

Spectrum Data Manager and Communications Server R3-08 Update

2008 Release 3

October 2008

Overview

This update to the Spectrum Data Manager system contains improvements and corrections to various parts of the system, as well as selected enhancements available as of the time of this release.

The sections that follow provide detail on each enhancement to the system. The various changes and corrections to the programs are listed at the end of the document.

Software Updated in Release 3 — 2008

Spectrum Data Manager Version 8.3.0

Alpha Server **Version 8.3.0**

Email Server **Version 8.3.0**

Fax Server **Version 8.3.0**

SMS Server **Version 8.3.0**

Spectrum Agent **Version 8.3.0**

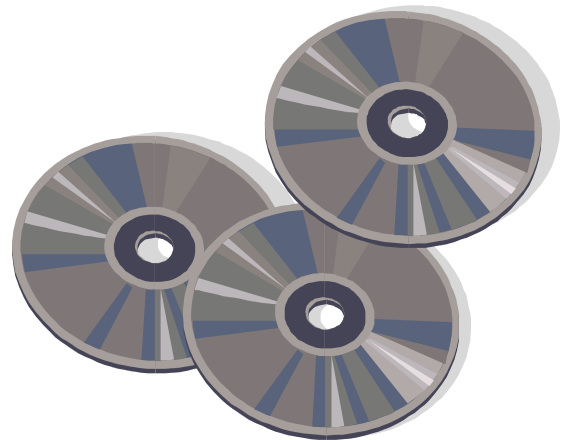
SmartScript Designer **Version 8.3.0**

Installing the Update

Included in your shipment are instructions for updating each of the affected system components along with their corresponding update CDs. These include:

1. *Spectrum Data Manager* R3-08
2. *Spectrum Comm Server* R3-08
3. *Spectrum Agent Station* R3-08
4. *Spectrum SmartScript Designer* R3-08

The updates should be applied in the order listed above, starting with Spectrum Data Manager. All updates will need to be applied before all new features are available.



Carefully review the enclosed instructions and call with any questions. Phone support for the update is available from 9:00 AM to 5:00 PM Central Time at (314) 426-7662.

Overview of New Features

Among the new capabilities added to **Spectrum Data Manager** are the following:

- **Prioritized Dispatch.** Messages can now be assigned a priority from 0 to 9. This priority determines the ordering of messages within an agent's list of incomplete work, including page tickets assigned to dispatch stations.
- **Transmission Scripts.** Each account can now have up to 10 pre-defined 'transmission scripts'. A transmission script extends and enhances the ability to transmit a message to multiple destinations, either as a message is taken, or at a scheduled time.
- **Custom Admin Messages.** The keys Ctrl-0 through Ctrl-9 can now be used to auto-downfile pre-defined messages for special purposes, such as wrong numbers or hang-ups.
- **Scheduling of Account Totals.** Spectrum Data Manager now allows you to schedule the extraction and clearing of active account totals. This eliminates the requirement to manually perform this step at the desired time.
- **New Hypertext Commands.** Several new hypertext commands have been added, including commands to support prioritized dispatch and transmit scripts.
- **Browser Files.** Spectrum Data Manager is now capable of managing access to files displayed in the Agent Browser window. This will simplify access to such files by remote operators.

Enhancements to the **Agent** program include the following:

- **New 'System Status' Tabs.** An agent can now view the list of 'Incomplete Pages', 'Incomplete Messages', and 'Inbound Messages'. Access to this information is controlled via Operator ID
- **Show Screens from Account Directory.** A new button has been added to the Directory that allows viewing the screens for any account from within the current active account.

The **Communications Server** programs have been enhanced, as follows:

- **Support for Spectrum Messenger in SMS Server.** The SMS Server now works in conjunction with the latest version of Spectrum Messenger to support sending and receiving of SMS text messages at a client of the Spectrum Messenger.
- **Alternative Fax font.** The Fax Server now allows for the use of an alternative font on a per-account basis.

The **Spectrum SmartScript** feature has the following enhancements:

- **Field Values in Prompts.** Values entered into fields can be embedded into prompts. For example, the caller's name, once entered, could be used in a prompt later in the script.
- **Show Screen in Decision Step.** The display of screens can now be controlled from within a decision table.
- **Access to Recent Files in Editor.** The Script Editor has been enhanced to allow convenient access to recently edited scripts.

Enhancements to Spectrum Data Manager

Prioritized Dispatch

As a message is taken, it can now be assigned a priority from 0 to 9, with 0 being lowest and 9 highest. This priority will determine the order in which the message or its page ticket will appear in an operator's list of incomplete work, thus allowing a dispatcher to pull up and process the highest priority messages first.

In addition to messages created by an operator, the system can also assign a priority to inbound messages for an account. This includes inbound Email and SMS messages, thus allowing control over the order in which such messages are presented to a dispatcher, relative to the incomplete pages being processed.

Assigning Message Priority

There are two ways to assign a priority to a message:

1. By establishing a default priority for messages within the account master record (AMR)
2. By using a new hypertext command (the '!' command).

Two new fields have been added to the AMR that establish the default priority for messages for the account, one for normal message entry and another for inbound messages.

The screenshot shows the 'Msg Entry' tab of the AMR interface. The 'Default Msg Priority' field is set to 3, and the 'Inbound Msg Priority' field is set to 4. Other fields include Message Class (A), Auto-Enter Mode (N), Page Type, Document Failed Patch (checked), Auto-Script, Repeat Interval (15), Disable Dispatch Ticket, Msg Form (69), Initial Attempt Count (3), Disable IF Message, IF Form (6), Dispatcher Level, Allow Patch in Page Ticket (checked), Copy Account (01), Master Locate, Share Words and Phrases (checked), Auto Copy, Identify Copied Messages, Delivered-To Prompt (checked), File Special (checked), File Station Reminders (checked), File Saved, Retain After (7), Purge After (30), and Disable Inbound Msg AutoXmt/Page (checked).

'Default Msg Priority'

establishes the default priority for a new message entered by an operator. If the 'Default Msg Priority' field is blank in the AMR, the default priority will sort as a lower priority than 0 through 9.

'Inbound Msg Priority'

establishes the default priority for an inbound message. A blank will sort lower than 0 through 9.

Both of these new fields are on the 'Msg Entry' tab of the AMR.

To establish the message priority dynamically, a new hypertext command has been added. The command character is '!' (exclamation point). Using this command in conjunction with an 'F' command allows the message priority to be established based on the kind of message being entered.

Following is an example:

```
{Take message for Office&F1000}
{Take emergency message&F1001!8}
```

Note that the first command initiates message entry using the default priority established in the AMR. The second command will set the priority of the message to 8.

If only the '!' character appears in the hypertext command, a priority of 9 will be assigned.

Enhancements to Spectrum Data Manager

Transmission Scripts

Spectrum Data Manager contains a new feature that provides a significant extension of the system's ability to distribute messages to multiple destinations, either as they are taken or at a scheduled time. It is common now for a client to ask that a message be sent to several on-call personnel, one via Alpha Page, another via SMS texting, and another via email-to-cell phone — all in parallel when the message is filed — and in addition, to contact a fourth via voice call. They may also ask that the same message be sent to a group of supervisory personnel via email. Such a challenge can be met using the new 'Transmission Scripts' section of the Account Setup window.

To accommodate the definition of 'Transmission Scripts', part of the Account editor's 'Msg Transmission' tab has been split off as the 'Msg Destinations' tab, as shown below.

The fields on this tab define the same destinations as in prior versions of SDM, thereby carrying forward support for all prior approaches to message transmission.

(Note that a new section titled 'Custom Destination' has been added. This is not related to 'Transmission Scripts' per se, and is described in a separate document. Contact Telescan for more information.)

The 'Msg Transmission' tab now appears as below, with the new 'Transmission Scripts' section.

The top section of this tab is titled 'Automated Transmit Queuing'. The fields in this section define the previously supported transmit scheduling mechanisms— 'Auto when taken' and 'Scheduled'. Note that the destination fields ('Dest') now allow a transmission script ID ('0' .. '9') to be specified. A script therefore can be invoked either when a message is filed by an operator or at a scheduled time.

The bottom section allows the definition of up to 10 'Transmission Scripts', each identified by a number, '0' .. '9'.

ID	Description
1	Morning Fax and Email
2	Email, Alpha and SMS
3	Evening Fax and Email
4	Bob V.'s Cell Phone

Enhancements to Spectrum Data Manager

Transmission Scripts (continued)

To define a transmission script, proceed to the AMR editing mode and click on the 'Add Script' button. Enter a Script ID in the range '0' through '9', along with text that describes the purpose of the script. For example: "Morning Fax".

Once a script is added, the steps of the script can be defined using the 'Add Step' button. Currently up to 20 steps are allowed, meaning that 20 separate destinations can be called out in a transmission script, including Email and SMS groups.

To define a transmission step, first choose a destination. The remaining parameters on the screen auto-adjust based on the selected destination. As depicted at right, the choices for a destination are

- Agent Dispatch
- Alpha
- Email
- Fax
- SMS

The screens on this and the next page depict the available fields, based on the destination. The fields can be left blank, in which case the AMR defaults will be used.

The destination 'Agent Dispatch' (see example above) has special significance in that it causes a Page Ticket to be presented, thus allowing a destination to be chosen at the time of the call based on dispatching criteria. The fields of the Page Ticket can be pre-defined or they can default to AMR settings. Using 'Agent Dispatch', the delivery of a message to a particular destination can be tracked, while other steps in the script perform auto transmission to one or more other destinations.

The 'Alpha' and 'SMS' destinations and their fields are depicted below. Note under 'Options', the checkbox 'Mark Delivered if Successful Transmit'. Leave this unchecked if message receipt must be confirmed.

Enhancements to Spectrum Data Manager

Transmission Scripts (continued)

Below are the 'Email' and 'Fax' destination screens. Note the additional ability to control the types of messages that are sent when sending a list of messages at a scheduled time. The checkboxes next to 'Allowable Tickets' in the 'Options' section control which kinds of tickets will be sent.

The 'Edit Transmission Step' dialog box for Email destination shows the following fields and options:

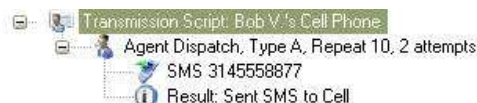
- Destination:** Radio buttons for Agent Dispatch, Alpha, Email (selected), Fax, and SMS.
- Email:** Address: bobv@telescan.net; Format: E; Enable Reply to Auto-Downfile.
- Options:**
 - Mark Delivered if Successful Transmit
 - Allowable Tickets:**
 - Page Tickets, Patch Tickets, Dispatch Tickets, Reminders
 - IF Messages, Locates, No Message Calls, Inbound
- Current Status of this Step:** Enabled, Disabled, OK, Cancel.

The 'Edit Transmission Step' dialog box for Fax destination shows the following fields and options:

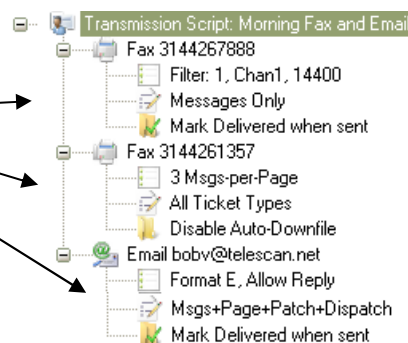
- Destination:** Radio buttons for Agent Dispatch, Alpha, Email, Fax (selected), and SMS.
- Fax:** Channel: 1; Phone: 3144267888; Filter: 1; Max Msgs per Page; Transmit Speed: 4; Cover Sheet; FF Between Accounts; Alt Font.
- Options:**
 - Mark Delivered if Successful Transmit
 - Allowable Tickets:**
 - Page Tickets, Patch Tickets, Dispatch Tickets, Reminders
 - IF Messages, Locates, No Message Calls, Inbound
- Current Status of this Step:** Enabled, Disabled, OK, Cancel.

Also note that each 'Step' can be individually 'Enabled' or 'Disabled'. This allows a step to be removed from a transmission script without 'deleting' it. It could then, if necessary, be re-enabled without having to re-enter all of its parameters.

As transmission steps are added to a script, they are depicted using an expandable tree-like structure. Icons denote the target destination and sub-parameters. At right is an example showing a script with a single step — an 'Agent Dispatch' step.



At right is another example showing three destinations, two targeting different fax machines, and one targeting an email. Each destination has its own message filtering criteria.



Note: although more than one 'Agent Dispatch' step can be defined, only the first will be executed. Also, only Email and Fax are allowed at scheduled times.

Using a Transmission Script

A transmission script can be executed as a result of the following:

- Scheduled Transmission
- Automatically when Message Taken
- Hypertext Command
- Page Ticket
- Manual Transmit

Enhancements to Spectrum Data Manager

Transmission Scripts (continued)

Using a Transmission Script at a Scheduled Time

A transmission script can be executed at a scheduled time by specifying its Script ID as the destination at the desired scheduled time. In this example, transmission script '1' will be executed at 8 am, and the script will be performed on all Undelivered messages. The 'Rxmt', 'Batch Subs' and 'Disable "No Msg"' parameters will be observed, but the 'Transmit Filter' will be ignored in favor of the 'Allowable Tickets' section of each transmission step. Only those transmission steps with a destination of Email or Fax will be executed. Any other destination ('Agent Dispatch', 'Alpha', or 'SMS') will be bypassed.

Using a Transmission Script when a Message is Taken

A transmission script can be executed on a message when it is initially taken and filed by an operator. There are two ways to do this.

The first is to specify the transmission script as the destination in the 'Auto when taken' field of the AMR. In this example, transmission script '2' will be executed when a new message is filed. The 'Prompt Operator' parameter will be observed, but the 'No Downfile' setting will be ignored in favor of the setting called out in the script.

The second method for executing a transmission script when a message is taken is to invoke a hypertext command while taking the message. The new hypertext command that supports this is the 'X' command. For example:

```
{Take Message for Office&F100X1}
{Take Message for On-Call&F101X2}
```

Each of these commands will start free-form message entry and, upon filing the message, cause the message to be transmitted using a transmission script. The Script ID follows the 'X'.

When an 'X' hypertext command is performed during message entry, any pending page or other pending transmission is cancelled in favor of the selected transmission script. On the other hand, if an 'R' hypertext command is performed, it will cancel any prior 'X' command. An alternative way to cancel a pending 'X' command is to use the new 'x' (lowercase 'x') command. For example:

```
{Cancel pending transmission script&x}
```

Enhancements to Spectrum Data Manager

Transmission Scripts (continued)

Using a Transmission Script in a Page Ticket

A transmission script can be executed as a result of filing a page ticket if the 'Type' field of the page ticket contains a valid transmission script id.

Page	1	DR. HOWARD	Alpha	TID	Phn #
Type	1	Rpt	AR	Email	
Result	PERFORMED TRANSMISSION SCRIPT 1				

If a transmission script id ('0' .. '9') is in the 'Type' field, the Alpha/SMS and Email Address fields of the page ticket are ignored — it is expected that the transmission script will dictate where the message is sent. An 'Agent Dispatch' step, if present in the transmission script, will be interpreted, causing a new page ticket to be attached to the message. The new page ticket will contain the fields that are defined in the 'Agent Dispatch' step.

Using a Transmission Script in a Manual Transmission

When an operator invokes a manual transmit by pressing "T", a pop-up window will appear, allowing the operator to choose the destination for the message or messages. This pop-up window has been enhanced to support the selection of a transmission script.

If an account has any transmission scripts defined, they will be selectable from a pull down list, in a manner similar to selecting a fax number or email address from a list.

If the account does not have any transmission scripts defined, then 'Transmit Script' will not appear as one of the selectable radio buttons under 'Destination'.

Using a Transmission Script with Copied Messages

A message can be automatically copied to another account when it is initially filed, either by using the 'C' hypertext command or by pre-defining the target account in the Account Master Record. When a message is copied in this manner, the system will observe and follow the 'Auto when taken' field of the targeted accounts. Since a transmission script can be specified as the 'Dest' field for 'Auto when taken', a transmission script can be carried out on a copied message.

Enhancements to Spectrum Data Manager

Custom Admin Messages

Spectrum Data Manager now supports a feature whereby an operator, by pressing Ctrl-1 (or the Ctrl key in conjunction with any of the number keys across the top of the keyboard), can start entry into a special message template which, when filed, will be automatically stored as a delivered message.

This feature is designed to provide an efficient way to handle wrong numbers and hang-ups without depending on 'Abandoned Call' processing. It can also be used to create other custom administrative tickets that document circumstances out of the norm.

The available control keys are Ctrl-1, Ctrl-2, .. , Ctrl-9, and Ctrl-0. These are generated by holding down the Ctrl key while pressing one of the numeric keys across the top of the keyboard. Each of these control keys correspond to a free-form template, with Ctrl-0 corresponding to 9990, Ctrl-1 to 9991, Ctrl-2 to 9992, through to Ctrl-9 and 9999. For instance when Ctrl-1 is pressed, free-form message template 9991 (if defined) will be presented to the operator. When the message is filed, it will automatically be put in the delivered list for the account.

The special templates (9990, 9991, etc.) can be customized to suit the purpose. For instance, to document 'wrong number' calls, you could define template 9991 with a field to capture the caller id. If a wrong number call comes in, the operator could press Ctrl-1 and the 'File' key to document the event.

To facilitate use of this feature, the first 16 characters of the 'Form Description' field is used to pre-populate the 'For' field. So, for instance in the example above, if template 9991 had the description of 'WRONG NUMBER', this text will appear automatically in the 'For' field when Ctrl-1 is pressed.

Scheduling Account Totals

Spectrum Data Manager will now allow scheduling of the extraction and clearing of account totals. Up to four times can be scheduled in advance. To support this, the 'Holiday Schedule' tab on the 'System Configuration' screen has been renamed to 'Holiday and Billing Schedules'.

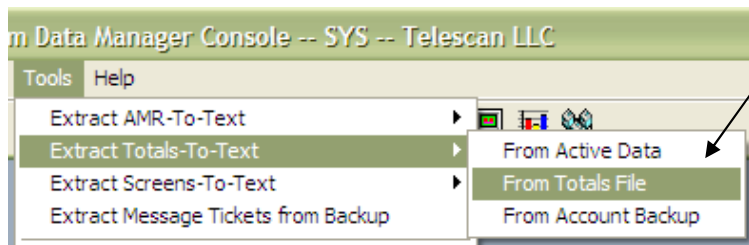
Four sets of entries have been added that allow the definition of scheduled times for extracting and clearing totals.

At a scheduled date and time, the accounts for the specified Billing Class (which may be set to 'All') will have their totals extracted and cleared. The resultant file, containing only the accounts and totals that were extracted and cleared, may be read by the 'Totals-To-Text' tool in the same fashion as an account backup.

Billing Date	Time	Billing Class
11/ 1/2008	12:00 AM	A
11/15/2008	12:00 AM	B
12/ 1/2008	12:00 AM	A
	12:00 AM	

Enhancements to Spectrum Data Manager

Scheduling Account Totals (continued)

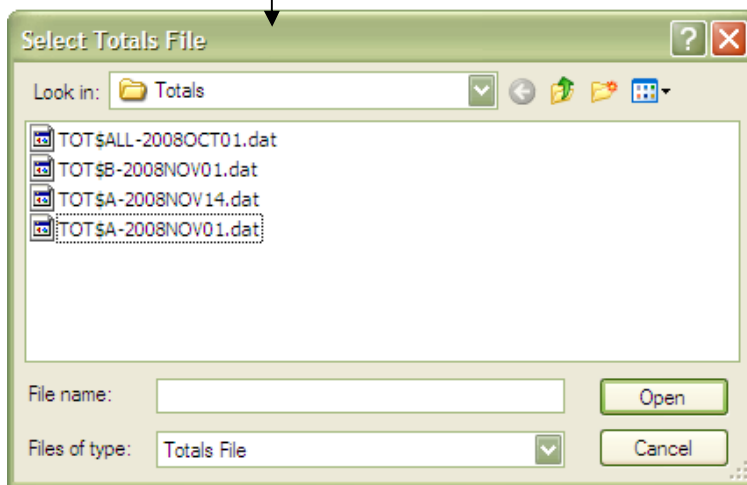


The screen capture at left shows the new entry on the 'Extract Totals-To-Text' menu.

If 'From Totals File' is chosen, the folder containing all the known files generated by a scheduled extraction will be displayed.

The screen at right shows four totals files. The name of each file shows the date the file was written, as well as billing class of the accounts contained in the file.

To select a file, double click on it or highlight it and click 'Open'. The accounts contained in the file will then be displayed. From this point, all the normal 'Totals-To-Text' processing is available.



In summary, this new feature allows you to schedule up to four future times at which a file will be written containing the totals for all or a sub-set of the accounts based on their billing class. When a 'Totals' file is written in this way, the extracted accounts will have their totals cleared automatically. A date and time entry can be re-used once its scheduled time has passed.

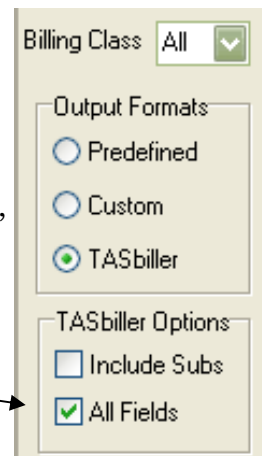
Although SDM handles the scheduled extraction of totals as a separate and distinct process from that of backing up accounts, it is recommended that the scheduling of these two activities not overlap. For instance, if the extraction of totals is scheduled for midnight, then do not schedule the account backup for midnight also. Although this would be allowed, for consistency of information in an account backup, it is not a recommended practice.

New Format Controls for Totals-To-Text

Over the past few updates, Spectrum Data Manager has added several new account totals. In order to retain compatibility with the pre-defined formats of various billing programs, including TASbiller, these output formats did not change, even as new totals were added.

With this update to Spectrum Data Manager, you can now include all account totals fields in the TASbiller output. Check this box to generate output in the expanded format.

Note, that this new output format requires the latest revision of the billing software.



Enhancements to Spectrum Data Manager

New Hypertext Commands

'r' — Page Ticket Result Field

The 'r' (lowercase R) command has been added to explicitly set the content of the 'Result' field of a page ticket. Prior to this update, the 'K7' command was the only way to set this field via hypertext, but this latter approach was only usable if the command was initiated while in the 'Entering Page' state. This precluded its use in certain dial strings and while entering a message. Now Spectrum Data Manager is capable of buffering the text specified in an 'r' command until the targeted page ticket becomes active.

Here is an example:

```
{Take Message and Send to Cell Phone&F100RA10rText to Cell Phone/ASMS:3145551234}
```

This command can be analyzed as follows:

F100 — Start message entry in Form 100

RA10 — Attach a page ticket with Type=A (transmit & hold) and Repeat=10

rText to Cell Phone/ — Set page ticket Result=Text to Cell Phone

ASMS:3145551234 — Set the page ticket fields to send an SMS to 3145551234

When the message entered using form 100 is filed, a page ticket will be presented with the fields filled in as noted above, including the 'Result' field. When the page ticket is filed, the message will be sent via SMS to cell phone number 3145551234, and the message will be held in the undelivered list. Note the '/' character being used as a terminator to the 'r' command — this is necessary if more hypertext commands follow it.

Another example:

```
{Call Dr. on Cell Phone&RR15rCalled on Cell Phone/{D:3145551234}}
```

This command can be executed either when entering a message or a page ticket. In the former case, the message will be filed, a page ticket will be attached with the Type, Repeat and Result fields populated, and the number 3145551234 will be dialed. If executed while in a page ticket, the fields will be populated and the number dialed. Prior to this update, if the 'K7' command was used instead of the new 'r' command while in the 'Entering Message' state, the result field would not be populated in the page ticket.

'?' — Set Message Priority

This command will establish the message priority dynamically (See Page 3).

'X' — Queue a Transmission Script

This command will queue a Transmission Script (See Page 7).

'x' — Cancel a pending Transmission Script

This command will cancel a pending Transmission Script (See Page 7).

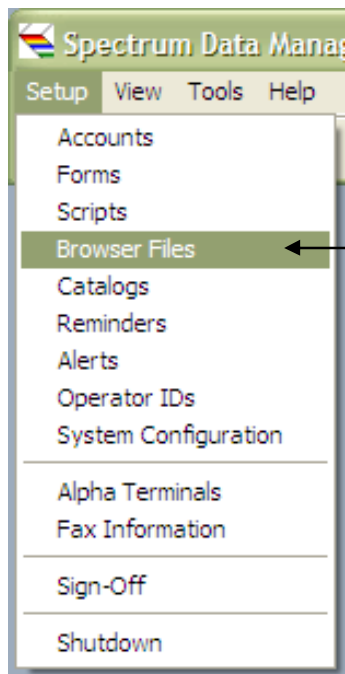
Enhancements to Spectrum Data Manager

Browser Files

Prior to this update, any files displayed in the Browser window of the Agent program could only be loaded through the Windows file system or via the Internet. In the case of Windows files, access to a file was usually accomplished using a shared folder on the local network. For example, if the file 'client.htm' resides in a shared folder named 'Rosters' on the 'CommServer' computer, access to the file can be accomplished with a hypertext command like the following:

```
{Client Directory&&\CommServer\Roster\client.htm}
```

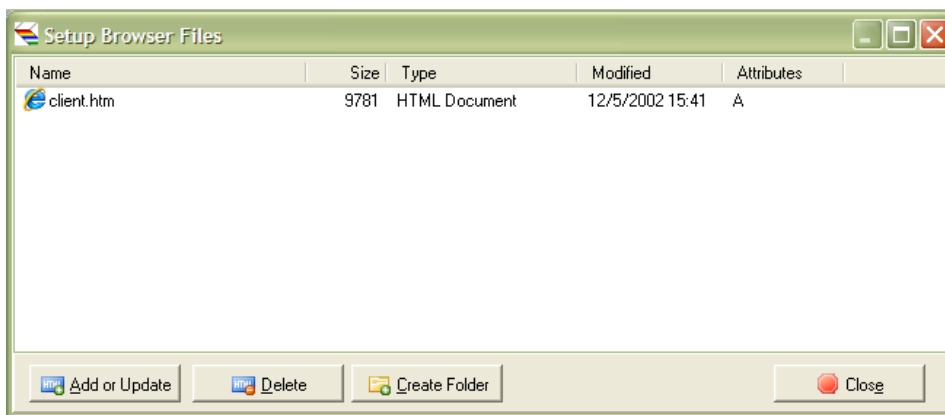
This approach, however, presents a challenge when dealing with remote agents because the remote agent's computer is not on the local network and cannot, by default, access the shared folder. This restriction can be overcome by setting up a Virtual Private Network (VPN), but this involves some effort and expense.



Therefore, to facilitate the use of Browser files by remote agents, SDM is now capable of directly downloading files to the Agent program for display in the 'Browser' window. The primary advantage of this new alternative is that remote agents can now access browser files without the need for a VPN.

To support this, the 'Setup' Menu for Spectrum Data Manager has been extended with a new option — 'Browser Files'. Using this interface, HTML and other file types usable by the Browser window can be loaded on to SDM for use by any Agent program.

When the 'Browser Files' menu option is selected, the 'Setup Browser Files' window is presented.



The 'Setup Browser Files' window will show any previously loaded files and folders. You can then proceed to 'Add or Update' files, 'Delete' existing files, or 'Create Folder'. This latter option allows you to organize the Browser files into categories (such as 'Rosters') or by account (where the given folder name is the account number).

To load a file onto SDM, click on the 'Add or Update' button. You will then be prompted with a Windows dialog for locating the file that you want to load. Upon locating the file that you want to upload, click the 'Open' button.

Enhancements to Spectrum Data Manager

Browser Files (continued)

Below is a sample window showing the 'Add or Update' dialog.



As mentioned, Browser files can optionally be organized in folders. The window at left appears when the 'Create Folder' button is clicked. Enter a name for the folder, click on the 'OK' button, and the folder will be created. You may then proceed to load files into the folder by double clicking the folder name when it appears in the 'Setup Browser Files' window.

Once a Browser file is loaded onto SDM, it can be accessed at the Agent using a hypertext command like the following:

```
{Client Directory&&sdm:client.htm}
```

Note the '**sdm:**' prefix to the file name. This signals the Agent program to request the file from SDM rather than access it from a shared folder. If the Browser files on SDM are organized in folders, they can be accessed by including the folder name in the hypertext command. For example:

```
{Hospital Directory&&sdm:rosters/1234.htm}
```

This command directs SDM to find the file (1234.htm) in the 'rosters' folder.

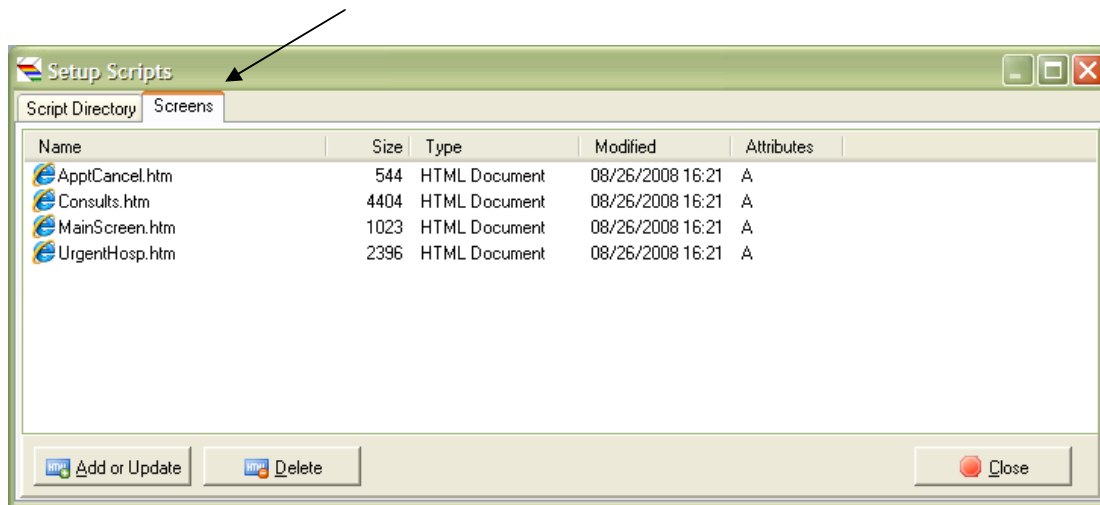
To access an sdm browser file from within another, construct the hyperlink reference so that it uses the '**sdm:**' syntax when referring to the file that it wants to load.

In summary, this new alternative to managing Browser files supplements the existing approaches and is recommended because of its transparent support for remote agents.

Enhancements to Spectrum Data Manager

SmartScript Screen Files

The SDM interface for managing *SmartScript* files and screens has been enhanced to allow greater visibility into the screens folder. A 'Screens' tab has been added as depicted below.

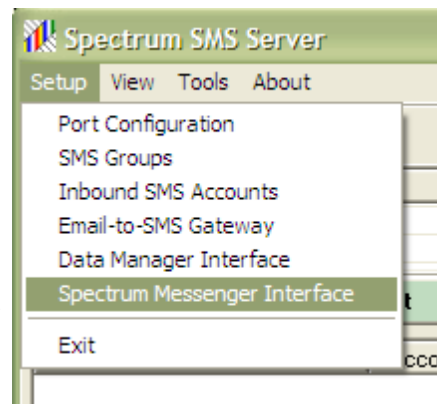


Communications Server Enhancements

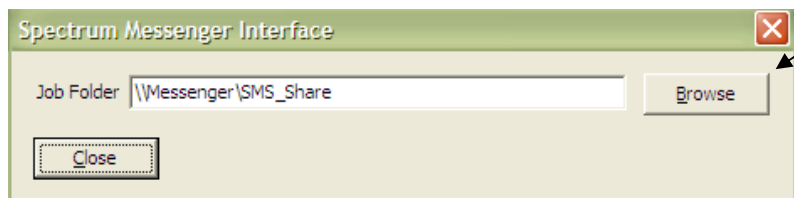
SMS Server

The SMS Server has been enhanced to work directly with the new release of **Spectrum Messenger (Version 8.3.0.0)**, thus allowing a Messenger client to send and receive SMS text messages. The new version of Spectrum Messenger will establish a shared folder for communicating with the SMS Server, and by configuring the SMS Server to have access to this folder, a Messenger client can send and receive SMS text messages.

To support this, a new option has been added to the 'Setup' menu, 'Spectrum Messenger Interface', and it works very similar to how the 'Data Manager Interface' works.



When choosing the 'Spectrum Messenger Interface' option, the following window will appear:



You can navigate to the shared folder by clicking the 'Browse' button. Once the shared folder is selected and established in the 'Job Folder' window, click on the 'Close' button. At that point, the SMS feature of the Spectrum Messenger will be usable.

Please refer to the Spectrum Messenger documentation and release notes for more information on how to use this feature.

Communications Server Enhancements

SMS Server (continued)

Other enhancements to the SMS Server include

- The ability to interface to CDMA modems
- Improved error detection and retry logic

Fax Server

The Fax Server has been enhanced in several ways.

Modem Speaker

The speaker on the Fax modems can be disabled using a checkbox on the 'Options' tab of the 'Configuration' window. For installations with numerous fax channels, this can cut down on noise in the equipment room.

Disable speaker on modems

Modem Timeout Errors

There are various causes for failure of a fax transmission. If a fax modem is responding to initialization commands, but becomes non-responsive when carrying out a request, a timeout will occur. You can now lock out a channel if this persists over multiple consecutive requests.

Lock out channel after consecutive timeout errors

Alternate Font Selection

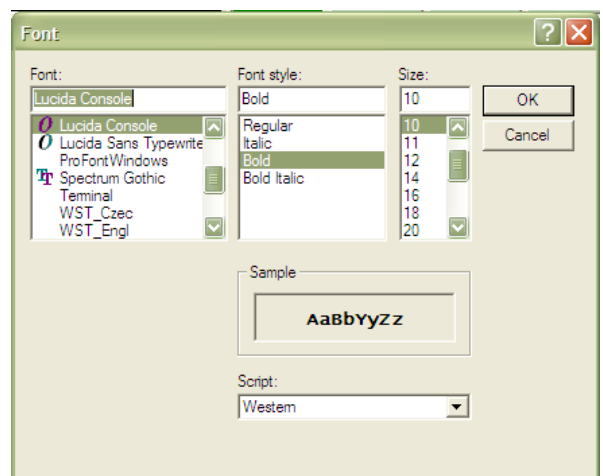
The Fax Server now allows selection of an alternate font on a per-fax-job basis. Use of this feature involves two setup steps.

The **first step** is to choose the desired alternate font at the Fax Server. From the 'Setup' menu, select 'Fax Font'.



From the window at left, click on the 'Alternate Font' button.

From the 'Font' selection dialog, choose the desired font, style and size. Note that only mono-spaced fonts are listed.



The **second step** involves enabling use of the alternate font in the AMR of those accounts that will use it. See the 'Message Destination' tab of the AMR or the 'Fax' setup step for a Transmission Script.

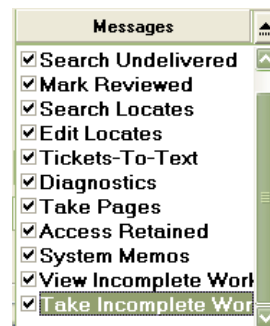
Alt Font

Enhancements to Spectrum Agent

System Status and Incomplete Work

'Incomplete Work' is any message or ticket that has been started, but not yet filed, including inbound messages from Email or SMS. Each station has its own list of incomplete work, the presence of which is signaled by the flashing 'INCOMPLETE' prompt in the lower-left corner of the Agent screen. The list of incomplete work can be accessed by pressing 'Esc-Esc', at which point the entry at the top of the list is retrieved and reactivated at the station.

With this update, the Spectrum Agent and Spectrum Data Manager have been enhanced to provide greater visibility and access to the incomplete work pending in the system. To accomplish this, the Agent's 'System Status' window has been expanded to include three new tabs. Access to the new tabs can be controlled by operator capability. The 'Messages' checklist on the 'Edit IDs Capabilities' tab in Spectrum Data Manager has two new entries that control access by operator id — one that allows viewing and another that allows the ability to retrieve the incomplete work via the 'System Status' window.



The new tabs on the Agent 'System Status' window are

- Incomplete Pages
- Incomplete Messages
- Inbound Messages

An '**Incomplete Page**' is a page ticket waiting to be completed and filed. Typically these will be found residing at a Dispatcher station. Below is a sample screen showing incomplete pages at two stations. By default, the incomplete pages are shown sorted by station and then by priority, with the

Entry	Station	Opr	Account	State	For	Created	Priority
1	2	SYS	0001 Mercy Hospital	Entering Page	Dr On Call	02:10 pm	2
2	3	SYS	0000 HOUSE ACCOUNT	Entering Page	STAT CALL	02:06 pm	9
3	3	SYS	0000 HOUSE ACCOUNT	Entering Page	DR. HOWARD	02:04 pm	6
4	3	SYS	0000 HOUSE ACCOUNT	Entering Page	DR. JOSEPH	02:05 pm	3

priority field being color coded. When the entries are sorted by station, the line entries will alternate light-gray and light-blue to allow a quick recognition of the relative amount of dispatching work pending at each station. The table can be sorted on any field by **left-clicking once on a column header** ('Station', 'Opr', 'Account', 'State', 'For', 'Created' and 'Priority').

The message associated with a page ticket can be viewed by **right-clicking on the entry**.

Enhancements to Spectrum Agent

If enabled, an agent can pull an incomplete page from any station, including their own, by **double clicking on the entry**. This will activate the page ticket at their station.

An **'Incomplete Message'** is any non-page ticket work that is on the incomplete list at a station (except inbound messages — see below). Typically these will be incomplete message tickets, but they also can include patch and dispatch tickets, or changes yet to be filed on an information screen or account master record. Below is a sample window showing the non-page ticket work that is pending.

Entry	Station	Opr	Account	State	For	Created	Priority
1	2	SYS	0001 Mercy Hospital	Entering Message	DR. WILLIAMS	02:14 pm	2
2	3	SYS	0000 HOUSE ACCOUNT	Entering Message	DR. HOWARD	02:13 pm	3

An

An **'Inbound Message'** is a message ticket created as a result of having received a qualified inbound Email or SMS message. These messages are routed to an operator with dispatching capabilities via the assigned station's incomplete list. Below is a sample window showing an inbound email that is pending.

Entry	Station	Opr	Account	State	For	Created	Priority
1	2	SYS	0000 HOUSE ACCOUNT	Entering Message	INBOUND EMAIL	02:25 pm	4

Inbound messages are given their own tab to allow easier reference to them in the presence of lengthy lists of the other types of incomplete work.

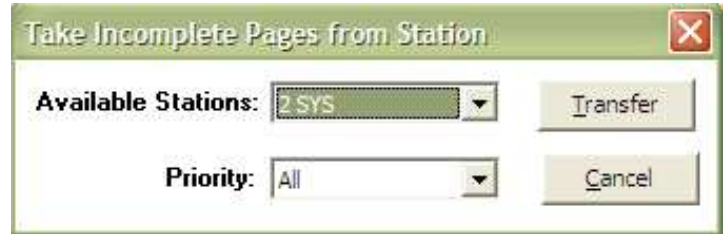
If enabled, an agent can pull an incomplete message or inbound message from any station, including their own, by **double clicking on the entry**. This will activate the work at their station.

Enhancements to Spectrum Agent

System Status and Incomplete Work (continued)

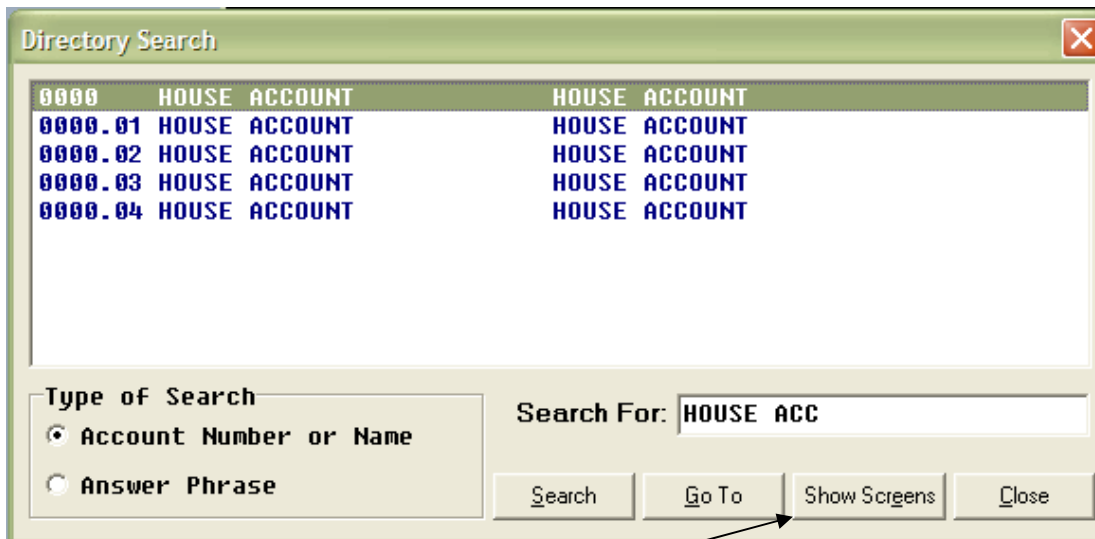
When the 'Take Incomplete Pages' button is clicked, the operator will be prompted with a window that allows the selection of a station, as well as the priority of the associated messages.

This would allow a supervisor, for instance, to pull across all incomplete pages from a station regardless of priority (as shown at right) or, for instance, to select only calls of a particular priority.



Directory Search

The 'Directory Search' window has a new button that allows the screens from the selected account to be displayed within the context of the current account. The effect of clicking the button is the same as if the 'S' hypertext command were initiated on the first screen of the selected account.



The new button is labeled 'Show Screens'. This will allow an agent to review information on any account's screens without the necessity of putting a caller on Priority Hold and displaying the account. To return to the original account screens, the agent can press 'Display' and 'Home' in succession.

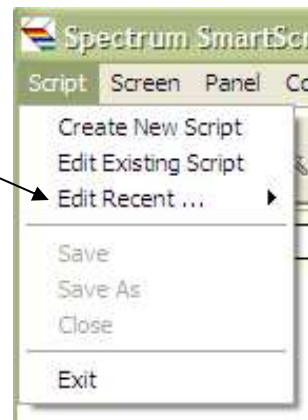
Enhancements to Spectrum SmartScript

The SmartScript Designer has several new features.

Access to Recently Edited Files

The 'Script' menu has been augmented to provide quick access to a list of recently edited files. When moving the mouse over the 'Edit Recent ...' selection, a list of files will pop up, allowing you to choose one for further editing. *Note that this menu item will not show upon first installing the update because, at that point, the Designer does not know what the recently edited files were. But moving forward, as files are created and edited, they will show up in the list.*

Also, the 'Create New Script' and 'Edit Existing Script' selections will remember the most recently accessed folders upon re-running the Designer.



Referring to Field Values in a Script

You can now display the contents of a field within a later prompt. Below is an example of how you can display the caller's name in a wrap-up prompt.

At left is a fragment of a script panel that shows a field for entering the caller's name.

At left is the full list of the fields on that panel, showing the desired field name to be 'CallerName'.

Below right is a later panel in the script. It shows a wrap-up prompt at the bottom that refers to the 'CallerName' field.

Note that the field reference is delineated with '[' and ']'.
 [CallerName]

When this prompt is displayed, the caller's name, as entered by the agent, will be substituted for [CallerName].

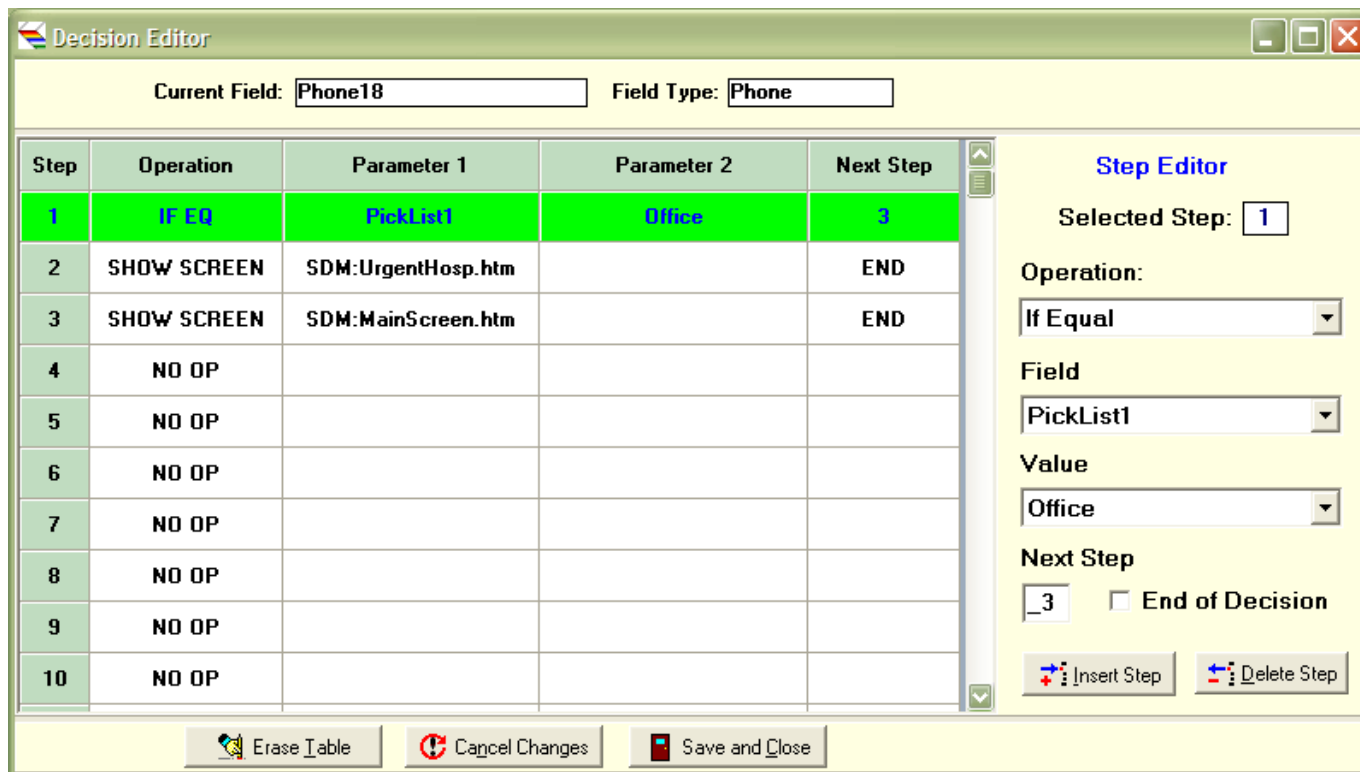
This feature will work with any type of field, including a picklist or memo. More than one field can be referenced in a prompt. For instance the prompt could be changed to say

"Thank you [CallerName] for calling about your [EquipmentName] copier. I will page the Technician".

Enhancements to Spectrum SmartScript

Displaying a Screen within a Decision Table

A new operation has been added to the Decision Editor. The new operation is 'Show Screen' and it allows you specify a screen to be display as a result of a decision step. Below is an example.



In step 1, a picklist (PickList1) is examined. If its value is 'Office' then step 3 is performed, which causes the screen 'MainScreen.htm' to be displayed. Otherwise step 2 is performed and the screen 'UrgentHosp.htm' is displayed. In either case, the decision is ended.

Hyperlinks in Screens

A SmartScript screen can contain hyperlinks to a web page or to a local file. New in this update, the SmartScript Designer and Spectrum Agent now support hyperlinks to screens loaded on SDM, thus allowing a SmartScript screen to contain clickable links to other SmartScript screens.

Such hyperlinks use the 'SDM:' convention, for instance:

sdm:Personnel.htm

Although it would not necessarily need to be added to the script, any such referenced HTM file would still need to be loaded on to SDM using the interface described on page 14.

Changes and Corrections

Spectrum Data Manager

1. When cancelling out of a Page Ticket, the confirmation prompt now properly identifies the operation as cancelling a page ticket rather than a message ticket.
2. A correction has been made to the use of 'S' in the Auto Transmit field. The correction pertains to the use of Alpha+Fax and Alpha+Email destinations in conjunction with hypertext overrides.
3. The Ctrl-Copy function will now default to the current account if no account number is entered.
4. Call reports for SMS transmissions, although stored properly, were erroneously being identified as fax transmits in the reports. This has been corrected.
5. SDM's 'Copy Fields from Template Account' tool now properly shows the number of processed accounts.
6. The 'Extract-AMR-To-Text' and 'Copy Fields from Template Account' tools have been updated to include new fields that were added in several prior updates. The former also now properly shows the Fax Channel field.
7. It was possible in some circumstances to lose an Inbound Email or SMS message by selecting an inbound call while viewing the unfiled inbound message. This has been corrected.
8. When using only Hypertext commands (rather than manual entry) to populate fields on the second or subsequent page ticket of a message, it was possible to escape out of the page ticket by selecting an inbound call. This has been corrected.
9. A correction has been made to the handling of messages marked as 'Read' by the Web Messages application. The system now properly handles account numbers in the range 0000 thru 0999. Also, the format of the index for the web messages has been enhanced to guarantee uniqueness when message are kept on the web for long periods of time.
10. A correction has been made to the handling of the 'C' (copy) hypertext command when the command is initiated in an invalid context.
11. In deference to the new capability for message prioritization, the older method of prioritizing incomplete page tickets based on the 'call queue priority' has been discontinued.
12. When the edit button is clicked in SDM's 'Setup Accounts' window, the displayed data is refreshed from the database prior to entering the edit mode.
13. The 'Copy Pending' prompt is now erased once the copy completes.
14. A change was made to the algorithm for updating the Pending Pages list. When the list is longer than 18 entries, the refresh interval is extended to reduce the network load on SDM.
15. When manually emailing a client, SDM will now use the AMR email format setting by default.
16. Transmit memos now report the failing fax number or email address. Knowledge of the failing target is of greater significance when using the Transmission Scripts feature.
17. When queuing scheduled fax transmits, SDM will now do a better job of batching jobs for the same phone number in one call to the client fax machine.
18. Reliability improvements have been made in the tools for extracting Information Screens and AMR fields from an account backup file.

Spectrum

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Changes and Corrections (continued)

Agent

1. The wave file for the 'Transfer' ring sound has been amplified.
2. If an operator exited the Agent program without signing off and then restarted the Agent program, the 'Reports' tab would be accessible. This has been corrected.
3. Improvements have been made to the positioning of the pop-up window that allows selection of a target station when assigning work.
4. The 'Transmit All' pop-up at the Agent will now show in yellow to alert the operator that a transmit of 'all' messages will result unless proper filtering is applied.
5. There were a couple instances where the cursor would be erroneously placed on the Agent screen. This has been corrected.
6. The Agent program will now restore upon startup the last position of the 'System Status' screen.
7. If the Agent program is using a duplicate station ID, it will now force a disconnect from the Prism, SDM and voice logger LAN connections. Prior to this update, the Agent program waited for the servers to disconnect first.
8. At startup, the Agent program loads its required fonts. By convention, the program was sending a notification of this to all 'top level' windows. It was possible for the Agent program to 'hang' waiting for an acknowledgement if one or more of the running programs did not properly process the message from Windows. Therefore the method of sending the notification has been changed from a 'SendMessage' to a 'PostMessage'.

Agent (Prism-dependent)

1. The Agent program can now display a memo from the Prism that notifies of failures in any of the digital telephony circuits that may be connected to the Prism.
2. If a Priority 9 call is presented at a station, the station will immediately flash red around the call activity buttons. Normally this is done only when the inbound ring count reaches four.

Communications Server

1. The SMS Server will now pass along the computer time on an inbound message if the time is not provided in the SMS message.