Languages and GRIN-Global

Revision Date
June 11, 2015

This guide explains how to modify GRIN-Global to include languages other than English in the Curator Tool. These directions can also be used to edit the default English headings and descriptions.

Change notes pertaining to this document are summarized in the appendix.

Review the Table of Contents which contains links to the document's topics.

Contents

GRIN-Global and Languages 3
Overview 3
Language-related Database Items in GRIN-Global 3
Adding a Language to GRIN-Global 5
Overview 5
Language-Friendly Column Headings 6
Overview 6
Storing Language-Friendly Column Heading Names at Two Levels 6
Using the Admin Tool to Override a Dataview's Default Column Heading Names 7
SQL for Displaying Table Field Names 9
SQL for Displaying Dataview Field Names 10
Tables Used to Store the Language-friendly Column Heading Names (& their related dataviews) ... 10
Descriptions 11
Reviewing the Entries in the sys_dataview_field_lang Table 11
Directions for Updating the sys_table _field_lang Table 13
Directions for Updating the sys_dataview_field_lang Table 13
Application Resources 14
Overview 14
Correcting an Individual AppResource Item 16
Mass Editing AppResource Items (or Adding Items When Adding a New Language) 17
Dataview Properties (Titles and Descriptions) 18
Overview 18
Exporting Titles and Descriptions 19
Importing Titles and Descriptions 20
Code Groups 22
Overview 22
Determining Where Code Groups are Used 22
English vs.ENG 24
Background 24
ENG Example 25
English Example 25
How does the user switch language? 26
Where does the text for these codes come from? 26
Spanish Example 27
Updating the Lookup Tables When Switching Languages 28
Codes That Have Identical Values and Titles 29
SQL Statements for Adding a New Language and Cloning the Friendly Names for Fields and Dataviews 30

Appendix **32**

Deleting a Dataview 32
Overview 32
Step-by-step Directions 32

Appendix: Changes in this Document **35**
– June 5, 2015 35
– October 28, 2014 35
– October 2, 2014 35

GRIN-Global and Languages

Overview

The default GRIN-Global (GG) software and interface is in English; however, GG was designed to handle an unlimited number of languages. GRIN-Global stores the language information in its database in the same way that it stores curatorial data. For example, if an organization wanted to display the column headings in Portuguese, the English headings must be translated into Portuguese. These headings are then imported into GG. After this is completed, users can then designate Portuguese as their preferred language, and the Portuguese column headings would display (rather than the English headings).

Note

The language used for the interface is distinct from the language used to store the curatorial data. For example, you can run the system in English, but store all of your data in Spanish. Conversely, you could store your data in English, but use Spanish for your preferred interface language.

You can decide to store the data in one language, such as English, and initially use the English interface. Later your genebank could add a second language. After the second language has been added, your users can then use either language as their preferred language.

Language-related Database Items in GRIN-Global

Initially, if the language to be used is already installed, your organization should review the translations for that language. If necessary, to meet specific organizational needs, the administrator may need to manually edit some of the language translations. If many items need translating, the GG administrator can export the complete set of translations from GG and then re-import them back into the GG database after editing them.

Tip

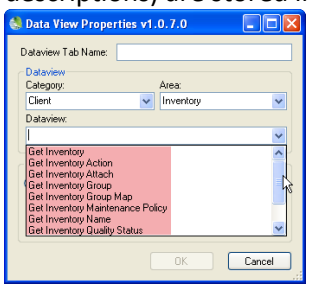
To review the column heading translations, consider involving experienced genebank staff and walk them through the dataviews, making notes. Column headings can be changed and the various options for doing so are described in detail in this document.

The following language-related items are stored In the GG database:

1. **Table & Dataview Field Name Titles**
   These field name titles are the "language-friendly names" that display as the column headings in the Curator Tool. (These names are stored in two tables: **dbo.sys_table_field_lang** and **dbo.sys_dataview_field_lang**. Detailed information explaining why two tables are used for storing the table field translations is in a subsequent section of this document.)

2. **Application Resources**
   This table stores the "language-friendly text" for the buttons, check boxes, radio buttons, text objects, error messages, labels and titles for all GG user applications such as the Curator Tool or the Public Website, so that these applications can display their interface in any language. (These interface objects are stored in the **dbo.app_resource** table.)

3. **Titles and Descriptions for Dataviews**
   In the Curator Tool, a user can select a dataview from a list when adding a tab for that dataview to the grid. The titles are displayed in the user's currently-selected language. (These titles (and descriptions) are stored in the database in the **dbo.sys_dataview_lang** table.)



4. **Code Group Names & Code Values**
   Some GRIN-Global fields restrict the user to selecting from a set of possible values. These code values are stored in the **dbo.code_value** and **dbo.code_value_lang** tables.

   After editing, when a curatorial record is stored, the value selected from the code table is stored in the record's field. For example, the inventory record has a **Pathogen Status** field. There are four possible statuses: **FREE, INFECTED, TESTED**, or **UNTESTED**. For the user to complete this field, one of these four values must be selected.

Summary of Language Tables

Table	Stores data for the…
sys_table_field_lang sys_dataview_field_lang	Column headings displayed in the dataviews
app_resource	Interface elements: buttons, etc.
sys_dataview_lang	Dataviews' Titles & Descriptions
code_value code_value_lang	Codes that display in the dropdowns
sys_lang	Languages installed in GG

Adding a Language to GRIN-Global

Overview

Five installed languages were included in the GG 1.0 database. If one of these is the language that you intend to run GG under, then this section can be skipped. (There is no compelling reason to remove the "extra" languages. Even if never used, they do not impact run time or create any additional overhead.)

If a language that is intended to be used is not installed, then the organization's administrator will add the language to the GG **sys_lang** table via the **get_system_language** dataview.

The System Language Dataview

The following screen ilustrates the fields that are defined for a language. In this example, eight languages have been set up and a ninth language record is being added:

Get System Language | Accessions | Cooperators | Get Accession Name | Get Accession Source Cooperator | Get Code Value | Get Ap

Sys Lang ID	ISO 639 3 Tag	IEFT Tag	Script Direction	Title	Description	Cre
1	ENG	en-US		English	For ISO 639-3 codes, see http://en.wikipedia.org/wi...	1/9/
2	SPA	es-419		Español	Esta es descripcion de espanol	1/9/
3	FRA	fr-FR		Français	C'est la description française	8/4/
4	ARA	ar	RTL	العربية	هذه وصف العربية	8/4/
5	RUS	ru-RU		Русский	Это российский описание	8/4/
6	POR	pt-BR		Português	Esta é descrição portuguesa	8/4/
7	CES	cs		Český	Popis je český	9/20
8	SYS	en-SYS		System	System field values.	11/
-9						1/9/

Note

By default, the **get_sys_language** dataview is stored in the **System** category. In order to review/edit the dataview in the CT, the GG Admin needs to change the dataview's **Properties**, changing the category to **Client**. After making any language record changes, change the dataview's Category property back to **System**.

To include a new language in GRIN-Global, in the Curator Tool open the **Get System Language** dataview and add a new record. (The dataview fields are described below.)

From the Data Dictionary

Field	Description
ISO 639 3 Tag	The ISO 639-3 representation for the language. e.g. "ENG" See http://en.wikipedia.org/wiki/ISO_639-3 and http://www.sil.org/iso639-3/codes.asp?
IEFT Tag	The value in this field must be unique for every language row in the table. The value in this field represents the IETF language tag for the language. e.g. "en-US" See http://en.wikipedia.org/wiki/IETF_language_tag
Script Direction	Direction in which the language is displayed. "RTL" means "right to left." All other values are interpreted as "left to right."
Title	A human-friendly title for the language, e.g. "English"
Description	A human-friendly description for the language, e.g. "United States English"

Language-Friendly Column Headings

Overview

The actual database names for the column headings are more technical than friendly; fortunately the Curator Tool user doesn't normally see the database names as shown here:

Get System Language | Accessions | Cooperators | Import Table Fields | Import Dataview Fields | Get App Resource | Get Accession Name | Ge

accession_id	accession_number_part1	accession_number_part2	accession_number_part3	taxonomy_species_id	p
338	PI	503237		Helianthus strumosus	
350	PI	503249		Helianthus strumosus	
352	PI	503251		Helianthus strumosus	

Instead, the CT user sees "language-friendly names" displayed. Some of the English friendly names for the **Accessions** dataview are shown here:

Get System Language | Accessions | Cooperators | Import Table Fields | Import Dataview Fields | Get App Resource | Get Accession

Accession ID	Accession Prefix	Accession Number	Accession Suffix	Taxon	Accession Name
338	PI	503237		Helianthus strumosus	
350	PI	503249		Helianthus strumosus	
352	PI	503251		Helianthus strumosus	
355	PI	503255		Helianthus strumosus	
356	PI	503256		Helianthus strumosus	

This is the same Accession dataview, but it is displaying its Spanish column heading names:

Get System Language | Accessions | Cooperators | Import Table Fields | Import Dataview Fields | Get App Resource | Get Accession Name | Get Ac

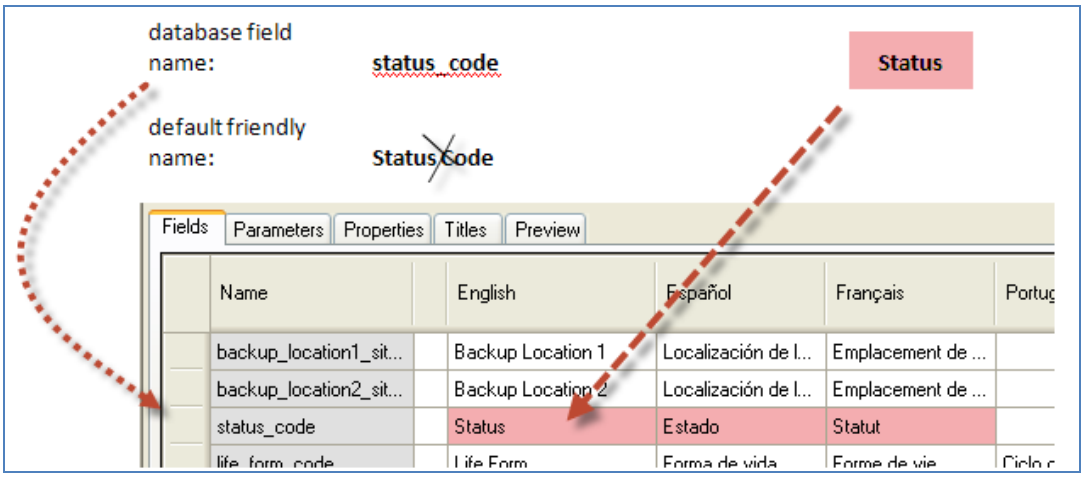
ID de la accesión	Prefijo de la accesión	Número de la accesión	Sufijo de la accesión	Taxón	Nombre de la accesión	Origen
338	PI	503237		Helianthus strumosus		
350	PI	503249		Helianthus strumosus		
352	PI	503251		Helianthus strumosus		
355	PI	503255		Helianthus strumosus		

These column headings in the Curator Tool are modifiable since they are stored in records in the GG database. (This data is referred to as *system* data in contrast to *curatorial* data which is used for accession management.)

Storing Language-Friendly Column Heading Names at Two Levels

Organizations can decide what specific text will be displayed for each column heading.

For example, in the main accession dataview, when viewing in English, the user will see "**Status**" as the heading for the **status_code** field ("**status_code**" is the actual database field name.) For each language, "**status_code**" is replaced with a language-specific name. In Spanish, the language-friendly translation is "**Estado,**" and in French it is "**Statut**."



(This screen is a partial screen capture of the Accession dataview taken from the Admin Tool dataview editor.)

When an organization adds a new language to GRIN-Global, then the language-friendly, column-heading names for that language need to be added to the database by the administrator.

As background, "friendly" heading names can be defined at two levels:

- *table* field level
- *dataview* field level

The table field friendly heading name serves as the default heading name whenever a new dataview is created. For example, any new dataview that includes **accession.accession_id** for one of its columns will automatically receive "Accession ID" for its English friendly name.

However, an administrator can override a default heading by modifying it in the Admin Tool's dataview editor. For example, in the **Accession** dataview, there is a field titled "**Name**." The data in that column is stored in the **accession_inv_name** table. In the dataview designed for that table (**Accession Inv Name**), the field is titled "**Name**."

Using the Admin Tool to Override a Dataview's Default Column Heading Names

Overriding the Default Friendly Column Heading Names

Using the AT dataview editor, a GG admin can rename any field for a specific dataview. In the case above, the admin could title the field "**Plant Name**" in the **Accession** dataview. In the **Accession Inv Name** dataview, the field would still be displayed as "**Name**."

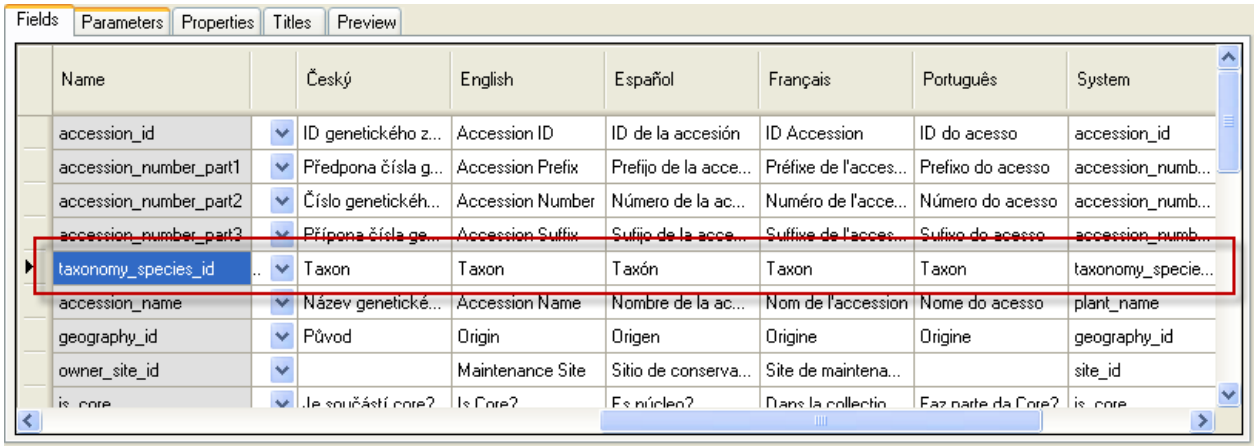
The record for the overriding name is saved to the database in the **sys_dataview_field_lang** table.

Note that the value of the heading stored at the *table*/field level is left unchanged –only the value of the heading stored at the *dataview*/field level is changed.

Why the apparent duplication? The table/field friendly name is a fallback if nothing is specified at the dataview/field level. Almost all of the GRIN-Global dataviews currently use table/field as the friendly name source. One important reason for using the table/field level translations as the primary translation storage place is this: if a change is made to the translation of a heading at this level, it will flow down to

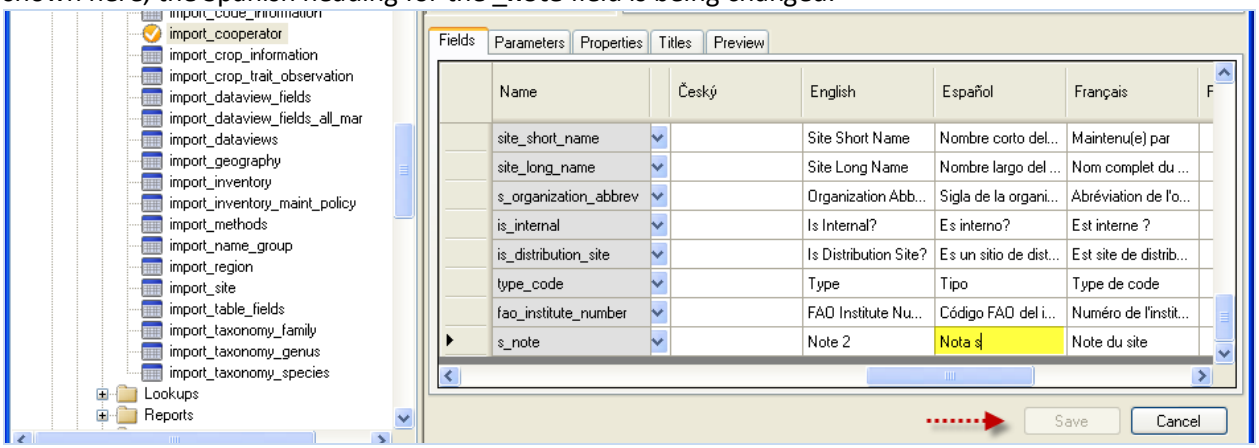
all of the dataviews using the default heading translation –none of those dataviews will need to be modified.

To edit a single dataview's language-friendly name and to override the default language-friendly heading name, use the Admin Tool's dataview editor. As an example, a portion of the **get_accession** dataview is shown:



If for some reason your organization did not want "Taxon" as the heading, the administrator could edit the heading by using the dataview editor in the Admin Tool and modify the text used for the heading. Note that the dataview editor displays the friendly names for every installed language.

Input the new heading text under the respective language column; click the **Save** button. In the example shown here, the Spanish heading for the **_note** field is being changed:



Note that manually editing a dataview's language-friendly column heading name in the dataview editor as explained above does not change the heading of the same field when it is used in other dataviews. If you want to change the table field's language-friendly heading-name for all dataviews, follow the directions described in the Directions for Updating the sys_table_field_lang Table section.

To display the table (or dataview) field names, use the following SQL code in the **Public Website Tools | Query** feature (explained in the online document Library of Dynamic Folders & SQL Examples):

SQL for Displaying Table Field Names

```
/*
SQL displays the table and field names in the database as well as the field titles (column headings) and
descriptions.  Note that the sl2.sys_lang_id = 1 in the WHERE clause indicates the English language;
substitute the respective value to display another language
*/

USE gringlobal;
SELECT
	st.table_name,
	stf.field_name,
	sl2.title as language_title,
	stfl.title as field_title,
	stfl.description as field_description
FROM
	sys_table st
	inner join sys_table_field stf
		on st.sys_table_id = stf.sys_table_id
	left join sys_table_field_lang stfl
		on stf.sys_table_field_id = stfl.sys_table_field_id
	left join sys_lang sl2
		on stfl.sys_lang_id = sl2.sys_lang_id
	left join sys_table_lang stl
		on st.sys_table_id = stl.sys_table_id
	left join sys_lang sl1
		on stl.sys_lang_id = sl1.sys_lang_id
WHERE
sl2.sys_lang_id = 1
/* and
st.table_name = 'accession_inv_name'
*/
ORDER BY
	st.table_name, stf.field_ordinal

/* comments */
```

(The sl2.sys_lang_id = 1 references English; see the *Adding Languages* section for details on determining the Language ID values.)

SQL for Displaying Dataview Field Names

```
/*
(Primarily used by GG administrators; displays data stored in sys_dataview_field_lang)
*/

USE gringlobal;
SELECT
	sd.dataview_name,
		sdl.title AS dataview_title,
	sdf.field_name,
	sl.title as language_title,
	sdfl.title as field_title,
	sdfl.description as field_description
FROM
	sys_dataview sd
	inner join sys_dataview_field sdf
		on sd.sys_dataview_id = sdf.sys_dataview_id
	left join sys_dataview_field_lang sdfl
		on sdf.sys_dataview_field_id = sdfl.sys_dataview_field_id
	left join sys_lang sl
		on sdfl.sys_lang_id = sl.sys_lang_id
	left join sys_dataview_lang sdl
		on sd.sys_dataview_id = sdl.sys_dataview_id AND sdl.sys_lang_id = sdfl.sys_lang_id
WHERE
sl.sys_lang_id = 1 AND sd.category_code IN ('Client')
ORDER BY
	sd.dataview_name, sdf.sort_order
```

Tables Used to Store the Language-friendly Column Heading Names (& their related dataviews)

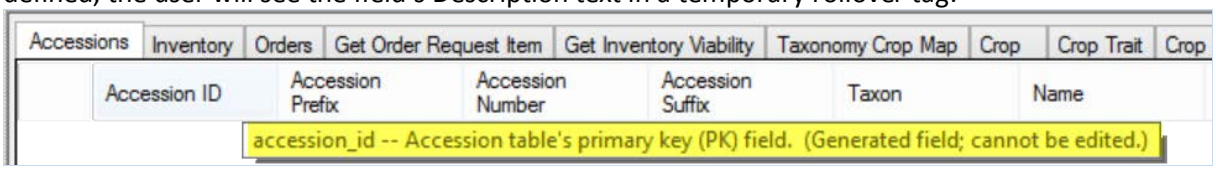
The **…field_lang** tables are the tables where the language-friendly column heading names and descriptions are stored:

Table	Dataview	Description
dbo.sys_*table*_field_lang	get_sys_table_field_lang	The default column names and descriptions
dbo.sys_*dataview*_field_lang	get_sys_dataview_field_lang2	The "alternative" column names and descriptions

Before using these dataviews, ensure that the language you are using is in the database. (Refer to the ***Adding a Language to GRIN-Global*** section for details.)

Descriptions

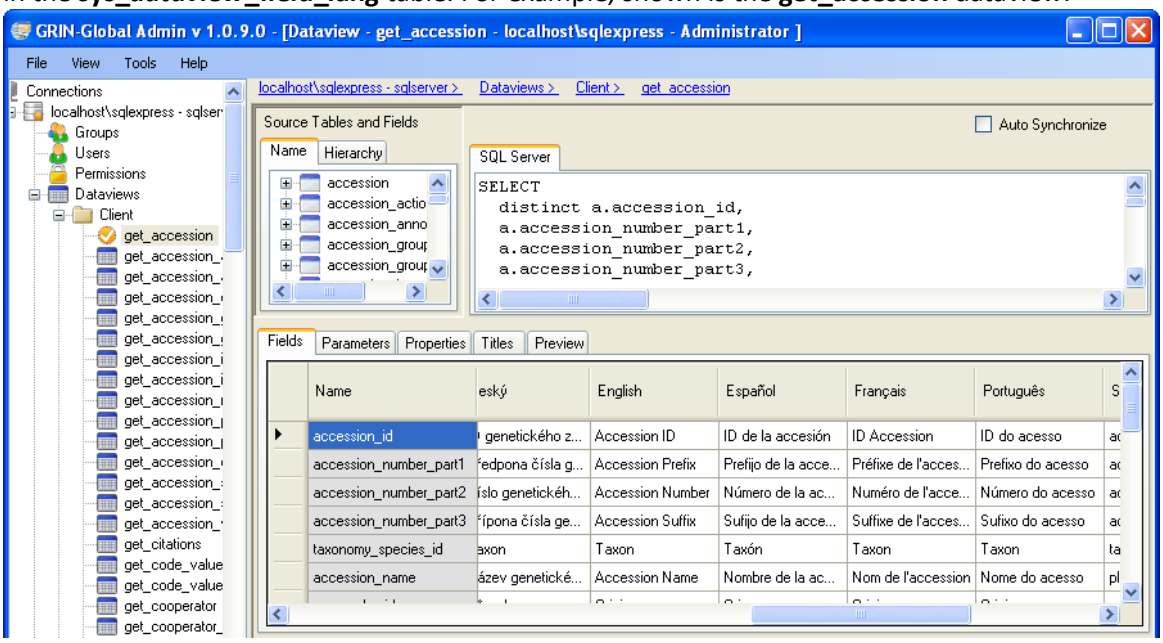
In the CT, when the user positions the mouse over a column heading, if the field has a Description defined, the user will see the field's Description text in a temporary rollover tag:



Descriptions are stored in two different tables – the standard descriptions are stored in the sys_table_field_lang table, and the "alternative" descriptions are stored in the sys_dataview_field_lang table. (The English versions were created by using the data dictionary descriptions.)

Reviewing the Entries in the sys_dataview_field_lang Table

As mentioned previously, the default language-friendly column names are stored in the **sys_table_field_lang** table and can be manually overridden by the administrator using the Admin Tool's dataview editor. When friendly names of specific columns are manually edited, these names are stored in the **sys_*dataview*_field_lang** table. For example, shown is the **get_accession** dataview:

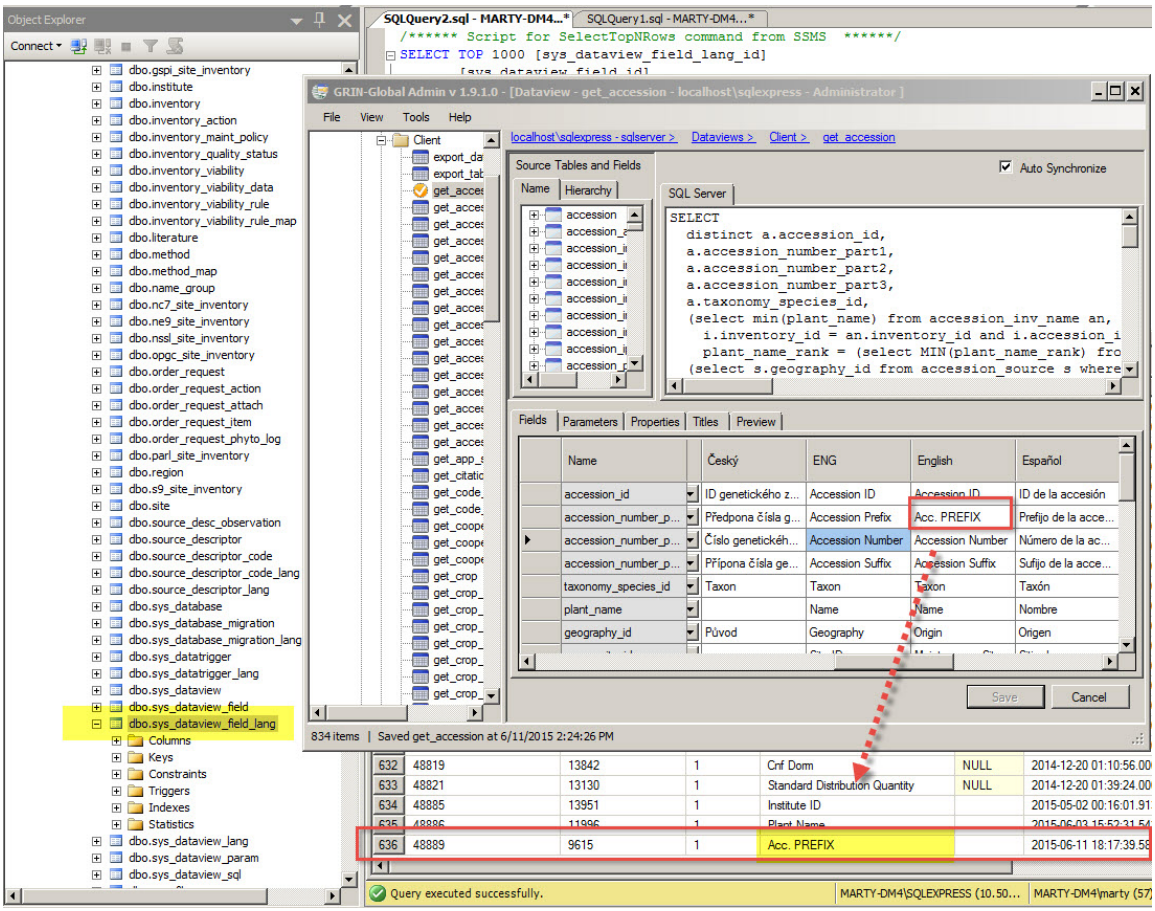


In a new installation, it may be desirable for the organization's administrator to review all existing entries in the **dbo.sys_dataview_field_lang** table that were provided in the installation. Refer to the *SQL for Displaying Table Field Names* section for directions explaining how to review the table.

Note

Something that can be confusing is that the AT dataview editor **Fields** tab doesn't indicate whether you are seeing the underlying (default) sys_*table*_field_lang (STFL) heading name or the overriding sys_*dataview*_field_lang (SDFL) heading name. For example, in the above screen, in the English column, we don't know if "Accession Prefix" is the default name stored in the sys_*table*_field_lang or overriding heading stored in the sys_*dataview*_field_lang table.

In any case, you can use the AT dataview editor to replace the default heading. When you do, a record is inserted in the database with that heading in the title field in the sys_dataview_field_lang table.



This graphic illustrates a smaller AT dataview editor window in front of the larger SQL Server Management Studio (SSMS) window (with the database records) in the background.

When you make any change to a title using the AT dataview editor, an SDFL entry is created. Later, if you decide to delete the changed title and revert back to the default title, simply use the editor and remove the heading.

Using the AT Table Mapping tool, you can review the default headings. Select a dataview, double-click on the field – the Titles and Descriptions will be listed. You can edit Title or Description here.

Directions for Updating the sys_table _field_lang Table

The dataview **get_sys_*table*_field_lang** can be used to update the table field "friendly" names for a specific language. Mentioned earlier, this document has sample SQL that can be run on the Public Website to review the existing names (see *SQL for Displaying Table Field Names*).

In order to use this dataview in the Curator Tool, its **Category** Property needs to be set to "Client." (Depending on the GG build version, it may already be set to "Client" by default. Since this dataview should only be used by the GG administrator, when not working with this dataview, change the Category to System (so that a user can not access the dataview).)

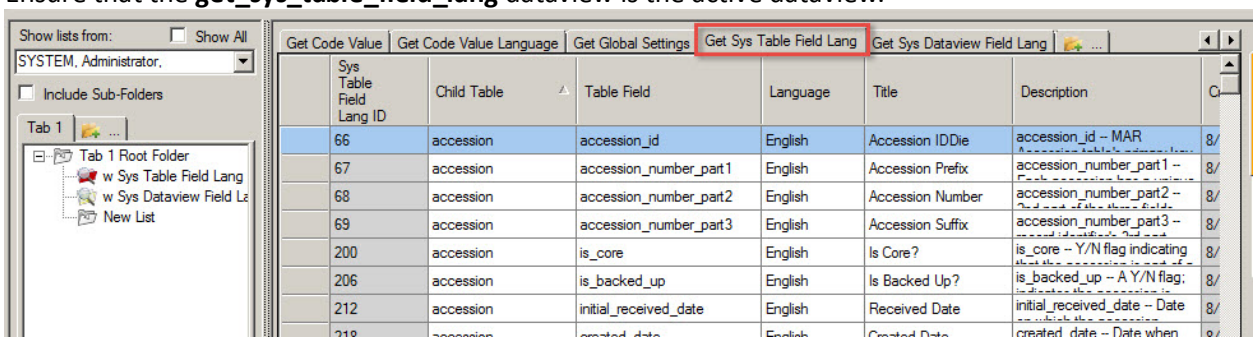
Ensure also that the dataview is *not* Read-Only and that the individual fields have their individual "Read Only?" check boxes *unchecked*.

In the CT, login as the administrator. Set up a Dynamic Folder with the following criteria:

@ sys_table _field_lang. sys_table _field_lang_id > 0 AND
@ sys_table _field_lang. sys_lang_id IN (1)

Supply the desired language_id in place of the **1** above. Refer to the The System Language Dataview section which discusses the language records.

Ensure that the **get_sys_table_field_lang** dataview is the active dataview.



In Edit mode, you can modify or add new records as needed. Remember that the Description is visible when the user rolls the mouse over the column heading.

Directions for Updating the sys_dataview_field_lang Table

The dataview **get_sys_*dataview*_field_lang2** can be used to update the dataview field "friendly" names for a specific field in a dataview. Refer to the *Overriding the Default Friendly Column Heading Names* section for a complete description of the records stored in the **sys_dataview_field_lang** table. Briefly, the names stored sys_dataview_field_lang table override the default names that originate from the parent accession.

It is likely that you will never need to open the **get_sys_*dataview*_field_lang2** dataview in the Curator Tool. Why not? The default column heading names rarely need to be changed (overridden). When they do, the GG admin can simply use the Admin Tool's dataview editor, and make the change manually. If a list of all of the fields that have been overridden is desired, in the Public Website you can run the SQL code for displaying the records (refer to the *SQL for Displaying Dataview Field Names* section).

If for some reason you do wish to open this dataview in the CT, the directions are similar to the directions above for using the **sys_table_field_lang** dataview. The Category must be set to "**Client**," the dataview must not be Read-only, and the fields must not be Read only.

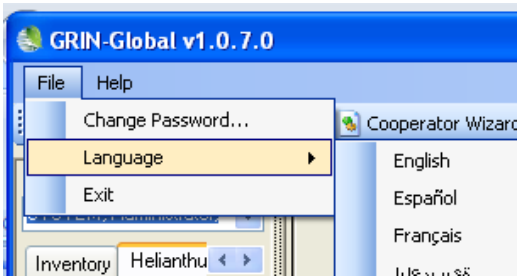
To display the records, use a similar dynamic folder query – in the CT, login as the administrator. Set up a Dynamic Folder with the following criteria:

@ sys_ dataview _field_lang. sys_dataview_field_lang2_id > 0 AND
@ sys_ dataview_field_lang. sys_lang_id IN (1)

Application Resources

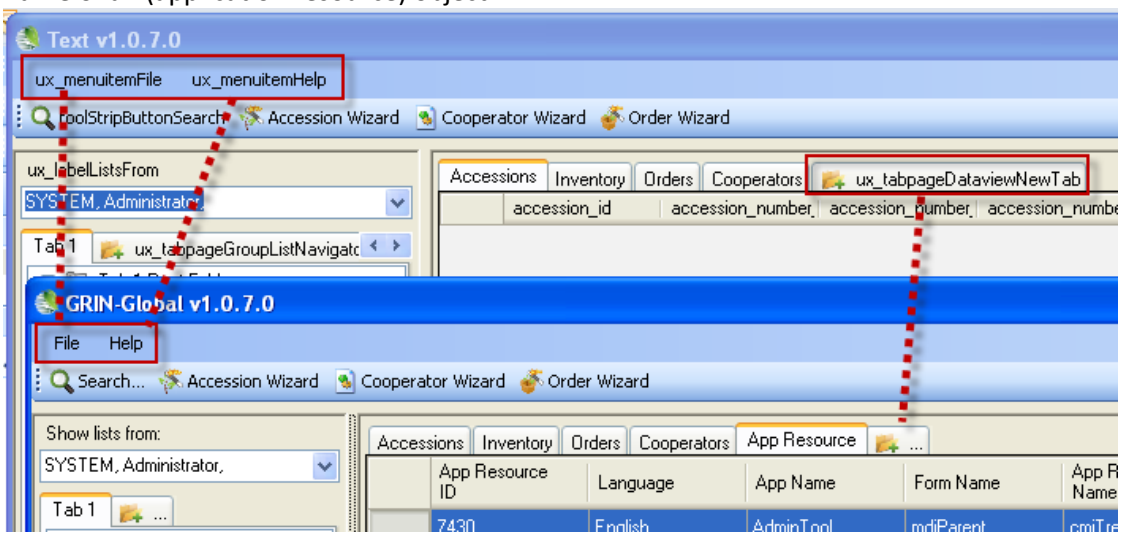
Overview

When defining a new user, the administrator also assigns a default language for the user. Throughout the Curator Tool and Admin Tool interface, text items can be displayed in the user's default (ideally his preferred) language. However, in the CT, the user can also select a different language via **File** on the main menu:



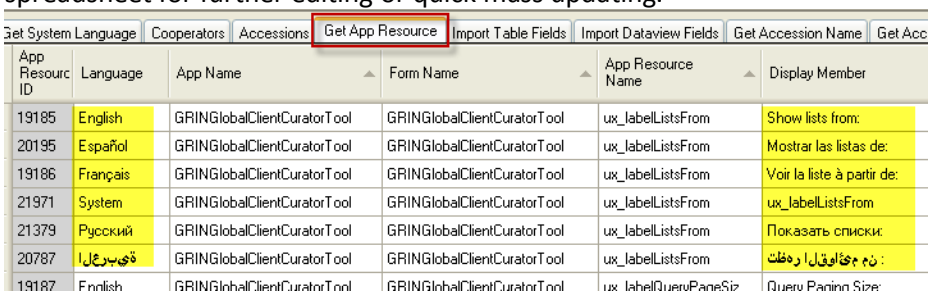
Each language displays its respective labels in the windows, boxes, and buttons. For example, the label above the treeview on the Curator Tool window displays "Show lists from:" in English and "Mostrar las listas de:" in Spanish:

You can have multiple CT windows open – this is very helpful when determining the system name of an (application resource) object:



So where are these CT interface labels stored? In GRIN-Global's **dbo_app_resource** table.

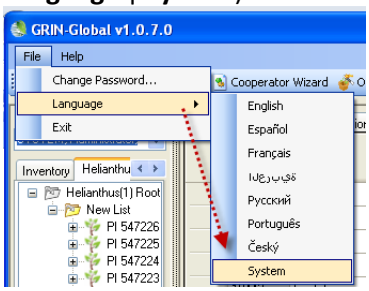
As the administrator, you can edit these text items to meet your organization's needs. To be able to use the **get_app_resource** dataview in the Curator Tool, in the Admin Tool you will need to temporarily change the dataview's Category to **Client**. You can use this dataview to copy the text data into a spreadsheet for further editing or quick mass updating.



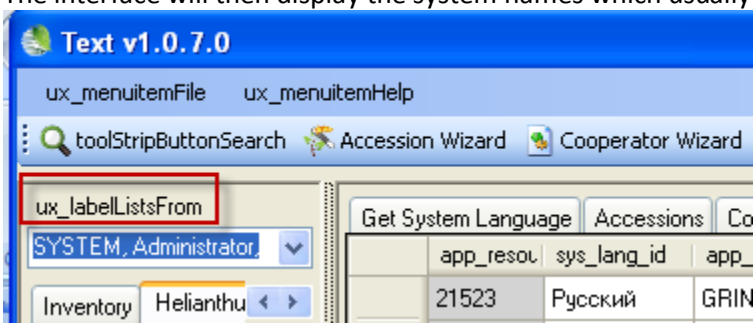
App Resourc ID	Language	App Name	Form Name	App Resource Name	Display Member
19185	English	GRINGlobalClientCuratorTool	GRINGlobalClientCuratorTool	ux_labelListsFrom	Show lists from:
20195	Español	GRINGlobalClientCuratorTool	GRINGlobalClientCuratorTool	ux_labelListsFrom	Mostrar las listas de:
19186	Français	GRINGlobalClientCuratorTool	GRINGlobalClientCuratorTool	ux_labelListsFrom	Voir la liste à partir de:
21971	System	GRINGlobalClientCuratorTool	GRINGlobalClientCuratorTool	ux_labelListsFrom	ux_labelListsFrom
21379	Русский	GRINGlobalClientCuratorTool	GRINGlobalClientCuratorTool	ux_labelListsFrom	Показать списки:
20787	العربية	GRINGlobalClientCuratorTool	GRINGlobalClientCuratorTool	ux_labelListsFrom	عرض قوائم من :
19187	English	GRINGlobalClientCuratorTool	GRINGlobalClientCuratorTool	ux_labelQueryPageSiz	Query Paging Size:

This updating is not generally done often, but is definitely necessary whenever an organization introduces a new language to be used within the GG software.

To determine the item's **App Resource Name**, switch to **System** in the Curator Tool (Select **File** | **Language** | **System**).

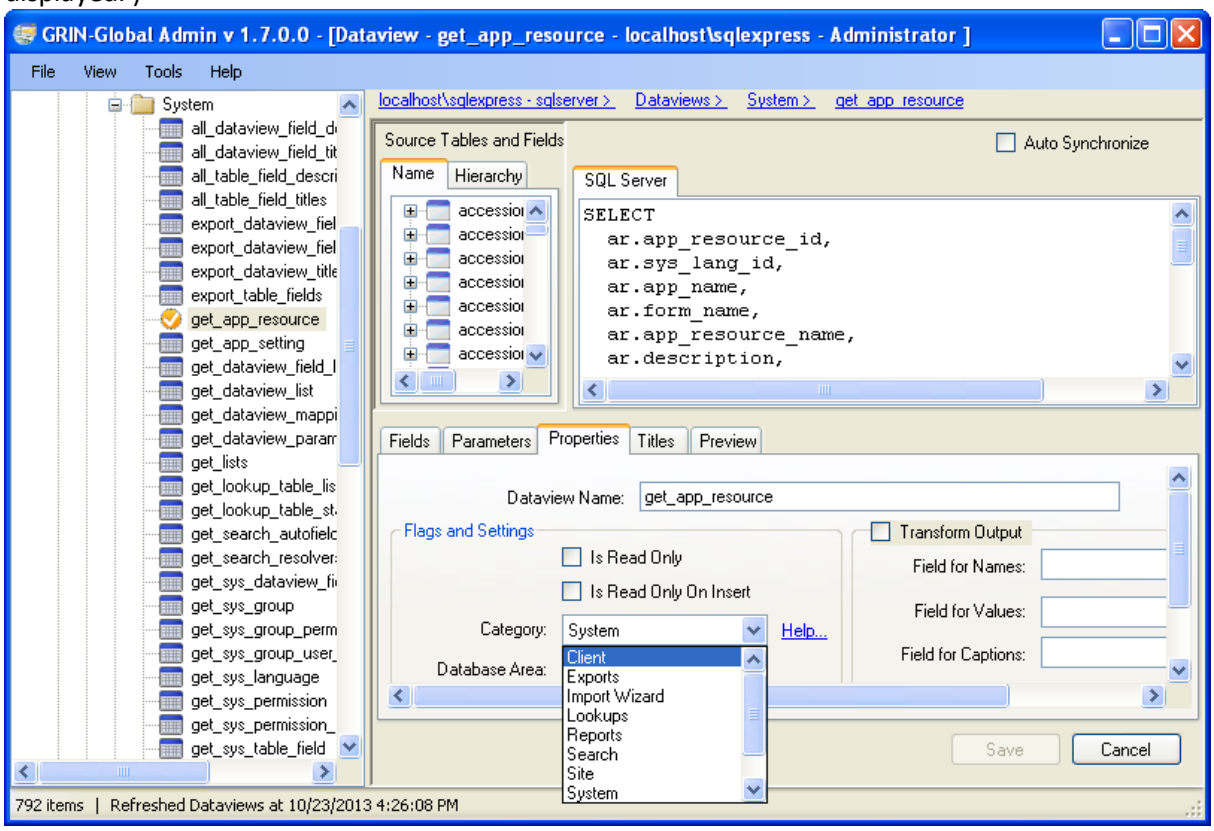


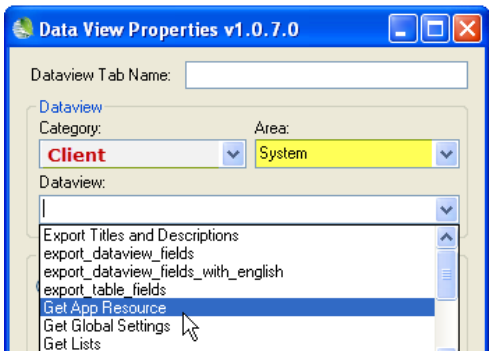
The interface will then display the system names which usually only the software developer uses:



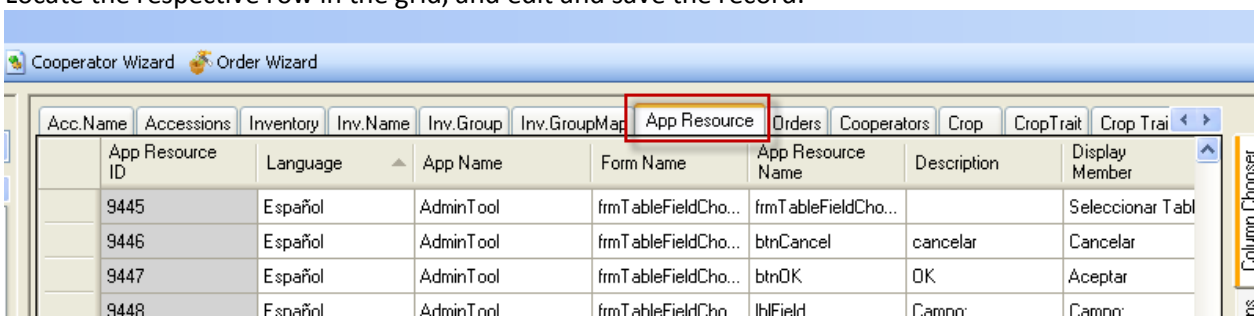
Correcting an Individual AppResource Item

If you need to correct an AppResource item, open the **get_app_resource** dataview in the Curator Tool. This DV is not normally available to users, so first, using the Admin Tool, you will need to change its category to **Client** (or **Reports**, since these are the only two Categories that can have their dataviews displayed.)





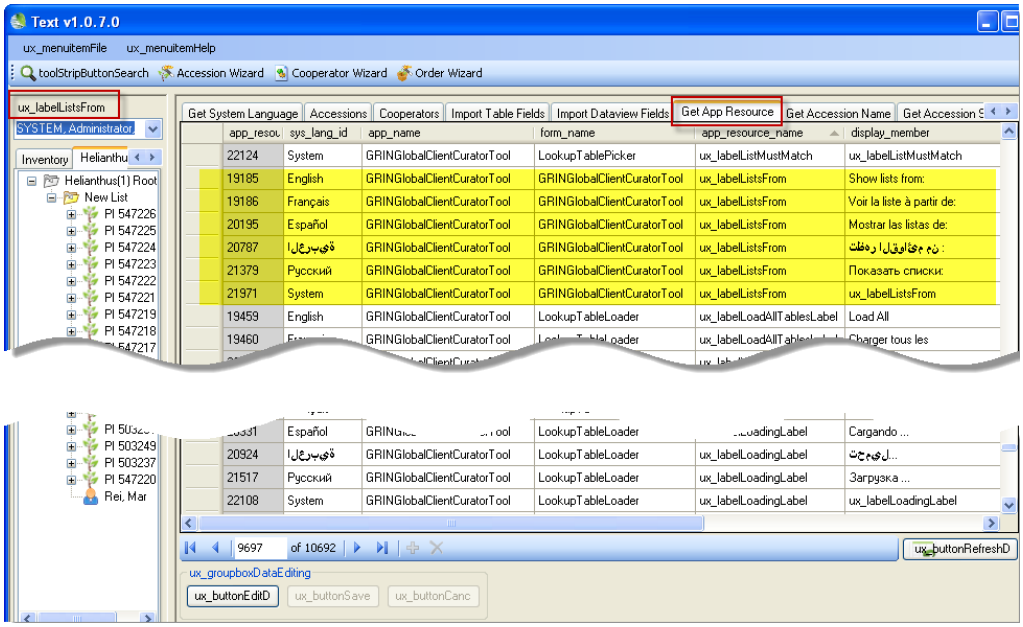
Locate the respective row in the grid, and edit and save the record:



Mass Editing AppResource Items (or Adding Items When Adding a New Language)

Copy the AppResource data from the Curator Tool into a spreadsheet.

When editing existing data, consider sorting the data by app_name, then form_name, app_resource_name, language, etc. Edit the data in the spreadsheet, and then copy back into the CT as you would with any new data.



Adding a New Language's App Resource Records

If you are adding a new language, you could filter the CT for just one existing language, such as English, and then drag those records into Excel.

	A	B	C	D	E	F	G	
1								
2	app_resource_id	sys_lang_id	app_name	form_name	app_resource_name	description	display_member	value_r
3	7854	English	AdminTool	frmAddSeparator	btnAdd	&Add	&Add	
4	7855	English	AdminTool	frmAddSeparator	btnCancel	&Cancel	&Cancel	
5	7852	English	AdminTool	frmAddSeparator	frmAddSeparator		Add a new Separator	
6	7853	English	AdminTool	frmAddSeparator	lblWord	Character to add as a se	Character to add as a separator:	

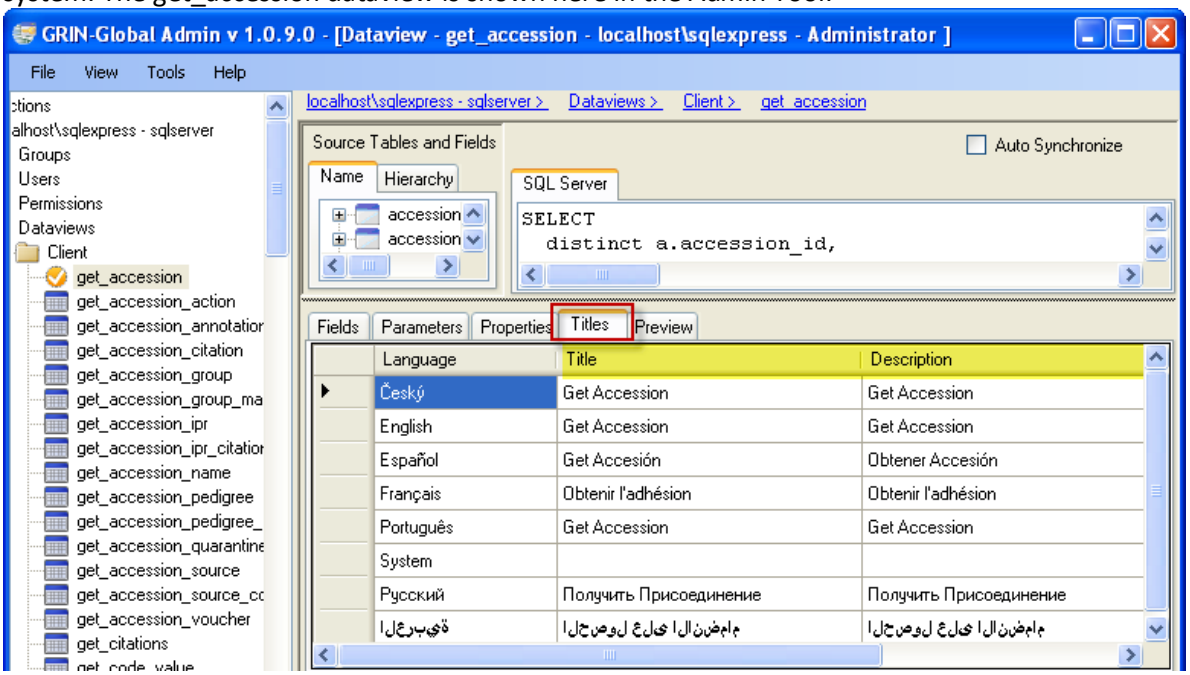
You will need to edit columns **A**, **B**, and **G**. In column...

- A – delete the existing **app_resource_id**'s (since these will be new records and will have their id's assigned by the software)
- B – change the language to match the new language (see *Adding a New Language* section)
- G – using the language, edit the **display_member** fields (It might be easier to insert a new column adjacent to G, input your entries, and then delete the original column G entries, and ensure the heading of the new column is **display_member**

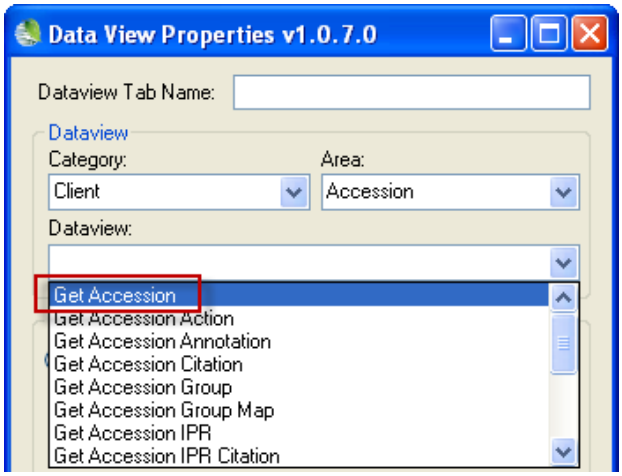
Dataview Properties (Titles and Descriptions)

Overview

Each dataview can be described with a **Title** and **Description** in each of the languages defined in the system. The get_accession dataview is shown here in the Admin Tool:



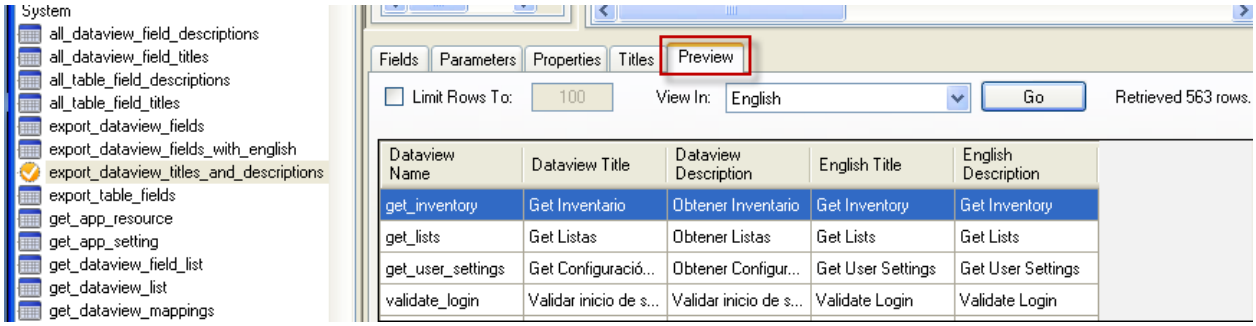
The Curator Tool users see the dataview titles in the **Data View Properties** window when they open a new dataview tab:



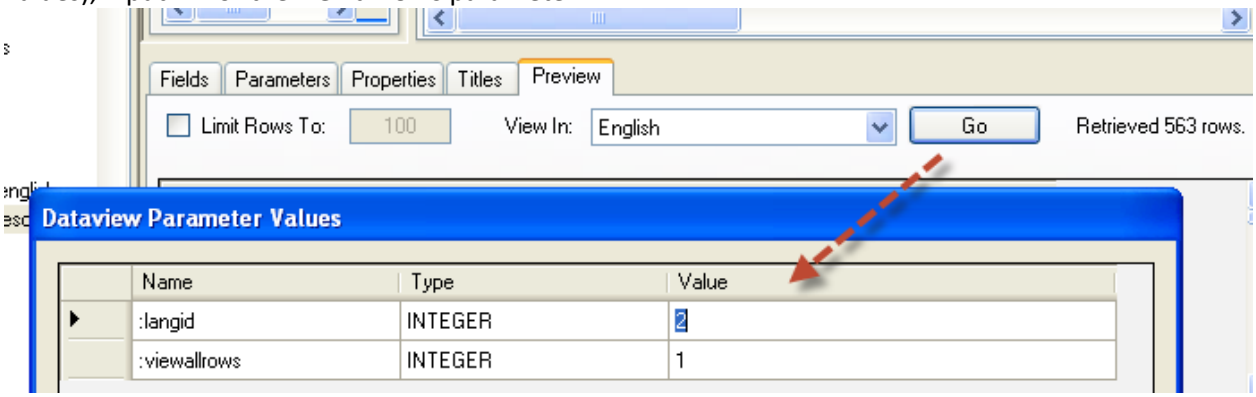
In the Admin Tool dataview editor, you can manually change a dataview's Title and Description. If you need to edit many dataview titles and descriptions, rather than edit them one-by-one, you may prefer to edit them *en masse* using two companion dataviews that can be used to review and edit the Titles and Descriptions using the following directions.

Exporting Titles and Descriptions

Open the **export_dataview_titles_and_descriptions** dataview. To extract the titles and descriptions; select the **Preview** tab:

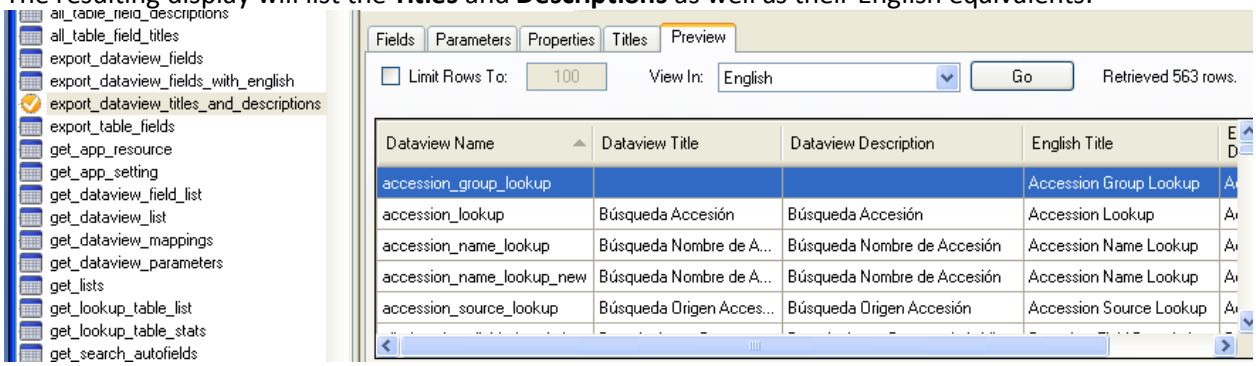


Uncheck the **Limit Rows To:** checkbox; click **Go**; input the value for the desired language (see page 5 for values); input **1** for the **viewallrows** parameter:



"2" indicates Spanish (Español)

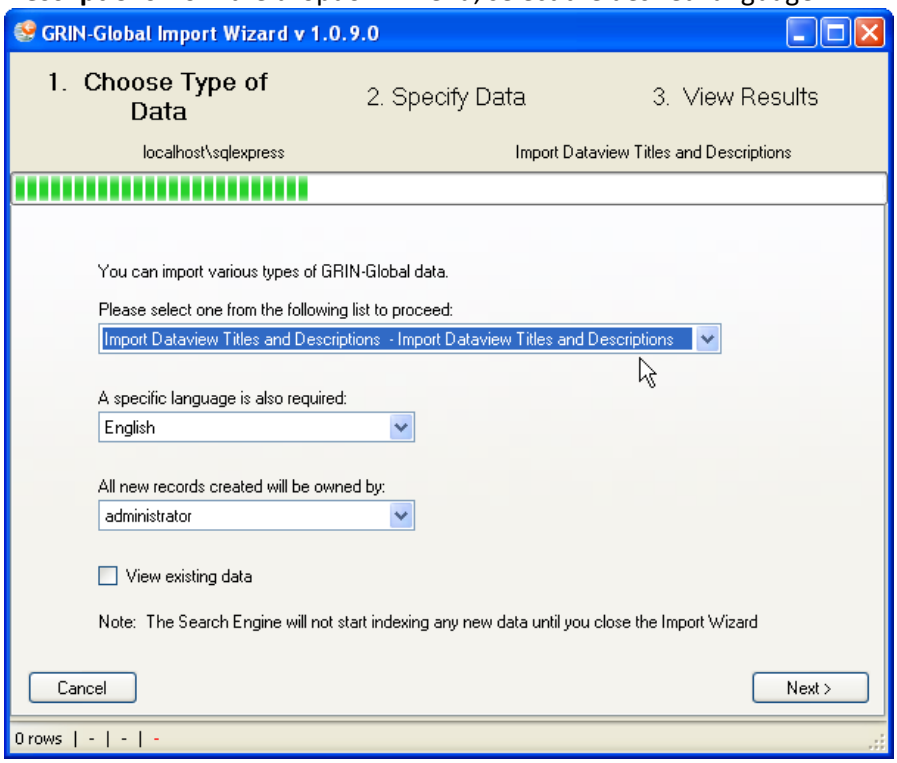
The resulting display will list the **Titles** and **Descriptions** as well as their English equivalents:



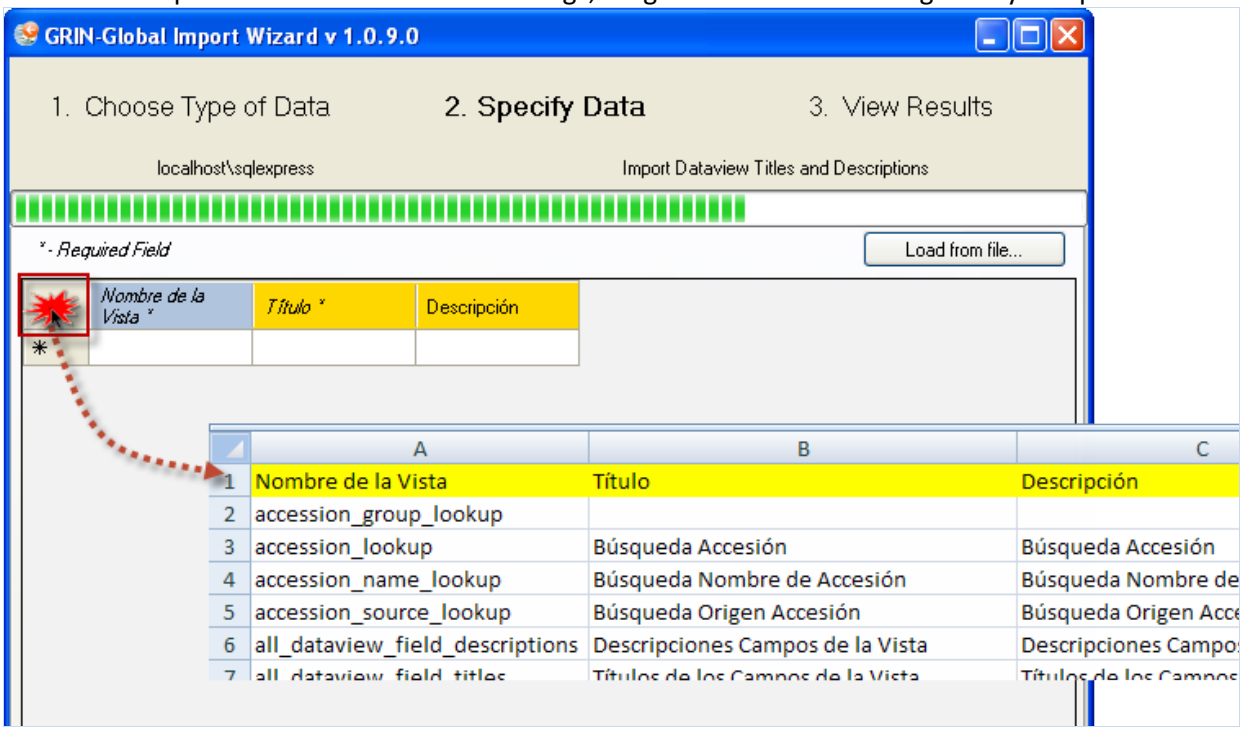
Copy these entries into a spreadsheet for review and editing. After editing, the next step is to import the data back into GG.

Importing Titles and Descriptions

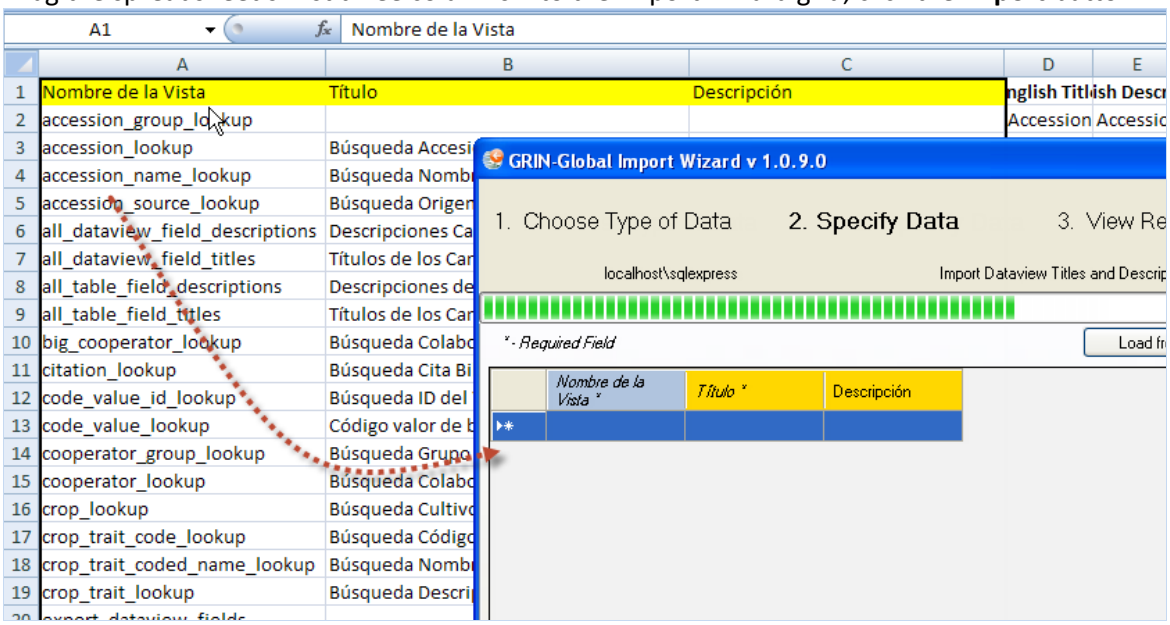
Use the Import Wizard **Import Dataview Titles and Descriptions** dataview to import the Titles and Descriptions from the spreadsheet. Start the Import Wizard; select **Import Dataview Titles and Descriptions** from the dropdown menu; select the desired language:



Click on the top left corner to select the headings; drag the translated headings into your spreadsheet:



Drag the spreadsheet's first three columns into the Import Wizard grid; click the **Import** button:



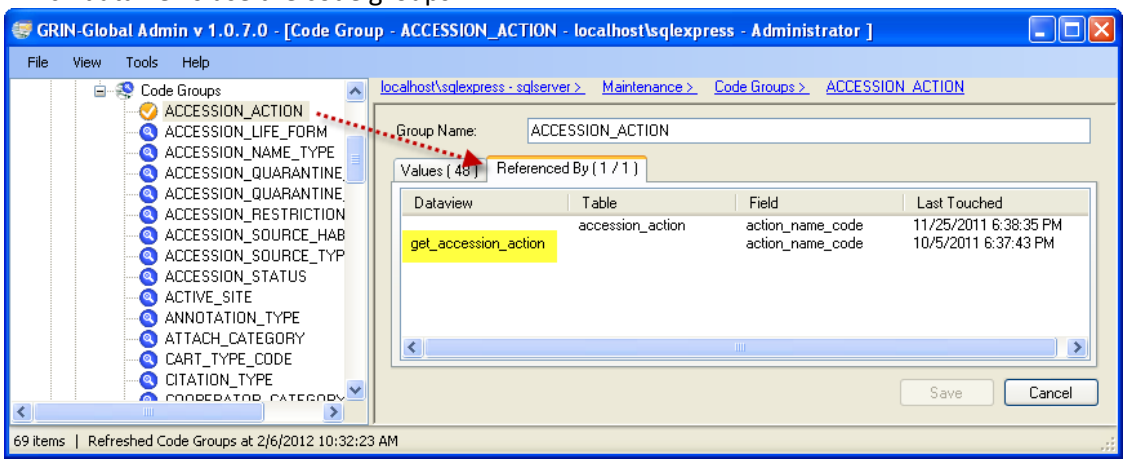
Code Groups

Overview

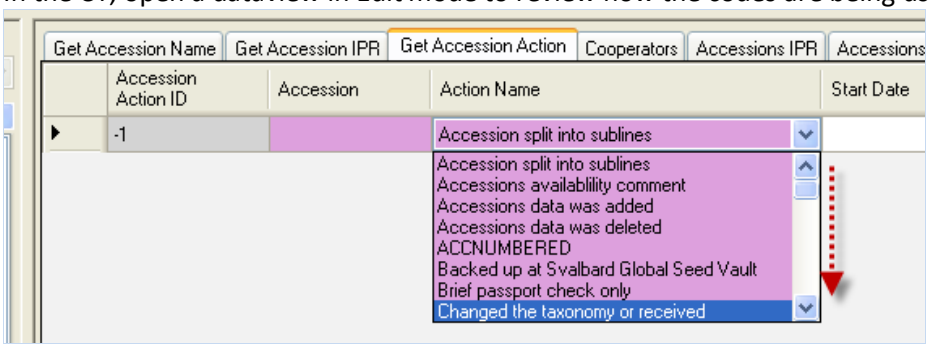
Many of the dataviews in the Curator Tool use dropdowns to assist the user in selecting a valid entry – the fields using dropdowns do not allow any random text data to be entered, but instead require a value from a pre-populated set of values. These values can be set up for each installed language in GRIN-Global.

Determining Where Code Groups are Used

Use the Code Groups tool in the Admin Tool to review the values for each group and also to review which dataviews use the code groups.

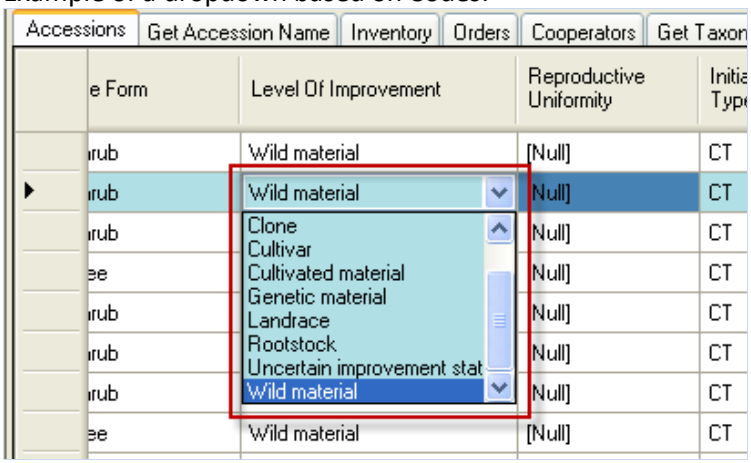


In the CT, open a dataview in Edit mode to review how the codes are being used:



Further below, there is a section that explains why there is an English and an ENG language in versions post 1.0 (See English vs. ENG)

Example of a dropdown based on Codes:



In the *Database Code Groups & Values GRIN-Global* section of the **Setup Guide Cookbook**, there is a detailed example illustrating how one Code Group, "IMPROVEMENT_LEVEL," is set up in the Admin Tool and then used in the Curator Tool. You can easily edit or add codes manually using the Admin Tool Code Group editor, but when you desire to update many at one time, follow the "Loading en Masse" directions further down.

Editing Codes Individually

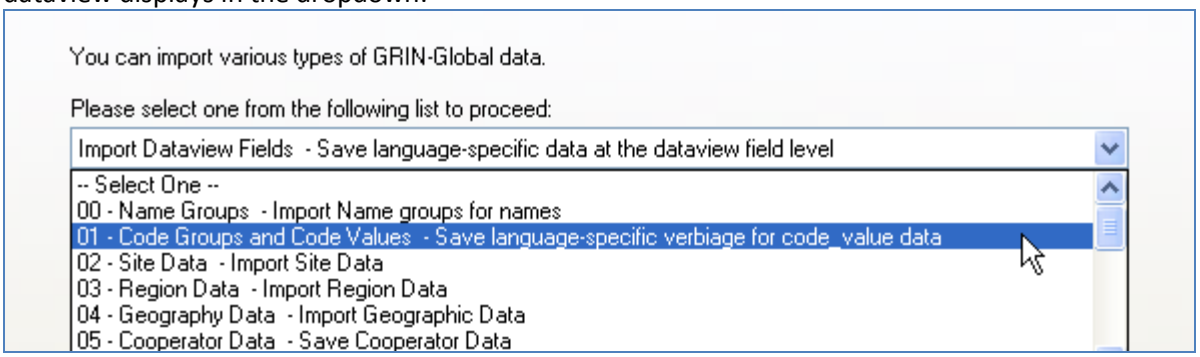
In the **Admin Guide**, there is a section titled *Code Groups*. There you will find detailed instructions for editing an existing code value. The section also explains how to quickly create a spreadsheet of code values for any Code Group, using the Admin Tool Code Group editor. This list can be modified, and then imported back into GG via the Import Wizard.

Tip

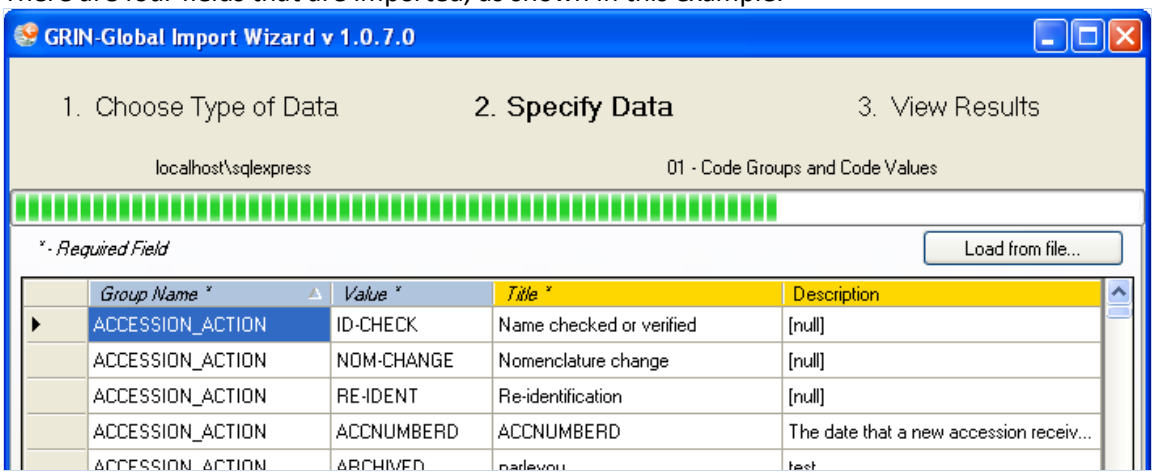
The Import Wizard doesn't delete records, so any codes that need to be deleted must be deleted via the Admin Tool editor.

Loading en Masse

Directions are also included here for initially bulk-loading **Code Groups and Code Values**, using the Import Wizard. Basically, groups of codes can be copied and pasted via the Import Wizard (IW). This IW dataview displays in the dropdown:



There are four fields that are imported, as shown in this example:



English vs.ENG

Background

Many Curator Tool dataview fields use dropdowns to assist the user in selecting a valid entry. To ensure data integrity, the dropdowns restrict the inputting of random text data, but instead require the user to select a value from a pre-populated set of choices. The organization's GRIN-Global administrator sets up the values and titles for these codes. (The standard GRIN-Global installation supplies a base set of codes based on the codes used in the U.S. National Plant Germplasm System (NPGS). The codes have been translated into five languages (English, Spanish, French, Russian, and Arabic).)

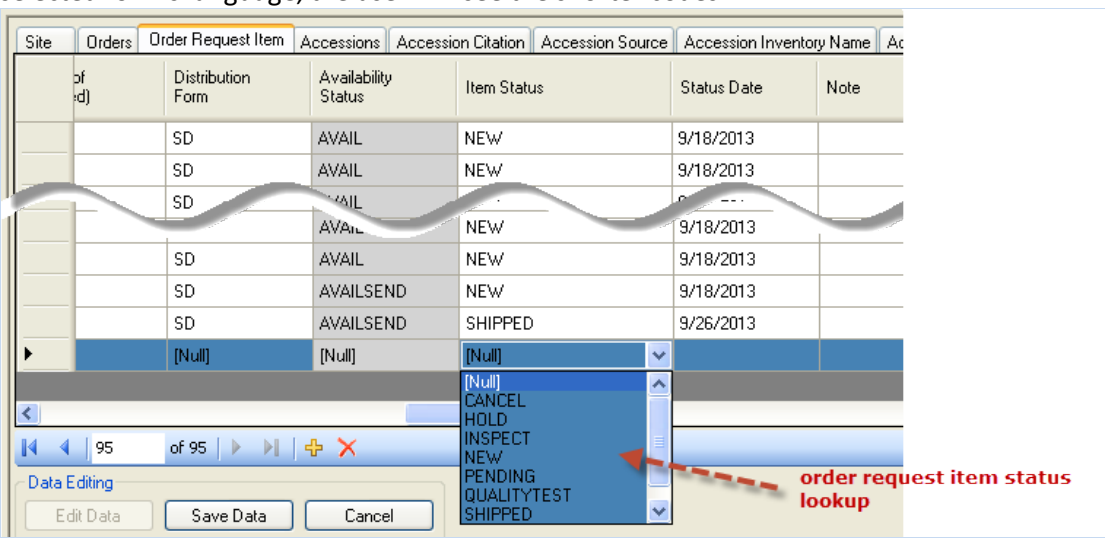
The code values are typically short (less than under 20 characters). Various tables in GG (mainly code_value_lang) convert the internal codes to their lengthier titles, which are language specific. For example, the **Order Item Status Code** which is stored internally as "**SHIPPED**" can be displayed as "**Shipped order item**" in English and "**Envíe item del pedido**" in Spanish.

NPGS GRIN-Global users seem to be in two camps. Some prefer seeing the shorter internal code values displayed rather than the longer titles. To accommodate both preferences, in the post-1.0 version of GG, an additional "language" (**ENG**) was included with the installation of GG. Users who set their language to **ENG** will see the code values displayed in a number of places (after reloading the appropriate lookup tables). For example, when using ENG as their language, they will see the code **SHIPPED**, whereas users with **English** as their language will have the Code's English title displayed "Shipped order item." NPGS users are initially setup with English as their default language, but they can switch back and forth as desired. (Switching languages)

Other organizations may also decide to create two versions of some of the dataviews so that users could decide to work with the codes rather than the titles. Use the **ENG** dataviews as a model.

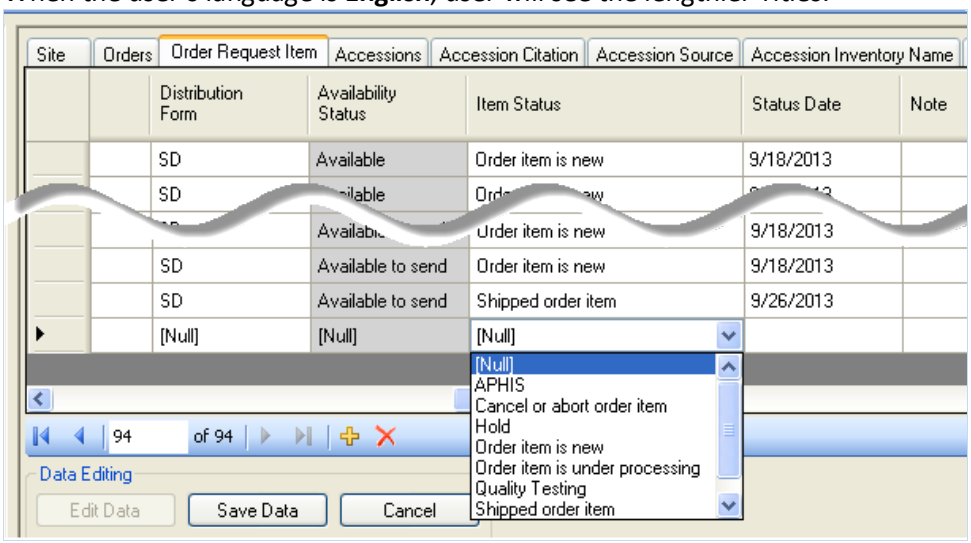
ENG Example

In the following example, when adding a new order request item record in the Curator Tool, with **ENG** selected for his language, the user will see the shorter codes:



English Example

When the user's language is **English**, user will see the lengthier Titles:



Note

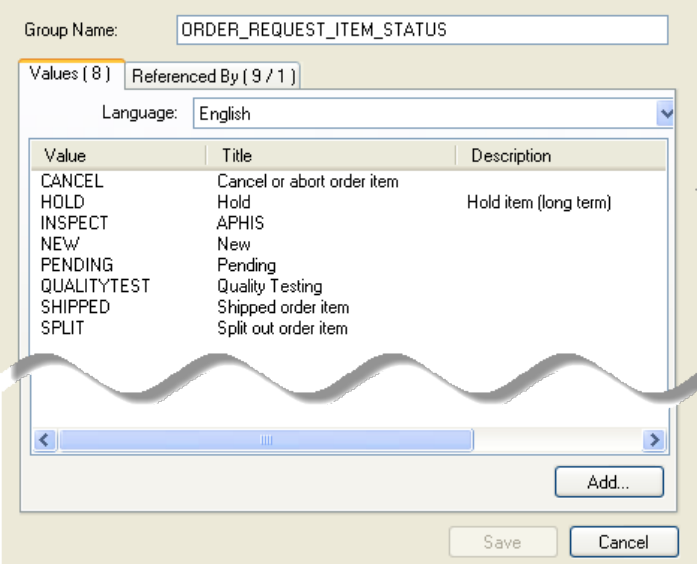
The GRIN system used a convention where the Codes were always spelled in upper case. This has been carried over to GRIN-Global, but other organizations may establish their own convention.

How does the user switch language?

On the CT's menu, the user needs to select **File | Language** and then select the desired language from the languages displayed on the menu.

Where does the text for these codes come from?

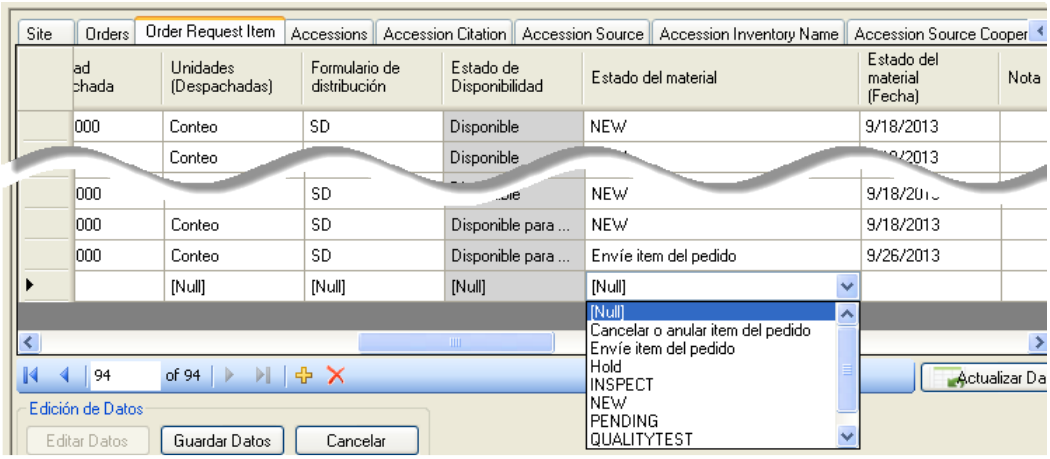
The administrator controls what text is stored with each code. The screen below was copied from the Admin Tool, which only the organization's GRIN-Global administrator (or users with administrative privileges) will have access to. If you review the **ENG** and **English** described earlier, you can see the **Value** is displayed when **ENG** is the user's selected language; **Title** is displayed when **English** is set for the user's language.



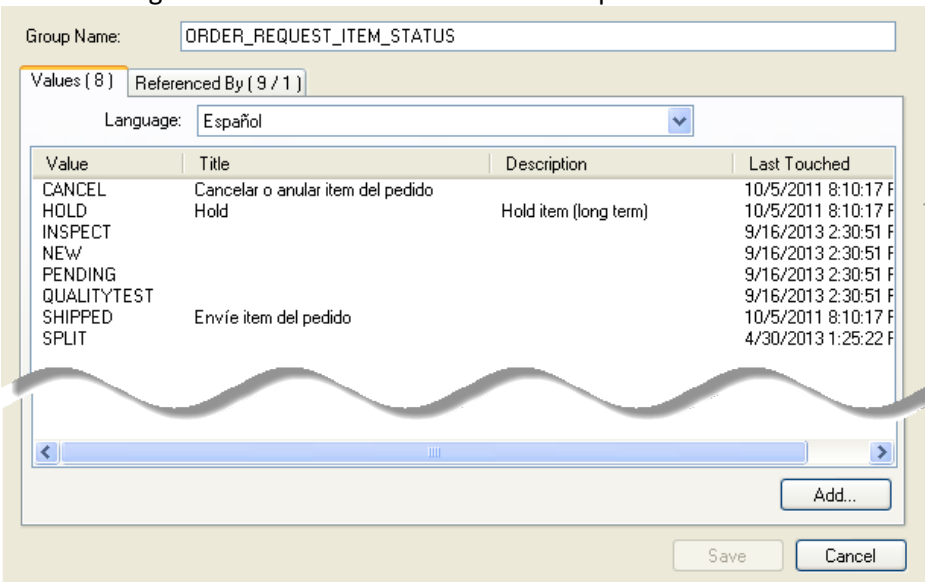
Administrators can reference two documents for updating codes. The *Admin Guide* has directions for using the Admin Tool's Code editor; the *Import Wizard Cookbook* has details for bulk loading codes (initially done when the administrator is initially setting up the organization's database).

Spanish Example

In the following example, Spanish was selected for the language. It appears that in this situation, there is a mixture – for some codes, some values are displayed, and for others, titles.



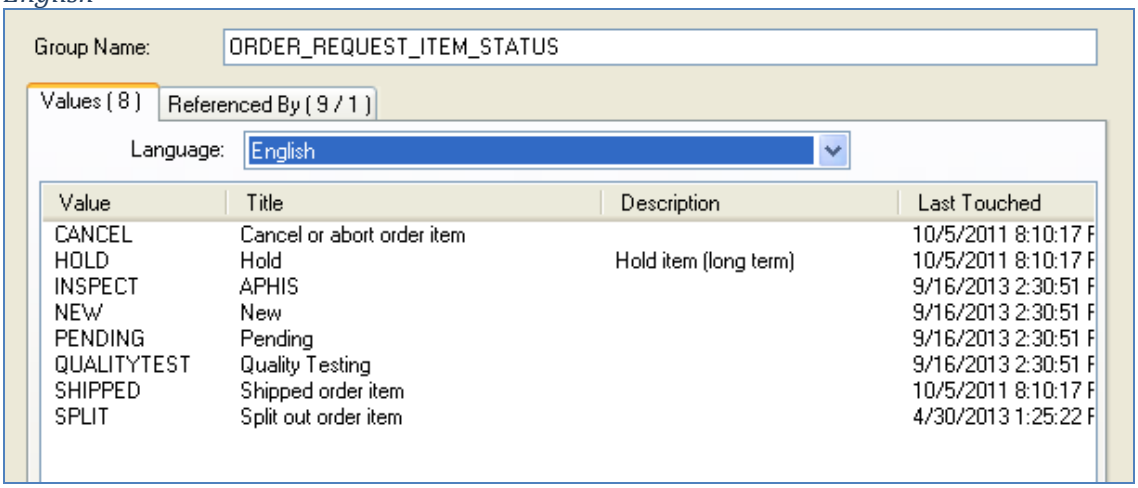
The following Admin Tool screen shows how the Spanish data was installed:



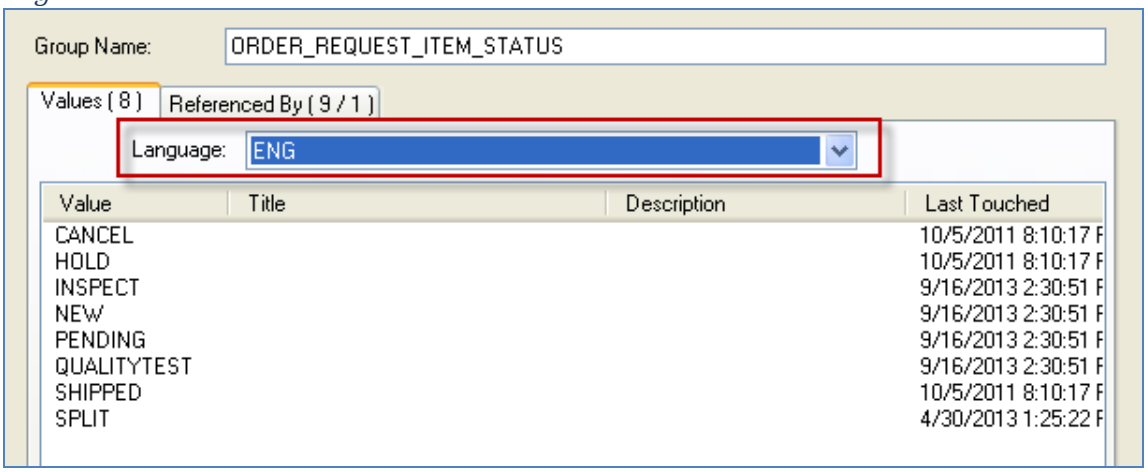
You can conclude that the **Title** trumps the **Value**, that is, if the code has an associated **Title**, the **Title** will display in the Curator Tool , otherwise, the **Value** displays when the user is selecting from a lookup.

The following two screens illustrate how **English** and **ENG** are working. The **English** codes have associated **Titles**; the **ENG** codes do not. When the user is using English as his language, he will see the **Titles** displayed, when in ENG, only the **Values**.

English



Eng



Updating the Lookup Tables When Switching Languages

Curator Tool users do not need to reload *all* of their lookup tables after switching languages, but they will be prompted that their tables are not up to date. Normally a user will rarely switch languages, but he can. The user may only need to reload few lookup tables if he is mainly concerned with seeing codes in a particular context.

Lookup tables that may need updating when a user switches languages

- Code Value Lookup
- Cooperator (Big) Lookup
- Crop Trait Code Lookup
- Crop Trait Lookup

- Geography Lookup
- Inventory Lookup
- Mailing Geography Lookup
- Source Descriptor Code Lookup
- Taxonomy Geography Map Lookup

Codes That Have Identical Values and Titles

There are a few Code Groups that have identical titles and values. The primary reason the codes were set up in this fashion relates to the original GRIN nomenclature used by the NPGS. Organizations adapting GG for their database will most likely wish to review the titles and change them to meet their specific needs.

As a reminder, in a new GG installation where the organization is starting with fresh data, the organization can establish which codes they intend to use and delete those that they will not use. For example, in the NPGS, there are 312 codes for the code group **PATHOLOGY_TEST** in GG version 1.9.

group_name	value	title
ACCESSION_STATUS	INACTIVE	Inactive
CART_TYPE_CODE	FAVORITE	Favorite
CART_TYPE_CODE	ORDER ITEMS	Order Items
COOPERATOR_STATUS	ACTIVE	ACTIVE
COOPERATOR_STATUS	DEAD	DEAD
COOPERATOR_STATUS	HISTORICAL	HISTORICAL
COOPERATOR_STATUS	INACTIVE	INACTIVE
GERMPLASM_FORM	**	**
GERMPLASM_FORM	BD	BD
GERMPLASM_FORM	BL	BL
GERMPLASM_FORM	CA	CA
GERMPLASM_FORM	CL	CL
GERMPLASM_FORM	CM	CM
GERMPLASM_FORM	CT	CT
GERMPLASM_FORM	DN	DN
GERMPLASM_FORM	ER	ER
GERMPLASM_FORM	FI	FI
GERMPLASM_FORM	FR	FR
GERMPLASM_FORM	GS	GS
GERMPLASM_FORM	HE	HE
GERMPLASM_FORM	HS	HS
GERMPLASM_FORM	IO	IO
GERMPLASM_FORM	IV	IV
GERMPLASM_FORM	LA	LA
GERMPLASM_FORM	LV	LV
GERMPLASM_FORM	MF	MF
GERMPLASM_FORM	MI	MI
GERMPLASM_FORM	MS	MS
GERMPLASM_FORM	PD	PD
GERMPLASM_FORM	PF	PF

GERMPLASM_FORM	PL	PL
GERMPLASM_FORM	PO	PO
GERMPLASM_FORM	PR	PR
GERMPLASM_FORM	RH	RH
GERMPLASM_FORM	RN	RN
GERMPLASM_FORM	RT	RT
GERMPLASM_FORM	SC	SC
GERMPLASM_FORM	SD	SD
GERMPLASM_FORM	SG	SG
GERMPLASM_FORM	SP	SP
GERMPLASM_FORM	ST	ST
GERMPLASM_FORM	TC	TC
GERMPLASM_FORM	TU	TU
LITERATURE_TYPE	ARTICLE	Article
LITERATURE_TYPE	BOOK	Book
LITERATURE_TYPE	JOURNAL	Journal
LITERATURE_TYPE	PERIODICAL	Periodical
LITERATURE_TYPE	URL	URL
TAXONOMY_NOXIOUS_TYPE	AQUATIC	Aquatic
TAXONOMY_NOXIOUS_TYPE	SEED	Seed
TAXONOMY_NOXIOUS_TYPE	TERRAIN	Terrain
TAXONOMY_NOXIOUS_TYPE	TURF	Turf
TAXONOMY_SUPRAFAMILY	CLASS	Class
TAXONOMY_SUPRAFAMILY	DIVISION	Division
TAXONOMY_SUPRAFAMILY	KINGDOM	Kingdom
TAXONOMY_SUPRAFAMILY	ORDER	Order

SQL Statements for Adding a New Language and Cloning the Friendly Names for Fields and Dataviews

Note

"9" is used in the sample SQL code below as the ID value for the new language. You need to determine for your GG installation what the next language_id value is and substitute that for the 9's in the examples below. You'll also need to replace the 1 for English with the number of whatever language you are cloning.

"ENG" was the new language in this example. You will need to replace the text strings in the first INSERT statement with your information. (Refer to the *Adding a Language to GRIN-Global* section for details. Also, see http://en.wikipedia.org/wiki/IETF_language_tag.) Since private-use language tags beginning with an "*x*- prefix," consider using x- for the prefix to your ietf-tag.

```
INSERT INTO sys_lang
(iso_639_3_tag, ietf_tag, title, description, created_date, created_by, owned_date, owned_by)
VALUES('ENG', 'x-en-CODE', 'ENG', 'English with short codes', GetDate(), 1, GetDate(), 1)

SELECT * FROM sys_lang

INSERT INTO sys_table_field_lang
(sys_table_field_id, sys_lang_id, title, description, created_date, created_by, modified_date,
modified_by, owned_date, owned_by)
SELECT
sys_table_field_id, 9, title, description, created_date, created_by, modified_date, modified_by,
owned_date, owned_by
FROM sys_table_field_lang WHERE sys_lang_id = 1

INSERT INTO sys_dataview_field_lang
(sys_dataview_field_id, sys_lang_id, title, description, created_date, created_by, modified_date,
modified_by, owned_date, owned_by)
SELECT
sys_dataview_field_id, 9, title, description, created_date, created_by, modified_date, modified_by,
owned_date, owned_by
FROM sys_dataview_field_lang WHERE sys_lang_id = 1

INSERT INTO sys_dataview_lang
(sys_dataview_id, sys_lang_id, title, description, created_date, created_by, modified_date,
modified_by, owned_date, owned_by)
SELECT
sys_dataview_id, 9, title, description, created_date, created_by, modified_date, modified_by,
owned_date, owned_by
FROM sys_dataview_lang WHERE sys_lang_id = 1
```

You can test this by starting the Curator Tool, click on the File menu at the top left, click on Language, then click on ENG (your “new” language) at the bottom of the list instead of English. You will get a message about needing to reload your lookup tables, but you only need to reload several: **Code Value Lookup**, **Crop Trait Code Lookup**, and **Crop Trait Lookup**. Those should be quick to reload.

Appendix

Deleting a Dataview

Overview

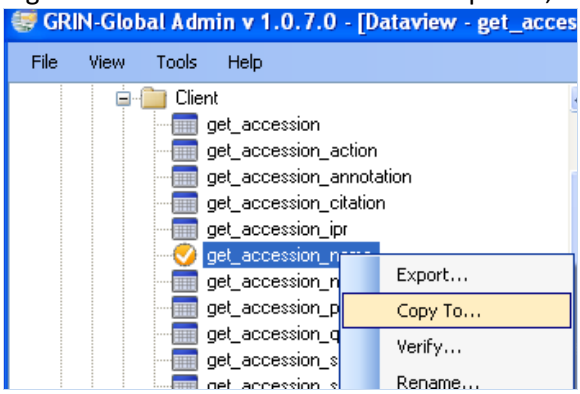
Whenever a dataview has a friendly name added or edited, a record is added to the **dbo.sys_dataview_field_lang** table in the database. If for some reason the intent is to have that friendly name removed from this table, it will be necessary to delete the modified dataview and then import the dataview back into GG.

Step-by-step Directions

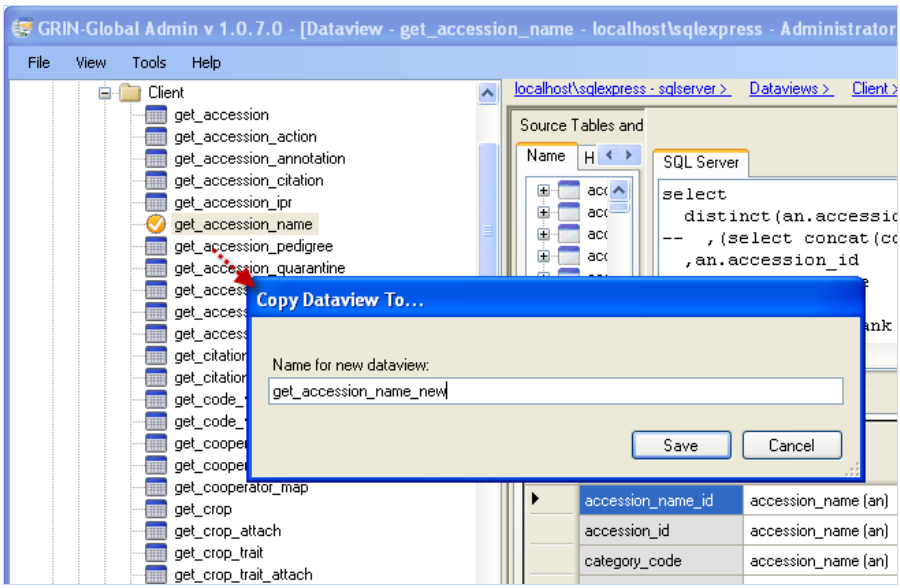
These directions guide you through making a copy of a dataview before editing the original one. This ensures that the original can be restored if needed for any reason. In the process, you will have two similar dataviews, the original and a copy.

1) In the AT, select the dataview that is to be corrected. (For example, a dataview with redundant language-friendly column names.)

2) Right-click the dataview that is to be repaired; select **Copy To**:



and provide a temporary name for this copy:

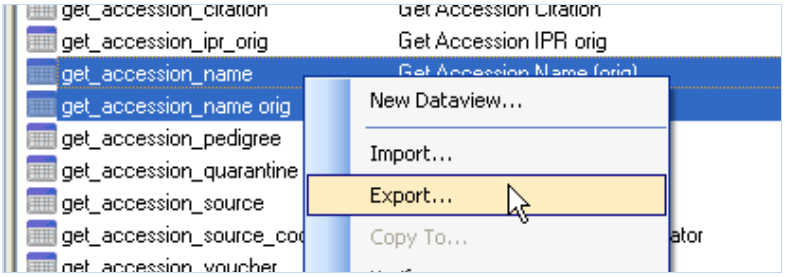


3) Select the new (copied) dataview. Make your corrections to the copy.

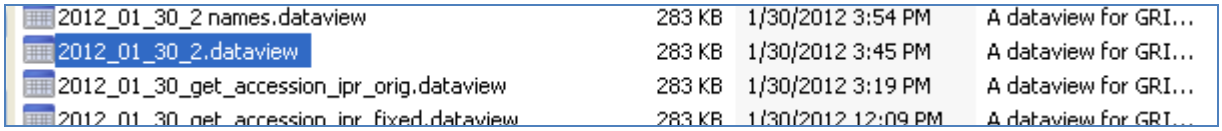
Note

In any dataview, each language-friendly column heading name must be unique.

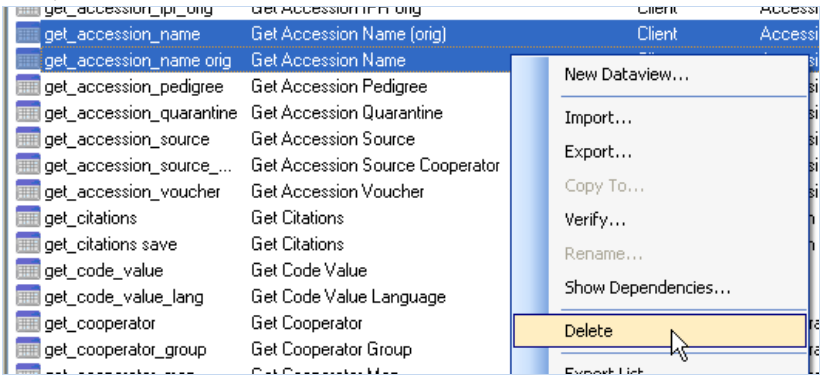
4) Keep both dataviews, the original and the copy, until you are certain everything is working as you expect it to. To do that, in the list view (the right grid,) select both dataview names, right-click, and select **Export...**



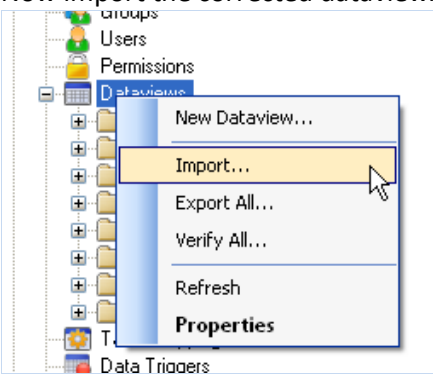
The dataviews will be saved on a drive with the extension "**dataview**." When you save a dataview for the first time, specify a dedicated folder that can serve as the holding place for any GG dataviews saved in the future. (The folder can hold other items, but it will be easier to view the dataviews if that is the sole purpose of the folder.) After the first save, GG by default will display that folder again as the potential folder whenever you attempt to save a dataview file.



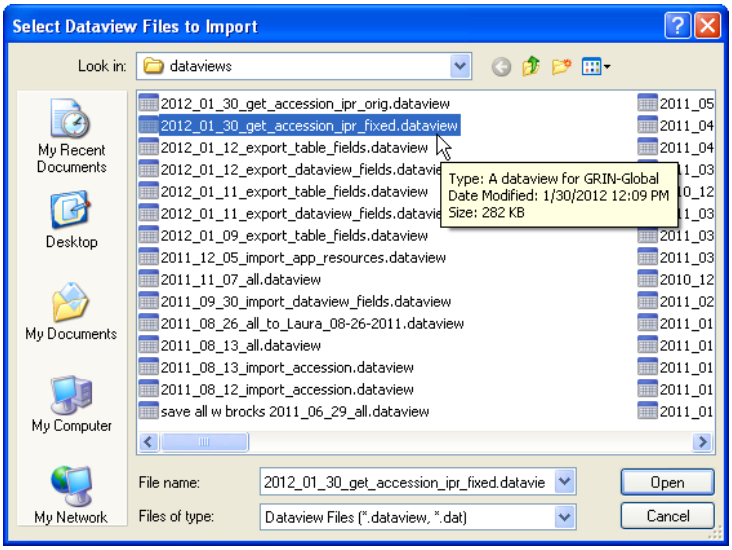
5) Delete *both* dataviews. To do that, in the list view (the right grid), select both dataview names, right-click, and select **Delete**



6) Now import the corrected dataview. At the **Dataviews** level, select **Import...**



7) Select the dataview with the corrections:



8) In the AT dataview editor, rename the corrected version with the original dataview name.

When you are satisfied with the new dataview, there is no need to keep storing the original dataview file. You can delete it from your drive or just hold onto it for awhile as a backup of the original.

Appendix: Changes in this Document

– June 5, 2015

- major revamping of this document;
- completely changed the process for modifying the field titles and descriptions (no longer using the Import Wizard method)

– October 28, 2014

- two new dataviews were created to facilitate the updating of the column Titles and Descriptions – one for the Table entries and one for the and the override fields

– October 2, 2014

- edited the information about the filenames used to import/export the table field names
- refreshed some screens related to import/export the table field names