

SIAC

Securities
Industry
Automation
Corporation

AutoLink-2

User's Manual

Revision 1.1.6

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National Market Systems



Introduction

The Securities Industry Automation Corporation (SIAC) provides a retransmission capability for the output data from host systems. As part of this service, SIAC provides the AutoLink facility to assist vendors with requesting retransmissions by submitting requests over a touch-tone telephone set.

AutoLink is an application based on a telephone voice menu interface. It allows users to phone into it, enter retransmission requests, verify these requests, check on the status of previously issued requests, and even cancel requests that are still outstanding without an operator's intervention. The messages are subsequently transmitted to the retransmission **device** in response to the particular request. Here '**device**' is defined as a host retransmission source.

Several telephone lines use one phone number to connect the application to the telephone service (see *Appendix A* for the current list of phone numbers and services). One telephone number can also be used to access AutoLink from multiple services. This provides a convenience for the user community and efficiency for SIAC Operations.

This release of **AutoLink-2** was developed to provide an improved user interface, better response time, and more efficient usage of telephone lines and computer resources.

The following pages contain step-by-step procedures for requesting retransmissions through the AutoLink service.

To request re-transmissions, a user should call the telephone number provided in *Appendix A* and follow the procedures described below.

How to Use This Manual

This manual assumes that you are familiar with SIAC's retransmission service operations.

Typographical Conventions

This manual uses the following typographical conventions:

Example	Usage
Enters the user ID	This is standard text. Describes what the program does. Also describes the user's actions
Hello, welcome to the Autolink system	Message from the AutoLink application
'11111'	Response from the user
USER, AUTOLINK	Two parties, participating in the dialog
#2	Numbers used to reference the conversation topics

Operation Notes

- User communicates with the AutoLink service only by listening to voice menu prompts and responds to these prompts by pressing touch-tone telephone keys.
- User responds to one-digit menu choices by entering one single keystroke according to the voice prompt.

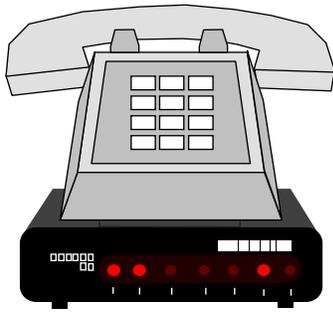
- All the numbers the user enters, such as ‘Message Number’, ‘Number of Messages’, and ‘Request Number’ must be followed by the number sign ‘#’. The exceptions are ‘ID Number’ and ‘Password’. They are always 5 digits long and do not need to be followed by the number key ‘#’.
- To return one level up in the voice menu structure user usually should press star key ‘*’ as a response to the menu prompt.
- Should a mistake happen while entering a number, user can correct it by pressing star key ‘*’. The entered portion of the number gets immediately rejected and the user will be prompted for that number again.
- Number sign ‘#’ is the button located on the right of the ‘0’ button. Star key ‘*’ is the button located on the left of the ‘0’ button.
- It is recommended for a new user to listen carefully all the voice prompts and menus. An experienced user can essentially speed up the dialog by entering the responses without listening to a voice prompt to the end.
- User can interrupt the dialog by hanging up the phone at any time.

Starting the dialog

1. Users can access retransmission data from multiple host systems with only one single telephone number . The AutoLink Service is connected to the telephone system using several phone lines. That means that several concurrent telephone dialogs can be maintained by AutoLink allowing users to place their requests for the data from different hosts at the same time.
2. Each vendor is assigned a user ID Number and a Password to the AutoLink service. Both, the ID Number and the Password are currently implemented as 5-digit numbers. They are used for security reasons (‘user authentication’). The ID Number is also used for vendor identification, so that requests can be sent out to the appropriate data recipient as indicated by the recipient’s pre-assigned retransmissions code contained in the message header.
3. For ease of entry, it is recommended to write down the requests ready for entering and keep them in view while using the AutoLink Service. This is to prevent a delay that could result in the need to re-enter numbers or premature hang up by the service.

4. The user should pay attention to the size of the request. A retransmission request will be given a higher priority if it is less than the threshold (*see Appendix A for values*), and lower priority if it exceeds this value. Retransmission requests to the different ‘devices’ don't compete with each other; they are served in a ‘rotary’ fashion. Within the same device, requests are sorted according to their priority group, which depends on their size (configurable at the run time). Each retransmission request is broken up into smaller portions (blocks) and sent to a retransmission device for processing. The block size sent is based on the ‘maximum request block size’ (*see Appendix A for values*), which can be configured by SIAC Operations. Each request is given a chance to send out a block of the retransmission amount in a ‘rotary’ fashion.
5. After entering the ID Number and the Password, user will be given a prompt to pick a Service and to select a Device. After that, user will get a choice (referred to as ‘Main Voice Menu’) to enter a new request, to check the status of the existing one, or to cancel the request that has not yet been completed.
6. After user enters a new request, a voice confirmation message will be transmitted containing the starting and ending sequence numbers just entered. User should enter ‘1’ to confirm the request. The AutoLink service replies by giving back the reference number. To reject the request, user should enter any key other than ‘1’.
7. It is recommended to make a note of the reference number. This number is used to track the request status and to cancel the request while it is still outstanding.
8. After entering the request, user will be given the ‘Main Voice Menu’ prompt again. At this point of the dialog session, user can continue with one of the following choices:
 - Enter another request
 - Inquire about request status
 - Cancel one of the outstanding requests
 - Change the Service or the Device selection
 - Hang up the phone
9. User can select a Device by pressing the star key ‘*’ at the ‘Main Voice Menu’ and making a new choice at the ‘Device’ prompt. After the selection is made, user will be provided with the ‘Main Voice Menu’ options again.

10. User can select a different Service by pressing the star key ‘*’ twice from the ‘Main Voice Menu’ prompt and making a new choice at the ‘Service’ prompt. After the selection is made, user will be provided with the ‘Device’ prompt again. After making device selection the user will be provided with the ‘Main Voice Menu’ options again.



User procedures

Ref #	Source	Message
	USER	Dials the 'AutoLink' telephone number.
#1	AUTOLINK	Plays the 'greeting' message: "Hello, welcome to the AutoLink service" Plays ID prompt: "Please, enter your five digit ID Number"
	USER	Enters the user ID: '11111'
#2	AUTOLINK	Plays password prompt: "Please, enter your password"
	USER	Enters the password: '99999'
#3	AUTOLINK	Plays the service prompt: "Select the service CTS – press one, OPRA 24 multicast lines – press two, XYZ system – press three, ... , to exit – press 'star'. Star key is a button located to the left of a zero"
	USER	Enters the number corresponding to one of the services: '2'

Ref #	Source	Message
#4	AUTOLINK	Confirms the system chosen: “You have selected OPRA 24 multicast lines.” Plays the ‘Device’ prompt: “Please enter device number followed by number sign now. Return to the previous menu – press star. Star key is a button located to the left of a zero”
	USER	Enters the number corresponding to one of the Devices: ‘12#’
#5	AUTOLINK	Response from the Service: “You have selected line 12. Current sequence number is zzzzzz” Or (if there is a problem communicating to the host system) “You have selected line xx. Current sequence number is not available”
#6 Main Menu	AUTOLINK	Plays back the MAIN menu: “To resend by interval – press 1, To resend by number – press 2, Sequence number inquiry – press 3, Transaction status – press 4, Cancel transaction – press 5, Return to the previous menu – press ‘star’, Star key is the button located to the left of a zero”

Ref #	Source	Message
	At this point, voice menu logic splits. We start with the description of Choice One, "Resend by Interval"	
	USER	Enters the number corresponding to " Resend by interval " of the Main Voice Menu choices : '1'
#7	AUTOLINK	Confirms the choice: "You have selected "Resend by interval". Prompt for the first sequence number: "Enter the FIRST sequence number followed by the number sign now. Number sign key is the button located to the right of a zero"
	USER	Enters the first sequence number: "xxxxxx#" This number shouldn't exceed current sequence number being broadcasted on the requested device.
#8	AUTOLINK	Prompt for the last sequence number: "Enter the LAST sequence number followed by the number sign now. Number sign key is the button located to the right of zero"
	USER	Enters the last sequence number: "yyyyy#" This number shouldn't exceed current sequence number being broadcasted on the requested device and, of course, the first number should be less then the last.
#8a	AUTOLINK	If the number of messages exceeds certain limit (configurable parameter, currently set to 100,000), then program issues this warning: "Warning. Your have selected over 100,000 messages to resend. Please, verify your request!"

Ref #	Source	Message
#9	AUTOLINK	<p>Reads the request entered by user: “Your request contains <amount> messages from <first> to <last>.”</p> <p>Prompts to confirm the request: “To continue press 1, To return to previous menu press ‘star’.”</p>
	USER	<p>To confirm, enters: ‘1’</p> <p>To reject, enters: Any key except ‘1’ and ‘*’</p> <p>To return to previous menu, enters: ‘*’</p>
#10	AUTOLINK	<p>If user entered ‘1’ then AutoLink replies: “Request was accepted. Reference number is ‘zzz’. Please, make note of this reference number.”</p> <p>If user entered ‘star’ then AutoLink replies: “Request was not accepted”</p> <p>Returns to the Main Voice Menu prompt #6.</p>
	Return to the next choice on the Main Voice Menu → #6	
	USER	<p>Enters the number corresponding to “Resend by number” of the Main Voice Menu choices : ‘2’</p>
#11	AUTOLINK	<p>Confirms the choice: “You have selected ‘Resend by number’.”</p> <p>Prompts for the first sequence number: “Enter the FIRST sequence number followed by the number sign now. Number sign key is the button located to the right of zero”</p>
	USER	<p>Enters the first number: “xxxxx#”</p> <p>This number should not exceed current message number being broadcasted on the requested device.</p>

Ref #	Source	Message
#12	AUTOLINK	Prompts for the number of messages: “Enter NUMBER of messages followed by number sign now. Number sign key is the button located to the right of zero”
	USER	Enters the number of messages: “yyy#”
#12a	AUTOLINK	If number of messages exceeds certain limit (configurable parameter, currently set to 100,000), Then program issues this warning: “Warning. Your have selected over 100,000 messages to resend. Please, verify your request!”
#13	AUTOLINK	Reads the request entered by user: “Your request contains <amount> messages from <first> to <last>” Prompts to confirm the request: “To continue press 1, to return to previous menu press star.”
	USER	To confirm, enters: ‘1’ To reject, enters: Any key except ‘1’ and ‘*’ To return to previous menu, enters: ‘*’
#14	AUTOLINK	If user entered ‘1’ then AutoLink replies: “Request was accepted. Reference number is ‘zzz’. Please, make note of this reference number.” If user entered ‘star’ then it replies: “Request was not accepted” Returns to the Main Voice Menu prompt #6.
	Return to the next choice on the Main Voice Menu → #6	Enters the number corresponding to “Sequence number inquiry” of the Main menu choices : ‘3’xxx
	USER	Enters the number corresponding to “Sequence number inquiry” of the Main menu choices : ‘3’

Ref #	Source	Message
#15	AUTOLINK	Confirms the choice: “You have selected ‘Sequence number inquiry’.” Plays the sequence number: “Current sequence number is ‘xxxxx’.” Returns to the Main menu prompt #6.
	Return to the next choice on the Main Voice Menu → #6	
	USER	Enters the number corresponding to “Transaction status” of the Main Voice Menu choices : ‘4’
#16 Status Menu	AUTOLINK	Confirms the choice: “You have selected ‘Status Option’.” Reads the options menu: “If you know the reference number – press 0, Outstanding requests - press 1, Completed requests – press 2, Canceled requests – press 3, All the requests – press 4, Return to the previous menu press ‘star’, Star key is the button located to the left of a zero”
	USER	Enters the number corresponding to one of the Options menu #16 choices : ‘1’
#17	AUTOLINK	Plays status information: “You have xxx outstanding requests, and yyyyyyy messages to resend” Proceed to #21 prompt.
	USER	Enters the number corresponding to one of the Options Menu #16 choices : ‘2’

Ref #	Source	Message
#18	AUTOLINK	Plays status information: “You have xxx completed requests, and yyyyyyy messages to resend” Proceed to #21 prompt.
	USER	Enters the number corresponding to one of the Options Menu #16 choices : ‘3’
#19	AUTOLINK	Plays status information: “You have xxx canceled requests, and yyyyyyy messages to resend” Proceed to #21 prompt.
	USER	Enters the number corresponding to one of the Options menu #16 choices : ‘4’
#20	AUTOLINK	Plays status information: “You have xxx requests, and yyyyyyy messages to resend” Proceed to #21 prompt.
#21	AUTOLINK	Reads the options: “To get the list – press 1, To skip the list press 2, Return to the previous menu – press ‘star’, Star key is the button located to the left of a zero”
	USER	User enters ‘1’ or ‘2’ or ‘*’
#22	AUTOLINK	If ‘1’ is chosen, then AutoLink announces: “You can skip to the next item any time by pressing ‘star’ key” Plays the list of outstanding messages and their reference numbers. Example: “Request number 11 contains messages from 56500 to 57000, last updated at 3:41 p.m.” “...” “Request number 13 contains messages from 11200 to 12000, completed at 3:47 p.m.” “...”

Ref #	Source	Message
		<p>“Request number 17 contains messages from 22500 to 22600, canceled at 3:55 p.m.”</p> <p>“...”</p> <p>Returns to the Main Voice Menu #6 prompt</p>
	Return to the next choice on the Main Voice Menu → #6	
	USER	Enters the number corresponding to “Cancel transaction” of the Main menu choices : “5”
#23	AUTOLINK	<p>Confirms the choice: “You have selected ‘Cancel option’.”</p> <p>Reads summary of outstanding requests: “You have xxx outstanding requests, and yyyyy messages to resend.”</p> <p>Prompts for details: “To get the list - press 1, To skip the list - press 2, Return to the previous menu – press ‘star’, ‘Star’ key is the button located to the left of a zero”</p>
	USER	<p>To get the request list, enters: ‘1’</p> <p>When the reference number is known, enters: ‘2’</p> <p>To return to previous menu, enters: ‘*’</p>
#24	AUTOLINK	<p>When ‘1’ is chosen, it reads the list of outstanding messages (see ref. #22). Then prompts: “Please enter the reference number”</p> <p>When ‘2’ is chosen, prompts: “Please enter the reference number”</p>
	USER	Enters a valid reference number. ‘xxx#’
#25	AUTOLINK	Reads the request to cancel: “You

Ref #	Source	Message
		<p>have selected request number zzz. Contains messages from xxxxx to yyyy” Prompts user to confirm ‘cancel’ action: “To cancel order number xxx press ‘1’ ”</p>
	USER	<p>To cancel request, enters: ‘1’</p> <p>To skip cancel action, enters: any other key</p>
#26	AUTOLINK	<p>If number ‘1’ was entered then AutoLink replies: “Request number “xxx” removed from the queue.”</p> <p>Otherwise it would say: “Request number xxx was not canceled.”</p> <p>Back to the Main Voice Menu prompt #6.</p>
	Return to the next choice on the Main Voice Menu → #6	

Appendix A: AutoLink 2 Host Service Specifications

CQS / CTS	OPRA
Accessing RAPS AutoLink <i>NEW: FCO and Equity services for RAPS OPRA are now merged into <u>one service</u> 'Multicast FCO and Equity Service'. FCO device is now listed first in this combined service</i> <i>NOTE: Numbers coincide with keys used to select Services and Devices.</i>	
<p>RAPS CQS/CTS <u>Primary</u> Phone #: (718) 797-1777</p> <p>RAPS CQS/CTS <u>Backup</u> Phone #: (718) 797-1811 (ONLY utilized in cases where the Primary # fails)</p> <p>1) Multicast (IP) CQS Devices:</p> <ol style="list-style-type: none"> 1. Line 1 2. Line 2 3. Line 3 4. Line 4 5. Line 5 <p>2) Multicast (IP) CTS Devices:</p> <ol style="list-style-type: none"> 1. Line 1 2. Line 2 3. Line 3 4. Line 4 	<p>RAPS OPRA <u>Primary</u> Phone #: (718) 797-1661</p> <p>RAPS OPRA <u>Backup</u> Phone #: (718) 797-1666 (ONLY utilized in cases where the Primary # fails)</p> <p>1) Multicast FCO and Equity OPRA Devices:</p> <ol style="list-style-type: none"> 1. FCO 2. Line 1 3. Line 2 4. Line 3 5. Line 4 6. Line 5 7. Line 6 8. Line 7 9. Line 8 10. Line 9 11. Line 10 12. Line 11 13. Line 12 14. Line 13 15. Line 14 16. Line 15 17. Line 16 18. Line 17 19. Line 18 20. Line 19 21. Line 20 22. Line 21 23. Line 22 24. Line 23 25. Line 24
Service Configuration <i>NOTE: SIAC Operations has the capability to change these values as required.</i>	
Maximum Request Block Size: 400 msg.	Maximum Request Block Size: 5000 msg.