BR_Setting – Setting Services

Revision history

2017-03-24	Robin Lamacraft	Original draft
2018-03-29	John Lucas	Modified Scope, added Notes, other minor changes

SCOPE

This module must be used to define and maintain settings and default values for a diverse array of data types and devices. It maintains these values in 2 XML files, one for project-related settings and a second related to the computer on which the Client is running. Entries in both databases are indexed by the ID of the User, meaning that settings can have personal preference. These settings are stored as a hierarchy of values to the depth required to service the details of that sub-tree.

- Each setting is defined as Client-related or Project-Related
- Each setting value has a nominated format (which may be specified for some values) and validation rules. Each setting has a default value
- BR_Setting is used by the GUI_AppSetting module which is opened from the main Tools > App > Settings menu entry
- BR_Setting is used by the GUI_ProjectSetting module which is opened from the main Tools > Project > Settings menu entry
- Many other modules also use it to lookup settings
- GUI_Setting displays the settings. The methods in BR_Setting operate on the settings data as driven by requests from GUI_Setting to create, edit individual setting values
- The setting Syntax and Validation rules are kept in the Setting Rules database and the Project Setting Rules database
- BR_Setting is also used by other modules to retrieve specific settings values
- These are values that the user can change.

ITEMS THAT HAVE SETTINGS AND DEFAULTS (incomplete list)

Viewpoints, Panels, Projects, Logging, Tags, Name Styles, Keyboard, Monitor, Pointer, Printer, Languages, Historical Date formats, field input sequences, and many more.

ACTIONS

The fundamental operations are:

1. Define a new Setting at the desired place in the setting hierarchy (each Setting has a unique HRE_ID) This is an admin or installation (HRE or plug-in) action.
2. Create a record for the setting in the Client Setting or Project Setting Database
3. Retrieve a setting by its HRE_ID
4. Perform editing, syntax checking and value validation of entered values.

NOTES

1. The process of recording/setting a setting is separate from the retrieval of a setting value. Although both actions 2 and 3 will be done by the BR_Setting module, the setting action can only be done from (usually) one GUI screen for that setting, whereas the retrieval of a value is likely to be done at the request of another BR module or a number of GUI screens
2. A dictionary of setting value slots (and IDs) needs to be created with their purpose, value type and possible value set/range. This should say where they are stored when and how they are updated and the list of modules that use or display these values. Some settings will be embedded within the Project Database while others will be stored in the Client and Server XML files.

USED BY

1. GUI_AppSetting and GUI_ProjectSetting (for management of the setting databases)
2. Any module which wants to access the current or default value of a setting.

AUXILIARY DATA USED

- Client Settings XML file
- Project Settings XML file
- Project database

REQUIRED SERVICES

1. BR_AppData
2. BR_UserData
3. BR_AppData
4. BR_EntityLink.

APPLICATION PROGRAMMING INTERFACE (API)

1. Needs details

WARNING CONDITIONS

1. Need details of the condition that raised the warning, example message and possible next steps. (GUI_Notification to be used)

ERROR CONDITIONS

1. Need to record the condition that raised the error, example message and possible next steps. (GUI_Notification to be used)