Alternative GG Languages

Languages for displaying Coded Values (rather than their Titles)

Revision Date
September 16, 2015

Comments/Suggestions:
Please contact feedback@ars-grin.gov with any suggestions or questions related to this document. This and other GRIN-Global –related documentation can be downloaded from the GRIN-Global Training page.

The Appendix contains directions for creating a GG language GG and this document's revision notes.

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Background

Traits, Coded Values, and Titles

In the GRIN-Global database, there are situations places where the data has been designed to display coded values, but if optional titles exist, the titles will display instead of the coded values. For example, when establishing traits, traits that rely on coded values can also be set up with titles and descriptions for these coded values, making the inputting experience more "user friendly."

Certainly it is easier to recognize "1. Black" for Berry Color than to remember that "1" indicates the color "black" for this particular berry color trait. This is especially true when a trait has many possible values – it becomes very difficult to remember that 1 is "black," 2 is "blue," 3 is "purple," 4 is "red," and so on. To compound the complexity, for some other trait a "1" might mean "oblong" whereas a "2" means "ovate." When manually recording Crop Observations, one record at a time, most users would typically prefer to see these titles displayed (and the titles normally do display, in their respective lookups).

However, when users are importing many observations at one time (by dragging and dropping data saved in an Excel spreadsheet), the users often prefer to use the coded values in their spreadsheet, not the titles.

For the USDA National Plant Germplasm System (NPGS), a "work-around" was designed to handle the mass importing; an alternative language to English was set up to facilitate mass loading of data by using the coded values. The NPGS called this language "ENG." Other organizations adapting GRIN-Global may want to mimic this approach, but for their respective language. If the organization is already using English as its language of choice for GG, then it will find the ENG language that is bundled with GG ready to use.

Directions for creating an alternative "language" are in the appendix.

Note

Besides **Titles**, traits have a **Description** field. Descriptions do not have any impact here. The issue discussed here is with the Titles for the coded values.

Codes and Code Groups

Also, many Curator Tool dataview fields use dropdowns to assist the user in selecting a valid entry. The dropdowns restrict the inputting of random text data. Instead, they require the user to select a value from a pre-populated set of choices which have been stored in a specific Code Group. The GRIN-Global administrator for the organization sets up the values and titles for these codes.

One method to review and edit these **Code Groups** is via the Admin Tool.

Note

The standard GRIN-Global installation supplies a set of codes based on the codes used in the USDA National Plant Germplasm System (NPGS). The codes have been translated into five languages (English, Spanish, French, Russian, and Arabic).

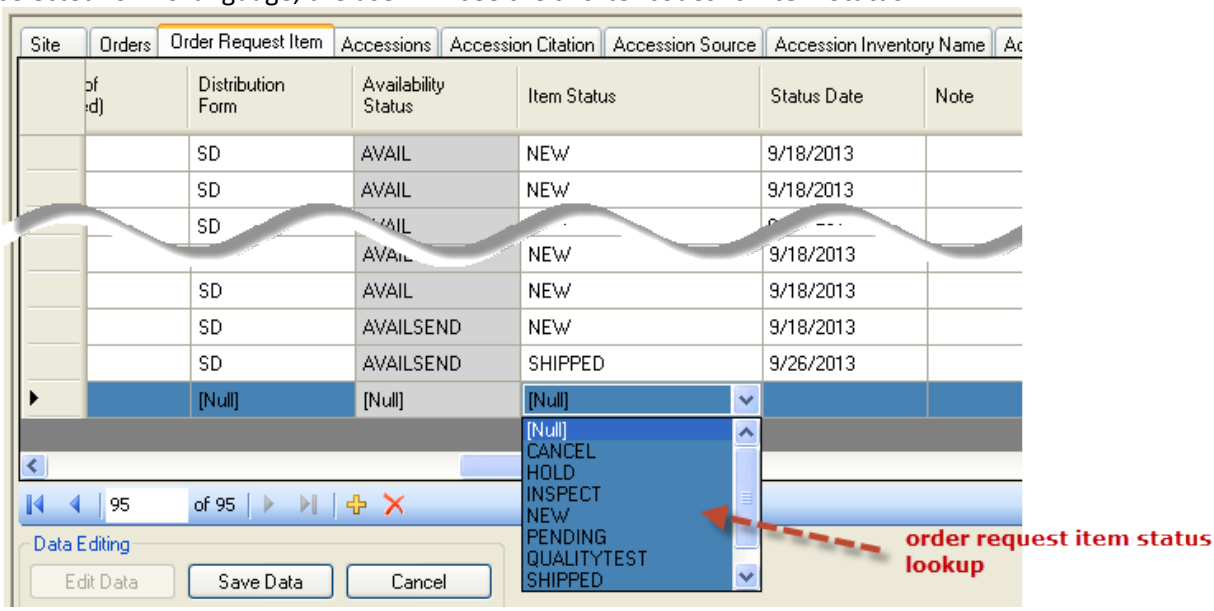
The code values are typically short (less than under 20 characters). Various tables in GG (mainly code_value_lang) convert the internal codes to their lengthier titles, which are language specific. For example, the **Order Item Status Code** which is stored internally as "**SHIPPED**" can be displayed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

NPGS GRIN users seem to be in "two camps"–some users prefer seeing the shorter internal code values displayed, whereas other users prefer displaying the longer titles. One advantage of the shorter codes comes when bulk updating via the dragging and dropping of data from spreadsheets to GG.

To accommodate both preferences, in the post-1.0 version of GG, the 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)

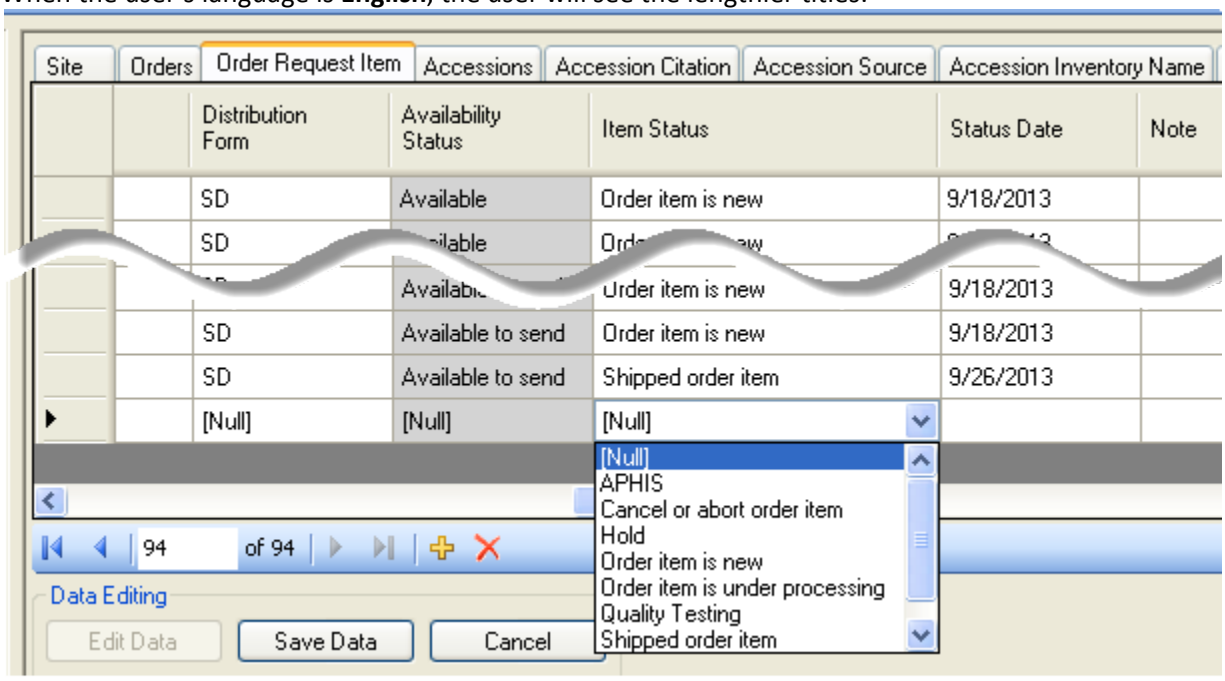
ENG Example

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 for **Item Status**:



English Example

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



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.

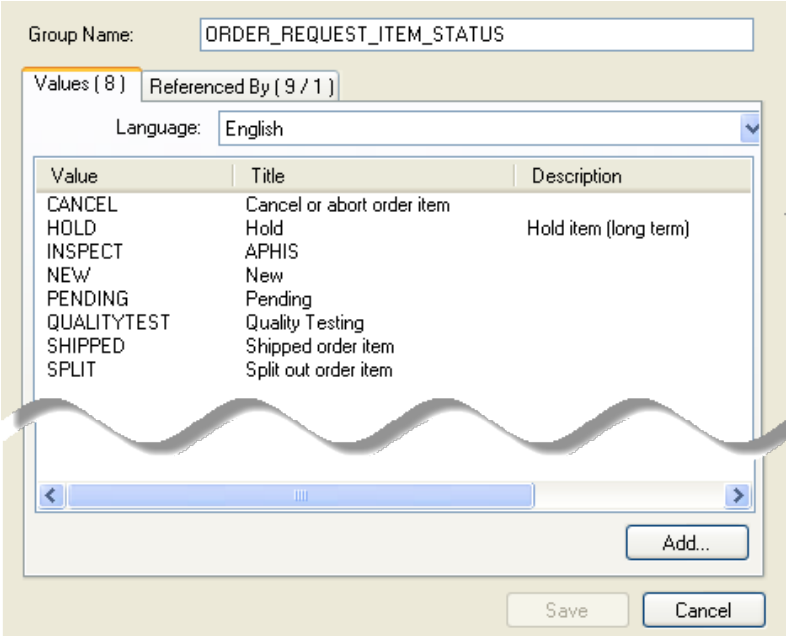
When loading data (such as dragging data from a spreadsheet into the CT, you should match the case and spelling. For example, in ENG, a valid Item Status code for the Order Request Items is **NEW**; in English, it is **New**.

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?

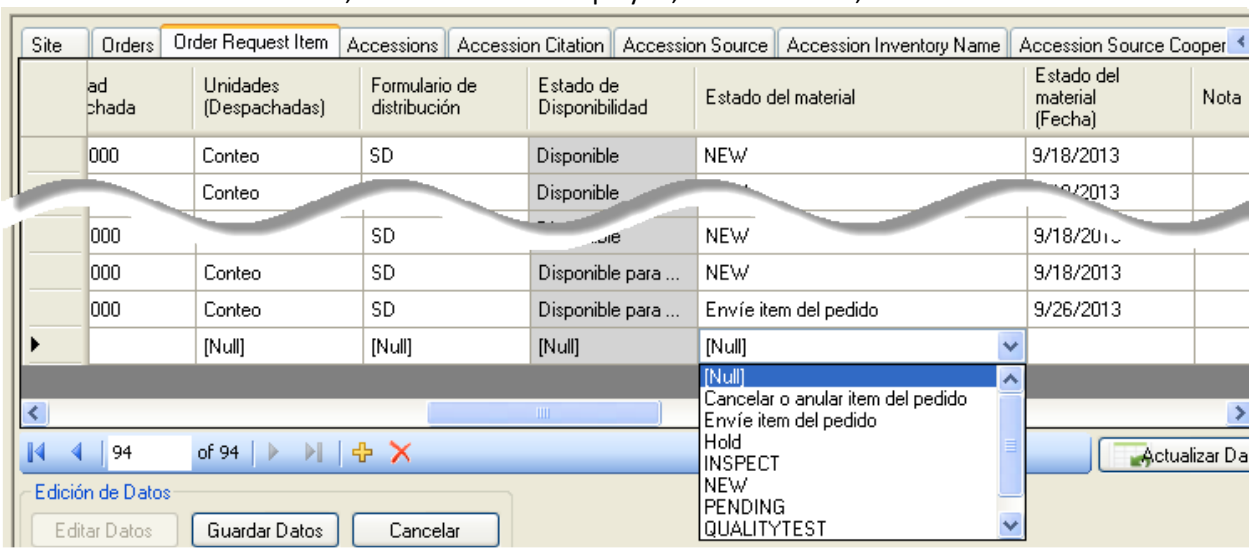
The administrator controls what text is stored with each code. The screen below was copied from the Admin Tool, which only the organization's GRIN-Global administrator (or users with administrative privileges) will have access to. If you review the **ENG** and **English** described earlier, you can see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



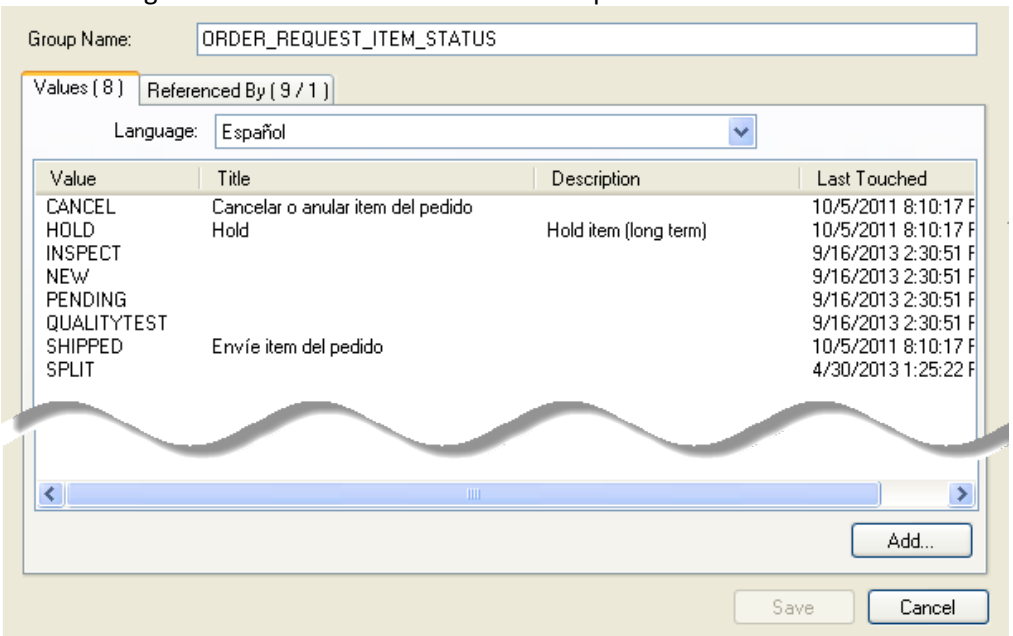
Administrators can reference two documents for updating codes. The *Admin Guide* has directions for using the Admin Tool's Code editor; the *Import Wizard Cookbook* has details for bulk loading codes (initially done when the administrator is initially setting up the organization's database).

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.



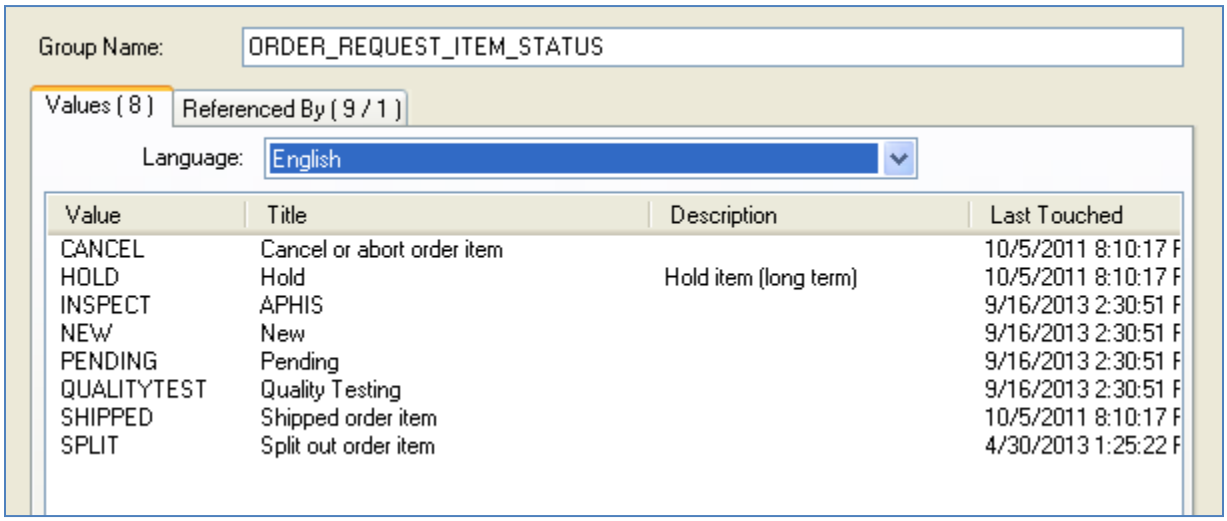
The following Admin Tool screen shows how the Spanish data was installed:

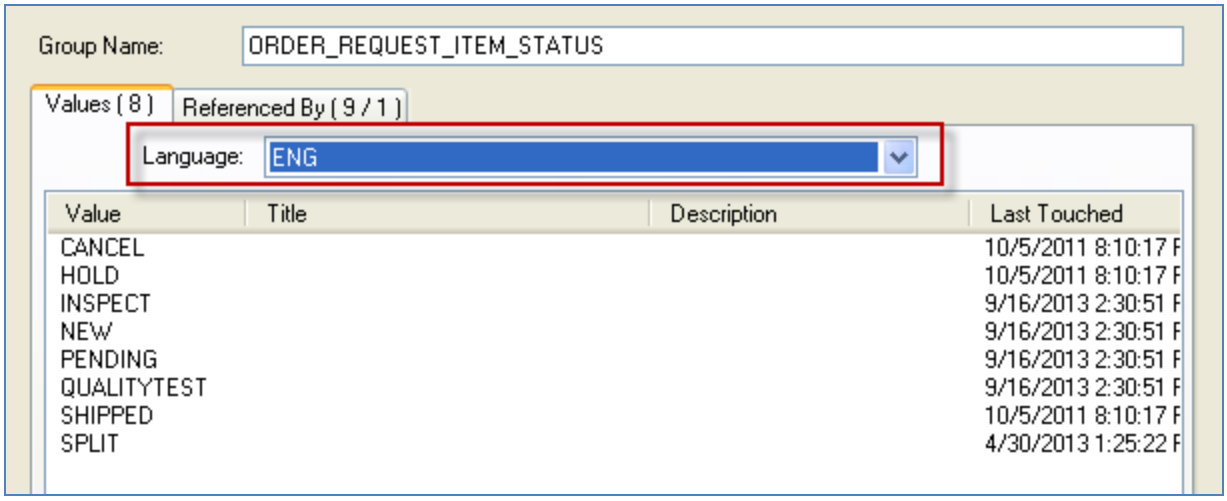


Title Trumps the Value

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

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**. (A corollary to this: when viewing in English (or in any language), if the **Code** does not have a corresponding **Title**, only its **Value** will display.)





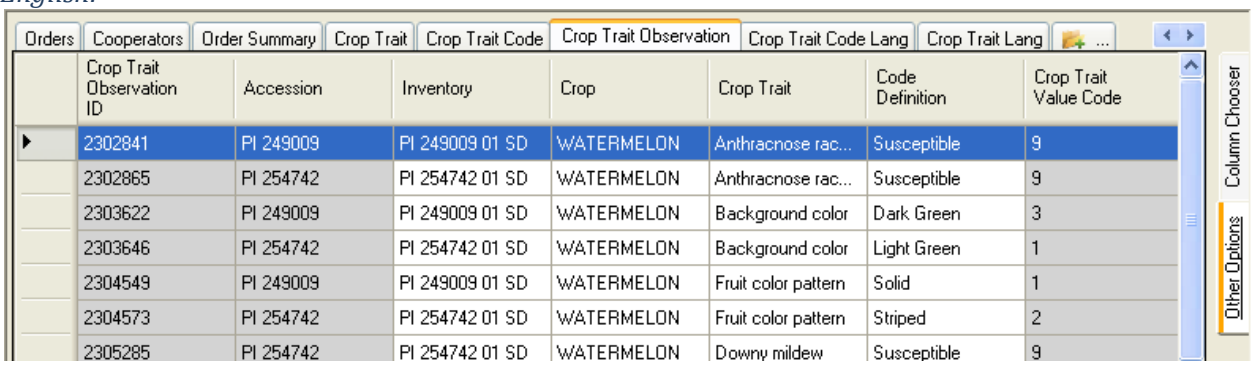
Updating the Lookup Tables When Switching Languages

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

English:



Crop Trait Observation ID	Accession	Inventory	Crop	Crop Trait	Code Definition	Crop Trait Value Code
2302841	PI 249009	PI 249009 01 SD	WATERMELON	Anthracnose rac...	Susceptible	9
2302865	PI 254742	PI 254742 01 SD	WATERMELON	Anthracnose rac...	Susceptible	9
2303622	PI 249009	PI 249009 01 SD	WATERMELON	Background color	Dark Green	3
2303646	PI 254742	PI 254742 01 SD	WATERMELON	Background color	Light Green	1
2304549	PI 249009	PI 249009 01 SD	WATERMELON	Fruit color pattern	Solid	1
2304573	PI 254742	PI 254742 01 SD	WATERMELON	Fruit color pattern	Striped	2
2305285	PI 254742	PI 254742 01 SD	WATERMELON	Downy mildew	Susceptible	9

ENG:

Orders | Cooperators | Order Summary | Crop Trait | Crop Trait Code | Crop Trait Observation | Crop Trait Code Lang | Crop Trait Lang

Crop Trait Observation ID	Accession	Inventory	Crop	Crop Trait	Crop Trait Code Value	Crop Trait Value Code
2302841	PI 249009	PI 249009 01 SD	WATERMELON	Anthracnose rac...	Susceptible	9
2302865	PI 254742	PI 254742 01 SD	WATERMELON	Anthracnose rac...	Susceptible	9
2303622	PI 249009	PI 249009 01 SD	WATERMELON	Background color	Dark Green	3
2303646	PI 254742	PI 254742 01 SD	WATERMELON	Background color	Light Green	1
2304549	PI 249009	PI 249009 01 SD	WATERMELON	Fruit color pattern	Solid	1
2304573	PI 254742	PI 254742 01 SD	WATERMELON	Fruit color pattern	Striped	2
2305285	PI 254742	PI 254742 01 SD	WATERMELON	Downy mildew	Susceptible	9

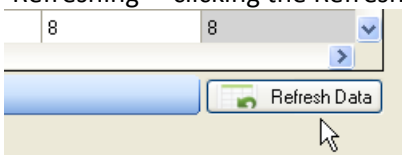
ENG: after Updating the Crop, Trait, and Trait Code Lookup Tables and Refreshing:

Orders | Cooperators | Order Summary | Crop Trait | Crop Trait Code | Crop Trait Observation | Crop Trait Code Lang | Crop Trait Lang

Crop Trait Observation ID	Accession	Inventory	Crop	Crop Trait	Crop Trait Code Value	Crop Trait Value Code
2302841	PI 249009	PI 249009 01 SD	WATERMELON	ANTHRAC2	9	9
2302865	PI 254742	PI 254742 01 SD	WATERMELON	ANTHRAC2	9	9
2303622	PI 249009	PI 249009 01 SD	WATERMELON	BACKGROUND	3	3
2303646	PI 254742	PI 254742 01 SD	WATERMELON	BACKGROUND	1	1
2304549	PI 249009	PI 249009 01 SD	WATERMELON	COLORPATT	1	1
2304573	PI 254742	PI 254742 01 SD	WATERMELON	COLORPATT	2	2
2305285	PI 254742	PI 254742 01 SD	WATERMELON	DOWNYMILD	9	9

Column Chooser | Other Options

"Refreshing" –clicking the Refresh Data button:



Codes That Have Identical Values and Titles

There are a few Code Groups which 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. Other organizations adapting GG will most likely review the titles and delete / change them to meet the organization's specific needs.

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

Tip

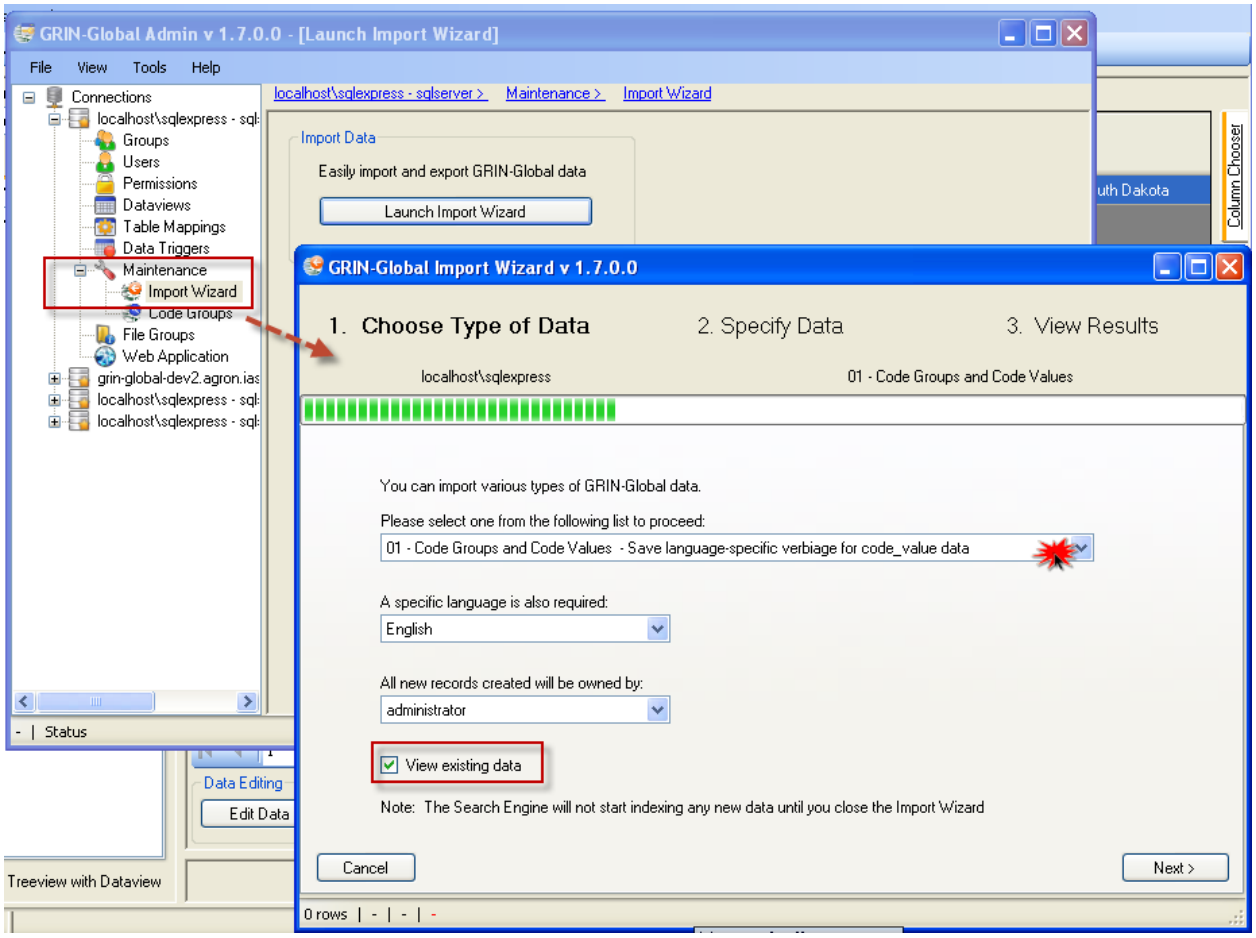
As a reminder, in a new GG installation where the organization is starting with fresh data, the organization can establish which codes they intend to use and delete those that they will not use. For example, in the NPGS, there are 312 codes for the code group **PATHOLOGY_TEST** in GG version 1.9. ***Review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

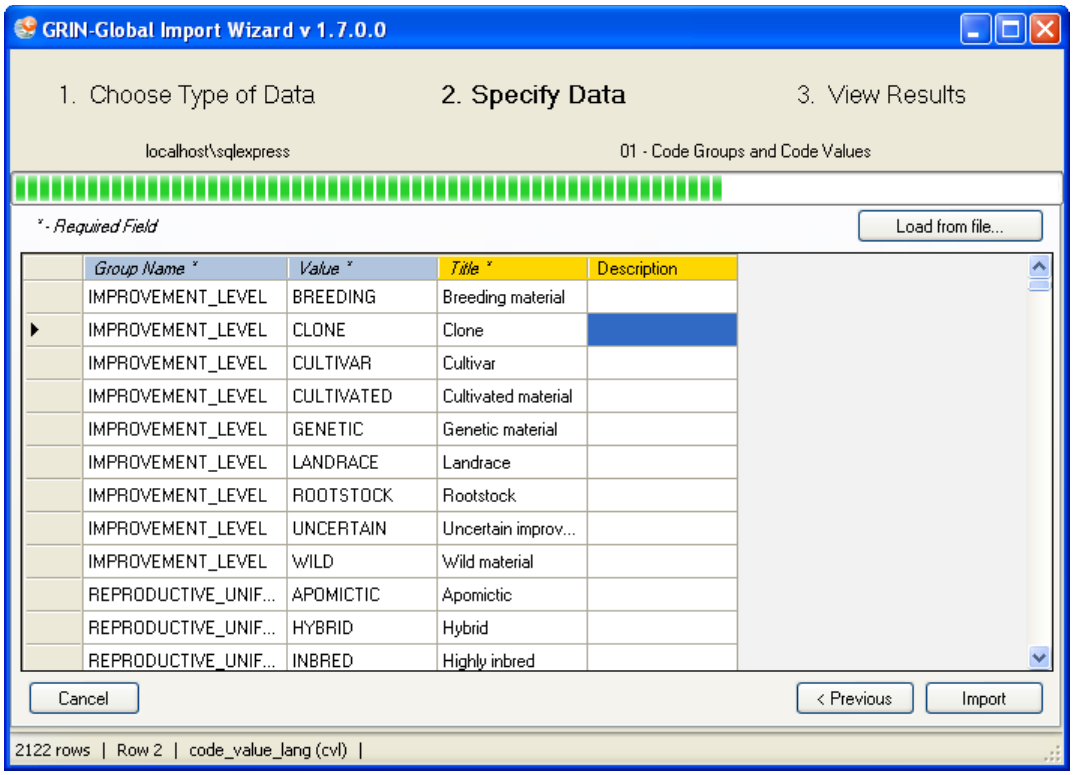
Reviewing the Codes and Code Groups

Obviously not all of these codes within the U.S. NPGS will be needed by other organizations adapting GRIN-Global. The initial thinking in providing these codes was (a) they serve as examples and (b) it is perhaps quicker for an organization to delete or edit than to not have any to start with.

Ideally an organization's GG administrator will review these codes and edit them before the organization starts using GG in production. After a code is used by a record, the code cannot be deleted.

In the Admin tool, (accessible only to the GG administrator), under the **Maintenance** node, the Import Wizard can be used to list all of the codes (and the list can be exported to a spreadsheet), or also under Maintenance, the Code Groups option provides a means for reviewing, editing, and deleting codes. (The former method is explained in detail in the *Cookbook for Importing Data*, and the latter method is described in the *Admin Tool Guide*.





Query to Display Codes & Code Groups

You must be logged into the Public Website:

The following SQL can be use in the Public Website, under **Tools | Web Query**, to display the codes:

```
USE
  gringlobal;

SELECT
  cv.code_value_id as value_id,

  cv.group_name as group_name,
  cv.value as gg_value,
  cvl.title as cvl_title


FROM
  code_value cv

  inner join code_value_lang cvl
              on cv.code_value_id = cvl.code_value_id
   left join sys_lang sl2
                          on cvl.sys_lang_id = sl2.sys_lang_id
WHERE
  sl2.sys_lang_id = 1
/* and   group_name = 'inventory_action'  */
/* use and clause to search for a specific code */

ORDER BY
  group_name,
  gg_value
```

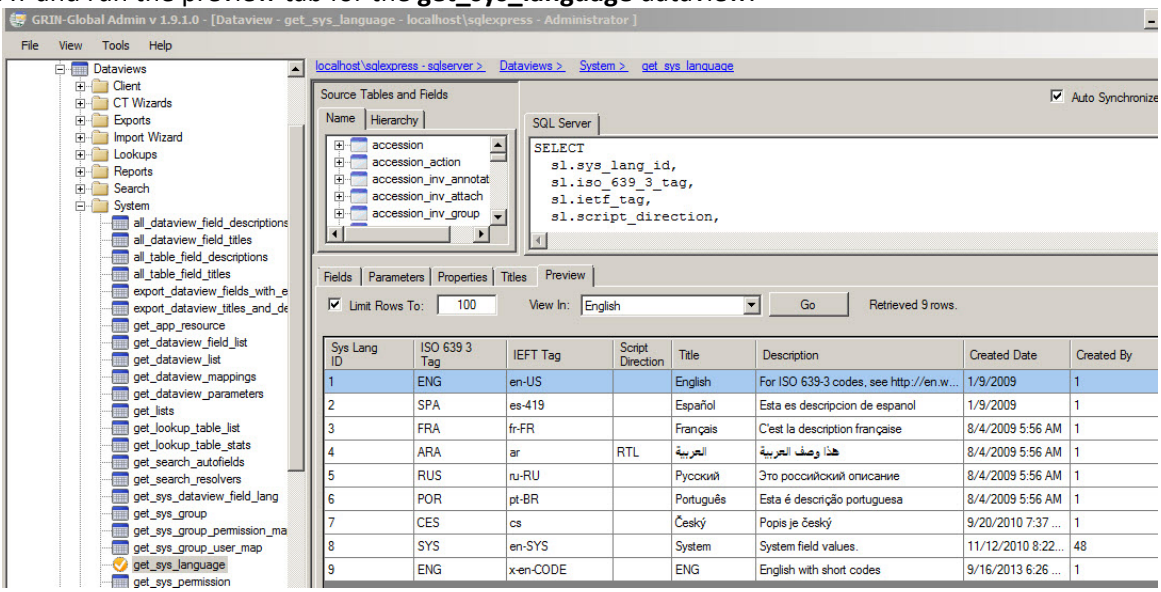
Appendix

SQL for Cloning a Language

The following SQL statements can be executed in SQL Server Management Studio (SSMS) to add a new language and to clone the *friendly* names for fields and dataviews. It is not necessary to copy the English entries for any of the other 11 lang tables since they are either unnecessary to the user or the desired behavior is for the lookups to default to the coded values rather than the titles.

In the SQL example below, the new language being created is “ENG” – a value of “9” was used for its **sys_lang_id** because there were already eight languages in the database. The SQL below will need to be modified to replace ***9*** with whatever **id** number you need for your new language. You will also need to replace the ***1*** (English in this example) with the number of the language that is being cloned.

One method to determine the existing available sys_lang_id values for your GG installation is to use the AT and run the preview tab for the **get_sys_language** dataview.



```
/*
In the first INSERT statement, create your new language name with appropriate codes, title and
description. Details can be found at http://en.wikipedia.org/wiki/IETF_language_tag
 or http://www.w3.org/International/articles/language-tags/

Change 1 only in the "WHERE sys_lang_id = 1" clauses. In this first Insert statement, leave the 1's as
shown.
*/

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)

/*
In the following statements, replace 9 and 1 with the appropriate number for the new language and the
language that is being cloned. See discussion above.
*/

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 CT. Click on the File menu at the top left, click on Language, then click on ENG 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 a couple: Code Value Lookup, Crop Trait Code Lookup, and Crop Trait Lookup. Those should be quick to reload.

Appendix

Document Revision Notes

– September 16, 2015

- minor wording edits

– July 24, 2015

- major edit; included a background

- this document was renamed from “English to ENG” to