GUI – MESSAGE PATTERNS – Relationships between Messages, BR_Message and BR_Substitutions

Revision history

| 2018-04-18 | Robin Lamacraft | Original draft |
|------------|-----------------|----------------------------|
| 2018-05-12 | Rod Thompson | Inserted diagrams, actions |

NOTE: for GUI Message Patterns which are a response to a status state identified within the HRE Client and HRE Server code, template text is required to be stored within the Substitution database tables. These will need to have an external tool built for the coders to preload that template into the HRE Project database. The method of achieving that preloading needs to be discussed and standardized with the Core Team.

Each "Message" GUI screen is modal (e.g. freezes other actions except for actions that are initiated from the "Message" GUI Screen) and full operation will be initiated according to the way the "Message" GUI screen is exited.

For each Message GUI screen:

- One or more text messages (these may be fixed translated text or they may have used substitution templates)
- One or more command buttons (these have language consistent labels) Command button order needs to be consistent with user progression from top to bottom of the screen. The number of command buttons can vary according to actual action being messaged
- A 'Day-Time' display showing local Day and Time. The format for this being a setting in the configuration of that screen
- The width and height can be changed to view of the contents of the Template Text.
- All GUI-Message patterns use BR_Message to manage the access to data to be displayed and in the case of composing messages
- BR_Message will use BR_Substitution to manage the Template Text fields.

GUI MESSAGE PATTERNS:

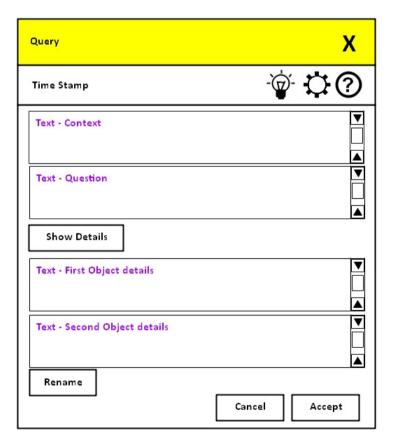
Nine separate Message patterns follow:

- 1) Query message
- 2) Warning message
- 3) Local Error message
- 4) Server Error message
- 5) Action Progress message
- 6) Client Broadcast message
- 7) Server Broadcast message
- 8) Receive from Colleague message
- 9) Send to Colleague message

Query

Typically the use of this screen pattern is the confirmation that the user wishes to complete an action like delete this file, or there is already a file of the proposed name in this folder, Overwrite, Rename, Cancel or Show Details. This illustrates the case for more than 2 COMMAND BUTTONS.

| GUI ELEMENT USE | ELEMENT TYPE | DESCRIPTION |
|-----------------|---------------|---|
| TOP BAR | HEADING TEXT | blank or translation of "Query" |
| TOP BAR | RIGHT BUTTON | Only a "X" to "Close" the screen equivalent of "Cancel" |
| CONTEXT | TEMPLATE TEXT | Text describing from where it was initiated. This text may involve some substitution variables |
| QUESTION | TEMPLATE TEXT | Text explaining the query. This text may involve some substitution variables |
| COMMAND 1 | BUTTON | (Typically optional) Used for "Show Details" etc. Only show ROW1 and ROW2. Only provide space for ROW1 and ROW2 when clicked and then populate ROW1 and ROW2 with the required retrieved from the use of the Template Texts |
| ROW 1 | TEMPLATE TEXT | Shown details of the first object. |
| ROW 2 | TEMPLATE TEXT | Shown details of the second object. |
| COMMAND 3 | BUTTON | "Rename" button would be above |
| COMMAND 4 | BUTTON | Typically "Accept" |
| COMMAND 5 | BUTTON | Typically "Cancel" |



- 1) Keyboard actions (we need to check what keyboard shortcuts are already taken in by the OS in each of Windows Mac and Linux as there may be some conflicts)
 - a. Accept
 - b. Cancel
 - c. Show Details
 - d. Rename
 - e. At window opening, focus set on 'Show Details' button.

 Tab key use thereafter cycles through the 'Rename', 'Accept' and 'Cancel' buttons, returning to the 'Show Details' button.

2) Mouse actions

Left key

- a. Mouse hover over slider bar, hold key down and drag slider bar up or down
- b. Mouse key tap in slide bar box cause up or down movement.
- c. Mouse key click on each button, operates the button

Right key

Action to be determined

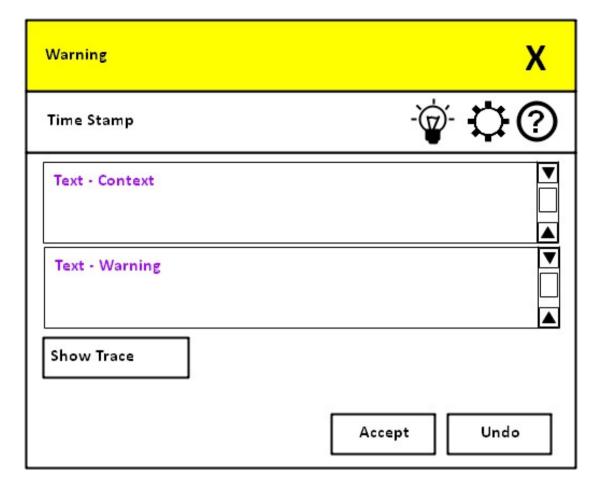
- 3) Icon actions
 - a. left mouse key click on 'Reminder' icon: (opens 'Reminder' window for this 'Query' Message display)
 - b. left mouse click on 'Configuration' icon: (opens the 'Configurations Settings' window for this 'Query' Message display

left mouse click on 'Help' icon:
(opens the Help System, searches for the section on 'Query Message')

Warning

Typically the use of this screen pattern is the result of warning condition raised by the code after a user action, like the date of birth of person does not appear to be correct given the data of birth of their mother. In such cases, the user can "Accept" or "Undo" the command action that raised the warning.

| GUI ELEMENT USE | ELEMENT TYPE | DESCRIPTION |
|--------------------|---------------|--|
| TOP BAR | HEADING TEXT | blank or translation of "Warning" |
| TOP BAR | RIGHT BUTTON | Only a "X" to "Close" the screen equivalent of "Undo" |
| CONTEXT | TEMPLATE TEXT | Text describing from where the Warning was initiated. This text may involve some substitution variables |
| WARNING | TEMPLATE TEXT | Text explaining the warning and the consequences of "Accept" or "Undo". This text may involve some substitution variables |
| COMMAND 1 | BUTTON | Typically "Show Trace" – opens Trace Log GUI screen. The "Show Trace" button would be above "Accept" and "Un-Do" command buttons |
| COMMAND 2 | BUTTON | Typically "Accept" – allows database to be updated |
| COMMAND 3 | BUTTON | Typically "Undo" – Reverts change to before that action |



- a. Accept
- b. Undo
- c. Show Trace
- d. At window opening, focus set on 'Show Trace' button. Tab key use thereafter cycles through the 'Accept', 'Undo' buttons, returning to the 'Show Trace' button.

2) Mouse actions

Left key

- a. Mouse hover over slider bar, hold key down and drag slider bar up or down
- b. Mouse key tap in slide bar box cause up or down movement.
- c. Mouse key click on each button, operates the button

Right Key

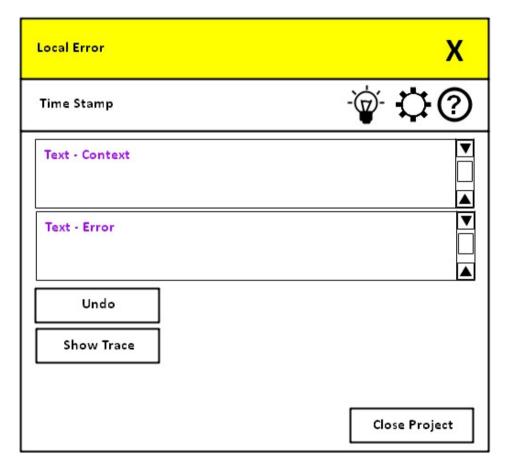
Action to be determined

- a. left mouse key click on 'Reminder' icon: (opens 'Reminder' window for this 'Warning' Message display)
- b. left mouse click on 'Configuration' icon: (opens the 'Configuration Settings' window for this 'Warning' Message display
- c. left mouse click on the 'Help' icon: (opens the Help System, searches for the section on 'Warning Message')

Local Error

Typically the use of this screen pattern is the result of some operation failure in the HRE Client application or its interaction with the server's operating system environment. If it is raised because of an HRE user action, sometimes there may be an escape via undoing the user action. But if it is an error such as the loss of the connection to the server it may imply termination of a Client session.

| GUI ELEMENT | ELEMENT TYPE | DESCRIPTION |
|--------------------|---------------|--|
| USE | | |
| TOP BAR | HEADING TEXT | blank or translation of "Local Error" |
| TOP BAR | RIGHT BUTTON | Only a "X" to "Close" the screen, |
| | | equivalent of "Close Project" |
| CONTEXT | TEMPLATE TEXT | Text describing from where the Error was initiated. |
| | | This text may involve some substitution variables |
| ERROR | TEMPLATE TEXT | Text explaining the local error and the consequences |
| | | of "Accept" or "Undo". This text may involve some |
| | | substitution variables |
| COMMAND 1 | BUTTON | Typically "Undo" – Reverts change to before that |
| | | action – this only shown if that option is available |
| COMMAND 2 | BUTTON | Typically "Show Trace" – opens Trace Log GUI |
| | | screen. |
| | | The "Show Trace" button would be above "Close |
| | | Project" command button |
| COMMAND 3 | BUTTON | Typically "Close Project" – allows database to be |
| | | closed by opening the "Close Project" GUI screen |



- a. Close Project
- b. Undo
- c. Show Trace
- d. At window opening, focus set on 'Undo' button.

 Tab key use thereafter cycles through the 'Show Trace', 'Close Project' buttons, returning to the 'Undo' button.

2) Mouse actions

Left key

- a. Mouse hover over slider bar, hold key down and drag slider bar up or down
- b. Mouse key tap in slide bar box cause up or down movement.
- c. Mouse key click on each button, operates the button

Right key

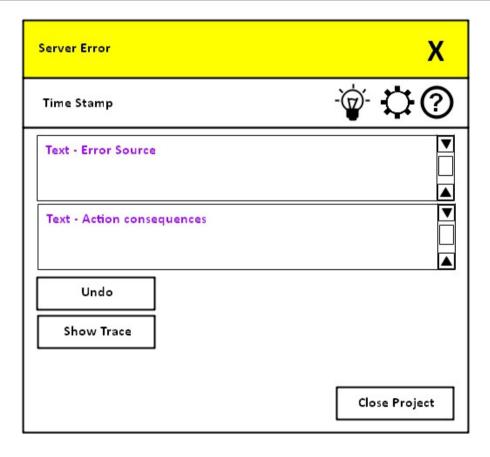
Action to be determined

- a. left mouse key click on 'Reminder' icon: (opens 'Reminder' window for this 'Local Error' Message display)
- b. left mouse click on 'Configuration' icon:
 (opens the 'Configurations Settings' window for this 'Local Error' Message display
- c. left mouse click on 'Help ' icon: (opens the Help System, searches for the section on 'Local Error Message')

Server Error Pattern

Typically the use of this screen pattern is the result of some operation failure communicated to the HRE Client by the HRE Server. Depending on the nature of the problem, the set of alternative responses available to the user may be limited. It is quite possible that the session on the current project will need to be terminated and in the worst-case scenario the project may need to be repaired or the Server may need maintenance.

| GUI ELEMENT | ELEMENT TYPE | DESCRIPTION |
|-------------|---------------|--|
| USE | | |
| TOP BAR | HEADING TEXT | blank or translation of "Server Error" |
| TOP BAR | RIGHT BUTTON | Only a "X" to "Close" the screen |
| | | equivalent of "Close Project" |
| CONTEXT | TEMPLATE TEXT | Text describing from where the Error was initiated. This |
| | | text may involve some substitution variables |
| ERROR | TEMPLATE TEXT | Text explaining the Server error and the consequences |
| | | of "Accept" or "Undo". This text may involve some |
| | | substitution variables |
| COMMAND 1 | BUTTON | Typically "Undo" – Reverts change to before that action |
| | | – this only shown if that option is available |
| COMMAND 2 | BUTTON | Typically "Show Trace" – opens Trace Log GUI screen. |
| | | The "Show Trace" button would be above "Close |
| | | Project" command button |
| COMMAND 3 | BUTTON | Typically "Close Project" – allows database to be closed |
| | | by opening the "Close Project" GUI screen |



- a. Close Project
- b. Undo
- c. Show Trace
- d. At window opening, focus set on 'Undo' button.

 Tab key use thereafter cycles through the 'Show Trace', 'Close Project' buttons, returning to the 'Undo' button.

2) Mouse actions

Left key

- a. Mouse hover over slider bar, hold key down and drag slider bar up or down
- b. Mouse key tap in slide bar box cause up or down movement.
- c. Mouse key click on each button, operates the button

Right key

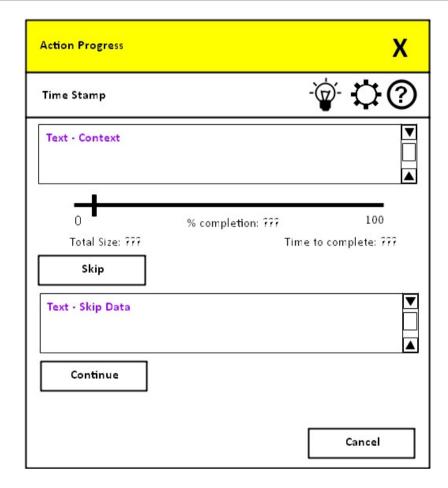
Action to be determined

- a. left mouse key click on 'Reminder' icon:
 (opens 'Reminder' window for this 'Server Error' Message display)
- b. left mouse click on 'Configuration' icon: (opens the 'Configurations Settings' window for this 'Server Error' Message display
- c. left mouse click on 'Help ' icon:(opens the Help System, searches for the section on 'Server Error Message')

Action Progress

Typically the use of this screen pattern is initiated when it is likely that an operation may take a longer time to complete. Some fields within this screen are periodically updated to indicate the progress of the operation.

| GUI ELEMENT USE | ELEMENT TYPE | DESCRIPTION |
|--------------------|---------------|---|
| TOP BAR | HEADING TEXT | blank or translation of "Action Progress" |
| TOP BAR | RIGHT BUTTON | Only a "X" to "Close" the screen equivalent of "Cancel" |
| CONTEXT | TEMPLATE TEXT | Text describing the action being performed. This text may involve some substitution variables |
| STATUS BAR | PROGRESS BAR | Show proportion of task completed |
| STATUS NUMBERS | TEMPLATE TEXT | Total size, number processed, time to completion This text may involve some substitution variables |
| COMMAND 1 | BUTTON | Typically "Skip" – only shown if a query. Placed above "Cancel". Action when clicked to signal to the requesting process to not process this item |
| SKIP DATA | TEMPLATE TEXT | Shown only processing skip error detected. Text describes the item with problem. This text may involve some substitution variables |
| COMMAND 2 | BUTTON | Typically "Cancel" – aborts the operation reverting to prior state |



- a. Cancel
- b. Skip
- c. Continue
- d. At window opening, focus set on 'Skip' button.

 Tab key use thereafter cycles through the 'Continue' and 'Cancel' buttons, returning to the 'Skip' button.

2) Mouse actions

Left key

- a. Mouse hover over slider bar, hold key down and drag slider bar up or down
- b. Mouse key tap in slide bar box cause up or down movement.
- c. Mouse key click on each button, operates the button

Right key

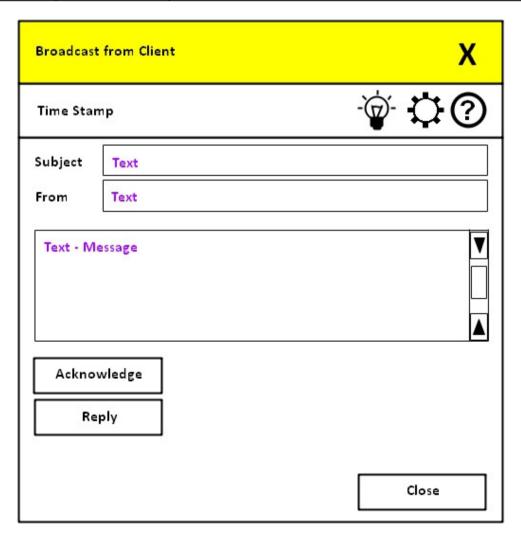
Action to be determined

- a. left mouse key click on 'Reminder' icon:
 (opens 'Reminder' window for this 'Action Progress' Message display)
- b. left mouse click on 'Configuration' icon: (opens the 'Configurations Settings' window for this 'Action Frogress' Message display
- c. left mouse click on 'Help ' icon:(opens the Help System, searches for the section on 'Action Progress Message')

Client Broadcast (initiated by receipt of message)

Typically the use of this screen pattern is initiated by the Client because of a status problem detected by the HRE Client like no Client disk space, Internet failure, selected printer not available, etc. Depending on the circumstances this may imply that the user should terminate the Project session smoothly (if possible).

| GUI ELEMENT USE | ELEMENT TYPE | DESCRIPTION |
|--------------------|--------------|---|
| TOP BAR | HEADING TEXT | blank or translation of "Broadcast from Client" |
| TOP BAR | RIGHT BUTTON | Only a "X" to "Close" the screen equivalent of "Close" |
| SUBJECT | PLAIN TEXT | The Message Subject |
| FROM | PLAIN TEXT | Sender Address |
| MESSAGE | PLAIN TEXT | The Message Text in scrollable pane |
| COMMAND 1 | BUTTON | "Ack" - sends acknowledgement message to Sender |
| COMMAND 2 | BUTTON | "Reply" – compose message by opening GUI Message Reply screen with only Sender Address in "To" field |
| COMMAND 3 | BUTTON | "Close" – closes view of message |



- a. Close
- b. Acknowledge
- c. Reply
- d. At window opening, focus set on 'Acknowledge' button.

 Tab key use thereafter cycles through the 'Reply', and 'Close' buttons, returning to the 'Acknowledge' button.

2) Mouse actions

Left key

- a. Mouse hover over slider bar, hold key down and drag slider bar up or down
- b. Left mouse key tap in slide bar box cause up or down movement.
- c. Left mouse key click on each button, operates the button

Right key

Action to be determined

3) Icon actions

- a. left mouse key click on 'Reminder' icon:
 (opens 'Reminder' window for this 'Broadcast from Client' Message display)
- b. left mouse click on 'Configuration' icon: (opens the 'Configurations Settings' window for this 'Broadcast from Client' Message display

left mouse click on 'Help' icon:

(opens the Help System, searches for the section on 'Broadcast from Client Message'

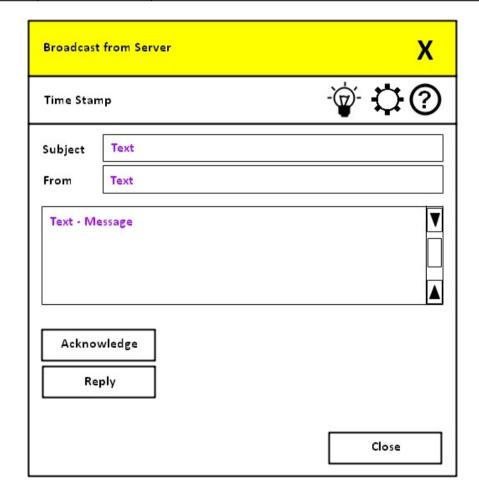
Server Broadcast (initiated by receipt of message)

Typically the use of this screen pattern is initiated by the HRE Client on behalf of the HRE Server. There are 2 cases here where:

- the HRE Server detects a condition and is able to broadcast a message to all Users logged in to a particular Project, or to all users logged in to that HRE Server
- the Administrator of the HRE Server advises of a change in the availability of that HRE Server.

The user would be expected to respond as having read the message

| GUI ELEMENT USE | ELEMENT TYPE | DESCRIPTION |
|--------------------|-----------------|---|
| TOP BAR | HEADING TEXT | blank or translation of "Broadcast from Client" |
| TOP BAR | RIGHT BUTTON | Only a "X" to "Close" the screen equivalent of "Close" |
| SUBJECT | PLAIN TEXT | The Message Subject |
| FROM | PLAIN TEXT | Sender Address |
| MESSAGE | PLAIN TEXT | The Message Text in scrollable pane |
| COMMAND 1 | BUTTON | "Ack" - sends acknowledgement message to Sender |
| COMMAND 2 | BUTTON | "Reply" – compose message by opening GUI Message Reply screen with only Sender Address in "To" field |
| COMMAND 3 | BUTTON | "Close" – closes view of message |



- a. Close
- b. Acknowledge
- c. Reply
- d. At window opening, focus set on 'Acknowledge' button.

 Tab key use thereafter cycles through the 'Reply', and 'Close' buttons, returning to the 'Acknowledge' button.

2) Mouse actions

Left key

- a. Mouse hover over slider bar, hold key down and drag slider bar up or down
- b. Mouse key tap in slide bar box cause up or down movement.
- c. Mouse key click on each button, operates the button

Right key

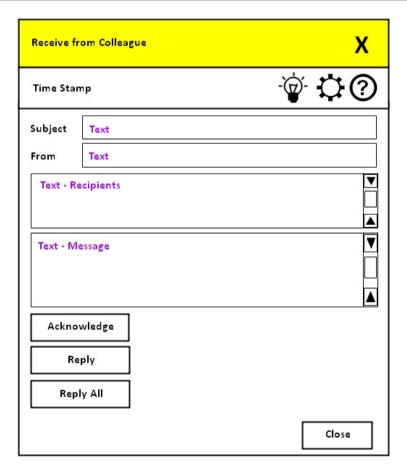
Action to be determined

- a. left mouse key click on 'Reminder' icon: (opens 'Reminder' window for this 'Broadcast from Server' Message display)
- b. left mouse click on 'Configuration' icon: (opens the 'Configurations Settings' window for this 'Broadcast from Server' Message display
- c. left mouse click on 'Help ' icon: (opens the Help System, searches for the section on 'Broadcast from Server Message')

Receive from Colleague (initiated by receipt of message)

Typically the use of this screen pattern is initiated when an inter-researcher message directed to the current HRE Server User is received by that HRE Client. The message is displayed in the screen and the user has a number of alternative responses.

| GUI ELEMENT USE | ELEMENT TYPE | DESCRIPTION |
|--------------------|--------------|---|
| TOP BAR | HEADING TEXT | blank or translation of "Broadcast from Client" |
| TOP BAR | RIGHT BUTTON | Only a "X" to "Close" the screen equivalent of "Close" |
| SUBJECT | PLAIN TEXT | The Message Subject |
| FROM | PLAIN TEXT | Sender Address |
| RECIPIENTS | PLAIN TEXT | The Recipients List in scrollable pane, one recipient per line |
| MESSAGE | PLAIN TEXT | The Message Text in scrollable pane |
| COMMAND 1 | BUTTON | "Ack" - sends acknowledgement message to Sender |
| COMMAND 2 | BUTTON | "Reply" – compose message by opening GUI Message Reply screen with only Sender Address in "To" field |
| COMMAND 3 | BUTTON | "Reply All" – compose message by opening GUI Message Reply screen with Sender Address in "To" field and all Recipient Addresses in "CC" field |
| COMMAND 4 | BUTTON | "Close" – closes view of message |



- a. Close
- b. Acknowledge
- c. Reply
- d. Reply All
- e. At window opening, focus set on 'Acknowledge' button.

 Tab key use thereafter cycles through the 'Reply', 'Reply All' and 'Close' buttons, returning to the 'Acknowledge' button.

2) Mouse actions

Left key

- a. Mouse hover over slider bar, hold key down and drag slider bar up or down
- b. Mouse key tap in slide bar box cause up or down movement.
- c. Mouse key click on each button, operates the button

Right key

Action to be determined

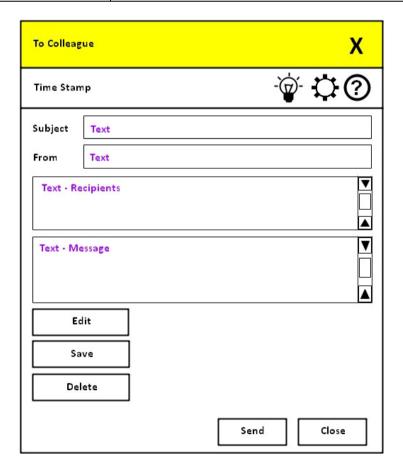
- a. left mouse key click on 'Reminder' icon: (opens 'Reminder' window for this 'Receive from Colleague' Message display)
- b. left mouse click on 'Configuration' icon: (opens the 'Configurations Settings' window for this 'Receive from Colleague' Message display
- c. left mouse click on 'Help ' icon: (opens the Help System, searches for the section on 'Receive from Colleague Message')

Compose and Send to Colleague (initiated by user action)

Typically the use of this screen pattern is initiated when the current HRE Client User wishes to:

- compose and send new message to another researcher
- reply to a received message from another researcher.

| GUI ELEMENT USE | ELEMENT TYPE | DESCRIPTION |
|--------------------|--------------|--|
| TOP BAR | HEADING TEXT | blank or translation of "Broadcast from Client" |
| TOP BAR | RIGHT BUTTON | Only a "X" to "Close" the screen equivalent of "Close" |
| SUBJECT | PLAIN TEXT | The Message Subject |
| FROM | PLAIN TEXT | Sender Address |
| RECIPIENTS | PLAIN TEXT | The Recipients List in scrollable pane, one recipient per line |
| MESSAGE | PLAIN TEXT | The Message Text in scrollable pane |
| COMMAND 1 | BUTTON | "Edit" – compose message by opening GUI Message Reply screen with only Sender Address in "To" field |
| COMMAND 2 | BUTTON | "Save" – compose message by opening GUI Message Reply screen with Sender Address in "To" field and all Recipient Addresses in "CC" field |
| COMMAND 3 | BUTTON | "Delete" – closes view of message |
| COMMAND 4 | BUTTON | "Send" – closes view of message |
| COMMAND 5 | BUTTON | "Close" – closes view of message |



- a. Close
- b. Send
- c. Edit
- d. Save
- e. Delete
- f. At window opening, focus set on 'Edit' button. Tab key use thereafter cycles through the 'Save', 'Delete', 'Send' and 'Close' buttons, returning to the 'Edit' button.

2) Mouse actions

Left key

- a. Mouse hover over slider bar, hold key down and drag slider bar up or down
- b. Mouse key tap in slide bar box cause up or down movement.
- c. Mouse key click on each button, operates the button.

Right key

Action to be determined

- a. left mouse key click on 'Reminder' icon: (opens 'Reminder' window for this 'Send to Colleague' Message display)
- b. left mouse click on 'Configuration' icon: (opens the 'Configurations Settings' window for this 'Send to Colleague' Message display
- c. left mouse click on 'Help ' icon: (opens the Help System, searches for the section on 'Send to Colleague Message').