

Johns Hopkins University Nursing School

VistA Data Loader 1.0

User and Setup Guide

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1 Introduction

1.1 About this document

This document explains how to set up and use the VistA Data Loader.

This document is intended for trainers, administrators and other staff that are using an instance of VistA for training or testing purposes. This document presumes familiarity with:

- Windows-based operating systems.
- Concepts and general terminology related to electronic medical records (EMRs) in general and the VistA (Veterans Health Information Systems and Technology Architecture) system in particular.
- The VistA CPRS (Computerized Patient Record System) package.
- The VistA KIDS (Kernel Installation and Distribution System) package

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1.2 Additional information

Additional detailed information about specific aspects of the Data Loader is covered in the following files:

| Name | Description |
|---|---|
| API_Detail.txt | A developer-oriented summary of the Data Loader API. |
| Data_Map.xls | Maps each element in the VistA Data Loader spreadsheet to where the data will be stored in VistA, and indicates the RPCs involved in transferring the data. |
| Declarations_API_and_RPC.txt | Summary of comment text from VistA Data Loader M routines. |
| ISI_PT_IMPORT_TEMPLATE_9001_Description.txt | A description of the #9001 file's purpose, fields, and associated logic. |
| ISI_PT_IMPORT_TEMPLATE_9001_Summary.xls | A summary of #9001 fields, IDs, global locations, install values, and a brief description of the behavior of each field. |
| Transport_Sumary.txt | The transport global output for the VISTA_DATA_LOADER KIDS file. |

2 Data Loader overview

The VistA Data Loader 1.0 is used to add data to training, demonstration, and test instances of VistA. The Data Loader can insert data into the following VistA packages:

- Adverse Reaction Tracking (allergies) package
- Appointment/Scheduling package
- Consult/ Request Tracking package
- Laboratory package
- Outpatient Pharmacy package
- Problem List package
- Radiology package
- TIU (Text Integration Utility) package
- Vitals package

After data is imported, it can be reviewed using VistA's CPRS electronic patient chart package.

WARNING: The Data Loader is intended for use with training, demonstration, and test instances of VistA only. It is not tested nor intended for any use in a clinical or production environment.

Note: The Data Loader only loads new data into VistA. It cannot change or delete existing data in VistA. Use caution when importing test data to demonstration platforms, and back up your VistA instance as appropriate.

2.1 Data Loader components

The Data Loader includes:

- A spreadsheet (.xls) file that used to enter the data that is to be imported. The spreadsheet is pre-populated with data elements extracted from VistA.
- A Windows XP/7 client that is used to transfer data from the spreadsheet into VistA.
- A VistA Data Loader package that receives the data from the client, optionally adds extra data as defined in the ISI PT IMPORT TEMPLATE file (#9001), and updates the VistA database used by the applicable VistA packages.

3 Installation and configuration

Steps for installing and configuring the Data Loader KIDS, client, and spreadsheet are covered below. The components can be installed in any order.

3.1 VISTA_DATA_LOADER KIDS installation

The VISTA_DATA_LOADER KIDS file can be installed when the VistA system is active. It is installed into its own namespace and does not alter any other VistA packages.

Note: Because of the variability of VistA system implementations, the steps below are generalized. These steps assume you know how to transfer files to locations accessible to VistA, that you have VistA installation privileges, and that you know how to use the Kernel Installation and Distribution System.

1. Copy the VISTA_DATA_LOADER KIDS to a location accessible to your VistA system
2. Connect to your VistA system as a user with installation privileges.
3. Enter XPD MAIN to access the Kernel Installation and Distribution System, then select the Installation option.
4. Select option 1 to load a distribution, and enter <path>/VISTA_DATA_LOADER_1_0.KID.
5. After the load is successful, enter yes to continue and when you are returned to the main KIDS menu, choose option 6 to install the package.
6. For each of the following prompts, press Enter to indicate NO.
 - Want KIDS to Rebuild menu trees...
 - Want KIDS to inhibit logons...
 - Want to disable scheduled options...
7. When you are prompted to specify a device, enter HOME to display installation details to the screen.
8. When the “Install completed” message is displayed, installation is complete.

3.2 Client and spreadsheet installation

The Data Loader client executable, DataLoader_Setup.exe, uses a standard InstallShield package. To install the client, copy the exe file to a Windows XP or 7 system, double-click the file, and follow the prompts. There are no configurable options in the installer.

After installation, you can access the Data Loader client from Start | All Programs | VistA | Data Loader. All client files are installed in ..\Program Files\VistA\Data Loader.

The baseline Data Loader spreadsheet, Patient_Template.xls, is shipped as a standalone file. It can be placed in any location convenient to where the Data Loader client is installed.

3.3 Configuration/VistA connection setup

The Data Loader client connects to the VistA system via the RPC Broker listener running on the VistA server. After both the Data Loader KIDS and Windows client are installed, you need to configure the Data Loader client to connect to VistA.

1. Start the client (Start | All Programs | VistA | Data Loader).
2. In the client choose File | VistA Login | Settings.
3. In the Connection Settings window, enter the server name and broker port number of the system with which the client will connect.
4. Use File | Login to test the connection. This will display the standard Access/Verify window.
5. After entering valid credentials the client will display a green “connected” message in right side of the window.

3.4 Uninstallation

To uninstall the Data Loader client, use the Control Panel’s Add/Remove Programs (XP) or Programs and Features (Win7) function.

There is no un-install feature currently available for the Data Loader KIDS package. The Data Loader routines, RPCs, option, and file are all located in the ISI namespace. They interface with, but do not overwrite or modify existing standard VistA routines or packages. None of the features are used or run unless invoked by the client. With programmer support, the manual deletion and removal of the server content is possible, but typically not necessary.

4 Using the spreadsheet

4.1 Spreadsheet overview

The Data Loader spreadsheet (Patient_Template.xls) is used to specify the data that is ultimately imported into VistA. The spreadsheet contains ten different worksheets that are used to specify data intended for different VistA packages and that will be displayed in CPRS.

Each row in each VistA-related worksheet corresponds to a single entry (or record) in VistA. Most columns correspond to a field in a specific VistA record. A few special-purpose columns (Case Name and Pat SSN) are used to link records to new or existing patients.

An additional worksheet, the Tables worksheet, is pre-populated with VistA-derived values used to constrain what is entered in the other VistA package-oriented spreadsheets. This makes it faster to enter data and reduces import errors. If you need to, you can update values in the Tables worksheet to match your local VistA values.

The Data Loader spreadsheet can be used to define new patients and associated data, or can be used to append data to patients already present in VistA. After you have defined the data using the spreadsheet, you can use the Data Loader client to import the data into VistA.

4.2 Populating the spreadsheet

4.2.1 Initial steps

Before adding data to the spreadsheet, locate the Patient_Template.xls file in ..\Program Files\VistA\Data Loader and create a new instance of the spreadsheet from this file. The new instance is what you will use to enter your data.

You can name this file as desired and store it anywhere that can be readily accessed by the Data Loader client. In the new instance, make sure that each worksheet (except the Tables worksheet) is blank.

You can remove worksheets that you do not intend to use. However, do not delete the Tables worksheet, or change the names of any worksheet, or delete individual columns in any worksheet.

WARNING: The Data Loader is designed to load new data into VistA. It does not have any way to check if the data you want to load is already present. To avoid creating duplicate records in VistA, always do the following:

- For existing patients, use CPRS to review the data that is already present, especially timestamps. Be sure to use different timestamps in your spreadsheet.
- Always start with a new (empty) instance of the Data Loader spreadsheet.

4.2.2 Entering new patients and associated data

1. Read the warning in the previous section.
2. If you are going to enter new patients, first decide how many new patients you are going to enter. Then, in the Tables worksheet, check how many values are defined in the Case column (usually, this is column “P” in the Tables worksheet).
 - You need a unique case number for each new patient.
 - If you need to add new case numbers, add the new numbers to end of the column. These new values will be accessible in all the other worksheets.
3. In the Patients tab, enter the data for each new patient.
 - a. Use the Case column to select one of the available Case Names. This value must be specified, and it will be used in other tabs to link package-specific data to a particular new patient.
 - b. Optionally, enter a social security number in the SSN column.
 - If you leave this value blank, an SSN will be assigned based on the settings in the #9001 file.
 - If you want to specify an SSN, use numbers only (no spaces or dashes). Leading zeros (000001234) are acceptable.
 - c. Set values for the other cells as desired. Depending on the cell, you can enter anything (free text), use a pull-down list, or enter a date.

Note: Dates must adhere to specific formats as described in section 4.2.4. Pull down-lists use values acceptable to VistA; if you needed, you can change these values as described in section 5.4.

4. For each of the other package-oriented tabs that you want to define data for, do the following:
 - a. In the desired worksheet, use the Case column to select the case ID for the patient that each row's data should be associated with.

Note: Do NOT enter anything in the Pat SSN column. VistA assigns SSNs for new patients.

Note: You do not have to populate all worksheets. However, if you use a given worksheet, all values in that worksheet except Pat SSN are required.

5. When you are finished, you can either import what you have now (see section 5.2) or define additional data for patients that are already present in VistA.

4.2.3 Appending data for existing patients

1. Read the warning in section 4.2.1.
2. Determine the SSNs of the existing patients that you want to add data to. For convenience, note the SSNs on paper or in Notepad.
3. In the spreadsheet, use each tab to specify the data that you want added for the patient.
 - For each item (row) that you define, be sure to specify the SSN of the applicable patient.
 - Do not use the Case name field in any worksheet.
 - Do not use the Patient worksheet.

Note: Dates must adhere to specific formats as described in section 4.2.4. Pull down-lists use values acceptable to VistA; if needed, you can change these values as described in section 5.4.

4.2.4 Date formats in the spreadsheet

The following formats can be used for dates and times in the Data Loader spreadsheet.

| Field type | Allowable formats |
|------------|---|
| Date | MMM DD YYYY (Jan 20 1957) MMM YY (Jan 57) M/DD/YY (1/20/57) T (today) T+1, T+2, etc. (tomorrow, the day after tomorrow, etc.) T-1, T-2 (yesterday, the day before yesterday, etc.) |

| Field type | Allowable formats |
|---------------|---|
| Date and time | <p>Any date format described above, plus:</p> <p>@HH:MM (T+1@13:24 = tomorrow at 1:24 PM)</p> <p>@HHAM:MM or @HHPM:MM (T+1@1:24PM = tomorrow at 1:34 PM)</p> <p>Minutes are optional.</p> |

4.2.5 Spreadsheet reference

This section describes the contents of the default version of the Data Loader spreadsheet (Patient_Template.xls).

4.2.5.1 Worksheets in Patient_Template.xls

| Worksheet name | Notes |
|---|--|
| <p>Patients</p> <p>(Input data for Patient Registration package)</p> <p>Note: Certain values such as marital status and address are populated based on settings in the #9001 file. See section 6.2 for details.</p> | <p>Columns constrained to specific values from the Tables worksheet:</p> <ul style="list-style-type: none"> Case Name Gender Race Ethnicity Employment status Insurance US Veteran (Boolean) <p>Free text columns:</p> <ul style="list-style-type: none"> Last Name First Name Occupation <p>The DOB (date of birth) column value must be formatted as described in section 4.2.4.</p> <p>The SSN column accepts numbers only. Its purpose varies depending on if you are specifying a new patient or an existing one. See sections 4.2.2 and 4.2.3 for details.</p> |

| Worksheet name | Notes |
|--|--|
| <p>Appts</p> <p>(Input data for Appointment/Scheduling package)</p> | <p>Columns constrained to specific values from the Tables worksheet:</p> <ul style="list-style-type: none"> Case Name Apt clinic (Location) <p>The Apt date (and time) column must be formatted as described in section 4.2.4.</p> <p>The Pat SSN column links a spreadsheet entry to a pre-existing patient in VistA. Not used if the spreadsheet entry is for a new patient. Use numbers only (no spaces or dashes).</p> |
| <p>Problems</p> <p>(Input data for Problem List package)</p> | <p>Columns constrained to specific values from the Tables worksheet:</p> <ul style="list-style-type: none"> Case Name Dr name (Provider) ICD9 description Problem status Problem type <p>The Problem onset date column must be formatted as described in section 4.2.4.</p> <p>The Pat SSN column links a spreadsheet entry to a pre-existing patient in VistA. Not used if the spreadsheet entry is for a new patient. Use numbers only (no spaces or dashes).</p> |
| <p>Vitals</p> <p>(Input data for Vitals package)</p> | <p>Columns constrained to specific values from the Tables worksheet:</p> <ul style="list-style-type: none"> Case Name Vital type Clinic (Location) Taken by (Person) <p>The Rate 1 column, is used to enter the numeric value associated with the selected "Vital type"</p> <p>The Rate 2 column is used only if the selected "Vital type" is Blood Pressure. If this is the case, use Rate 1 for systolic and Rate 2 for diastolic.</p> <p>The Date column must be formatted as described in section 4.2.4.</p> <p>The Pat SSN column links a spreadsheet entry to a pre-existing patient in VistA. Not used if the spreadsheet entry is for a new patient. Use numbers only (no spaces or dashes).</p> |

| Worksheet name | Notes |
|--|---|
| <p>Allergies</p> <p>(Input data for Adverse Reaction Tracking package)</p> | <p>Columns constrained to specific values from the Tables worksheet:</p> <ul style="list-style-type: none"> Case Name Allergen Symptom Entered by (Person) <p>The Origination date column must be formatted as described in section 4.2.4.</p> <p>The Pat SSN column links a spreadsheet entry to a pre-existing patient in VistA. Not used if the spreadsheet entry is for a new patient. Use numbers only (no spaces or dashes).</p> |
| <p>Labs</p> <p>(Input data for Laboratory package)</p> | <p>Columns constrained to specific values from the Tables worksheet:</p> <ul style="list-style-type: none"> Case Name Lab test Location <p>Numeric columns:</p> <ul style="list-style-type: none"> Result value <p>The Result date column must be formatted as described in section 4.2.4.</p> <p>The Pat SSN column links a spreadsheet entry to a pre-existing patient in VistA. Not used if the spreadsheet entry is for a new patient. Use numbers only (no spaces or dashes).</p> |
| <p>Notes</p> <p>(Input data for the TIU (Text Integration Utility) package)</p> | <p>Columns constrained to specific values from the Tables worksheet:</p> <ul style="list-style-type: none"> Case Name Note title Clinic (Location) Provider <p>Free text columns:</p> <ul style="list-style-type: none"> Note text <p>The Visit datetime column must be formatted as described in section 4.2.4.</p> <p>The Pat SSN column links a spreadsheet entry to a pre-existing patient in VistA. Not used if the spreadsheet entry is for a new patient. Use numbers only (no spaces or dashes).</p> |

| Worksheet name | Notes |
|--|---|
| <p>Meds</p> <p>(Input data for Outpatient Pharmacy package)</p> | <p>Columns constrained to specific values from the Tables worksheet:</p> <ul style="list-style-type: none"> Case Name Medication (Drugs) Schedule (SIG) Provider <p>Numeric columns:</p> <ul style="list-style-type: none"> Quantity Days supply Number of refills <p>Date-based columns (must be formatted as described in section 4.2.4):</p> <ul style="list-style-type: none"> Fill Date Expire Date <p>The Pat SSN column links a spreadsheet entry to a pre-existing patient in VistA. Not used if the spreadsheet entry is for a new patient. Use numbers only (no spaces or dashes).</p> |
| <p>Consults</p> <p>(Input data for the Consult/ Request Tracking package)</p> | <p>Columns constrained to specific values from the Tables worksheet:</p> <ul style="list-style-type: none"> Case Name Consult Location Provider <p>Free text columns:</p> <ul style="list-style-type: none"> Description <p>The Pat SSN column links a spreadsheet entry to a pre-existing patient in VistA. Not used if the spreadsheet entry is for a new patient. Use numbers only (no spaces or dashes).</p> |

| Worksheet name | Notes |
|----------------|---|
| Rad Orders | <p>Columns constrained to specific values from the Tables worksheet:</p> <ul style="list-style-type: none"> Case Name Rad Procedure Imaging Location Requesting Provider (Provider) Requesting Location (Location) <p>Free text columns:</p> <ul style="list-style-type: none"> Reason Clinical History <p>The Exam DateTime column must be formatted as described in section 4.2.4.</p> <p>The Pat SSN column links a spreadsheet entry to a pre-existing patient in VistA. Not used if the spreadsheet entry is for a new patient. Use numbers only (no spaces or dashes).</p> |

4.2.5.2 Tables worksheet and VistA associations

In the Data Loader spreadsheet, the Tables worksheet contains values used to generate the pull down lists used for similarly named columns in the other worksheets.

Most of the values in the Tables worksheet are derived from specific sets of VistA data. These values can be updated as described in section 5.4 if needed.

| Column name (in Table worksheet) | VistA source |
|-------------------------------------|--------------|
| Gender | #2,.02 |
| Boolean | n/a |
| Race | #10 |
| Ethnicity | #10.2 |
| Employ_Status | #2,.31115 |
| Insurance | #36 |
| Location | #44 |
| Person | #200 |

| Column name (in Table worksheet) | VistA source |
|--|---|
| ICD9_Descr | #757.01. Note that this is a partial list of ICD 9 Descriptions from VistA (the complete list is prohibitively long). This list can be altered as described in section 5.4.1. |
| Problem_status | #9000011,.12 |
| Problem_type | #9000011,1.14 |
| Vital_type | #120.51 |
| Allergen | #120.82 |
| Symptom | #120.83 |
| Lab_test | #60 |
| Case | N/A. This is not a VistA value. It is use to link records to new patients specified in the Patients worksheet. |
| consults | #123.5 |
| Imag_Loc | #79.1 |
| Rad_proc | #71 |

5 Using the Data Loader client

5.1 Client overview

The Data Loader client is used to stage and then import data into VistA from an instance of the Data Loader spreadsheet. As a part of the staging process, the client can be used to correct problems with the data being imported. Once the import is complete, the client creates a detailed log that documents any problems encountered.

The client can also be used to extract data elements from VistA to update the Tables worksheet in the Data Loader spreadsheet.

This section assumes that the client has already been set up to connect your local VistA system. If you need to set up or change connection values, see section 3.3.

5.2 Loading patient data into VistA

Loading patient data into VistA involves loading spreadsheet information into the Data Loader client, checking the data and initiating the import, and then dealing with any import errors that arise.

5.2.1 Loading the spreadsheet into the Data Loader client

Once you have added data to an instance of the Data Loader spreadsheet as described in section 4.2, do the following:

1. Start the client (Start | All Programs | VistA | Data Loader) and use File | Connect to establish a VistA connection.

Note: If you will be importing Lab data, log in as a VistA user who holds the LRLAB and LRVERIFY security keys. This requirement is applicable only to importing data into the Lab package.

2. Use File | Load Data to select the spreadsheet instance with the data you want to be loaded.
3. The client processes the spreadsheet and displays the first page of data (typically the Patient worksheet). Use the Select Worksheet control near the bottom of the window to spot check each worksheet.

Note: Optionally, you can edit data the data displayed in the client. However, data edited in this way is not mirrored back to the spreadsheet. Also, data edited in this way is not constrained to allowable VistA values.

4. When you are ready to start the import, click **Submit**.
5. The client will load the data into VistA and will display a message box summarizing the process.
 - If no errors are reported, you are done.
 - If errors are reported, click **OK** and you can correct the problems as described in the next section.

5.2.2 Using the staging area to fix problems

If the Data Loader could not import some part of the spreadsheet, it will update the Staged Data display area to show ONLY those spreadsheet rows that could not be imported.

To review data that was not imported, use the Select Worksheet control near the bottom of the window to cycle through each worksheet.

If it is clear what the problem was, you can edit the data shown in the staging area and click **Submit** again. This will import only the data shown in the Staged Data display area.

Note: Data edited in this way is not mirrored back to the spreadsheet that it originated from. Also, data edited in this way is not constrained to allowable VistA values.

If the import is successful, the applicable row will be cleared from the Display Area. This process can be repeated as many times as needed.

If you continue to have problems, check the log file as described in the next section.

5.3 The Data Loader client log file

If there were errors during the import process, you can use the log to check for details about what caused the error.

Note: The client will always append new log data to the same log file. To control the size of the file, you should use the File | Log | Clear option occasionally. Doing so will erase the contents of the log file.

5.3.1 Accessing the log file

To display the log file, click File | Log | View. You can also access the log file directly by navigating to:

- Windows XP: ..\Documents and Settings\\Application data \DataLoader\DataLoader.log.
- Windows 7: ..\Users\\AppData\\DataLoader\DataLoader.log

You can also import the log into a spreadsheet. The log file uses pipe characters (|) as delimiters.

5.3.2 Log file entries

In the log, each entry is organized as shown below:

date & time | event | error message | data

“Event” indicates if the import for that entry was successful or not. It also indicates the type of data involved (such as Lab, Med, etc.).

“Error message”, if present, describes the type of error that occurred. The most frequently occurring messages relate to missing or invalid parameters entered into the Data Loader spreadsheet. For a detailed list of error messages, see section 7.

“Data” contains the data that being imported.

5.4 Extracting data elements from VistA

You can use the options under the Data Loader client’s Tools menu to extract data elements from specific files (database tables) in VistA. You may need to do this if:

- You are getting “No entry found” log errors when trying to import data using the client.
- You want to add to or change the list of values for one of the columns in the Tables worksheet in the Data Loader spreadsheet.

To extract data elements from VistA:

1. Start the Data Loader client (Start | All Programs | VistA | Data Loader) and use File | Connect to establish a VistA connection.

2. Choose Tools | Export VistA Tables, then select the option that matches the data elements you want to check. A text file listing the acceptable data elements for that option will display.
3. Update either the Staged Data area or the Tables worksheet in the Data Loader spreadsheet as needed.

5.4.1 Using the ICD9 name search

Because of the very large number of possible values for ICD-9 descriptions, the Data Loader client does not export of a full list of values from your VistA system. Instead, when you select Tools | ICD Name Search, the client will display a box that you can use to search your specific ICD-9 descriptions.

This search tool will display ICD-9 descriptions that begin with the search term that you enter. For example, searching for DIABETES might provide results such as: DIABETES, DIABETES INSIPIDUE, and DIABETES MELLITUS. Descriptions that contain, but do not start with the term DIABETES will not be included in the search results.

5.5 Changing connection parameters

If you need to set up or change connection values, start the client (Start | All Programs | VistA | Data Loader). Then click File | VistA Login | Settings to enter the server name and port number for the VistA system you want to connect to.

Note: If you exit from the client, it will gracefully disconnect from VistA automatically.

6 The Data Loader package in VistA

6.1 Data Loader package overview

The Data Loader package is installed in the ISI namespace and includes 1 file, 39 routines, 1 option, and 12 RPCs. The Data Loader package in VistA is inactive until it is connected to by the Data Loader client and receives data.

The transport global for the Data Loader package is included in the technical documentation shipped with the Data Loader software.

6.2 The #9001 file

The ISI PT IMPORT TEMPLATE file (#9001) is the only VistA file directly associated with the Data Loader. When the Data Loader is used to define new patients, the #9001 file auto-populates certain fields in the PATIENT file (#2) based on values in the #9001 file's DEFAULT entry.

Note: The DEFAULT entry in #9001 is set up when the Data Loader KIDS is installed. The Data Loader client is hard coded to use the DEFAULT entry only. Future versions may support use of additional entries in #9001.

Note: Optionally, the #9001 file can be used for batch patient creation in conjunction with the Data Loader Import API. For more information, see the technical documentation for the Data Loader.

There is some overlap in the data that is populated using the Patients worksheet (in the Data Loader spreadsheet) and the data that is populated based on settings in #9001. When the following fields in the Patients worksheet are populated for new patients, the values in the worksheet take precedence over any settings in #9001:

| Patient worksheet fields that override #9001 settings | |
|---|-------------------|
| Name | Date of Birth |
| SSN | Veteran status |
| Gender | Employment status |

There are some additional fields that are not in the Patients worksheet, and that are populated when new patient is defined using the Data Loader. Specific values for these fields can be dictated by settings in #9001. If #9001 is not altered after installation, the following values are applied:

| Field | How field is populated by default |
|----------------|--|
| Marital status | Randomly set to Y or N. |
| ZIP code | Set to 99999-xxxx where the last four digits are randomly generated. |
| Phone | Area code is set to 999, with balance of phone number set to random numbers. |
| City | Left blank |
| State | Randomly set to a valid state |

For additional details about how #9001 works, refer to the technical documentation for the Data Loader.

7 DataLoader.log error messages

The following sections list errors may be recorded in the Data Loader client log file. These errors are grouped based on category/package, and are listed in the same order used for the tabs in the Data Loader spreadsheet.

7.1 Patient-related errors

| Patient error | Severity | Frequency | Description |
|--|----------|-----------|--|
| Bad parameter title passed | high | rare | The Data Loader client controls the parameter values passed. This error might indicate a problem in the Data Loader client or server code. |
| Can't use full SSN with IMP_TYPE='B' | high | rare | The Data Loader client always uses an IMP_TYPE value of "I". This error might indicate a code problem. |
| Duplicate SSN | low | rare | A patient with this SSN already exists in VistA. |
| Invalid CITY (#2,.114) | low | rare | An invalid value is specified for CITY in the ISI PT IMPORT TEMPLATE file (#9001,11). |
| Invalid date value in DOB, LO_DOB, or UP_DOB field | low | common | Bad date string passed. |
| Invalid DFN_NAME ('Y' or 'N') | med | rare | This value is not used with the Data Loader client. |
| Invalid DOB (#2,.03) | low | common | Invalid date string passed. |
| Invalid EMPLOY_STAT (#2,.31115) | low | common | Invalid value submitted for Employment Status. In the client, use Tools Export VistA Tables Employ Status to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid ETHNICITY INFORMATION (#2.06,.01) | low | common | Invalid ETHNICITY information is being passed. In the client, use Tools Export VistA Tables Ethnicity to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid IMP_BATCH_NUM | med | rare | This value is not used with the Data Loader client. This error might indicate a problem in the client or server code. |

| Patient error | Severity | Frequency | Description |
|---|----------|-----------|--|
| Invalid INSUR_TYPE (#2,.3121) | low | common | Invalid value submitted for Insurance. In the client, use Tools Export VistA Tables Insurance to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid low_DOB (#2,.03) | low | rare | An invalid value is specified in EARLIEST DATE OF BIRTH in the ISI PT IMPORT TEMPLATE file (#9001,6). |
| Invalid MARITAL_STATUS (#2,.05) | low | rare | An invalid value is specified in MARITAL STATUS in the ISI PT IMPORT TEMPLATE file (#9001,8). |
| Invalid NAME (#2,.01) | low | common | Invalid character or formatting problem with NAME submitted. |
| Invalid OCCUPATION (#2,.07) | low | rare | Occupation is a free text entry. This error might indicate an invalid character is being passed. |
| Invalid PATIENT TYPE (#2,391) | low | rare | The Data Loader client defaults to a PATIENT TYPE of "NON-VETERAN (OTHER)." This error might indicate a problem in the client or server code. |
| Invalid PH_NUM (#2,.131) | low | rare | This value is automatically generated by the Data Loader software on VistA. This error might indicate a code problem. |
| Invalid PH_NUM_MASK. Numeric between 0 and 999999 | | rare | An invalid PHONE NUMBER [RESIDENCE] MASK value is specified in the ISI PT IMPORT TEMPLATE file (#9001,10). |
| Invalid RACE INFORMATION (#2.02,.01) | low | common | Invalid RACE value is being passed. In the client, use Tools Export VistA Tables Race to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid SEX (#2,.02) | low | common | The Gender value provided by the client is invalid. In the client, use Tools Export VistA Tables Gender to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid STATE (#2,.115) | low | rare | An invalid value is specified for CITY in the ISI PT IMPORT TEMPLATE file (#9001,12). |
| Invalid STREET_ADDDD1 (#2,.111) | low | rare | This value is automatically generated by the Data Loader software on VistA. This error might indicate a code problem. |

| Patient error | Severity | Frequency | Description |
|--|----------|-----------|--|
| Invalid STREET_ADDD2 (#2,.112) | low | rare | This value is automatically generated by the Data Loader software on VistA. This error might indicate a code problem. |
| Invalid TEMPLATE name | high | rare | The Data Loader client requests the "DEFAULT" entry in the ISI PT IMPORT TEMPLATE file (#9001). If there is no "DEFAULT" entry available, one must be created in #9001. |
| Invalid UP_DOB (#2,.03) | low | rare | An invalid value is specified in LATEST DATE OF BIRTH in the ISI PT IMPORT TEMPLATE file (#9001,7). |
| Invalid VETERAN (#2,1901) | low | common | Invalid value submitted. Expects a Boolean (Y/N) value. |
| Invalid ZIP_4 (#2,.1112) | low | rare | This value is automatically generated by the Data Loader software on VistA. This error might indicate a code problem. |
| Invalid ZIP_4_MASK. 5 digits max. Only numbers | low | rare | An invalid ZIP+4 MASK value is specified in the ISI PT IMPORT TEMPLATE file (#9001,9). |
| Missing IMP_TYPE | med | rare | The Data Loader client always uses an Import Type of "I" individual for each record created. This error might indicate a problem in the client or server code. |
| Must have either NAME or NAME_MASK | low | rare | NAME was not specified in the data from the Data Loader client, and there is no value specified for NAME MASK in the ISI PT IMPORT TEMPLATE file (#9001,2). To clear this error, specify a patient name in the applicable Data Loader spreadsheet row, or define a NAME MASK in #9001. (On install, NAME MASK is initially set to "*PATIENT".) |

7.2 Appointment-related errors

| Appointment error | Severity | Frequency | Description |
|----------------------------|----------|-----------|--|
| Bad parameter title passed | high | rare | The Data Loader client controls the parameter values passed. This error might indicate a problem in the Data Loader client or server code. |
| Invalid appointment date | low | common | Invalid date string passed. |
| Invalid appt date/time | low | common | Invalid date/time string provided. |

| Appointment error | Severity | Frequency | Description |
|--|----------|-----------|---|
| Missing appt. location (#44) | low | common | Missing appointment location (#44). |
| Missing date/time for appt | low | common | Missing date parameter. |
| Missing patient ien (#2) | low | common | The Data Loader was unable to associate record with a PATIENT (#2) record. Likely, an improper Pat SSN was submitted. |
| Missing time for appt | low | rare | The Data Loader should not produce this error. The Data Loader creates appointment times if they are not provided. This error might indicate a problem with the Data Loader Data Loader client or server code. |
| No data provided for parameter | high | rare | A null value was submitted. The Data Loader client should screen null or blank values. This error might indicate a problem with the Data Loader client or server code. |
| No entry found for clinic (#44) | low | common | Invalid value passed; not a valid HOSPITAL LOCATION (#44) entry. In the client, use Tools Export VistA Tables Location to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| No entry found for PATIENT (#2) | med | common | The SSN that was submitted could not be found for an existing patient in VistA. |
| No internal entry found for clinic (#44) | low | common | Invalid value passed; not a valid HOSPITAL LOCATION (#44) entry. In the client, use Tools Export VistA Tables Location to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |

7.3 Problem-related errors

| Problem error | Severity | Frequency | Description |
|----------------------------|----------|-----------|--|
| Bad parameter title passed | high | rare | The Data Loader client controls the parameter values passed. This error might indicate a problem in the Data Loader client or server code. |

| Problem error | Severity | Frequency | Description |
|--------------------------------|-----------------|------------------|--|
| Invalid data for PROBLEM | low | common | Invalid ICD9 description provided. |
| Invalid data for PROVIDER | low | common | Must match a name entry in #200 and have a "PROVIDER" KEY (#200.051,.01) assigned. |
| Invalid ONSET date | low | common | Invalid date string passed. |
| Invalid PAT_SSN (#2,.09) | med | common | Pat SSN not found in Vista. Must be valid/existing SSN entry from the PATIENT (#2) file. |
| Missing data for PROBLEM | low | common | Missing data. The ICD9 description is required. |
| Missing Patient SSN (#2,.09) | med | common | Missing data. Record must be associated with a patient – either provide a valid Case name or valid Pat SSN. |
| Missing PROBLEM param | low | common | Missing data. The ICD9 description is required. |
| Missing PROVIDER (#2,.01) | low | common | Missing data. Provider is required. |
| No data provided for parameter | high | rare | A null value was submitted. The Data Loader client should screen null or blank values. This error might indicate a problem with the Data Loader client or server code. |

7.4 Vitals-related errors

| Vitals error | Severity | Frequency | Description |
|-------------------------------|-----------------|------------------|--|
| Bad parameter title passed | high | rare | The Data Loader client controls the parameter values passed. This error might indicate a problem in the Data Loader client or server code. |
| Invalid DT_TAKEN (#120.5,.01) | low | common | Invalid Date/Time format for "Date" provided. |
| Invalid DT_TAKEN date/time | low | common | Invalid Date/Time format for "Date" provided. |

| Vitals error | Severity | Frequency | Description |
|-----------------------------------|----------|-----------|--|
| Invalid ENTERED_BY (#120.5,.06) | low | common | Invalid value passed for “Taken by.” Must be valid entry from the PERSON (#200) file. In the client, use Tools Export VistA Tables Person to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid LOCATION (#120.5,.05) | low | common | Invalid value passed for “Clinic”; must be a valid HOSPITAL LOCATION (#44) entry. In the client, use Tools Export VistA Tables Location to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid PAT_SSN (#2,.09) | med | common | “Pat SSN” not found in VistA. |
| Invalid RATE value for VITAL_TYPE | low | common | The “Rate” values were rejected for “Vital type” selected. |
| Invalid VITAL_TYPE (#120.5,.03) | low | common | Invalid value passed; must be a valid GMVR VITAL TYPE (#120.51) entry. In the client, use Tools Export VistA Tables Vital_type to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Missing DT_TAKEN entry | low | common | Missing “Date” parameter. |
| Missing ENTERED_BY entry | low | common | Missing data. A value is required for “Taken by.” |
| Missing LOCATION entry | low | common | Missing data. A value is required for “Clinic.” |
| Missing Patient SSN | med | common | Missing data. Record must be associated with a patient – either provide a valid “Case name” or “Pat SSN”. |
| Missing RATE entry | low | common | Missing data. A value is required for “Rate 1”. For Blood pressure (Vital Type, enter a number for both “Rate 1” and “Rate 2”. |
| Missing VITAL_TYPE entry | low | common | Missing “Vital type” entry. |
| No data provided for parameter | high | rare | A null value was submitted. The Data Loader client should screen null or blank values. This error might indicate a problem with the Data Loader client or server code. |

| Vitals error | Severity | Frequency | Description |
|---|----------|-----------|---|
| Unable to find internal value for VITAL_TYPE (#120.5,.03) | low | common | Invalid value passed; must be a valid GMVR VITAL TYPE (#120.51) entry. In the client, use Tools Export VistA Tables Vital_type to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| VITAL_TYPE does not accept RATE entries | low | common | The “Rate” values were rejected for “Vital type” selected. |

7.5 Allergy-related errors

| Allergy error | Severity | Frequency | Description |
|------------------------------|----------|-----------|--|
| Bad parameter title passed | high | rare | The Data Loader client controls the parameter values passed. This error might indicate a problem in the Data Loader client or server code. |
| Invalid ALLERGEN (#120.82) | low | common | Invalid value passed for “Allergen”; must be a valid GRM ALLERGIES (#120.82) entry. In the client, use Tools Export VistA Tables Allergen to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid HISTORIC value (0/1) | high | rare | The Data Loader client always provides a value of 1 [Historic, rather than Observed]. This error might indicate a problem in the Data Loader client or server. |
| Invalid OBSRV_DT | low | common | Since the Data Loader client always creates a historic entry, this value is not required. This error might indicate a problem in the Data Loader client or server code. |
| Invalid ORIG_DATE (#120.8,4) | low | common | Invalid date value passed for “Origination date.” If no time value is provided, a default time of 12 PM is automatically selected. |
| Invalid ORIG_DATE date/time | low | common | Invalid date/time entry provided for “Origination date.” If no time value is provided, a default time of 12 PM is automatically selected. |

| Allergy error | Severity | Frequency | Description |
|--------------------------------|----------|-----------|--|
| Invalid ORIGINTR (#120.8,5) | low | common | Invalid value passed for “Entered by.” Must be valid entry from the PERSON (#200) file. In the client, use Tools Export VistA Tables Person to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid PAT_SSN (#2,.09) | med | common | Pat SSN not found in VistA. Must be valid/existing SSN entry from the PATIENT (#2) file. |
| Invalid SYMPTOM (#120.83) | low | common | Invalid value passed for “Symptom.”; must be a valid SIGNS/SYMPTOMS (#120.83) entry. In the client, use Tools Export VistA Tables Symptom to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Missing ALLERGEN | low | common | Missing data. A value for “allergen” is required. |
| Missing HISTORIC entry | high | rare | The Data Loader client always provides a value of 1 [Historic, rather than Observed]. This error might indicate a problem in the Data Loader client or server code. |
| Missing OBSRV_DT entry | low | common | Since the Data Loader client always creates a historic entry, this value is not required. This error might indicate a problem in the Data Loader client or server code. |
| Missing ORIG_DATE entry | low | common | Missing data. A value for “Origination date” is required.” |
| Missing ORIGINTRY entry | low | common | Missing data. A value for “Entered by” is required. |
| Missing Patient SSN | med | common | Missing data. Record must be associated with a patient – either provide a valid “Case name” or “Pat SSN”. |
| Missing SYMPTOM | low | common | Missing data. A value for “symptom” is required. |
| No data provided for parameter | high | rare | A null value was submitted. The Data Loader client should screen null or blank values. This error might indicate a problem with the Data Loader client or server code. |

7.6 Lab-related errors

| Lab error | Severity | Frequency | Description |
|---|----------|-----------|--|
| Bad parameter title passed | high | rare | The Data Loader client controls the parameter values passed. This error might indicate a problem in the Data Loader client or server code. |
| Couldn't find ien for LAB_TEST (#60) | low | common | Invalid value passed for "Lab test"; must be a valid LABORATORY TEST (#60) entry. In the client, use Tools Export VistA Tables Lab_test to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Couldn't locate COLLECTION SAMPLE (#62) for LAB_TEST value | low | common | Invalid value passed for "Lab test." LABORATORY TEST (#60) entry must have a COLLECTION SAMPLE (#60.03) entry. In the client, use Tools Export VistA Tables Lab_test to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Couldn't locate DEFAULT SPECIMIN (#62,2) for LAB_TEST value | med | rare | Invalid value passed for "Lab test." The LABORATORY TEST (#60) entry COLLECTION SAMPLE (#60.03) value must point to a valid TOPOGRAPHY FIELD FILE (#61) in VistA. In the client, use Tools Export VistA Tables Lab_test to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid ENTERED_BY (#200,.01). Insufficient privileges | low | common | The Data Loader uses the logon user's credentials to stuff laboratory data. The logon user must have either the "LRLAB" or "LRVERIFY" security key assigned in the PERSON (#200) file. |
| Invalid LOCATION value (#44,.01) | low | common | Invalid value passed for "Location." In the client, use Tools Export VistA Tables Location to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid PAT_SSN (#2,.09) | med | common | Pat SSN not found in VistA. Must be valid/existing SSN entry from the PATIENT (#2) file. |

| Lab error | Severity | Frequency | Description |
|--|----------|-----------|---|
| Invalid RESULT_DT date/time | low | common | Invalid date value passed for “Result date.” If no time value is provided, a default time of 12 PM is automatically selected. |
| Invalid RESULT_VAL | low | common | Invalid value passed. Must be numeric or decimal (ex. 1, .3, or 101.3). |
| LAB_TEST incorrect. SUBSCRIPT (#60,4) must by 'CH' | low | common | Invalid value passed for “Lab test.” Must be a valid entry from the LABORATORY TEST (#60) file and in VistA the test must have a SUBSCRIPT (#60,4) value of “CH” (CHEM, HEM, TOX, SER, RIA, ETC.). In the client, use Tools Export VistA Tables Lab_test to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Missing LAB_TEST | low | common | Missing data. A value for “Lab test” is required. |
| Missing LOCATION | low | common | Missing data. A value for “Location” is required. |
| Missing Patient SSN | med | common | Missing data. Record must be associated with a patient – either provide a valid “Case name” or “Pat SSN”. |
| Missing RESULT_DT entry | low | common | Missing data. A value for “Result date” is required. |
| Missing RESULT_VAL | low | common | Missing data. A value for “Result value” is required. |
| Missing value for LAB_TEST (#60) | low | common | Missing data. A value for “Lab test” is required. |
| No data provided for parameter | high | rare | A null value was submitted. The Data Loader client should screen null or blank values. This error might indicate a problem with the Data Loader client or server code. |

7.7 Notes (TIU)-related errors

| Notes error | Severity | Frequency | Description |
|----------------------------|----------|-----------|--|
| Bad parameter title passed | high | rare | The Data Loader client controls the parameter values passed. This error might indicate a problem in the Data Loader client or server code. |

| Notes error | Severity | Frequency | Description |
|---|----------|-----------|---|
| Invalid LOCATION value (#44,.01) | low | common | Invalid value passed for "Clinic." In the client, use Tools Export VistA Tables Location to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid PAT_SSN (#2,.09) | med | common | "Pat SSN" not found in VistA. Must be valid/existing SSN entry from the PATIENT (#2) file. |
| Invalid PROV value (#200,.01) | low | common | Invalid value passed for "Provider." Entry must be a valid entry in the PERSON (#200) file in VistA. Also, the AUTHORIZED TO WRITE MEDICAL ORDERS (53.1) field must be set to "YES." |
| Invalid TIU_NAME (#8925.1) | low | common | Invalid value passed for "Note title." Value must have a valid entry in the TIU DOCUMENT DEFINITION (8925.1) file in VistA. The TYPE (.04) field must be "DOC" and STATUS (.07) field must be "ACTIVE." No Consult notes are allowed. In the client, use Tools Export VistA Tables Note_title to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid VDT date/time | low | common | Invalid date/time entry provide for "Visit datetime." If no time value is provided, a default time of 12 PM is automatically selected. |
| Missing note text | low | common | Missing data. A value for "Note text" is required. This is a free text field. |
| Missing Patient SSN | med | common | Missing data. Record must be associated with a patient – either provide a valid "Case name" or "Pat SSN". |
| Missing PROV (#200, .01) | low | common | Missing data. A value for "Provider" is required. |
| Missing TIU_NAME | low | common | Missing data. A value for "Note title" is required. |
| Missing value for VDT (Visit Date/Time) | low | common | Missing data. An entry for "Visit datetime" is required. |
| Missing VLOC (Hospital Location #44) | low | common | Missing data. A value for "Clinic" is required. |

| Notes error | Severity | Frequency | Description |
|--|----------|-----------|--|
| No data provided for parameter | high | rare | A null value was submitted. The Data Loader client should screen null or blank values. This error might indicate a problem with the Data Loader client or server code. |
| Note requires co-signature | low | rare | Some VistA notes require a co-signature. The Data Loader cannot apply co-signatures at this time. |
| PROVIDER (#200) missing Electronic Signature | low | common | The "Provider" selected must have an ELECTRONIC SIGNATURE CODE (20.4) field value in the PERSON (#200) file in VistA. |
| Visit will not allow additional attached notes | low | rare | If the "Clinic" and "Visit datetime" values match an existing or newly created appointment entry for this case/patient VistA will attach a note the existing visit. Some progress notes will NOT allow more than one attachment. |

7.8 Meds-related errors

| Meds error | Severity | Frequency | Description |
|--|----------|-----------|---|
| Bad parameter title passed | high | rare | The Data Loader client controls the parameter values passed. This error might indicate a problem in the Data Loader client or server code. |
| Can't locate valid OUTPATIENT SITE FILE (#59) | med | rare | VistA set up error. The Data Loader was unable locate an active entry in the "OUTPATIENT SITE FILE" (#59). |
| Invalid DATE date/time | low | common | Invalid date/time entry provide for "Date." If no time value is provided, a default time of 12 PM is automatically selected. |
| Invalid DRUG (#50,.01) value | low | common | Invalid "Medication" entry provided. Value must be a valid entry in the DRUG (#50) file in VistA. The entry must also have a PRICE PER DISPENSE UNIT (#50,16) value, a DEA, SPECIAL HLDG (#50,3) value, and a PHARMACY ORDERABLE ITEM (#50,2.1) entry in VistA. |
| Invalid Medication Instruction/SIG (#50,.01) value | low | common | Invalid "Schedule" value passed. Value must be a valid entry in the MEDICATION INSTRUCTION (#51) file in VistA. |

| Meds error | Severity | Frequency | Description |
|---|-----------------|------------------|---|
| Invalid PAT_SSN (#2,.09) | low | common | "Pat SSN" not found in VistA. Must be valid/existing SSN entry from the PATIENT (#2) file. |
| Invalid PROVIDER (#200,.01) | low | common | Invalid "Provider" passed. The Data Loader will first attempt to use the entry in the "Provider" column. If no valid entry is found, the Data Loader will then attempt to use the login user. Entry must be a valid entry in the PERSON (#200) file and must have the AUTHORIZED TO WRITE MEDICAL ORDERS (53.1) field set to "YES." |
| Invalid QTY (quantity) value. Must be number | low | common | Invalid "Quantity" value passed. Must be numeric. |
| Invalid REFILL (# of refills) value. Must be number | low | common | Invalid "Number of refills" passed. Must be numeric. |
| Invalid SUPPLY (DAYS SUPPLY) value. Must be number | low | common | Invalid "Days supply" value passed. Must be numeric. |
| Missing DRUG (#50,.01) value | low | common | Missing data. A value for "Medication" is required. |
| Missing Patient SSN | low | common | Missing data. Record must be associated with a patient – either provide a valid "Case name" or "Pat SSN". |
| Missing QTY (quantity) value | low | common | Missing data. A value for "Quantity" is required. |
| Missing REFILL (# of refills) value | low | common | Missing data. A value for "Number of refills" is required. |
| Missing SIG (#51,.01) value | low | common | Missing data. A value for "Schedule" is required. |
| Missing SUPPLY (DAYS SUPPLY) value | low | common | Missing data. A value for "Days supply" is required. |
| No data provided for parameter | high | rare | A null value was submitted. The Data Loader client should screen null or blank values. This error might indicate a problem with the Data Loader client or server code . |

7.9 Consults-related errors

| Consults error | Severity | Frequency | Description |
|---|----------|-----------|---|
| Bad parameter title passed | high | rare | The Data Loader client controls the parameter values passed. This error might indicate a problem in the Data Loader client or server code. |
| Invalid CONSULT (#123.5) | low | common | Invalid value passed for "Consult." Must be a valid entry in the REQUEST SERVICES FILE (#123.5) in VistA. In the client, use Tools Export VistA Tables Consult to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid LOCATION value (#44,.01) | low | common | Invalid value passed for "Location." In the client, use Tools Export VistA Tables Location to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid PAT_SSN (#2,.09) | low | common | "Pat SSN" not found in VistA. Must be valid/existing SSN entry from the PATIENT (#2) file. |
| Invalid PROV value (#200,.01) | low | common | Entry must be a valid entry in the PERSON (#200) file in VistA and must have the AUTHORIZED TO WRITE MEDICAL ORDERS (53.1) field set to "YES." |
| Missing CONSULT (#123.5) | low | common | Missing data. A value for "Consult" must be provided. |
| Missing LOC (Hospital Location #44) | low | common | Missing data. A value for "Location" is required. |
| Missing Patient SSN | low | common | Missing data. Record must be associated with a patient – either provide a valid "Case name" or "Pat SSN". |
| Missing PROV | low | common | Missing data. A value for "Provider" is required. |
| No data provided for parameter | high | rare | A null value was submitted. The Data Loader client should screen null or blank values. This error might indicate a problem with the Data Loader client or server code. |
| PROVIDER missing Electronic Signature (#200,20.4) | low | common | Entry must be a valid entry in the PERSON (#200) file and have a value in the ELECTRONIC SIGNATURE CODE (200, 20.4) field in VistA. |

7.10 Rad order-related errors

| Rad Order error | Severity | Frequency | Description |
|--|----------|-----------|---|
| Bad parameter title passed | high | rare | The Data Loader client controls the parameter values passed. This error might indicate a problem in the Data Loader client or server code. |
| Invalid MAGLOC (IMAGING LOCATIONS #79.1) | low | common | Invalid Imaging Location. Either the Imaging Location could not be found in VistA or it is inactive. In the client, use Tools Export VistA Tables Imag_Loc to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid PAT_SSN (#2,.09) | low | common | "Pat SSN" not found in VistA. Must be valid/existing SSN entry from the PATIENT (#2) file. |
| Invalid PROV value (#200,.01) | low | common | Invalid Requesting Provider. Either the entry could not be found in VistA, or the entry in the PERSON file (#200) does not have a PROVIDER security key and AUTHORIZED TO WRITE MEDICAL ORDERS is not set to "Y". |
| Invalid RADTE (Exam Date/Time) | low | common | Invalid date time format. Please use a valid FileMan entry format. |
| Invalid RAPROC (#71,.01) | low | common | Invalid Rad Procedure. Either the procedure could not be found in VistA, or it is inactive. In the client, use Tools Export VistA Tables Rac_Proc to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Invalid REQLOC value (HOSPITAL LOCATION #44,.01) | | | Invalid Request Location. Either the entry provided could not be found. In the client, use Tools Export VistA Tables Location to view the values that are acceptable to VistA, and check those values vs. the appropriate column in the Tables tab of the Data Loader spreadsheet. |
| Missing HISTORY | low | common | Missing data. Clinical History is a required free text field. |
| Missing MAGLOC (IMAGING LOCATIONS #79.1) | low | common | Missing data. An Imaging Location must be provided. |

| Rad Order error | Severity | Frequency | Description |
|---|----------|-----------|--|
| Missing Patient SSN | low | common | Missing data. Record must be associated with a patient – either provide a valid “Case name” or “Pat SSN”. |
| Missing PROV | low | common | Missing data. A Requesting Provider must be supplied. |
| Missing RADTE | low | common | Missing data. You must provide an Exam Date Time. |
| Missing RAPROC (#71,.01) | low | common | Missing data. A Rad Procedure must be provided. |
| Missing REASON | low | common | Missing data. Reason is a required free text field. |
| Missing REQLOC (HOSPITAL LOCATION #44) | low | common | Missing data. A Request Location is required. |
| No data provided for parameter | high | rare | A null value was submitted. The Data Loader client should screen null or blank values. This error might indicate a problem with the Data Loader client or server code. |
| Provider does not have RAD/NUC LOCATION ACCESS (#200, .074) to Imaging Location | low | common | The Requesting Provider must have an entry in the RAD/NUC LOCATION ACCESS field (#200,.074) for the selected Imaging Location. |
| TYPE OF IMAGING (#79.2) and IMAGING LOCATION (#79.1) don't match | low | common | Each VistA Procedure (#71) is categorized by a Type of Imaging (#79.2). Each Imaging Locations (#79.1) only allows a specific type of image. The two must match. Try changing Image Locations to match the selected Rad Procedure. |
| Unable to create Radiology Order (CREATE ISIIMP21) | med | rare | The VistA Radiology package encountered an error while creating the order. This may require system admin or programmer intervention. |