

Spectrum Data Manager and Communications Server R1-10 Update

2010 Release 1

April 2010

Overview

This document describes the enhancements made to the programs listed at the right. The sections that follow provide detail on each enhancement.

In addition, various changes and corrections were made. These are listed at the end of the document.

Software Updated in Release 1 — 2010

Spectrum Data Manager Version 10.1.0.0

Alpha Server **Version 10.1.0.0**

Email Server **Version 10.1.0.0**

Fax Server **Version 10.1.0.0**

SMS Server **Version 10.1.0.0**

Spectrum Agent **Version 10.1.0.0**

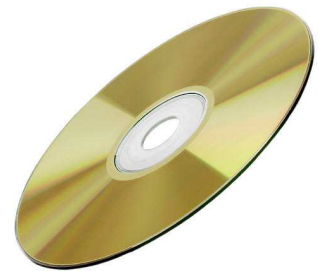
SmartScript Designer **Version 10.1.0.0**

On-Call Editor **Version 10.1.0.0**

Installing the Update

Included in your shipment are instructions for updating each of the programs, along with the corresponding update CDs. These include:

1. *Spectrum Data Manager and Comm Server R1-10*
2. *Spectrum Agent — Script Designer — On-Call Editor R1-10*



Order of Updating Programs

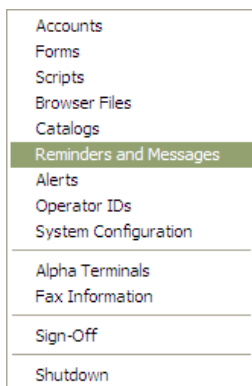
The recommended order for applying the updates is as follows: SDM, followed by the Agent, then the Communications Server programs. The SmartScript Designer and the On-Call Editor need only be updated if you use either of those two features, and this can be done last.

Carefully review the separately enclosed installation 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.

System Reminders and Messages

The 'System Reminders' feature is now called the 'System Reminders and Messages' feature and includes the ability to schedule the automatic generation of a message. The message can be either a free-form message or a scripted message.

When generated at the scheduled time, the message is placed on the 'Incomplete' list of an available operator, either at a station designated as 'Reminder-capable' or to a dispatching station. When the operator at the targeted station pulls the message from the 'Incomplete' list, an optionally specified hypertext command can be executed, thus allowing numerous possibilities for automatic handling.



At left is a depiction of SDM's Setup Menu.

Note the changed option: 'Reminders and Messages'.

When 'Reminders and Messages' is selected, the window below is displayed. This window is basically the same as the previous 'System Reminders' window, but has been extended to allow the definition of a 'System Message'. Note in the left section, a System Message has a different icon than a System Reminder.

To create a 'System Message', right click on a line in the left section that has the desired Account Number and Name. The pop-up menu depicted at the right will appear. Choose 'Add New Message Here' → to begin the creation of a System Message for the chosen account.

Add New Reminder Here
 Add New Message Here
 Delete All Items for this Account
 Delete This Item
 Sort Items

System Reminders and Messages

The top section of the System Message editor is the same as that of a System Reminder. This is where you schedule the starting time and periodicity of the message.

The bottom section allows you to specify which form or script to use, as well as the optional hypertext command to execute when the message is pulled from the 'Incomplete' stack by the operator. The 'Route to Dispatcher' checkbox should be checked if you want the message to be assigned to a Dispatcher. Otherwise use the station checkboxes to assign it as if it were a System Reminder.

The editing box in the bottom section allows you to specify a hypertext command to be executed when the message is pulled from the 'Incomplete' stack. In the example above, Form 1 will be used as the message template. When the assigned operator accesses the System Message, the following hypertext command will be executed: `K1bob v./K2WAKE UP/RA10rTransmitted SMS/ASMS:3145551212q`

This hypertext command sequence will fill in the first two fields of the form and cause a page ticket to be attached. The 'q' at the end of the command will cause the message to be filed automatically. The page ticket will appear with an 'A' in the 'Type' field and a 10 minute 'Repeat Interval'. The 'r' command causes the text following it to appear in the 'Result' field of the page ticket. The dispatcher will see the message and page ticket and be in the 'Entering Page' state. Note that this is just an example of a possible hypertext command. You may construct others to suit your purpose.

Note that you can also specify a script for a System Message rather than a form. In anticipation of using scripts at scheduled times for outbound applications, the software has been enhanced to allow an operator to dial out while in a script. See the section later in this document that describes this new capability.

New Hypertext Commands

The 'q' command— 'File' Key. The 'q' command will cause the operator to continue as if the 'File' key were pressed. It is anticipated that this command will find uses in the new System Messages feature whereby, for instance, a message can be automatically generated, populated with data using 'K' commands, associated with a Transmit Script using the 'X' command, and then (with the 'q' command) automatically filed and queued for transmission. Example: `K1Bob V./K2Telescan/X1q`

The 't' command — set the 'Expiration' field in a page ticket. This command allows you to pre-specify the contents of the expiration field of a page ticket. Heretofore this was only possible with a 'K' command, but this approach had limitations when paired with speed dial commands. The 't' command will also have the side-effect of clearing the 'Repeat Interval' field in the page ticket. Here is an example: `t0700` will clear the 'Repeat Interval' and set the expiration time of the page ticket to 7AM.

Playback of Voice Logger Recordings at Agent Station

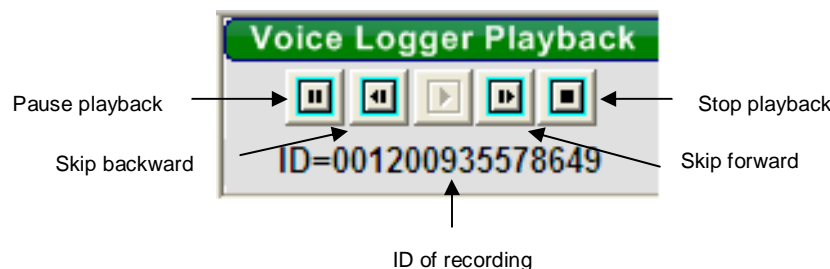
A new feature has been added to the Agent program that allows it to playback voice logger recordings at an operator station using the operator's normal headset. **NOTE: Currently this integration is only available on local stations and with certain versions of the Panda Voice Logger.**

As before, voice logger recordings are automatically made when an operator is on either an inbound or outbound call. Several enhancements have been made to the system that now allow an operator to access and play these recordings into their headset.

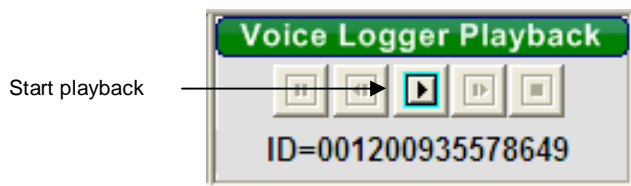
To accomplish this, SDM will now generate a unique ID for each inbound and outbound call. This ID is sent to the Agent station whenever the operator accesses an inbound call or starts an outbound call. The Agent software, in turn, will provide this unique ID to the Voice Logger when the recording is complete. The ID can then be used as a 'key' to retrieve the recording and play it back.

In addition to furnishing the unique ID to the Voice Logger, SDM will also store the ID with any message or ticket that was active during any part of the life of the call. Then, later, an operator can listen to the recording of the call associated with the message or ticket by accessing a new pop-up menu when the message is viewed at the station. The unique ID is also stored with the recent call history at the station so that an operator can access their most recent recordings simply by viewing their call history and right-clicking on an entry in the list.

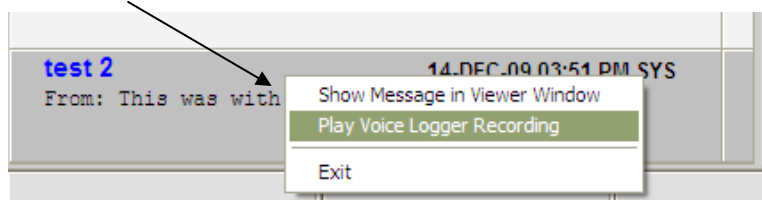
While a recording is playing, the controls below will appear in the lower-right corner of the Agent window.



A paused or stopped recording can be continued or started by clicking the 'Start playback' button.



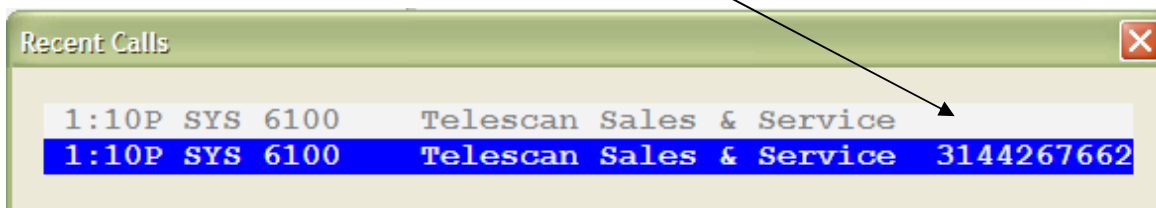
When a message or ticket is displayed in a list, you can right-click on the FOR field of its list entry. If a recording is available, the 'Play Voice Logger Recording' will appear as an option in the pop-up menu. Left click on that option to activate the playback.



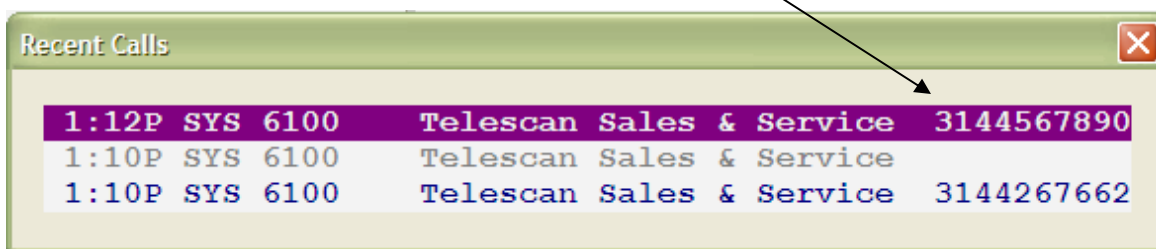
Playback of Voice Logger Recordings at Agent Station

You can also access recent recordings made at the station by displaying the 'History' list. This list has been enhanced, not only to allow access to the recent recordings, but also to display 'Caller ID' and 'Dialed Number' information for each inbound and outbound call respectively.

Below is an example of an inbound call showing the 'Caller ID' associated with the call.



Below is an example of an outbound call showing the 'Dialed Number' associated with the call.



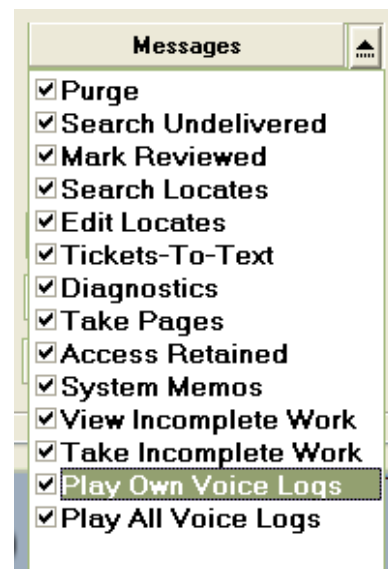
To access the recording associated with an inbound or outbound call, right-click on its entry in the 'Recent Calls' list. The playback will start. Here (and in any context in which a recording is playing) the operator can move on to other activities while the recording is playing. For instance they may want to edit the associated message while the recording is playing.

The 'Messages' checklist on the 'Operator Capabilities' tab of SDM has been extended to allow control over access to recordings at a station by Operator ID.

Two new checkboxes allow you to designate that an operator can access only their own recordings or all recordings. Obviously if 'Play all Voice Logs' is enabled, it will take precedence over the 'Play Own Voice Logs' setting.

If neither checkbox is checked, the affected operator will not have access to recordings at an Agent station.

New Capabilities {

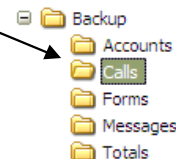


Daily Backup of Call Records

When daily scheduled backups are performed, SDM will now also write a file containing the prior day's call records. If you have a procedure in place to periodically copy your backup files to off-line storage, you can now add the daily call record file to this procedure. The call record files can then be viewed and searched off-line using the previously mentioned *ArchivesViewer* program.

The daily call record files can be found in a new folder: Spectrum\Backup\Calls

A new file will be written each day to this folder. From that point, SDM does not access them, so they may be copied at any time. The files are named in a conventional manner that identifies the date, for example: CR\$2010MAR31.dat



Enhancements to Page Ticket Processing

Disabling Removal of a Page Ticket

A new field has been added to the 'Msg Entry' tab of the Account Master Record. The new field is labeled 'Disable Removal of Page'.

Disable Removal of Page

When used in conjunction with the 'Page Type' field in the AMR, you can disable an operator from mistakenly removing the page ticket from a message in-progress. The way it works is that if you put a default letter code in the 'Page Type' field and also check the 'Disable Removal of Page' checkbox, an operator's attempt to cancel the page ticket while entering a message will be ignored.

New Prompt when 'Attempts Remaining' goes to zero

When the 'Attempts Remaining' field goes to zero when starting a second or subsequent page ticket, the page ticket labels turn red. Now, in addition to this, a prominent warning will appear to the operator that requires a response before they can proceed.

WARNING: All attempts for this Contact Method have Failed -- Press any key

New Prompt when 'Page' key would override Auto-Transmit

When an account's AMR is programmed to Auto-Transmit as a message is filed, if the operator presses the 'Page' key and attaches a page ticket, the Auto-Transmit processing will be bypassed.

In order to minimize the effect of an inadvertent 'Page' key, the prompt at right can now be displayed.

To enable this prompt, check the checkbox at right which is located on the 'System Configuration | Station Capabilities' tab.

Override Auto-Transmit? [Y or N]

Prompt if Auto-Transmit Override

More allowed contexts for certain Speed Dial Commands

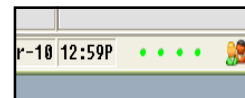
The Agent program has been enhanced to allow certain speed dial commands to be clickable whether or not a dial out or patch has been manually initiated. The affected dial commands are those that use angle brackets, for instance: <D2:3144267662>. Heretofore, this kind of command could only be accessed if a dial-out was not in progress. Now, for instance, the operator can press the 'Patch' key and then click on this command to perform the dialing. This allows the command to be shared for both stand-alone dial-outs and for patching.

Enhancements to Agent

New Network Configuration Window

The parameters associated with configuring the network settings for an Agent have now been separated from the other Agent Configuration settings. The screen shots below illustrate the change:

At left is depicted the new layout of the Agent Network settings. To access this window, press Ctrl-Alt-N or right-click on any of the four network status LED's in the lower-right corner of the Agent.



This change was motivated by the need for better support of remote operators.

- At sites that share multiple station ID's among several remote operators, the remote operators will now be able to easily change the station id without being given access to change other configuration settings.
- Sites that use remote operators and also have a backup Internet path for getting into their central location will now be able to more easily adapt to an outage on their primary path. Note in the window at left that a backup configuration can be pre-defined. The 'Primary' and 'Backup' radio buttons in the upper left are used to choose the active path.

The 'Disconnect at Sign-Off' checkbox will better handle situations where a remote operator signs off and leaves the computer, but does not exit the Agent program. 'Disconnect at Sign-Off' will prevent the program from tying up the Station ID.

In addition to these considerations for remote operators, decoupling the network settings from the other Agent configuration settings makes it much easier to support the installation of new stations or new workstation PC's.

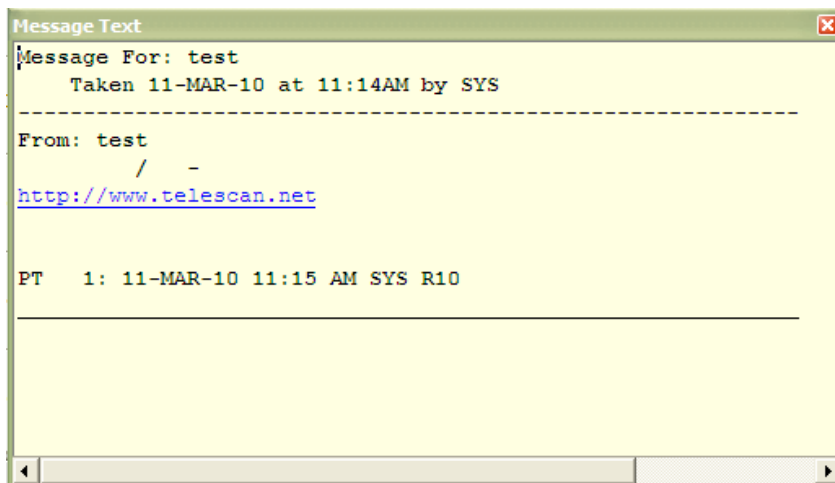
In the screenshot at right, note that the regular configuration window has the 'Network' tab removed. Also, the OnCall tab no longer contains network configuration information.

Enhancements to Agent

Message Viewer now allows Hyperlinks

There are various contexts in the Agent program where you can right-click to pop-up a message viewer. One example is the 'Pending Pages' list in the Agent's 'System Status' window.

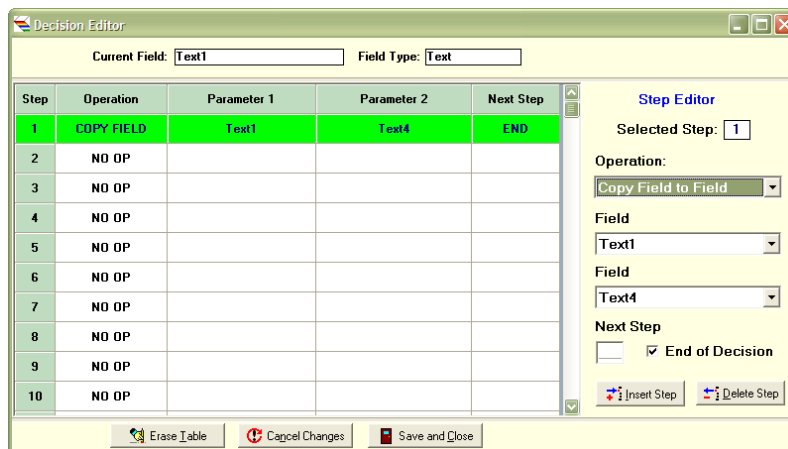
This viewer window has been enhanced to allow web page references to be clickable, as illustrated in the screenshot at right. This feature can find uses in the processing of Inbound SMS and Inbound Email whereby the client or an automated system can generate messages for follow-up that include navigating to a web site.



Enhancements to Spectrum SmartScript

Copy Field-to-Field

A new operation has been added to the Decision Table editor—'COPY FIELD'. This operation will copy the contents of one field to another. For instance, if name and address information needs to be copied from the fields on one panel to the fields on a different panel, 'COPY FIELD' can be used to accomplish this.



Suppression of the Display of Credit Card Numbers

After a scripted message has been filed, all display of any credit card numbers in the resultant message will be replaced with asterisks except for the last 4 digits.

'Include' option for Postal Code fields

The 'Include' option is now allowed as an attribute of a Postal Code field. The 'Include' attribute forces the field to be included in the text of the resultant message, even if the operator has not entered the field.

Enhancements to Spectrum SmartScript

Dialing Out while in a Scripted Message

Prior to this update, SDM would push an in-progress script to the operator's 'Incomplete' stack when a dial-out was initiated, either by pressing the Dial key or by clicking on a speed-dial hypertext command. A Dispatch Ticket would then be displayed.

With the R1-10 update, SDM will keep the operator in the context of the script when this happens and will not generate a Dispatch Ticket. This opens up the possibility for scripted out-bound applications where it is expected that the result of the dial-out operation be recorded in the scripted message.

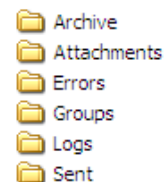
The operator can manually initiate the dial-out by pressing the Dial Key or by clicking on a speed dial command in an Information Screen. Alternatively, the dial-out can be initiated through a decision table step that performs the speed dial as a hypertext command.

This new approach to dialing-out in a script is also amenable for use with the new feature 'System Reminders and Messages' (see page 2). Many scheduled activities are associated with calling the client for one reason or another. Previously this would be documented in two or three places: the Reminder, the Dispatch Ticket and (possibly) a Message Ticket. Now, for example, all documentation can be consolidated within a scripted message.

Application-Specific Attachments in Outbound Email

The Email Server now provides the ability to attach application-specific files to outbound email. The attachment can be almost any kind of file, but one common example would be sending a PDF of a sales brochure. There are **two steps** involved in making use of this feature.

The **first step** is to place a copy of the file to be attached into the 'Attachments' folder of the Email Server. This folder resides at Comm\Email\Attachments



The **second step** is to create a form or script that includes the text 'EMail File:' in the message. This text is a 'trigger' to the Email Server that the name of a file to attach follows on the remainder of the line. This allows you to either 'hard code' the name of the file into a message or to have it entered manually by the operator when the message is taken. Note that you only need to enter the file name—not the entire path.

The screenshot at right shows an example of how either or both of these approaches can be coded into a form template.

Note in the example that the 'trigger' text does not have the pipe character enclosing it. Depending on the filter level, treating this text as a label could cause the text to be filtered out before it gets to the Email Server, thus preventing it from having an effect. Once encountered though, the Email Server will attach the specified file and strip the 'trigger' line from the message.

Manual entry of file name

Pre-set file name

Form Editor Form Printer

You are viewing an existing form now

Form # 0007 Form Description: Email Attachment

Page: 1 of 1 Screen: Row: 1 Col: 1 Pos: 1 Clear Copy Paste

```

EMail Addr: [ ]
EMail File: [ ]
EMail File: Agent Browser.pdf
| Message: | [ ]
{ }
{ }

```

Data Field Keys: () { } [] / - Highlighted Text: | Other Keys: Normal Text

Begin Edit End Edit Set Attributes Next Field Prior Field End Attributes

Cancel Edit View Attributes Cancel Attributes

Auto-Text-Message-Down-File with CenturiSoft

SDM now supports Auto-Text-Message-Down-File with a CenturiSoft Voice Mail system. This feature is selectable on a per-Account basis and is enabled by default. To disable this feature, check the 'Disable Text Message Downfile from VMail' checkbox on the 'Voice Mail' tab of the AMR.

Note: This feature requires the R1-10 version of the Prism and the appropriate software from CenturiSoft.

Disable Text Message Downfile from VMail

New and Updated Utility Programs

The Agent Update CD contains a folder named 'Utilities'. This folder contains the following:

- An updated *Archive Viewer* program: **ArchiveViewers.exe**. You may copy this file to any computer for use in viewing off-line Call Record files or Message Backup files.
- A program named **MergeTotals.exe** which can be used to either add the totals from two backup files or subtract one from the other, in each case creating a third file that can be used to extract totals. This utility can be useful in recovering from scheduling errors or manual-clear errors when working with account totals.
- An installation program for *EmailDecrypt*, which you can distribute to your clients for use in decrypting email attachments that are sent through the Email Server. The installation program is named **EmailDecrypt_21 Install.exe**.
- An installation program that restores a Microsoft feature that was removed from Windows 7 and Vista. The feature is used by the *SmartScript* Screen Editor and, if not present, prevents the program from running in Windows 7 or Vista. The installation program is named **DhtmlEd.msi**. Run this installation program to restore the missing Windows feature.

Changes and Corrections

Spectrum Data Manager

1. The TAS Scheduler file now contains additional information in the call records, particularly the inbound and dial-out records, thus allowing the program to more accurately track announcements and operator hold time.
2. Non-numeric characters are now allowed when specifying a phone number in the 'Callers' list. This will allow the entries to contain formatting characters and be more readable.
3. 'Locates' and 'Expanded Locates' are now identified differently in a message list, thus allowing an operator to properly distinguish between the two when reviewing delivered messages and tickets.
4. The 'M' hypertext command will now check to see if a message entry is already in-progress for the specified form. If so, it will keep that message entry active. Formerly, it would push any active message entry (even for the same form) onto the 'Incomplete' stack and start a new message.
5. SDM will now try to guarantee that dialed digits are placed in the active Page Ticket or Dispatch Ticket, even if the station is no longer in the 'Dialing Out' state.
6. The 'station' field was being recorded incorrectly in call records that documented manual message transmissions. It was off by one station. This has been corrected.

Spectrum

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Changes and Corrections (continued)

7. When restoring a scripted message for a live call being picked up from hold, parts of the Agent screen were not always being refreshed properly. This has been corrected.
8. When displaying the 'Callers' list in an AMR, SDM could bog down if the list of callers contained many numbers. Changes were made to make this operation less impactful on background processes.
9. The 'Screen Indices' diagnostic has undergone some minor optimizations.

Agent

1. The default setting for the 'All Dates' checkbox in the 'Message Transmit' pop-up has been changed. Now, except when processing the 'Undelivered' list, the checkbox will default to being unchecked. In addition, if the checkbox is subsequently checked by the operator, a warning message will appear. This is done to help catch an unintended transmission of many messages.
2. The 'Operator Statistics' report that is available (if enabled) from the 'Reports' tab of the 'System Status' window was treating the year 2010 as an invalid year, thus disabling the report. This has been corrected.
3. If a supervisor viewed the current stats of another operator, the other operator's ID would then erroneously be stored with the timestamp as the responsible operator when subsequent On-Call changes were made by the supervisor. This has been corrected.
4. The Telephony buttons were not always using the proper font. This has been corrected.
5. When using the 'Answer-On-Trunk-Select' option, the Agent program will now enforce a longer delay between sending the 'Talk' key and the 'Answer' key. This is intended to allow Prism to better synchronize a subsequent auto-record.

Communications Server

1. The SMS Server will now properly handle Messenger traffic on a channel configured to only handle its own requests.
2. The SMS Server now allows phone numbers on inbound messages to be 5 to 15 digits long (previously only 10 digit numbers were allowed).
3. The SMS Server will now handle Linefeed characters in inbound messages, preserving their effect on formatting.
4. The SMS Server has been enhanced to support Sprint-specific commands and responses.
5. The Alpha Server now allows operation with SNPP in a configuration that has no COM ports operational. Previously, at least one COM port had to be operational before the Alpha Server would accept jobs from SDM.
6. The Alpha Server now has additional logging in its SNPP interface, thus allowing better diagnosis of connection and transmission problems.
7. The FAX Server now supports up to 24 channels. To accommodate this with minimal changes, the text on the channel buttons has been shortened.