

GUI_ProjectBackup – Backup a Project

Revision history

2017-04-04	Don Ferguson	Original draft
2018-05-27	Rod Thompson	Add Mockup window graphics Add Event Actions
2018-05-28	Rod Thompson	Add Window Interaction Map
2018-06-02 & 03	Rod Thompson	Revise Process Flow chart Revise Mockup graphics Add Warning Messages
2018-06-05	Rod Thompson	Revise Process Flow chart Revise ACTIONS Revise MESSAGES Revise Window Interaction Map
2018-06-11	Rod Thompson	Add 'Issues' to SCOPE Revise REQUIRED Services – Dependencies Replace BR_PanelConfig with BR_WindowConfig Add 'Required Service' – Message Patterns
2018-06-29	Rod Thompson	Add INFORMATION DISPLAY Replace Mockup window graphics Replace Process flowchart

SCOPE

This GUI module is called from the Main Menu (GUI_UserInterface) or from GUI_ProjectClose, to backup a current project.

Note: it is assumed that a backup can't be performed while others are active on that same project database. It is also assumed that it is not legal to only backup part of a Project database. However some external files (like images) can be optionally included in a backup, also the App settings for this client device.

PROJECT FILESET

A set of files required for normal use of HRE projects consists of:

- an H2 database
- A 'User' Auxiliary file
- A 'Project' Database Auxiliary file
- folders of external files (images, etc). [optional].

Refer to *03.32 Overview – Auxiliary (Non Database) Files* for details.

This backup process will backup both the H2 database and the Database Auxiliary file.

Issues still to be resolved:

- questions also arise when considering remote, server-side projects, in relation to authorization, privilege and file locations.
Impacts also in the 'Restore' process.

LOOK AND FEEL

The window has 5 parts:

- A 'From' scrollable display area which shows all of the user's currently open projects, by name and which allows the selection of a file from the displayed list. The list order is that

- applicable to the opening of the Projects. (this may be empty if no projects are open)
- A display of additional information to the user, relevant to the backup of the Project
- A 'To' scrollable display area which allows the selection of a folder and filename for the backup fileset
- The buttons "Browse" (for each display area), "Backup" and "Cancel"
 - The "Browse" buttons allow the user to search the file system for a valid HRE project to backup, which may be added to the 'from' display area. Also for the 'to' area the ability to browse the file-system for a location to save the backup fileset
 - "Backup" performs the project backup functions on the selected project
 - "Cancel" exits without action
- Check boxes
 - "Include external referenced files"
 - "Include App Settings for this client device"
- A display area of the status of the backup.

Project Backup

FROM

Currently Open projects

Server	Project Name
Local	Drummond-UK
Local	Drummond-US

Summary

Drummonds-UK

Change

Data Item 1

Data Item 2

Use

text re use of the selected project, and applicable backup process

TO

Folder

Folder name

Browse

Filename

File name

☒

Include external referenced files

☒

Include App Settings for this client device

Backup

Cancel

ProjectBackup Window - Mockup

If the 'Backup' button is used, the window expands to include a Progress Display.

Project Backup

X

FROM

Currently Open projects

Server	Project Name
Local	Drummond-UK
Local	Drummond-US

Summary

Drummonds-UK

Change

Data Item 1

Data Item 2

Use

text re use of the selected project, and applicable backup process

TO

Folder

Folder name

Filename

File name

Browse

☒ Include external referenced files
 ☒ Include App Settings for this client device

Backup

Cancel

Backup Progress display

0

100

% completion: ???

Total Size: ???

Time to complete: ???

ProjectBackup Window - Mockup

ACTIONS

The fundamental operations are:

1. Open the window according to its saved window Layout (BR_WindowConfig)
2. Allow selection of a project to be backed up
3. Select whether referenced external files are to be backed up
4. Select whether to include App Settings for this Device
5. Allow selection of a location to save the backup
The 'Browse' button opens Windows Explorer
6. Wait until all outstanding transactions from this client are completed
7. Queue a backup task for this project within the server
8. Check the number of current users of this project
9. If only one user, then perform a backup task for this project within the server
10. Prevent any further logins to the database until the backup is completed
11. This backup setup task is to be notified to all concurrent users
12. The server to perform that backup as soon as possible when all users have disconnected

13. The backup completion is to be notified to all users registered to receive that notification
14. On completion of backup (one user only), or having messaged the Server of the backup requirement, close the window and return.

INFORMATION DISPLAY

This provides the user with information about the Project intended to be backed up, to assist determining further action.

Two parts make up the information set:

1) Project changes

This gathers two pieces of data, and formats these with words according to a template.

- a. Date Item 1 – the number of changes to the Project since the previous backup

Example 317

- b. Data Item 2 – the date/time of the previous backup.

Example 10-Jan-2018, 10:04AM

Template: NUMBER changes since the last backup on DATE/TIME

Example: 317 changes since the last update on 10-Jan-2018, 10:04AM

2) Use

This gives information about current use of the selected project, relevant to backup of the Project.

The following template 2-line text messages are involved

- a. Single User

Backup allowed

- b. Multiple Users

Backup request will be sent to the Server for later action

Where there is only one User of the Project, backup can occur immediately.

Where there are multiple active users, backup can occur only when one user remains, and activates either the Backup or Close processes.

Each of these parts is provided by separate text boxes.

USED BY

All HRE users.

DATA CONTROLLED BY THIS MODULE

1. Any open HRE Project.

REQUIRED DATA CONTROLLED BY OTHER MODULES

1. Server names and Project names
2. Data from Project Summary for each open Project.

REQUIRED SERVICES - Dependencies

First-Order Dependencies	Second-Order Dependencies (if not already listed)	Higher-Order Dependencies (if not already listed)
03.66 GUI - MessagePatterns		
07.17 BR_WindowConfig4	07.06 BR_GuiElement 07.02 BR_EntityLink 07.29 BR_Translation 07.16 BR_MessagePatterns	
07.21 BR_Project	07.06 BR_GuiElement 07.02 BR_EntityLink 07.29 BR_Translation 07.03 BR_FieldDefinition	

APPLICATION PROGRAMMING INTERFACE (API)

1. Single call, no parameters

EVENT ACTIONS

- 1) Keyboard actions

NIL

- 2) Mouse actions

Left key

- a. click on Server/Project name pulldown expands Server/Project list, and allows selection
- b. click on a Project Name, causes the project name to be shown in the text box, associated with the Summary button
- c. click on the Browse button opens the Windows Explorer allowing the user to view the file system to select an existing Folder and Filename, or enter a new Filename
- d. click on the 'un-checked' Check box, causes the Check box to be 'checked', and the option selected. A second click, reverses the process.
- e. click on each button, operates the button
- f. click on icons (detailed below)

Right key

To be determined

- 3) Icon actions

- a. left mouse key click on icons in the Window Control group:
 - a. 'X' icon
(closes the window)
NOTE: Same action as in use of the 'Cancel' button
 - b. 'Box' icon
Toggles the window size between full window, and the preset window size
 - c. 'Dash' icon
Minimizes the window, to an icon on the window toolbar.
A click on the toolbar icon restores the display to its previous setting
- b. left mouse key click on 'Reminder' icon:
(opens 'Reminder' window for this 'Project Backup' window)
- c. left mouse key click on the 'Configuration' icon
(opens the Configuration Window for this 'Project Backup' window)
- d. left mouse click on 'Help' icon:
(opens the Help System, searches for the section on 'Project Backup' window)

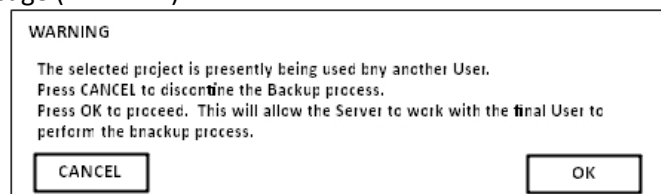
- 4) Keyboard shortcuts

To be determined

WARNING CONDITIONS

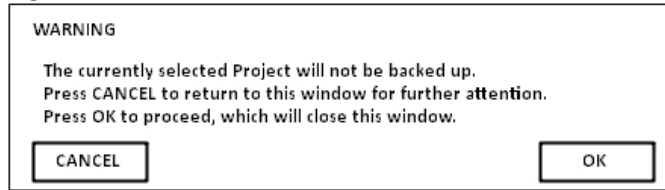
1. When more than one User is active on the project selected for backup, the following warning message is displayed.

Warning Message (WM-PB1)



- When the 'Cancel' button is used, a reminder warning message is displayed.

Warning Message (WM-PB2)



ERROR CONDITIONS

- Need to record the condition that raised the error, example message and possible next steps.

MESSAGES

Created in and sent from Client to Server

Message M_C_S_1 Software based – no display	Contains: User Name Project name Folder and filename for saving of the Project Option-External Files Option-App Settings
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Created in and sent from Server to Client(s)

Message M_S_C_1 Uses Server Broadcast Message Pattern GUI_Message (SB) Sent to all Users of the selected project	Subject: Project Backup From: Server Text Message: Project backup queued – multiple users. Requested by: User name Project name: Project name Backup folder: Folder name Backup filename: Filename
Message M_S_C_2 Uses Server Broadcast Message Pattern GUI_Message (SB) Sent to all Users of the selected project	Subject: Project Backup From: Server Text Message: Project backup previously queued with multiple users – now in progress. Requested by: User name Project name: Project name Backup folder: Folder name Backup filename: Filename
Message M_S_C_3 Uses Server Broadcast Message Pattern GUI_Message (SB)	Subject: Project Backup From: Server Text Message: Project backup previously requested and queued – has been processed.

Sent to all Users of the selected project	Requested by: User name Project name: Project name Backup folder: Folder name Backup filename: Filename
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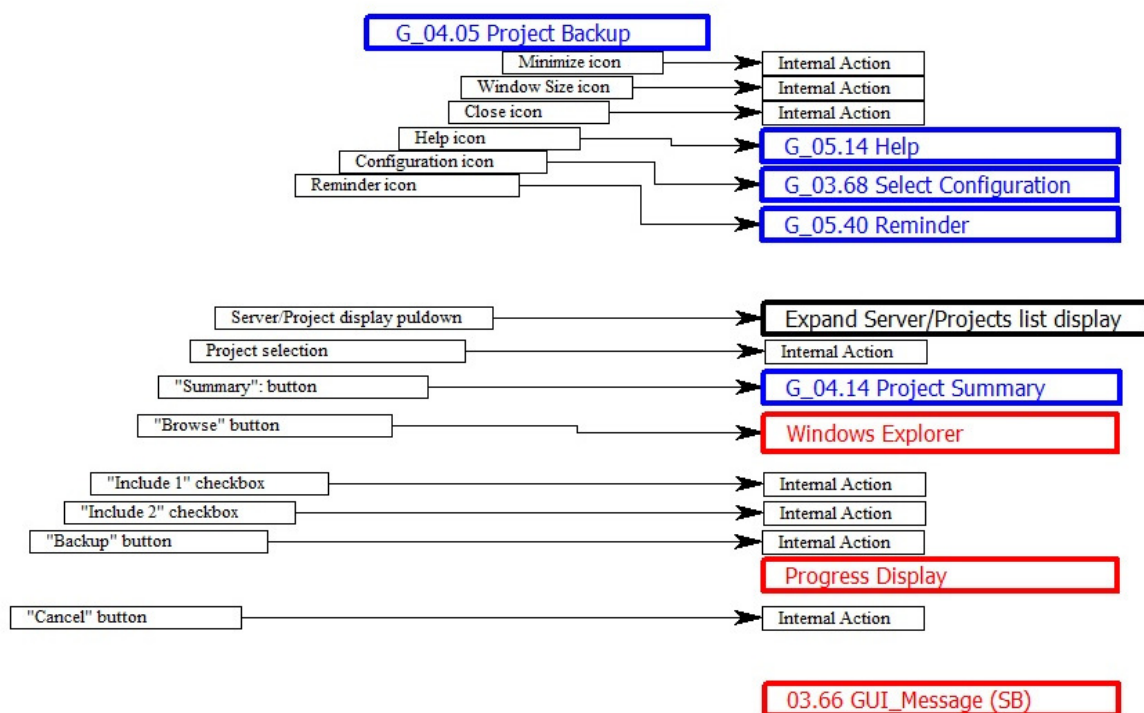
Message window location: centred on the GUI_ProjectBackup window

Message designator:

- 1) M_ signifies a message
- 2) X_ source
- 3) Y_ destination
- 4) Z distinguishing number for this window

Messages from the Server to the Client utilize the Server Broadcast Message Pattern.
Such messages result in a window opening on the client, to display information (detailed above)
That specification requires amendment to allow use for sending to selected Users.

WINDOW INTERACTION MAP



PROCESS FLOW CHART

