Release Notes

Questions and comments may be answered at 1-877-201-4721.

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VERSION 10.4

A new version of the Java-based HIPPS grouper has been incorporated into HAVEN 10.4. This version has been updated to reflect logic changes for January 2012.

VERSION 10.3

A new version of the Java-based HIPPS grouper has been incorporated into HAVEN 10.3. This version has been updated to reflect changes to the ICD-9 codes for October 2011.

The ICD-9 lookup database has been updated to reflect the code changes that go into effect beginning October 2011.

VERSION 10.2

A new version of the Java-based HIPPS grouper has been incorporated into HAVEN 10.2. This version has been updated to reflect changes to the ICD-9 codes for October 2010.

The ICD-9 lookup database has been updated to reflect the code changes that go into effect beginning October 2010.

VERSION 10.1

In version 10.0, there were some situations where assessments were added but did not appear in the assessment list for the patient on the HAVEN Management Screen. Also, for some episodes, the recertification date error check did not properly identify the date window, resulting in an incorrect warning message. Both of these issues were the result of a bug in maintaining the sequence of assessments in the HAVEN database. The bug has been fixed, and code has been added at startup to identify and correct any out-of-sequence assessments.

Windows 2000 users were not able to install the 10.0 software. This was an Installshield issue identified in December 2009 and resolved with a hot fix. The hot fix is now a part of the installation package.

The assessment form-style report (i.e., Print Report function on the HAVEN Management Screen) printed the birth date in "yyyymmdd" format instead of "mm/dd/yyyy" format. In addition, the HIPPS claim key did not print correctly in the header of the report. These bugs have been fixed.

The version of the HIPPS Grouper Java Bridge DLL included with HAVEN has a dependency on MSVCR71.dll, which was not available on all PCs. Therefore, MSVCR71.dll was added to the HAVEN installation and will be copied to the HAVEN application directory (e.g., C:\HAVEN).

The error check to ensure that M0104 (the physician referral date) is earlier than M0030 (the start of care date) was present for both RFA 1 and 3. It should have been in RFA 1 only, per the errata document posted for the OASIS-C data specifications. This bug has been fixed.

For item M1018, consistency items 4 and 5 in the data specifications were not enforced by the validation DLL. The items have been added for this release.

This release contains updated assessment variable help, reflecting the latest release of the Item Guidance documentation from CMS.

HAVEN now supports the use of apostrophes in the first name and last name of the patient.

VERSION 10.0

Version 10.0 incorporates the OASIS-C Data Specifications. OASIS-C assessment data is stored in the new HHC table within HHA.MDB; for existing users, the HHC table is added to the existing HHA.MDB when HAVEN 10.0 begins. Both OASIS-B and OASIS-C assessments are displayed in a single list for the patient selected on the HAVEN Management Screen.

A new version of the Java-based HIPPS grouper has been incorporated into HAVEN 10.0. This version is able to group OASIS-C assessments. For more information on the Java-based grouper, see the release notes for version 9.2.

When HAVEN is executed for the first time, a backup will be made of the HHA.MDB before the database is upgraded for version 10.0. The backup HHA.MDB will be named HHABKUP.MDB and it will be located in a subdirectory of the current database location. The subdirectory name is ONE_TIME.

The ICD-9 lookup database now contains diagnosis and procedure codes, since OASIS-C assessments contain a question that requires procedure codes. Note that the long descriptions of the ICD-9 codes are now available during lookup and within data entry.

Per CMS requirements, employee passwords must be encrypted. Therefore, the first time HAVEN 10.0 is executed, a new database named EMP.MDB will be created, containing the EMPLOYEE table from HHA.MDB with the password field encrypted. EMP.MDB will be located in the same directory as HHA.MDB, and the EMPLOYEE table will be removed from HHA.MDB. The Administrator user can still see the passwords for all users within HAVEN. If the Administrator user password is forgotten and no one can log in, please contact the HAVEN Help Desk for assistance.

When adding an assessment, the default assessment specification will be 1.60 through 12/31/2009. For 2010, the default assessment specification will be 2.00 (i.e., OASIS-C).

In vertical data entry, some abbreviations on the screen may contain spaces between the letters, e.g., NA is N A. This was

Done for Section 508 compliance, as it enables screen reader software to spell out the abbreviation rather than pronounce it.

For OASIS-C assessments, data entry screens were given English names in addition to the range of M00 numbers for the screen.

Private pay assessments are no longer masked and exported. When data entry is completed, the assessments are given a status of "Completed." They are treated by HAVEN as if they have Exported status; for example, if all of the assessments for a patient have a status of Exported or Completed, then the patient can be archived.

The validation and printing methods are now available in DLLs for use by vendors. Please download the sample application Package from the QTSO site to learn how to call the methods.

A Select All button has been added to the Import screen, as it is common to check all of the options for import files.

M0140: For OASIS-C, the Unknown option is no longer available. However, it is still available on the Maintain Patient screen for backward compatibility. Note that if Unknown is selected for M0140 and an OASIS-C assessment is created, the error checking will prevent the assessment from being completed until the user changes the M0140 value.

VERSION 9.2

A new version of the HIPPS grouper has been incorporated into HAVEN 9.2. The new grouper will be used for all HIPPS calculations required for assessments with M0090 value greater than or equal to 01/01/2008 for RFAs 1 and 3, or M0090 value greater than or equal to 12/27/2007 for RFAs 4 and 5. For assessments with earlier M0090 dates, the previous grouper software will be used.

The new HIPPS grouper requires the presence of the Sun Java Runtime Engine, versions 1.5 and higher. The HAVEN installation program will install version 1.6 of the Java Runtime Engine software if it is not already present on the target PC. Otherwise, the HIPPS grouper will utilize the existing version of the Java Runtime Engine on the target PC. **IMPORTANT NOTE: IF JAVA IS INSTALLED AS PART OF THE HAVEN INSTALLATION, PLEASE REBOOT THE PC AFTER THE INSTALLATION IS COMPLETE, PRIOR TO RUNNING HAVEN 9.2.** This will ensure that the Java Runtime Engine initializes properly when the HIPPS grouper is called by HAVEN.

For each HAVEN session, a dialog box will appear when the new HIPPS grouper software is first used. The dialog box indicates that the Java engine is being initialized. The dialog box will not appear for future calculations during the HAVEN session.

The ICD-9 lookup database has been updated to contain the codes in effect as of 10/01/2009.

For ICD-9 lookups, it was possible to select an E or V code using the search by description capability, even if the field did not allow E or V codes. This bug has been corrected.

When selecting the location of (i.e., specifying a path for) HHA.MDB, the user was given the option to use the HHA.MDB in the target location (if it already existed) or overwrite it with a blank HHA.MDB. In order to guard against accidental data loss, the option to overwrite an existing HHA.MDB with a blank HHA.MDB has been removed.

VERSION 9.1

Private pay assessments for patients where the Medicare or Medicaid Number is NA or SSN is UK were being rejected upon submission. This bug has been corrected.

The Browse button on the Export screen has been moved to be next to the read-only Path text box. Note that the File Name text box only contains the file name, not the path and file name. This is a change from HAVEN 8.1, where both the path and file name were combined into a single text box. The change was made to ensure that a valid path is identified.

The label text for M0800 was incorrectly positioned before M0700 during vertical data entry. This bug has been corrected.

For correction of version 1.40 Start of Care assessments, the M0350-M0430 option in the Go To dropdown list box displayed a blank screen. It is a section header and should not have displayed a screen. It now correctly takes the user to the M0350-M0380 screen.

When sending Assessments In Use or Masked Values In Hex Format reports to the printer, an error occasionally appeared. The reason was an interruption of the printing function by the 15-minute timeout function. This bug has been corrected.

VERSION 9.0

IMPORTANT NOTE: THIS RELEASE IS <u>OPTIONAL</u> – no data specifications have been changed. Users may opt to skip this release and continue working with HAVEN 8.1.

IMPORTANT NOTE: If HAVEN 9.0 is installed as an upgrade to HAVEN 8.1, it cannot be rolled back to the previous version. All of the dictionary databases have been altered to work with new Visual Basic 2008 engine. Therefore, it is STRONGLY ADVISED that existing users backup their **entire** HAVEN 8.1 installation prior to upgrading!

IMPORTANT NOTE: If HAVEN 9.0 is installed as an upgrade to HAVEN 8.1, please note that the administrator will need to re-specify all preferences and database locations. This is especially important for network installations, as the administrator will need to set the location for HHA.MDB to the network drive where it is located.

IMPORTANT NOTE: The Local Use feature for moving encrypted files between installations of HAVEN has been discontinued, as the encryption method does not meet current CMS standards. It is critical that any encrypted files be decrypted with HAVEN 8.1 prior to upgrading to HAVEN 9.0.

Per direction from CMS, HAVEN has been enhanced to work with external screen readers (i.e., JAWS). This capability replaces the previous internal speech functionality, which used the Microsoft Speech API (SAPI).

The HAVEN source code was migrated from Visual Basic 6 to Visual Basic 2008. The primary reason for the migration was to take advantage of the accessibility attributes for screen objects (e.g., radio boxes, checklists) and provide more information for external screen readers.

The assessment data entry window no longer uses tabs to navigate between screens. Screens are now selected using a combo box labeled "Go To" at the top of the assessment window. In addition, four navigational buttons are now available at the top of the window: Previous, Next, Exit (Validate) and Exit (No Validate). The X button (upper right-hand corner) is no longer used to exit assessment data entry – please choose either the Exit (Validate) or the Exit (No Validate) button.

In assessment data entry, some of the read-only patient and agency variables are presented with different user interface control types (e.g., combo boxes instead of radio buttons). This was necessary to allow those variables to gain the focus on the screen; therefore, they can be spoken by an external screen reader.

For ICD-9 variables in assessment data entry, the ICD-9 button must be used to launch a pop-up window where the user may search and select a code from the list or enter a code manually. The ICD-9 text displayed on the assessment data entry screen is now read-only.

The "Enable improved 508 compatibility" checkbox on the login screen enables certain HAVEN features which benefit the visually impaired. The variables on the assessment data entry screens are displayed vertically so that external screen readers will read the fields correctly. The font size used for the vertical data entry screens can be increased or decreased by one dynamically by pressing F11 or F12, respectively. Alternatively, a font size between 8 and 28 can be entered directly. Reports are sent directly to PDF files instead of displaying in a viewer window (the viewer window is not 508-compliant). Toolbars and graphics are not displayed, as they are not accessible via the keyboard. Additional status and error message boxes are displayed at appropriate times to keep the user informed of HAVEN activity.

For the patient and assessment lists, the user may sort by columns using the keyboard – press Ctrl-Alt-Z when the list is selected and a popup menu will allow the user to specify which column should be used for the sort. If a column is resized such that it can no longer be seen, the default column sizings may be restored use Ctrl-Alt-Y.

Search and filter-by-branch functionality is now implemented using a tab control to switch between them. This functionality is present on the HAVEN Management screen, the Maintain Patient Database screen, and the View/Print Reports screen. NOTE: the branch filter is based on the most recent branch for the patient. The option to specify whether a patient has ever visited a specific branch has been removed for this release.

The user may view patient information quickly from the HAVEN Management screen by double-clicking on an entry in the Patient Info list.

For the Maintain Patient Database, Maintain Branch Database and Maintain Employee Database screens, a View button is now available, which enables the user to view patient and employee information without entering an edit mode (i.e., the variables are read-only).

If "improved 508 compatibility" is not enabled, a splitter bar is available on screens containing both patient and assessment lists. This allows the user to resize them. For example, the patient list can be made smaller while the assessment list becomes larger.

On the Facility Information screen, a tab control has been implemented to switch between the facility and agent fields.

For fields where a directory path is required, users must use the associated Browse button to select a path with a standard dialog box. Manual entry is no longer available.

The Preferences option to switch between radio buttons and checkboxes (for variables where only one option can be selected from a set of several options) is no longer available.

For the Accessibility tab in Preferences, users can "enable improved 508 compatibility" by checking the checkbox. This checkbox serves the same function as the checkbox found on the Login screen. Users may also specify a font size to be used in the data entry screens. The selected font size is displayed in a box on the Accessibility tab.

On the HAVEN Management screen, inactivation records can be identified in the assessment list by the value "99" in the correction number (i.e., "#") column. In previous versions of HAVEN, an "X" was used to denote an inactivation record.

Many of the HAVEN screens may now be resized manually or by using the Minimize, Restore and Maximize control boxes (in the upper-right-hand corner).

VERSION 8.1

Version 2.02 of the OASIS HIPPS grouper is included in this patch.

In version 8.0, the HAVEN backup became mandatory. However, for many users with network configurations, the HAVEN backup was redundant with system backups. Therefore, in version 8.1, the HAVEN backup is once again optional. It is strongly recommended that HAVEN users consider the availa ble backup options and do everything possible to avoid data loss as a result of hardware failure.

In order to meet accessibility requirements, it is no longer possible to use the double-click method of selecting assessments for data entry/correction on the HAVEN Management screen. Please click once on the desired assessment, then click on the appropriate button (e.g., Enter Data).

For version 1.60 of the OASIS data specifications, the content of the HIPPS Claim Key changed. The report generated from the Print Assmt button now contains the correct HIPPS Claim Key value for 1.60 assessments. In previous specifications, the value could be derived from the 1,448-byte submission string; however, now the value must be obtained from the HIPPS grouper results. The sample code for calling the Print functionality has been updated to allow vendors to pass in the HIPPS Claim Key value (which they can obtain by calling the grouper before printing).

In some instances, the M0450 variables were not enabling or disabling correctly. The bug has been fixed.

The branch dropdown on the HAVEN Management screen will now display at all times, even if the agency has not defined any branches in the database.

The labels for M0800 and M0810 were not printing correctly in the Print Assmt report for version 1.60 assessments. In addition, the labels for the ICD9-related variables were being truncated. These bugs have been fixed.

VERSION 8.0

HAVEN 8.0 incorporates the 1.60 OASIS data specifications.

Version 2.01 of the OASIS HIPPS grouper is included in this patch. The grouper was updated as a result of the OASIS Version 1.60 specification changes which go into effect on 1 2/27/2007.

The ICD-9 lookup database has been updated to contain the codes in effect as of 10/01/2007.

The OASIS Item help has been updated to match the latest revisions to Chapter 8 of the OASIS Manual, which reflect the OASIS Version 1.60 specification. The older OASIS Item help file has been renamed to OASISItem150.hlp, and it will be referenced by HAVEN for older (Version 1.50 and earlier) assessments.

HAVEN has been enhanced with accessibility features. It works with the Microsoft Speech API (SAPI) to

speak the items on the screen as the user navigates among them. A checkbox on the HAVEN Login screen allows the user to turn on/off speech at startup. The user may also enable speech within HAVEN by using the checkbox located on the Preferences screen. NOTE: HAVEN does not speak text fields while typing them. It is recommended that the user ta b to the next item, then Shift-Tab back in order to audibly confirm what was typed.

VERSION 7.1

Version 1.06 of the OASIS HIPPS grouper is included in this patch. The grouper was updated as a result of ICD-9 changes which go into effect on 10 /01/2006.

The ICD-9 lookup database has been updated to contain the codes in effect as of 10/01/2006.

The OASIS Item help has been updated to match the latest revisions to Chapter 8 of the OASIS Manual.

Additional options have been added to the Import screen. These options are intended to assist agencies who may have lost their data and received a data extract from CMS. In general, users should check all options (except for the Local Use option) when importing a CMS data extract.

VERSION 7.0

HAVEN 7.0 includes a new search for Patients by Branch ID on the HAVEN Management Screen.

A new search for assessments by Branch ID was added to the Export screen.

A new search for assessments by Branch ID was added to the Assessment report screen.

In HAVEN 7.0, a new capability to maintain the branches database was added.

Support was added so that users with/without Branches could continue to work as before.

A new National Provider ID can be optionally entered on the Agency Maintenance screen (for use as a default value when assessments are created) a nd also when entering an assessment.

The new version is compatible with OASIS specification version 1.50.

New compatibility checks for two pressure ulcer fields (M0460 and M0464) were added.

New compatibility checks for two stasis ulcer fields (M0468 and M0476) were added.

New compatibility checks for two surgical wound fields (M0482 and M0488) were added.

For 1.50 assessments, LOCK_DATE is no longer exported and all compatibility checks using LOCK_DATE have been dropped.

A new consistency check for primary diagnosis severity code (M0230_PRIMARY_DIAG_SEVERITY) was added to warn if the value is '00'.

A new consistency check was added as a warning for M0012_ MEDICAID_ID to warn if it is different than the Agency Medicaid Provider ID that is exported in the header record. This allows agencies with multiple branches to also change the value of M0012 at the assessment level.

VERSION 6.2

HAVEN 6.2 incorporates the 1.40 OASIS data specifications. For this update, M0245 was added and edits for M0230 and M0240 were adjusted. In addition, edits were added to the Branch ID (M0016).

HAVEN 6.2 now has the capability to allow encryption and decryption of Local Use files.

The import and export functionality has been moved to a separate DLL so that vendors can launch import and export functions externally.

Users may now double-click on an ICD-9 code in the pop-up window and HAVEN will populate the appropriate variable on the data entry screen.

The HAVEN assessment report now displays the claim key (if applicable) in the header of the report.

Users with Administrator rights can toggle a patient as live instead of archived by pressing the Ctrl+R keys. This should only be used if an archive database has been lost and there is a need to restore an archived patient whose assessments were in the lost database.

The M0072 variable now pre-fills correctly.

The Severity rating boxes for M0240-f now print correctly.

The recertification period now uses M0090, not the ROC date, when calculating whether an ROC is within the timeframe.

Compressed ZIP backups are now able to span multiple floppies.

A warning message will be displayed if the user appears to be backing up to a floppy and is using the self-extracting EXE option.

A warning message will appear for non-compressed backups if the user appears to be backing up to a floppy and the combined file sizes are greater than 1.44 MB.

Imported assessments without errors will have the claim key value generated, if applicable, for the assessment.

On the Patient Information screen, a space will not be allowed for the patient's middle initial.

If the user runs HIPPS within data entry, the values will be stored with the assessment so users can see them on the M0825 tab. If the HIPPS could not be calculated due to missing assessment values, any previous values for the HIPPS variables on the M0825 tab will be cleared.

VERSION 6.1

HAVEN 6.0 did not complete the migration of archive data from the .ARK files to the new .MDB files. As a result, users who entered archive mode did not see any patients in the patient list. A utility was released to complete the process for Version 6.0 users. The migration process has been corrected in Version 6.1.

As part of the HAVEN 6.0 archive data migration process, users discovered that they were unable to restore some patients from the archive database to the live database. Further investigation revealed that duplicate assessments existed in the live and archive databases. The duplicates may have resulted from an aborted archive process in past versions of HAVEN or the use of a backup HHA.MDB without the corresponding backup archive databases. An Archive Verification Utility was released to correct the databases for HAVEN 6.0. The utility is incorporated in HAVEN 6.1 at the Archive Setup screen.

HAVEN 6.0 did not allow users to use data entry for OASIS Data Specification Version 1.10 assessments. A utility was released for Version 6.0 users to convert Version 1.10 assessments to Version 1.20 assessments. Version 6.1 allows users to perform data entry on Version 1.10 assessments.

If patient information was updated and the user chose to update patient information for all other non-exported assessments for the patient, then M0 150 was cleared for the other assessments. This bug has been corrected in Version 6.1.

A bug in HAVEN 6.0 prevented M0072 from being pre-populated on assessments. This bug has been corrected.

In some situations, the HAVEN 6.0 search feature on the HAVEN Management Screen for patients did not work properly. This bug has been corrected for Version 6.1.

A bug in printing M0450 and M0470 was discovered – the value 1 was checked if the actual values were blank. This bug has been fixed in Version 6.1.

Some buttons were missing hotkey definitions in HAVEN 6 .0. The hotkeys have been added for Version 6.1.

The folder selection feature (used on the Import, Export, and Preferences screens) has been enhanced to enable the user to create new folders as well as select existing folders.

The OASIS Data Specification Version used for an assessment is now displayed on the HAVEN Management screen. An extra column, Version, was added to the assessment list. Note that "Locked (Export Ready) " assessments are now shown as "Locked (Exp Ready)" to conserve space. In addition, the "Correct" column was changed to "Corr."

The user may now select whether Test and Local Use exports result in a change of assessment status from "Locked (Exp Ready)" to "Locked (Exported)".

For Assessment Data Entry Reports, the page break between assessments was missing in Version 6.0. It was fixed in Version 6.1.

If a Resumption of Care and a Follow-up were performed within the same recertification date window, HAVEN 6.0 counted both assessments in determining the next recertification date window. In Version 6.1, they are counted only once.

Some users were confused by the "Please Verify" warning messages for M0450, M0460, M0476, M0488, and M0530 on RFAs 04 and 05. The messages now warn that the variable "is blank; if this is correct, please continue."

For inactivations, assessment data entry is no longer automatically launched.

For the HAVEN Import screen, the user may now specify that imported assessments with no validation errors be assigned "Locked (Exported)" status instead of "Locked (Exp Ready)."

The HAVEN Patient Information screen has been enhanced to enable users to view archived patient data. Click the "Include Archived Patients" checkbox to include archived patients in the patient list. A patient is archived if a "Y" is displayed in the "A" column of the patient list. (Note that the "Hidden" column in the patient list has been abbreviated to "H"; hidden patients now display a "Y" in the column instead of "Yes"). If an archived patient is highlighted from the patient list, a textbox appears below the "Include Archived Patients" checkbox showing the name of the archive database that contains the archived assessments for the patient. Furthermore, the archived patient information is displayed below the patient list; however, the patient data cannot be modified unless the patient is restored from the archive.

VERSION 6.0

HAVEN now supports the OASIS 1.30 data specification, which reduces the number of data items required for assessment types 04 and 05, as well as eliminates assessment types 02 and 10. The OASIS Patient Tracking Sheet is available for printing with each assessment.

Legacy support is provided for the 1.20 specification. However, assessment types 02 and 10 can no longer be exported, since the OASIS State System will reject these assessment types for any data specification.

The HAVEN archive capability has been upgraded. The Archive Setup function enables the user to set up multiple archive databases in user-specified locations and switch between them. The Archive Mode capability allows the user to view archived patients and assessments without requiring that they be restored to HHA.MDB. The archive databases no longer use the .ARK file extension.

The patient search function has once again been modified to enhance performance, especially with large databases. While the search function still operates after every keystroke, it only retrieves 100 patients at a

time. The <PREVIOUS 100> and <NEXT 100> buttons enable the user to move backward and forward through the patient list quickly.

The HAVEN Preferences Screen consolidates the three preference menu options from HAVEN 5.1. In addition, several new preferences have been added: (1) an option to warn the user if the currently active archive exceeds a specified number of assessments; (2) the capability to backup the databases uncompressed or compressed in ZIP or self-extracting EXE formats; and (3) the capability to specify a new location for HHA.MDB without requiring the deletion of the HHA.MDB in the installation directory.

For creation of Start of Care and Resumption of Care assessments, the user is prompted to enter the Start of Care or Resumption of Care dates as appropriate. This facilitates the OASIS Patient Tracking Sheet requirements.

The ICD-9 variables in data entry have been enhanced. The user may click the Dx button to lookup an ICD-9 value and place it in the field, or the user may simply type in the code in the field.

Previous versions of HAVEN did not recognize a Resumption of Care (ROC) assessment for calculating the recertification date if the ROC occurred during the recertification window. This bug has been corrected in Version 6.0.

The Branch State (M0014) and Branch ID (M0016) fields have been added to the Maintain Agency Database screen. Values entered on this screen serve as default values for future assessments; the user may still edit the branch fields on individual assessments. An agency using HAVEN for data from multiple branches may want to leave these fields blank, since the values will be constantly changing. However, if HAVEN is being used for an individual branch only, then specifying default values can save data entry time.

The Primary Referring Physician ID (M0072), Race/Ethnicity (M0140) and Payment Source (M0150) variables have been added to the Maintain Patient Database screen. Since M0072 and M0140 are not expected to change, they operate in the same manner as the other patient variables. However, since M0150 is expected to change, it is still enabled in assessment data entry as well. Upon exiting an assessment, HAVEN compares the M0150 value with the value in the patient database. If the values are different, HAVEN gives the user the option of updating the patient database to reflect the current value.

For corrections, the corresponding effective date for the assessment type is now read-only, since changing it will cause the correction assessment to be rejected.

HAVEN will now accept production files for import; the user is warned that a production file may contain masked assessments. HAVEN now checks for masked records (i.e., the value of MASK_VERSION_CD) and skips them, if detected.

If the user clicks on the Date column to sort the assessment list on the HAVEN Management Screen, then the list will actually sort by sequence (which, in most cases, should be equivalent to sorting by date).

This version of HAVEN represents a significant software design change. The error checking, HIPPS calculation, and assessment printing functionality have been migrated to individual Dynamic Link Libraries (DLLs). A sample Visual Basic program is provided to demonstrate how to interface with the DLLs; the sample program can be found in the installation directory.

VERSION 5.1

In Version 5.0, HAVEN did not report data entry errors for some required fields that were left blank. Conversely, some mandatory (i.e., must not be left blank) data entry errors were reported for fields that were optional (i.e., could be left blank). This bug has been corrected in Version 5.1.

In Version 5.0, if a user created an assessment immediately after creating an inactivation record, HAVEN treated the new assessment as an inactivation. This bug has been corrected in Version 5 .1.

In Version 5.0, after exiting data entry, the patient list on the HAVEN Management screen did not contain all patients, just those that were alphabetically after the current patient. This bug has been corrected in Version 5.1.

The recertification date window for a follow-up assessment was calculated incorrectly in Version 5.0 if an inactivation assessment existed for the patient. This bug has been corrected in Version 5.1.

If an imported assessment was a replacement assessment for a previously inactivated assessment (already existing in the HAVEN database), HAVEN incorrectly reported a duplicate assessment. This bug has been corrected in Version 5.1.

The capability to print a report that emulates the OASIS forms has been added. From the HAVEN Management screen, highlight the assessment to be printed and click the Print button. The user then has the option to print a selected screen or all screens. The report is displayed in a viewer window, from which the user can print the report or export it to text, Adobe Acrobat PDF, or RTF format. In addition, the viewer contains a table of contents pane so that the user can skip to a section of the report.

The user may now designate whether the HAVEN backup utilizes ZIP files or self-extracting .EXE files. Select the Preferences menu from the HAVEN Management screen and click the Paths menu item. The Backup frame now contains radio buttons that allow the user to specify ZIP or EXE. Note: users that backup to floppy disks should select the ZIP option, since this will allow the backup files to span multiple floppy disks.

VERSION 5.0

HAVEN now supports the OASIS 1.20 data specification, including the capability to inactivate assessments. Inactivation records are created using the Correction button and selecting option 4. Option 2 for key field changes is now disabled. Key field changes are now accomplished by inactivating the assessment, then submitting a replacement assessment.

Legacy support is provided for the 1.04 and 1.10 specifications. Note that the 1.20 and 1.10 specifications are identical for assessments that are not inactivation records. Therefore, when creating assessments, the only options provided are 1.20 and 1.04.

The patient search capability has been modified. The Search and Search Next 1000 buttons have been

removed. The patient list will now be searched with each keystroke. For example, if searching by last name, typing a "J" will search the patient list for the first patient with a last name beginning with "J." As a result, the scrollbar on the patient list now reflects the complete set of patients.

A status bar has been added to the bottom of the HAVEN Management screen to inform the user of the number of patients and assessments that are currently maintained by HAVEN.

The third-party component used by HAVEN to manage ZIP files for the backup capability has been replaced by another component that supports generation of self-extracting executable (EXE) files. Therefore, the HAVEN backup now generates self-extracting EXEs and the user is not required to have a separate ZIP utility installed.

HAVEN now displays the patient match criteria for each imported assessment. A checkbox has been added to the HAVEN Import screen to allow the user to prevent these messages from being displayed.

The assessment list for a patient on the HAVEN Management screen can now be sorted by any of the columns by clicking on the column header.

If an inactivation record is imported and matches to several versions of an assessment, HAVEN will attempt to inactivate the version of the assessment with the most recent lock date.

VERSION 4.1

The HAVEN ICD-9 database has been updated to contain the Version 18.0 codes available on the HCFA Public Use Files web site (www.hcfa.gov/stats/pufiles.htm).

The Archive window has been enhanced to speed the retrieval of patients eligible for archiving. The reason for assessment and effective date of the most recent assessment are displayed with each eligible patient.

The Import function has been corrected to accept assessments from patients where the Medicare number is N/A.

The Delete Export Set button on the Export screen has been removed. This prevents the user from accidentally deleting part of the HAVEN export history.

The Export description field on the Export screen is now optional. If left blank, HAVEN will automatically fill in the number of records exported as the description for an export.

The Hidden column header for the Patient list on the Maintain Patient Database screen was inadvertently renamed to Unit in Version 4.0. The column header has been restored to Hidden.

The tab orders for variables M0175 and M0390 have been corrected on their respective data entry screens. As a result, these variables now print in the correct order on the Assessment Data Entry Report.

After exiting data entry, the correct assessment is now highlighted as the currently selected assessment. In addition, after adding a patient using the Add Patient button on the HAVEN Management screen, the new patient is highlighted in the Patient list.

Upon entering an assessment, HAVEN correctly checks for updated patient information unless the assessment is a non-key field change assessment. Note that the Edit menu for modifying agency and patient information during data entry is no longer available for non-key field change assessments.

The M0175-M0220 data entry screen has been reorganized in order to increase visibility of the M0220 variable (some users reported difficulty seeing the UK and NA options).

The Import screen now contains an extra checkbox to exclude M0160 from the error checking of import files, since M0160 is required to be bla nk in submission files.

VERSION 4.0

HAVEN now supports the OASIS 1.10 data specification, including the calculation of HIPPS codes for applicable assessments. Note that the value for M0090 must be on or after 09/01/2000 in order to successfully complete and export a 1.10 assessment.

HAVEN continues to support entry of OASIS 1.04 assessments; however, 1.04 assessments must have a M0090 value prior to 10/01/2000. Upon entering a 1.04 assessment, HAVEN checks the M0090 value. If the value is earlier than 09/01/2000, then data entry is performed with the 1.04 specification. If the value is between 09/01/20 00 and 09/30/2000 inclusive, or if M0090 has not been entered yet, the user is asked whether the assessment should be converted to a 1.10 assessment. NOTE: A 1.10 assessment cannot be converted back to a 1.04 assessment.

A correction to an assessment maintains the assessment specification of the prior version, i.e., a correction of a 1.04 assessment is error-checked with the 1.04 specification rules.

HIPPS values are calculated with applicable 1.10 assessments. The user may highlight an assessment and calculate the HIPPS values from the HAVEN Management Screen, or from within the HAVEN data entry screens. When an assessment is marked complete, the HIPPS values are calculated again and stored to ensure that the correct values are associated with the final version of the assessment.

The export screen has been enhanced to display HIPPS information for each Export Ready assessment. The assessment list can be printed using the Print Assmts command button. The list can be sorted by clicking once on the displayed columns – additional clicks toggle the sort between ascending and descending order.

HAVEN now supports operation with the Windows 2000 operating system.

If a patch is required to the HAVEN databases, a HAVEN Patch screen is displayed after logging in. The user has the option to continue with the patch or exit the program. It is strongly recommended that a backup of the databases be performed prior to allowing HAVEN to perform any patches.

This version of HAVEN is 32-bit only; 16-bit versions are no longer in development.

During data entry, the HAVEN title bar displays the specification version in effect for that assessment (e.g., 1.10 Specification).

The HAVEN Import function now supports the import of both 1.10 and 1.04 assessments.

VERSION 3.0

A 32-bit version of the HAVEN installation is now available.

A search "Next 1000" button was added to all grids that display the list of patients. The grids now only display 1,000 patients at a time. To view the next 1,000 patients, the user must click the "Next 1000" button.

The user can now select the type of enforcement for assessment sequencing. If strong enforcement is selected, the sequencing order of assessments is strictly enforced. If weak enforcement is selected, the user may violate the sequencing order but a warning is provided if the user does so. Sequencing enforcement applies to both the adding of assessments and the importing of assessments.

Per HCFA data specifications, the sequencing rules have been modified such that RFA 1 0 can no longer follow RFA 04 or 05.

Assessment correction type 4 was removed.

HAVEN now conforms to Version 1.04 of the Uniform Data Submission Specifications for the OASIS-B1.

When creating an export file for submission type Production or Test, masking of identifying fields is now performed for private pay assessments. A DLL and an INI file were added to the installation to support this feature. In addition, all masked values are written to a separate table in the HHA.MDB database called ENCRYPT.

On the export function, submission type Local Use was added. For this submission type, no masking is performed and the M0160 field is not blanked out. In addition, a value of "2" is written out for the Test/Production Indicator at position 574 of the header record.

On the import function, only import files with a value of "2" for the Test/Production Indicator at position 574 of the header record are allowed. This feature prevents the import of any files with masked data.

On the export function, the buttons for selecting Medicare/Medicaid and non-Medicare/Medicaid assessments have been removed.

A new type of report was added. This report displays all available masked values in HEX format along with the original unmasked values.

A new function has been implemented to allow users to look up patients by providing the masked values in HEX format.

The HAVEN documentation has been modified to note that HAVEN does not support a peer-to-peer configuration where a user attempts to configure the software for a network environment by placing the HHA.MDB on a shared local drive on their PC.

On the Maintain Patient Database screen, the data entry rules have been modified such that the rules now prohibit data entry of any characters that would cause HAVEN to recognize that field as being masked.

The user is not allowed to set the backup path equal to either the application path or the data path.

When HAVEN is being configured for a network environment, the user is not allowed to set the data path equal to the backup path.

The data entry rules for the M0016_BRANCH_ID field have been modified to allow only alphanumeric characters.

The M0150 help text has been modified.

If an assessment was exported, the patient information was modified and then a non-key correction was performed on the assessment, the effect was a key field correction, because HAVEN would perform a comparison of the patient information when the correction was performed and the assessment opened. This error has been corrected.

The REPAIR.EXE has been modified to a llow *.ARK files.

The Fix Inactive Fields function was enhanced to handle scenarios in which an option was filled but should not have been, because the option was not applicable for the particular RFA. This scenario sometimes occurs when importing files created by third party vendors who do not completely conform to HCFA specifications.

Whenever the Select Directory window was displayed, the action of clicking on the Cancel button was not handled properly. This error has been corrected.

Per HCFA data specifications, the Maintain Agency Database screen has been modified such that both the M0 010 Medicare and M0012 Medicaid Provider Numbers are allowed to be blank.

Per HCFA data specifications, the Maintain Patient Database screen has been modified such that the M0 060_PAT_ZIP can now contain letters and the restriction that the value be 5 or 9 digits long has been removed. However, a warning is provided to the user if either one of these two scenarios is met.

The automatic backup function no longer copies the files to the specified backup directory. Instead, the files are compressed to a file called HHA.ZIP on the specified backup directory.

A new type of report was added. This report displays all assessments with a status of "In Use".

The search function for all grids that display the list of patients has been modified to include M0020 patient ID.

All grids that display the list of patients, except those on the Archive and Restore functions, have been modified such that the user can click on a column heading to sort by that column.

The Data Entry report has been modified such that the report displays the variable description rather than the variable name.

A "print overflow" error occurred whenever the user attempted to print an abnormally large number of validation messages that resulted from the import of a file containing many errors.   This error has been corrected.

The "Delete Assmt" function was modified such that any assessment can be deleted if the type of sequencing enforcement is set to "Weak Enforcement".

In some rare instances, the lock date is assigned a value of "YYYYMMDD". This is due to the fact that: 1) the lock date is derived from the computer system date and 2) in some rare instances, HAVEN returns a computer system date of "MM/DD/YYYY". This problem has been addressed by prompting the user for the current date if HAVEN returns an invalid computer system date.

VERSION 2.4 - LIMITED BETA RELEASE

On exit of data entry, a user would receive a "print overflow" error under the following scenario: if the Reason for Assessment was 04, the computer system date was of year 2000, the recertification window was of year 1999 and the Windows short date style property was not set to a 4-digit year. This error was corrected.

VERSION 2.3 - LIMITED BETA RELEASE

The restore function was failing whenever a patient had multiple assessments with multiple spellings of his/her last name. This error was corrected.

The Management Screen was disappearing prematurely when either the archive/restore or export functions were accessed.   It appeared to the user that the HAVEN software had terminated abnormally. This error was corrected. The Management Screen now remains visible with an hourglass cursor until the archive/restore or export screen is ready to be displayed.

All grids that display the list of patients were modified to accommodate up to 5,000 patients.

VERSION 2.2 - LIMITED BETA RELEASE

Additional error handling was implemented for the "Add Patient" and "Add Assmt" buttons on the Management Screen.

VERSION 2.1

A problem with the HAVEN 2.0 dictionary (HHADICT.MDB) was corrected.   A "filler" field (ITEM_FILLER2) was enabled with Version 2.0 on the M0903-M0906 subtab for discharge assessments. Note that the ITEM_FILLER2 field was not visible to the user, since it was located underneath the M0903 variable. Nevertheless, it was possible to inadvertently populate this field with data by tabbing to it. The new dictionary provided with this patch corrects the problem for future discharge assessments.

For assessments that currently contain data in the ITEM_FILLER2 field, a patch program (HVN20FIX.EXE) has been provided.   This program searches the HHA table in the HHA.MDB and replaces any non-null values in the ITEM_FILLER2 field with null.

The capability to select whether M016 0 data is included for assessments in an export file was added to the Export screen. For submissions to the State System, M0160 data should NOT be submitted. Users may want to include M0160 data when exporting data from a branch HAVEN installation to a central agency office, where the data is imported into a master HAVEN database.

The warning messages on HAVEN have been relaxed for dates out of range for RFAs 6, 7, 8, and 10 (transfer to an inpatient facility and unexpected discharge). The regulations require that the assessment be completed within two days of learning of the event (which is a date that is not collected). Therefore, the edit checks for timely completion (the difference between the assessment date [M0090] and the discharge/transfer/death date [M09 06]) for patients that are transferred to an inpatient facility or are unexpectedly discharged are no longer enforced for RFAs 6, 7, 8, and 10.

The warning error "if M0032_ROC_DT is not blank and M0100_ASSMT_REASON is equal to 03, then M0 090_INFO_COMLETE_DT and M0032_ROC should be not more than 2 days" will no longer occur for RFAs other than 03.

The date in the warning error message "State may not accept an assessment with effective date prior to March 26, 1999" was changed to July 19, 1999.

VERSION 2.0

Added a section to the system manual about Windows Property Settings to instruct the user about the Font Size and Short Date Style property settings. These properties must be set properly in order to ensure the reliable operation of the software.

Added a section to the System Reference Manual about installing and using HAVEN in a network environment.

Incorporated the enhanced record rejection criteria.

Changed the key fields displayed to the user when performing a correction type 2.

Added a Y2K BIOS check and warning message.

The automatic backup now works correctly when the user exits the software by clicking on the "X" button at the top right hand corner.

Removed the following fields from RFA 10 : M0870_DSCHG_DISP, M0880_AFDC_NO_ASSIST, M0 880_AFDC_FAM_ASSIST, M0880_AFDC_OTH_ASSIST, M0903_LAST_HOME_VISIT.

Incorporated the changes to the consistency checks for the following fields: M0870_DSCHG_DISP, M0 880_AFDC_NO_ASSIST,M0880_AFDC_FAM_ASSIST,M0880_ AFDC_OTH_ASSIST,M0903_LAST_HO ME_VISIT.

Changed the default value of the VERSION_CD2 field to "1.03".

When an assessment created with HAVEN 1.0 and layout version code "1.02" is opened in HAVEN 2.0, the data are migrated to conform with layout version code "1.03".

When an assessment created with HAVEN 1.0 a nd layout version code "1.02" is imported into HAVEN 2.0, the data are migrated to conform with layout version code "1.03".

On import, any records with a layout version code that does not begin with "1.0" are rejected.

Fixed the task bar display problem.

Previously, if the import or file error check operations generated a large number of errors, selecting "View" generated a blank window. This problem has been addressed by disabling the view functionality when a large number of errors are present.

Migrated to the InstallShield installation program and included an uninstall feature.

Previously, HAVEN: 1) imported assessments that contained data in fields that should be inactive due to the reason of assessment and 2) provided no means to clear out these inactive fields, because they did not display on any of the data entry screens. This issue has been addressed by providing a function to fix all inactive fields on a particular assessment.

For correction type 3, the rule requiring the lock date to be within seven days of the M0090 assessment completion date has been removed.

On import, if no matching records are found in the database for a particular assessment and the CORRECTION_NUM is not equal to "00", then the assessment is rejected.

If the effective date is prior to March 26, 1999, a WARNING message stating that the assessment may not be accepted by the State System is provided.

The System Administrator is now permitted to install HAVEN in a network environment by allowing the primary storage database HHA.MDB to be located on a shared network drive.

Addressed the problem of data cross-referencing between two patients when HAVEN was used in a network environment.

Fixed the display of validation warnings under Windows 95.

Streamlined the HAVEN startup process to address the "valid path to dictionary" problems and added additional error trapping.

For correction type 4, a warning message informing the user that this type of correction will no longer be available in the Spring 2000 release is provided.

When the default automatic backup path no longer exists, the software now provides a warning message notifying the user that the automatic backup is not going to be performed.

A compact functionality is now available in the REPAIR.EXE.

Fixed the REPAIR.EXE so that it will repair files with filenames in lower case.

Added an archive/restore component.

Modified the automatic backup procedure to backup the *.ARK archive databa ses.

On the export screen, software will now mark an assessment as being "Medicare/Medicaid" if the assessment is of RFA type 01, 02, 03, 04, 05 or 09 and the response to M0150 is 1, 2, 3 or 4, or the assessment is of RFA type 06, 07, 08 or 10.

On the export screen, a button to select only the assessments marked as "Medicare/Medicaid" is provided.

On the export screen, a button to select only the assessments not marked as "Medicare/Medicaid" is provided.

Modified the export test submission functionality to change the status on all exported assessments from "Locked (Export Ready)" to "Locked (Exported)".

Increased the display of patients to 1,000 on the HAVEN Management Screen, Maintain Patient Database screen and the Report Assessment Selection screen.

Changed the display of password to asterisks in the Maintain Employee Database screen.

The application and system database (HHA.MDB) paths are now displayed in the Help|About box.

With correction type 2, the system was modified to ensure that any changes to the patient identification fields do not create a duplicate with another patient.

Changed the menu hot key letters.

Previously, reports would only display one selected option when multiple options were selected by the user for multiple-select variables. This problem has been fixed.

The software now includes a report displaying all open assessments and the user performing the data entry on that assessment.

The import function was modified so that it does not fail when an ICD-9-CM code does not have a blank in the first position.

When the user selected the "Return to Data Entry" button on the Validation Warnings Screen, the software did not always return to the last screen the user was performing data entry on.   This problem has been fixed.

Added another column in the assessment display list to include an indicator of whether or not the assessment is currently open.

The software now prevents a user from opening an assessment if it is marked as open.

Provided a function to allow a System Administrator to reset the open status of an assessment.

For RFA 04 to 10, the M0032 resumption of care date is now accessible.

Removed HAVEN's dependency on the MEDS.MDB file.

The date warning messages were modified to be more like English language.

Changed the messages displayed in the Validation Warnings Screen to be more user-friendly.

The software now handles the simultaneous addition of more than one patient in a network environment.

The software now handles the simultaneous addition of more than one assessment in a network environment.   This capability also addresses the sequencing issues that arose when more than one assessment was added for the same patient simultaneously.

The software now prohibits the deletion of a patient with at least one open assessment.

The software now prohibits the hiding of a patient with at least one open assessment.

The software now prohibits the deletion of an assessment that is currently open.

The software now handles the deletion of an assessment that either: 1) has been deleted by another user or 2) belongs to a patient who has been deleted by another user in a network environment.

The software now prohibits the entry of data for an assessment that either: 1) has been deleted by another user or 2) belongs to a patient who has been deleted by another user in a network environment.

The software now prohibits the correction of an assessment that either: 1) has been deleted by another user or 2) belongs to a patient who has been deleted by another user in a network environment.

The software now prohibits the clearing of inactive fields for an assessment that either: 1) has been deleted by another user or 2) belongs to a patient who has been deleted by another user in a network environment.

The software now prohibits changes to the agency information when at least one assessment is currently open.

The software now prohibits changes to a patient's information when at least one assessment for that patient is currently open.

The software now handles the deletion of a patient who has already been deleted by another user in a network environment.

The software now handles the hiding of a patient who has already been deleted by another user in a network environment.

The software now prohibits the import functionality from being performed when at least one assessment is currently open.

The software has been modified so that if the user edits agency information while in data entry, changes cannot be saved if any assessments are currently open other than the assessment being edited by that user.

The software has been modified so that if the user edits patient information while in data entry, changes cannot be saved if any assessments are currently open for that patient other than the assessment being edited by that user.

The software now handles problems that occur while trying to add a patient to the database during import.

The software now handles problems that occur while trying to add an assessment to the database during import.

The software now handles problems that occur while trying to update agency information in the database during import.

The software now handles problems that occur while trying to update patient information in the database during import.

The software now handles the situation when two correction type 3's are being performed simultaneously in a network environment.

The software now prohibits a user from adding an assessment for a patient who has been deleted by another user in a network environment.

The software now prohibits the export function from executing when at least one assessment is currently open.

The software now allows multiple users to delete patients (including the same patient) simultaneously.

The software now prevents import of assessments for patients who ha ve been archived.

In the Maintain Patient Data base screen, when a user tries to add a patient who already exists in the database, the software now displays the name of the original patient (except if duplicate occurs on key field SSN or key fields First Name, Last Name, DOB and Gender).

On the export function, the M0160 positions are now blanked out in the export file. The software continues to maintain the values in the database.

On the export function, the RFA type has been added to the display information about assessments ready to be exported.

VERSION 1.1

The software now recognizes Guam's abbreviation "GU" as a valid state abbreviation.