

BR_Translation – Translation Services

Revision history

2017-04-20	Robin Lamacraft	Original draft
2018-04-03	John Lucas	Added BR_Notification entries

SCOPE

This module must be used anywhere text strings may have a Translation that needs to be stored or retrieved. These text strings may be stored in database tables according to their length. Text strings may be plain or encoded. Some collections of values have extra relationships that need to be managed as part of the translated string storage.

Translated strings are classified as follows:

1. The expected maximum length of a particular entry type
2. The place of generation or use of translated values
3. The special interactions between values within the same type of data entry.

Subdivision by expected Maximum Length

2 Strings lengths are used:

- Normal max. 8000 characters but only uses actual string length as VARCHAR() with MAX_VALUE set to 8000)
- Huge max. 2Gb characters as a CLOB (character BLOB).

Subdivision by place of generation or use

- Associated with the GUI
 - GUI Labels and options
 - Reminders and Help
 - Error and Warning Messages.
- Associated with user data and auxiliary definitions
 - Auxiliary Definitions (Tags, etc)
 - Name Element entry
 - Output Templates and Sentences
 - Memos with embedded Citations.

NOTE: The text below is divided into 2 parts: GUI related and Data-related.

GUI SECTION

GUI-RELATED ACTIONS

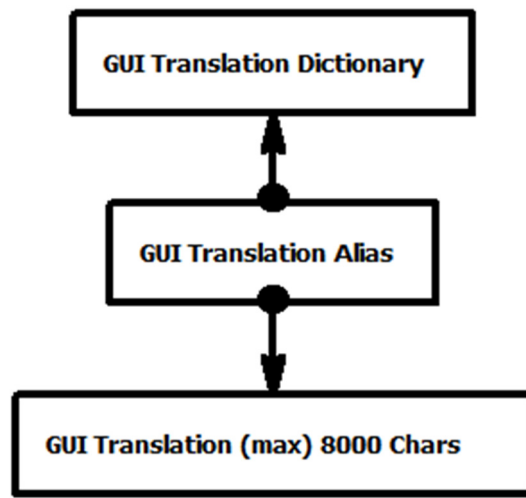
1. To define or modify a GUI Translation Dictionary entry: Create, Edit, Save and Retrieve
2. To define or modify a language-specific value: Create, Edit, Save and Retrieve.

NOTES: Some entries like Error and Warning Messages are encoded for value substitution. The size of these tables is only influenced by the number of Application Languages installed.

GUI-USED BY

Any GUI module.

GUI-DATA CONTROLLED BY THIS MODULE



1. **GuiTransDict** Table: One record per Gui Element that has a translation

SQL FIELD NAME	SQL FIELD TYPE	NOTES
HRE COMMON FIELDS FIRST		HRE_ID is GuiTransDict_ID
GUI_ELMT_ID	INT8 NOT NULL	HRE ID for the GUI element that this translation applies to
ELMT_TYPE_ID	INT8 NOT NULL	HRE Gui Element Type ID
LIST_COUNT	INT4	Default 1, number in selection list
STORE_TYPE_ID	INT4	HRE String Storage Type ID
ENCODE_ID	INT8 NOT NULL	HRE Encoding Type ID

The PRIMARY INDEX of this table is the HRE_ID. (GuiTransDict)

2. **GuiTransAlias**Table: One record for each Dictionary Link to a Translation

SQL_FIELD NAME	SQL_FIELD TYPE	NOTES
HRE COMMON FIELDS FIRST		HRE_ID is GuiTransAlias_ID
PARENT_ID	INT8 NOT NULL	Parent HRE GuiTransDict ID
LANG_ID	INT8 NOT NULL	HRE Language ID
TRANS_ID	INT8 NOT NULL	The HRE Translation ID

The PRIMARY INDEX of this table is the HRE_ID. (GuiTransAlias)

3. **GuiTrans** Table: One record for each Translation (max. 8000 characters)

SQL_FIELD NAME	SQL_FIELD TYPE	NOTES
HRE COMMON FIELDS FIRST		HRE_ID is GuiTrans_ID
PARENT_ID	INT8 NOT NULL	Parent HRE GuiTransDict ID
LANG_ID	INT8 NOT NULL	HRE Language ID
ITEM_NUM	INT4	The item number for a selection list
TRANS	VARCHAR()	Translation for this GuiElement in this language

The PRIMARY INDEX of this table is the HRE_ID. (GuiTrans)

USER DATA SECTION

USER DATA RELATED ACTIONS

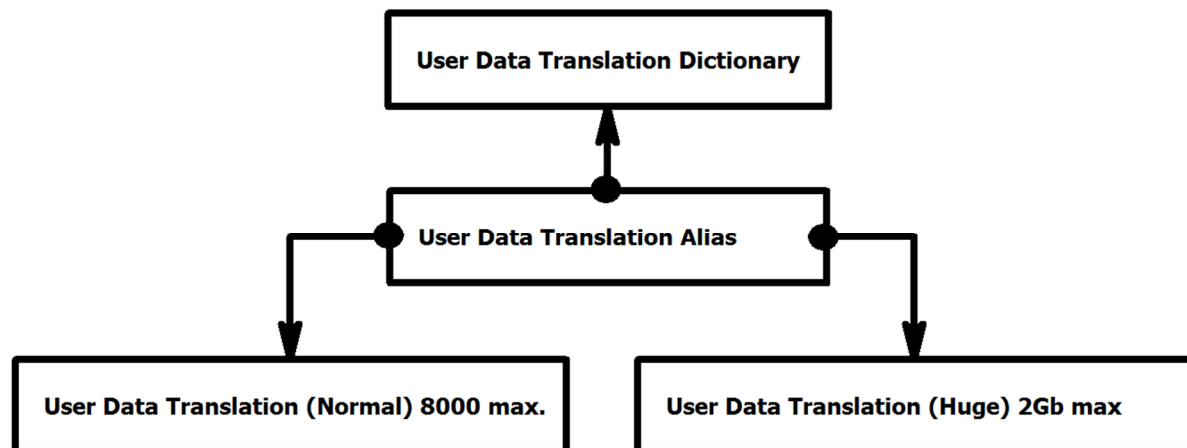
1. To define or modify a User Data Translation Dictionary entry: Create, Edit, Save and Retrieve
2. To define or modify a language-specific value: Create, Edit, Save and Retrieve.

NOTES: Some entries like Sentences, Output Template are encoded for value substitution. The size of these tables is not only influenced by the number of User Languages installed, but they grow as more data is entered. To overcome querying very large tables some large tables are split according to their relationship to some data types, e.g. Person Name Elements and Location Name Elements and Source Name Elements are held in their own tables, but serviced by this module. As more research types are installed it is likely that these will imply additional name element tables.

USER DATA-USED BY

Any GUI module or Substitution operation.

USER-DATA CONTROLLED BY THIS MODULE



1. **UserDataTransDict** Table: One record per translatable field

SQL FIELD NAME	SQL FIELD TYPE	NOTES
HRE COMMON FIELDS FIRST		HRE_ID is GuiTransDict_ID
FIELD_REF_ID	INT8 NOT NULL	HRE ID for the Field reference to which this translation applies
FIELD_TYPE_ID	INT8 NOT NULL	HRE Field Type ID
LIST_COUNT	INT4	Default 1, number in selection list
STORE_TYPE_ID	INT4	HRE String Storage Type ID
ENCODE_ID	INT8 NOT NULL	HRE Encoding Type ID

The PRIMARY INDEX of this table is the HRE_ID. (GuiTransDict)

2. **UserDataTransAliasTable**: One record for each Dictionary Link to a Translation

SQL_FIELD NAME	SQL_FIELD TYPE	NOTES
HRE COMMON FIELDS FIRST		HRE_ID is UserDataTransAlias_ID
PARENT_ID	INT8 NOT NULL	Parent HRE UserDataTransDict ID
LANG_ID	INT8 NOT NULL	HRE Language ID
TRANS_ID	INT8 NOT NULL	The HRE Translation ID

The PRIMARY INDEX of this table is the HRE_ID. (UserDataTransAlias)

3. **UserDataTrans** Table: One record for each Translation (Normal max. 8000 characters)

SQL_FIELD NAME	SQL_FIELD TYPE	NOTES
HRE COMMON FIELDS FIRST		HRE_ID is GuiTrans_ID

PARENT_ID	INT8 NOT NULL	Parent HRE UserDataTransDict ID
LANG_ID	INT8 NOT NULL	HRE Language ID
ITEM_NUM	INT4	The item number for a selection list
TRANS	VARCHAR()	Translation for this Field Value in this language

The PRIMARY INDEX of this table is the HRE_ID. (UserDataTrans)

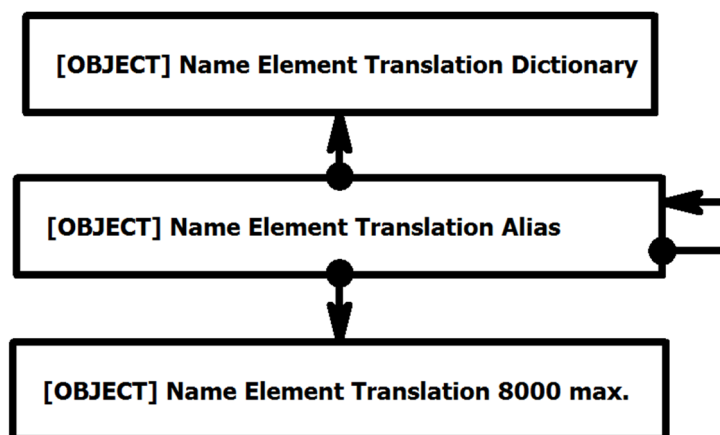
4. **UserDataTransH** Table: One record for each Translation (Huge max. TRANS 2Gb characters)

SQL_FIELD NAME	SQL_FIELD TYPE	NOTES
HRE COMMON FIELDS FIRST		HRE_ID is GuiTransH_ID
PARENT_ID	INT8 NOT NULL	Parent HRE UserDataTransDict ID
LANG_ID	INT8 NOT NULL	HRE Language ID
ITEM_NUM	INT4	The item number for a selection list
TRANS	CLOB	Translation for this Field Value in this language

The PRIMARY INDEX of this table is the HRE_ID. (UserDataTransH)

GENERIC NAME STYLE RELATED TRANSLATIONS

Name style related translations have additional properties as values may be ordered in a hierarchical sequence. There may be differences according the type of object that is being named. The same text value used for different name element fields cannot be considered equivalent. For example the word “Washington” as an element of a Location name can be used with different consequences for several levels of Name Element use. This is also important when providing data entry completion hints.



1. **[OBJECT]NameElmtDict** Table: One record for each Name Element entry

SQL FIELD NAME	SQL FIELD TYPE	NOTES
HRE COMMON FIELDS FIRST		HRE_ID is [OBJECT]NameElmtDict_ID
FIELD_REF_ID	INT8 NOT NULL	HRE ID for the Field reference to which this translation applies
NAME_STYLE_ID	INT8 NOT NULL	HRE ID of the Name Style for this Name Element
NAME_ELEM_ID	INT8 NOT NULL	HRE ID of the Name for this Name Element
FIELD_TYPE_ID	INT8 NOT NULL	HRE Field Type ID
ENCODE_ID	INT8 NOT NULL	HRE Encoding Type ID

The PRIMARY INDEX of this table is the HRE_ID. ([OBJECT]NameElmtDict)

2. **[OBJECT]NameElmtAliasTable**: One record for each Dictionary Link to a Translation

SQL_FIELD NAME	SQL_FIELD TYPE	NOTES
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HRE COMMON FIELDS FIRST		HRE_ID is [OBJECT]NameElmtAlias_ID
PARENT_ID	INT8 NOT NULL	Parent HRE [OBJECT]NameElmtDictDict ID
LANG_ID	INT8 NOT NULL	HRE Language ID
TRANS_ID	INT8 NOT NULL	The HRE [OBJECT]NameElmtTrans ID
NEXT_ALIAS_ID	INT8 NOT NULL	The HRE [OBJECT]NameElmtAlias ID (used for hierarchically related Name Elements]

The PRIMARY INDEX of this table is the HRE_ID. ([OBJECT]NameElmtAlias)

3. **[OBJECT]NameElmtTransTable:** One record for each Translation (max. 200 characters)

SQL_FIELD NAME	SQL_FIELD TYPE	NOTES
HRE COMMON FIELDS FIRST		HRE_ID is [OBJECT]NameElmtTrans_ID
PARENT_ID	INT8 NOT NULL	Parent HRE [OBJECT]NameElmtAlias ID
LANG_ID	INT8 NOT NULL	HRE Language ID
ITEM_NUM	INT4	The item number for a selection list
TRANS	VARCHAR()	Translation for this Field Value in this language

The PRIMARY INDEX of this table is the HRE_ID. ([OBJECT]NameElmtTrans)

PERSON NAME STYLE RELATED TRANSLATION TABLES

1. **PersonNameElmtDict**
2. **PersonNameElmtAlias**
3. **PersonNameElmtTransTable**

LOCATION NAME STYLE RELATED TRANSLATION TABLES

1. **PersonNameElmtTrans**
2. **PersonNameElmtAlias**
3. **PersonNameElmtTrans**

SOURCE NAME STYLE RELATED TRANSLATION TABLES

1. **SourceNameElmtDict**
2. **SourceNameElmtAlias**
3. **SourceNameElmtTrans**

REQUIRED SERVICES

1. BR_EntityLink
2. BR_Field
3. BR_GuiElement
4. BR_Notification

WARNING CONDITIONS

1. Need details of the condition that raised the warning, example message and possible next steps. (Use BR_Notification to alert the user.)

ERROR CONDITIONS

1. Need to record the condition that raised the error, example message and possible next steps. (Use BR_Notification to alert the user.)