GUI– CONFIGURE COLUMNS for Multi-Column List Patterns

Revision history

2018-05-14	Robin Lamacraft	Original draft
2018-05-15	Rod Thompson	Inserted diagrams, actions
2018-07-11	Rod Thompson	Add section SCOPE Add section headings per template Add section EVENT ACTIONS
2018-09-15	Rod Thompson	Add detail to SCOPE Add LOOK AND FEEL Heading Add Required Services – Dependencies Add Testing requirements Replace graphics Delete section ACCENT Panel spec. Add Process Flow Chart Add Windows Interaction Map Add Error Message Add Issues
2018-09-18	Rod Thompson	Revise graphics Add Use Cases Add ACTIONS Add Use to SCOPE

SCOPE

This GUI module is called only from the Select Configuration module. Its purpose is to facilitate population of a Multi-column list of data, to select fields and to format the columns in the display.

In a 'new project creation', it is expected that the process of 'configuration' of each window will occur immediately following the creation of the Viewpoint.

This module provides the selection of data fields to added to the display in the window, the headings applied to each data field, and the application of any accenting to the display.

Other modules in the GUI_Configuration set provide configuration for the Focus, Rows, Size and Output. All are used to fully configure a DATA Window.

It is anticipated that a User will choose a window size to allow a simple display of **all** selected data fields with their specified column widths, such that **all** data is visible in the display. It can be foreseen that some data selections may exceed the size defined for the window. In this instance, a horizontal scroll control is required. This control should only be visible if required.

Following the initial configuration, it can be expected that a User may wish to make some additional changes to the configuration. Change to the Viewpoint that may occur as a consequence.
This may be achieved by use of the Select Configuration module, which is invoked using the Configuration icon.
Alternatively, some simple changes should be possible using operational behaviour similar to that provided in spreadsheets. This would apply to actions such as:

- re-ordering of the fields in the display
- deleting a field from the display (delete)
- adding a new field to the display (insert)

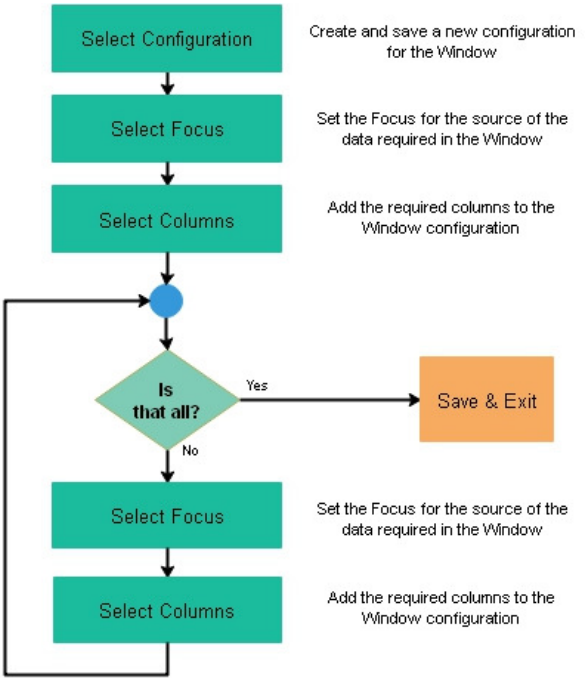
- changes to the widths of columns
- changes to column headings, including new column headings
- application of accents

Content changes should be accommodated (under software control) by adjustment of column widths. The User may choose to change the size of the window, and then the column widths. Such changes will invoke Warning Messages regarding saving such configuration changes.
Issue: - Comments elsewhere about such warning messages being turned off – therefore there is a requirement to specify a default action to be taken.

Use

It is expected that most DATA Windows used in an HRE Viewpoint will contain columns selected from multiple areas (Focus).

The process of configuring the Window is illustrated in the following.



Issues:

1) Database tables needed for Window configurations
2) BR series specification(s) need attention
3) Substitution Editor specification needed
4) Accent Editor Specification needed
5) Required Services – Dependencies (incomplete)
6) ACCENT Scheme Overview needed
   (with likely addition/change to database)
7) Consider alternative process flow that allow for change of focus (from within this module) that would allow a simpler operation to select data for a window
8) I think extremely important to provide multiple example Configured Windows that a User can then immediately use or modify.
9) More understanding required of 'Target Data Origin Type'.
   Is this a title – like persons, does it specifically refer to a Table (unlikely), or something in between (likely)? So how/where is this defined, and how is it selected for display?

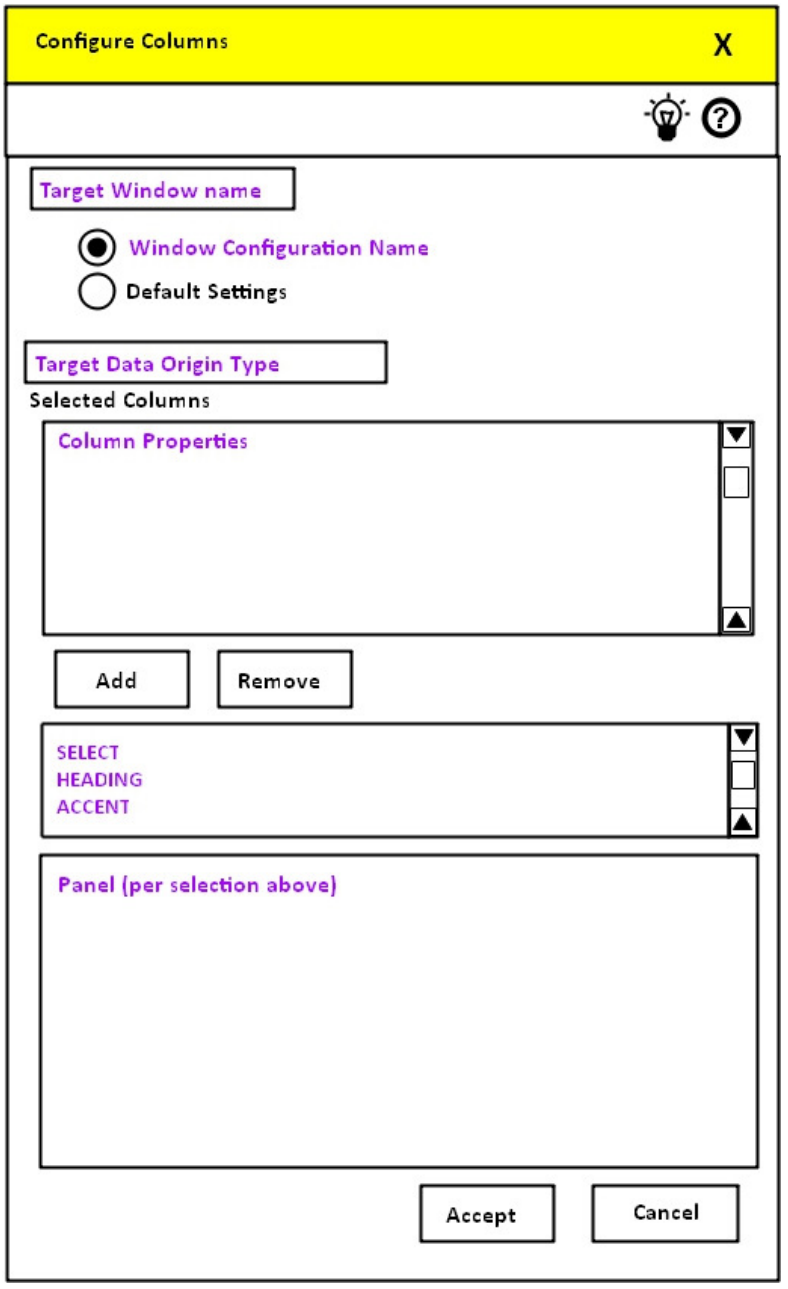
LOOK AND FEEL

The original specification of the GUI is provided in the following tables.
These are followed by an equivalent mockup graphic.

CONFIGURATION SETTINGS – CONFIGURE COLUMNS

GUI ELEMENT USE	ELEMENT TYPE	DESCRIPTION
TOP BAR	HEADING TEXT	blank or translation of “Configure Columns”
TOP BAR	RIGHT BUTTON	Only a “X” to “Close” the window equivalent of “Cancel”
LABEL	FIXED PLAIN TEXT	<Target Window Name> Also set on opening
CHOICE 1	RADIO BUTTON	<Window Configuration Name> Also set on opening
CHOICE 2	RADIO BUTTON	“Default Settings” – rarely used
DATA ORIGIN	FIXED PLAIN TEXT	<Target Data Origin Type> e.g. “Person Events Properties” –provided from the display window definition
LABEL	FIXED PLAIN TEXT	“Selected Columns”
CURRENT COLUMNS	VERTICAL SCROLLABLE PLAIN TEXT LIST	One row for each selected property to be displayed as a Column. Single click select to enable other operations. When 2 or more Columns have been defined then drag and drop can be used to re-order the Column display sequence. On selecting a column in this list the HEADING and ACCENT alternatives below become enabled
COMMAND 1	BUTTON	“Add” button – opens the SELECT panel with a list of unused properties for the requesting window’s focus. If no Column is selected in the above list, then a new Column is appended to the list. If a Column is selected in the above list, the new column will be inserted before the selected Column
COMMAND 2	BUTTON	“Remove” button – only active if a Column has been selected in the above list. It removes that column from the display list
SELECTION	FIXED VERTICAL SCROLLABLE PLAIN TEXT LIST	The initial set of choices for COLUMNS are: • SELECT – compose column list. This is selected on opening • HEADING – column heading • ACCENT – select accent for column
Insert panel here for selected section		
COMMAND 3	BUTTON	“Accept” button – accepts edits and closes the window returning to the window that made the request

COMMAND 4	BUTTON	"Cancel" button – ignore edits, but if there have been some edits made, then the user will be warned that those edits will be lost, then closes the window returning to the window that made the request



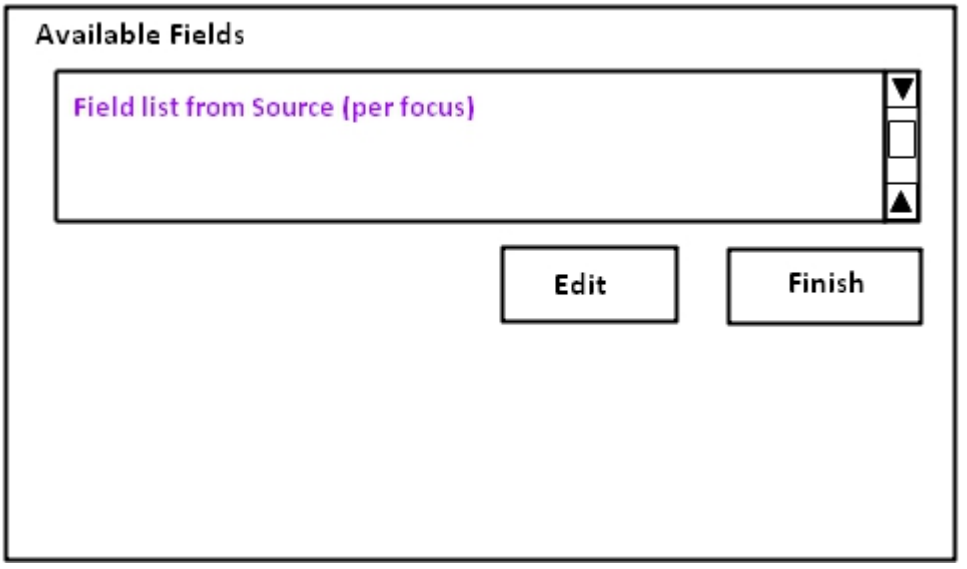
Main Panel - Mockup

Selected Columns display (example)

Use	Heading	Data format	Wmin	Wmax	Accent
ID No:	No:	Integer			No
Name	Name	Text			RT_Name1
Birth Date	Birth	HDate			No
Death Date	Death	HDate			No
Sex	Sex	Text			No
Spouse Name	Spouse	Text			RT_Name2

SELECT panel:
This panel selects which property value from the list of all properties of the same type are to be displayed as columns in the requesting window's table.

GUI ELEMENT USE	ELEMENT TYPE	DESCRIPTION
LABEL	FIXED PLAIN TEXT	"Available Fields"
SUBSET LIST	VERTICAL SCROLLABLE PLAIN TEXT	List of names of all available saved fields of the window's data focus. Double click to select and move return focus to Column list. Single Click to select to allow multiple selections and insertion at selected location in the list
COMMAND A	BUTTON	Click the "Edit" command button and this will open the **Substitution Editor window** to allow for more substitution Aliases to be created
COMMAND A	BUTTON	"Finish" button – terminates multiple selection of Columns



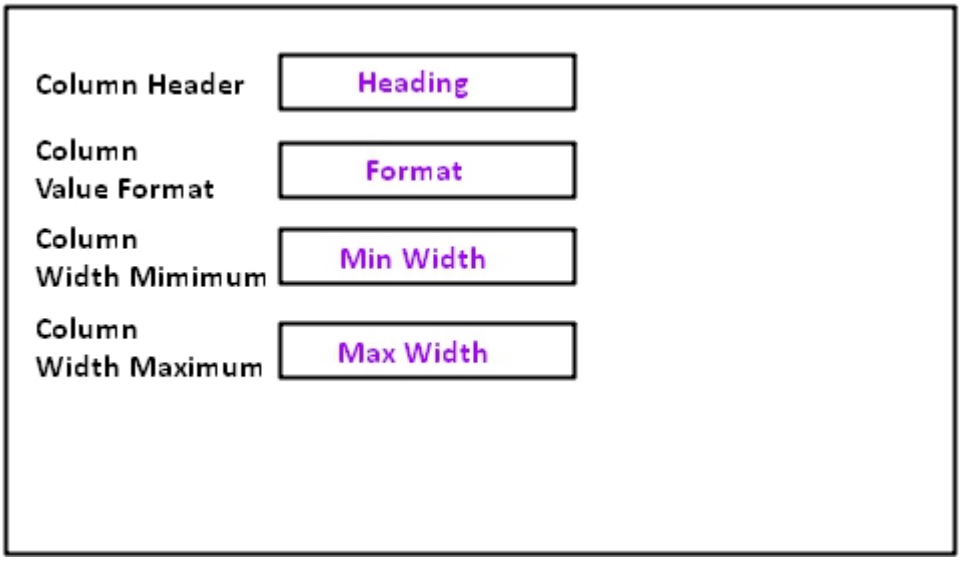
SELECT Panel – Mockup

Available fields display (example)
Person - Names

ID No:
Surname
Given names

HEADING panel:
This panel controls the Column Heading of one column

GUI ELEMENT USE	ELEMENT TYPE	DESCRIPTION
LABEL	FIXED PLAIN TEXT	“Column Header”
HEADING	PLAIN TEXT	The text that the user wants to be displayed as the column header. If not set, then use the Abbrev value for the field retrieval alias
LABEL	FIXED PLAIN TEXT	“Column Value Format”
FORMAT	PLAIN TEXT	The format that the user wants to be used for the displayed value. If empty use default
LABEL	FIXED PLAIN TEXT	“Column Width Minimum”
MIN WIDTH	PLAIN TEXT	The minimum width (percent) of the containing panel width for the displayed value. If empty use default
LABEL	FIXED PLAIN TEXT	“Column Width Maximum”
MAX WIDTH	PLAIN TEXT	The maximum width (percent) of the containing panel width for the displayed value. If empty use default

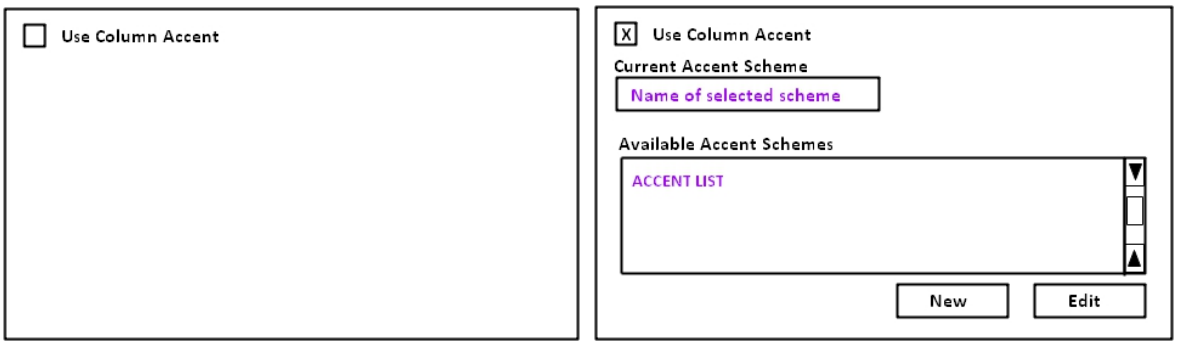


HEADING PANEL - Mockup

Issue: What is the purpose of the two Column Width entries?
Need software checking that the sum of the entered widths for all selected columns as they are entered does not exceed the window width. Assume say a 95% of window width, allowing for a window border.
How is a manual drag of column width with the mouse affect these values?

ACCENT panel:
This panel controls the selection and of an accenting scheme for a Column.

GUI ELEMENT USE	ELEMENT TYPE	DESCRIPTION
USE ACCENT	CHECK BOX	"Use Column Accent" – set according the Accent use status of this column. If checked the following are shown
LABEL	FIXED PLAIN TEXT	"Current Accent Scheme"
ACCENT NAME	PLAIN TEXT	<name of selected accenting scheme>
ACCENT LIST	VERTICAL SCROLLABLE PLAIN TEXT	List of names of all available saved accent schemes for the data origin. Double-click to select return focus to the Column List. Single Click to select for subsequent actions
COMMAND A	BUTTON	"New" button – allows the selected settings to be cloned and become the base for a new sort method associated with the current row configuration
COMMAND B	BUTTON	Clicking the "Edit" command button will open the **Accent Editor window**



ACCENT Panel – Mockup

ACTIONS

The fundamental operations are:

1. Open the window according to its saved window Layout (BR_WindowConfig)
   Initial default location – centered on HRE window
   a. Radio button '' Window Configuration Name'selected
   b. SELECT Panel displayed (empty Source Field list)
   c. COLUMNS choice 'SELECT' selected
   d. Display the Target Window Name
   e. Display the Target Data Origin Type
   f. Display Current columns if applicable for an existing Window configuration
2. Allow the User to **Remove** columns
   (update the window display)
3. Allow the user to **Add** one or more columns, by selection from the 'Available Fields' display.
   NOTE – Substitution Editor
   When 'Finished', update the showing the extra columns added, using a default column width, to equally space the new columns in the available space within the window

4. Allow the User to choose 'HEADING' in the selection list, to then for each selected column:
    a. the column headings
    b. the format of data display in the column
    c. the column width
5. Allow the User to apply or remove Accent Schemes from a selected column; and open an Accent Editor to create or modify an Accent Scheme.

USED BY

All HRE users.

DATA CONTROLLED BY THIS MODULE

How is this entered?

1) Configuration
2) Accent

REQUIRED DATA CONTROLLED BY OTHER MODULES

1. All Historic data
2. Configurations

REQUIRED SERVICES – Dependencies

First-Order Dependencies	Second-Order Dependencies (if not already listed)	Higher-Order Dependencies (if not already listed)
05.40 GUI_Reminder	03.68 GUI_SelectConfiguration	
	05.02 GUI_EncodedStringEdit	05.08 GUI_FieldDefinitionEdit
		05.42 GUI_SubstitutionEdit
		07.26 BR_Substitution
		07.24 BR_Setting
		07.17 BR_WindowConfig
	07.01 BR_EncodedString	NIL
	07.24 BR_Setting	BR_AppData
		BR_UserData
		07.02 BR_EntityLink
	07.17 BR_WindowConfig	07.06 BR_GuiElement
		07.02 BR_EntityLink
		07.29 BR_Translation
		BR_FieldTranslation
		07.16 BR_MessagePatterns
	07.02 BR_EntityLink	NIL
05.14 GUI_Help	03.68 GUI_Select Configuration	
	07.24 BR_Setting	BR_AppData
		BR_UserData
		07.02 BR_EntityLink
	07.17 BR_WindowConfig	07.06 BR_GuiElement
		07.02 BR_EntityLink
		07.29 BR_Translation
		BR_FieldTranslation
		07.16 BR_MessagePatterns
	07.11 BR_Logging	07.01 BR_EncodedString
		07.02 BR_EntityLink
		BR_FieldTranslation
		07.26 BR_Substitution
	07.07 BR_Help	07.29 BR_Translation
		07.21 BR_Project
		07.01 BR_EncodedString
		07.24 BR_Setting

First-Order Dependencies	Second-Order Dependencies (if not already listed)	Higher-Order Dependencies (if not already listed)
		07.11 BR_Logging
		BR_FieldTranslation
		07.26 BR_Substitution
		07.12 BR_Menu
		07.25 BR_Schema
		07.28 BR_User
		07.16 BR_MessagePatterns
	07.02 BR_EntityLink	NIL
07.17 BR_WindowConfig		

EVENT ACTIONS

1) Keyboard actions
    a. Enter or Edit the Column Header, Value Format and Column Widths
2) Mouse actions

Left key

a. Mouse hover over the slider bar, hold key down and drag slider bar up or down
b. Mouse key tap in slider bar box causes up and down movement
c. Mouse key the 'Set State' check boxes, swaps the selection
d. Mouse key click on a record in the State Selector display,
selects for display (in the configurations list) only configurations with that state
e. Mouse key click on records in the Configurations scroll-bar display
    i. Single click – selects a configuration, enables the 'info' icon
    ii. Double click – selects the configuration, and closes the window
f. Mouse key click on a record in the Section Selector display, preselects the type of Configuration for action when the 'Edit' key is used, opening a new window for that selected configuration and transferring control focus. On return, focus is applied to the 'Save' button.
g. key click on each button, operates the button
h. key click on icons (detailed below)

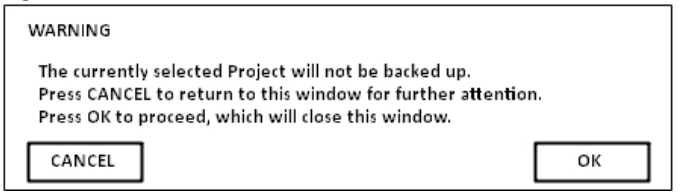
Right key

Others to be determined

3) Icon actions
    a. left mouse key click on 'X' icon
    (closes the window)
    b. left mouse key click on 'Reminder' icon:
    (opens 'Reminder' window for this 'Select Configuration' window)
    c. left mouse click on 'Help ' icon:
    (opens the Help System, searches for the section on 'Select Configuration' window)
4) Keyboard shortcuts
    To be determined

WARNING CONDITIONS

1. When the 'Cancel' button is used, a reminder warning message is displayed.
Warning Message (WM-CC1)



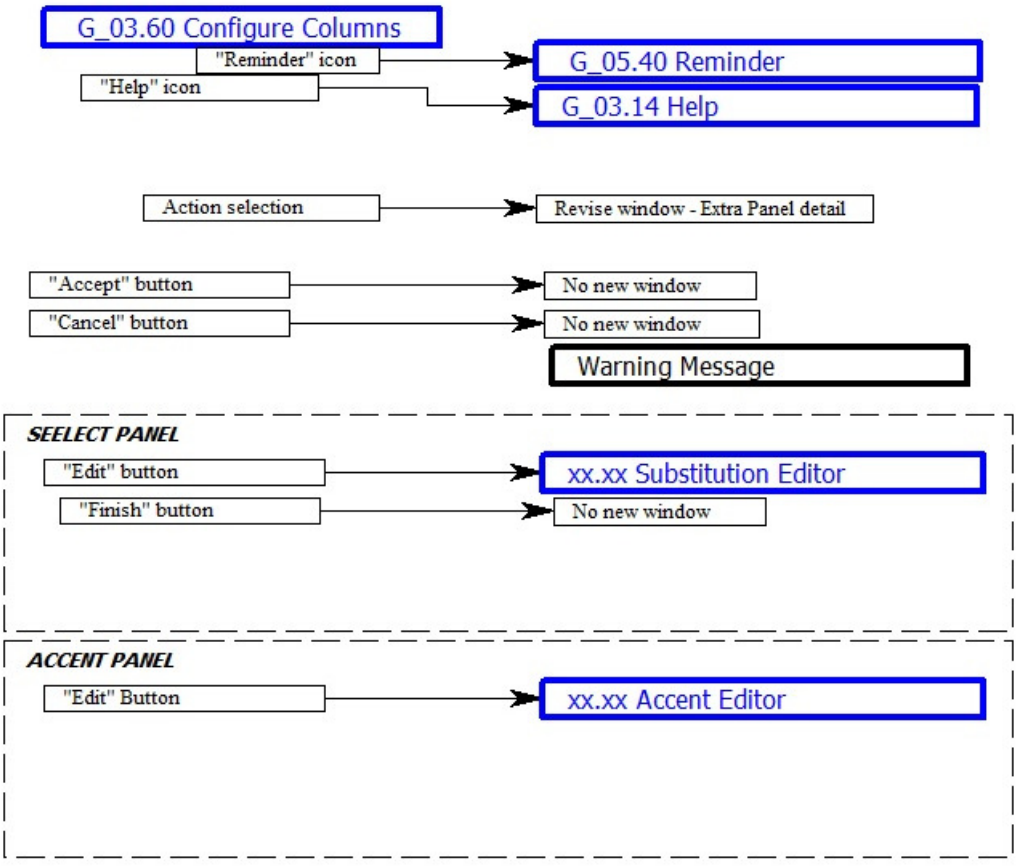
TEXT VERSION
WARNING
The configuration changes made will not be saved.
Press CANCEL to return to this window for further attention.
Press OK to proceed, which will close this window.

Issue: Need to provide a default operation applicable when the User turns OFF Warning Messages.

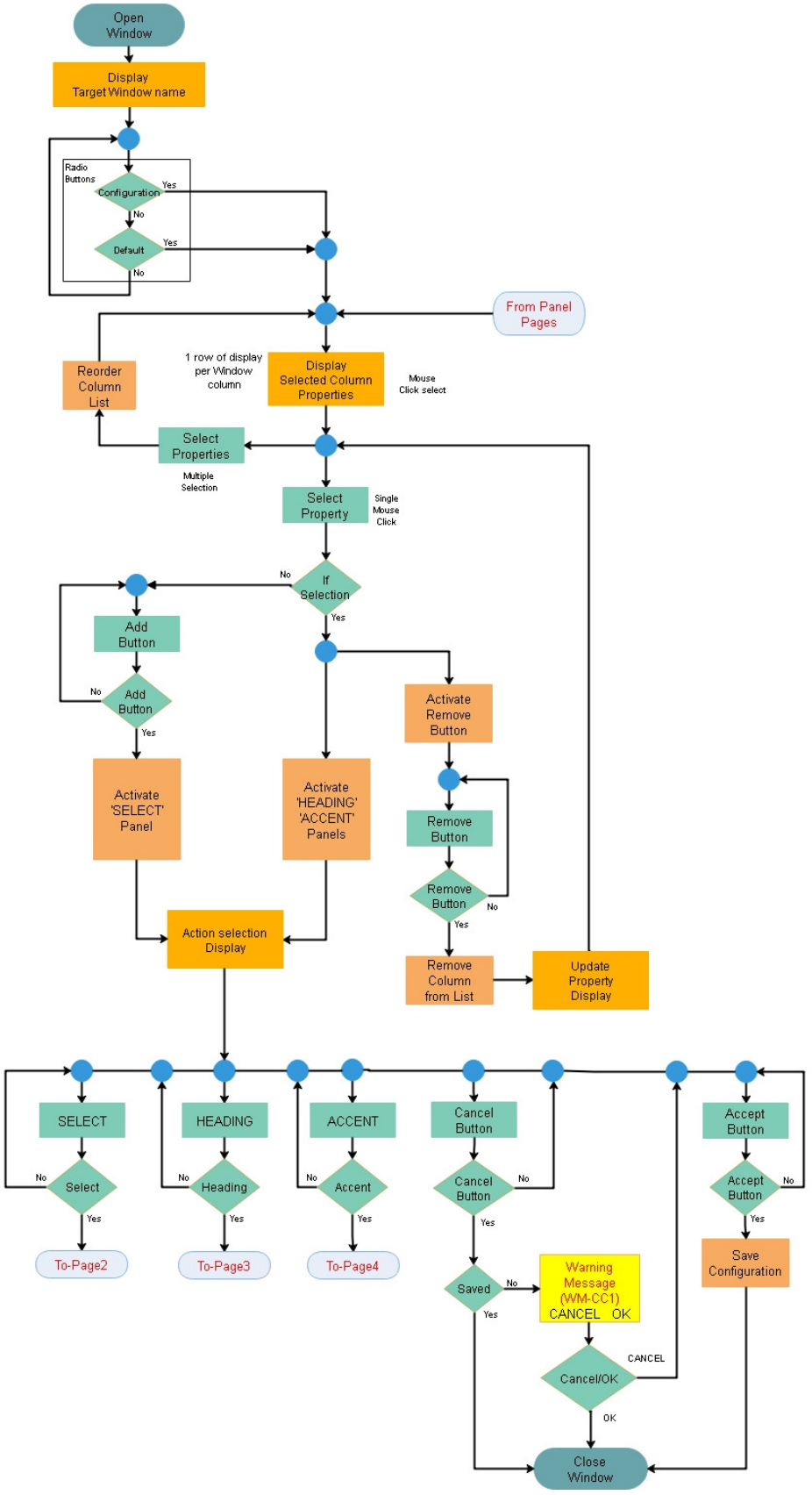
ERROR CONDITIONS

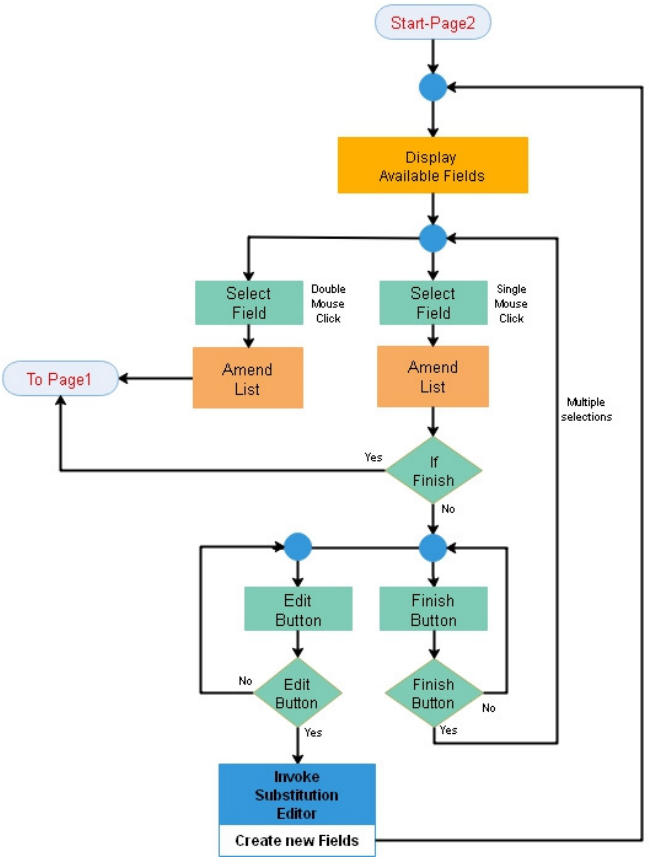
1. Need to record the condition that raised the error, example message and possible next steps. (GUI_Message Patterns used to report warnings to user)

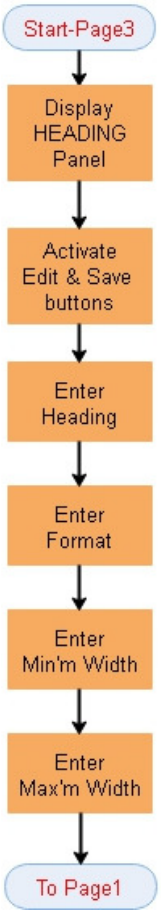
WINDOW INTERACTION MAP



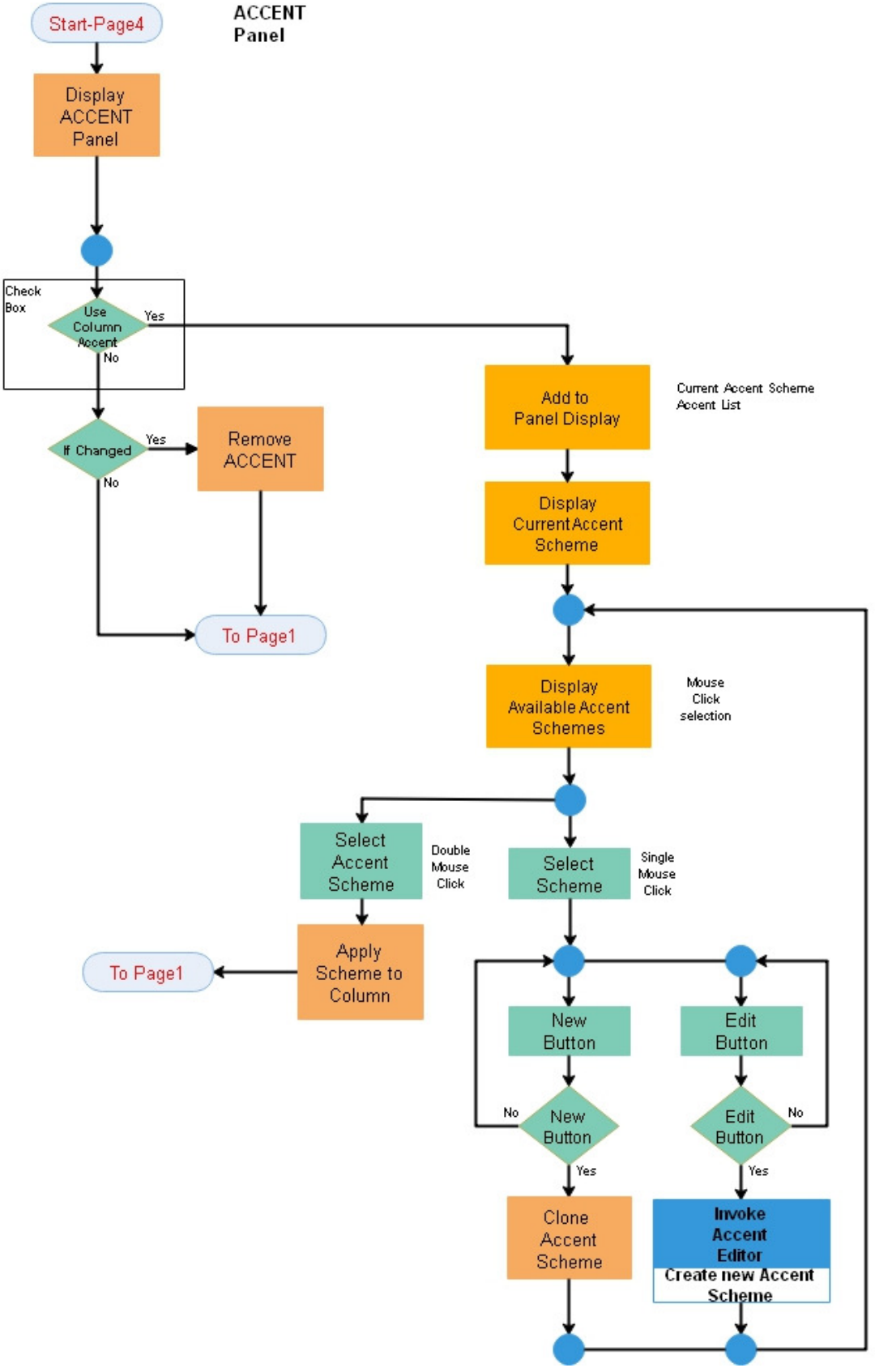
PROCESS FLOW CHART







HEADING Panel


Start-Page4
ACCENT
Panel
Display
ACCENT
Panel
Check
Box
Use
Column
Accent
Yes
No
If Changed
Yes
No
Remove
ACCENT
To Page1
Add to
Panel Display
Current Accent Scheme
Accent List
Display
CurrentAccent
Scheme
Display
Available Accent
Schemes
Mouse
Click
selection
Select
Accent
Scheme
Double
Mouse
Click
Select
Scheme
Single
Mouse
Click
Apply
Scheme to
Column
To Page1
New
Button
Edit
Button
No
New
Button
Edit
Button
No
Yes
Yes
Clone
Accent
Scheme
Invoke
Accent
Editor
Create new Accent
Scheme

USE CASES

1) Window - Person List
2) Window – Location information
3) Window – Location (TMG Place List)
4) Window – Person Navigator
5) Window – Person Events
6) Window – Siblings
7) Window – Children
8) Window – Associates (specific)
9) Window – Associates (generic)

Details below

Use Case 1
Window - Person List (rename of TMG Project Explorer)

	SELECT	HEADING				ACCENT
		Heading	Format	Wmin	Wmax	
Column 1	Person ID No:	Person	Integer			No
Column 2	Person Surname	Surname	Text			No
Column 3	Person Give names	Given names	Text			No

Use Case 2
Window – Location Explorer (rename of TMG Place List)

	SELECT	HEADING				ACCENT
		Heading	Format	Wmin	Wmax	
Column 1	Nation	Country	Text		20	No
Column 2	US State	State	Text		15	No
Column 3	US County	County	Text		15	No
Column 4	City	City	Text		15	No
Column 5	Street	Street	Text		10	No
Column 6	Details	Detail	Text		25	No

Use Case 3
Window – Location (TMG Place List)

	SELECT	HEADING					ACCENT
		Heading	Format		Wmin	Wmax	
Column 1	Addressee	Addressee	Text			20	No
Column 2	Detail	Detail	Text			15	No
Column 3	City	City	Text			15	No
Column 4	County	County	Text			15	No
Column 5	State	State	Text			10	No
Column 6	County	County	Text			25	No
Column 7	Postal	Postal	Integer				No
Column 8	Phone	Phone	Text				No
Column 9	LatLong	LatLong	Text???				No
Column 10	Temple	Temple	Text				No

Use Case 4
Window – Person Navigator

	SELECT	HEADING				ACCENT
		Heading	Format	Wmin	Wmax	
Column 1	Person ID No:	Person	Integer			No
Column 2	Person Name	Name	Text			RT_Name1
Column 3	Birth date	Birth	HDate			No
Column 4	Death date	Death	HDate			No
Column 5	Father-Bio	Father	Text			No
Column 6	Mother-Bio	Mother	Text			No

Needs a method to merge Surname and Given name(s)

Use Case 5

Window – Person Events (similar to TMG Details)

	SELECT	HEADING				ACCENT
		Heading	Format	Wmin	Wmax	
Column 1	Type	Type	Text			No
Column 2	Role	Role	Text			RT_Role4
Column 3	Date	Date	HDate			No
Column 4	Sort Date	Sort	HDate			No
Column 5	Event Title	Event	Text			No
Column 6	Place	Location	Text			No

Use Case 6

Window – Siblings

	SELECT	HEADING				ACCENT
		Heading	Format	Wmin	Wmax	
Column 1	Person ID No:	No:	Integer			No
Column 2	Person Name	Name	Text			RT_Name1
Column 3	Birth Date	Birth	HDate			No
Column 4	Death date	Death	HDate			No
Column 5	Sex	Sex	Text			No
Column 6	Spouse Name	Name	Text			RT_Name2

Needs a method to merge Surname and Given name(s)

Use Case 7

Window – Children

	SELECT	HEADING				ACCENT
		Heading	Format	Wmin	Wmax	
Column 1	Person ID No:	No:	Integer			No
Column 2	Person Name	Name	Text			RT_Name1
Column 3	Birth Date	Birth	HDate			No
Column 4	Death date	Death	HDate			No
Column 5	Sex	Sex	Text			No
Column 6	Spouse Name	Name	Text			RT_Name2

Needs a method to merge Surname and Given name(s)

Use Case 8

Window – Associates (specific)

	SELECT	HEADING				ACCENT
		Heading	Format	Wmin	Wmax	
Column 1	Type:	Type	Text			No

Column 2	Father-Bio	Father	Text			No
Column 3	Father (life span)		HInterval			No
Column 4	Mother-Bio	Mother	Text			No
Column 5	Mother (life span)		HInterval			No

Others as determined for person

Column 6	Father- Adopted	Father	Text			No
Column 7	Father (life span)		HInterval			No
Column 8	Mother-Adopted	Mother	Text			No
Column 9	Father (life span)		HInterval			No
Column 10	Husband/Wife	Spouse	Text			No
Column 11	Marriage time span		HInterval			No
Column 12	Husband/Wife	Spouse	Text			No
Column 13	Marriage time span		HInterval			No

Needs a method to merge Surname and Given name(s)

Use Case 8

Window – Associates (generic)

	SELECT	HEADING				ACCENT
		Heading	Format	Wmin	Wmax	
Column 1	Type:	Type	Text			No
Column 2	Person (name)	Role	Text			No
Column 3	(Date range)		HInterval			No
Column 4	Person (name)	Role	Text			No
Column 5	(Date range)		HInterval			No

Needs a method to merge Surname and Given name(s)

TESTING

Testing to prove the functionality of this module in use with others of the HRE application.
Limited 'Project' functionality (see below).
Prior testing of the module in the code development process is assumed.

General requirements	Code element requirements
HRE installation 1) Single computer 2)	Main GUI Viewpoints Project New Project Open Project Close ExitHRE

Process

1) Run HRE
   a. Open HRE
   b. Create a new Project
   c. Create a simple Viewpoint with multiple data windows
   d. Invoke the Select Configuration module by using the Configuration icon
   e. Test the functionality of the module
   f. Close the Project
   g. Exit HRE
2) Check result (how?)

See Test Plan document