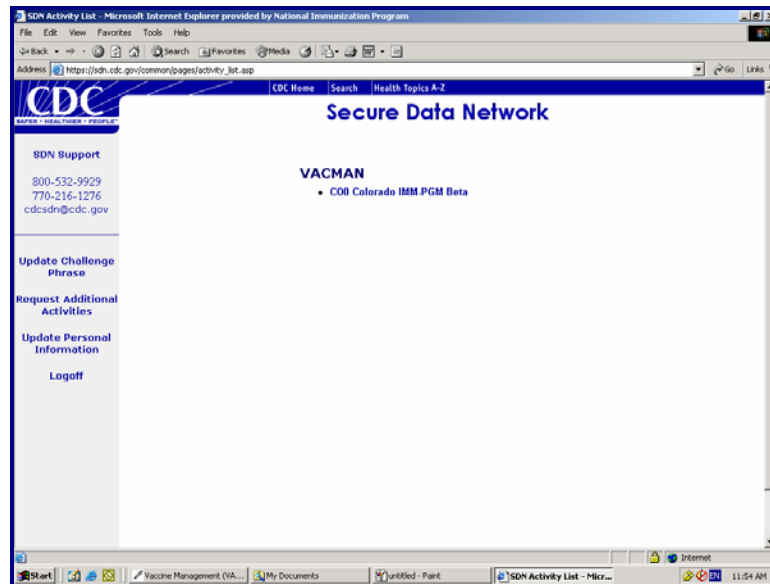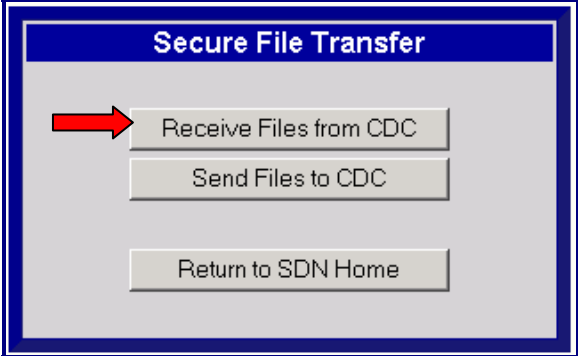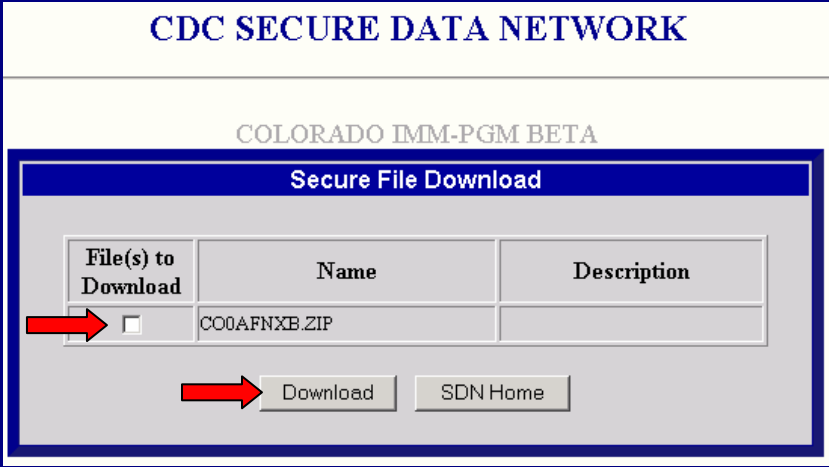
Accessing the Exchange Function (continued)
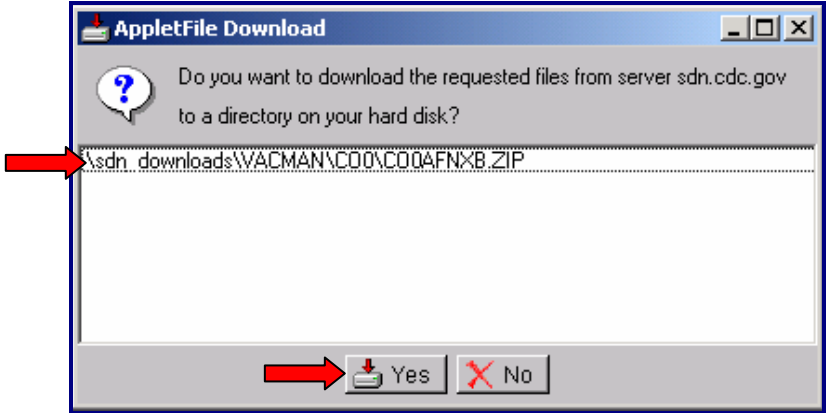
Step	Action
7	On the SDN *Activity List* screen, click the applicable project for this receipt of data from CDC. (Some states have multiple projects.) **Result:** The system displays the SDN *Secure File Transfer* screen, Figure 6 - 6.
8	Go to the next topic, "Receiving Data from CDC," page 30.

Receiving Data from CDC

Use these instructions to receive data from CDC.

Step	Action
1	Access the SDN *Secure File Transfer* screen. For more information, see the previous topic, "Accessing the Exchange Function," beginning on Page 25.

Figure 6 - 6. SDN - Secure File Transfer screen.

Step	Action
2	On the SDN *Secure File Transfer* screen, click the **Receive Files from CDC** button.

Result: The system does the following:

- Provides a message that indicates that the process may take several minutes.
- Retrieves all files available for your project to receive from CDC.
- Displays the SDN *Secure File Download* screen, Figure 6 - 7. It lists the **.ZIP** files available for your project to receive.

Figure 6 - 7. SDN - Secure File Download screen.

Note: If no files are available for download, the screen displays the following message:
Currently, no file is available for download.

If there are no files to receive, do the following:

a) Click the **close window** [×] button at the top right of the internet screen.
    Result: The system closes the SDN connection. The VACMAN *Exchange Data with CDC* screen remains.

On the VACMAN *Exchange Data with CDC* screen, click the **Process Received Data Packages** (**2nd** step) button. Go to Figure 6 - 13, and resume these Exchange instructions from that point.

Receiving Data from CDC (continued)

Step	Action
3	On the SDN *Secure File Download* screen, Figure 6 - 7, perform **BOTH** of these steps: a. Use the check boxes to select one or more files to receive, then b. Click the **Download** button. **Result:** The system displays the SDN *AppletFile Download* screen, Figure 6 - 8. It lists the file(s) you selected on the previous screen, SDN *Secure File Download* screen, Figure 6 - 7. **Figure 6 - 8. SDN - AppletFile Download screen.**
4	On the SDN *AppletFile Download* screen, click the **Yes** button. **Result:** The system displays a standard Windows *Save As* screen, Figure 6 - 9, which displays the name of the file you are receiving in the *File name(s)* field. From the *Save As* screen, you can navigate to your project's VACMAN Data directory, which contains a folder named **RCV** (Receive). The file you are receiving must be placed into the **RCV** folder. **Note:** You must know the location of your project's VACMAN Data directory. To determine the location, do either of the following: • On the *VACMAN At a Glance – Utilities* tab, click the *Display Vacman File Locations* option. On the *File Locations* screen, note the **Original Location of Databases** field. This is where your VACMAN Data directory is located. If the file path is lengthy, the information might be truncated on this screen. • Contact your IT Support staff. **Figure 6 - 9. Save As screen (Receive process, initial browse screen).**

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Receiving Data from CDC (continued)

Step	Action
5	From the *Save As* screen, Figure 6 - 9, **DOUBLE-click** the **letter** for the drive that contains your project's VACMAN Data directory. Continue to **DOUBLE-click** throughout this navigation path until your VACMAN Data directory is in the *Look in:* field at the top of the screen. See Figure 6 - 10; in that example, the Data directory is called "VacmanTraining2004."

When you have opened your project's VACMAN data directory, do **BOTH** of the following:

a. **DOUBLE-click** the **RCV** (Receive) folder to select it.

b. Click the **OK** button.

Figure 6 - 10 and Figure 6 - 11 represent the last two screens in the navigation path.

Figure 6 - 10. Save As screen (Receive process, with RCV folder selected).
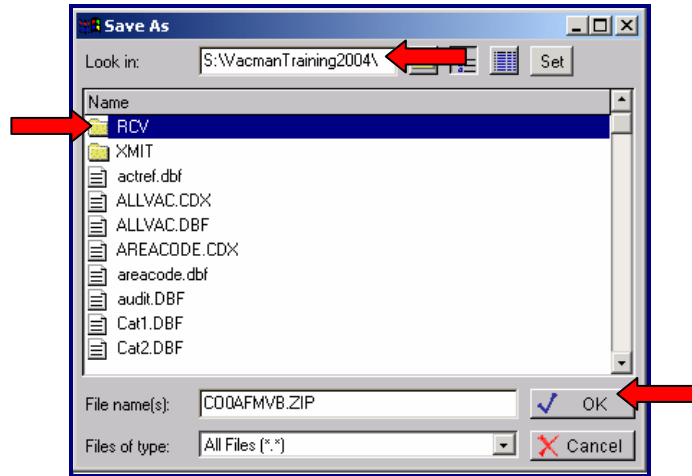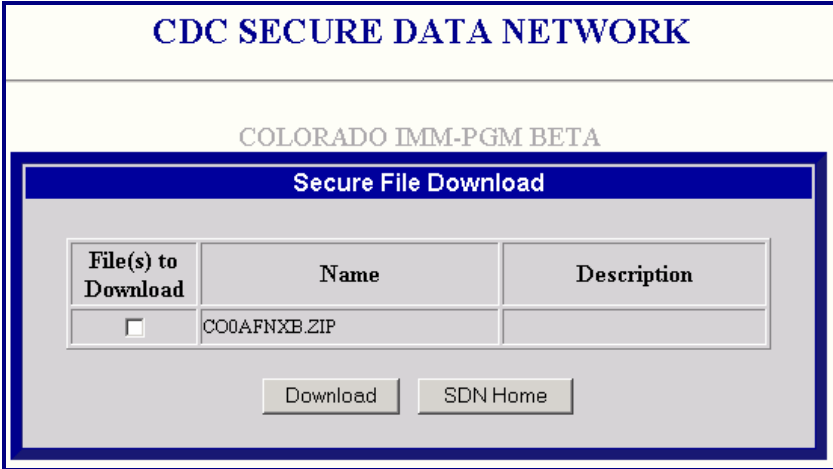
Result: The system displays a final *Save As* screen, Figure 6 - 11, that shows your file(s) in the **RCV** folder. In Figure 6 - 11, note that the folder titled **RCV** is at the top of the screen, in the *Look In:* field. In addition, the file you are receiving is shown in the center section of the screen, under the heading *Name*, and at the bottom of the screen in the *File name(s)* field.

Figure 6 - 11. Save As screen (Receive process, final browse screen), with .ZIP file in RCV folder.
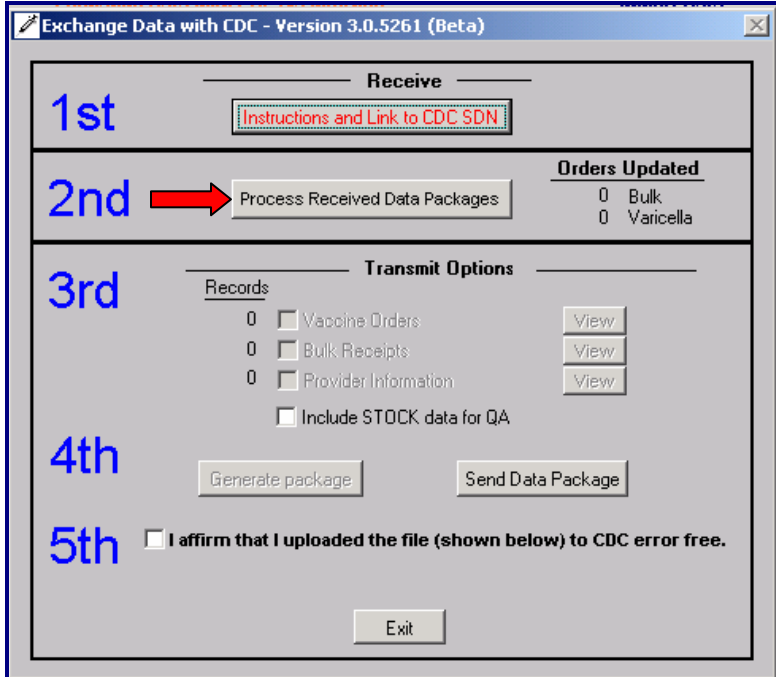
Receiving Data from CDC (continued)

Step	Action
6	When your file is in your project's VACMAN Data directory, **RCV** (Receive) folder, Figure 6 - 11, click the **OK** button. **Result:** The system saves the file you just received in the **RCV** folder. It closes the *Save As* screen. The SDN *Secure File Download* screen remains. **Figure 6 - 12. SDN – Secure File Download (re-display).**
7	On the SDN *Secure File Download* screen, click the **Close Window** ☒ button at the top right corner of the internet screen. **Result:** The system does the following: • Closes the SDN *Secure File Download* screen. You are no longer on the Secure Data Network. • Re-displays the VACMAN *Exchange Data with CDC* screen. You are still in the VACMAN system.

Receiving Data from CDC (continued)

Step	Action
7 cont.	**Figure 6 - 13. VACMAN - Exchange Data with CDC ("1-5") screen, 2ⁿᵈ step.**
8	On the VACMAN *Exchange Data with CDC* screen, click the **Process Received Data Packages** (**2ⁿᵈ** step) button; see Figure 6 - 13. This function updates your database with the data you just received. **Results:** The system does the following: • Uses the just-received data to update your project's records. • Indicates its update progress. • Updates the *Orders Updated* portion of the *Exchange Data with CDC* screen, Figure 6 - 14, which indicates the number of <u>orders</u> updated as a result of this processing. **(Results continued next page)**

Receiving Data from CDC (continued)

Step	Action
8 **cont.**	**Figure 6 - 14. Processing Complete screen.** **Results (continued):** • Displays the VACMAN *Processing Complete* screen, Figure 6 - 14, which summarizes processing activity. The following table describes the values on this screen.
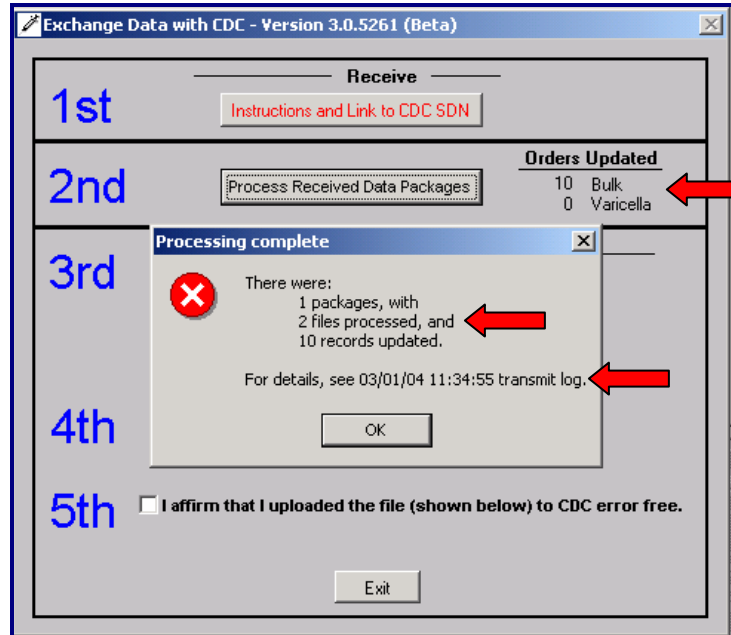
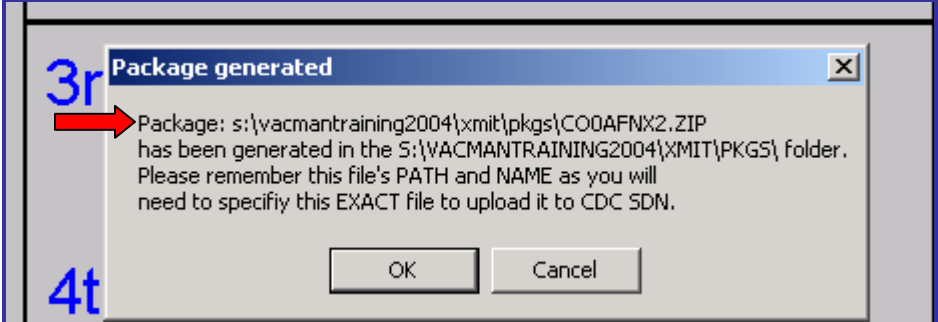| There were: < Value >	Description
< n > packages	The number of ZIP files that the system found in the **RCV** (Receive) folder, when you clicked the **Process Received Data Packages** button. If you downloaded any files, the number of packages <u>must</u> be **1** or more. • To review file download locations, see the -- ∙ *Secure File Download* screen, Figure 6 - 7, and the ∙ SDN *AppletFile Download* screen, Figure 6 - 8. • To review the **RCV** folder and ZIP file location, see the *Save As* screens, Figure 6 - 10 and Figure 6 - 11. • To review the **Process Received Data Packages** button location, see the VACMAN *Exchange Data with CDC* screen, Figure 6 - 13.
< n > files processed	The number of tables the system updated. If this value is **0 files processed**, either the CDC did not send any <u>status</u> information, or you attempted to re-process a previously-received package.
< n > records updated	The number of status records and others that were updated. The number varies, depending on what was sent and whether the data was valid.
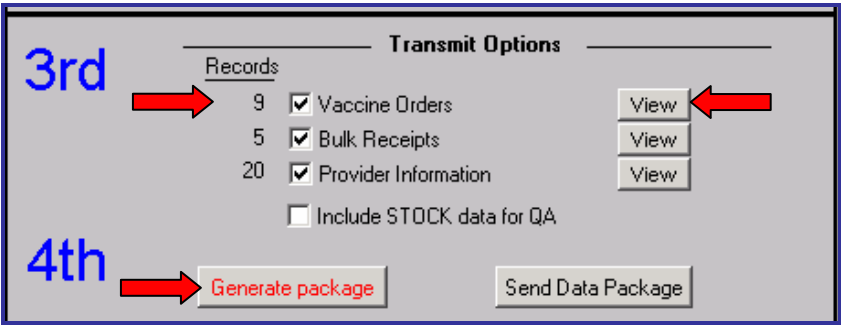
This screen also directs you to a specific transmit log for details about this processing. For more information about the transmit log, see "VACMAN Help Menu," Chapter 1.
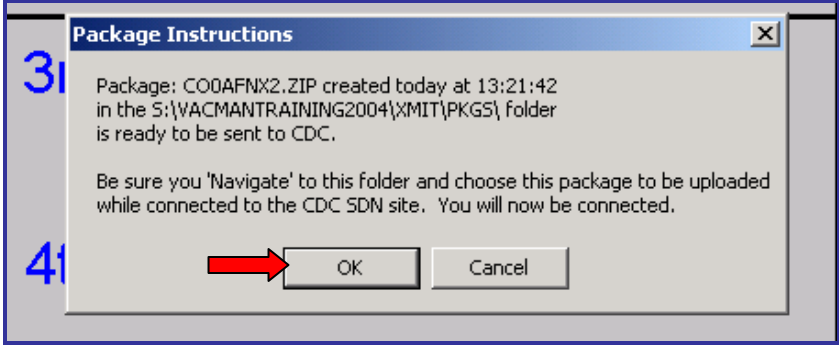
Receiving Data from CDC (continued)

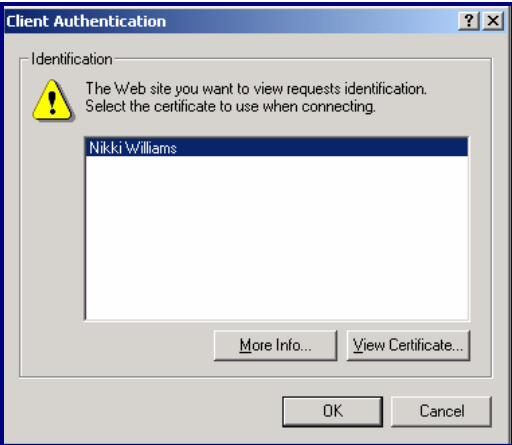| Step	Action
9	On the VACMAN *Processing Complete* screen, Figure 6 - 14, click the **OK** button.
	Results:
	• The system closes the VACMAN *Processing Complete* screen. This **receive process** is complete.
	• The VACMAN *Exchange Data with CDC* screen, Figure 6 - 14, remains. You are still in the VACMAN system.
10	Go to the next topic, "Sending Data to CDC," page 37.

Sending Data to CDC

Use these instructions to transmit data to CDC.

Step	Action
1	On the VACMAN *Exchange Data with CDC* screen, note the **3rd** step, **Transmit Options**.
	The VACMAN *Exchange Data with CDC* screen, Figure 6 - 15, displays the record counts from your database that are in the package. To view details of these records, click the applicable **View** button.
	You can optionally check the *Include STOCK data for QA* (quality assurance) box. This generates an on-hand inventory listing that can be included in the current transmission. This option is applicable only if CDC requests that you include this data in the transmission.
	Figure 6 - 15. VACMAN - Exchange Data with CDC screen (partial view), with record counts.
2	On the VACMAN *Exchange Data with CDC* screen, Figure 6 - 15, click the **Generate Package** (**4th** step **left**) button.
	Result: The system does the following:
	• Accesses your database and collects all records that are applicable for this transmission: orders, bulk receipt information, and provider data that has been added or updated but not yet transmitted to CDC. If you checked the *Include STOCK data for QA* box, the system also collects those records.
	• Displays the VACMAN *Package Generated* screen, which shows a specific, system-generated package name and its current location (path).
	Figure 6 - 16. VACMAN - Package Generated screen.
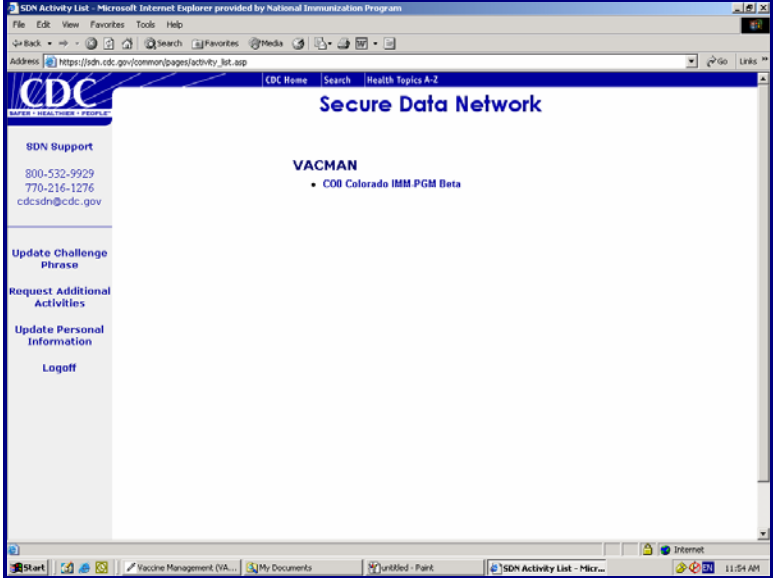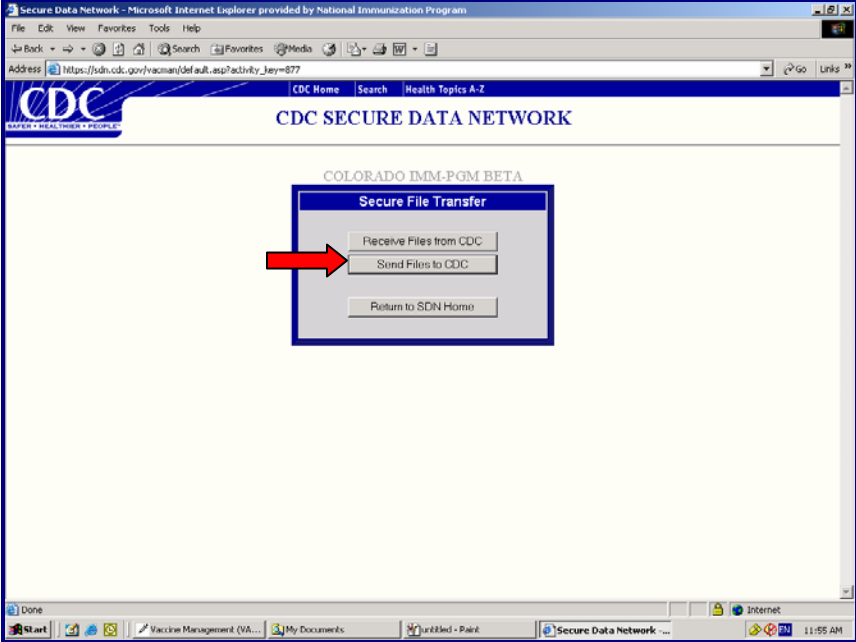
Sending Data to CDC (continued)

Step	Action
3	On the VACMAN *Package Generated* screen, Figure 6 - 16, do the following:
→	**a) Record** the package name and location path as shown on the VACMAN *Package Generated* screen; you will need this information shortly. This is where the system stores data that it is sending to CDC. The file path includes your project's VACMAN Data directory.
	The path includes folders named **XMIT** (Transmit) and **PKGS** (Packages). The file name's first two letters are the abbreviation of your project or state. The file name extension is **.ZIP**.
→	**b)** Click the **OK** button.
	Result: The system closes the VACMAN *Package Generated* screen, then displays the VACMAN *Package Instructions* screen, Figure 6 - 17.
	Figure 6 - 17. VACMAN - Package Instructions screen.
4	Ensure that you **recorded** the package and folder names; then, on the VACMAN *Package Instructions* screen, Figure 6 - 17, click the **OK** button.
	Result: The system does the following:
	• Closes the VACMAN *Package Instructions* screen.
	• Displays the SDN Login *Client Authentication* screen, Figure 6 - 18.
	Note: Use the **Send Data Package** button (**4th** step, **right** button) **only** if a previously generated package has not been transmitted. You will not be able to generate another package until the previous package has been transmitted.

Sending Data to CDC (continued)

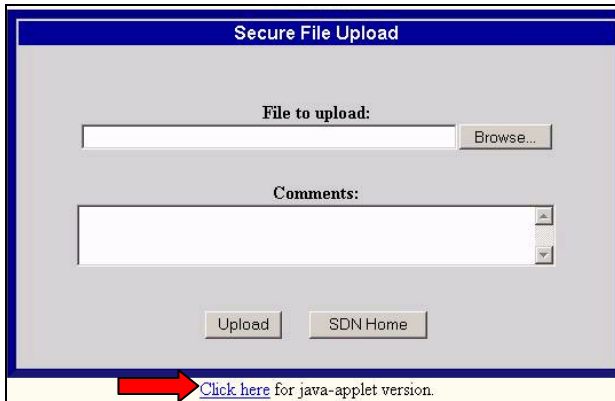| Step	Action
4 cont.	**Figure 6 - 18. SDN Login - Client Authentication screen, Send process.**
5	On the SDN Login *Client Authentication* screen, verify that the system is displaying your SDN certificate, then click the **OK** button. **Result:** The system displays the SDN Login *Challenge Phrase* screen, Figure 6 - 19. **Figure 6 - 19. SDN - Challenge Phrase screen, Send process.**
6	On the SDN Login *Challenge Phrase* screen, type your SDN challenge phrase, then click the **Submit** button. **Note:** If you forget your challenge phrase, you can click the indicated link and enter a replacement phrase. **The system then disables all activities until the program administrator approves the certificate.** The VACMAN team recommends that if you forget your challenge phrase, call the Help Desk for assistance before you begin the exchange. The phrase should be on the VACMAN *Add/Modify Users* screen; see "Authorizing a User to Transmit," Chapter 1. **Result:** The system verifies the phrase, then displays the SDN *Activity List* screen, Figure 6 - 20.

Sending Data to CDC (continued)

Step	Action
6 cont.	**Figure 6 - 20. SDN – Activity List screen.**

Step	Action
7	On the SDN *Activity List* screen, Figure 6 - 20, click the applicable project for this transmission of data to CDC. (Some states have multiple projects.)
	Result: The system displays the SDN *Secure File Transfer* screen.
	Figure 6 - 21. SDN - Secure File Transfer screen, Send process.

| Step	Action
8	On the SDN *Secure File Transfer* screen, click the second button, **Send Files to CDC**.
	Result: The system displays the *CDC Secure Data Network (SDN) - Secure File Upload* screen, Java Applet version, Figure 6 - 24, from which you can navigate to the package generated at Step 2.

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Sending Data to CDC (continued)

Step	Action
8 **cont.**	Two versions of the SDN *Secure File Upload* screen are available, Java applet (the system default), and Applet. If applicable, click the link at the bottom of the screen to access the version you need.
	Note: If you use the non-applet version, some of the screen titles and buttons might differ slightly from those shown in the following samples.

| **Figure 6 - 22. SDN – Secure File Upload screen, Applet version.**	**Figure 6 - 23. SDN – Secure File Upload screen, Java-applet version. This is the default.**
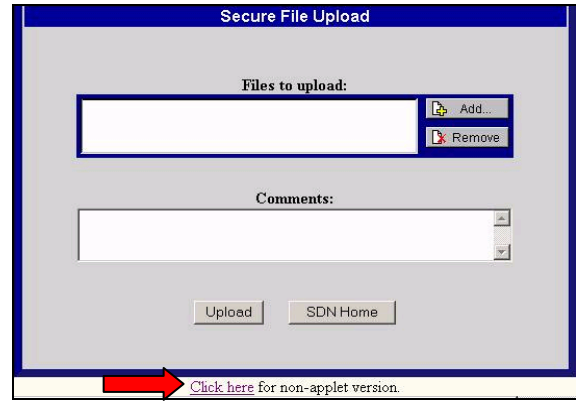
9	Do one of the following:
	• On the SDN *Secure File Upload* Java applet screen, Figure 6 - 23, click the **Add** button.
	• On the SDN *Secure File Upload* applet screen, Figure 6 - 22, click the **Upload** button.
	Result: The system displays the SDN *Select Files to Upload* screen, from which you can navigate to the **XMIT\PKGS\< filename >** folder. This is the file information that you recorded at Step 3 a) of this process; see Figure 6 - 17.
	Figure 6 - 24. SDN - Select Files to Upload screen, initial browse screen.
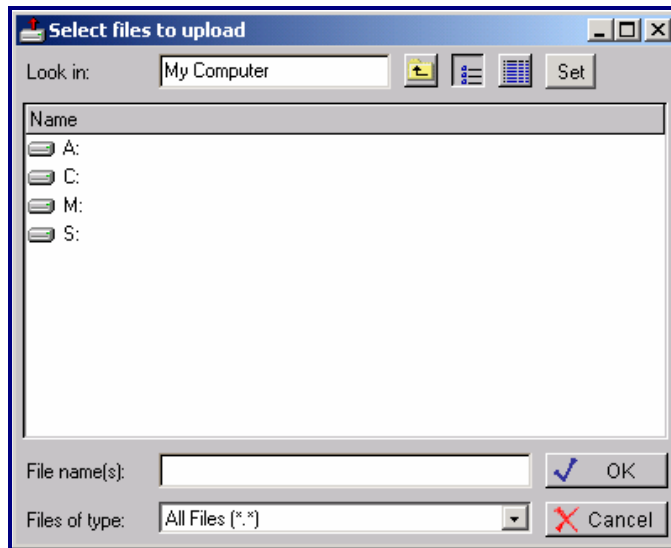
| 10 | On the SDN *Select Files to Upload* screen, **DOUBLE-CLICK** the applicable drive letter and folders to navigate to your project's VACMAN Data directory. The Data directory contains the **XMIT** (Transmit) folder, which in turn contains the **PKG** (Package) you are sending. The following screen samples, Figure 6 - 25 through Figure 6 - 27, represent the final three screens in this navigation process. |

Chapter 6 - Utilities

Sending Data to CDC (continued)

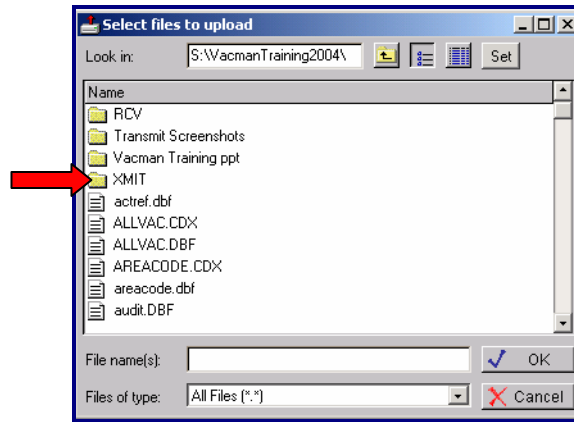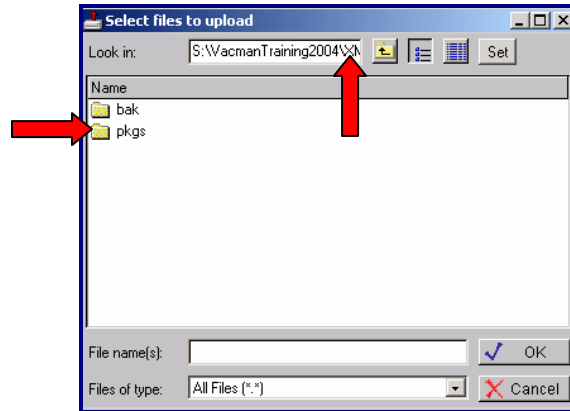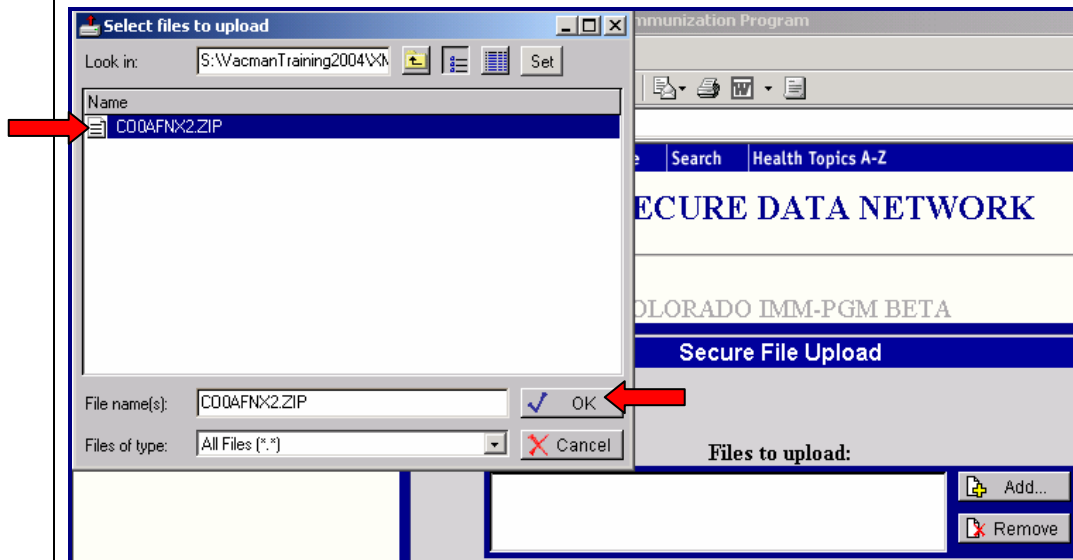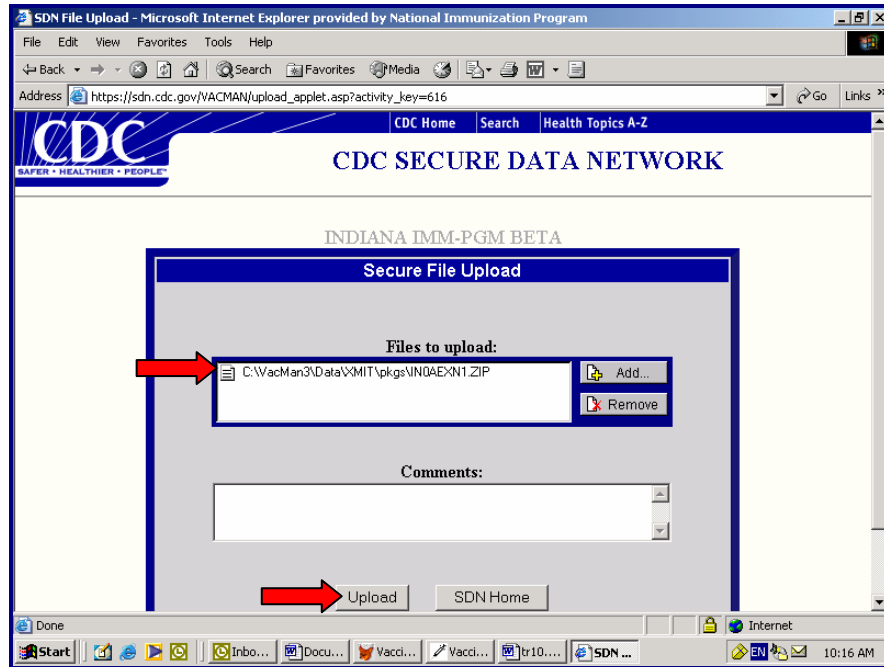| Step	Action
10 cont.	Figure 6 - 25. SDN - Select Files to Upload screen (Send process, XMIT folder). Figure 6 - 26. SDN - Select Files to Upload screen (Send process, PKGS folder). Figure 6 - 27. SDN - Select Files to Upload screen (Send process, file name selected).

Sending Data to CDC (continued)

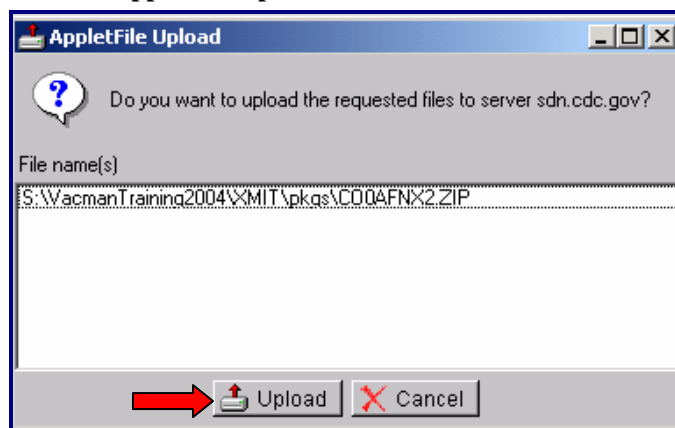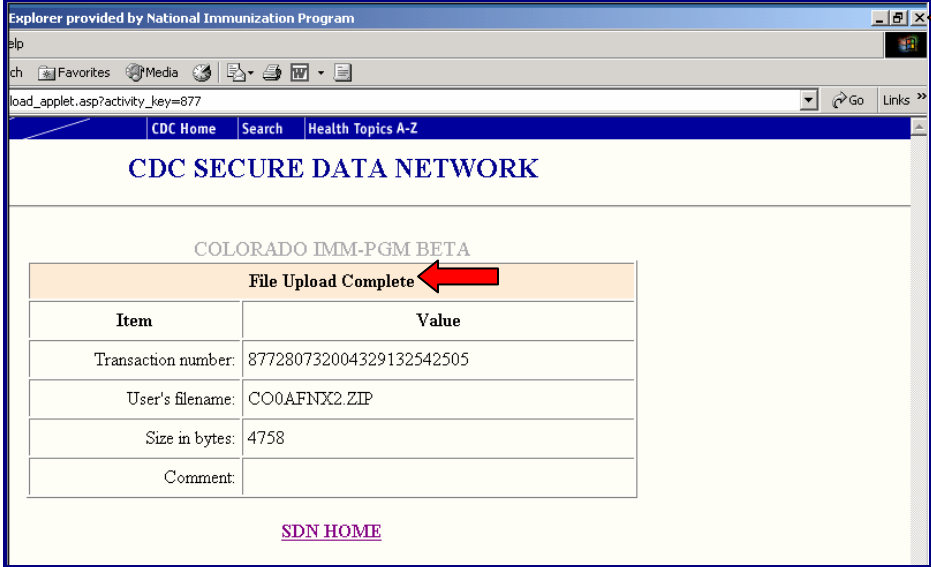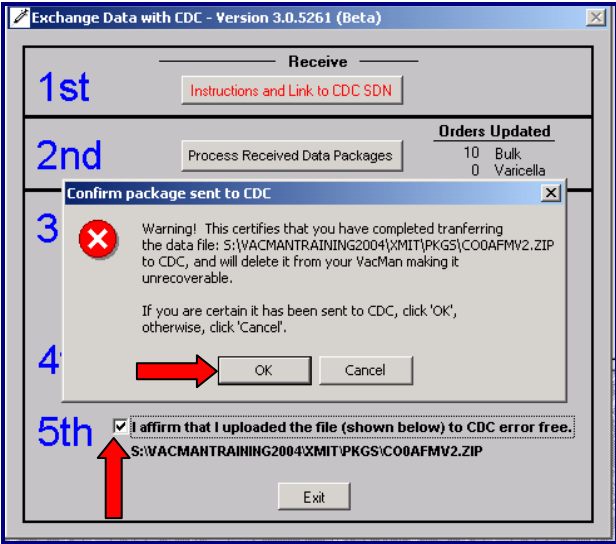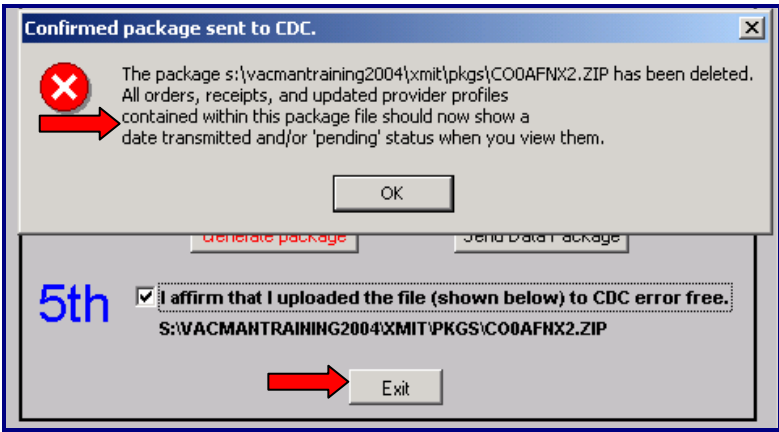| Step	Action
11	On the SDN *Select Files to Upload* screen, Figure 6 - 27, locate and **select** the correct `.ZIP` file, then click the **OK** button.
	Result: The system closes the SDN *Select Files to Upload* screen. The *CDC Secure Data Network - Secure File Upload* screen remains, and displays the file you selected in the *Files to Upload* field..
	Figure 6 - 28. SDN - Secure File Upload screen, with file.
12	**Ensure that the system is displaying the file you selected** on the SDN *Select Files to Upload* screen, Figure 6 - 27, on the *CDC Secure Data Network - Secure File Upload* screen, Figure 6 - 28. Then, on the *CDC Secure Data Network - Secure File Upload* screen, Figure 6 - 28, click the **Upload** button.
	Result: The system displays the SDN *Applet File Upload* screen.
	Figure 6 - 29. SDN - AppletFile Upload screen.

Sending Data to CDC (continued)

Step	Action
13	On the SDN *AppletFile Upload* screen, Figure 6 - 29, click the **Upload** button. **Result:** The system displays the CDC SDN *File Upload Complete* screen. **Your package has been sent to CDC.** If you do not see this message, the transmission to CDC was not successful. **Figure 6 - 30. CDC SDN - File Upload Complete screen.**
14	Note that your package has been sent to CDC; the transmission was successful. Then, on the CDC SDN *File Upload Complete* screen, click the **close window** button in the upper right corner of the internet screen. **Result:** The system does the following: • Closes the SDN connection; you are no longer on the Secure Data Network. • The VACMAN *Exchange Data with CDC* screen remains. You are still logged in to the VACMAN system.
15	On the VACMAN *Exchange Data with CDC* screen, click the **5**th step check box: **I affirm that I uploaded the file (shown below) to CDC error free** (see Figure 6 - 31). **Result:** The system displays the VACMAN *Confirm Package Sent to CDC* screen, Figure 6 - 31, which you can use to verify that the correct data was sent. Note the information regarding removal of the data package. Once a package has been sent, clicking this check box allows the system to remove data from the package. Unless this happens, you will not be able to generate a subsequent package. Only one package can exist in the system.

Sending Data to CDC (continued)

Step	Action
15 cont.	**Figure 6 - 31. VACMAN - Confirm Package Sent to CDC screen.**
16	Ensure that you saw the CDC SDN *File Upload Complete* screen, Figure 6 - 30. Then, on the VACMAN *Confirm Package Sent to CDC* screen, Figure 6 - 31, click the **OK** button. **Result:** The system does the following: • Removes the data package containing the file just sent to the CDC from the XMIT folder. • Displays the VACMAN *Confirmed Package Sent to CDC* screen, Figure 6 - 32, which indicates that transmitted orders should now have the status, "Pending." **Figure 6 - 32. VACMAN - Confirmed Package Sent to CDC screen.**
17	On the VACMAN *Confirmed Package Sent to CDC* screen, click the **OK** button. **Result:** The system closes the VACMAN *Confirmed Package Sent to CDC* screen.
18	On the VACMAN *Exchange Data with CDC* screen, click the **Exit** button. **Result:** • The system closes the VACMAN *Exchange Data with CDC* screen. This **Send process** is complete. You are still in the VACMAN system. • The system generates two email messages. The first acknowledges the receipt of file(s); the second notifies you that data processing is underway. • As processing occurs, orders transmitted become receipts instead of orders.
19	Proceed to the next topic, "Backup Database Table(s)," Page 46.

Backup Database Table(s)

Note: For more information, see "Backing Up Database Tables," Chapter, 6, Utilities.

Performing a Backup

Immediately after each exchange of data with CDC, perform the backup function. **This is the most important time for your project to back up your database**.

Even if you do not transmit every day, **do perform a backup every day**.

These precautions ensure that current order status data is retrievable, should you experience data corruption or system malfunction that requires restoration from a backup.

Note: CDC cannot back up or restore your data.

Important procedure in the event of data corruption

If you have recently experienced data corruption problems, or have recently restored data from a previous backup (older data), you can help avoid problems with rejected orders if you perform an exchange function. Receiving data from CDC provides your project with the most recent CDC updates.

Note: Performing an exchange does not restore data that was lost after you received updates from CDC.

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