Assignment 3:
Homework for the NPGS GRIN-Global after Webinar 3

Revision Date
October 27, 2023

This exercise should be completed **before** you attend
the 4th webinar session.

"To see things in the seed, that is genius."
Lao Tzu

Log in

Login to the Curator Tool (CT). Typically, immediately after I login to the CT, I start the Search Tool to open it, and I launch the Public Website and login to it.

The online GRIN-Global guides have a table of contents. The TOC entries are "clickable." When you click on an item in the TOC, you should jump to that section in the guide.

Codes

Several recently asked questions…
(1) How do I determine what the "codes" mean?

Codes are used throughout GG to ensure only certain values are entered in a given field.   Contrast that to a text field, where a user could enter anything. In the CT, it is easy to recognize when a code is being used. Two ways:

(1) Move the mouse over the column headings. Fields using codes will indicate that in the rollover tip. The tip indicates the Code Group Name. In this example, values allowed in the Life Sex column must be a value in the **ACCESSION_LIFE_SEX** code group.

(2) In Edit mode, an empty field using a code will look like this:

A question in the webinar was raised about **Standard Distribution Form**. This was asked specifically regarding Maintenance Policy. However, the same germplasm distribution codes used in many places in GG. The codes are in a group called the GERMPLASM_FORM.

So how do you know what the codes mean? Read on…

The Codes have two related dataviews which you can search. One has the Codes, whereas the second has not only the codes (their "Values"), but also their Titles and their Descriptions.

The genebank's GG database administrator (DBA) can add or remove codes as desired. Only a few codes cannot be removed. For example, GERMPLASMFORM, the ** code record cannot be removed.

Practice! Open the Code Value Language dataview in the Search Tool, and explore!

Perhaps the easiest way to determine what the codes and their meanings are is to run a SQL query on your Public Website. *You must be logged in to the Public Website*. (Only internal genebank staff whose PW account has been enabled can do this. We haven't discussed this concept of running SQL queries yet, but will.)

The SQL Code is below, but also in the online guide at
https://www.grin-global.org/docs/gg_sql_examples.docx

```
SELECT
  cv.code_value_id,
  cv.group_name as group_name,
  cv.value,  cvl.title, cvl.description
FROM
  code_value cv
  LEFT JOIN code_value_lang cvl ON cv.code_value_id = cvl.code_value_id
              AND cvl.sys_lang_id = 1
```

The online document, SQL Library, has many handy SQL queries which are simple to use. Generally, you copy from the SQL "as is" from the document and paste into the Query box on the Public Website. The document is at https://www.grin-global.org/docs/gg_sql_examples.docx

Inventory

The main inventory table is the parent to many children tables. In GRIN-Global, in the Curator Tool, we have many dataviews to facilitate the entering of data into the parent Inventory record and the children records – the Curator Tool is programmed to manage these relationships.
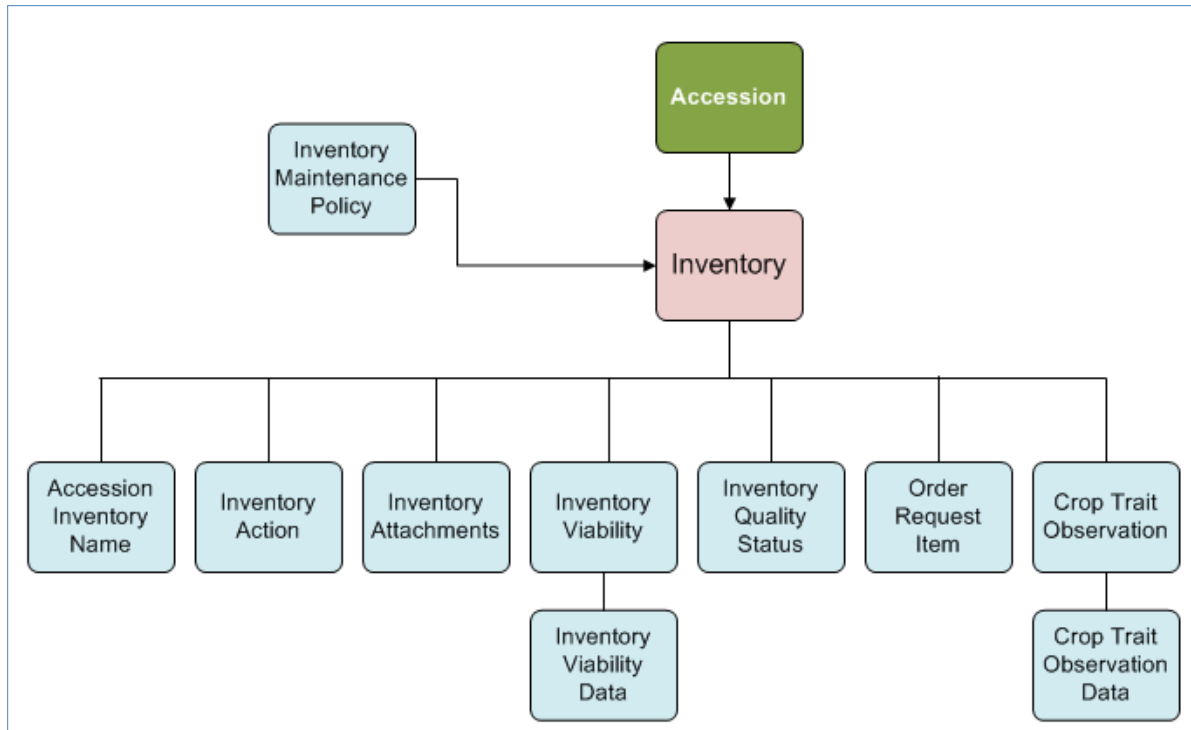
All inventory records relate to accession records, and all are linked to an Inventory Maintenance Policy.

System Inventory Records

We mentioned that whenever an Accession record is created, a default inventory record is automatically created by GG. We refer to this default inventory record as the "system" inventory record. The "system" inventory record *does not* refer to physical inventory stored on a shelf or in a field somewhere.

For example, in the example below, I created two child inventory records for Accession PHV 95002 mar.

Three inventory records are displayed – the two I created, with the **Inventory Types SD** and **BD**, and the virtual inventory record. The virtual record will always have the ** for **Inventory Type**.

Practice!

In the Curator Tool, display the **Inventory** dataview tab:

Take a few minutes to review the inventory dataview and the many inventory fields. The online Inventory document goes into detail about each field: https://www.grin-global.org/docs/gg_inventory.docx

Important points to remember about Inventory

- when creating a new inventory record, perhaps the most important required field is the **Inventory Maintenance Policy** (IMP)
- when you create a new inventory record, many (*but not all*) of the fields in the **Inventory Maintenance Policy** will fill in their matching fields in the new inventory record (see p. 14 in the inventory guide to see the complete illustration & details)

- whoever owns the **Inventory Maintenance Policy** record that was used to create the Inventory record, automatically owns the new inventory record (owners can easily be changed later - if necessary / when desired; we will learn how later)
- the **Inventory Maintenance Site** field is determined by the owner of the inventory record
- each inventory record must have a unique identifier consisting of 4 fields:
  Inventory -Prefix, **-Number**, **- Suffix**, and **-Type**
- an accession on the Public Website will be listed as "*Not Available*" unless the accession has an Inventory record which has two fields set to "Y" – the **Is Distributable?** and the **Is Available?** fields

  (Note: in the TRAINING database, the **Is Distributable?** field is incorrectly labeled as "**Is Default Inventory?**")

Review Question: Which of the following inventories can be distributed?

If you think the **RRG 13 mar SD** inventory can be distributed, you are correct! To me, what makes this a bit unclear is the **Inventory Status** field. That field does not control whether the order wizard will use the inventory or not.

Some additional comments about inventory.

The inventory record has many fields, and in the grid ("spreadsheet") mode, you often must scroll. The Inventory dataview has an optional form. You can use the form to edit and review data, and you can even use the form and the grid similtanetously:

Forms are accessed by right-clicking on the Inventory tab name and then selecting the dataview's Properties:
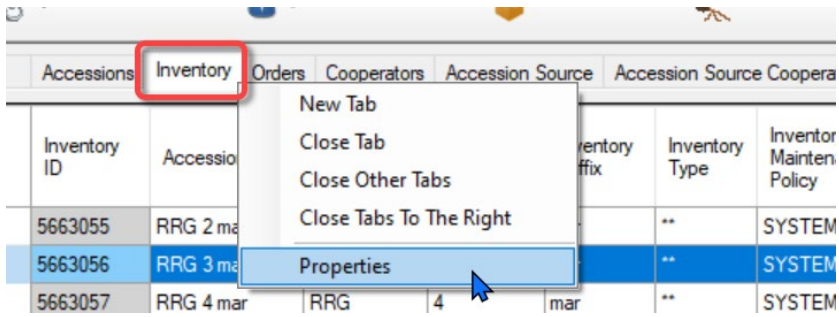
(Forms exist for Accessions, inventory, and Orders.)

Observe how many Inventory related dataviews are in the database
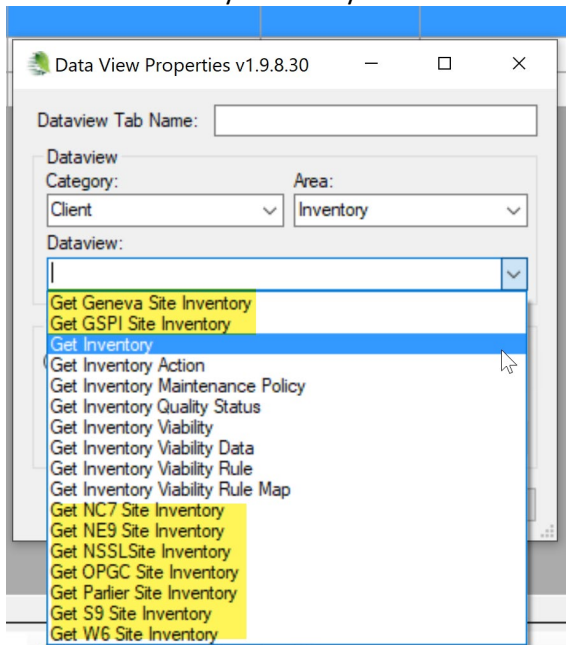
The highlighted dataviews were designed for specific sites in the USDA National Plant Germplasm System (NPGS). Your organization may or may not make these available. They can be used as is or cop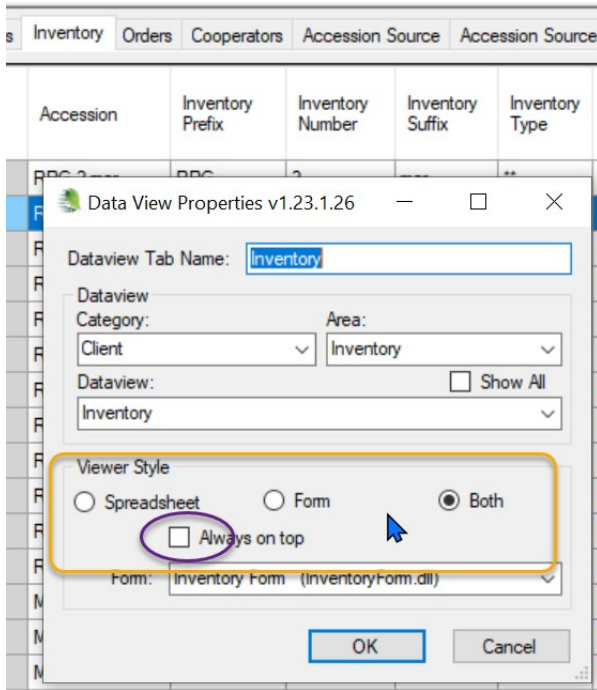ied by the DBA. When you have some time, open them and explore. This is something you should consider doing after you have used GG for some time and understand the schema better. You might decide to use a different inventory dataview rather than the standard **Get Inventory**.

Another point to make here is that it is relatively easy to have custom dataviews. Usually an organization should use and test the GG database with its dataviews first to determine their specific needs.

Remember also (for any dataview) that you can hide columns in which you are not interested:
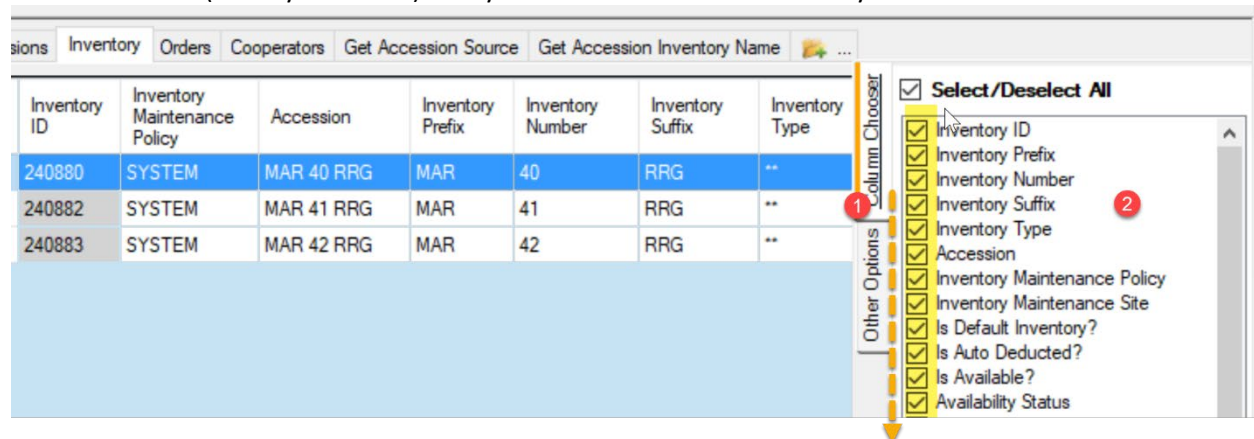
Managing Workflow by recording Inventory Actions

GG has several action tables – **Accessions Actions**, **Inventory Actions**, and **Order Actions**. A good practice for sites to consider is recording staff actions as the staff starts and/or completes a specific task. This helps to ensure a consistent process and workflow. Teams in the genebank can decide what tasks should be recorded.

Practice!

Open the **Inventory Action** dataview in the Search Tool, and search for some action records. Since there are many, be sure you have a reasonable number as the maximum number for the **Limit**:

Inventory Action ID	Inventory	Action Name	Start Date Format	Start Date	Completed Date Format	Completed Date
43	EST2669 1 1 SD	Stored	dd/mm/yyyy	4/28/2010	dd/mm/yyyy	4/28/2010
44	EST267 1 1 SD	Planted	dd/mm/yyyy	3/1/1999	dd/mm/yyyy	3/1/1999
45	EST267 1 1 SD	Received	dd/mm/yyyy	3/1/1999	dd/mm/yyyy	3/1/1999
46	EST267 1 1 SD	Stored	dd/mm/yyyy	6/10/1999	dd/mm/yyyy	6/10/1999

(Search Results panel: Add To Query, Clear Query, Limit: 200, Page Size: 100, Get Accession Inventory Name, Get Accession Source, Inventory Maintenance Policy, Get Inventory Action, Show All Columns)

The **Action Name** column uses codes. Said before, codes can be added or removed by the DBA to match the organization's needs.

Practice!

Inventory Practice

Use one of your accessions that you created in an earlier exercise.

a. Create two **Inventory** records for that accession.

   Remember that when creating any new records, in Edit mode, the violet color in the cell indicates that that field is required.

b. Create several **Accession Inventory Name** records. Then search in the GG Public Website for the related accession, and review its detail page to determine if the names are visible.

c. Highlight the **Accession** item in the List Panel. Practice switching between the dataviews: **Accession**, **Inventory**, **Inventory Name**, and **Inventory Action** dataviews.

d. Create some search queries that look for some of your specific Actions that made in step C. Drag the query text to an empty folder in the CT to create a dynamic query.