

Spectrum Data Manager and Communications Server R1-09 Update

2009 Release 1

February 2009

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 1 — 2009

Spectrum Data Manager Version 9.1.0

Alpha Server **Version 9.1.0**

Email Server **Version 9.1.0**

Fax Server **Version 9.1.0**

SMS Server **Version 9.1.0**

Spectrum Agent **Version 9.1.0**

SmartScript Designer **Version 9.1.0**

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* R1-09
2. *Spectrum Comm Server* R1-09
3. *Spectrum Agent Station* R1-09
4. *Spectrum SmartScript Designer* R1-09

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.

Enhancements to Spectrum Data Manager

Form Editor

The Form Editor has been improved in several ways.

Form Template Pages and Information Screens

You can now associate a specific information screen with a page within a Form Template. A new field for this purpose has been added to the Form Editor.

A two-character ID can optionally be entered into this field for any Form Template page. As a message is taken using the Form Template, the designated information screen will be presented whenever the operator is on that page of the form. This can be useful for displaying special instructions to the operator relative to the various pages of a form. The information screen must be defined in the current account when the message is being taken.

The screenshot shows the Form Editor interface for a form titled "Test SMS Form". At the top, it says "You are editing an existing form now" with a "Cancel Form" button. Below that, the form number is "Form # 0002" and the description is "Form Description: Test SMS Form". The form layout shows "Page: 1 of 1", "Screen:" (empty), "Row: 4", "Col: 1", and "Pos: 160". There are "Clear", "Copy", and "Paste" buttons. The form content includes:


```

  _ Message _ [ ]
  _ _ _ [ ]
  _ Caller ID _ [ ]
  
```

 Below the form, there are "Data Field Keys: () { } [] / -" and "Highlighted Text: | Other Keys: Normal Text". At the bottom, there are buttons: "Begin Edit", "End Edit", "Set Attributes", "Next Field", "Prior Field", "End-Attributes", "Cancel Edit", "View Attributes", and "Cancel Attributes".

Green Background

In addition to blue and red, forms can now display a green background. The underscore character '_' has been chosen as the designator for such parts of the screen. In the screenshot above, notice that the 'Message' and 'Caller ID' labels will be displayed as white text on a green background.

Aid when Setting Field Attributes

When changes are made to the layout of a template page, the Form Editor requires that the field attributes be re-entered.

As an aid in cases where only minor changes were made to the layout, the editor will display the prior field and attribute settings of the template.

The screenshot shows the Free-Form Editor interface. On the left, a window titled "Free-Form Editor" displays "PRIOR SETTINGS FOR FIELD ATTRIBUTES":

Row 1	Col 13	: (None)
Row 2	Col 13	: (None)
Row 3	Col 17	: (None)

 An arrow points from this window to the "Set Attributes" button in the main form editor. The main form editor shows the same "Test SMS Form" as the previous screenshot, but with "Page: 1 of 1", "Screen:" (empty), "Row: 1", "Col: 13", "Pos: 13", and "Len: 39". Below the form, there are checkboxes for "Required", "Must Fill", "Numeric", "Mixed Case", "Message ID", "Caller ID", and "Zip Code". At the bottom, there are buttons: "Begin Edit", "End Edit", "Set Attributes", "Next Field", "Prior Field", "End-Attributes", "Cancel Edit", "View Attributes", "Cancel Attributes", "Sort by Description", "Prior Page", "Next Page", "Insert Page", "Delete Page", and "Save Form".

Enhancements to Spectrum Data Manager

Prism-related Features

Control over 'Text Message Downfile from VMail'

Mailbox Number

Operator Record Inbound Outbound Disable Text Message Downfile from VMail

Auto-Announce Announcement Duration Overflow Ring Count

Off-Hours Mailbox Allow Operator Revert after Hours

A checkbox has been added to the 'Voice Mail' tab of the Account Master Record. Users of 'Prism VMail' may now control whether or not the text message associated with a VMail recording will be marked as 'Delivered' when the client listens to the recorded message.

Direct Sub-Account Access for Incoming Calls

SDM is now capable of validating inbound calls directly on a sub-account, as supported in the R1-09 version of Prism. See the 'R1-09 Prism Release Notes' for details on how to activate this feature on Prism.

NOTE: The 'Callers' feature on SDM will use the Caller ID of an inbound call to provide a description of the caller to the agent. Optionally, this feature can be used to redirect the call to any other account in the system. Prior to this update, the 'Callers' table within a sub-account was not used. Now it *can* be used in a sub-account for calls that are presented directly to the sub-account by Prism. SDM will first look in the 'Callers' table of the sub-account for the Caller ID. If not found there, SDM will look in the 'Callers' table of the associated master account. If found in either table, however, SDM will only use the 'Description' field. For calls that are presented directly on a sub-account, SDM will *not* redirect (map) the call to another account, even if the entry in the 'Callers' table indicates that this should be done.

Tracking of Standalone Prism VMail calls

Prior to the R1-09 update to Prism, SDM did not receive notification of incoming calls that were handled as 'Standalone' VMail accounts. This update to SDM, in conjunction with the R1-09 update to Prism, will now generate call records and account totals for these calls.

The following account totals are incremented for one of these 'Standalone' VMail calls:

- Calls Received
- Announcements
- Announcement Time

These totals were chosen for backward compatibility.

Such calls will be searchable in the Call History by finding calls that have a non-zero 'Voice Mail' time. New search criteria have been added to the 'Search Call History' window for this purpose.

INBOUND

Full Call Summaries Partials

Account(s)

Operator(s)

Trunk(s)

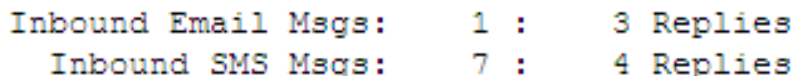
Caller ID

	Compare	Seconds
<input type="checkbox"/> Ring Time:	GT <input type="text" value="0"/>	<input type="text" value="0"/>
<input type="checkbox"/> Answer Time:	GT <input type="text" value="0"/>	<input type="text" value="0"/>
<input type="checkbox"/> Announce:	GT <input type="text" value="0"/>	<input type="text" value="0"/>
<input type="checkbox"/> Annc. Hold:	GT <input type="text" value="0"/>	<input type="text" value="0"/>
<input type="checkbox"/> Hold Time:	GT <input type="text" value="0"/>	<input type="text" value="0"/>
<input type="checkbox"/> Patch Time:	GT <input type="text" value="0"/>	<input type="text" value="0"/>
<input type="checkbox"/> Voice Mail:	GT <input type="text" value="0"/>	<input type="text" value="0"/>
<input type="checkbox"/> Duration:	GT <input type="text" value="0"/>	<input type="text" value="0"/>

Enhancements to Spectrum Data Manager

Email and SMS Replies

SDM now keeps a separate counter in the account totals for Email and SMS replies. These counters are currently only accessible in the 'View Account Totals' screen. They are displayed to the right of the right of the counters for Inbound Email and SMS, respectively.



```
Inbound Email Msgs: 1 : 3 Replies
Inbound SMS Msgs: 7 : 4 Replies
```

A future update will make these counters available in the 'Extract Totals-To-Text' tool.

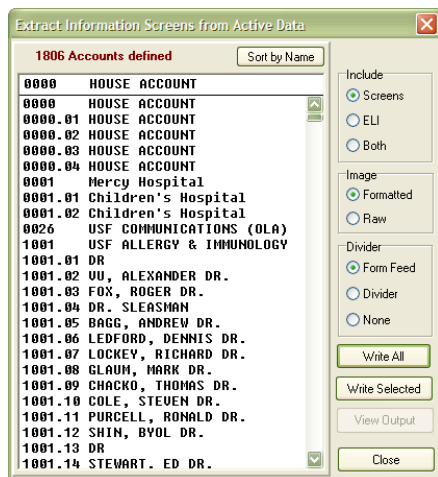
Enable Auto-Transmit or Auto-Page on Inbound Messages

A new field has been added to the Account Master Record 'Msg Entry' tab. This new field, if checked, will enable Auto-Transmit and Auto-Page operations on inbound messages (either Email or SMS). By default, such operations would not be performed on an inbound message.

This will allow, on a per-account basis, inbound messages to be either dispatched or auto-transmitted, depending on the application.



Access to Expanded Locate Instructions via the 'Extract Screens-To-Text' Tool



The 'Extract Screens-To-Text' tool has been enhanced to allow the Expanded Locate Instructions to be part of the output.

Note the additional panel at left. It allows you to designate what will appear in the text file. This can be Information Screens, Expanded Locate Instructions or both.

As before, you can produce output for all the accounts ('Write All') or one or more selected accounts ('Write Selected').

Enhancements to Spectrum Agent

Day-of-Week on Agent Screen

The Agent will now display a three character designator for the 'day of the week' as part of the client time display in the upper right corner of its screen.



Clearing Browser History

The Agent will now automatically clear and close the Browser window when an operator signs on or off the system. This will have the effect of clearing the Browser 'History' so that a subsequent operator at the station will not have access to the session history via the 'Back' and 'Forward' buttons on the browser.

Communications Server Enhancements

SMS Server

The SMS Server has two enhancements, both related to the handling of inbound SMS messages.

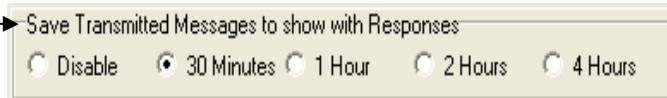
Identification of Inbound Messages based on Prior Outbound Messages

Before this update, the SMS Server handled inbound messages as follows:

1. If the inbound message contained a valid account and message ID designator, it was treated as a 'Reply' and the original message would be automatically down-filed without operator intervention.
2. If the message didn't qualify as a 'Reply', the table of 'Inbound Accounts' would be searched for a match on the phone number. If found in the table, the message would be routed to an operator as an 'Inbound Message' on the account as defined in the table.
3. If neither the first or second option produced a result, the message would be discarded.

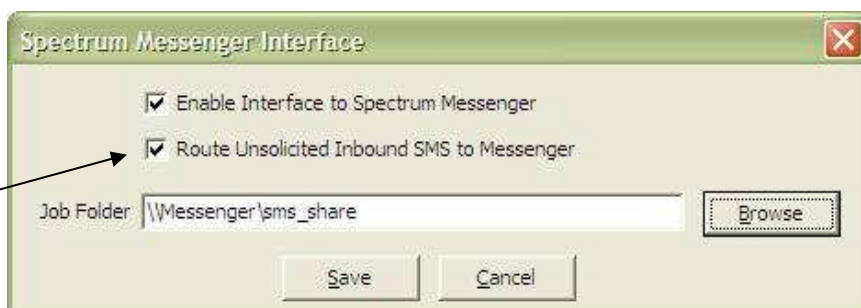
Starting with this update, as messages are transmitted, the SMS Server will, if enabled, automatically keep a record of them in an **internal table**, including the account number, the phone number and the text of each message. Then, when a message is received that is not a 'Reply' (as defined in Step 1) or from a phone with a pre-defined 'Inbound Account' (as defined in Step 2), the Server will search its internal table of recent transmissions. If a match is found on the phone number, the Server will route the message to an operator, using the account number specified in the most recent transmission to that phone. In addition, the Server will append the recent outbound message (or messages) to the end of the inbound text as it formats the 'Inbound Message' for the operator. This will give the operator a view of the message or messages that have been sent to the cell phone since the client's prior response.

The 'Port Configuration' window has a new panel that allows you to enable or disable this feature. By default it is disabled. It can be enabled by selecting one of the four possible expiration times for holding the transmitted messages.



Routing Unknown Inbound Messages to the Spectrum Messenger

The SMS Server can now be configured to route inbound messages, for which it cannot determine an associated account, to the Spectrum Messenger for handling. A new checkbox appears on the SMS Server's 'Spectrum Messenger Interface' window to enable or disable this feature.



The latest version of the Spectrum Messenger has a companion enhancement to facilitate this mode of operation. Essentially, you can assign users to a pre-defined group named '_SMS Messages_', and as unsolicited SMS messages appear, they will be routed to users in this group on a rotational basis. This will allow you to catch inbound messages that would otherwise be deleted by the SMS Server without notification or review.

Enhancements to Spectrum SmartScript

The SmartScript Designer and Agent programs have been enhanced to allow decisions to be made based on the time of day and the day of the week.

A new 'Operation' — 'If Time Frame' — has been added. It allows a starting and ending time to be specified, which are sensitive to the time zone of the account. As a script is being interpreted, alternate paths can be taken based on the current time of day and day of week.

Step	Operation	Parameter 1	Parameter 2	Next Step
1	IF TIME FRAME	Thu 09:30 AM	Fri 10:00 PM	3
2	NEXT FIELD	NoCue		END
3	NEXT FIELD	YesCue		END
4	NO OP			
5	NO OP			
6	NO OP			
7	NO OP			
8	NO OP			
9	NO OP			
10	NO OP			

Step Editor

Selected Step:

Operation: If Time Frame

Start Day and Time: Thu 9:30:00 AM

End Day and Time: Fri 10:00:00 PM

Next Step: End of Decision

Operation

Parameters



When 'If Time Frame' is encountered in a decision step, and the current time is within the specified time frame, the step specified in the 'Next Step' column is taken. Otherwise, the next sequential step is taken. In the example above, if the time is between 9:30 am on Thursday and 10:00 pm on Friday, step 3 will be taken. Otherwise, the decision interpreter proceeds to step 2.

Each of the seven days of the week can be specified as part of the starting or ending time. In addition, 'Daily' can be chosen, which forces the decision to be made strictly on the time of day.

If 'Daily' is chosen, then it would be allowed that the starting time be expressed as *after* the ending time. This would allow for an interval of time, say from midnight to 8 am and from 5:00 pm to midnight, which would be expressed as follows:

- Start Day and Time: 'Daily at 5 pm'
- End Day and Time: 'Daily at 8 am'

Changes and Corrections

Spectrum Data Manager

1. The algorithm for assigning a System Reminder has been improved. Prior to this update, if none of the stations allowed in the reminder definition were signed-on, SDM would give the reminder to one of any of the currently signed-on operators. Now, in this circumstance, it will give preference to a signed-on operator that has been enabled to receive reminders via the 'Station Capabilities' tab of the 'System Configuration'.
2. When batching a fax request across the sub-accounts of an account, SDM will now properly observe the setting of the 'FFD' (formfeed) field in the AMR of the master account.
3. When formatting an SMS message with the 'Reply' feature enabled, SDM will now put the 'Message ID' at the start of the message, rather than the end. This will better handle situations where the message is long enough to be segmented. The 'Message ID' will now be guaranteed to appear in the first segment, which is typically what would be sent back by the client when replying.
4. The format of the 'Message ID' for a web message has been improved, guaranteeing that each 'Message ID' will always be unique. This is significant when SDM is notified of a message that has been marked as 'Read'.
5. If a 'Transmit Script' was designated as the destination of an Auto-Transmit and the 'Prompt' feature was enabled, the prompt would not appear to the operator. This has been corrected.
6. If a 'Transmit Script' hypertext command ('X') was invoked for a message being entered, the message would not be sent unless the current 'Auto-Transmit' day of the week were also enabled. This has been corrected.
7. SDM allowed a two-character 'Transmit Script' ID to be defined in the AMR Setup, even though only a single character was interpreted when specifying a script as a destination in other parts of the AMR. This has been corrected.
8. A correction has been made to SDM's handling of the 'copy' hypertext command when in a page ticket.

Agent

1. A checkbox has been added to the 'General' tab of the 'Configuration' window. The checkbox is labeled 'Disable "Show Screens"' and, if checked, will disable the 'Show Screens' button on the 'Directory' window.
2. The 'Pending Pages' tab on the 'System' window will now be updated every two seconds (rather than once a second). The Agent also implements a better approach to handling slow responses from SDM. This is designed to minimize the chances of 'swamping' SDM when many stations are requesting updates.
3. A correction has been made to the column headers on the 'Station Activity' tab of the System window.
4. Occasionally at the end of an Order Entry session, the Order Entry window would remain stuck on the screen. This has been corrected.

Spectrum

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Changes and Corrections (continued)

Communications Server

1. The 'Divert and Retransmit' feature of the SMS Server has been corrected. Also, the placement of the notification that email is being read has been moved so as not to overlap with one of the buttons on the main window.
2. Corrections and improvements have been made to the operation of the 'Find' and 'Find Next' buttons on the 'Inbound Accounts' window of the SMS Server.
3. The SMS Server was stripping off the word 'Ok' if it appeared at the start of a response message. This has been corrected.
4. The batching capability of the Alpha Server has been improved when multiple alpha modems are enabled. Multiple concurrent requests for the same terminal are now always batched through a single call on the same modem.
5. The Email Server was routing an inbound message to an operator whenever the sender or target had been defined in the 'Inbound Accounts' table, even if the email message was also being treated as a 'Reply'. This has been corrected. A 'Reply' will now not also be routed to an operator.
6. The Email Server will now properly handle an inbound email message for which multiple 'To' recipients have been defined. Each recipient in the list will now be checked.
7. The channel assignment algorithm of the Fax Server has been changed. Now, rather than always favoring the first and lowest numbered channels, the Fax Server will assign jobs to fax channels according to a more even distribution.