

GRIN-Global Curator Tool v 1.8.3



User Guide

Revision Date

Monday, November 11, 2013



This guide provides an overview to the GRIN-Global Curator Tool and provides details on the program's interface. For a quick start in using the program, read the [Frequently Asked Questions](#) document.

Changes in this Document

– November 11, 2013

- included new text regarding the revised Order Wizard

– August 14, 2013

- multiple edits including adding information on dynamic folders, source dataviews, and other features added since version 1.5
- substantial edit of the introductory explanation of GRIN-Global components
- minor edits to the lookup and permissions sections

– April 2, 2013

- initial document for the Curator Tool 1.8.3 release.

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](#).

Topic Quick List

A detailed Table of Contents starts on the next page; however, listed here are topics most frequently followed. [tbd]

| Topic | Additional References |
|---|-----------------------|
| Accessions | |
| Adding Users | |
| Codes | |
| Colors | |
| Copying records | video |
| Creating new records | video |
| Data dictionary | |
| Dataviews defined | |
| Deleting records | |
| Dynamic folders | |
| Frequently asked questions (FAQs) | |
| Images | |
| Importing Data | |
| Installing the Curator Tool | |
| Inventory | |
| Keyboard shortcuts | |
| Language Issues | |
| Lists | |
| Lookup tables | |
| Observations | |
| Orders | |
| Ownership | |
| Permissions | |
| Reports | |
| Searching for existing records | video |
| Security | |
| Wizards | |

Contents

| | |
|--|-----------|
| – November 11, 2013..... | 3 |
| – August 14, 2013 | 3 |
| – April 2, 2013 | 3 |
| Introduction to GRIN-Global | 12 |
| What is Needed to Access GRIN-Global?..... | 12 |
| End User Components..... | 12 |
| Updater Program | 13 |
| Server Components..... | 13 |
| Database and GRIN-Global Basic Concepts | 14 |
| GRIN-Global Overview | 14 |
| GRIN-Global is a Relational Database | 14 |
| Relational Database Example: Accessions and Inventory..... | 16 |
| Schema..... | 17 |
| GRIN-Global Tables | 17 |
| Dataviews..... | 17 |
| GRIN-Global’s Table Relationships..... | 19 |
| Keys: Primary and Foreign | 21 |
| Getting Started with the Curator Tool | 22 |
| Conventions Used in this Manual | 23 |
| Keyboard Shortcuts..... | 23 |
| Drag Data | 24 |
| Drag and Drop..... | 24 |
| Selecting Multiple Rows..... | 25 |
| Curator Tool Overview | 26 |
| Starting the GRIN-Global Curator Tool | 26 |
| Changing Servers..... | 28 |
| Changing Passwords..... | 29 |
| Curator Tool Interface..... | 30 |
| Typical Screen | 30 |
| Definitions..... | 32 |
| Lists (Folders) Overview | 32 |
| Static Lists (“Static Folders”)..... | 33 |
| Using Lists to Organize Your <i>Accessions</i> | 34 |
| Using Lists to Organize Your <i>Order Requests</i> | 35 |
| The List Panel is a File Cabinet | 35 |
| Displaying a List of Accessions | 36 |
| Dynamic Folders..... | 37 |
| Steps in Creating Dynamic Folders..... | 38 |

| | |
|--|-----------|
| Refreshing a Dynamic Folder | 41 |
| Dataviews..... | 42 |
| To Display a Dataview Whose Tab is Visible | 42 |
| To Display a Dataview Whose Tab <i>isn't</i> Visible..... | 42 |
| Dataview Naming Conventions..... | 43 |
| Some Dataviews Display Data, Some Do Not | 44 |
| Form View | 46 |
| Displaying Forms | 47 |
| Visual Clues | 47 |
| Icon Legend | 48 |
| Cell Colors..... | 48 |
| Warning Indicators..... | 49 |
| Spreadsheet Similarities..... | 49 |
| Columns & Rows | 49 |
| Column Order..... | 50 |
| Hiding / Displaying Columns | 50 |
| Personalizing Your Curator Tool: Other Options Tab..... | 51 |
| Cell and row colors..... | 52 |
| Max rows allowed | 52 |
| Performance Enhancement Option: Query Paging Size | 52 |
| Save User Settings Now | 52 |
| Active Web Service (Switching to another Database) | 52 |
| Sorting and Filtering Records..... | 53 |
| Sorting Data..... | 53 |
| Filtering Records | 53 |
| Lookup Tables | 54 |
| Indicators When a Lookup Table Isn't Updated..... | 55 |
| Updating the Lookup Tables | 57 |
| Update Checkboxes..... | 58 |
| Load All and Load Buttons..... | 59 |
| Resource Demand Alternatives..... | 59 |
| Importing Your Data <i>from</i> an Existing Database into GRIN-Global | 60 |
| Using a Spreadsheet to Import Data into GRIN-Global..... | 60 |
| Two Importing Methods | 60 |
| Copy the Data <i>from</i> a Spreadsheet <i>to</i> the Curator Tool | 61 |
| Importing Column Names from the Curator Tool into a Spreadsheet | 63 |
| Copying, Block-Style..... | 64 |
| Copying Curator Tool Data <i>into</i> a Spreadsheet or Database | 66 |
| Copying Curator Tool Data into a Spreadsheet | 66 |
| Using Lists to Organize Data | 67 |
| Tabs..... | 67 |

| | |
|--|-----------|
| To Create a New Tab | 68 |
| To Rename a Tab..... | 68 |
| To Hide and Display Tabs | 69 |
| Lists | 70 |
| To Create a New List | 70 |
| To Delete or Clear a List | 70 |
| To Delete <i>Items</i> from a List | 71 |
| Name a List..... | 71 |
| To Move a List | 72 |
| To Add Additional <i>Items</i> to a List | 73 |
| Sorting & Custom Naming List Items | 73 |
| Sorting List Items..... | 73 |
| List Items' Custom Naming Feature | 74 |
| Inventory Lists | 76 |
| Virtual (or System-Generated) Inventory Items | 76 |
| Searching for Records | 77 |
| Displaying Additional Query-By-Example (QBE) Tabs | 78 |
| To Search from within the Curator Tool | 78 |
| Editing or Saving the Results of a Search | 79 |
| Search Criteria | 80 |
| QBE Search Code..... | 80 |
| Every word matters..... | 81 |
| Text Boxes and Special Characters..... | 82 |
| Wildcards..... | 82 |
| Date Fields..... | 84 |
| Search All..... | 85 |
| "OR" and "AND" in the Query-by-Example Search Method | 85 |
| Adding Criteria | 87 |
| Criteria Code Explained..... | 88 |
| Finding "Extra" Records | 91 |
| GRIN-Global's "Top" Name Standard..... | 92 |
| Text Box Searches | 93 |
| Case Sensitivity..... | 94 |
| Filtering the Search Records | 94 |
| List of Items | 95 |
| Moving Records from the Search Grid to the Curator Tool Data Grid..... | 96 |
| To Move Records from the Search Tool to the Curator Tool..... | 96 |
| Creating, Updating, and Deleting Records | 98 |
| Overview | 98 |
| Cell Colors..... | 99 |
| Creating New Records..... | 100 |

| | |
|--|------------|
| To Create a New Record..... | 100 |
| Keyboard Shortcuts in Edit Mode | 101 |
| Copying from the Cell Above | 101 |
| Duplicate Data (Ctrl-D)..... | 102 |
| Restricted Fields..... | 102 |
| Using the Lookup Picker..... | 103 |
| Updating (Editing) Data..... | 103 |
| Highlight Changed Data Option | 104 |
| Warning Indicators..... | 105 |
| Deleting Records..... | 105 |
| Security (Ownership & Permissions) | 106 |
| <i>Owner</i> Concept | 106 |
| To Transfer Ownership to a Different User..... | 106 |
| Parent and Owner Relationships Between Dataviews..... | 107 |
| Permissions | 108 |
| Assigning Permissions to Other Users..... | 108 |
| Permissions Examples | 109 |
| Image Handling (Attachments) | 110 |
| Dragging Images into the Curator Tool..... | 111 |
| Method 1: Drag Images onto a List Accession or Inventory Item..... | 111 |
| Method 2: Drag Images into Accession or Inventory Dataview Grid..... | 112 |
| Indicating Where the Image Files Will be Stored..... | 113 |
| Displaying the Images | 114 |
| Reports | 115 |
| Report Overview | 115 |
| To display a report, you will:..... | 115 |
| Reports and Their Correlating Dataviews | 116 |
| Exporting and Printing Reports..... | 117 |
| Report Options..... | 117 |
| Exporting to a Spreadsheet (or other file types)..... | 117 |
| Printing Reports | 117 |
| Refreshing Data..... | 118 |
| Finding Text | 118 |
| Wizards | 119 |
| General Notes about Curator Tool Wizards..... | 119 |
| Wizards..... | 119 |
| Accession Wizard Overview | 120 |
| Accession Inventory Tables and Dataviews | 120 |
| Accession Dataview..... | 120 |
| Subordinate Accession Dataviews | 124 |
| Accession Inventory Names Dataview | 125 |

| | |
|---|------------|
| Accession Source Dataview..... | 126 |
| Other Ancillary Accession Dataviews..... | 127 |
| Source Descriptors, Codes, and Data for Source Habitat Information | 127 |
| Managing Inventory | 129 |
| Inventory Overview..... | 129 |
| Prerequisite Data | 129 |
| Each Inventory Record is has a Parent Accession Record..... | 130 |
| Default System-Generated Inventory Records | 132 |
| Required Fields..... | 132 |
| Other Noteworthy Inventory Fields | 135 |
| Recording New Inventory | 136 |
| Order Wizard | 137 |
| Current release | 137 |
| Release 1.8.30.0 Notes..... | 137 |
| Release 1.8.33.0 Notes..... | 137 |
| Orders Overview | 139 |
| Relationship of “Standard” Orders to Public Website Orders | 139 |
| Public Website Orders Diagram | 140 |
| NPGS Specifics..... | 141 |
| High-level Differences Between GRIN Classic and GRIN-Global | 141 |
| Web Cooperators and GG Cooperators in the Curator Tool..... | 142 |
| Order Request and Order Request Items Records..... | 143 |
| Order Dataviews | 143 |
| Order Wizard | 144 |
| Using the Order Wizard to Create a New Order | 144 |
| Step 1 | 144 |
| Step 2 | 145 |
| Step 3 | 146 |
| Step 4 | 146 |
| Step 5 | 147 |
| Step 5a..... | 147 |
| Step 5b: Dragging inventory or accession records from the Search Tool grid..... | 149 |
| Step 5d: Dragging an Accession Row | 151 |
| Step 5e: Dragging Inventory..... | 152 |
| Step 6: Including Order Actions | 153 |
| Step 7 | 154 |
| Step 8 | 154 |
| Step 9 | 154 |
| Actions..... | 155 |
| Finding Existing Orders with the Order Wizard | 156 |
| Copying Existing Order Numbers into the Order Wizard..... | 156 |

| | |
|---|------------|
| Selecting Records before Starting the Order Wizard..... | 157 |
| Order Filters | 159 |
| Deleting Order Records and Order Items in the Wizard..... | 159 |
| Deleting an Order <i>Record</i> | 159 |
| Deleting an Order <i>Item</i> | 160 |
| Web Orders | 161 |
| Creating New Order Records from Web Orders Using the Wizard | 161 |
| Step 1: Start the Order Wizard..... | 161 |
| Step 2 | 162 |
| Step 3 | 162 |
| Splitting an Order | 164 |
| How to Split an Order | 164 |
| Reports for Orders | 165 |
| Cooperator Wizard | 166 |
| Background Information | 166 |
| Using the Curator Tool Cooperator Wizard | 166 |
| Search for an Existing Cooperator Record | 167 |
| To Edit an Existing Cooperator Record | 167 |
| To Create a New Record..... | 168 |
| Web Cooperator Records..... | 168 |
| Updating the Curator Tool | 171 |

Introduction to GRIN-Global

GRIN-Global is a plant genebank management system that was based on the U.S. Germplasm Resource Information Network (GRIN). The GRIN-Global (GG) project involved the [USDA Agricultural Research Service](#), [Biodiversity International](#), and the [Global Crop Diversity Trust](#). Project information, software download links, documentation and training resources can be found on the [GRIN-Global website](#).

GRIN-Global (GG) is public-domain software freely available to the world's crop genebanks. GRIN-Global is versatile and can be implemented different ways, ranging from a simple genebank inventory application on a single PC to a widely distributed networked system supporting on-line user searching and germplasm ordering.

What is Needed to Access GRIN-Global?

The GRIN-Global germplasm information system consists of several distinct components. Several programs must be installed on a user's PC. In organizations that will be using a networked server, the GRIN-Global administrator will also install server-based GRIN-Global programs onto the organization's server.

One GRIN-Global component does not require any installation. The GRIN-Global Public Website is a browser-based application that runs in a standard browser such as Firefox, Chrome, or Internet Explorer. In a networked environment, the user would point to a valid URL established by the GRIN-Global administrator.

End User Components

In a networked environment, the three main GRIN-Global user components are:

- **Public Website (PW)** – you access the PW via a browser window, typically Internet Explorer, Chrome, or Firefox. Since no additional software is installed, just point to a valid URL in a browser window. For example, during their pre-implementation period, the U.S. National Plant Germplasm System used this URL for their training purposes : <http://training.ars-grin.gov/gringlobal> .
- **Curator Tool (CT)** – the GRIN-Global **Curator Tool** is an application that must be installed on the user's PC in order to connect to the remote GRIN-Global server. The GRIN-Global Curator Tool is used by curators and users who create and manage genebank data. This document contains the step-by-step directions and explanations pertinent to the Curator Tool.

In order for a PC to run the Curator Tool program, a copy of SQL Server Express is installed on the user's PC when the CT is installed, regardless of what database product is used to run the main GG database hosted on the server. Why? The SQL Server Express manages a set of lookup tables that are installed with the Curator Tool.

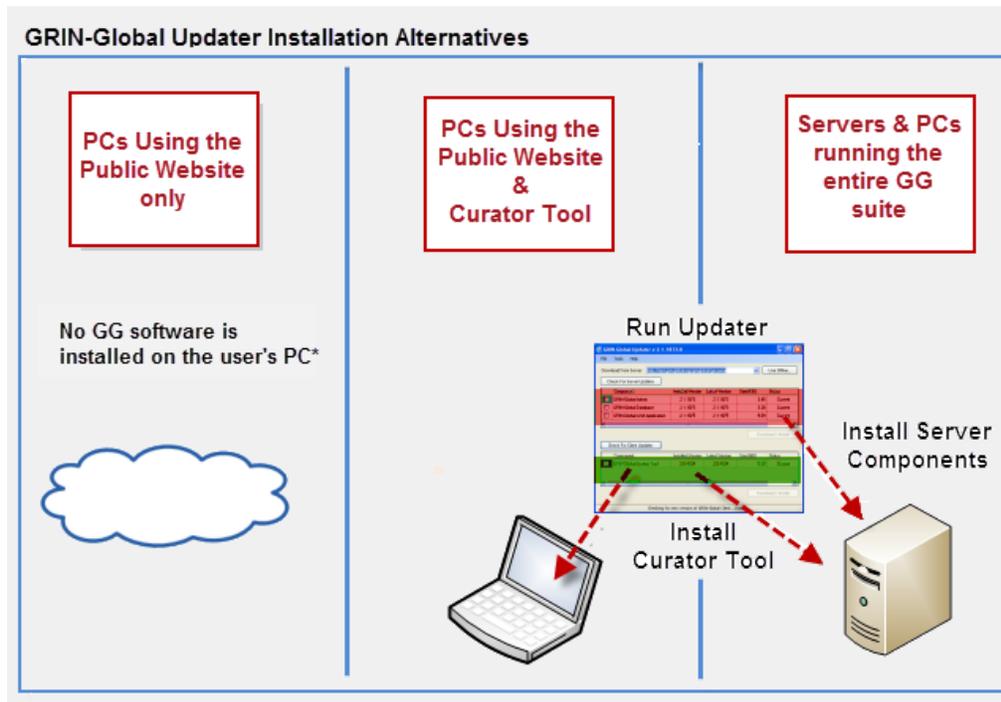
- **Search Tool (ST)** – the Search Tool is automatically installed when the Curator Tool is installed. The ST can run as a stand-alone application, but generally it is launched from within the CT. (There is a **Search** button in the CT.)





Not all GRIN-Global users need to install all of GRIN-Global's components. For example, in the United States National Plant Germplasm System (NPGS), users only install the Curator Tool onto a user's PC; the GRIN-Global server components are only installed once, on a server. (When installing the Curator Tool, the Search Tool will be installed automatically.)

Example: NPGS users will be setup as shown below with the middle alternative.



Updater Program

The GRIN-Global **Updater** program is used to install all GRIN-Global software components. Therefore, every PC on which GG applications are installed, whether a user PC or the server, must have the Updater program installed first. There is a complete set of instructions in the GRIN-Global [Installation Guide](#).



The GG **Updater** program is first downloaded onto the user's PC. After downloading the **Updater**, you run it and it then prompts you to install the other GG components. As stated earlier, not all of the GG components are necessarily installed – in a typical networked environment, only the Curator Tool, the client application, needs to be selected.

Server Components

Admin (Administrator) Tool

This program is used by individuals responsible for setting up the GRIN-Global applications and environment for an organization. In some cases, especially in smaller organizations, where the user's PC serves also as the server, one person may function as both the administrator and the primary user.

There is a separate GRIN-Global [Administrator's Guide](#).

Users working on a shared, networked GG database will not have the Admin Tool installed on their PCs. However, in situations where a user will be running the GG database locally on her PC, the Admin Tool will also be installed.

Public Website

The GRIN-Global Public Website (PW) is designed for users who will query the GRIN-Global database for germplasm information or who will be ordering germplasm to meet specific research needs. Besides researchers, breeders, and other scientists, curators and other internal genebank technicians may also use the Public Website as a complement to the Curator Tool to look up Accessions, Orders, etc.

No installation is required – the Public Website requires a standard browser and incorporates an easy-to-use interface for extracting Plant Genetic Resource information from the database. The user documentation for the Public Website is embedded in its help function. The GRIN-Global administrator typically will provide the user with a valid URL to which the user can direct his browser.

Database Engine

In order for GRIN-Global to function, an underlying database engine must be installed, either on a network server, or on an individual's PC (when the data will be stored locally). GG has been designed to work on any of the following four databases: Microsoft SQL Server, Oracle, MySQL, and PostgreSQL.

In larger organizations, a database administrator may be responsible for initially establishing the GRIN-Global database table structures on the organization's server. In smaller organizations, one person (you!) may be responsible for installing the entire GRIN-Global application on one PC and serving not only as the primary user, but also as the administrator.

In either case, as part of the installation, the database program (engine) is required. On a server there is usually a preferred database already installed. GRIN-Global is compatible with SQL Server, Oracle, MySQL, and PostgreSQL.



If you are already comfortable with relational databases, you may want to proceed to the “how-to” sections of this manual, beginning with the section [Conventions Used in this Manual](#).

Database and GRIN-Global Basic Concepts

GRIN-Global Overview

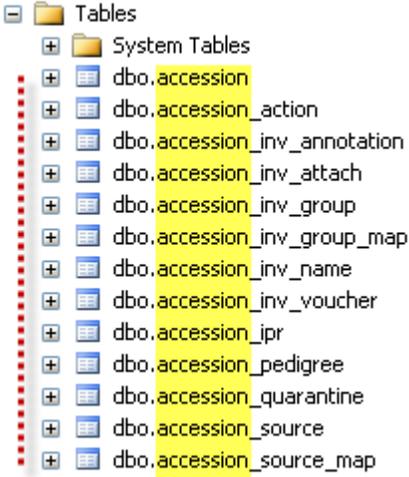
GRIN-Global is a Relational Database

The GRIN-Global data is stored in many tables; this type of database is referred to as a [relational](#) database. Each table relates to other tables by key fields. A single spreadsheet, on the other hand, may be considered a database, but because the spreadsheet stands alone, it is not relational and is sometimes referred to as a [flat file](#) database. Generally, relational databases:

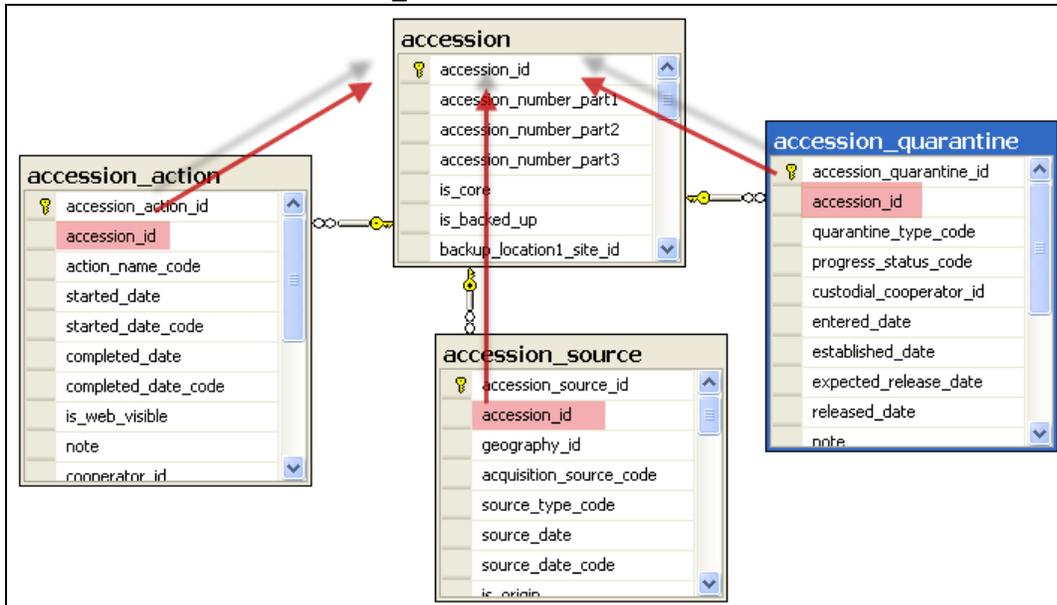
- are easy to use

- reduce redundant data
- consist of many tables that are used together to quickly find desired information
- are easier to expand when data needs change

In GRIN-Global the accession data is stored across more than 103 related tables. The illustration below lists the tables by their actual table names. (This is not a Curator Tool screen shot, but was taken from the database tool in which the developers designed the tables. As a Curator Tool user, you will not typically see the names shown here.)



Each record in the accession table has a unique accession_id. (The accession_id field is the table’s primary key.)The subordinate tables that relate to the main accession table do this by pointing to the main accession table’s **accession_id**.



(Not all of the accession tables are shown in this illustration.)

Fortunately, as a GRIN-Global Curator Tool user, these relationships are managed for you in “dataviews” – dataviews mask these raw data descriptions and relationships.

Relational Database Example: Accessions and Inventory

The following example illustrates how combined Accession and Inventory data would look in a non-relational database, such as a spreadsheet:

| Accession Prefix | Accession Number | Accession Suffix | Taxon | Life Form | Additional Acc. Fields... | Inventory ID | Inventory Prefix | Inventory Number | Inventory Suffix | Inventory Type | Inventory Maintenance Name |
|------------------|------------------|------------------|--------------------|-----------|---------------------------|--------------|------------------|------------------|------------------|----------------|----------------------------|
| PI | 537023 | mar | Phaseolus vulgaris | SD | ... | 49051 | WRF1 | 3175 | 01 | SD | BEAN_HYBRID_SEED |
| PI | 537023 | mar | Phaseolus vulgaris | SD | ... | 49042 | PI | 537023 | 1995 | HE | BEAN_HERBARIUM |
| PI | 537023 | mar | Phaseolus vulgaris | SD | ... | 49033 | NSSL | 3175 | 1996 | SD | BEAN_HYBRID_SEED |
| PI | 537023 | mar | Phaseolus vulgaris | SD | ... | 49024 | WRF1 | 335162 | 01 | SD | BEAN_HYBRID_SEED |
| PI | 537023 | mar | Phaseolus vulgaris | SD | ... | 49015 | NSSL | 3175 | 1995 | SD | BEAN_HYBRID_SEED |

The data highlighted in yellow is redundant Accession data; for every inventory record, the Accession data is duplicated. By splitting out the data into relational tables as shown below, the data is not duplicated. Besides saving storage space, there are other advantages including less chance of data entry errors and preventing accidental deletion of records having related data.

| Accession Prefix | Accession Number | Accession Suffix | Taxon | Life Form | Additional Acc. Fields... |
|------------------|------------------|------------------|-----------|-----------|---------------------------|
| PI | 537023 | mar | Phaseolus | SD | ... |

| Accession | Inventory ID | Inventory Prefix | Inventory Number | Inventory Suffix | Inventory Type | Inventory Maintenance Name |
|---------------|--------------|------------------|------------------|------------------|----------------|----------------------------|
| PI 537023 mar | 49051 | WRF1 | 3175 | 01 | SD | BEAN_HYBRID_SEED |
| PI 537023 mar | 49042 | PI | 537023 | 1995 | HE | BEAN_HERBARIUM |
| PI 537023 mar | 49033 | NSSL | 3175 | 1996 | SD | BEAN_HYBRID_SEED |
| PI 537023 mar | 49024 | WRF1 | 335162 | 01 | SD | BEAN_HYBRID_SEED |
| PI 537023 mar | 49015 | NSSL | 3175 | 1995 | SD | BEAN_HYBRID_SEED |

(In GRIN-Global, the Inventory records relate to the Accession records by the combined Prefix, Number, and Suffix fields. Every accession record must have a unique combination of those three fields.)

The following graphic illustrates how an accession record relates to inventory records. These are Curator Tool accession and inventory dataview images. In this example, the five inventory records are considered to be children of the accession record because the inventory records are linked to a prerequisite accession record.

| Accession ID | Accession Prefix | Accession Number | Accessor Suffix | Accession Name | Site |
|--------------|------------------|------------------|-----------------|----------------|------|
| 419152 | PI | 537023 | | TRHRG 165 | NR |

| Inventory ID | Inventory Prefix | Inventory Number | Inventory Suffix | Inventory Type | Inventory Maintenance Name | Accession ID |
|--------------|------------------|------------------|------------------|----------------|----------------------------|--------------|
| 49051 | WRF1 | 3175 | 01 | SD | POTATO_HYB_SEED | PI 537023 |
| 49052 | PI | 537023 | 01 | HE | POTATO_HERBARIUM | PI 537023 |
| 970314 | WRF1 | 3175 | 1995 | SD | POTATO_HYB_SEED | PI 537023 |
| 1008678 | NSSL | 335162 | 01 | SD | COLD | PI 537023 |
| 1023824 | WRF1 | 3175 | 1996 | SD | POTATO_HYB_SEED | PI 537023 |

For more background information on relational databases, see http://en.wikipedia.org/wiki/Relational_database.

Schema

When GRIN-Global is installed, most organizations typically choose to use the schema as defined by the GRIN-Global developers. The term “schema” is basically the definition of the tables, the fields, the relationships, the dataviews, the indexes, and other components that comprise the complete database system. An organization can modify the schema if desired; for example, sometimes an organization may add an additional table because of its unique needs. The organization can also modify the headings displayed in dataviews to meet their specific usage, including their primary language.

Additional Administrator Guides

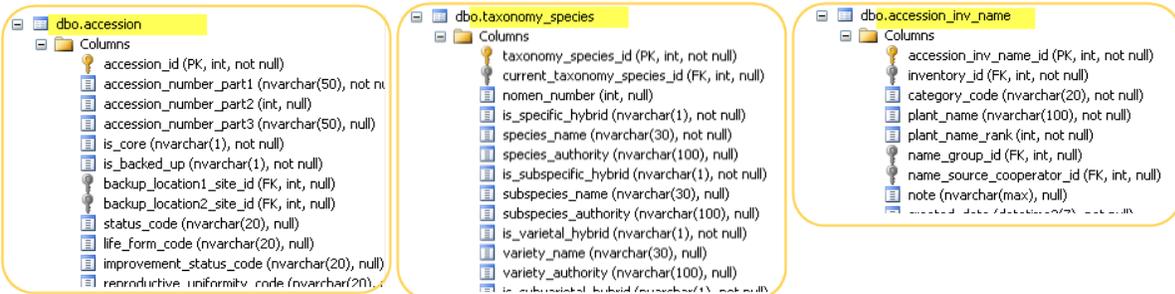
Step-by-step directions for administering the dataviews are in the *GRIN-Global Administrator’s Guide*. There is also a separate document, the *GRIN-Global Data Preparation Cookbook*, which contains detailed steps for importing an organization’s data from spreadsheets into GRIN-Global.

GRIN-Global Tables

All data for GRIN-Global is stored in its many tables. Each PC or server relies on one of the four database software engines, MySQL, SQL Server, Oracle, or PostgreSQL, to do the actual storing of the data.

Some of the fields from three important GRIN-Global tables are shown below. The definitions below are what the GRIN-Global programmers worked with; as a Curator Tool user you will not refer to the physical database table definitions.

Database Table definitions



Dataviews

The Curator Tool consists of many dataviews in which users display data without needing to know SQL or programming. A dataview essentially retrieves data from tables via a programmed query. Fortunately, these dataviews will have been created for you. You can display many dataviews and switch back and forth by clicking on their tabs. Shown below are nine dataview tabs with the **Accessions** dataview selected; the datagrid is displaying Accessions-related data:

| Accessions | Inventory | Orders | OrderRequestItems | PackingSlip | Cooperators | AccessionName | TaxonomyFamily | TaxonomyGenus | T. < > |
|--------------|------------------|------------------|-------------------|-------------------|----------------|----------------------|----------------|---------------|--------|
| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Accession Name | Level Of Improvement | Is Core? | | |
| 312 | PI | 502588 | | Rubus caesius | Отменить | Wild material | N | | |
| 313 | PI | 502589 | | Rubus sp. | | Wild material | N | | |
| 2715 | PI | 548888 | | Rubus acanthop... | | Wild material | Y | | |
| 2716 | PI | 548889 | | Rubus adenotic... | | Wild material | Y | | |

When the programmer created the Accessions dataview, she selected specific fields to be displayed. Note that a dataview’s fields are not restricted to one table in the database. For example, in the Accessions dataview, the **Taxon** data originates in the **dbo_taxonomy_species** table and the **Accession Name** data comes from the **dbo_accession_inv_name** table.

Database Table Definitions

The screenshot shows three database tables and a dataview table:

- dbo.accession** columns: accession_id (PK, int, not null), accession_number_part1 (nvarchar(50), not null), accession_number_part2 (int, null), accession_number_part3 (nvarchar(50), null), is_core (nvarchar(1), not null), is_backed_up (nvarchar(1), not null), backup_location1_site_id (FK, int, null), backup_location2_site_id (FK, int, null), status_code (nvarchar(20), null), life_form_code (nvarchar(20), null), improvement_status_code (nvarchar(20), null).
- dbo.taxonomy_species** columns: taxonomy_species_id (PK, int, not null), current_taxonomy_species_id (FK, int, null), nomen_number (int, null), is_specific_hybrid (nvarchar(1), not null), species_name (nvarchar(30), not null), species_authority (nvarchar(100), null), is_subspecific_hybrid (nvarchar(1), not null), subspecies_name (nvarchar(30), null), subspecies_authority (nvarchar(100), null), is_varietal_hybrid (nvarchar(1), not null), variety_name (nvarchar(30), null), variety_authority (nvarchar(100), null).
- dbo.accession_inv_name** columns: accession_inv_name_id (PK, int, not null), inventory_id (FK, int, not null), category_code (nvarchar(20), not null), plant_name (nvarchar(100), not null), plant_name_rank (int, not null), name_group_id (FK, int, null), name_source_cooperator_id (FK, int, null), note (nvarchar(max), null).

Curator Tool Accessions Dataview

| Accessions | Inventory | Orders | Cooperators | Acc. Inv Name | Acc. Inv Voucher | Acc. Inv Annotation | Acc. Inv Group Map | Acc. Inv Group | Acc. |
|--------------|------------------|------------------|------------------|---|--------------------------|---------------------|--------------------|----------------|------|
| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Accession Inventory Name | Origin | Mair Site | | |
| 333 | PI | 503232 | | Helianthus petiolaris subsp. petiolaris | MAR-v ir | | | | SYS |

Technical Overview of a Dataview

The following explanation is intended for those readers interested in a brief explanation of the technology behind the dataviews: A dataview is a SQL SELECT statement embedded within the Curator Tool. The programmed logic uses some pre-defined criteria to select related records from the database’s many tables. The dataview fields correspond to fields in one or more database tables. Language-specific “friendly” names are assigned to each dataview field, which in turn are displayed as the field column titles in the Curator Tool. Although the data displayed in the Curator Tool appears as a single table of rows and columns, it most likely originated from several related tables.)

Many dataviews are included when the Curator Tool is installed. For example, the three main dataviews, **Accessions**, **Inventory**, and **Orders**, are displayed by default. Other dataviews are not initially displayed, but are available and can be easily selected. Over time, your organization may develop additional dataviews for specific purposes. Eventually you will become familiar with certain dataviews and have a basic understanding of what data is displayed in each one. Some you may use frequently, and others perhaps rarely (if ever), depending on your position and interests.

Some Dataviews Show All Records and Some Do Not

The data displayed in a dataview may transcend multiple tables. As a Curator Tool user, you should be aware that some dataviews show all records in a table, whereas most of the dataviews do not because they filter the data based on certain programmed criteria. (The dataview programmer codes the dataview so that each time the dataview is invoked by the Curator Tool user, program parameters are applied, thus filtering the records. The programmer would say that the parameters were “resolved.”)

Although most dataviews are designed to work with parameters and display just a subset of the entire database, a few dataviews show *all* of the records for a given table and do not use any parameters.

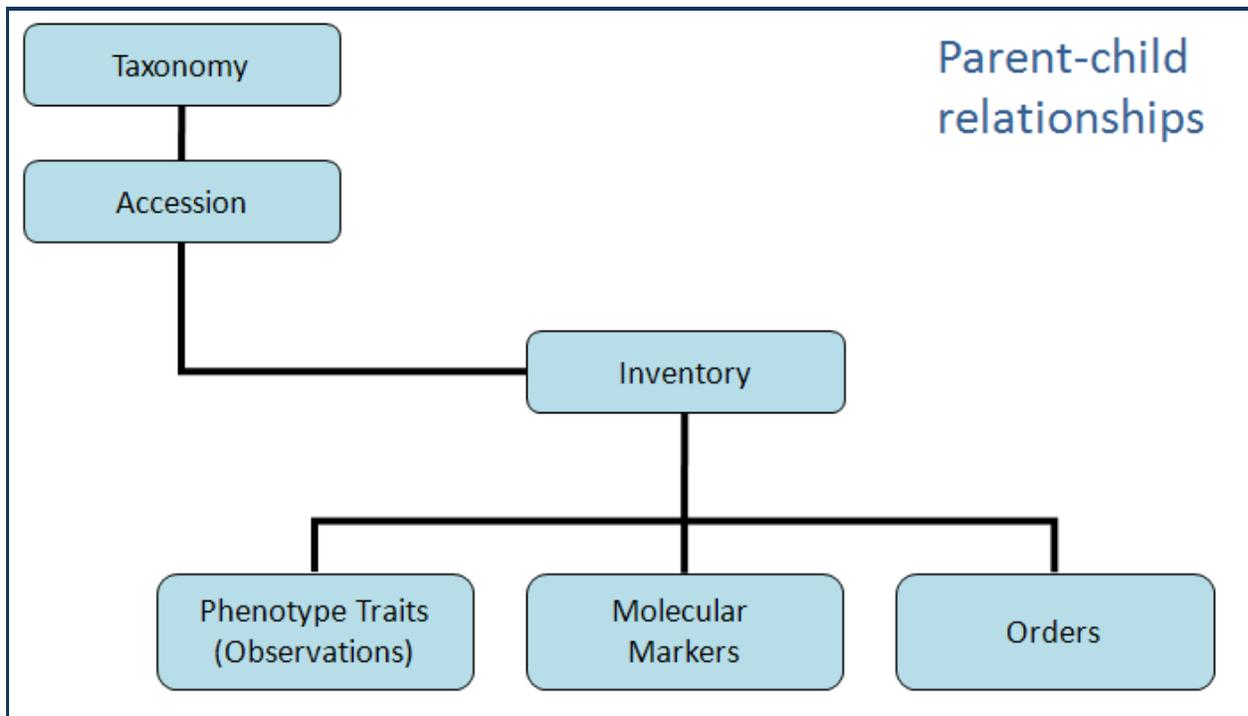
This illustration is showing a snapshot of the Curator Tool, with its List Panel on the left and the dataviews on the right. The **get_site** dataview is a dataview that displays all of the site records in the GRIN-Global database and is independent of the lists in the List Panel.



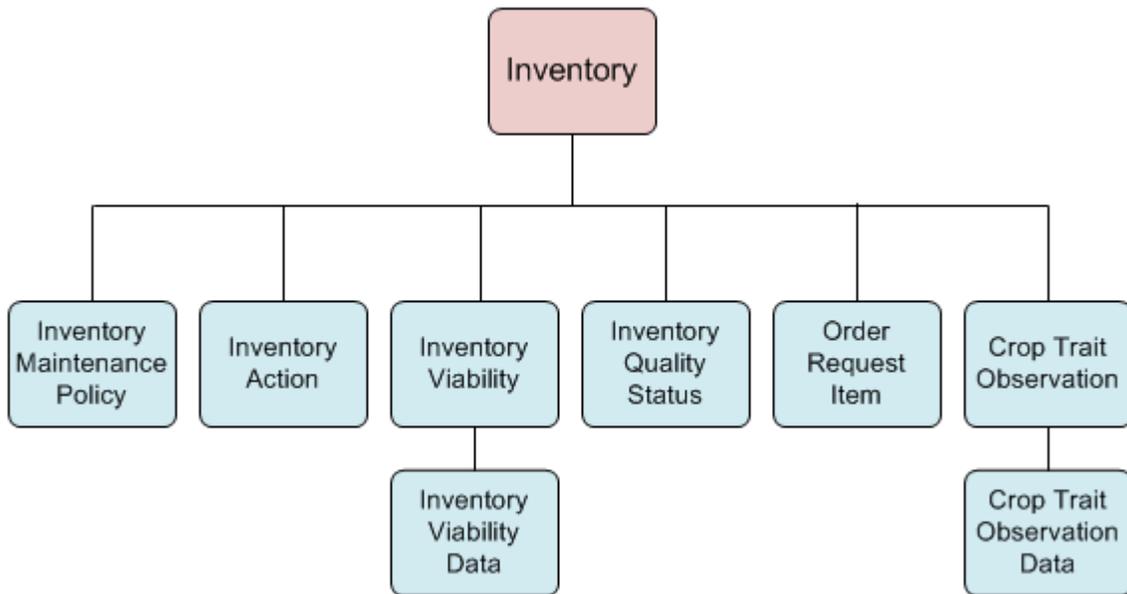
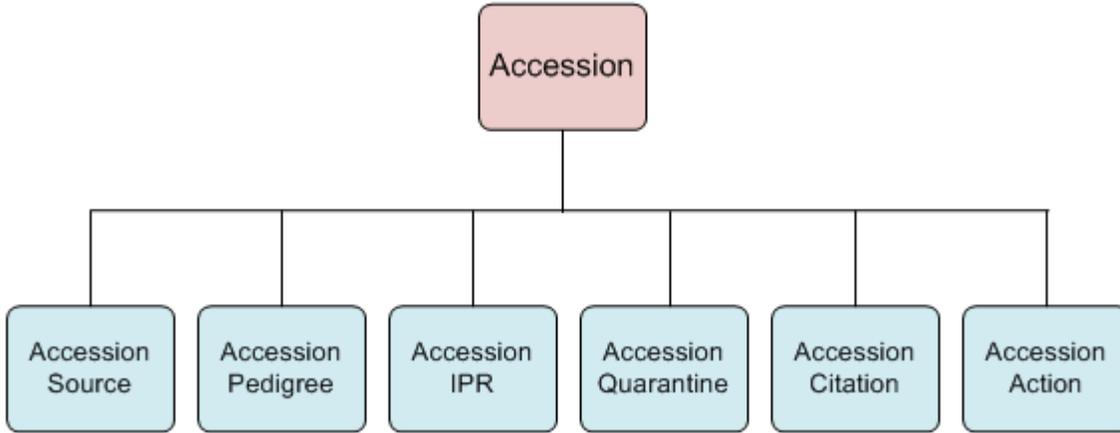
The GRIN-Global developers have created a data dictionary which describes what type of data is accessed by the many dataviews. (See: [GRIN-Global data dictionary](#).) Complete step-by-step directions for working with dataviews begin on page 32.

GRIN-Global’s Table Relationships

The following diagram illustrates the relationships between the primary GRIN-Global tables:

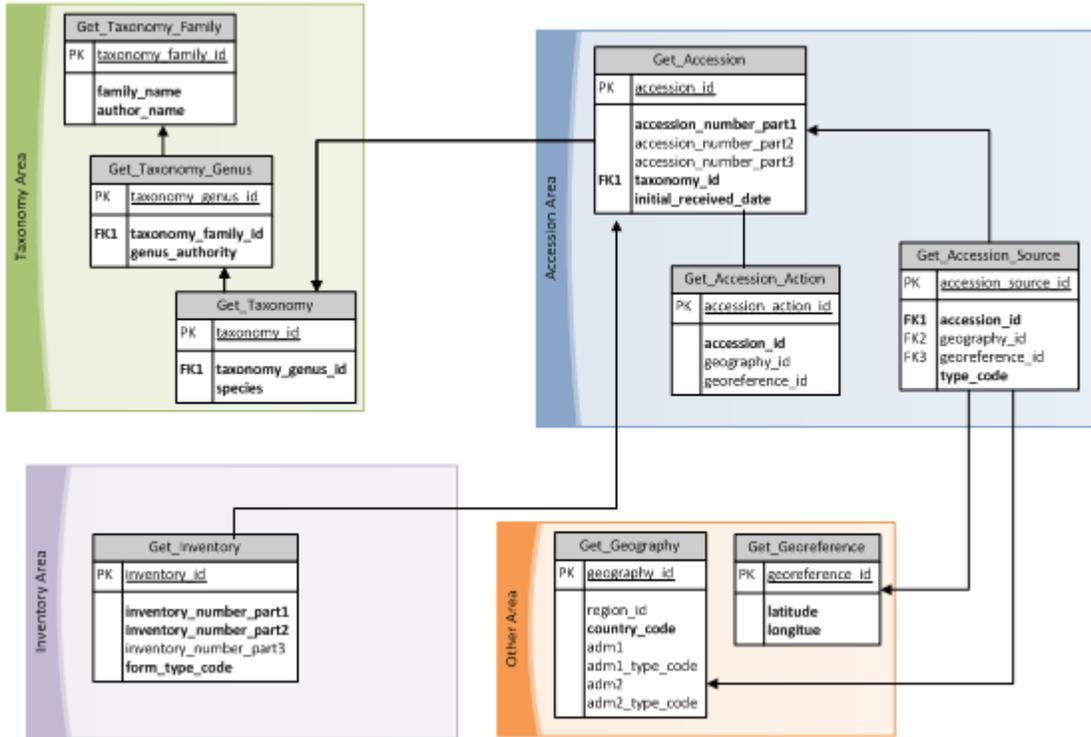


There are many other tables in GRIN-Global which are not represented in the previous illustration. Data such as geography, cooperators, crops and descriptors, codes, etc. are stored in ancillary tables. For example, there are many accession-related child tables. These tables support the main accession table. Customized dataviews, accessible from the Curator Tool, obtain their data from these tables.



Keys: Primary and Foreign

The partial schema GRIN-Global diagram below illustrates the relationship between some of the main GRIN-Global tables. (The primary key (PK) and foreign key (FKn) are used by the GRIN-Global program designers to indicate key fields. The relationships have also been established by the program designers.



Primary Keys

A primary key is system generated. In the Curator Tool, every dataview by default displays the primary key in the left column:

| Site | Orders | Order Request Item | Accessions | Inventory | Inventory Action | Inventory Quality Status | Cooperators | Crop | Crop Trait Obser |
|------|--------------|--------------------|------------------|------------------|------------------|--------------------------|---------------|------|------------------|
| | Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Name | Origin | | |
| | 1910275 | Grif | 1 | mar | Capsicum annuum | Marty's demo | United States | | |
| | 1910276 | Grif | 2 | mar | Capsicum annuum | | | | |
| | 1910277 | Grif | 3 | mar | Capsicum annuum | Marzii2 | | | |
| | 1910278 | Grif | 4 | mar | Capsicum annuum | Mar4 | | | |
| | 1910279 | Grif | 5 | mar | Capsicum annuum | | | | |
| | 1910280 | Grif | 6 | mar | Capsicum annuum | | | | |

Notice that the **Accession ID** field is gray – the gray color indicates that this is a read only field. When you add a new record to the GRIN-Global database, the system will generate the next available number.

In the process of creating a new record, you will notice a temporary primary key (the **Accession ID**):

| Site | Orders | Order Request Item | Accessions | Inventory | Inventory Action | Inventory Quality Status | Cooperators | Crop |
|------|--------------|--------------------|------------------|------------------|-------------------|--------------------------|-------------|-------------|
| | Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | | | Name |
| | 1910275 | Grif | 1 | mar | Capsicum annuum | | | Marty's den |
| | 1910276 | Grif | 2 | mar | Capsicum annuum | | | |
| | 1945134 | PI | 700001 | marty | Helianthus annuus | | | |
| | 1945135 | PI | 700002 | marty | Helianthus annuus | | | |
| | 1945136 | PI | 700003 | marty | Helianthus annuus | | | |
| | 1945137 | PI | 700004 | marty | Helianthus annuus | | | |
| | -16 | | | | | | | |

After the data is saved, the temporary number changes to a permanent number.

Secondary (or "Alternate") Keys and Foreign Keys

Most users will not remember data by the record's primary key, since the primary key is system generated and is not actual curatorial data. Instead, most genebank users will know their data by the records' secondary keys. For example, in the U.S. NPGS, every permanent accession in the system has an identifier that is commonly referred to by the users as the accession's "PI Number." In GRIN-Global, the permanent PI number is stored in two fields: **Accession Prefix** and **Accession Number**. (PI is an acronym for "Plant Introduction" – the USDA starting assigning PI numbers to the accessions in their collection many years before the advent of computers.)

Many sites will first add their accession data into the GRIN-Global database, but use a temporary number – in many cases these sites will use three fields: **Accession Prefix**, **Accession Number**, and **Accession Suffix**. These three fields collectively comprise the accession secondary key. The combination of these three fields must be unique – no two accession records can have that same combination. (In cases where an accession record only uses two of the three fields, that combination must be unique.)

A **foreign key** is one field (or a collection of fields) in one table that uniquely identifies a row of another table. In other words, a foreign key is a column or a combination of columns that is used to establish and enforce a link between the data in the parent and child tables. When creating a new child record, the child's foreign key must match the parent's secondary key.

Refer to the GRIN-Global [Data Dictionary](#) which contains detailed information on the GRIN-Global dataviews, tables, and fields.

Getting Started with the Curator Tool

Because GRIN-Global will be adapted by diverse organizations, diverse approaches may be taken for getting started. As mentioned previously, some organizations may run GRIN-Global on a single PC, whereas the more typical configuration will be in a networked environment with one server and multiple user PCs.

The organization will need to determine how existing data will be populated into GRIN-Global. Will the data be manually entered, or assuming the organization has substantial data already, will an GRIN-Global administrator import the data into the GRIN-Global database? Organizations may have stored their data in spreadsheets or other database formats and will need to convert that data into the GRIN-Global schema. On the other hand, some organizations may need to input data stored in paper format into the GRIN-Global database.

To work with the GRIN-Global database, you will need to learn the mechanics of the Curator Tool which is explained in detail in the remainder of this document.

Conventions Used in this Manual

To simplify directions in this manual, “Excel” or “spreadsheet” will sometimes be substituted for “Excel or your preferred spreadsheet program” since the Curator Tool data is compatible with many spreadsheet programs.

The following instructions illustrate how you work within the Curator Tool; in following sections, more thorough explanations will explain *why* you do specific functions.

Keyboard Shortcuts

The GRIN-Global Curator Tool adheres to many of the standard Windows conventions. (The following shortcuts work within the Curator Tool and Windows, but on non-English keyboards the Windows keyboard shortcuts may be different.) For instance, when you need to copy data on the screen, you can highlight the data being copied and then use the keyboard shortcut **Ctrl-C**. This notation means “*while holding the Ctrl key, tap the ‘C’ key.*”

There are other standard Windows keyboard combinations that are frequently used:

| Keyboard Combinations | Effect |
|-----------------------|--|
| Ctrl + A | Select all (highlight everything in the current “group”) |
| Ctrl + C | Copy |
| Ctrl + D | When a group of cells are selected, the top cell in the group is duplicated <i>down</i> from the top cell to the bottom cell. (Must be in Edit mode; also works when a block of cells across multiple columns are selected.) |
| Ctrl + N | Create a <i>new</i> record (when in Edit Mode). Select a record to be duplicated; press Ctrl-N (the duplicate record is created below the selected record). |
| Ctrl + ‘ | Duplicates the contents from the cell directly above into the cell you are currently editing |
| Ctrl + V | Paste |
| Ctrl + X | Cut |
| F2 | When in Edit mode, you can double-click on a cell to edit it or press the F2 |

| | |
|-----|---|
| | key. If the cell uses a Lookup Picker, F2 will open the Lookup Picker window. |
| Del | When in Edit mode, press the Del key to clear the cell |

Drag Data

If you are familiar with other PC applications, such as word processors or spreadsheets, then you are probably familiar with dragging the mouse to select text or data. To “drag” the mouse involves clicking on some object on the screen, either text or a graphic, and then *while holding the mouse button*, you drag the mouse. The following is just one example of how dragging is used:

The image shows two screenshots of a data grid interface. The top screenshot shows a grid with columns: Accession ID, Accession Prefix, Accession Number, Accession Suffix, Accession Name, and Site. The first four rows are highlighted in blue. A red arrow points to the first column header cell. The bottom screenshot shows the same grid, but now the first four rows are highlighted in blue, and the first column header cell is also highlighted. A red arrow points to the first column header cell. A red text label 'header cells' with two red arrows points to the first column header cell in both screenshots. Below the second screenshot, a red text label reads: 'by dragging the mouse down the column of header cells, the four corresponding rows were highlighted (selected)'.

| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Accession Name | Site |
|--------------|------------------|------------------|------------------|----------------|------|
| 385102 | PI | 502973 | | CARDINAL | NSGC |
| 388538 | PI | 506409 | | DYNASTY | NSGC |
| 390415 | PI | 508286 | | GR855 | NSGC |
| 390416 | PI | 508287 | | GR863 | NSGC |

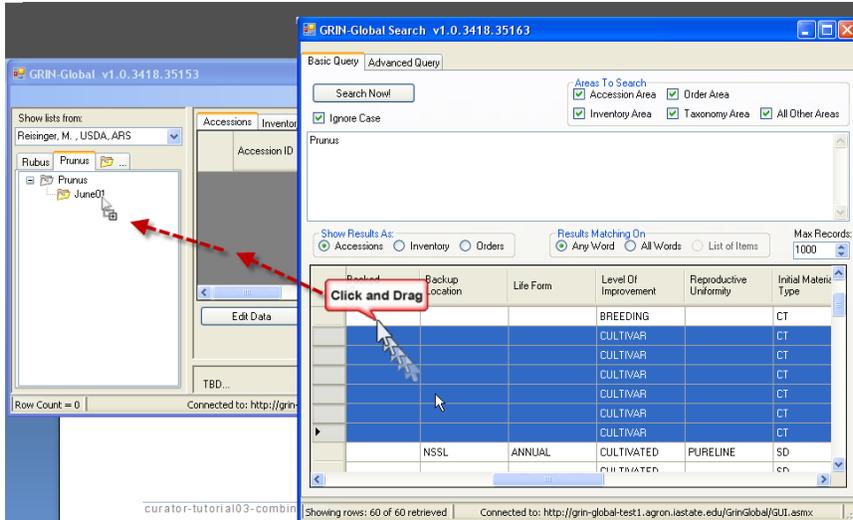
header cells

by dragging the mouse down the column of header cells, the four corresponding rows were highlighted (selected)

Drag and Drop

The expression “drag and drop” indicates that the mouse is being used to copy data or an object from one location to another. For instance, records displayed in the Search Tool or Curator Tool Data Grids may be dragged to a list in the List Panel. (The detailed specifics will be explained later.)

In the following example, the highlighted rows in the right window (a Search window), are being dragged to a List, “June01,” in the left GRIN-Global Curator Tool window.



To accomplish this, the person using the Search application selected the rows in the right window, clicked in the highlighted area, dragged the mouse to the left Curator Tool window, and then “dropped” (released the mouse key) when the cursor was over the **June01** folder name. This is easier to do than to describe!



The easiest method for accomplishing dragging and dropping is to position both windows on your screen so that they are simultaneously visible.

For a “drag and drop” demonstration, see the <http://www.ars-grin.gov/npgs/gringlobal/videos/draganddrop.swf> video.

Selecting Multiple Rows

When working within a grid, you can either highlight (select) multiple records by using the mouse “Drag” method described on page 24, or use the Shift or Ctrl keys to include multiple records.

| To Select | Do This |
|-------------------------------|--|
| A contiguous group of records | Click the header cell of the first row in the group, and then while holding down the Shift key, click the header cell of the last row in the group. You can scroll to make the last cell visible. |
| Non-adjacent records | Select the header cell of the first row, and then while holding down the Ctrl key, click on other nonadjacent rows. |

Curator Tool Overview

Selecting Contiguous Rows

click,

then while holding the **Shift** key,

click in the bottom row's header cell

| | Accession ID | Accession Prefix | Accession Number | Accession Suffix | Accession Name | Site |
|--|--------------|------------------|------------------|------------------|----------------|------|
| | 426071 | PI | 543945 | | 823637 | DAV |
| | 426075 | PI | 543949 | | 134343 | DAV |
| | 426076 | PI | 543950 | | 134344 | DAV |
| | 426077 | PI | 543951 | | 134345 | DAV |
| | 426079 | PI | 543953 | | 823641 | DAV |
| | 426082 | PI | 543956 | | 134349 | DAV |
| | 426083 | PI | 543957 | | 134350 | DAV |

Selecting Non-Adjacent Rows

while holding the **Ctrl** key, click on the header cells of the records of the records to be included

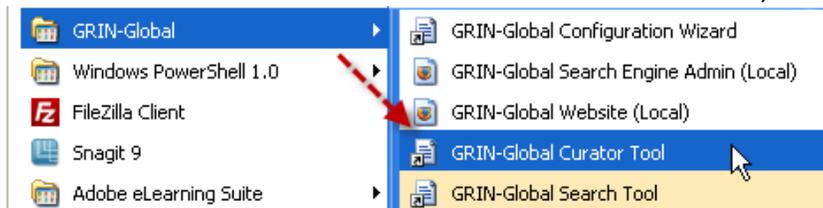
| | Accession ID | Accession Prefix | Accession Number | Accession Suffix | Accession Name | Site |
|--|--------------|------------------|------------------|------------------|----------------|------|
| | 426071 | PI | 543945 | | 823637 | DAV |
| | 426075 | PI | 543949 | | 134343 | DAV |
| | 426076 | PI | 543950 | | 134344 | DAV |
| | 426077 | PI | 543951 | | 134345 | DAV |
| | 426079 | PI | 543953 | | 823641 | DAV |
| | 426082 | PI | 543956 | | 134349 | DAV |
| | 426083 | PI | 543957 | | 134350 | DAV |
| | 426206 | PI | 544080 | | 528817 | S9 |
| | 426207 | PI | 544111 | | 528818 | S9 |

Curator Tool Overview

Starting the GRIN-Global Curator Tool

To access the Curator Tool, you need a Username and Password. These are assigned by a GRIN-Global Administrator. Also, the Curator Tool must be installed on your PC.

1. Select **GRIN-Global Curator Tool** from the Windows Start menu.)

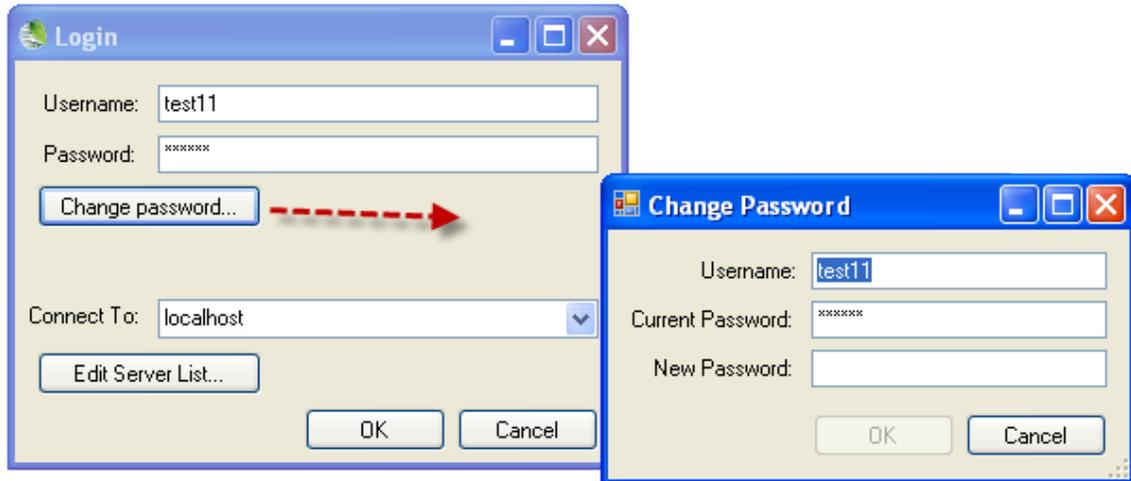


Alternatively, if the Curator Tool icon is on your desktop, double-click it.



(If the icon is not visible and the Curator Tool is installed, you can add the shortcut icon to your desktop. See the online [Frequently Asked Questions document](#).)

- In the **Login** window, input your **Username** and **Password**. Select the desired database from the **Connect To:** dropdown box. Click the **OK** button.

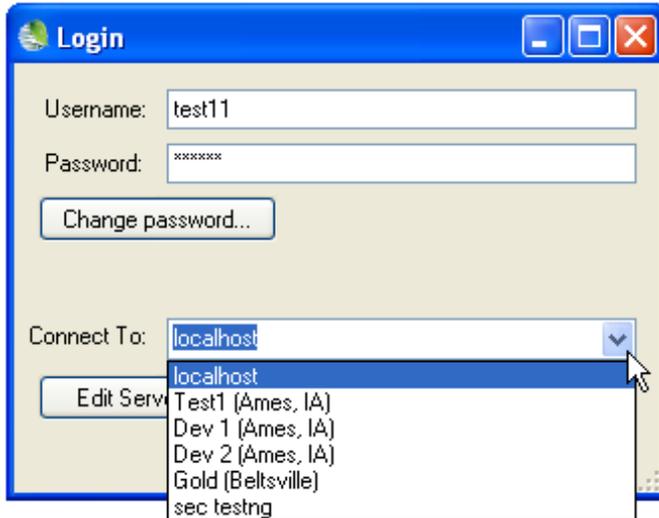


In the example, the server's name is **localhost**. However, in a networked environment, the server name will not be localhost. ("localhost" is a jargon for the database on your PC which is not appropriate in a networked environment.) Typically the GRIN-Global administrator will indicate a valid server name. The next section *Changing Servers* provides more details on servers and server name.

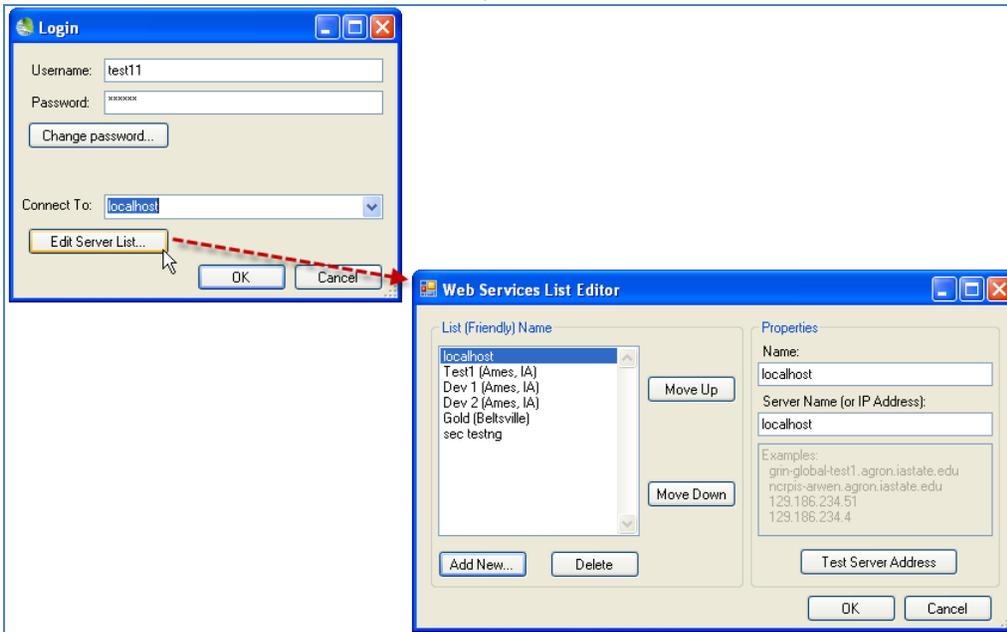
Changing Servers

In most organizations the GRIN-Global database will reside on a remote server. In others, especially smaller genebanks, the entire GRIN-Global suite may be installed on a single user's PC. In either case, when you login you must indicate on the Login window the GRIN-Global database location.

By default, a server will be listed in the **Connect To:** dropdown box. In the following example, the default server is localhost, which means that the user will be working on the database stored on his own PC. However, when the user clicks the dropdown, he may see several other possible servers which he can connect to. (Since this is a screen taken by a tester, there are many servers listed here whereas generally in most organizations only one or two will be listed.)

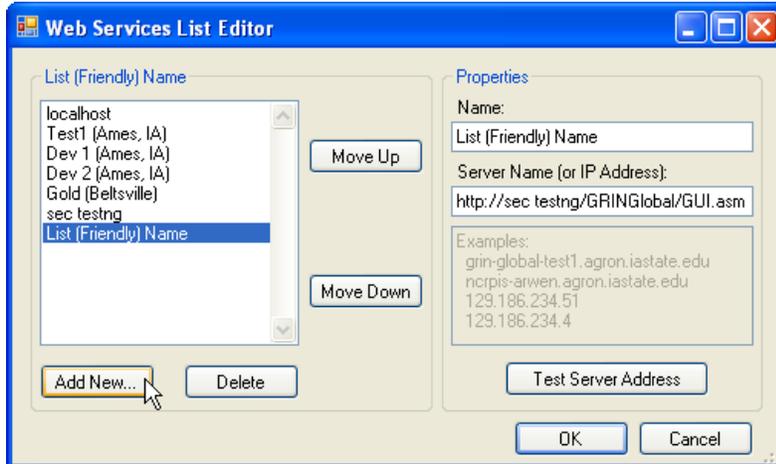


To include or delete servers from the list, click the **Edit Server List** button:



On the **Web Services List Editor** window, click the **Add New** button to add a new server. A new generic entry will be added at the bottom of the list in the left box. In this case, it is displayed as “List (Friendly) Name”. On the right side of the window, you can edit the name and the true server name or address.

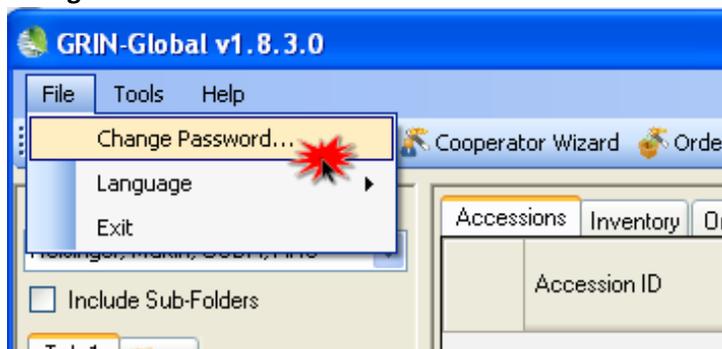
Typically your organization’s GRIN-Global administrator will provide the server information. If she does not have a [Domain Name Server](#) available, she will supply an explicit [IP address](#).



Note that the order of the list can be adjusted by selecting a server and then clicking on the **Move Up** and **Move Down** buttons. When you work from multiple servers, move the server which you will use most of the time to the top at the list. The one listed at the top will be listed as the default server when you log in.

Changing Passwords

To change the Curator Tool password, click the **Change password** button on the **Login** window as shown above, or when in the Curator Tool, select from the menu **File | Change Password**. Complete the **Change Password** window.



Curator Tool Interface

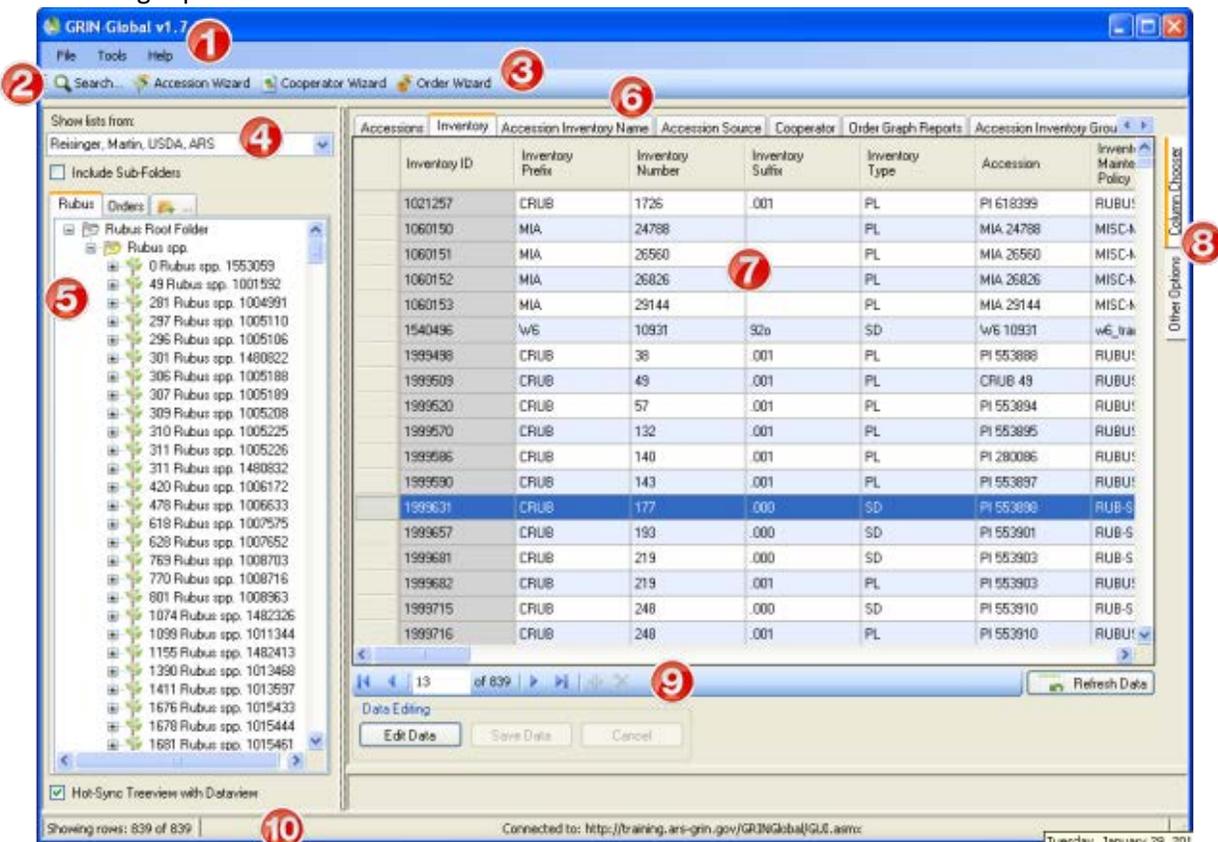
The Curator Tool’s main screen is similar to other Windows programs in that it has menus, buttons, and icons.

The Curator Tool’s left panel is similar to Windows Explorer. Explorer uses folders and subfolders to organize files. Likewise, the Curator Tool uses folders and subfolders to organize your lists and list items. Note that Curator Tool users will use the word “folder” interchangeably with “list.” So if the directions indicate “...the name of the folder,” this is equivalent to stating “...the name of the list.”

The Curator Tool’s right section, the “Data Grid,” is similar to a spreadsheet, with the data displayed in columns and rows. We’ll see later that some of these dataviews will also have forms associated with them so that you will have a choice – you can display the data in rows, with many records visible on the screen, or in a form, with one record at a time.

Typical Screen

The following image illustrates a typical screen when you open the Curator Tool program. In this example, the user has created lists in previous Curator Tool sessions and included additional dataview tabs in the right panel:



This is similar to the screen of a user who has been working with the Curator Tool. When you start up the Curator Tool the first time, you will not see records listed in the dtagrid, nor will you see all of these dataviews. As you proceed in using the Curator Tool, you typically create lists there are displayed in the left List Panel; the lists point to database records displayed in the right data grid.

(The table below relates to the preceding illustration.)

| Num. | Screen Component | Feature |
|------|--------------------------------|--|
| 1 | Menu | The menu options include features such as changing the interface language or password, resetting lists and the user defaults. The Help option has an important item for the CT administrators to use when setting up user connectivity. |
| 2 | Search Button | Opens a Search window for initiating searches of the database. |
| 3 | Wizard Buttons | Start wizards which assist you in supplying data for a new record |
| 4 | Show lists from dropdown | Use the dropdown to view other users' lists. (The owner of the data determines the authorizations for editing lists.) |
| 5 | List Panel | You as the user will organize data into lists that are meaningful to you. The List Panel is covered in detail, starting at page 67. |
| 6 | Dataviews | Initially three tabs display. The user can display an infinite number of tabs; each tab has a corresponding dataview related to it. |
| 7 | Data Grid | Each dataview in this area displays its respective column headings. When data is brought into this area, columns and rows will display, similar to a spreadsheet. |
| 8 | Column Chooser & Other Options | You can select which columns to display in the Data Grid. Under the Other Options tab there are various features that will be explained later. |
| 9 | Navigation Bar | Used for moving to different records in the dataview. Also, when in Edit mode, the "+" key  initiates the adding of a new blank record; the "x" key  deletes a record. |
| 10 | Status Bar | Displays information about the records in the data grid (such as count) as well as the name of the current server. |



When you initially start the Curator Tool, both the List Panel and the Data Grid are basically empty. To display data in the Data Grid, you will either create new records, search for existing records in the GRIN-Global database, or copy records into the Curator Tool from an external spreadsheet such as Excel. All three scenarios are described in this guide in the following sections.

| Topic | References |
|--|---------------|
| Create new records | p. 100; video |
| Search for existing records | p. 77; video |
| Copy records into the Curator Tool | p. 61; video |
| Deleting records | p. 105 |

Definitions

| | |
|-----------------------|--|
| Data Grid | Spreadsheet-like table with columns and rows and header cells. |
| Dataview | A pre-defined, programmed query to the database. Within the Curator Tool, the user can select from various dataviews. Physically, the data may be stored in multiple tables, but it will appear in the dataviews as if it is coming from one table. |
| Dynamic Folder | (New in CT 1.8.3) A dynamic folder is a hybrid of a query and a folder – you set up criteria in the folder’s properties, so that the records are dynamically adjusted to reflect changes in the database. |
| Folder | Synonym for List. Beginning with the 1.8.3 release of the Curator Tool, there are two kinds of folders: static, and dynamic. A folder is user-defined – a user decides what database records he is interested in reviewing or tracking and then creates lists to point to those records. The user decides what lists he needs, what records to point to, and whether the folder should be static or dynamic. (More on this when we explain folders in detail.) |
| List Panel | Left-side of the screen where users manage their folders (“lists”) and list items. (Some users refer to this as the treeview, since the folders may have subfolders, which after awhile resembles branches.) |
| List | A list contains pointers to records in the database. If you delete items in the list, the original database records remain intact. You are essentially deleting the pointers to the records, not the records. |
| Nulls | NULL data is sometimes called "absent" data because there is no data value stored in the field. A NULL is not equal to a space character. NULL data will sort to the bottom if the sort is in ascending order and to the top if the sort is in descending order. |

Lists (Folders) Overview

The main focus of the Curator Tool is to provide a tool with which curatorial teams can manage their genebank’s accessions, including tracking their inventory and processing germplasm orders. With the Curator Tool, users build and maintain lists pointing to database records which interest them and which they may need to periodically review.



[Dynamic lists](#) were introduced in the Curator Tool version 1.8.3. In earlier Curator Tool versions, there was just one type of list: static. This section focuses on static lists; dynamic lists will be explained later. You should understand the fundamentals of static lists before reviewing dynamic lists.

What are “lists” and how are they different from the database records? This section explains the rationale for creating lists. It also provides a broad overview of the Curator Tool’s interface so you can see how the lists point to the physical database records. The step-by-step details for building and managing lists will be provided in later sections of this guide.

Static Lists (“Static Folders”)

As you continue to work with specific accession records, you will want to access these records, perhaps on a fairly frequent basis. GRIN-Global has a “list” feature that provides a means for pointing to records in the database:

| | Acc # | Name | Species | Level of Imp. | Date Recd |
|---------------------|--------|-------|---------|---------------|-----------|
| CANADIAN RICE ACCs. | | | | | |
| accession 122212 | 122212 | ..... | ..... | ..... | ..... |
| accession 123456 | 123456 | ..... | ..... | ..... | ..... |
| accession 124567 | 124567 | ..... | ..... | ..... | ..... |
| accession 145645 | 145645 | ..... | ..... | ..... | ..... |
| accession 123726 | 123726 | ..... | ..... | ..... | ..... |
| accession 123789 | 123789 | ..... | ..... | ..... | ..... |
| accession 134556 | 134556 | ..... | ..... | ..... | ..... |

my list

GG data (records)

You can build as many lists as you want. There are two types of lists: static and dynamic. Static lists are simpler to understand, so we will explain them first. Later we’ll discuss dynamic lists. [See [Dynamic Lists](#).]

Typically, a static list points to database records that you have grouped together for some reason. For example, you might want to keep track of a group of accessions received by a specific donor or that have the same country of origin. Or it could be that you build a list pointing to certain accessions that recently had inventory increases.

Lists can point to other records besides accessions. With lists, you can easily track inventory records, orders, even people (using the cooperator records stored in GRIN-Global). The lists are personal; you create them as you need them. Lists can also be shared with other users.

| | Acc # | Name | Species | Level of Imp. | Date Recd |
|---------------------|--------|-------|---------|---------------|-----------|
| CANADIAN RICE ACCs. | | | | | |
| accession 122212 | 122212 | ..... | ..... | ..... | ..... |
| accession 123456 | 123456 | ..... | ..... | ..... | ..... |
| accession 124567 | 124567 | ..... | ..... | ..... | ..... |
| accession 145645 | 145645 | ..... | ..... | ..... | ..... |
| accession 123726 | 123726 | ..... | ..... | ..... | ..... |
| accession 123789 | 123789 | ..... | ..... | ..... | ..... |
| accession 134556 | 134556 | ..... | ..... | ..... | ..... |

my list

GG data (records)

| | Inv # | Form Code | Is Distrib? | Is Availbl? | Avail. Status |
|------------------------|--------|-----------|-------------|-------------|---------------|
| INVENTORY ToBe Rviewd. | | | | | |
| inv 345678 | 345678 | ..... | ..... | ..... | ..... |
| inv 357901 | 357901 | ..... | ..... | ..... | ..... |
| inv 368907 | 368907 | ..... | ..... | ..... | ..... |
| inv 389012 | 389012 | ..... | ..... | ..... | ..... |
| inv 391234 | 391234 | ..... | ..... | ..... | ..... |
| inv 391235 | 391235 | ..... | ..... | ..... | ..... |
| inv 391236 | 391236 | ..... | ..... | ..... | ..... |

my other list

GG data (records)

Curator Tool Overview

The actual accessions, inventory, orders, and other germplasm records kept by a genebank are stored in tables in the GRIN-Global database. Rather than repeat searches each time you want to review certain database records, use your lists to revisit and display them.

As a user of the GRIN-Global Curator Tool, you most likely will build many lists in unique ways to match your particular work flow. The lists are a handy tool for tracking and managing records that interest you. You maintain these lists in your copy of the Curator Tool. Each time you start up the Curator Tool, your lists are displayed giving you a quick connection to the records in the database.

Think of lists as shortcuts pointing to specific records. The list items *are not the actual database records*, but just pointers to the database records.

In the following illustration, the user's tabs and lists are shown on the screen's left side in the **List Panel**. The right side, the **Data Grid**, displays the actual contents of Accession dataview records.

| Accession ID | Accession Prefix | Accession Number | Taxonomy | Accession Name | Origin | Is Core |
|--------------|------------------|------------------|--------------------|----------------|--------------------|---------|
| 431048 | PI | 548922 | Rubus sp. | 14077 | Ecuador, Imbabura | N |
| 431049 | PI | 548923 | Rubus sp. | 14104 | Ecuador, Azuay | N |
| 431050 | PI | 548924 | Rubus megaloco... | 14123 | Ecuador, Azuay | N |
| 431051 | PI | 548925 | Rubus sp. | 14180 | Ecuador, Loja | N |
| 431052 | PI | 548926 | Rubus sp. | 14194 | Ecuador, Azuay | N |
| 431053 | PI | 548927 | Rubus megaloco... | 14196 | Ecuador, Azuay | Y |
| 431054 | PI | 548928 | Rubus sp. | 14224 | Ecuador, | N |
| 431055 | PI | 548929 | Rubus urticifolius | 14225 | Ecuador, | Y |
| 431056 | PI | 548930 | Rubus sp. | 14226 | Ecuador, Tungur... | N |

Using Lists to Organize Your Accessions

With the Curator Tool, you can build and arrange lists to meet your specific needs. For example, lists could be used to organize accessions by:

- recently added inventory
- work-in-progress
- dates: review dates
- location: field, shelf, etc.
- utility patents
- group (e.g., cultivated pears vs. wild pears)
- sources, such as material from overseas or by supplier

Using Lists to Organize Your Order Requests

Lists may be used to organize orders by:

- date or by batch
- type of processing needed
- completion status: pending, filled and ready for shipping, shipped, sent to pathologist, etc.
- phytosanitary test results: e.g. tracking accessions with pathogen infections for regulatory considerations

Undoubtedly you will discover additional reasons for building lists.

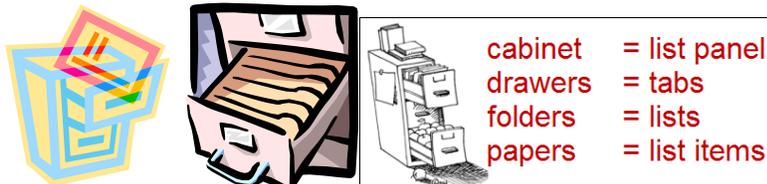
The List Panel is a File Cabinet

The List Panel on the left side of the Curator Tool may display tabs, folders (“lists”), and items within the folders. What is the difference between a tab and a folder? What is a folder?

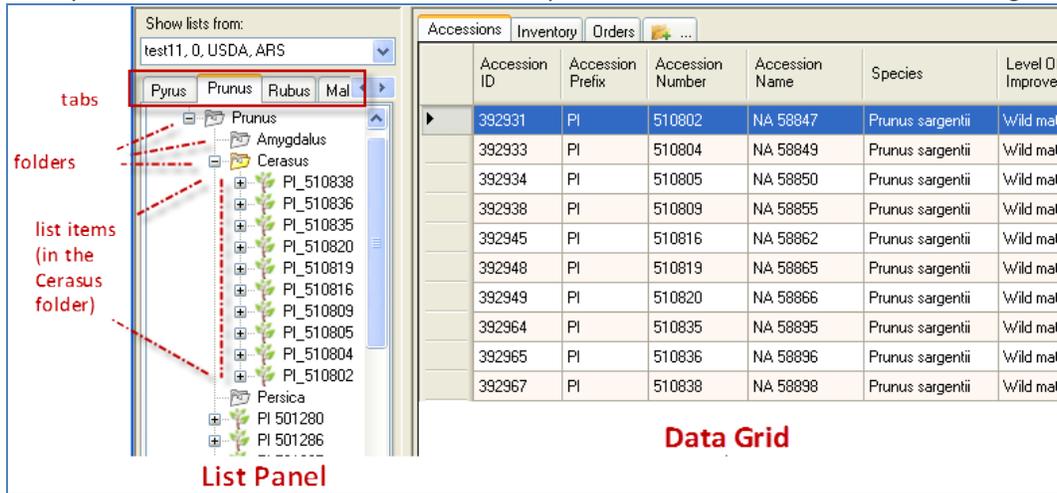
Think of the List Panel as *your* file cabinet. Most file cabinets have multiple drawers, and the drawers can store multiple folders. The folders in turn store documents.

Just as a file cabinet can have multiple drawers, the Curator Tool can have multiple tabs. Think of tabs as your “drawers” in which you organize your lists and items. Set up the tabs to facilitate your work and needs. You can create as many tabs as you desire, whenever you need them, to organize your lists that you intend to use. You can hide tabs and redisplay them when needed.

Each Curator Tool user will decide what works best for her. For example, suppose that a technician is responsible for processing orders for three different genera. That technician may decide to initially create three tabs, one for each genus. Another technician may look at his needs and decide to create monthly tabs, and then organize orders by the time they were received. A third technician may set up a tab for each species that she handles.



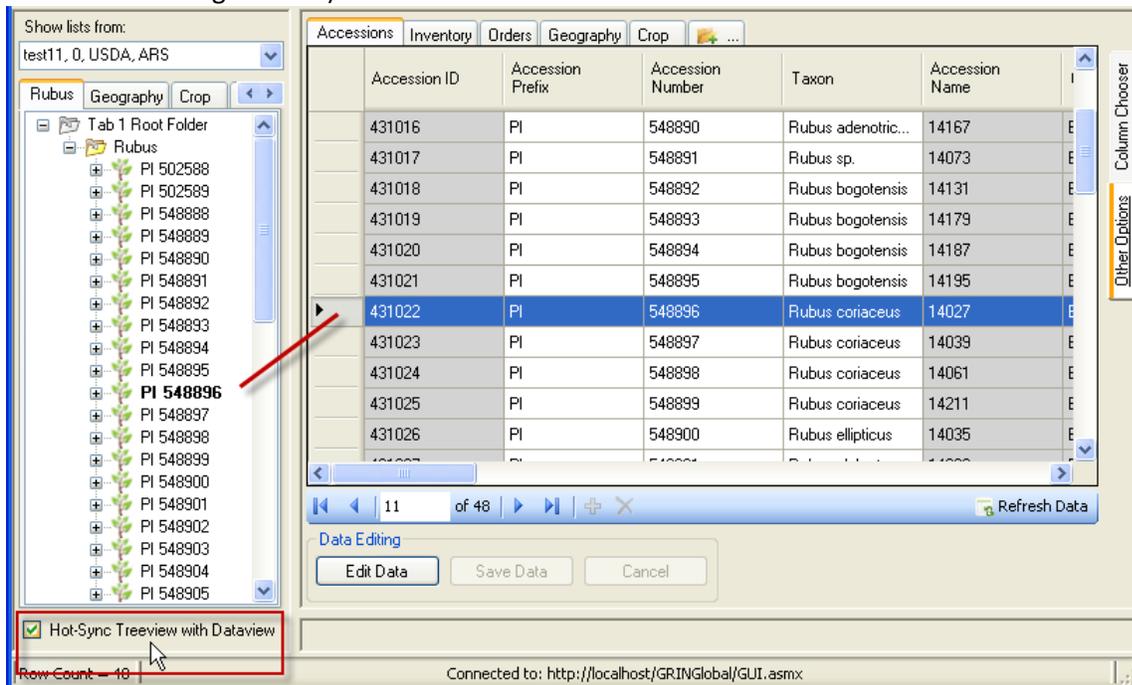
In the List Panel shown here, the “Cerasus” folder is expanded and is showing 10 items in it. The Data Grid on the right side is displaying 10 Accession records. Think of the folder as the listname; in this example this folder lists 10 items – each item points to a database record in the datagrid.



Because the user created this list, the user can now easily review and track these 10 records any time without needing to search the entire database again. The user can add or delete folder items at any time. Typically, a list will point to records of a certain type that have something in common and which the user intends to track or review again later. In this case, the folder is pointing to 10 specific Cerasus accessions records in the database.

Displaying a List of Accessions

In the example below, the list **Rubus** points to 48 Accessions items. Each list item points to a record in the Accessions dataview. The **bolded** item in the list panel corresponds with the **Accession** row highlighted in the grid. (The **Hot-Sync Treeview with Dataview** checkbox must be selected in order to invoke the bolding feature.)



Inventory Items when the Hot-synch Feature is Enabled

When this Hot-Synch feature is on, when an *inventory record* in the datagrid is selected, the related *inventory list item* will be underlined and displayed in italics:

| Inventory ID | Inventory Prefix | Inventory Number | Inventory Suffix | Inventory Type |
|--------------|------------------|------------------|------------------|----------------|
| 13530 | CRUB | 1295 | .000 | SD |
| 13535 | CRUB | 1249 | .000 | SD |
| 13536 | CRUB | 1257 | .000 | SD |
| 13537 | CRUB | 1257 | .002 | PL |
| 13588 | CRUB | 1248 | .000 | SD |
| 13589 | CRUB | 1264 | .000 | SD |
| 13590 | CRUB | 1273 | .000 | SD |



In release 1.8.3, the hot-synch feature is disabled.

The next sections explain the Curator Tool's interface. If you prefer at this point to "dive in" and start using the Curator Tool. Also, consider first reviewing the [Frequently Asked Questions](#) document that is online.

Dynamic Folders

(Feature Added in Curator Tool 1.8.3)

Beginning with Curator Tool version 1.8.3, there is a second folder type – dynamic. What makes a folder dynamic? A dynamic folder contains embedded search criteria. You can think of the dynamic folder as a stored query. Records that meet the folder's stored search criteria are dynamically displayed in the datagrid.

The original folder type – the static folder –points to specific records. The static folder's list changes only when you manually modify the list by either adding additional items to, or deleting items from, the list. For example, when you add new accession records while using the Accession dataview, you can include those new records in the current list.

Dynamic folders have an advantage that static folders do not have: a dynamic folder searches the database to ensure the list is current. Another advantage of setting up a dynamic folder is that the folder retains your search criteria; it eliminates the steps of accessing the search tool and dragging desired records into the Curator Tool.

So why use a static folder? First, they are simpler in some respect. Secondly, many times you will want to review specific records, and only those records. Listed below are a few examples of when each folder type is preferable:

| Situation | Folder Type |
|--|-------------|
| Keep track of what you are working on from one day to the next | Static |
| List of orders processed on a specific day | Static |
| Maintain a list of all accessions for a specific Taxon | Dynamic |
| Review a site’s inventory | Dynamic |

Steps in Creating Dynamic Folders

There are several methods for creating a dynamic folder. Each starts similarly: In the Curator Tool , create an empty folder.

1. Switch to the Search Tool; create a query. *Drag* the code (generated by the [QBE](#) in the large text box) onto the empty folder in the Curator Tool.

-or-

2. While still in the Curator Tool, right-click on the empty folder. Select **Properties** from the menu. Switch to the Search Tool; create a query. *Copy* the code (generated by the [QBE](#) in the large text box) into the **Dynamic Folder Search Criteria** box in the Curator Tool.

While the two methods are similar, they exhibit two distinct behaviors. In method 1, the active radio button in the **Find** frame (Accessions, Inventory, Orders, or Cooperators) will activate the corresponding button in the folder’s **Resolve To** properties. If method 2 is chosen, the folder’s **Default** radio button will be selected. (Later you can change which button is selected.)

The “Default” behavior means that the dataview will look to see if the dataview supports the IDs in this order:

- Accession_IDs
- Inventory_IDs
- Order_Request_IDs
- Cooperator_IDs

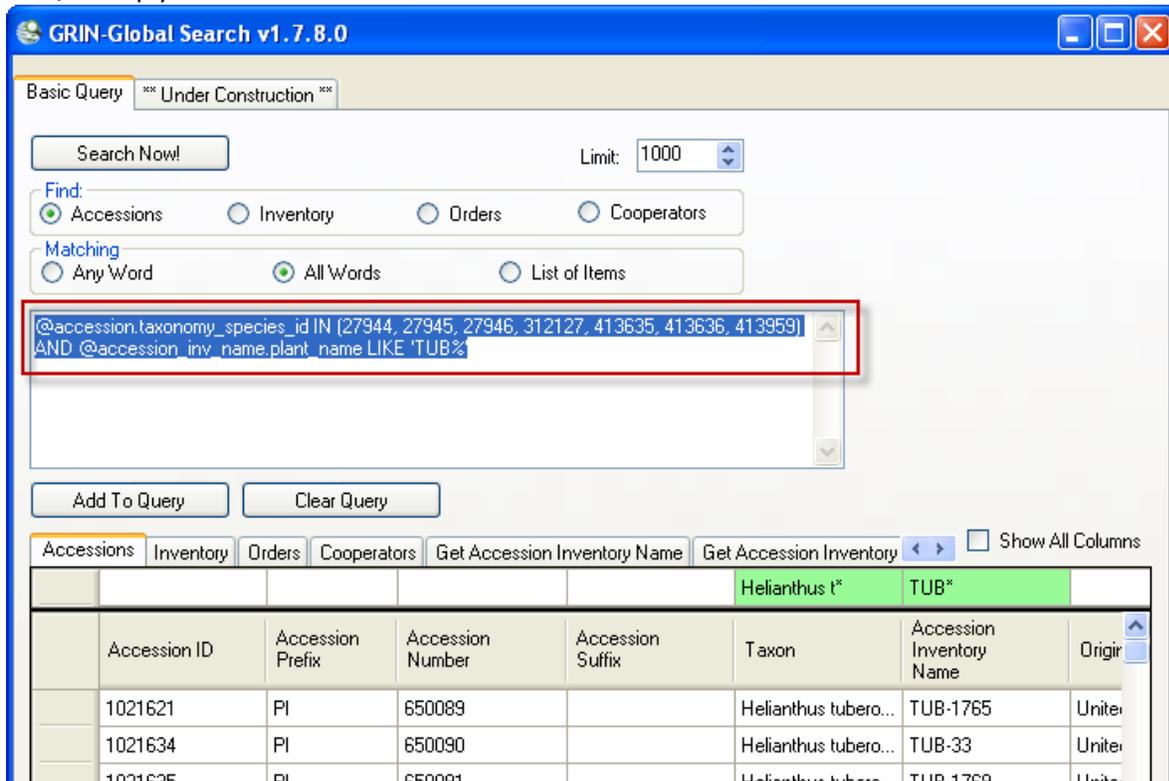
The first match wins. If no matches are found nothing is returned.



Alternative 1 is recommended if you are not sure about the expected results.

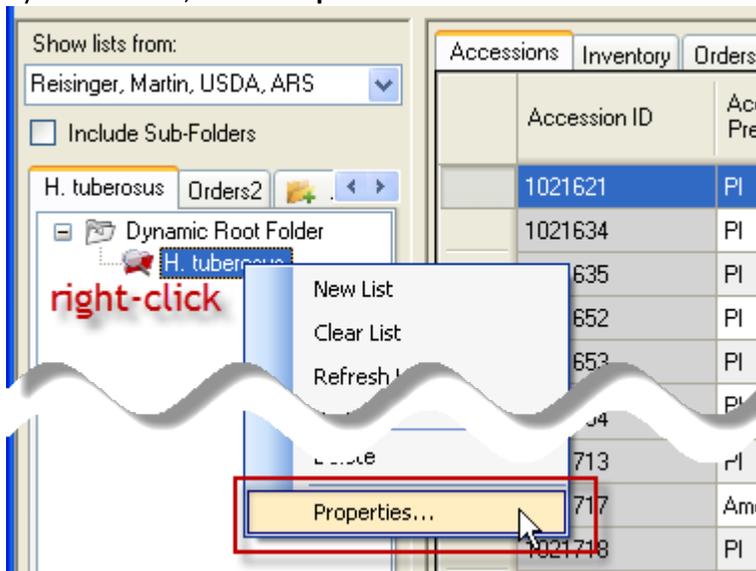
3. In this method, use the query criteria of an existing dynamic folder as the basis for the new dynamic folder. Edit the new folder’s criteria as desired.

First, set up your search in the *Search Tool*:

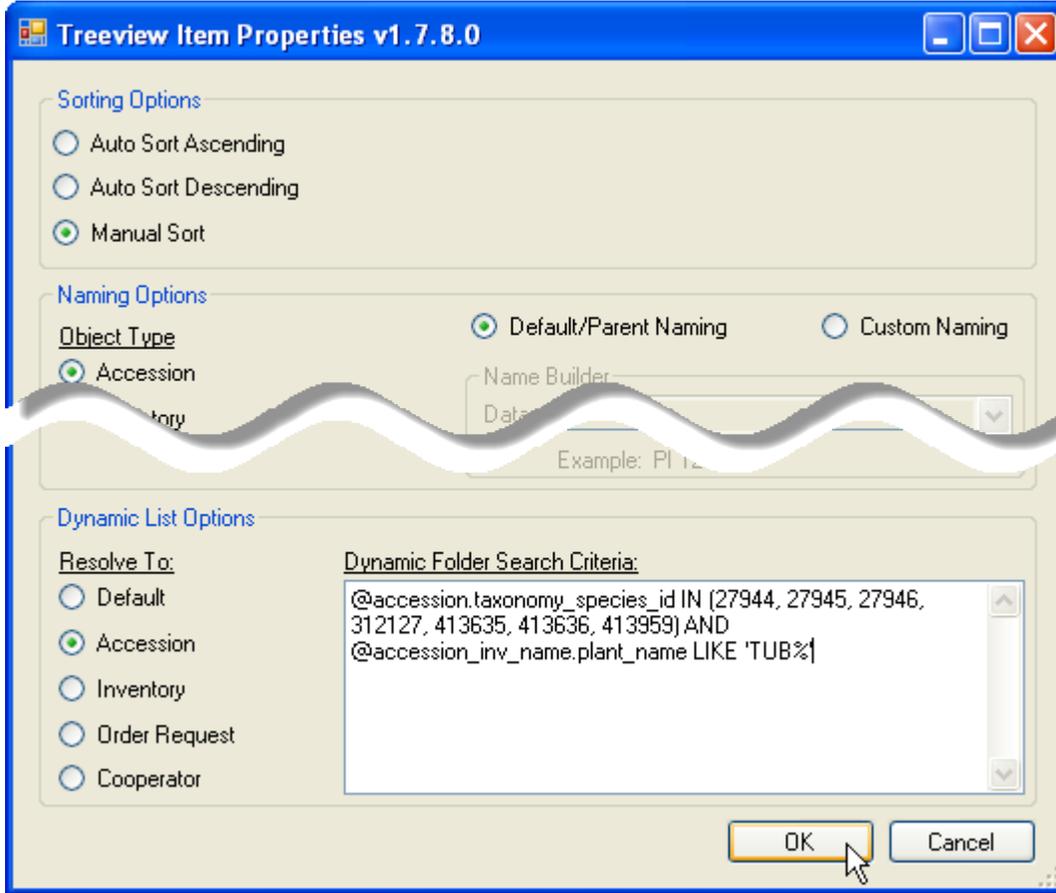


Next, to create a dynamic folder, assuming the results were satisfactory and what you expected, copy the search text from the Search Tool.

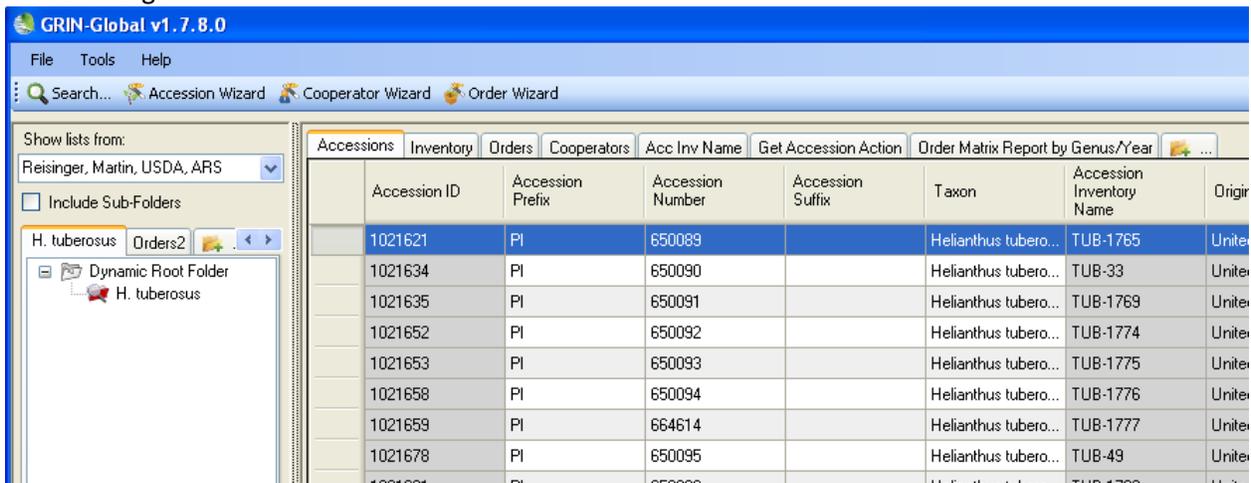
Then, in the Curator Tool, right-click on the folder (preferably an empty folder) that is to become a dynamic folder; select **Properties**:



Then copy the generated criteria from the Search Tool's large text box into the **Search Criteria** box of the dynamic folder (in the Curator Tool):



The same records found by the search in the Search Tool will be automatically listed in the Curator Tool's datagrid:



If any new records are added to the GRIN-Global database that meet the folder's criteria, the records will be displayed when the dynamic folder is the active folder and has been refreshed. You can refresh a dynamic folder by right-clicking and selecting the Refresh List command, or by switching to another tab and then back to the tab with the dynamic folder.

Refreshing a Dynamic Folder

If any new records are added to the GRIN-Global database that meet the folder's criteria, the records will be displayed when the dynamic folder is the active folder and has been refreshed. You can refresh a dynamic folder by invoking any of the following methods:

- right-click on the folder and select the **Refresh List** command
- switch to another tab and then back to the tab with the dynamic folder
- switch to another user and return back to the original user
- click the Refresh Data button in the right panel
- press F5
- start the CT

Dataviews

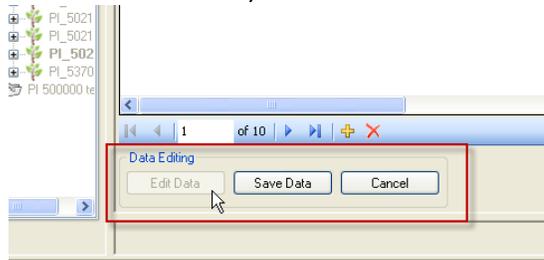
The Curator Tool consists of many dataviews in which users display data without needing to know SQL or programming. A dataview essentially retrieves data from tables via a programmed query. Fortunately, these dataviews will have been created for you. You can display many dataviews and switch back and forth by clicking on their tabs.

To Display a Dataview Whose Tab is Visible

This is very straightforward – just click on the dataview’s tab.

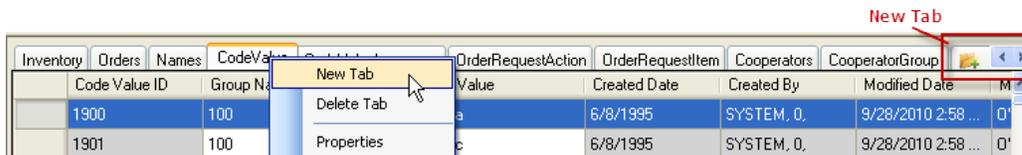


You must be in **Read-Only** mode to switch dataviews. When your **Edit Data** button is grayed out, you are in Edit mode. To switch dataviews, you will need to either save your data or cancel (click **Save Data** or **Cancel**).



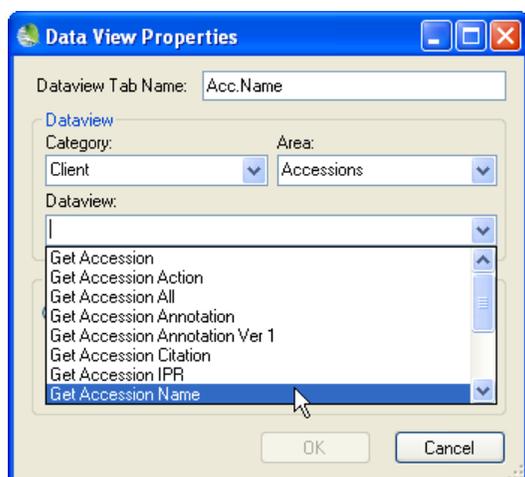
To Display a Dataview Whose Tab *isn't* Visible

1. Click the **New Tab** icon. (When there are many tabs displayed, use the right arrow button to scroll to the right to display the New Tab icon):



Alternatively, you can right-click on any tab and select **New Tab** from the menu. However, there is a slight disadvantage in using this alternative method. If that dataview is currently displaying many records, (thousands), it generally will be quicker to use the **New Tab** icon.

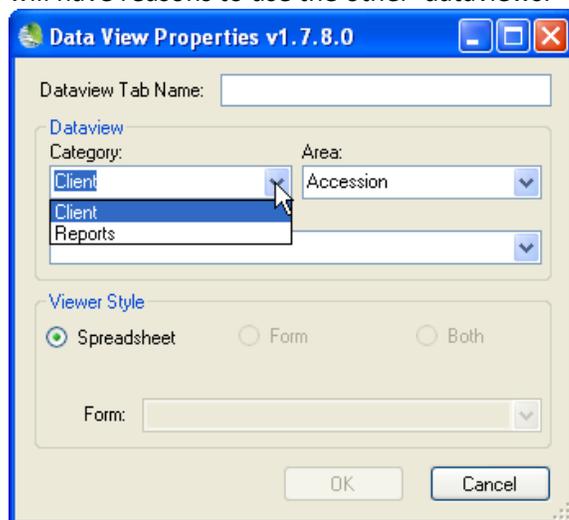
2. Select a dataview from the list; type a name in the **Dataview Tab Name** field; click **OK**. (Create a name that reflects the data being displayed. For instance, name the **get_cooperator** dataview such as “Cooperator.”)



(Typically you will select “Client” for the **Category**; by selecting an **Area** you can filter the large list of dataviews to display just those dataviews in a specific area. The “area” is essentially a grouping of the related dataviews: Accession, Inventory, Order, Crops, Methods, Taxonomy, etc.)



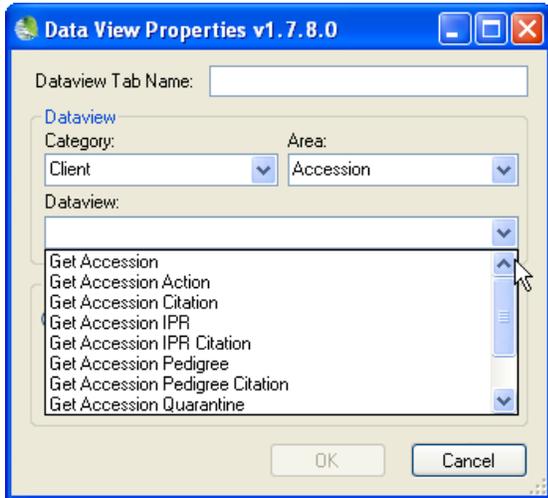
A Curator Tool user should only need to use the Client or Reports dataviews. GG administrators will have reasons to use the other dataviews.



Dataview Naming Conventions

Certain dataviews are considered the parent dataview and the dependent dataviews can be considered as the “children.” Names of the children dataviews are typically prefixed by the parent’s name. The following screen example illustrates this principle. Accessions (“Get Accession”) is the parent dataview

for various children dataviews such as “Get Accession IPR” and “Get Accession Quarantine.”



Some Dataviews Display Data, Some Do Not

Each dataview fits into one of three broad groups, explained in more detail below. The dataview...

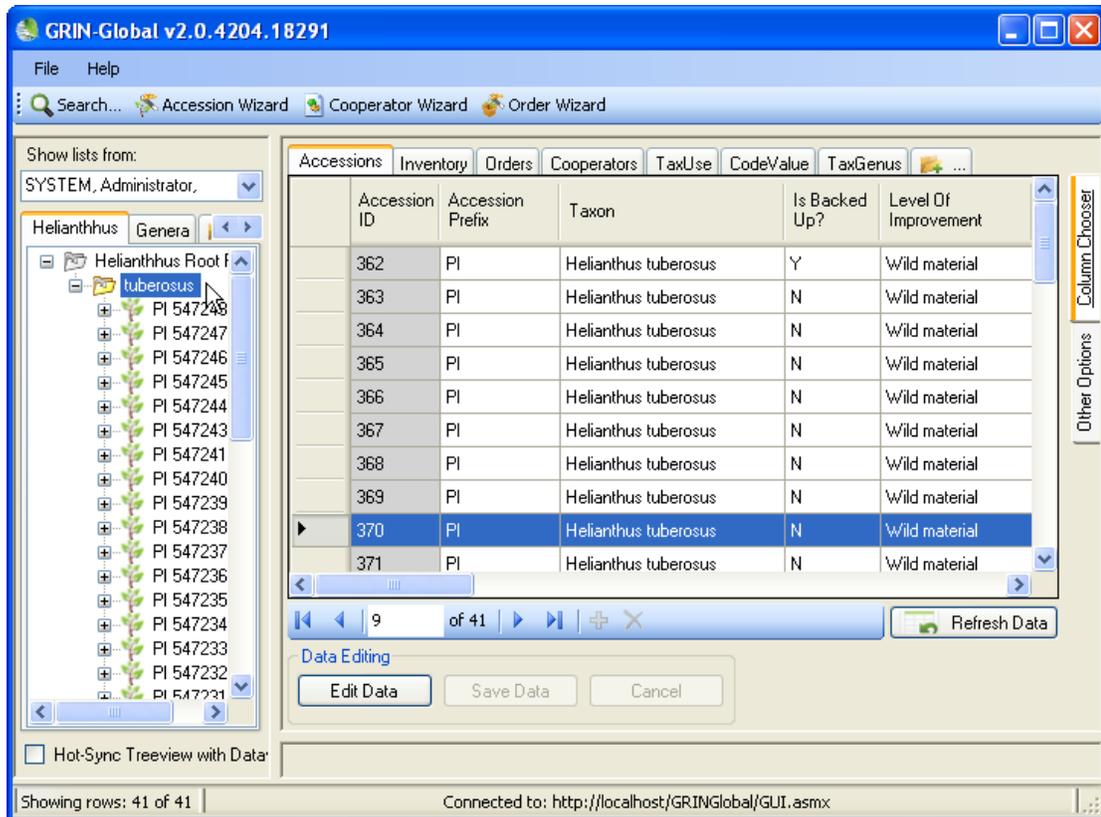
1. has an associated list object -- when the dataview is active, the list in the List Panel points to related records.
2. is designed to show all of the records referenced by the dataview and has no relationship to the left list panel. It does not matter what is displayed in the left List Panel; when looking at the dataview in the Data Grid (the right panel), you see all of the records related to the dataview
3. will not display any existing records. You can, however, open the dataview in Edit mode and add records, but when you save the records and return to display mode, it will seem that the records have disappeared. They haven't. (These are dataviews not typically used by the CT user, but rather by the Administrator.)

The main dataviews controlled by the lists in the left List Panel are:

- Accession
- Inventory
- Order Requests
- Cooperators
- Taxonomy (as well as Genus)
- Geography
- Crop

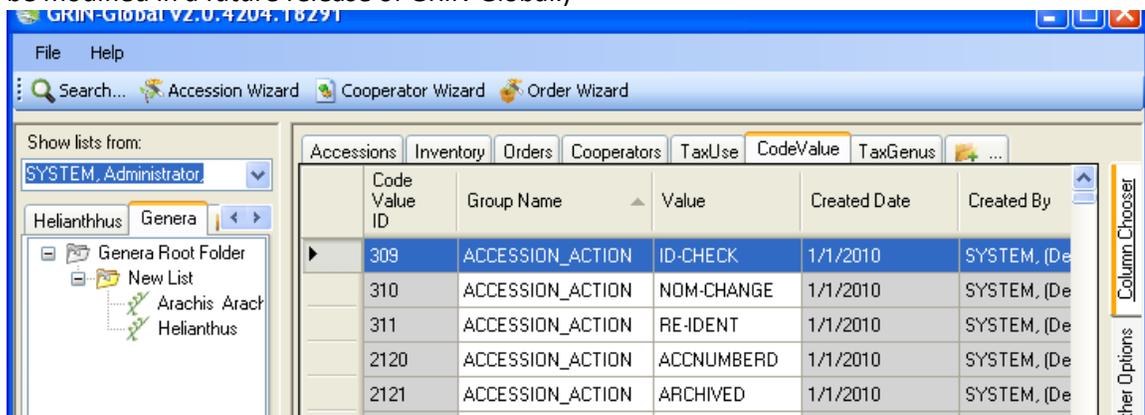
These fit the first group, and are the main dataviews with which a user is usually interested.

Beginning in CT version 1.7.8, many more dataviews have been modified so that lists may be created for them.



In this example, the Accession dataview is the active dataview, and in the left List Panel the list is pointing to the accession records.

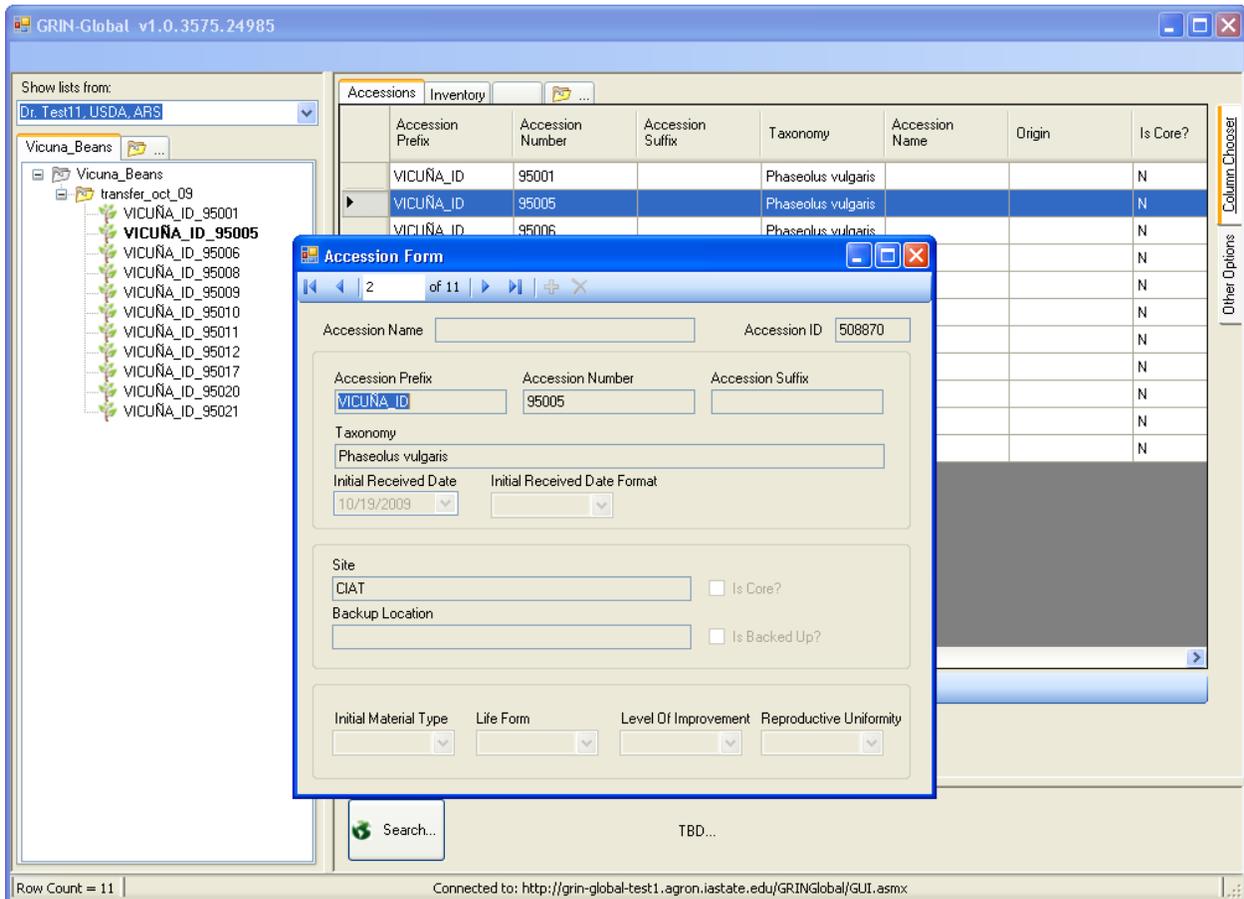
The second group of dataviews displays all of the records in the associated table(s). For example, the **get_code_value** dataview lists all of the records in the Code Value table. Another dataview, the **get_site** dataview, displays all of the valid sites in the GRIN-Global database. In both cases, they do not relate to the lists shown in the left panel. In the following example, the list on the left is referencing genera, but the active dataview in the Data Grid is the **get_code_value** dataview and is completely unrelated to the left List Panel. (The List Panel will be modified in a future release of GRIN-Global.)



Last, there are dataviews that do not relate to any lists. When displayed in the CT Data Grid, these dataviews do not display their existing records. (There is a valid, technical reason why this happens.) Typically the Curator Tool user will not be displaying these dataviews. However when users open one of these dataviews, they may at first be surprised by what they see, or rather, what they don't see. The table(s) referenced by the dataview may contain data, but when the dataview displays, it does not display any data. A user can add data and see that data, but only while in edit mode; as soon as the user saves the data, the data seemingly disappears and there is no way within the Curator Tool to redisplay the data. However, an administrator can use SQL or design a new dataview in the GRIN-Global Admin Tool to display all or some of the records.

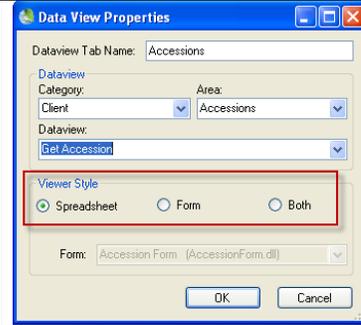
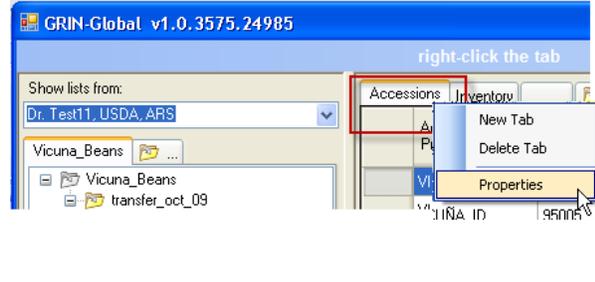
Form View

Four dataviews have associated forms. The forms are alternative means for displaying (or editing) the data records. One record at a time displays in a form, as opposed to the grid (spreadsheet) view, where multiple records are visible. The form and grid can be displayed at the same time, with the form in its own window:



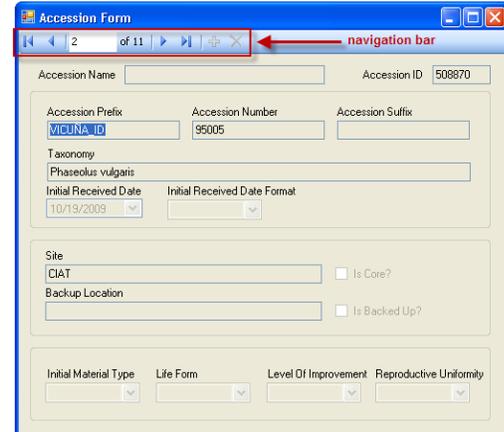
Displaying Forms

To display a form or to switch from a form view to the spreadsheet view, right-click on a tab; select **Properties**. Currently this feature is available for four tabs: Accessions, Inventory, Orders, and Images.



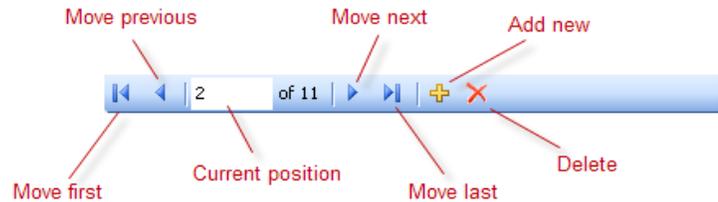
On the **Data View Properties** window, select the desired **Viewer Style**.

Accessions Data Form



Navigation Bar

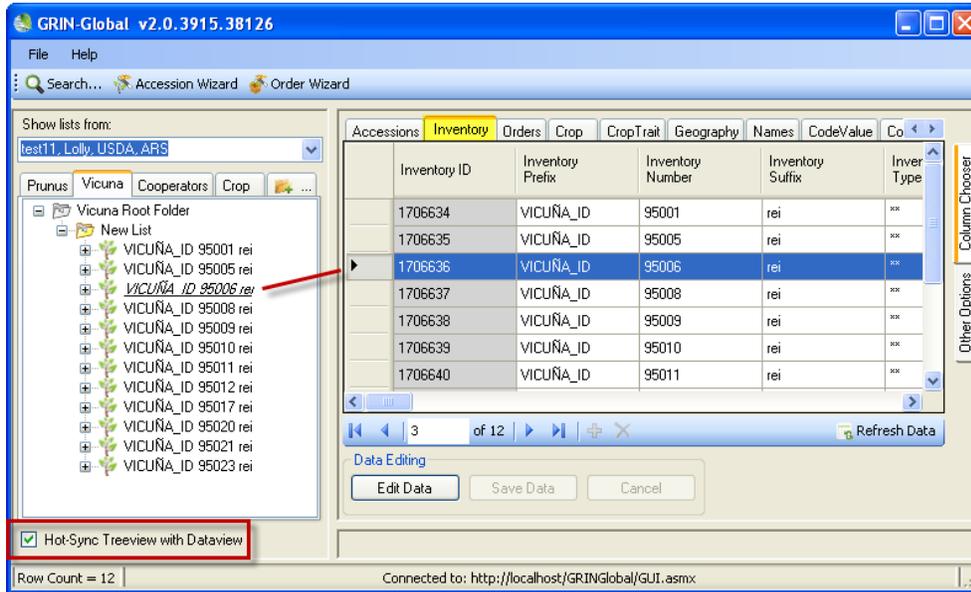
Use the **Navigation Bar** icons to move through the records. You must be in Edit mode for the **Add new** and **Delete** buttons to be active.



Visual Clues

When selecting an Inventory record in the grid, the record's *corresponding Accession* item in the List Panel will be underlined and *italicized* when the **Hot Synch Treeview with Dataview** checkbox is

checked.



Icon Legend

Each object type has its own unique icon; however, icons are customizable and may be different for your organization. (Two alternatives for each are shown here.)



* "Selected" – the object (list item) is pointing to a row in the datagrid that is the currently selected record

Cell Colors

When changes are being made to database records, the Curator Tool must be in "Edit Mode." The following table summarizes the implication of the cell's color when In Edit mode:

| Cell Color | Meaning |
|------------|---|
| gray | cell cannot be edited |
| violet | field is required; a record cannot be saved until all required fields are filled |
| orange | when doing an add, these cells have new data |
| yellow | when a record is being edited, fields that have changed |
| white | data hasn't changed in the cell when a record is being edited |
| dark blue | dark blue cells display when a record is being added and data in the cell is the same as the cell's default value |
| light blue | light blue cells display when a record is being added and data in the cell differs from the cell's default value |

| Cell Color | Meaning |
|------------|--------------|
| blue | current cell |

Click on the **Other Options** tab to the right of the Data Grid to select the **Highlight Changed Data** option. Another handy option is the **Hide Unchanged Rows** option.

| | | | | |
|------------|---|---|------|-----|
| WILD | | Y | NSSL | NC7 |
| WILD | | N | | NC7 |
| WILD | | N | | NC7 |
| WILD | | N | | NC7 |
| WILD | | Y | NSSL | NC7 |
| WILD | | Y | NSSL | NC7 |
| WILD | | N | | NC7 |
| WILD | | N | | NC7 |
| WILD | | Y | NSSL | NC7 |
| WILD | | N | | NC7 |
| WILD | | N | | NC7 |
| WILD | | N | | NC7 |
| Wild mater | ! | Y | NSSL | NC7 |
| Wild mater | ! | Y | NSSL | NC7 |
| Wild mater | ! | Y | NSSL | NC7 |
| Wild mater | ! | Y | NSSL | NC7 |

Max rows allowed: 10000

Other Options

Edit Mode

Highlight Changed Data

Hide Unchanged Rows

Lookup Table Maintenance

Active Web Service:

Warning Indicators

This screen example also illustrates a warning indicator. Move the mouse over the ! and the message tooltip will display:

| | | | |
|------------|---|---|------|
| WILD | | N | |
| Wild mater | ! | Y | NSSL |
| Wild mater | ! | Y | NSSL |
| Wild mater | ! | Y | NSSL |

Value exceeds maximum length - truncated to 10 characters

Spreadsheet Similarities

Columns & Rows

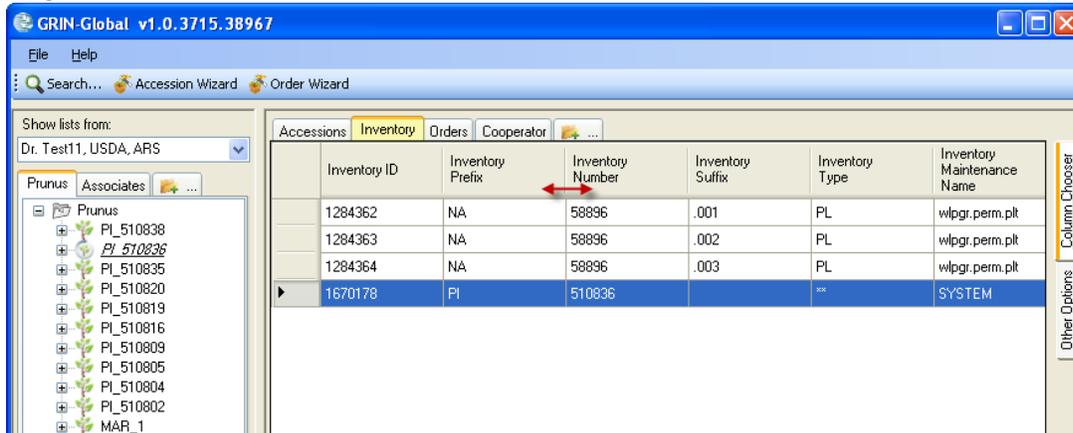
The data grid columns and rows are similar to the columns and rows in a spreadsheet. For instance, you can widen and narrow both columns and rows. **Drag** the mouse on the edge of the column or row when the mouse pointer appears as a double-arrow. **Double-click** on the column or row edge to return to the original size.



The Curator Tool remembers your view and will display the view in the same manner (same columns, widths, etc.) the next time you use the program.

You can adjust the widths of columns and the height of rows just as you do with Excel – drag the dividing bar between the headings to adjust column width or between the left row header cells to adjust row

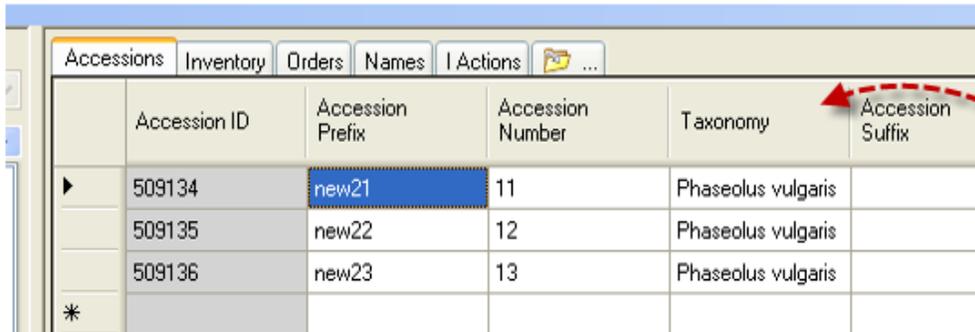
height.



Many of Excel’s keyboard shortcuts and navigation keys also work in the Curator Tool and Search grids. Two that are very useful are **Ctrl-D** and **Ctrl- ‘** – these are discussed in detail later.

Column Order

Reorder the columns by dragging any column heading left or right. Release the mouse and the column will be repositioned in the location where you “drop” it.



In this example, the Taxonomy column in the Curator Tool was shifted to the left. To reposition a column, drag the column heading left or right as needed.

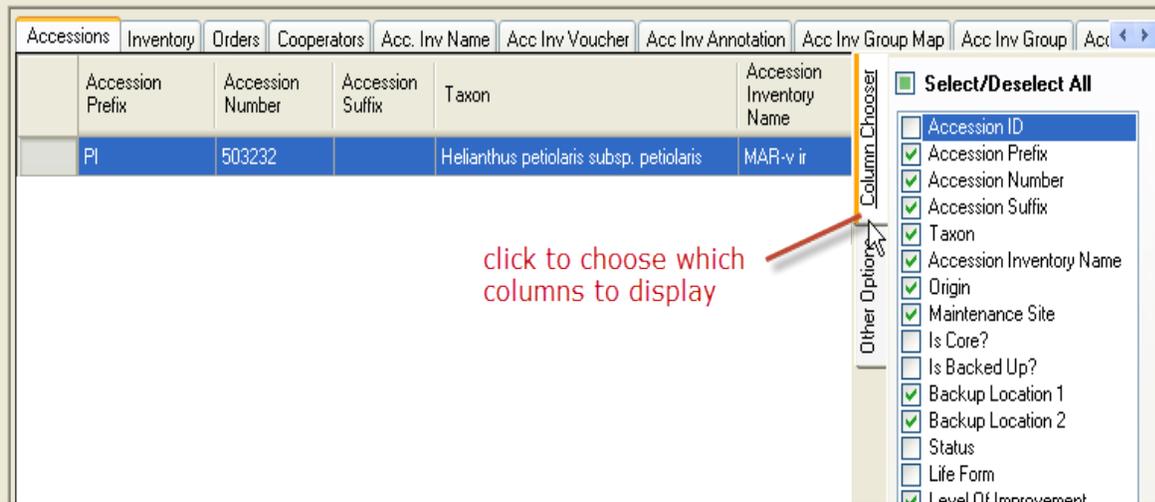
Demo: See <http://www.ars-grin.gov/npgs/gringlobal/videos/columns.swf>

Hiding / Displaying Columns

Not only can you reorder columns, but you can also choose which columns to display or not display. For each dataview, certain columns are displayed automatically. However, you can control which columns are displayed (or not).

To Select Which Columns to Hide / Display

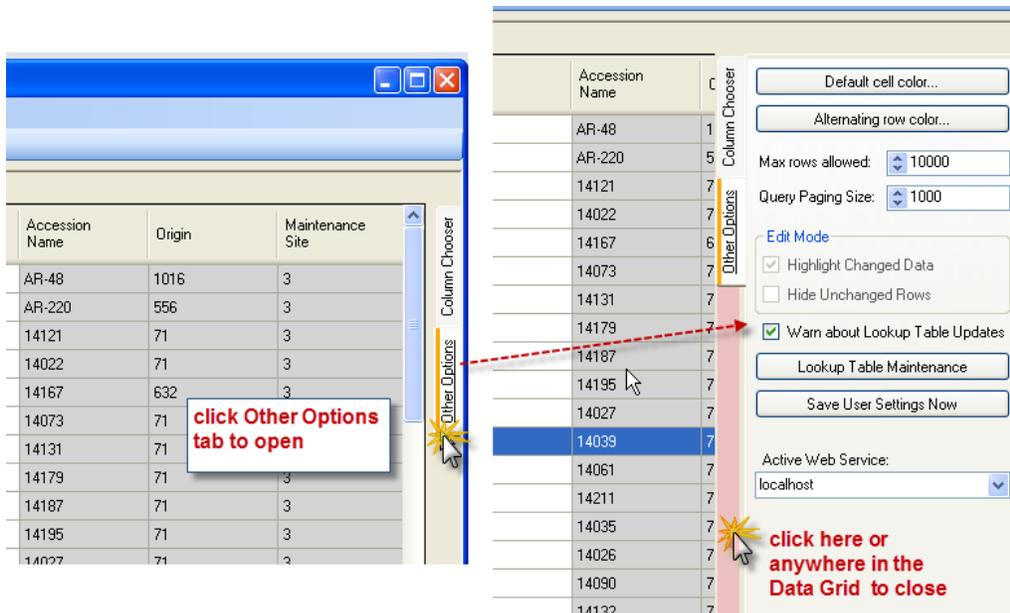
Click on the **Column Chooser** tab near the right edge of the data grid.



Select which columns to display by clicking in their checkboxes; click anywhere in the data grid to close the Column Chooser Panel

Personalizing Your Curator Tool: Other Options Tab

The **Other Options** tab on the right side of the Grid has various settings that can be used to adjust the row colors, the number of rows allowed, and options for highlighting charged data and for hiding unchanged rows. Click on the **Other Options** tab to open this panel; click anywhere in the Data Grid to close the tab.



Cell and row colors

Use the **Default cell color...** and **Alternating row color...** buttons to change colors. Each dataview can have its own color mix, making it easier to quickly recognize which dataview is currently being displayed.

Max rows allowed

Use this setting to control the maximum number of rows displayed in the Data Grid. (The number must be greater than one.) Be aware that a very large value for **Max Rows Allowed** could negatively impact the response time when accessing data from a remote server. Typically, **1000** or even **10,000** is okay.

When considering setting the value, remember that the Curator Tool stops displaying rows at whatever maximum level you set. If you import a large number of records, some may not display because the total number of rows has reached the upper limit. It may seem that all of your records did not get imported when in reality they were imported, but they are just not displaying.

Performance Enhancement Option: Query Paging Size

The default of “10” is set for slow connections to databases around the world. By increasing the **Query Paging Size**, you can greatly enhance the performance of your PC. By adjusting the **Query Paging Size** to fit the conditions – keep it lower if slow conditions exist such as a slow internet connection or when working with a local database on a small, slow hard drive a PC with minimal memory – otherwise, raise the number when you have a fast internet connection.



Try increasing the **Query Paging Size** to **100** or **1000**, but remember that a large page size means a less responsive Escape Key. If you increase it too much, you might experience a “server timeout” error indicating that you are asking for so much data in one round trip that the server cannot deliver a package that size in the allotted time.

Save User Settings Now

Click the **Save User Settings Now** button to save the dataviews’ row colors and column settings (column order, width, and visibility) as well as the **Options Tab** settings “Max rows allowed” and “Query Paging Size.”

Active Web Service (Switching to another Database)

Under the **Other Options** tab, you can switch databases if your PC has been configured to use different databases. Why would you need to do this? There are many reasons, but in one typical scenario you may initially store your data on your PC’s local database, and later upload this data to your organization’s file server. There the data will be permanently reside and be shared throughout the organization. Larger genebanks will typically use organizational file servers.



Sorting and Filtering Records

Frequently you will want to sort or filter records to organize and locate specific data easier.

Sorting Data

Select a column heading on which the sort will be based; right-click. Then select the appropriate menu option, **Sort Ascending** (or **Sort Descending**).

You can sort by multiple columns. The sequence is important – the column sorted first will be the first level sort, the second column selected will be second, etc.

| Accession ID | Accession Prefix | Accession Number | Ac Su | Accession Name | Site | Inactive Site Code Reason | Is O |
|--------------|------------------|------------------|-------|-------------------|------|---------------------------|------|
| 388524 | PI | 506395 | | | | | N |
| 388525 | PI | 506396 | | | | | N |
| 388526 | PI | 506397 | | | | | N |
| 388527 | PI | 506398 | | | | | N |
| 388528 | PI | 506399 | | DURKHEIM JV | DAV | | N |
| 388529 | PI | 506400 | | Durkheimer Riesen | DAV | | N |

Other Sort Options

| Option | Effect |
|--------------------------|---|
| No Sort | “undo” the sorting of one specific column – click on the column heading first; then right click and select No Sort |
| Reset All Sorting | clears all sorting, returning the records back to their original order |

Sort Indicator

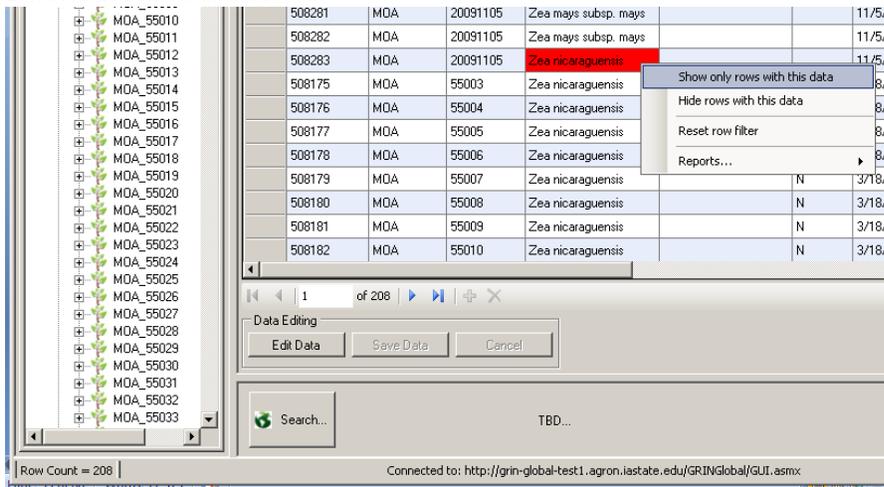
| Accession Name ID | Accession | Category | Name | Name Rank |
|-------------------|-----------|-----------|---------|-----------|
| 472790 | PI 501110 | COLLECTOR | ZM-1011 | 1070 |
| 596407 | PI 501110 | LOCALNAME | Mapopwe | 1030 |
| 472791 | PI 501111 | COLLECTOR | ZM-1021 | 1070 |
| 472792 | PI 501112 | COLLECTOR | ZM-1022 | 1070 |

Filtering Records

You can filter the data grid in order to display a subset of the records. Use any cell’s contents as the basis for your filtering criteria. Right-click in the data cell; select the desired filtering choice from the menu.

Lookup Tables

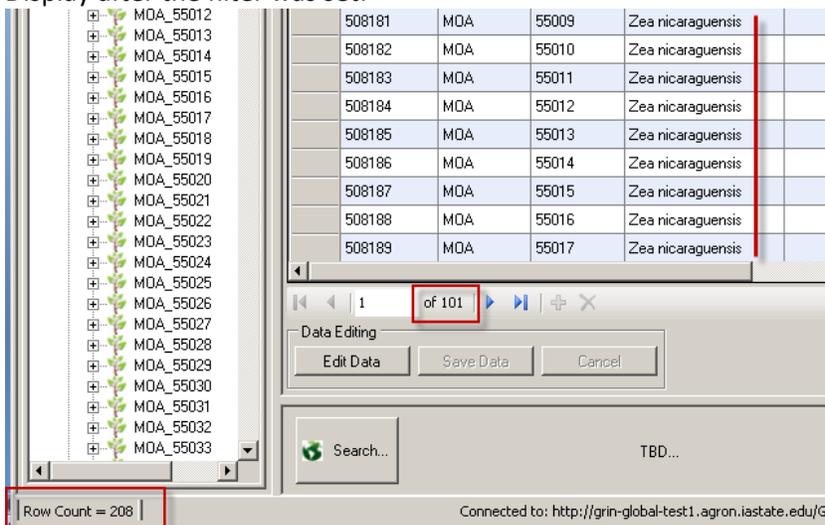
Before the filter is set:



The screenshot shows a data grid with a tree view on the left containing entries from MDA_55010 to MDA_55033. The main grid displays 18 rows of data. A context menu is open over the row with ID 508283, showing options: "Show only rows with this data", "Hide rows with this data", "Reset row filter", and "Reports...". The status bar at the bottom indicates "Row Count = 208" and "Connected to: http://grin-global-test1.agron.iastate.edu/GRINGlobal/GUI.asmx".

| | | | | | |
|--------|-----|----------|----------------------|---|-------|
| 508281 | MDA | 20091105 | Zea mays subsp. mays | | 11/5/ |
| 508282 | MDA | 20091105 | Zea mays subsp. mays | | 11/5/ |
| 508283 | MDA | 20091105 | Zea nicaraguensis | | 11/5/ |
| 508175 | MDA | 55003 | Zea nicaraguensis | | 8/ |
| 508176 | MDA | 55004 | Zea nicaraguensis | | 8/ |
| 508177 | MDA | 55005 | Zea nicaraguensis | | 8/ |
| 508178 | MDA | 55006 | Zea nicaraguensis | | 8/ |
| 508179 | MDA | 55007 | Zea nicaraguensis | N | 3/18/ |
| 508180 | MDA | 55008 | Zea nicaraguensis | N | 3/18/ |
| 508181 | MDA | 55009 | Zea nicaraguensis | N | 3/18/ |
| 508182 | MDA | 55010 | Zea nicaraguensis | N | 3/18/ |

Display after the filter was set:



The screenshot shows the same data grid after a filter is applied. The tree view on the left is expanded to MDA_55033. The main grid now displays only 10 rows, all with the same data as the previous screenshot. A red box highlights the "of 101" text in the grid's navigation area. The status bar at the bottom indicates "Row Count = 208" and "Connected to: http://grin-global-test1.agron.iastate.edu/G".

| | | | | | |
|--------|-----|-------|-------------------|--|--|
| 508181 | MDA | 55009 | Zea nicaraguensis | | |
| 508182 | MDA | 55010 | Zea nicaraguensis | | |
| 508183 | MDA | 55011 | Zea nicaraguensis | | |
| 508184 | MDA | 55012 | Zea nicaraguensis | | |
| 508185 | MDA | 55013 | Zea nicaraguensis | | |
| 508186 | MDA | 55014 | Zea nicaraguensis | | |
| 508187 | MDA | 55015 | Zea nicaraguensis | | |
| 508188 | MDA | 55016 | Zea nicaraguensis | | |
| 508189 | MDA | 55017 | Zea nicaraguensis | | |

To turn off filtering, right-click in *any* cell in the grid; select **Reset row filter**.

Lookup Tables

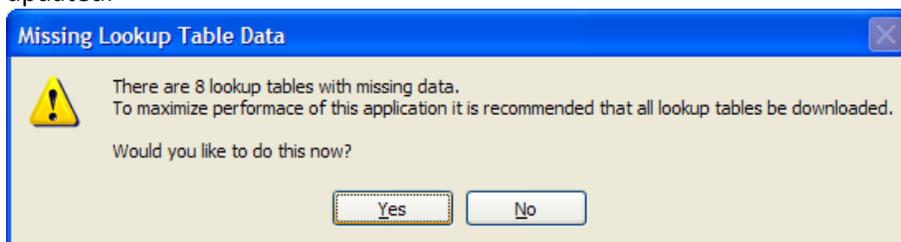
To optimize the Curator Tool's performance, multiple "lookup" tables are kept on your computer. Every PC that has the Curator Tool installed on it has these lookup tables. (This is why Microsoft SQL Server is loaded on the PC during the installation process.)

The **LookupTableLoader** window provides a means for reviewing the status of the lookup tables and for indicating several updating options.



The first time you open the Curator Tool, you will be prompted to update your lookup tables. If this is not done, the curator tool records are updated painfully slow. After all lookup tables are updated and the check boxes are checked, the lookups will maintain themselves automatically.

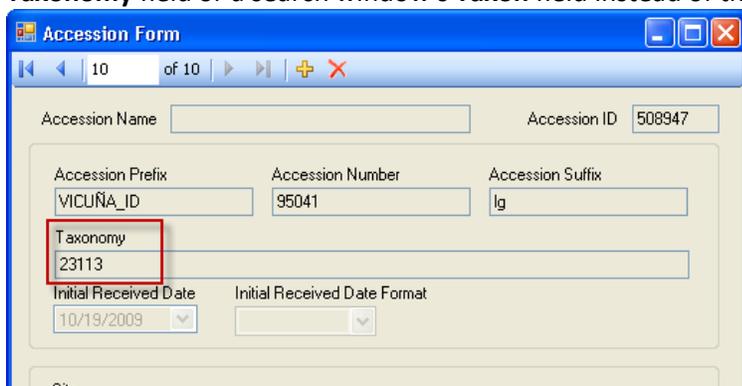
When you start up the Curator Tool, you will be prompted if your lookup tables are not completely updated:



The rest of this section contains detailed instructions on how to respond to this window and handle the lookup tables.

Indicators When a Lookup Table Isn't Updated

When the Taxonomy Lookup table needs updating, you may notice numbers displaying in a dataview's **Taxonomy** field or a search window's **Taxon** field instead of the actual taxonomic name.

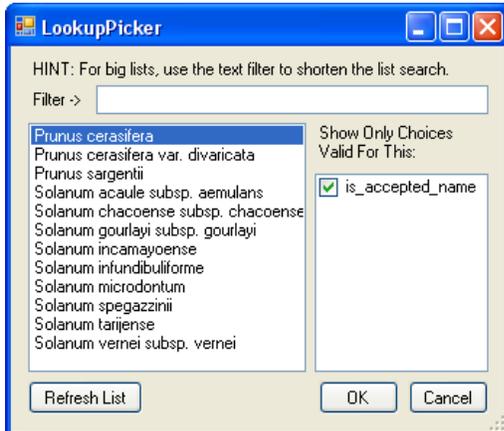


| | Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Accession Name | |
|--|--------------|------------------|------------------|------------------|-------|----------------|---|
| | 384717 | PI | 502588 | | 26865 | AR-48 | 1 |
| | 384718 | PI | 502589 | | 37382 | AR-220 | 5 |
| | 431014 | PI | 548888 | | 43269 | 14121 | 7 |
| | 431015 | PI | 548889 | | 26840 | 14022 | 7 |
| | 431016 | PI | 548890 | | 26840 | 14167 | 6 |

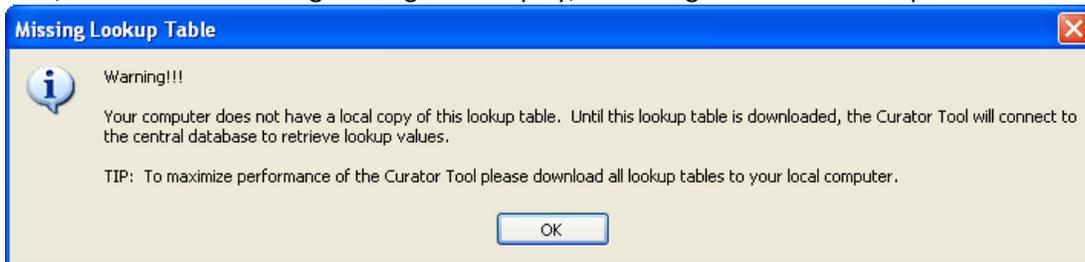
A LookupPicker window not displaying a complete list is another indicator. For instance, if you are in the Taxonomy field and are using the Lookup Picker, you may realize there are missing taxons. In that case, you should load the Taxonomy Lookup table.

Lookup Tables

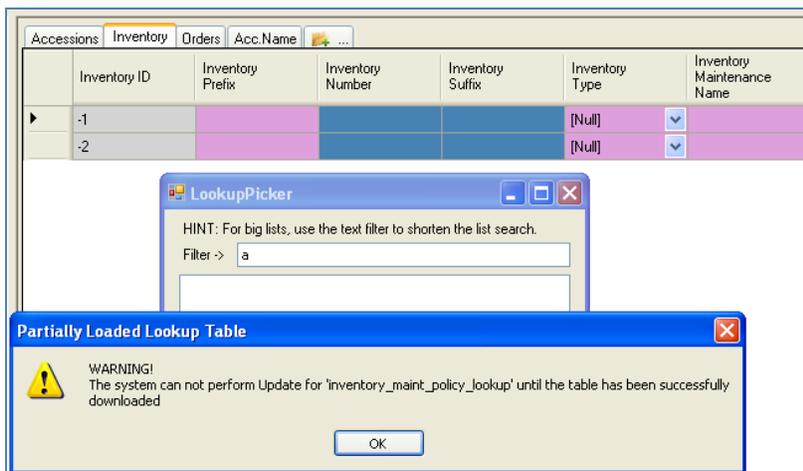
Click the **Refresh List** button to ensure that the list is current.



Also, sometimes a warning message will display, indicating the related lookup table is not current:



Or...

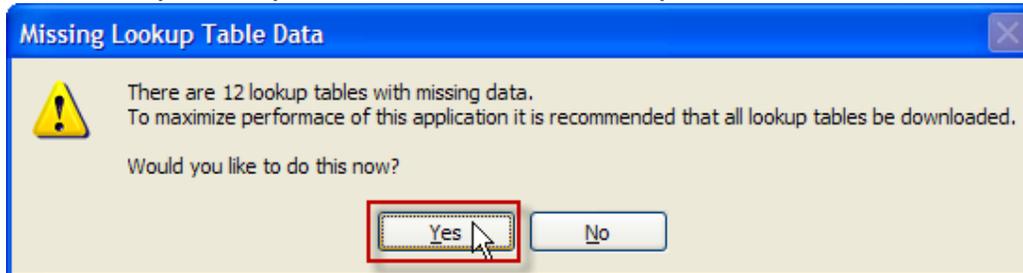


Updating the Lookup Tables

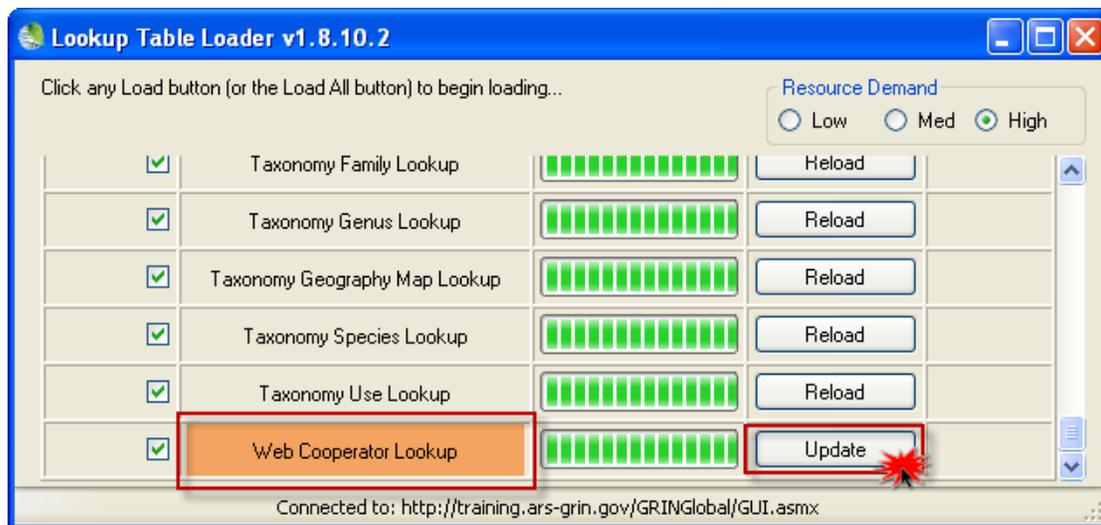
You can update the Lookup tables when you first start the Curator Tool or at any time when the Curator Tool is running.

Updating When You Start Up the Curator Tool

When you start up the Curator Tool, if the lookup tables are not updated, you will be prompted to download any of the tables that are not current. It is recommended that you select **Yes**. (Use the **Warn about Lookup Table Updates** checkbox on the **Other Options** tab to enable/disable this feature.)



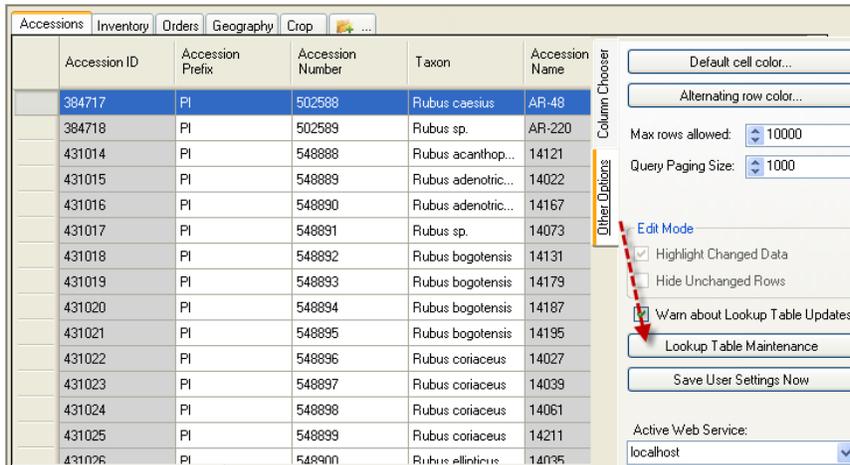
Clicking the **Yes** button does not immediately update the lookup tables, but instead displays the **LookupTableLoader** window. Look for the lookup tables highlighted in orange – typically their adjacent button will be labeled **Update**. Click on all of the **Update** buttons to update – *just viewing the window does not initiate the updating process*. You can minimize the window and do other work on your PC; the updating will proceed in the background.



Lookup Tables

Updating Lookup Tables After Startup

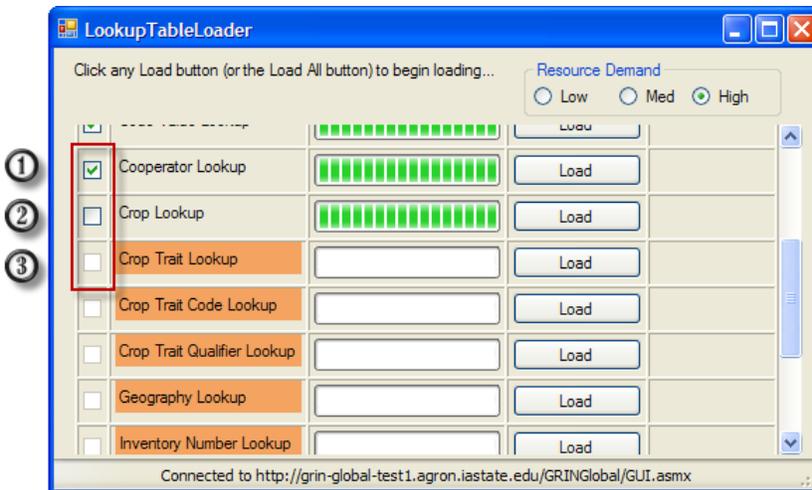
The Curator Tool has an **Other Options** tab which you can click at any time to initiate the loading/updating of any of the Lookup Tables. Click on **Other Options** tab; then click the **Lookup Table Maintenance** button:



(The LookupTableLoader window then displays; see p. 57.)

Update Checkboxes

The lookup tables are listed on the left. Those tables that are not current are highlighted (in orange). The checked checkboxes on the left indicate which lookup tables will be *automatically maintained*. The unchecked tables will require manual updating; this is accomplished at any time by clicking the **Load** button.



This screenshot illustrates three different conditions:

1. the Cooperator Lookup table is current (fully loaded). (We know this because the Cooperator Lookup table name is not highlighted in orange.) The check indicates that on future startups, the Curator Tool will update the Cooperator Lookup table when it is not fully loaded.
2. the Crop Lookup table has been loaded. The empty checkbox indicates that on future startups, the Curator Tool will *not be* automatically updated. (This is not recommended – check it!)
3. the Crop Trait Lookup table has not been loaded, hence the orange highlighting. Because it hasn't been loaded yet, the checkbox is grayed out (not available).

We recommend that you always perform an auto-update (check the box). Since auto-updates are an “incremental” process, only new/modified records are downloaded to your computer, they happen quickly, and typically do not burden your system’s resources.



If you turn off your PC while tables are still being loaded, the next time you start the Curator Tool the loading will continue loading where it had previously stopped.

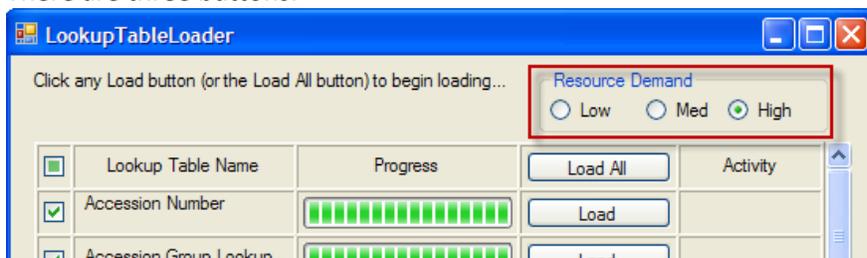
Load All and Load Buttons

Clicking the **Load** and **Load All** buttons completely refreshes the lookup table(s). (**Load All** will cause all lookup tables to be re-loaded – this may require one hour or so, depending on the size of your data. You should only need to use the Load All when initially starting GRIN-Global.) Generally, you will use the respective **Load** button for the table which you intend to load; when you first install the Curator Tool use the **Load All** button to expedite loading all of the tables. In the next section, the demand on your computer’s resources is discussed.

Resource Demand Alternatives

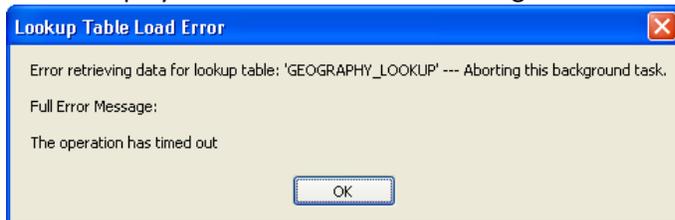
Before clicking on any of the **Load** or the **Load All** buttons, first indicate how much of your computer’s resources should be allocated to the background downloading process, relative to everything else that you will be running on your PC. The default is set to **High** for maximum performance. (Later, if you find that the process aborts, you can lower the setting.)

There are three buttons:



| Button | Resource Demand / Records Loaded at a time |
|--------|--|
| Low | 1,000 |
| Med | 10,000 |
| High | 100,000 |

You can’t change the resource demand option after you proceed with the loading. So how do you determine which level to select? You might try the “High” option first; worst case is that at some point the PC displays a “Table Load Error” message similar to the following:



When that happens, proceed by loading the LookupTableLoader again, but try the next lower **Resource Demand** level.

Importing Your Data *from* an Existing Database into GRIN-Global

Using a Spreadsheet to Import Data into GRIN-Global

The following directions detail how to upload data originally stored elsewhere, such as in a spreadsheet, into the GRIN-Global Curator Tool. (Some people refer to this as “bulk loading” or “mass loading.”) During this process, you will match column names in the Curator Tool with the corresponding column names from your source spreadsheet data.

Why would you copy data from a spreadsheet into the GRIN-Global Curator Tool? There are multiple reasons when you would do this. When initially converting to GRIN-Global, many genebanks have existing data stored in spreadsheets or databases and will want to import their data into GRIN-Global. The genebank will then use GRIN-Global as its information system going forward and will no longer continue keeping data in a spreadsheet.

On an ongoing basis, some GRIN-Global users may opt to keep their data in spreadsheets before it is convenient to upload their data into the Curator Tool. (The same is true for importing data from a database, such as Access or FoxPro.)

Two Importing Methods

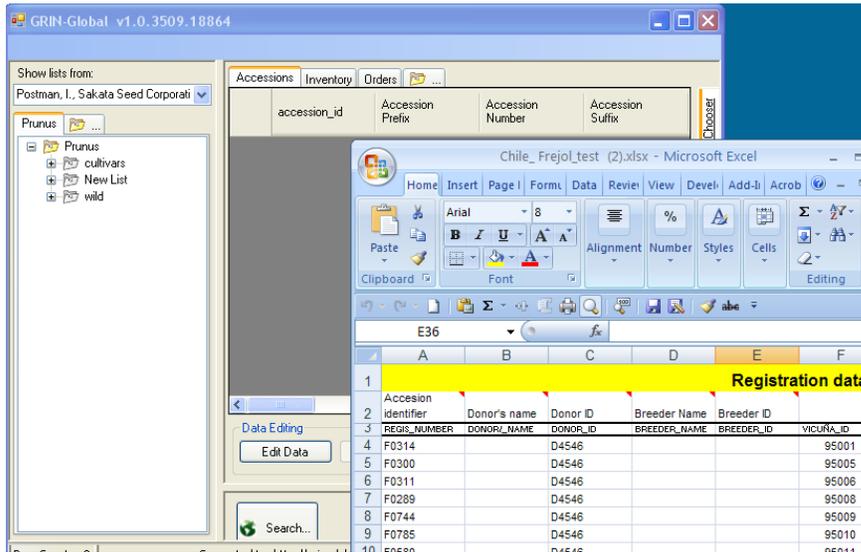
The Curator Tool was designed to be compatible with spreadsheets. It is a straightforward process to copy and move data from a spreadsheet to the Curator Tool. There are two alternative methods for doing this.

In the first approach, you will copy the data from a spreadsheet and drop it into the Curator Tool. During this process, the *column headings in the spreadsheet are used* to match up the spreadsheet data with the respective columns in the Curator Tool.

In the second approach, the “Block-Style” approach, a *block of data is copied* from the Curator Tool into a spreadsheet. In this method, you will *not be including the column headings*; in this case it becomes important where you physically place (drop) your data. The step-by-step details are described later, on page 64.)

*Copying Data from a Spreadsheet (Including the Column Headings)***Copy the Data from a Spreadsheet to the Curator Tool**

Open the GRIN-Global Curator Tool and your spreadsheet application (e.g. Microsoft's Excel, OpenSource.org's Calc, or Google Docs). They both must be open, but ideally not both in full screen. By having both windows at least partially visible, you will be able to drag data from the spreadsheet into GRIN-Global easier than if the screens were full screen.



1. In the Curator Tool, locate the list that will be updated.
2. Also in the Curator Tool, click the **Edit Data** button (if you are not already in Edit mode).
3. In the spreadsheet, highlight the data that will be copied; it is essential to include a column header row in which the spelling of the column names *matches exactly* with the Curator Tool column names. (See [Importing Column Names](#) if you wish to avoid typing the column names.)



- only the columns with data being updated must be included
- the spreadsheet columns do not need to be in the same order as the Curator Tool columns
- the spreadsheet column names *must be spelled identically* to the Curator Tool column names

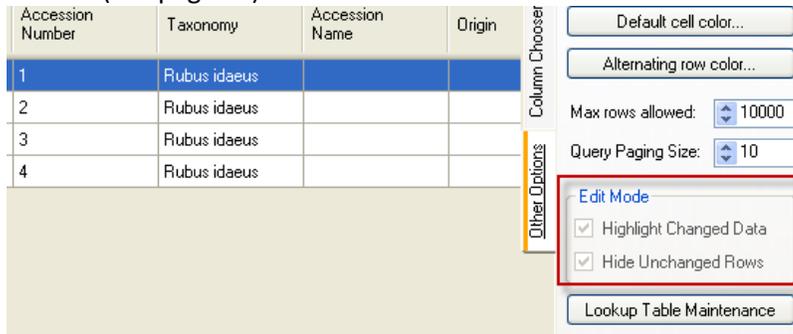
4. In the spreadsheet, using the cursor, grab the box outlining the selected cells, drag the box and drop it anywhere in the GRIN-Global Data Grid.



When dragging from one application to the other, if the target application is not visible on the desktop, drag the mouse to the target application's icon on the Windows Taskbar. The target application will then display; drop the box outline.

Click to review the [video](#).

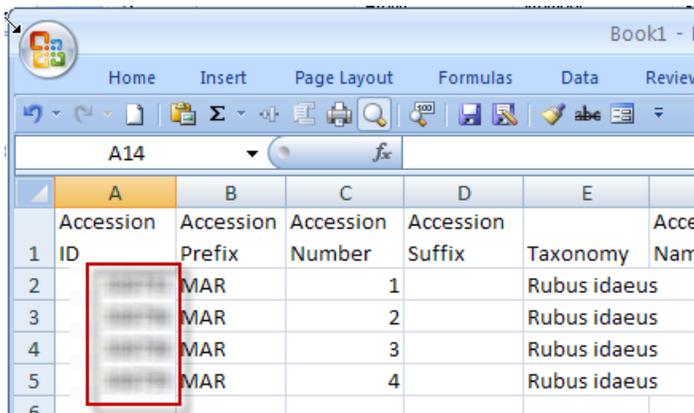
- Any changes made in the spreadsheet should now be visible in GRIN-Global. To make it easier to visually verify any changes, **it is highly recommended** to select on the **Other Options** tab the **Highlight Changed Data** and the **Hide Unchanged Rows** options. Changed cells will be displayed in color (see page 48).



- It is important to review the primary key field in the spreadsheet before dragging the data into the Curator Tool. Dragging spreadsheet records with:
 - matching key fields *will update* existing records in the Curator Tool Data Grid
 - non-matching (or empty) key fields *will add new* records in the Curator Tool Data Grid



Each table has a primary key – for instance in the Accession table it is the **Accession ID** field. Users frequently copy records from the Curator Tool into a spreadsheet to use as the basis for creating new records. This is done to minimize the amount of inputting. However, when the existing data is copied from the Curator Tool, it will include the primary key. Remember to delete the primary key field data in the spreadsheet. In this example, the user intends to drag these Accession records into the Curator Tool to create new records, so the user must delete the Accession IDs.



- If satisfied with the data, click **Save Data**.

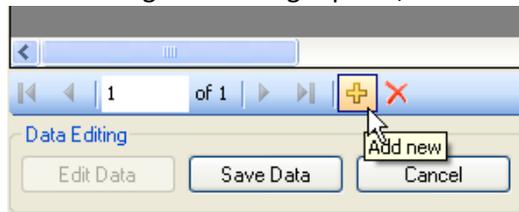
Importing Column Names from the Curator Tool into a Spreadsheet



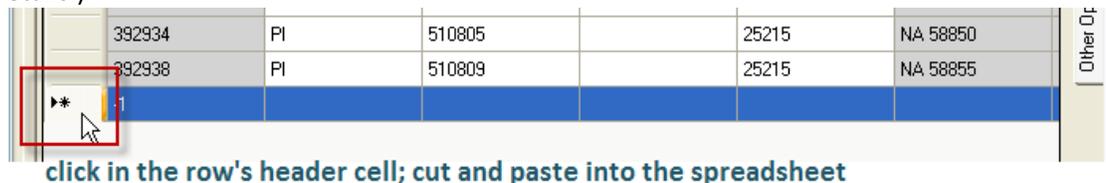
To ensure that the spreadsheet column names match identically to the column names as they are spelled in the Curator Tool, export a blank row from the Curator Tool Data Grid into a spreadsheet. This technique is also a quick way to start building data in a spreadsheet that will eventually be dropped into the Curator Tool.

(To display the actual database field names, instead of the column headings, before dragging the data into the spreadsheet *depress and hold down* the **Shift** key. “Typical” users will not need to do this, but Curator Tool administrators may find this handy.)

1. In the Curator Tool, start a new list or select an existing list.
2. In the data grid in the right panel, click the **Edit Data** button; click the **Add new** button.



3. Select the new blank (bottom) row by clicking on the row's header cell; copy (**Ctrl-C**); paste in a spreadsheet (**Ctrl-V**). Alternatively, do a “drag and drop.” (See “[Drag and Drop](#)” for details.)



The column headings displayed in the dataviews are “friendly names” – that is, they are names created for a specific language for the dataview. Because GRIN-Global can be viewed in different languages, these names are very modifiable. However, the actual database names (that are not visible when looking at the dataview), are more fixed. On occasion, you may need to know what is the actual database name for a column of data. You can display the actual database field names by dragging the row or rows into a spreadsheet, while holding the keyboard’s **Ctrl** key.

Copying, Block-Style

Use the Block-style copying approach to copy blocks of data from a spreadsheet into the Curator Tool. (This method also works in the reverse direction for copying data from the Curator Tool to a spreadsheet.)

Click to review the [video](#).



When using this method, since you will not be including the column names, *it is critical where you line up the cells* when you copy and paste. Open both the Curator Tool and your spreadsheet application, but not in full screen.

1. Determine what data will eventually be replaced in the Curator Tool or what data is to be copied into a spreadsheet.

| | Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxonomy | Accession Name | Is Core? | Life Form |
|---|--------------|------------------|------------------|------------------|--------------------|----------------|--------------------------|-----------|
| ▶ | 509134 | new21 | 11 | | Phaseolus vulgaris | | <input type="checkbox"/> | [Null] |
| | 509135 | new22 | 12 | | Phaseolus vulgaris | | <input type="checkbox"/> | [Null] |
| | 509136 | new23 | 13 | | Phaseolus vulgaris | | <input type="checkbox"/> | [Null] |
| * | | | | | | | <input type="checkbox"/> | [Null] |

determine what data range will be changed

2. Arrange your spreadsheet so that its columns *are in the same order* as the Curator Tool's. (You can rearrange the columns in either the Curator Tool or the spreadsheet.) In the Curator Tool, click the **Edit Data** button to be in Edit mode.

| | Accession ID | Accession Prefix | Accession Number | Taxonomy | Accession Suffix |
|---|--------------|------------------|------------------|--------------------|------------------|
| ▶ | 509134 | new21 | 11 | Phaseolus vulgaris | |
| | 509135 | new22 | 12 | Phaseolus vulgaris | |
| | 509136 | new23 | 13 | Phaseolus vulgaris | |
| * | | | | | |

In this example, the Taxonomy column in the Curator Tool is shifted to the left. Remember that to reposition a column, *drag* the column heading left or right as needed.

- In Excel, highlight the spreadsheet data that will be copied; use **Ctrl-C** to copy the block.

| | Accession | Accession Prefix | Accession Number | Taxonomy | Accession Initial | Mat Initial | Received Date |
|---|-----------|------------------|------------------|---------------|-------------------|-------------|---------------|
| 0 | 509134 | new41 | 1 | Zea luxurians | | | 1/25/ |
| 1 | 509135 | new42 | 2 | Zea luxurians | | | 1/25/ |
| 2 | 509136 | new43 | 3 | Zea luxurians | | | 1/25/ |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |

- In the Curator Tool, position the cursor in the *top, left cell* of the range of data that will be updated; use **Ctrl-V** to paste the data.

| | Accession ID | Accession Prefix | Accession Number | Taxonomy | Accession Suffix |
|---|--------------|------------------|------------------|--------------------|------------------|
| ▶ | 509134 | new21 | 11 | Phaseolus vulgaris | |
| | 509135 | new22 | 12 | Phaseolus vulgaris | |
| | 509136 | new23 | 13 | Phaseolus vulgaris | |
| * | | | | | |

Result of the Block-Copy:

| | Accession ID | Accession Prefix | Accession Number | Taxonomy | A |
|---|--------------|------------------|------------------|---------------|---|
| ▶ | 509134 | new41 | 1 | Zea luxurians | |
| | 509135 | new42 | 2 | Zea luxurians | |
| | 509136 | new43 | 3 | Zea luxurians | |
| * | | | | | |

The top left cell is blue because it currently is the active cell; the yellow indicates that a cell's content has changed.



Besides using the cut and paste method, the drag and drop method also works. The key is to properly align the block of spreadsheet data with the top, left “target” cell in the Curator Tool.

Copying Curator Tool Data *into* a Spreadsheet or Database

Copying Curator Tool Data into a Spreadsheet

1. Open both the Curator Tool and the spreadsheet application (e.g. Excel). They both should be open, but not full screen.
2. If necessary, filter the files that will be copied (see [Filtering Records](#)).
3. Select the records from the Curator Tool that will be copied into the spreadsheet. See [Drag](#) and [Selecting Multiple Rows](#) instructions for general directions.



When dragging from one application to the other, if the target application is not visible on the desktop, drag the mouse to the target application's button on the Taskbar. The target application will then display; drop the box outline.

[Click to review the [video](#).]

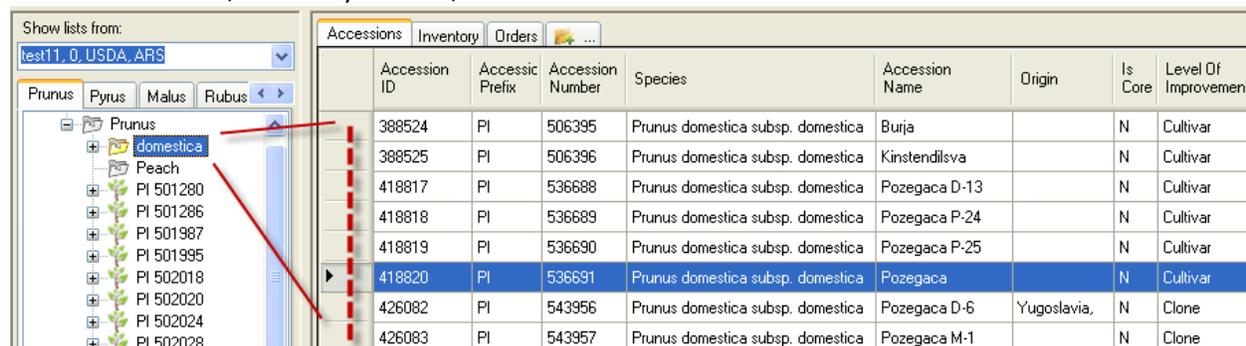


Another method for importing data into GRIN-Global requires the Admin Tool, which generally is restricted to database administrators. However, you should be aware of this capability, because the Admin Tool has Import Wizards that were designed specifically for importing data. If you are in a networked environment, your administrator may be able to assist you with this initial loading of data. If your GRIN-Global database resides on your PC, then you can use the Admin Tool Import Wizard to load datasets into GRIN-Global.

Using Lists to Organize Data

This section explains in detail the steps for establishing and maintaining lists for managing data. For an overview on the Curator Tool List feature, refer to page 32.

One of GRIN-Global's fundamental features is its ability to organize virtual lists of database records that are of particular interest to you. These lists can point to records which you need to track or manage, such as accessions, inventory records, or orders.



| Accession ID | Accessic Prefix | Accession Number | Species | Accession Name | Origin | Is Core | Level Of Improvement |
|--------------|-----------------|------------------|-----------------------------------|----------------|-------------|---------|----------------------|
| 388524 | PI | 506395 | Prunus domestica subsp. domestica | Burja | | N | Cultivar |
| 388525 | PI | 506396 | Prunus domestica subsp. domestica | Kinstendisva | | N | Cultivar |
| 418817 | PI | 536688 | Prunus domestica subsp. domestica | Pozegaca D-13 | | N | Cultivar |
| 418818 | PI | 536689 | Prunus domestica subsp. domestica | Pozegaca P-24 | | N | Cultivar |
| 418819 | PI | 536690 | Prunus domestica subsp. domestica | Pozegaca P-25 | | N | Cultivar |
| 418820 | PI | 536691 | Prunus domestica subsp. domestica | Pozegaca | | N | Cultivar |
| 426082 | PI | 543956 | Prunus domestica subsp. domestica | Pozegaca D-6 | Yugoslavia, | N | Clone |
| 426083 | PI | 543957 | Prunus domestica subsp. domestica | Pozegaca M-1 | | N | Clone |

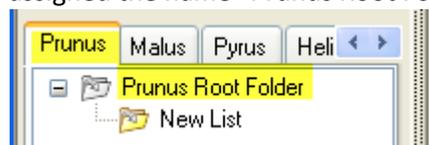
You populate your lists by pointing to records in the database. You can set up “dummy” folders which are initially empty, but eventually will include specific records for your unique needs. When you no longer need a folder, you can delete it. You are merely deleting your folder, not the actual database records that the folder's list had pointed to.

In the introduction to this User Guide, we briefly described using the Curator Tool to manage accessions and orders. (See [Using Lists to Organize Your Accessions](#) or [Using Lists to Organize Your Orders](#).)

Tabs



By default, when the List Panel tabs are created, they will have a “root folder” with practically the same name as the tab. In the following example, the **Prunus** tab has its highest-level folder assigned the name “Prunus Root Folder.”

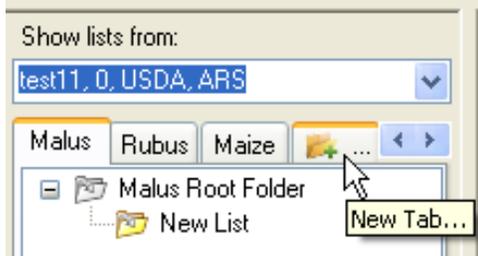


By “highest-level,” think of each tab having a main folder which in turn can hold subfolders. (If you are familiar with Windows Explorer, folders having subfolders is a similar concept.) There is no limit to the number of times a folder can be subdivided.

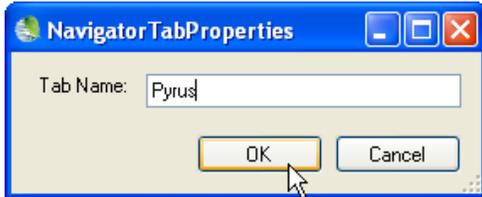
In addition to creating a “root folder,” the Curator Tool also creates a subfolder with the default name “New List.” It is recommended that the user rename the **New List** folder to a more meaningful name, one that reflects the database records the list will be pointing to.

To Create a New Tab

1. In the List Panel, click on the **New Tab** icon with the ellipsis ("...").



2. In the pop-up window, input a **Tab Name**; click **OK**.

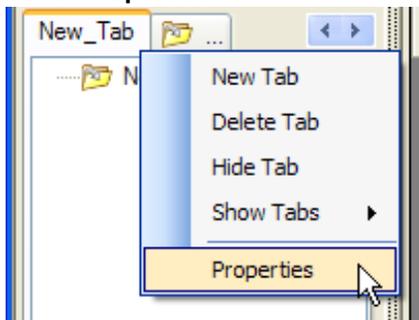


Result:

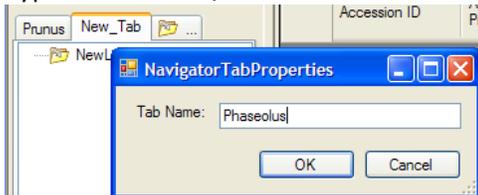


To Rename a Tab

1. **Right-click** on the tab name.
2. Select **Properties**



3. Type in the **name**; click **OK**.

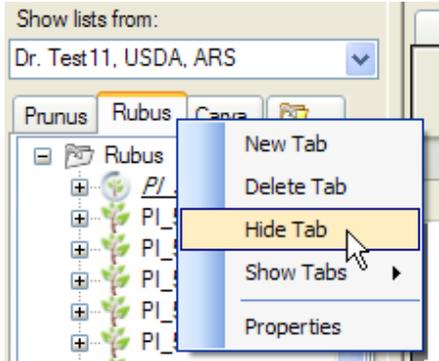


To Hide and Display Tabs

Tabs in the List Panel can be hidden or displayed as desired. This is particularly helpful when you have created many tabs.

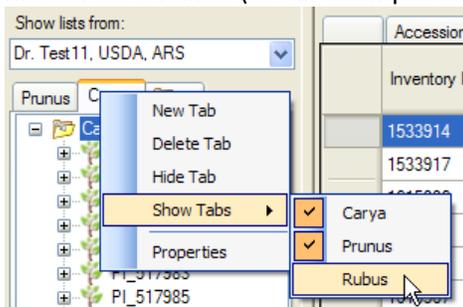
To Hide a Tab

Right-click on the tab to be hidden.



To Display a Hidden Tab

Right-click on any tab that is visible; select **Show Tabs** from the menu and then click on the hidden tab's name. (In this example the Rubus tab is hidden and will be displayed again.)



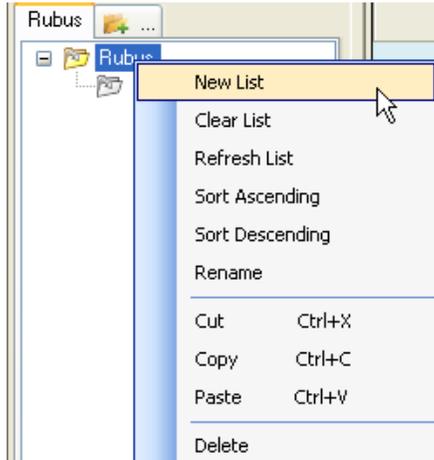
At least one tab must be displayed – you cannot hide all tabs simultaneously. Also, you can rearrange tabs by dragging them left or right.

Lists

Dynamic lists (folders) were introduced in version 1.8.3. See the section on [dynamic folders](#) for details. The following directions primarily pertain to static lists.

To Create a New List

1. Right-click on the parent list (the list that will be one level higher than your new list) and select **New List**.



A new, empty list with the name “New List” will be created below the existing list. (Adding items to your list is discussed later.)



If the parent list already contains other items or lists, look *below* the existing items for the new list. Initially this can be confusing if the list is long; you may need to scroll down to see the newly created list.

To Delete or Clear a List

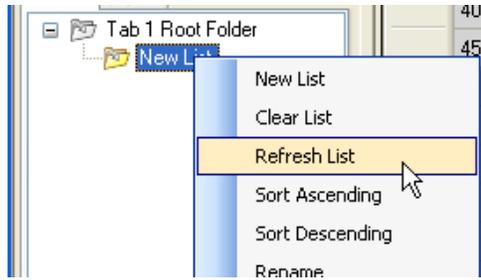
You can delete lists that are no longer needed or empty lists that you intend to use again. In either case, you are not deleting the actual database records, but rather the record pointers that were stored by your folders. “Delete” removes the folder and items; “Clear List” only empties the list items in the folder.

To Delete a List

Right-click on the list name; select **Delete**.

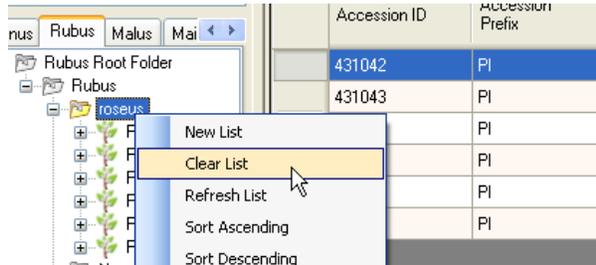


Also, use the **Refresh List** option on the context menu after you have made any changes to the list:



To Clear a List

To remove the items from a list, but retain the list name, right-click on the list name; select **Clear List**.



These “Delete” and “Clear List” actions do not delete the database records; they only impact the lists.

To Delete *Items* from a List

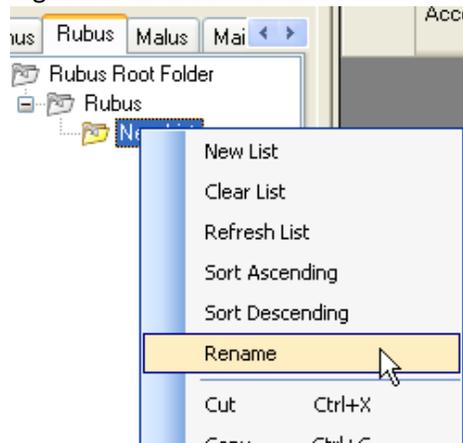
To remove *one* item from a list, select the item; right-click; select **Delete**.



Currently you cannot select (or delete) multiple items within a list. Also, remember that deleting an item from a list does not delete the item’s corresponding record in the database; this action is only deleting the list item.

Name a List

Right-click a folder name to rename it with a meaningful name; select **Rename** from the menu.



To Move a List

The method for moving a list is similar to moving a folder in Microsoft Explorer and other programs. Depending on your preference, you may opt to move a list using any of the following methods:

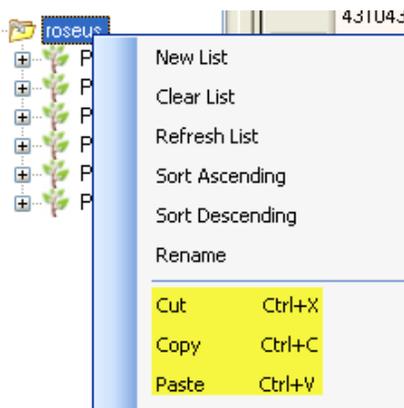
- right-click menu
- keyboard shortcuts (Ctrl-X, Ctrl-C, Ctrl-V)
- “drag and drop” (with the mouse)

Note that in addition to moving from one folder to another, you can also move or copy folders or even individual list items from one tab to another.

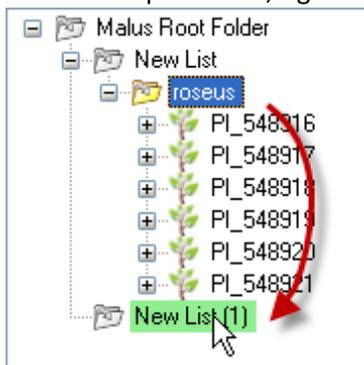


In the current release, list *items* must be individually moved or copied. Hence, it usually is more efficient to create lists and sub-lists to organize your items. By doing so, the items will be better organized, but also can be readily rearranged at a later time.

Highlight the list being moved; right-click on that folder and select **Cut** or **Copy**.



Locate the new parent list; right-click on that folder name and select **Paste**.



To move a list using the keyboard shortcuts (Ctrl-X, Ctrl-C, Ctrl-V)

Highlight the list name; use **Ctrl-X** (to move) or **Ctrl-C** (to copy). Locate the new parent list; use **Ctrl-V**.

To move a list using the drag and drop method

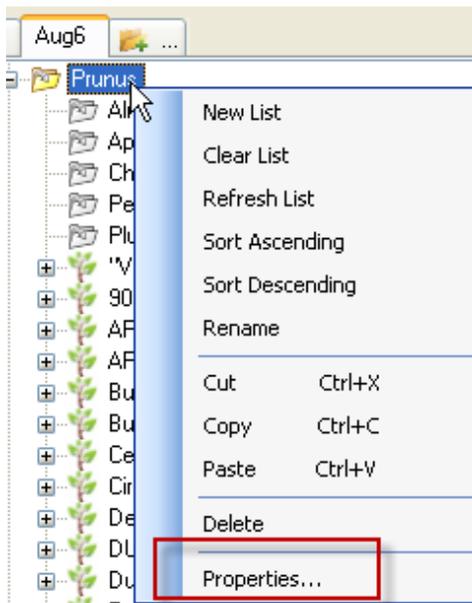
Highlight the list name; drag to the new “parent” folder.

To Add Additional *Items* to a List

Additional accession / inventory / order requests, and other records can be added to an existing list at any time using the same methods described in the **Creating New Records** section, p. 98.

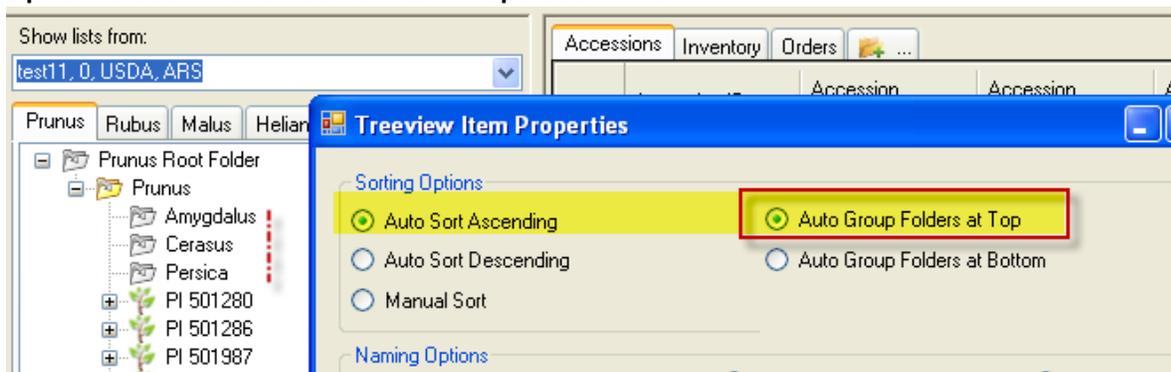
Sorting & Custom Naming List Items

You can customize the manner in which the lists are sorted as well as specify how the items are labeled within the lists. These features are available via the **Properties** command on the List menu (right-click on a folder in the List Panel.)



Sorting List Items

You can designate whether a list containing both items and sub-lists has its folders displayed at the top of the list, above the list's items, or at the bottom, below the items. The following illustrates the **Sorting Options** section of the **Treeview Item Properties** window.



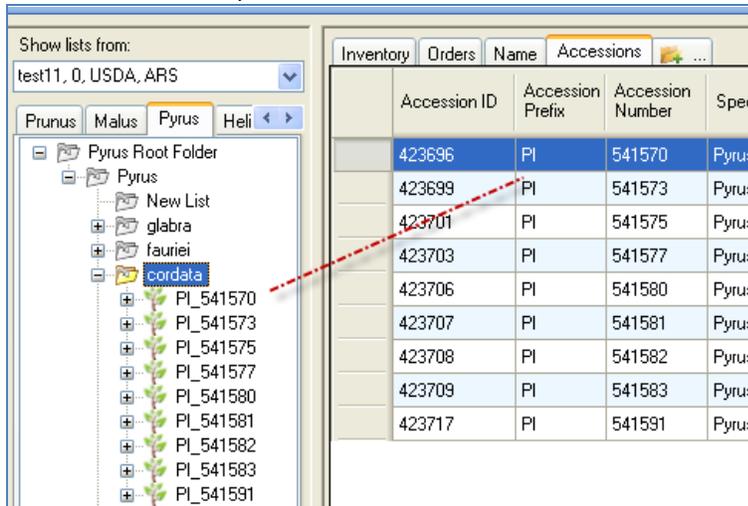
List Items' Custom Naming Feature

You can change how List items are named.

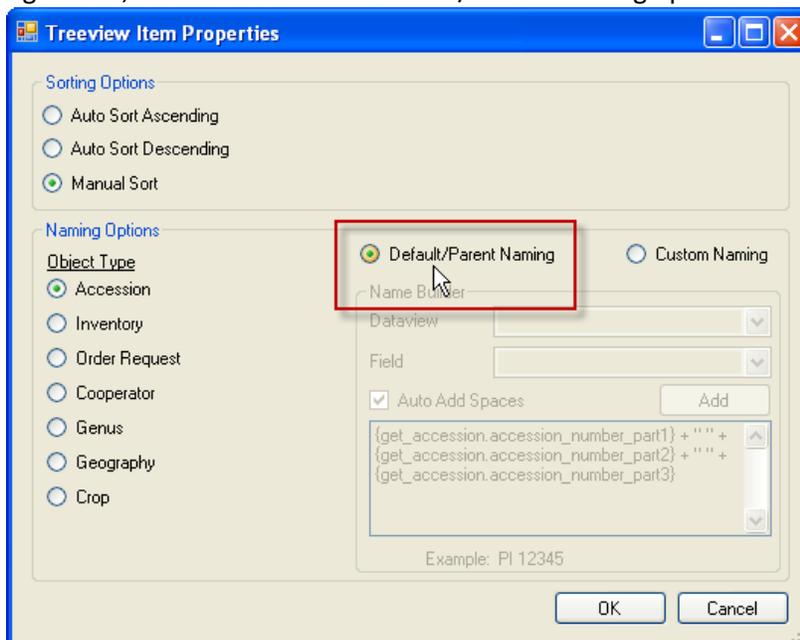
Default Item Names

By default, the names for accession list items combine the accession prefix, number, and suffix fields from the corresponding accession database record. Similarly, each object type (Accession, Inventory, Order Request, etc.) has a default naming convention.

(In the following example, the accessions have blank suffix fields, so the items' names include just the Prefix and Number.)



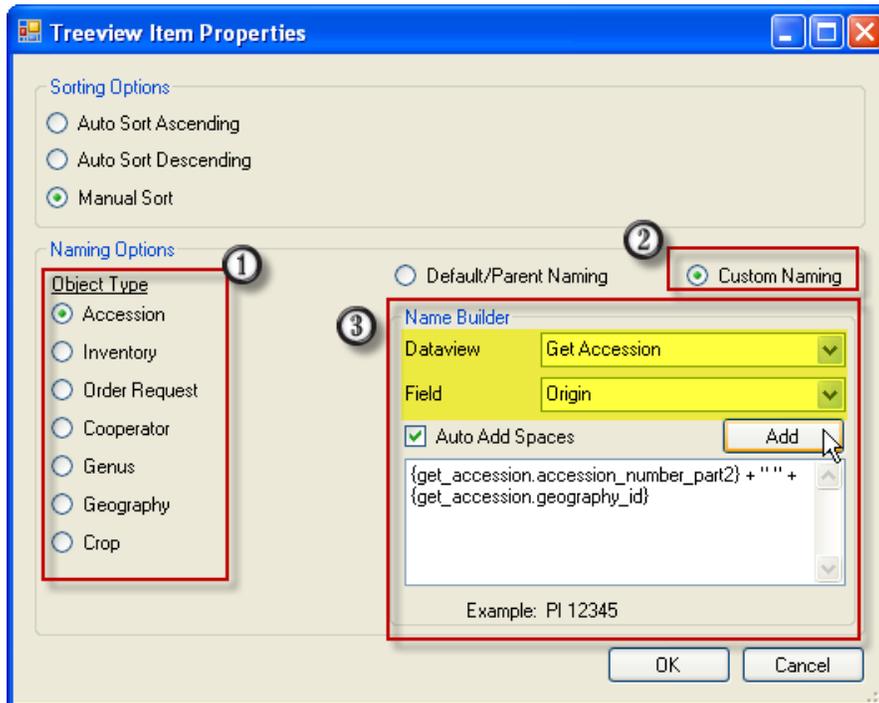
To revert back to their defaults when the list items do not have their default names, highlight the folder, right-click, and then select the Default/Parent Naming option.



Custom Item Names

Right-click on a *folder* to create custom item names. In the **Treeview Item Properties** window:

1. Select the desired **Object Type**. This ultimately determines what field names you can use for the name.
2. Click the **Custom Naming** button.
3. Build the custom name by selecting from the list of available fields in the **Name Builder** frame. Select a **Dataview** and a **Field** from that Dataview. Click the **Add** button as needed to add additional fields; click **OK**.



4. To see the list items with their custom names, you may need to refresh the list:



(Certain names will automatically update; if your names do not, invoke the **Refresh List** command.)



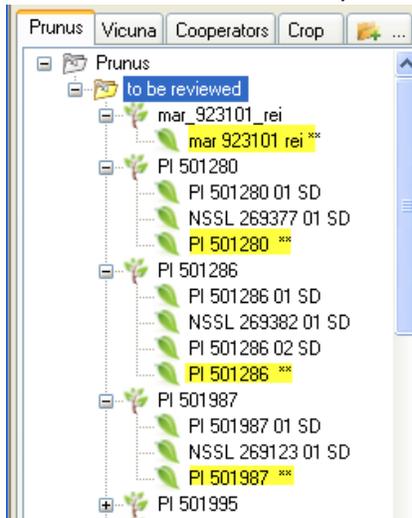
The trailing item for the custom name cannot be text – it should always be a fieldname (this is a known bug).

Inventory Lists

You can make lists of inventory items just as you do with accessions. Most likely you will have many different reasons for building inventory lists. For example, you could create an inventory list to track your current year’s “grow out” and harvest. If you handle thousands of accessions, having this list to aggregate just the current year’s inventory would be very helpful – you can generate labels from the list for your seeds, you can review the year’s results, etc.

Virtual (or System-Generated) Inventory Items

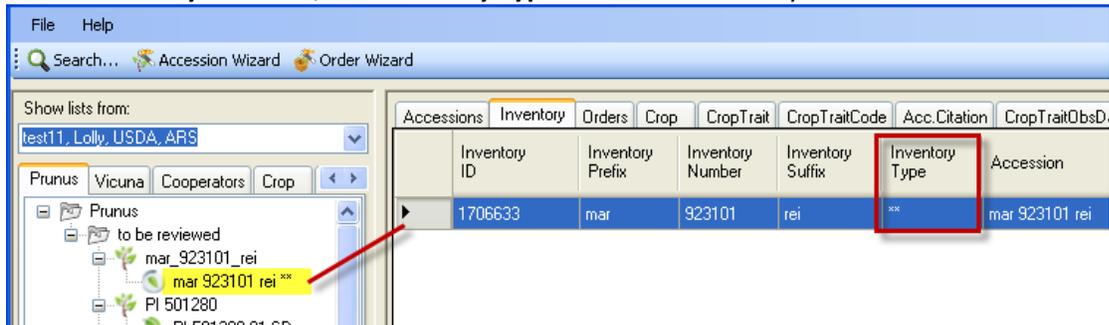
Whenever you review Accessions in the list panel, you will notice an inventory item with a double asterisk (**) next to its name. For every Accession record in the database, GRIN-Global automatically associates a virtual Inventory record.



The ** indicates that the inventory item was generated by the system. Because GG needs every Accession record to have at least one Inventory record attached to it, this virtual inventory record ensures that this condition is always met. It is not referring to physical inventory. – these virtual items are not pointing to inventory records of physical germplasm.

In the above screen, the Prunus folder has a subfolder labeled “to be reviewed.” In this folder, the first accession item, **mar_923101_rei**, has only one inventory item associated with it, and that inventory item is a virtual inventory item. The other accession items shown in the list have multiple physical inventory items as well as one virtual inventory item.

In the **Inventory** dataview, the **Inventory Type** for virtual inventory records is also indicated with a **



Searching for Records

Use the Search feature to search for records from the main GRIN-Global database. Typically as a Curator Tool user, you will search for records that meet certain criteria and then use those search results to build lists in the Curator Tool for ongoing tracking of these records. (Refer to step-by-step details for managing lists – see *Using Lists to Organize Data* on page 67.)

With CT version 1.8.3, you may also use the search to create search criteria in order to create [dynamic folders](#) which are discussed in a separate section.



When you invoke a search, a separate **Search** window displays. The window is controlled by the Search Tool which is a separate GRIN-Global program. (The Search Tool can also be invoked under the GRIN-Global Menu on the Windows Programs list.)

The Curator Tool's Search Engine uses two distinct search methods:

- typing text in the Search Window's **text box**. Similar to a "google" search – see the section Text Box Searches on page 93 for more details. Note – this is not the recommended approach for searches, but in some cases is convenient.)
- inputting criteria into the "**query-by-example**" (QBE) cells directly above the search window's results area. (Of the two approaches, the QBE method is the recommended one.)

GRIN-Global Search v2.0.4204.18291

Basic Query **** Under Construction ****

Search Now! Limit: 1000

Find:
 Accessions Inventory Orders Cooperators

Matching:
 Any Word All Words List of Items

text box

Add To Query Clear Query

Query-By-Example (QBE) cells

Accessions Inventory Orders Cooperators ... Show All Columns

| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Accession Name | Origin |
|--------------|------------------|------------------|------------------|-------|----------------|--------|
| results area | | | | | | |

Showing rows: 0 of 0 Connected to: http://localhost/GRINGlobal/GUI.aspx



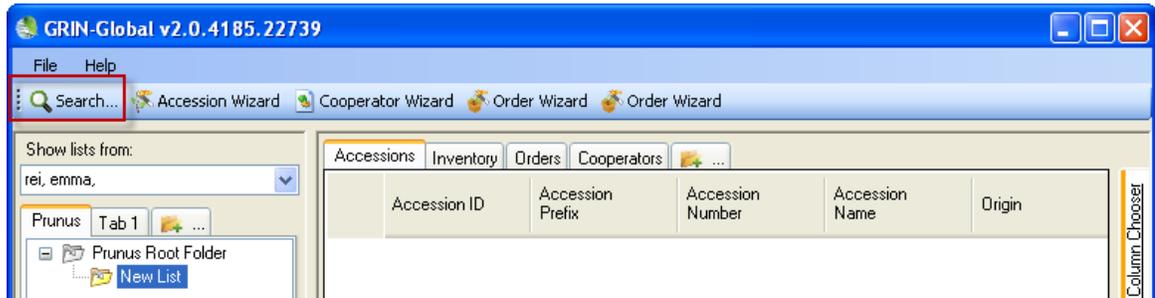
Use QBE as much as possible. When you input the QBE criteria first, and then click the **Add to Query** button, the actual query criterion is displayed in the text box. In most cases you can leave this criterion text in the text box untouched, but if you desire, you can also edit the criterion before clicking the **Search Now!** button.

Displaying Additional Query-By-Example (QBE) Tabs

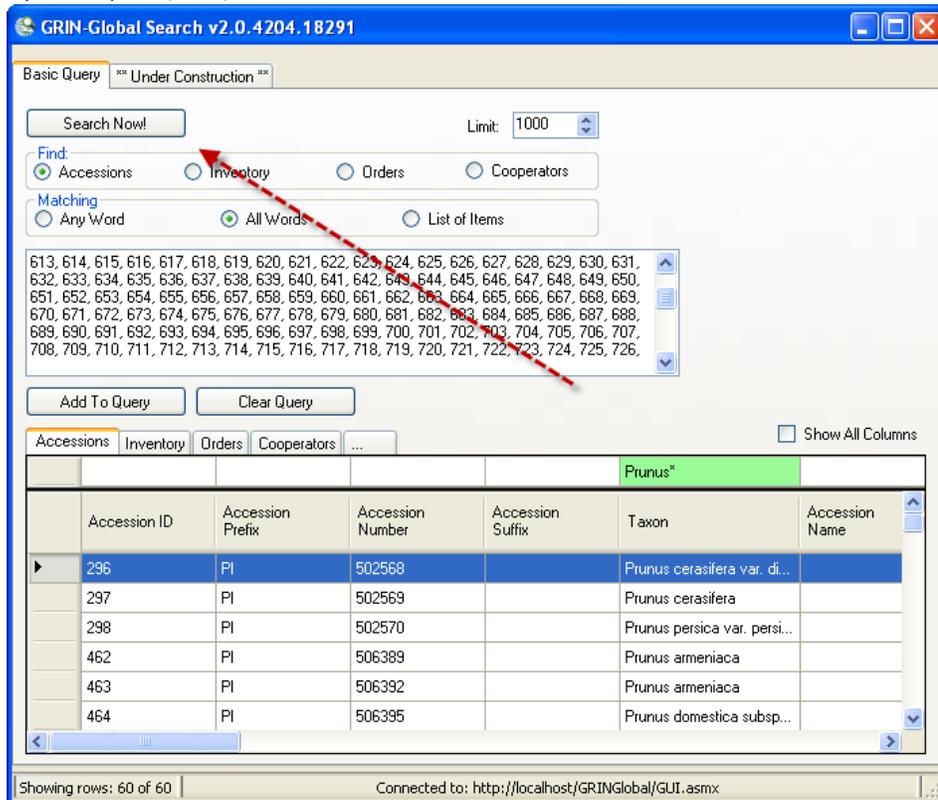
To display additional tabs from which to invoke QBE searches, click on the ellipsis tab and select the desired dataview. This is similar to adding tabs to the data grid in the Curator Tool. Refer to the To Display a Dataview Whose Tab *isn't* Visible section.

To Search from within the Curator Tool

1. Click the **Search** button.



2. A separate Search window displays. To start a search, either Input search criteria in the “query-by-example” (QBE) cells or in the wide text box; click the **Search Now!** button.

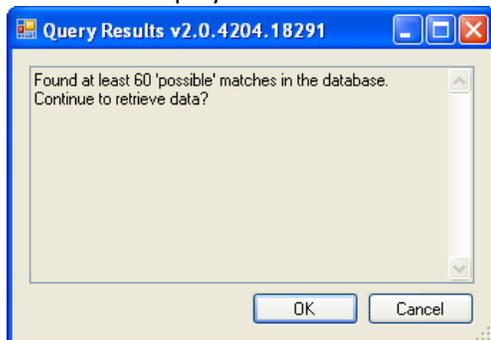




Enclose your search text between asterisks to launch a broad search: ***searchtext***

Also, increase or decrease the **Limit** as needed.

- Click OK to display the results:



In the following example, the user had entered **Prunus*** in the Taxon QBE cell (the asterisk (*) is a wild card character indicating any character); 1000 records were returned, all having the genus **Prunus** as the genus component of their taxonomic name:

GRIN-Global Search v1.0.7.0

Basic Query **** Under Construction ****

Search Now! Limit: 1000

Find: Accessions Inventory Orders Cooperators

Add To

Accessions Inventory Orders Cooperators ... Show All Columns

| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Accession Name | Origin |
|--------------|------------------|------------------|------------------|---------------------|----------------|--------|
| | | | | Prunus* | | |
| 1001395 | DPRU | 41 | | Prunus angustifolia | DPRU 41 | |
| 1003494 | DPRU | 144 | | Prunus angustifolia | DPRU 144 | |
| 1004193 | DPRU | 193 | | Prunus argentea | F8 15-25 | Uni |
| 1004205 | DPRU | 194 | | Prunus argentea | F8 15-25 | Uni |
| 1004213 | DPRU | 195 | | Prunus argentea | F8 15-28 | Uni |

Showing rows: 1000 of 1000

Connected to: <http://training.ars-grin.gov/GRINGlobal/GUI.aspx>

At this point you can read the search results, but you can't edit the data in the Search window's grid.

Editing or Saving the Results of a Search

To edit the records, or to review the same data later, you need to drag highlighted data from the Search Grid into your Curator Tool. Then, in the Curator Tool, you typically build *lists* to point to these records for future reference. See *Maintaining Lists to Organize Your Data* on page 67 for details.



The data found by a search may also be copied into other applications, such as a spreadsheet. In the Search Tool, click in the upper left corner to select all of the found records:

| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Accession Name |
|--------------|------------------|------------------|------------------|-----------------------------------|----------------|
| 296 | PI | 502568 | | Prunus cerasifera var. divaricata | |
| 297 | PI | 502569 | | Prunus cerasifera | |
| 298 | PI | 502570 | | Prunus persica var. persica | |
| 462 | PI | 506389 | | Prunus armeniaca | |
| 463 | PI | 506392 | | Prunus armeniaca | |
| 464 | PI | 506395 | | Prunus domestica subsp. domestica | |
| 465 | PI | 506396 | | Prunus domestica subsp. domestica | |

You can select multiple records, using the mouse and Ctrl and/or the Shift keys, just as you select multiple rows in a spreadsheet.

Search Criteria

QBE Search Code

When executing a QBE search, before displaying the found records, the search produces a “coded” text version of your QBE search in the wide text box. This code will sometimes give you a better idea of what the QBE search is doing—it will specify the actual database field names and depending on the fields selected will sometimes list the primary keys of the records that fit the search criteria.

On the surface, here are two “similar” search examples. The user in both cases inputs a Genus name with an asterisk wildcard (**Capsicum***). Why is their resulting code so different?

Example 1

```
@taxonomy_species.current_taxonomy_species_id IN (8904, 8905, 8906, 8907, 8908, 8909, 8910, 8911, 8912, 8913, 8914, 8915, 8916, 8917, 8918, 8919, 8920, 8921, 70148, 102341, 102342, 102345, 300104, 300105, 310092, 310093, 311784, 406443, 409562, 411157, 411204, 412457, 412458, 412481, 412482, 412485, 412487, 412489, 412490, 412491, 412492, 412495, 412497, 412498, 412500, 412502, 412503, 412505, 412507, 412509, 412512, 412516, 412518, 415380, 415381, 415382, 415383, 415384, 415385, 415386, 415387, 415388, 415389, 415390, 415391, 415392, 415393, 418322, 418571, 426892, 426894, 428766, 448641, 448642, 464150, 464151, 464168, 464169, 464170, 464171, 464172, 464173, 464175, 464176, 464177)
```

```
@taxonomy_species.current_taxonomy_species_id IN (8904, 8905, 8906, 8907, 8908, 8909, 8910, 8911, 8912, 8913, 8914, 8915, 8916, 8917, 8918, 8919, 8920, 8921, 70148, 102341, 102342, 102345, 300104, 300105, 310092, 310093, 311784, 406443, 409562, 411157, 411204, 412457, 412458, 412481, 412482, 412485, 412487, 412489, 412490, 412491, 412492, 412495, 412497, 412498, 412500, 412502, 412503, 412505, 412507, 412509, 412512, 412516, 412518, 415380, 415381, 415382, 415383, 415384, 415385, 415386, 415387, 415388, 415389, 415390,
```

Buttons: Add To Query, Clear Query

Tabs: Inventory Action, Cooperators, Orders, Taxonomy Species, Acc Name, CropTrait Obs., Summary

Search Results: Capsicum*

Example 2

```
@taxonomy_genus.genus_name LIKE 'Capsicum%'
```

The screenshot shows a search interface. At the top, a text box contains the query: `@taxonomy_genus.genus_name LIKE 'Capsicum%'`. Below this are two buttons: "Add To Query" and "Clear Query". Underneath is a table with several tabs: "Inventory Action", "Cooperators", "Orders", "Taxonomy Species" (which is highlighted), "Acc Name", "CropTrait Obs.", and "Summary Rpt:". To the right of the "Summary Rpt:" tab is a checked box labeled "Show All Columns". Below the tabs, a search result for "Capsicum*" is displayed in a blue box. Below that, a table header is visible with columns: "Taxonomy Species ID", "Nomen Number", "Current Taxon", "Is Interspecific Hybrid?", "Extended Genus Name", and "Genus".

In the first example, the search is looking at key values. The search is going first to the related lookup table, in this case `taxonomy.species.lookup`, does a comparison for **Capsicum***, and then returns all of the corresponding keys that match ...IN(8904, 8905...) (This all happens even before the user hits the **OK** button to proceed.)

In the second case, where `genus.name` is being looked at in the `taxonomy.genus` table, `genus_name` is a text field, hence the "LIKE" operator.



When creating dynamic folders, (and using QBE search criteria), it is easier to model a dynamic folder after another when the query is not based on lookup keys. For example, this query: `@inventory_maint_policy.maintenance_name LIKE 'RUB%' AND @inventory.is_distributable = 'Y' AND @inventory.is_available = 'N'`

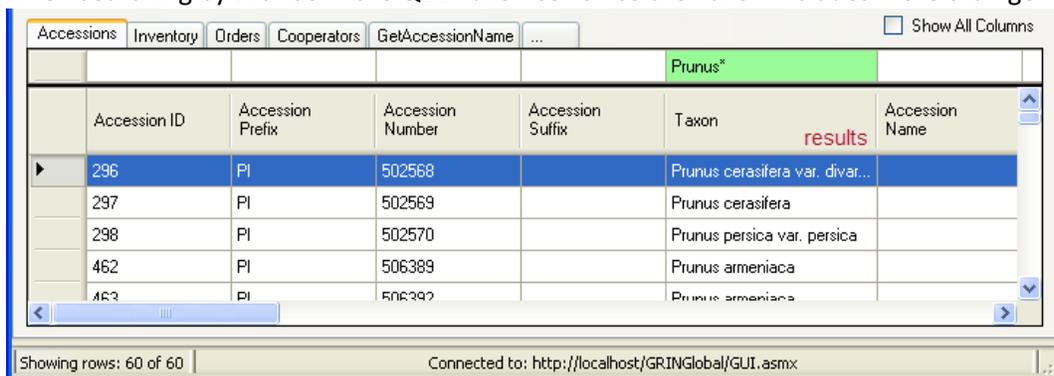
can be copied into another folder and then edited. For example, a different maintenance policy name could be substituted in the **LIKE 'RUB%'** clause.

Every word matters

Generally, all characters entered in a query are used. The case sensitivity of your search will depend on how the GRIN-Global database is set up:

- If the database is installed as case-sensitive (this is the default for the Oracle and PostgreSQL database engines), the queries will be case-sensitive.
- If the database is installed with settings to make the database case-*ins*sensitive (this is the default for SQL Server and MySQL database engines), then the queries will be case-insensitive too.

The QBE cells accept wild card characters. (See [wildcard table](#).) For example, **Prunus*** is appropriate when searching by **Prunus** in the QBE Taxon cell since the Taxon includes more than genus.



Text Boxes and Special Characters

Special characters and letters with diacritical marks and accents (such as á) can be entered in the Search text box.



You can copy special characters from the Windows clipboard. Another method is to enter the character using the Windows “Alt key – numeric codes” method. Refer to the following webpage for the common codes: <http://tlt.its.psu.edu/suggestions/international/accents/codealt.html> This website also contains directions for loading and using international keyboards which provide the special characters directly on the keyboard, using specific key combinations.

Wildcards

General guidelines:

- use quotes in the text box to search for exact matches (but remember that case-sensitivity is still driven by how the database engine is set up)
- do not use quotes in QBE cells

The following table illustrates what is doable in text or QBE searches and what wildcards and operators are supported:

| Wildcard / Operator | Text Box or QBE | Purpose / Alternative Notation | Examples / Notes |
|---------------------|-----------------|--|---|
| Quotes | Text Box | Restricts the search to the exact text string. The search considers the words in that exact order. | “Rubus” [Do not use the quotes in a QBE cell] |
| * (asterisk) or % | Text Box or QBE | wildcards used for any amount and any kind of characters | Rubus* or Rubus% Prunus%var will locate any Prunus with “var” included; |

| Wildcard / Operator | Text Box or QBE | Purpose / Alternative Notation | Examples / Notes | | | | | |
|--|-----------------|---|---|--------------------------------|----------------------------------|--|--|------------------------|
| | | <p>Use to broaden searches, especially when the exact spelling is unknown. Either wildcard (% or *) allows a match of any string of any length (including zero length).</p> <p>For very broad searches, use a pair of % sandwiching the string.</p> | <p>%var% will locate any accessions with the text “var” as part of its taxon:</p> <table border="1"> <tr><td>Arachis hypogaea var. hypogaea</td></tr> <tr><td>Prunus salicina var. mandshurica</td></tr> <tr><td>Solanum circaeifolium var. circaeifolium</td></tr> <tr><td>Solanum circaeifolium var. capsicibaccatum</td></tr> <tr><td>Helianthus divaricatus</td></tr> </table> | Arachis hypogaea var. hypogaea | Prunus salicina var. mandshurica | Solanum circaeifolium var. circaeifolium | Solanum circaeifolium var. capsicibaccatum | Helianthus divaricatus |
| Arachis hypogaea var. hypogaea | | | | | | | | |
| Prunus salicina var. mandshurica | | | | | | | | |
| Solanum circaeifolium var. circaeifolium | | | | | | | | |
| Solanum circaeifolium var. capsicibaccatum | | | | | | | | |
| Helianthus divaricatus | | | | | | | | |
| _ | QBE | <p>The wild card underscore character _ is used to represent any <i>single</i> character. Multiple underscores may be used if needed.</p> | <p>Solanum_x% as the QBE criterion will find</p> <p>Solanum x doddssii and Solanum x sucresne</p> | | | | | |
| <> | QBE | <p>Can be used to indicate “not equal to” – when the field is numeric do not use quotes, but if it is text, include quotes</p> | | | | | | |
| IS NULL / IS NOT NULL | QBE | <p>NULL values represent missing unknown data. By default, a table column can hold NULL values. Note: NULL and 0 are not equivalent.</p> | <p>It is not possible to test for NULL values with comparison operators, such as =, <, or <>.</p> <p>Use IS NULL</p> <table border="1"> <tr><td>is null</td></tr> <tr><td>Accession Name</td></tr> </table> | is null | Accession Name | | | |
| is null | | | | | | | | |
| Accession Name | | | | | | | | |

| Wildcard / Operator | Text Box or QBE | Purpose / Alternative Notation | Examples / Notes |
|---------------------|-----------------|---|--|
| | | | (case doesn't matter) |
| x AND y | TEXT | the search is successful when <i>both</i> x and y are found | rei AND Prunus |
| x OR y | TEXT | the search is successful when <i>either</i> x or y is found | Rubus OR Prunus |
| x NOT y | TEXT | for doing <i>exclusions</i> ; | Zea not Maize [the NOT operator cannot be the first operator in a Search query] |
| IN / NOT IN | TEXT | | |
| () | | precedence grouping – precedence is left to right, except when parentheses are used | Zea and (Ohio or Indiana) |

Date Fields

Microsoft SQL Server

Internally a date is stored in the **yyyy-mm-dd time...** format, although in the U.S. English version the user sees the date displayed in the m/d/yyyy format. When searching, your search string in the QBE box needs to mimic the internally-stored version. For example, when searching for February records from 2010, enter the search string **2010-02*** The query will return all February 2010 records. (Note: 2010* produces all records for the year 2010, and 2010%02%14* or **2010-02-14*** finds just February 14 2010 records. Note that you must end the search string with a wildcard, because the date fields also store time in the field.)

Most other useful formats: **MM/DD/YYYY** or **MM/DD/YY** or **DD-Mon-YYYY** or **DD-Mon-YY** are supported, but do not accept wildcards; only the fully qualified dates accept wildcards.

Oracle

Best query is in the format: **DD-MON-YYYY** or **DD-MON-YY** (Wildcards (* %) are permitted.)

If a wildcard is used anywhere, also be sure to use a trailing wildcard on the end of the string to pick up the time component. NOTE: using wildcard for just day or year, the month must be uppercase or the query will fail.

Most other useful formats: **MM/DD/YYYY** or **MM/DD/YY** or **YYYY-MM-DD** are supported, but do not accept wildcards, fully qualified date only

MySQL

Best query is in the format: **YYYY-MM-DD** (Trailing wildcard is required or the query will fail.)
No other date formats are supported.

Search All



There is a handy method in the QBE for doing a “Search All.” In the QBE, the left column is the table’s primary key field. Since these key fields are numeric and have a value greater than 0, if you enter **>0**, the search will find all of the records.

When using this technique on large tables such as inventory which may have millions of records, be sure to set the Limit field (the maximum number of returned records) to a reasonable number.

“OR” and “AND” in the Query-by-Example Search Method

Use the Matching radio buttons to specify how the text in the search criteria text box should be treated:

- **Any Word** – less restrictive, records are returned whenever any word in the search box is matched; the “OR” operator will be used instead of “AND” – either search criteria must be met
- **All Words** – more restrictive, *all* of the words used in the search text must match (see the first example below); this creates an “AND” condition

Example:

In a test database, using the search string **Rubus glaucus***, with “All Words” -- only four records are found. With “Any Word,” selected, 48 records are found – 4 of the 48 are the **Rubus glaucus**. So the other 44 records found had either **Rubus** or **glaucus** in their name. (42 happened to be **Rubus**, including the four **Rubus glaucus**, and six were **Elymus glaucus**.)

- **List of Items** – used typically when a list, such as a list of accessions, is copied into the search text box. See 94 for an example.

When inputting search criteria in two or more cells, the search condition that is created depends on whether you have selected the radio button **All Words** or **Any Word**:

- **All Words** – the criteria in multiple QBE cells work together as an “AND” ...both search criteria must be met in order for records to be found.
- **Any Word** – the criteria in multiple QBE cells work together as an “OR” ...any one of the search criteria must be met in order for records to be found

No records were found in the following query. The succeeding query illustrates what happens when “AND” is edited to an “OR.”

GRIN-Global Search v2.0.4224.21682

Basic Query ** Under Construction **

Search Now! Limit: 50000

Find: Accessions Inventory Orders Cooperators

Matching: Any Word All Words List of Items

@accession.taxonomy_species_id IN (859) AND @accession_name.plant_name = 'Pioneer'

Add To Query Clear Query

| Accessions | Inventory | Orders | Cooperators | TaxFamily | AccessionName | TaxonomySpecies | ... |
|--------------|------------------|------------------|------------------|-----------|----------------|-----------------|-----|
| | | | | | Prunus persica | Pioneer | |
| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Accession Name | Origin | |

In this case, one record was found:

GRIN-Global Search v2.0.4224.21682

Basic Query ***** Under Construction *****

Search Now! Limit: 50000

Find: Accessions Inventory Orders Cooperators

Matching: Any Word All Words List of Items

@accession.taxonomy_species_id IN (859) OR @accession_name.plant_name = 'Pioneer'

Add To Query Clear Query

| Accessions | Inventory | Orders | Cooperators | TaxFamily | AccessionName | TaxonomySpecies | ... |
|--------------|------------------|------------------|------------------|----------------|----------------|-----------------|-----|
| | | | | | Prunus persica | Pioneer | |
| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Accession Name | Origin | |
| 2772 | mar | 1 | rei | Prunus persica | Wunderbar | Qatar | |

Adding Criteria

You can add criteria to your search with the **Add To Query** button. However, when doing this, under **Matching**, first select the **Any Word** radio button. A simple example will illustrate this. If you wanted to search for accessions that were either in the Prunus or Rubus genera, you could input Prunus* in the Taxon cell, click the **Add To Query** button, input Rubus*, and then click the **Search Now!** button.

Another example: in the **Inventory** dataview, to search for records whose Accession is either NSL30 or NSL 12, first input NSL 30 (or NSL 12) in the QBE cell; click the **Add to Query** button; then input the other Accession identifier; click the **Add to Query** button; then click the Search Now button to execute the search. Records matching both Accession numbers will be found:

Add To Query Clear Query

Results

Inventory Show All Columns

| Inventory ID | Inventory Prefix | Inventory Number | Inventory Suffix | Inventory Type | Accession | Inve Main Polic |
|--------------|------------------|------------------|------------------|----------------|-----------|-----------------|
| | | | | | NSL 12 | |
| 1560876 | NSSL | 12 | 01 | SD | NSL 12 | COLI |
| 1560896 | NSSL | 30 | 01 | SD | NSL 30 | COLI |
| 1916149 | NSL | 12 | 94ncfo01 | SD | NSL 12 | NC7 |
| 1916155 | NSL | 30 | 94ncfo01 | SD | NSL 30 | NC7 |

Criteria Code Explained

Read this section if you are interested in the technical details of a QBE search. We include this section in the User Guide primarily because some users will be creating dynamic folders in the Curator Tool, and having a basic understanding of QBE code is helpful.

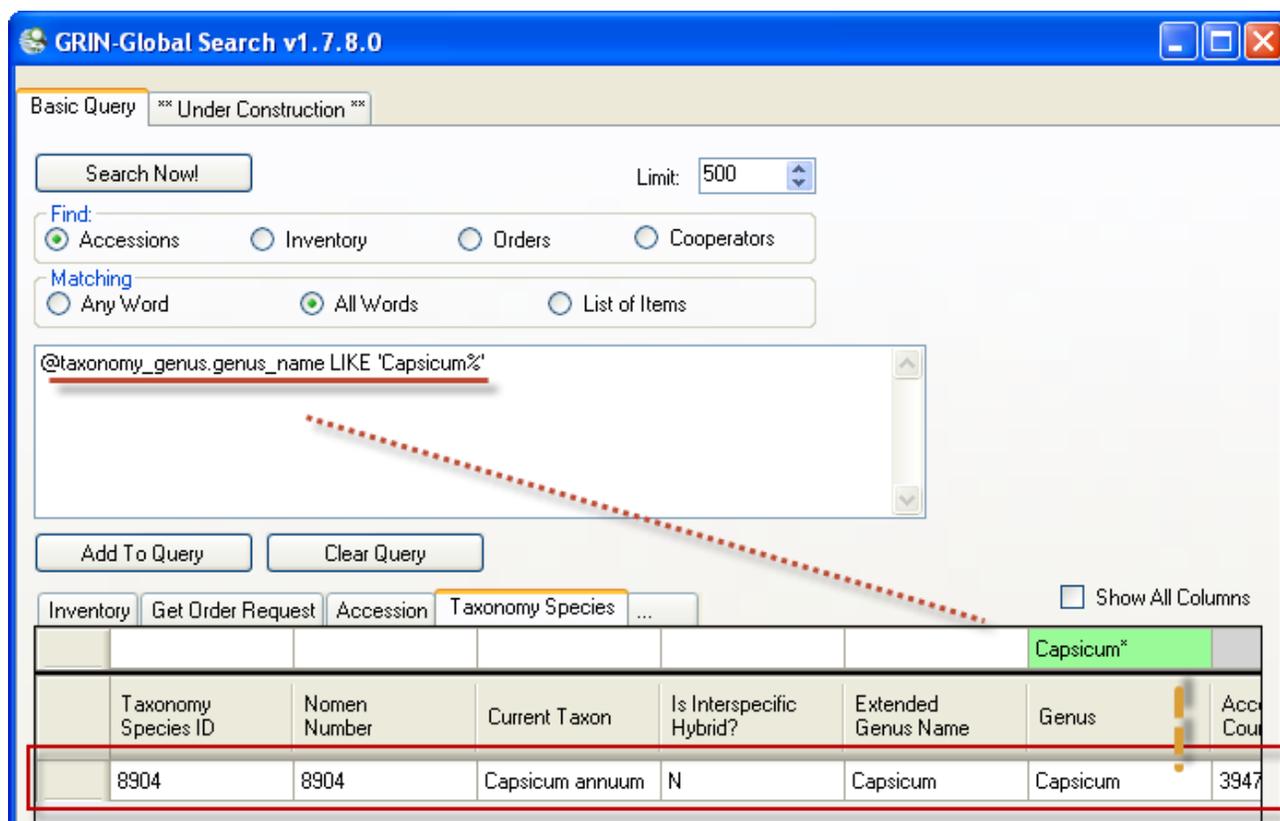
In creating your QBE searches, you will notice code being generated in the text box as we have seen in the search examples above.

Let's look at two QBE examples that on the surface seem to be similar searches.

In this first example, the user will open the Taxonomy Species dataview and look for records whose Genus is **Capsicum**. As recommended, the user will include an asterisk in the QBE text to broaden the search. After the user clicks the **Search Now** button, the Search Tool generates the code (illustration is on the following page.)

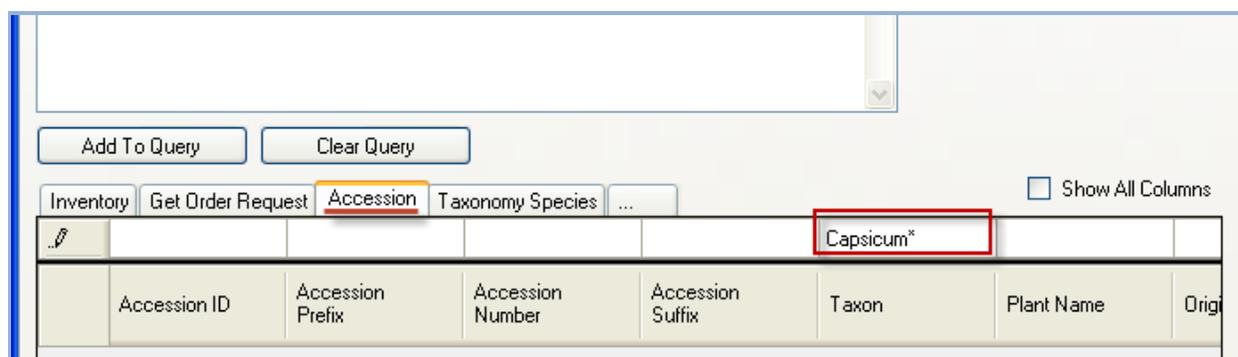
@ taxonomy_genus.genus_name LIKE 'CAPSICUM%' Let's break out this code into three components:

| Code | Indicates... |
|------------------|---|
| @taxonomy_genus | the table; the taxonomy_genus in the database will be searched |
| genus.name | the field name in the table |
| LIKE 'CAPSICUM%' | The LIKE operator is used to search for a specified pattern; in this case the QBE is saying find any text that begins with "capsicum." The trailing asterisk indicates that any records with any text after "capsicum" should be included if found. |



The result of the successful query is shown here. A Capsicum (Taxonomy Species) record was found.

In this next example, the user has the Accession dataview open. Again, the user is looking for Capsicum:



The resulting code generated by the QBE is shown on the following page. The code is quite different and does not resemble the code we just saw in the previous example.

@accession.taxonomy_species_id IN (8904, 8905, 8906, 8907, 8908, ...

| Code | Description |
|---------------------------------------|---|
| @accession | the table; the accession table in the database will be searched |
| taxonomy_species_id | the field name in the table |
| IN (8904, 8905, 8906, 8907, 8908, ... | Since the taxonomy_species_id field is a key field, the search will use the related lookup table, taxonomy.species.lookup, to do a comparison and return all of the corresponding keys that match (8904, 8905, 8906, ...) |

The illustration below is showing that records were found, as should be expected since the QBE had generated code with key values in the large text box:

The screenshot shows a search interface with the following elements:

- Find:** Radio buttons for Accessions, Inventory, Orders, and Cooperators.
- Matching:** Radio buttons for Any Word, All Words, and List of Items.
- Query Text Box:** Contains the query: `@accession.taxonomy_species_id IN (8904, 8905, 8906, 8907, 8908, 8909, 8910, 8911, 8912, 8913, 8914, 8915, 8916, 8917, 8918, 8919, 8920, 8921, 70148, 102341, 102342, 102345, 300104, 300105, 310092, 310093, 311784, 406443, 409562, 411157, 411204, 412457, 412458, 412481, 412482, 412485, 412487, 412489, 412490, 412491, 412492, 412495, 412497, 412498, 412500, 412502, 412503, 412505, 412507, 412509, 412512, 412516, 412518, 415380, 415381, 415382, 415383, 415384, 415385, 415386, 415387, 415388, 415389, 415390, 415391, 415392,`
- Buttons:** "Add To Query" and "Clear Query".
- Navigation:** Tabs for "Inventory", "Get Order Request", "Accession", "Taxonomy Species", and "...". A "Show All Columns" checkbox is also present.
- Results Table:**

| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Plant Name |
|--------------|------------------|------------------|------------------|-----------------|------------|
| 1010454 | Grif | 972 | | Capsicum annuum | Grif 972 |
| 1010461 | Grif | 973 | | Capsicum annuum | Grif 973 |
| 1010468 | PI | 631126 | | Capsicum annuum | Grif 974 |
| 1010480 | PI | 631127 | | Capsicum annuum | Grif 975 |

So you may be asking the question “Why is the code so different?” In both examples the user had typed the string “Capsicum*” –but the resulting code was not similar. In the first example, the Genus field is a text field – so the search was for any text similar to (LIKE) “Capsicum.” In the second example, in the accession dataview, the search is using a field in a lookup table to find the numeric matches that correspond to Capsicum (IN 8904, 8905, 8906, 8907, 8908, ...)

Fortunately, as a Curator Tool user, you will not need to be too concerned about the actual code generated when you do a QBE search, but this overview should provide enough background for you to understand at a basic level what is going on, since the QBE does visually display the code in the search window.

Finding “Extra” Records

In this window, the active dataview is the **Accession Inventory Name** dataview. The user is searching for records whose name is LIKE %Prunus% (meaning “Prunus” can appear anywhere within the name):

GRIN-Global Search v1.5.0.0

Basic Query **** Under Construction ****

Search Now! Limit: 11000

Find: Accessions Inventory Orders Cooperators

Matching: Any Word All Words List of Items

@accession_inv_name.plant_name LIKE '%Prunus%'

Add To Query Clear Query

| Accessions | Accession Inventory Name | Inventory | Cooperators | Orders | Taxonomy Species | Crop Tra | Show All Columns |
|-----------------------------|--------------------------|--------------|-----------------------|-----------------|------------------|----------|------------------|
| | | | | | | %Prunus% | |
| Accession Inventory Name ID | Accession | Inventory | Category | Accession Name | Name Rank | | |
| 792482 | DPRU 1891 | DPRU 1891 ** | Site identifier | DPRU 1891 | 1080 | | |
| 974733 | DPRU 1891 | DPRU 1891 ** | Unverified name | Prunus ulmifola | 1020 | | |
| 950802 | DPRU 1891 | DPRU 1891 ** | Quarantine identifier | BE-2562 | 1090 | | |
| 950801 | DPRU 1891 | DPRU 1891 ** | Quarantine identifier | Q 28275 | 1090 | | |
| 834277 | DPRU 1891 | DPRU 1891 ** | Cultivar name | USSR-36-03 | 1010 | | |

In the example above, the search found five **Accession Inventory Name** records, but only the second record contains “Prunus” anywhere in the **Accession_Inv_Name** field.

So why did the search return five records? Notice that under the **Find** frame, the **Accessions** radio button is selected. This is directing the search to *resolve* against accessions. So the search looked for any accession whose children *accession inventory name* records have “Prunus” in the **Name** field. The search was successful and found **Prunus ulmifola** for one Accession, **DPRU 1891**. But **DPRU 1891**, the parent, has five name records associated with it; only one contains “Prunus.” However, the search returned *all* of the “child” **Accession_Inventory_Name** records.



When the search finds a broader group of records than what is expected, you can filter the results to display just the desired records. See *Filtering the Search Records* on page 94 for more details. The approach taken with this search tool is to first “cast out a wide net.”



Beginning in version 1.8.3, the search was modified and now has a “dynamic feature” that reduces the amount of extra records that are returned by the search. We currently recommend that you leave the **Dynamic** box and the **Auto** button selected:

GRIN-Global Search v1.8.10.2

Basic Query **** Under Construction ****

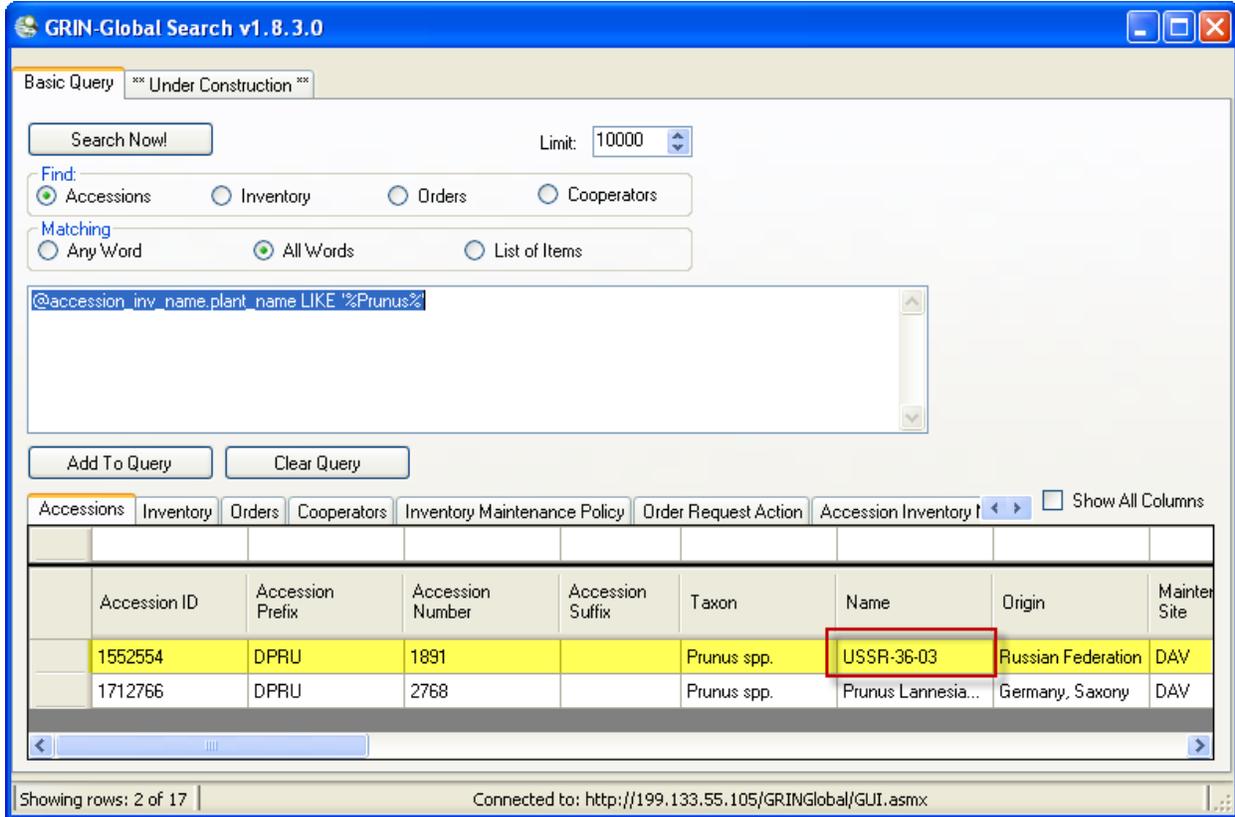
Search Now! Dynamic Limit: 10000

Find: Auto Accessions Inventory Orders Cooperators

Matching: Any Word All Words List of Items

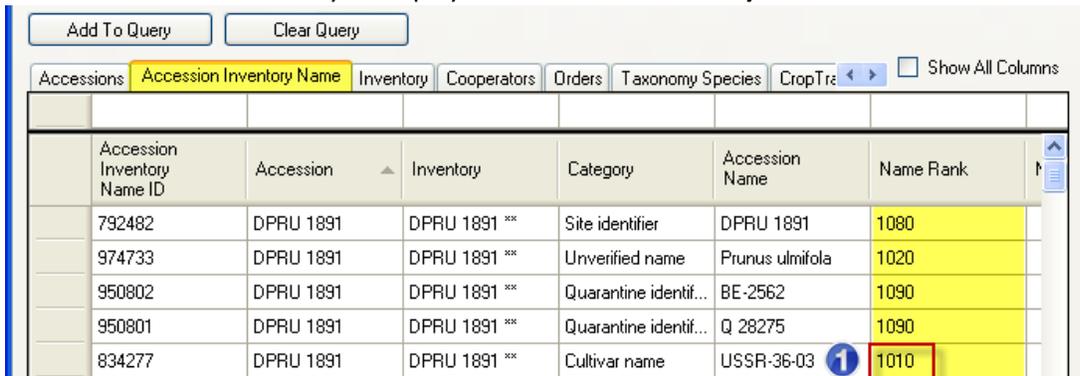
GRIN-Global’s “Top” Name Standard

There is a point unrelated to the search, but worth discussing here, in case you come across this scenario. Using the previous search example, if you were to switch over to the **Accessions** tab, at first glance you might be confused by the **Name** that is displayed.



Why does the Accession dataview display **USSR-36-03** for the accession name? The answer is simple, but warrants an explanation, especially to GRIN-Global users who never used GRIN.

An accession can have more than one related name record, but only one is considered the primary, or “top” name. In many cases an accession can have multiple inventory records, and some or all of these inventories may have associated names. So which name should be displayed in the accession dataview? The name displayed in the accession dataview is always the name with the lowest **Name Rank** value. In this example, the lowest **Name Rank** value was **1010** – the associated name is **USSR-36-03**. You can see the **Name Rank** field when you display the **Accession Inventory Name** tab.



Why were the **Name Rank** values assigned values such as **1080**, **1020**, **1090**, and **1010**? These numbers are a holdover from the U.S. GRIN system, where this sample data originated. The GRIN system used a programmed algorithm to assign these values.

In GRIN-Global, the **Name Rank** value is manually assigned when the user inputs the name record data. To summarize, if there are multiple name records associated with one accession, only one of the names will be displayed in the accession dataview, and that name references the **Name** from the name record with the lowest **Name Rank** value.

Text Box Searches

In text box searches, the Search Engine only searches certain database fields. (This is one of the reasons why searching via the QBE method is preferred for GRIN-Global searches.) The fields are listed in the table below the screen example.



These are the fields used for text box searches::

| Table Name | Field Name |
|----------------------|--|
| accession | accession_number_part1, accession_number_part2, accession_number_part3, note |
| accession_ipr | ipr_number, ipr_crop_name, ipr_full_name, note |
| accession_inv_name | plant_name |
| accession_pedigree | description |
| cooperator | last_name, first_name |
| crop | name |
| geography | adm1, adm 2, adm3, adm4, country_code |
| inventory | inventory_number_part1, inventory_number_part2, inventory_number_part3, |
| taxonomy_common_name | name, simplified_name |

| Table Name | Field Name |
|------------------|--|
| taxonomy_family | family_name, alternate_name |
| taxonomy_genus | genus_name |
| taxonomy_species | nomen_number, species_name, name, alternate_name |
| code_value_lang | title |

The text search behaves similar to Google searches. For information on Google searches, see: <http://www.google.com/support/websearch/bin/answer.py?answer=134479>

Case Sensitivity

Generally, all characters entered in a textbox query are used.

The case sensitivity of your search depends on how the GRIN-Global database is set up:

- If the database is installed as **case-sensitive** (this is the default for the Oracle and PostgreSQL database engines), the queries will be case-sensitive.
- If the database is installed with settings to make the database **case-insensitive** (this is the default for SQL Server and MySQL database engines), then the queries will be case-insensitive too. For example, the U.S. NPGS GRIN-Global system will be using SQL Server, so the searches will be case-insensitive.

Filtering the Search Records

You can filter the search grid in order to display a subset of the records. Use any cell's contents as the basis for your filtering criteria. **Right-click** in the data cell; select the desired filtering choice from the menu ("Show only..." or "Hide rows...").

| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxonomy | Accession Name | Origin | Is Core? |
|--------------|------------------|------------------|------------------|----------------------------------|----------------|--------|----------|
| 383396 | PI | 501267 | | Arachis hypogaea var. hypogaea | US 1251 | | N |
| 383397 | PI | 501268 | | Arachis hypogaea var. hypogaea | US 1252 | | N |
| 383398 | PI | 501269 | | Arachis hypogaea var. fastigiata | US 1256 | | N |
| 383399 | PI | 501270 | | Arachis hypogaea var. fastigiata | US 1259 | | N |
| 383400 | PI | 501271 | | Arachis hypogaea var. hypogaea | | | |
| 383401 | PI | 501272 | | Arachis hypogaea var. hypogaea | | | |
| 383402 | PI | 501273 | | Arachis hypogaea | | | |

Show only rows with this data

Hide rows with this data

Reset row filter

Record Counter

Notice that the record counter in the lower left corner indicates the number of records being displayed and the total number that were retrieved.

| | | | | |
|--------|----|--------|----------------------------------|-----------|
| 384162 | PI | 502033 | Arachis hypogaea var. fastigiata | SPZ 466-2 |
| 418182 | PI | 536053 | Arachis hypogaea var. fastigiata | US 878 |
| 418184 | PI | 536055 | Arachis hypogaea var. fastigiata | US 880 |

Showing 167 rows (of 650 retrieved) Connected to: http://localhost/

Displaying all Rows in the Grid (Turn off Filtering)

Right-click in *any* cell in the grid. Select **Reset row filter**.

| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxonomy | Accession Name | Origin | Is |
|--------------|------------------|------------------|------------------|----------------------------------|----------------|--------|----|
| 383413 | PI | 501284 | | Arachis hypogaea var. fastigiata | US 1262-1 | | N |
| 383421 | PI | 501292 | | Arachis hypogaea var. fastigiata | US 1283-1 | | N |
| 383422 | PI | 501293 | | Arachis hypogaea var. fastigiata | US 1283-2 | | N |
| 384149 | PI | 502020 | | Arachis hypogaea var. fastigiata | SPZ 456-1 | | Y |
| 383399 | PI | 501270 | | Arachis hypogaea var. fastigiata | US 1255 | | N |
| 383398 | PI | 501269 | | Arachis hypogaea var. fastigiata | | | N |
| 384114 | PI | 501985 | | Arachis hypogaea var. fastigiata | | | N |
| 384162 | PI | 502033 | | Arachis hypogaea var. fastigiata | | | N |
| 418182 | PI | 536053 | | Arachis hypogaea var. fastigiata | US 878 | | N |

Context menu options: Show only rows with this data, Hide rows with this data, Reset row filter

List of Items

This option is used typically when a list, such as a list of accessions, is copied from a spreadsheet into the search text box.



While this is sometimes practical to do, this feature was designed for a list of 50 or so items. If your search list has too many items, the search may time out. A message will display indicating that the search did time out. You can of course do several searches if you have a larger list.

When using this “List of Items” search, the Search Engine is restricted to finding matches in these columns:

- accession_number_part1
- accession_number_part2
- accession_number_part3
- inventory_number_part1
- inventory_number_part2
- inventory_number_part3
- form_type_code
- plant_name
- order_request_id

Example:

List of Items: (example)

PI 500501

PI 612346

PI 612347

Moving Records from the Search Grid to the Curator Tool Data Grid

After using the Search tool to locate and filter records in the database, you can copy those records into the Curator Tool. Why do this? CT users build lists to manage or track specific records. (Beginning with the Curator Tool version 1.8.3, users have an alternative method for managing records, using the [dynamic folders](#).)

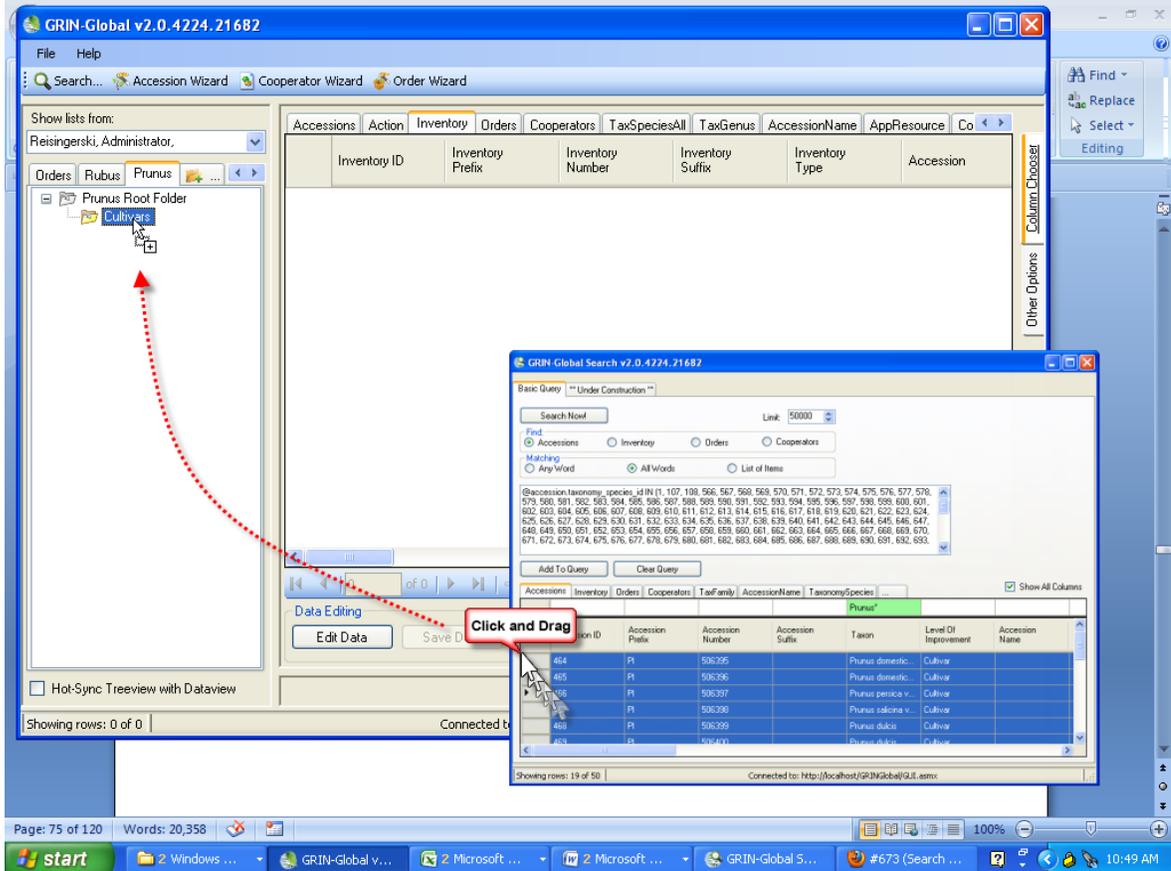
To Move Records from the Search Tool to the Curator Tool

1. In the Curator Tool, create a new list name or ensure that an existing list name is visible.
2. Confirm that you are not in Edit mode – the **Save Data** button is gray (disabled).
3. In the Search Tool, perform your search.
4. Select the records found that are to be copied. It could be all of the records found, or you could select a subset of the records by highlighting specific records in the Search Tool's grid. (See "Selecting Records in a Grid" for details.) To select all the records in the Search grid, use **Ctrl-A** (in English keyboards).

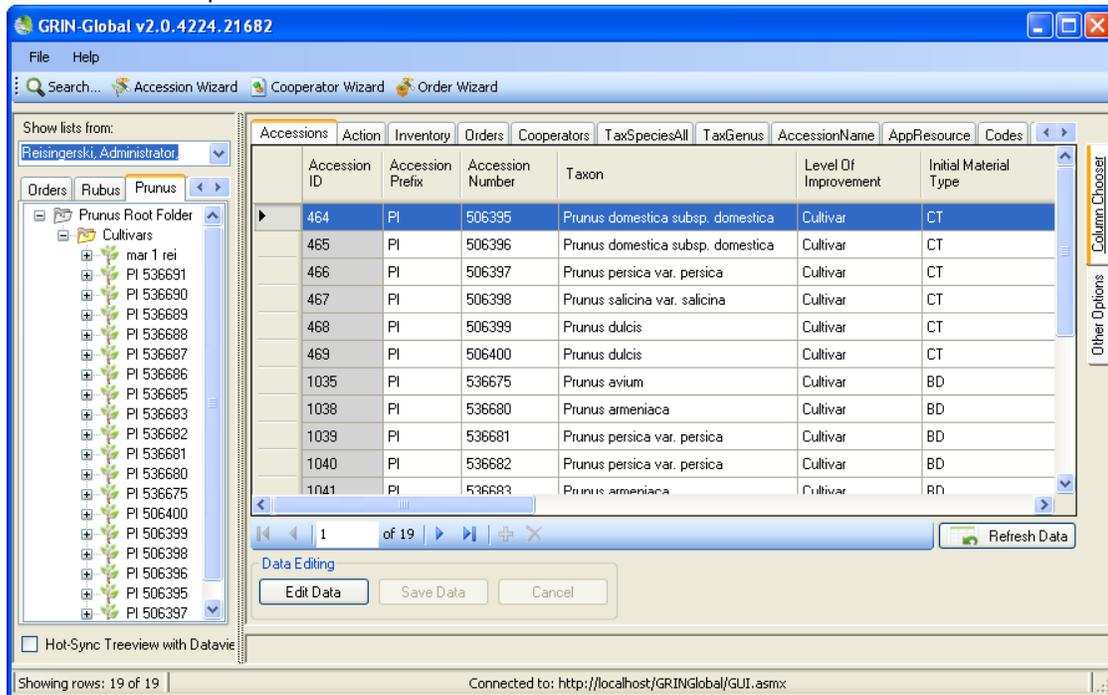


Remember that lists can be built for different object types. Starting with Curator Tool version 1.8.3, you can now drag over any record type to a list.

- In the next example, 50 records were found, but only 19 “Cultivars” will be selected. The user clicked in the selected area; held the mouse button and dragged the selected records into the Curator Tool, and dropped the records on the list name (in this example, “Cultivars”).



The Cultivar list now points to 19 Prunus cultivar records.



Creating, Updating, and Deleting Records

You create new records, update data, and delete records when working in Edit mode. For example, to create new inventory records, you display the Inventory dataview and then click the **Edit** button to enter edit mode.

Besides the many Curator Tool dataviews, to date there are a few wizards that have been designed that facilitate the editing of Accessions, Orders, and Cooperator records. See [Wizards](#) for details. The wizards use forms to prompt you and in the case of the accessions wizard they coordinate the inputting of the accession data across many tables.



Before adding a record, we recommend first [searching](#) to determine if the record already exists in the database. However, if you don't search and the record is in the database, you will receive a warning that the record already exists and will be prevented from duplicating the record.

Overview

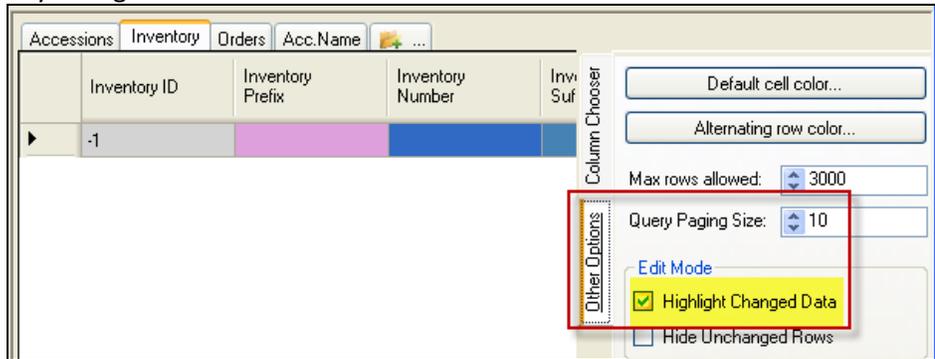
Required Fields

In order for data to be saved in a table, the data must meet certain rules. Some fields may be required – that is, unless those fields are filled, the record cannot be saved. When inputting in the Curator Tool, the violet color is used to indicate required fields.

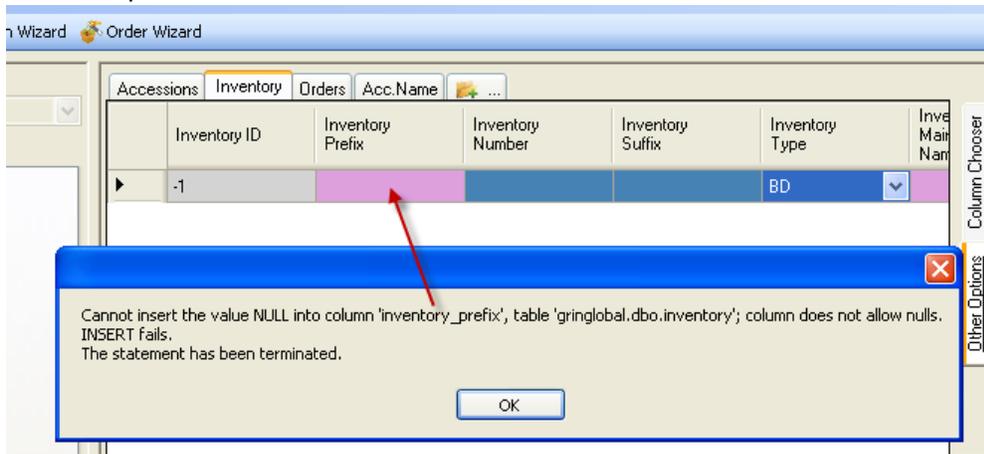


Other colors can be used to assist with data inputting. You can set up your Curator Tool options to use colors to indicate when a field's contents have been changed during your current editing session. On the **Other Options** tab, select the **Highlight Changed Data** so that you visually see

any changed fields in Edit mode.



A message window will display if you attempt to save a new record that doesn't have all of the required fields completed.



Cell Colors

The following table summarizes the significance of the cell's color when In Edit mode (assuming you had selected the **Highlight Changed Data** option):

| Cell Color | Meaning |
|------------|---|
| gray | cell cannot be edited |
| violet | field is required; a record cannot be saved until all required fields are filled |
| orange | when doing an add, these cells have new data |
| yellow | when a record is being edited, fields that have been changed display in yellow |
| white | data hasn't changed in the cell when a record is being edited |
| dark blue | dark blue cells display when a record is being added and data in the cell is the same as the cell's default value |
| light blue | light blue cells display when a record is being added and data in the cell differs from the cell's default value |
| blue | current cell |

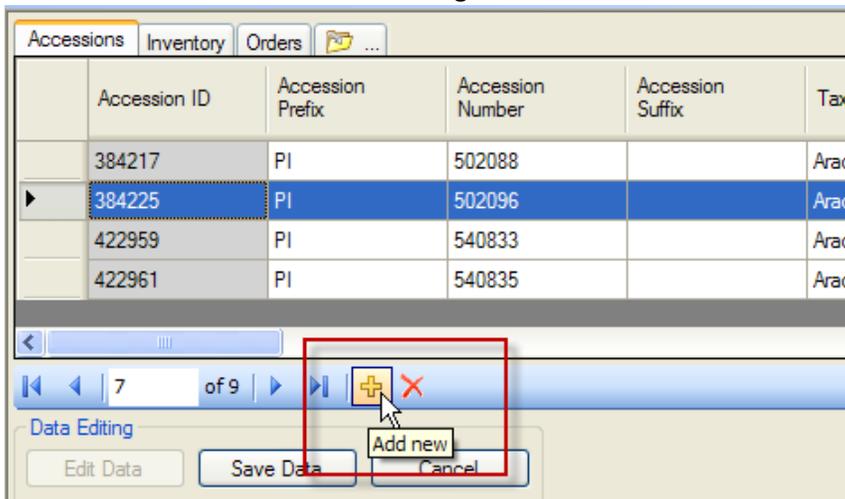
Creating New Records



The Curator Tool has [wizards](#) which facilitate creating new records as well as editing existing ones. The directions here are generic directions for manually creating and editing records.

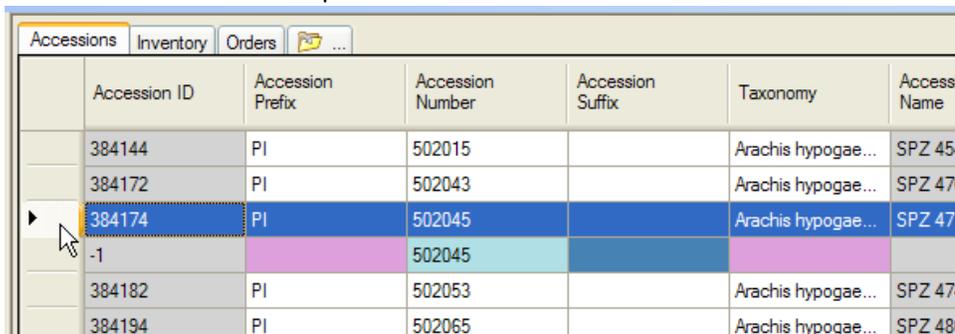
To Create a New Record

1. In the left (List) panel, either select an existing list or [create](#) a new list.
2. In the right **Data Grid** panel, click on the appropriate [dataview](#) tab (frequently Accessions or Inventory).
3. Click the **Edit** button to switch to Edit Mode.
4. Click the **Add New** button on the Navigator Bar.



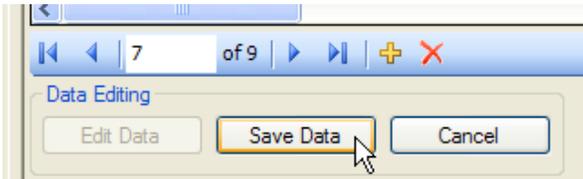
or...

click on the row indicator and press **Ctrl-N** to insert a new row in the dataset, *after the selected row*. Data is automatically copied from the selected row into the new row, except for required fields that make a row unique.

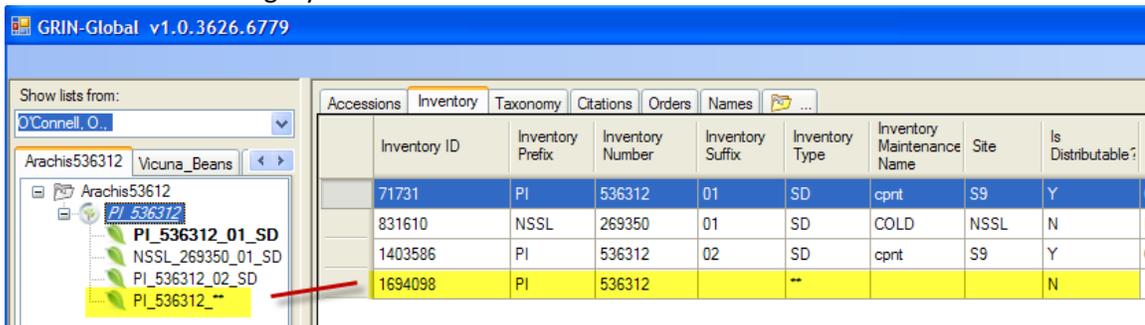


The colors indicate whether the cell blocks data input (gray), requires data (violet), or accepts data (blue). Light blue cells indicate the data was copied from the cell above; dark blue cells await your input.

- Input data in the cells. (Some cells are restricted. That is, when you input data in a restricted field, the Curator Tool does not allow you to just *type* an entry. See [Restricted Fields](#) for details.)
- Click **Save Data**.



Whenever an accession record is created, a system default Inventory record (with type **) is created as well. This implicit inventory record is required due to schema requirements to enforce database integrity.



Keyboard Shortcuts in Edit Mode

Remember that there are many keyboards available and each have their own Windows keyboard combinations. However, the keyboard shortcut combinations written for GRIN-Global will work on all keyboards. (See [Keyboard Shortcuts](#).)

Copying from the Cell Above

When inputting data in Edit mode, the **Ctrl-'** combination copies the contents of the cell that is *directly above* the current cell.

| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon |
|--------------|------------------|------------------|------------------|-------|
| 384290 | PI | 502161 | | Malus |
| 384291 | PI | 502162 | | Malus |
| 384292 | PI | 502163 | mar | Malus |
| 384293 | PI | 502164 | mar | Malus |
| 384377 | PI | 502248 | | Malus |

Duplicate Data (Ctrl-D)

The **Ctrl-D** combination duplicates data from the top cell to the cells *directly below* it within a column.

1. Click in the top cell of a range of cells. Input the data that will be duplicated.

| Action | AccName | ... | Initial Received Date Format | Taxonomy | PI Volume | Created Date | Cre |
|--------|--------------------|-----|------------------------------|----------|--------------------|--------------|-----|
|)... | Year and month ... | | Prunus salicina v... | 196 | 8/9/1994 1:00 AM | SYS | |
|)... | Year and month ... | | Prunus dulcis | 196 | 8/9/1994 1:00 AM | SYS | |
|)... | Year and month ... | | Prunus dulcis | 196 | 8/9/1994 1:00 AM | SYS | |
| | Year and month ... | | | 196 | 6/17/2009 2:50 ... | Pos | |
| | Year and month ... | | | 196 | 6/17/2009 2:50 ... | Pos | |
| | Year and month ... | | | 196 | 6/17/2009 2:50 ... | Pos | |
| | Year and month ... | | | 196 | 6/17/2009 2:50 ... | Pos | |
| | Year and month ... | | | 196 | 6/17/2009 2:50 ... | Pos | |
| | [Null] | | | | 6/17/2009 1:43 ... | Pos | |

2. Select *the cell with the data and the cells directly below* which will be populated; press **Ctrl-D**. The data is duplicated in all of the selected (highlighted) cells.

| Action | AccName | ... | Initial Received Date Format | Taxonomy | PI Volume | Created Date | Cre |
|--------|--------------------|-----|------------------------------|----------|--------------------|--------------|-----|
| ... | Year and month ... | | Prunus salicina v... | 196 | 8/9/1994 1:00 AM | SYS | |
| ... | Year and month ... | | Prunus dulcis | 196 | 8/9/1994 1:00 AM | SYS | |
| ... | Year and month ... | | Prunus dulcis | 196 | 8/9/1994 1:00 AM | SYS | |
| | Year and month ... | | Prunus dulcis | 196 | 6/17/2009 2:50 ... | Post | |
| | Year and month ... | | Prunus dulcis | 196 | 6/17/2009 2:50 ... | Post | |
| | Year and month ... | | Prunus dulcis | 196 | 6/17/2009 2:50 ... | Post | |
| | Year and month ... | | Prunus dulcis | 196 | 6/17/2009 2:50 ... | Post | |
| | Year and month ... | | Prunus dulcis | 196 | 6/17/2009 2:50 ... | Post | |
| | [Null] | | | | 6/17/2009 1:43 ... | Post | |

Restricted Fields

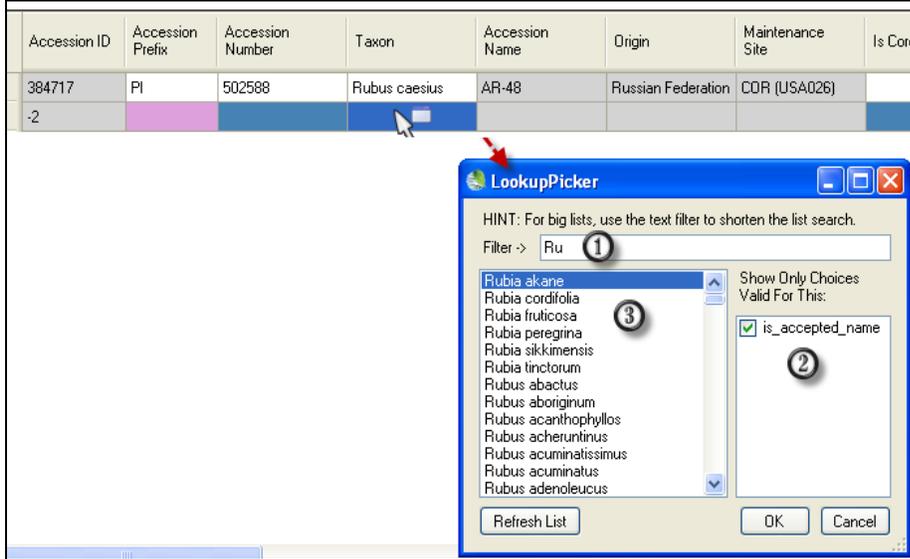
Almost all of the dataviews have fields that are “restricted.” When you are in that field in edit mode, you cannot input the data, you must select the data from a list of possible items. A “LookupPicker” window pops up.



When in read-only mode, a restricted field will look similar to any other text field. However, in edit mode, when you move the cursor over the field, the cursor changes to a different style,

similar to the following:  When you input the first character, the LookupPicker window will display. (Clicking in the cell also opens the LookupPicker window.)

The following example illustrates using the **LookupPicker** for the Taxonomy field. In this example, the user typed “Ru” – the entries were filtered to those items in the table beginning with “Ru.”

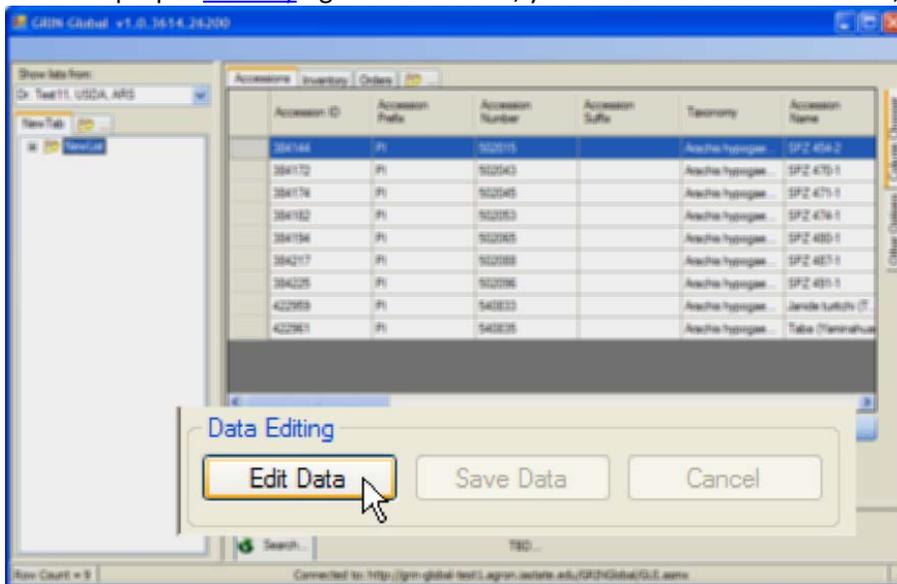


Using the Lookup Picker

1. Click in a Grid cell where data is required; start typing. As you type more letters in the **Filter**→box (#1 in the screen image), the filtering becomes more specific. Use the mouse to click on the desired entry in the list box #3; click **OK** to select that item.
2. Each lookup will have different options for restricting what choices are valid. These items are listed in the box on the right side of the window. (In the example above, one is displayed: **is_accepted_name**.) You can constrict or expand the search by selecting or deselecting the check boxes.

Updating (Editing) Data

GRIN-Global uses ownership and permissions to regulate who can add, update, or delete records. If you have the proper [security](#) rights to edit data, you can edit the data. To do so, click the **Edit** button.



While in Edit mode, you can make changes to the data. In Edit mode the **Edit Data** button is inactive (grayed out). If at some point you need to disregard the changes and revert to the original Browse (display only) mode, click **Cancel**; otherwise, to save the changed data, click the **Save Data** button.



When in Edit mode, all records in the Data Grid can be edited. A "▶" indicates the current record:

| | Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxonomy | Accession Name |
|---|--------------|------------------|------------------|------------------|--------------------|----------------|
| | 384144 | PI | 502015 | | Arachis hypogae... | SF |
| | 384172 | PI | 502043 | | Arachis hypogae... | SF |
| ▶ | 384174 | PI | 502045 | | Arachis hypogae... | SF |
| | 384182 | PI | 502053 | | Arachis hypogae... | SF |

Highlight Changed Data Option

On the right side of the window, under the **Other Options** tab, there are two options available only when in Edit mode: **Highlight Changed Data** and **Hide Unchanged Rows**. Click the **Highlight Changed Data** option to highlight cells that have been modified. The **Hide Unchanged Rows** is helpful when you have many records in the datagrid and you want to review just the records that have been edited.

| | | | | |
|------------|---|---|------|-----|
| WILD | | Y | NSSL | NC7 |
| WILD | | N | | NC7 |
| WILD | | N | | NC7 |
| WILD | | N | | NC7 |
| WILD | | Y | NSSL | NC7 |
| WILD | | Y | NSSL | NC7 |
| WILD | | N | | NC7 |
| WILD | | N | | NC7 |
| WILD | | Y | NSSL | NC7 |
| WILD | | N | | NC7 |
| WILD | | N | | NC7 |
| WILD | | N | | NC7 |
| Wild mater | ! | Y | NSSL | NC7 |
| Wild mater | ! | Y | NSSL | NC7 |
| Wild mater | ! | Y | NSSL | NC7 |
| Wild mater | ! | Y | NSSL | NC7 |

Other Options

Max rows allowed: 10000

Edit Mode

Highlight Changed Data

Hide Unchanged Rows

Lookup Table Maintenance

Active Web Service:



If you are in Edit mode and select the **Hide Unchanged Rows** option, and haven't made changes to any records, all of the existing records will be hidden. This behavior is logical when you think about it, but it could be a bit alarming if you don't see any records when you expected many!

Warning Indicators

The following screen example illustrates a warning indicator. When these indicators are present, move the mouse over the and a message tooltip will display.

| | | | |
|------------|--|---|------|
| WILD | | N | |
| Wild mater | | Y | NSSL |
| Wild mater | | Y | NSSL |
| Wild mater | | Y | NSSL |

Value exceeds maximum length - truncated to 10 characters

Deleting Records

In Edit mode, you can select one or multiple records to delete.

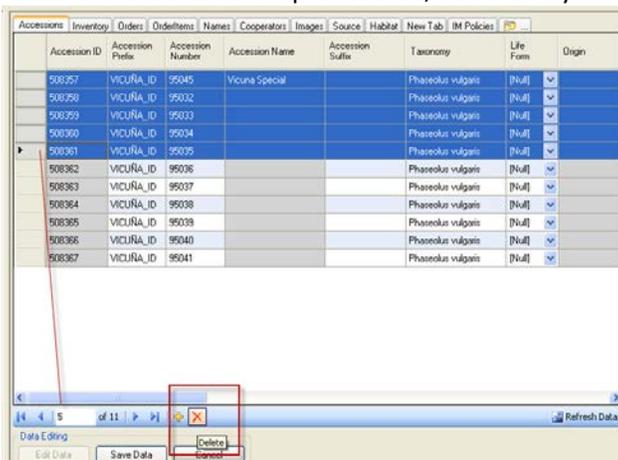
An important concept to remember is that the GRIN-Global database is a [relational](#) database, which means that related data can be stored across multiple tables. *Records that are “parents” of children records cannot be deleted until the child records are first deleted.* For example, if an Accession record has related Accession Inventory Name records, the Name records must be deleted first.

Another important consideration is whether you have authority to delete a record. When a record is, the record owner can indicate which users will have permission to modify or delete the record. (See [permissions](#).)

You select what records to be deleted in the dataview. If the records are not listed in the dataview, you will need to search for the record(s) from the database and copy the records into the dataview.



The red-x delete only deletes the last record (the current record) in a highlighted group of records. To delete multiple records, use the keyboard's **Delete** key.



Remember that deleting a list in the List Panel is not the same thing as deleting the actual database records; the list simply provides pointers to records in the database. If you delete a list or items on a list, you are only removing the pointers to the database records.



When attempting to delete an Accession record that has child Name records, an error message similar to the following will display: ‘Delete failed. The DELETE statement conflicted with the REFERENCE constraint “fk_an_a. The conflict occurred in database “gringlobal”, table “dbo.accession.name”, column “column accession_id.” The statement has been terminated.’

Security (Ownership & Permissions)

Your username was assigned certain permissions to it when it was created by the administrator. Furthermore, users are assigned to groups which have also been assigned specific permissions. (The detailed steps for assigning permissions to users and groups are explained in the Administrator Guide.)

In some cases, users may be restricted to read-only access to certain records – they will not be able to create, update, or delete these records. Generally, most Curator Tool users will be able to read, update, and delete records which they have created.

Owner Concept

Besides the concept of permissions, there is also the idea of “ownership.” By default, whoever creates a record is the owner. In the following example, Dr. Test11 created the Accession record; the record also indicates that he is the owner. An owner can always update or delete records which she has created.

| Initial Material Type | Initial Received Date | Initial Received Date Format | Created Date | Created By | Owned Date | Owned By |
|-----------------------|-----------------------|------------------------------|------------------|--------------------|------------------|--------------------|
| RT | 4/1/2010 | Complete date | 4/2/2010 6:05 PM | Dr. Test11, USD... | 4/2/2010 6:05 PM | Dr. Test11, USD... |

To Transfer Ownership to a Different User

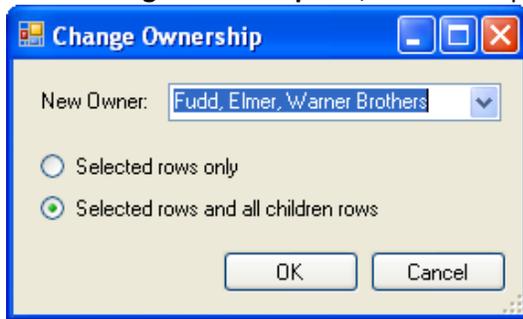
In the Curator Tool, record owners can transfer ownership rights of the records, and optionally the records’ children records, to another user.

In a dataview, select the rows (records) that you intend to transfer ownership; right-click and select **Change Owner...**

| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Accession Name |
|--------------|------------------|------------------|------------------|-----------------|-----------------|
| 384290 | PI | 502161 | | Malus domestica | FD-59-4 |
| 384291 | PI | 502162 | | Malus domestica | FD-80-10 |
| 388489 | PI | 506360 | | Malus domestica | Hordapfel |
| 388490 | PI | 506361 | | Malus domestica | Thorgauer Weina |
| 419129 | PI | 537000 | | Malus domestica | Drakenstein |
| 508631 | mar 090810-1 | | rei | Malus domestica | |
| 508633 | mar 090810-3 | | rei | | |
| 508635 | mar 090810-2 | | rei | | |

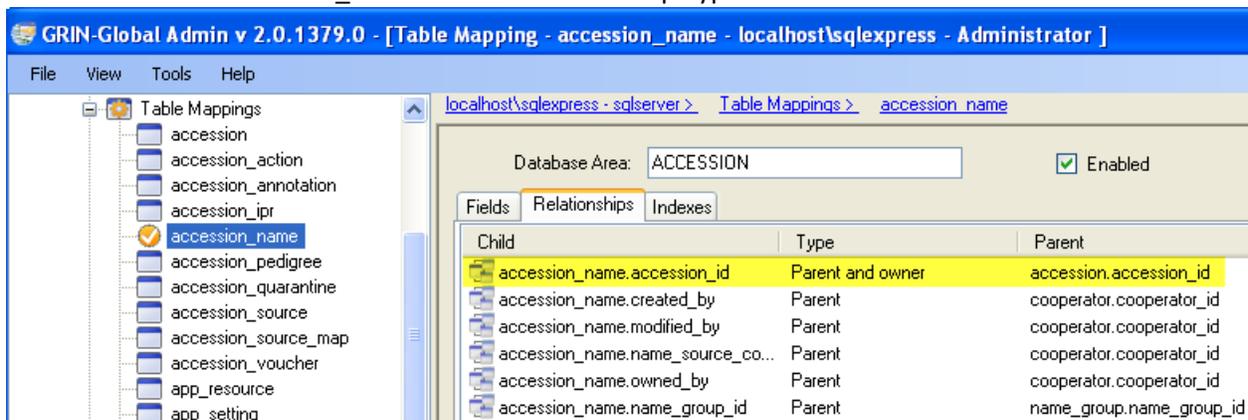
- Show only rows with this data
- Hide rows with this data
- Reset row filter
- Security Wizard...
- Change Owner...**
- Reports...

In the **Change Ownership** box, select the appropriate button and click **OK**:



Parent and Owner Relationships Between Dataviews

In the Admin Tool, relationships are mapped between dataviews. For instance, there is a relationship from `accession` to `accession_name` with the Relationship Type defined as "Parent and owner."



When relationships are mapped between dataviews, the children tables inherit the security settings of the parent. This means if someone creates a record in `accession_inventory_name`, the owner is the same as the owner of the parent record, in this case the `accession` record. When no relationship of "Parent and owner" has been defined, then the creator is the owner. When doing ownership calculation, relationships *are* taken into consideration.



Currently the inheritance only cascades one level.

Permissions

A permission restricts or grants access to a resource in GRIN-Global ; for a Curator Tool user, a resource is typically a row displayed within a dataview.

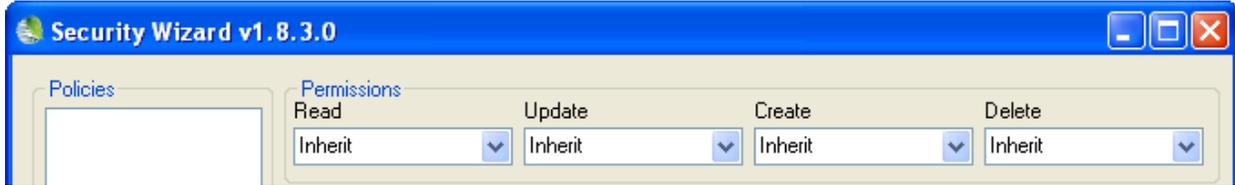
Even if you create or own a record, you may not have permission to edit or delete it. You could have the situation where a student technician will be uploading observation information or creating action records on an accession or inventory, but the student should not be altering the accession or inventory data. Hence he can create new observation or action data, but not update or delete accessions or inventory records.

Assigning Permissions to Other Users

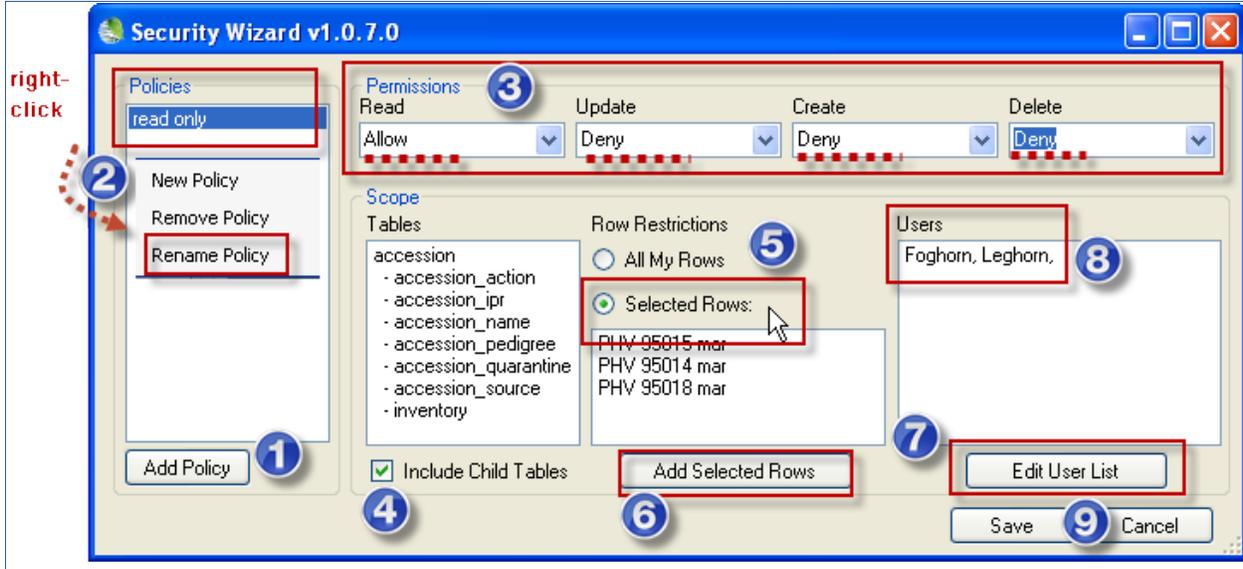
If your username has permission to modify a record, when you right-click you can select the **Security Wizard...** menu option. Typically you will first select records for which you intend to set up permissions :

| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxonomy | Accession Name |
|--------------|------------------|------------------|------------------|------------------|----------------|
| 392931 | PI | 510802 | | Prunus sargentii | NA 58847 |
| 392933 | PI | 510804 | | Prunus sargentii | NA 58849 |
| 392934 | PI | 510805 | | Prunus sargentii | NA 58850 |
| 392938 | PI | 510809 | | Prunus sargentii | NA 58855 |
| 392945 | PI | 510816 | | Prunus sargentii | NA 58862 |
| 392948 | PI | 510819 | | Prunus sargentii | NA 58865 |
| 392949 | PI | 510820 | | Prunus sargentii | NA 58866 |
| 392964 | PI | 510835 | | | NA 58895 |
| 392965 | PI | 510836 | | | NA 58896 |
| 392967 | PI | 510838 | | | NA 58898 |

The Security wizard displays a screen in which you can grant permissions to specific users. initially the permissions are shown as “Inherit.”



When working in the **Security Wizard**, it is helpful to work from left to right. Create a name for this Policy; click the **Add Policy** button. Edit the Permissions in the dropdowns.



Permissions Examples

You can use the security wizard to establish permission levels to protect specific record types from accidental (or intentional) deletion. You can also establish security permissions so that only curators can create (and own) their Accession quarantine records, but all other employees will have unlimited access to the Accession’s quarantine records.



In the **Row Restrictions** option (labeled #5), select **All My Rows** to guarantee that records created in the future will also be governed by this policy.

Permission Defined

A permission restricts or grants access to a resource in GRIN-Global. A resource is defined as a specific table, dataview, or row. A permission defines four kinds of rights:

| A permission of type: | Has the ability to: |
|-----------------------|------------------------|
| Create | Insert <i>new</i> data |
| Read | Read existing data |
| Update | Update existing data |
| Delete | Delete existing data |

Each right can have one of three values:

| Value | Description |
|---------|--|
| Allow | Allows access |
| Deny | Denies access |
| Inherit | Neither allows nor denies access; access is situational; it is inherited from a previous definition (typically the permission value of the parent table) |

Image Handling (Attachments)

Images can be attached to accessions and inventories via the `accession_inv_attach` dataview. [Note: this `accession_inv_attach` dataview was first implemented in GG version 1.5. Prior to that, the directions in this section were written for the `inventory_attach` dataview.]

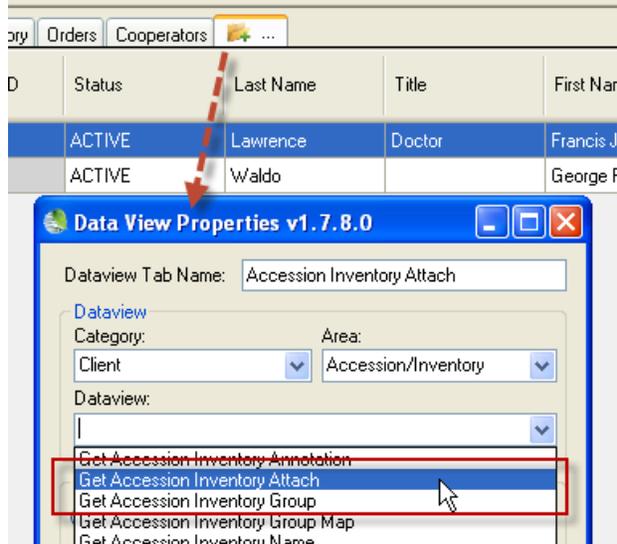
You can associate one image (or multiple images) with one or more Accession or Inventory records. (When associated with an Accession record, they are actually associated with the default (**) Inventory record. For more information default Inventory records, see p. 16.)

There are two similar methods for associating image files with the records. In either case, you start in Windows Explorer by dragging either a folder containing image files, or the image filenames, into the Curator Tool. The image files' format may be any of the following:

- .png
- .jpg
- .gif

The advantage of the second method (described below) is that you can associate one or more image files *with multiple* Accession or Inventory records whereas in the first method the image files will be associated with just one Accession or Inventory record.

The Image Dataview is **Get_Accession_Inv_Attach (Get_Inventory_Attach in 1.0)**. When working with images, you usually will want to display the dataview: click on the **New Tab** icon:



In version 1.7.8, there are several dataviews with “_attach” as their suffix, implying that they can accept attachments similar to accession_inventory_attach. At the present time they cannot. Some additional code is planned for the Curator Tool to enable this capability. Also, other file types will be handled, including PDFs.

Dragging Images into the Curator Tool

First determine the PC or network folders from which you will be uploading the image files.



There aren't any restrictions on image size; however, if the image is small, (less than 400x400 pixels), the image display may appear distorted.

Method 1: Drag Images onto a List Accession or Inventory Item

With this method, you will associate one or more image files *with just one* Inventory or Accession record.

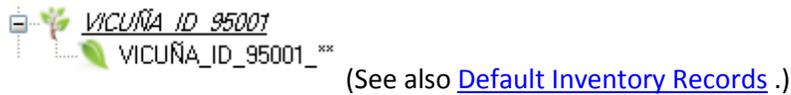
1. Drag either a folder of images or individually selected image files from a Windows Explorer window into the Curator Tool's List Panel.

In the List Panel, you then have two alternatives; drag the image files onto either an *Inventory* item or an *Accession* item.

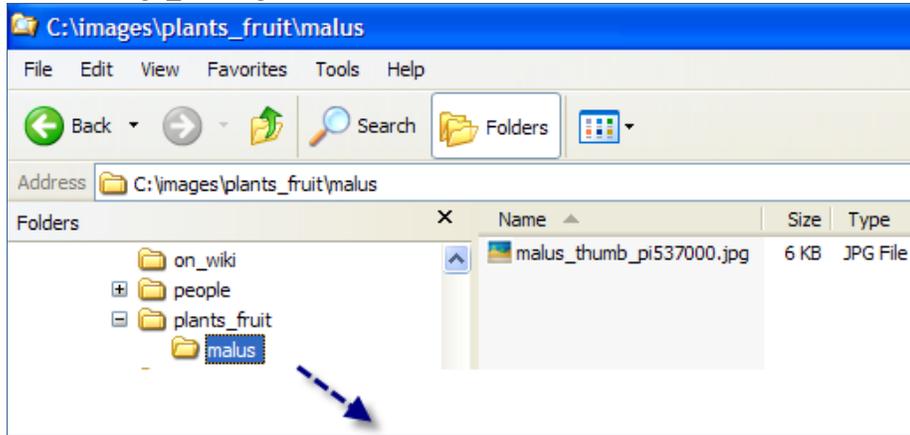
If you drag the images onto a specific *Inventory* item, then the image is associated with that item. If you drag the images onto an *Accession* item, then the image is associated with the Accession's “default” inventory record.

Every Accession, when it is created, is assigned a default inventory record. In the List Panel,

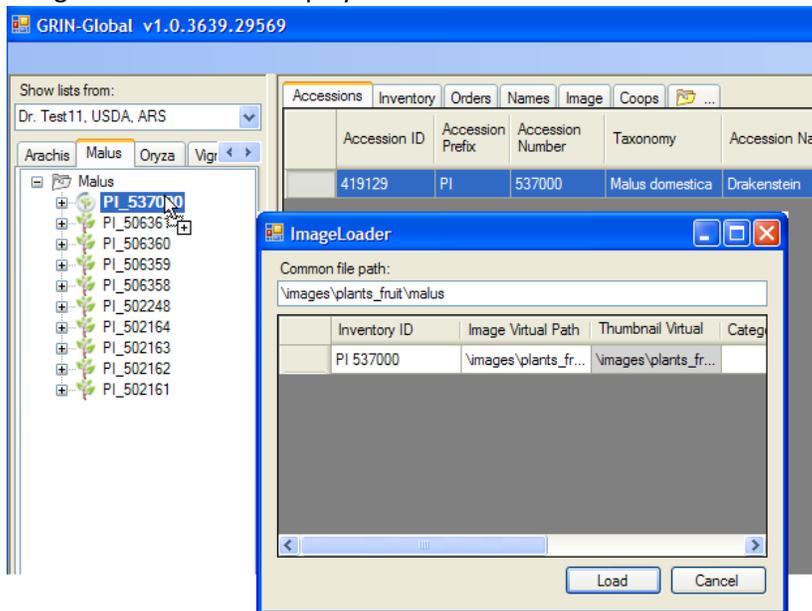
these default Inventory items display with a double asterisk next to their names.



(see video: image_loading1 [tbd])



The ImageLoader window displays:

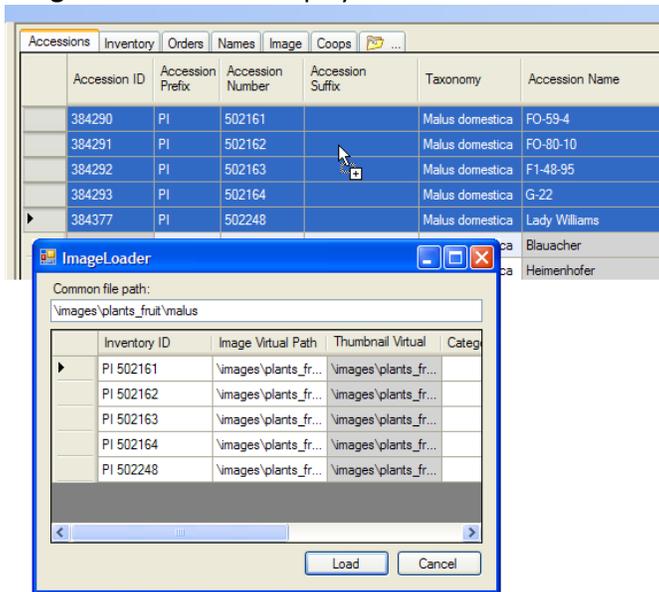


2. Click the **Load** button.

Method 2: Drag Images into Accession or Inventory Dataview Grid

1. Switch to Edit mode (click the **Edit** button) for either an Accession or Inventory dataview.
2. Drag the folder of images (or individually selected image files) Windows Explorer window onto one or more selected Accession or Inventory records (rows) in the Curator Tool's dataview. The

ImageLoader window displays:



3. Click the **Load** button.



When a folder is dragged, its subfolders will also be included.

The local copy of the images can be stored on a local hard drive, a network drive using either a “mapped drive letter,” or a UNC drive such as [\\ncrpis-farm\nc7pc\2002\PI_613086_02ncai01_SD](#). (“UNC” - Windows Universal Naming Convention)

Indicating Where the Image Files Will be Stored

The ImageLoader window displays a text box for a **Common file path**. In the process of uploading the image files, you can indicate the location where the files will be stored. By default, the destination location will have a path that mirrors the source location. Depending on your needs and preference, you may not want to replicate the same path on the server. It is optional to change this field.

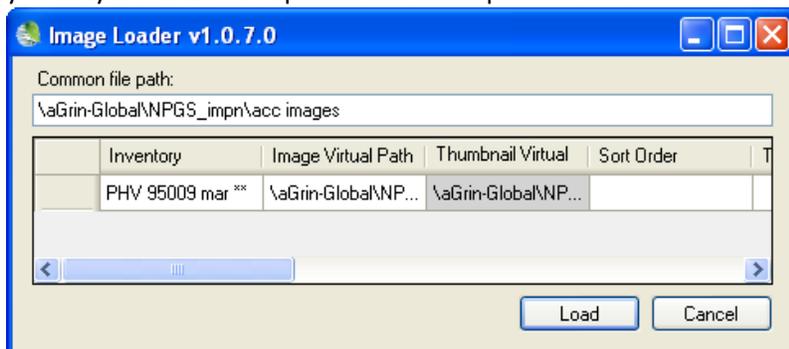
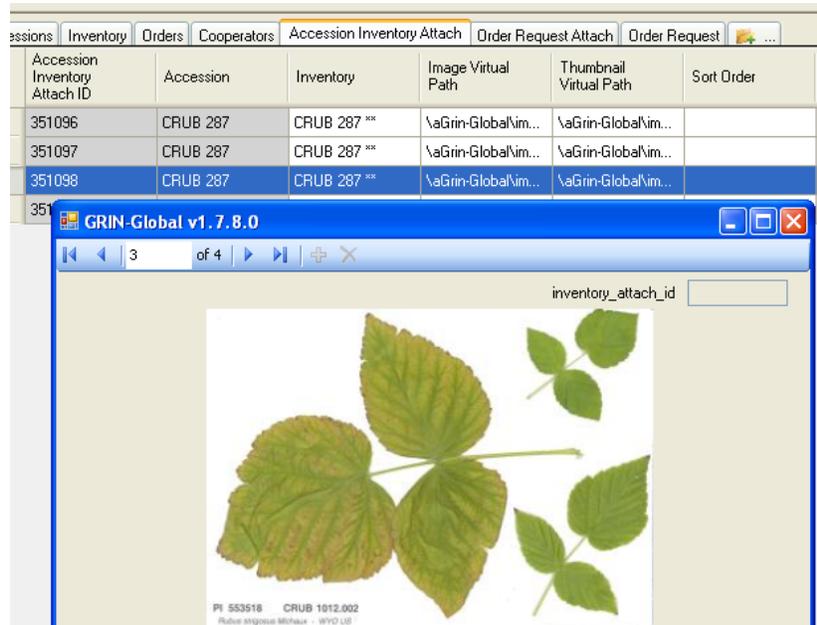
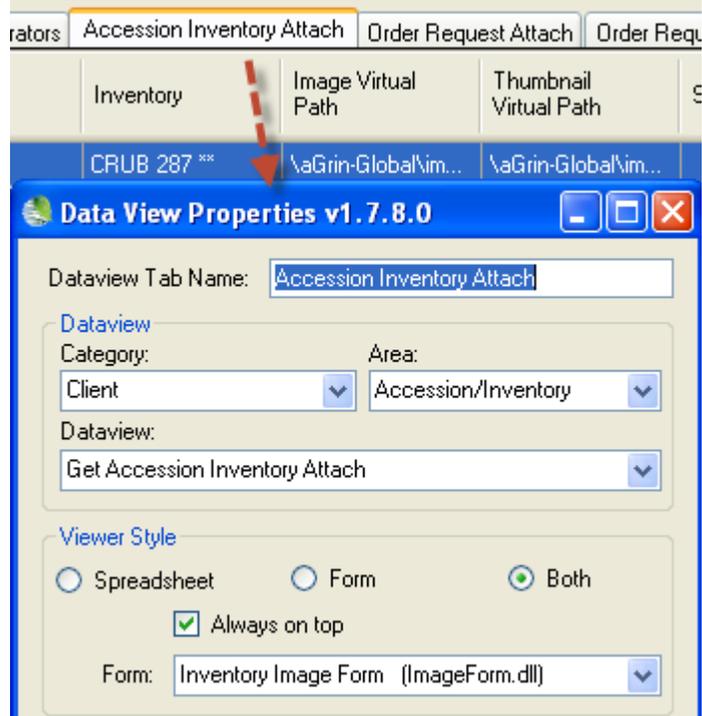


Image Handling (Attachments)

Displaying the Images

Attachments can be viewed via the **InventoryAttach** dataview. Display that dataview:



Reports

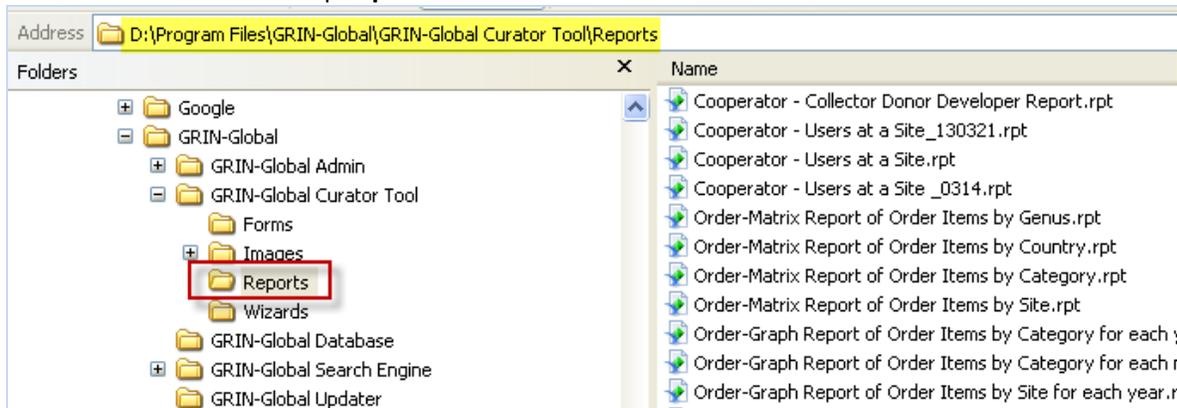
Report Overview

Reports have been designed to work in conjunction with specific dataviews to display specific data.



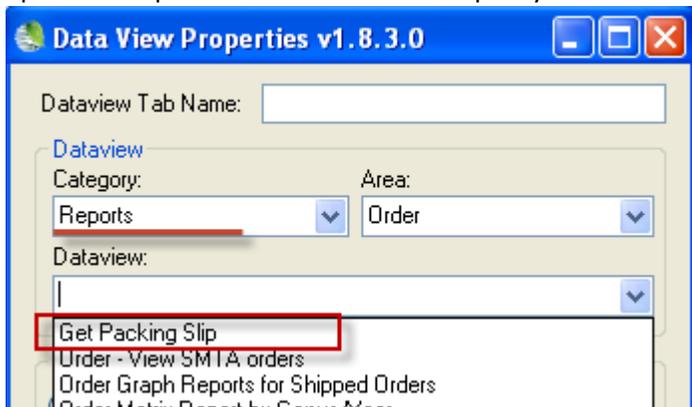
Crystal Reports was used to create most of the reports. The full version of Crystal Reports is a commercially available program that provides the means to design custom reports; embedded in the Curator Tool is the view-only version of Crystal Reports.) Your organization’s administrator can design additional reports. Any valid reports designed for compatibility with the Curator Tool may be loaded in the GRIN-Global Curator Tool folder and then be used as needed.

The preconfigured report files are installed when the Curator Tool is installed in the **Program Files | GRIN-Global Curator Tool | Reports** folder.



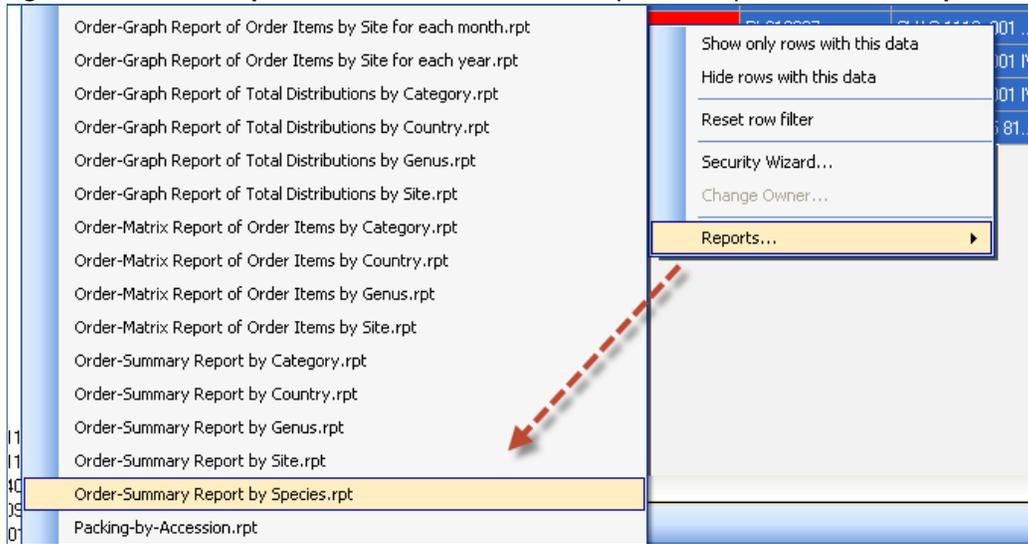
To display a report, you will:

- open the respective dataview for the report you intend to produce



- in the dataview, select the record(s) that are to be included in the report

- right-click; select **Reports...** and then select the respective report from the **Properties** window



The reports listed are all of the installed Curator Tool reports. This menu does not indicate which reports are valid for the active dataview. If you do not have the correct dataview selected, the report menu will display, but you will get an error message. See

Reports and Their Correlating Dataviews

Most of the reports designed with Crystal Reports were designed to run with a specific dataview; that dataview must be the active dataview before you invoke the report. The following table summarizes the reports currently available in version 1.8.3 of the Curator Tool. More descriptive information on the individual reports will be presented as the reports evolve.

| Dataview | Report (.rpt)* | Description |
|---|--------------------------------------|-------------|
| Cooperator Collector / Donor / Developer Report | Cooperator Collector Donor Developer | |
| Cooperator – List Users at a Site | Cooperator – List Users at a Site | |
| Get Packing Slip | General Packing | |
| Order – Graph Report | Order Graph Report... | |
| Order – Matrix Report | Order Matrix Report... | |
| Order – Summary Report | Order Summary Report by... | |
| Order – View SMTA orders | | |
| Get Packing Slip | Packing-by... and Picking-by... | |
| RptOrderType... | | |
| SMTA Orders | - none - | |

*the file extension for reports is .rpt; dataview files have .dataview for their extension

Exporting and Printing Reports

On the **Report Form** window menu, there are multiple report options including:

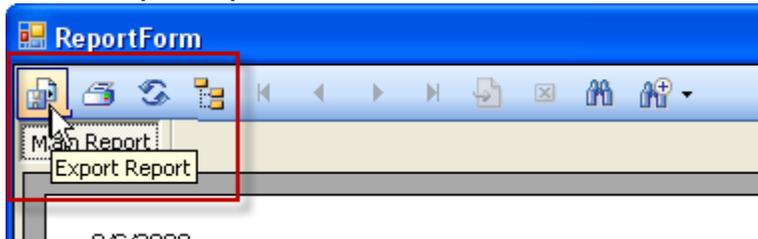
- exporting the report to a spreadsheet (or other file formats)
- printing the report
- refreshing the data
- searching for a text string

Report Options

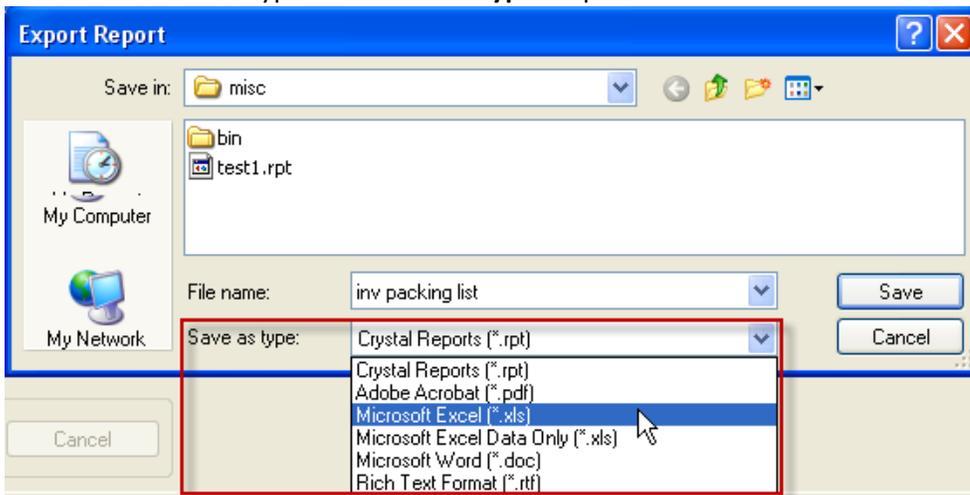
The following sections indicate the steps needed for the various report options.

Exporting to a Spreadsheet (or other file types)

1. Click the **Export Report** icon.

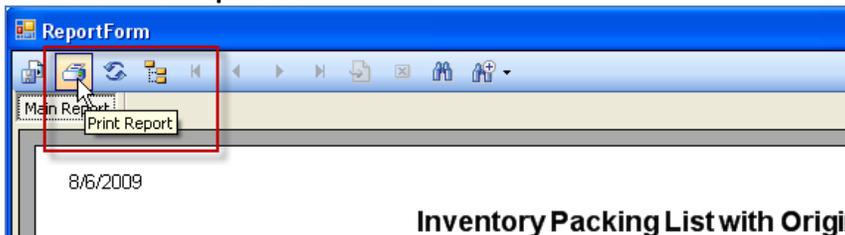


2. On the **Export Report** window, indicate where the file will be saved; type or select a file name; then select the file's type in the **Save as type** dropdown.

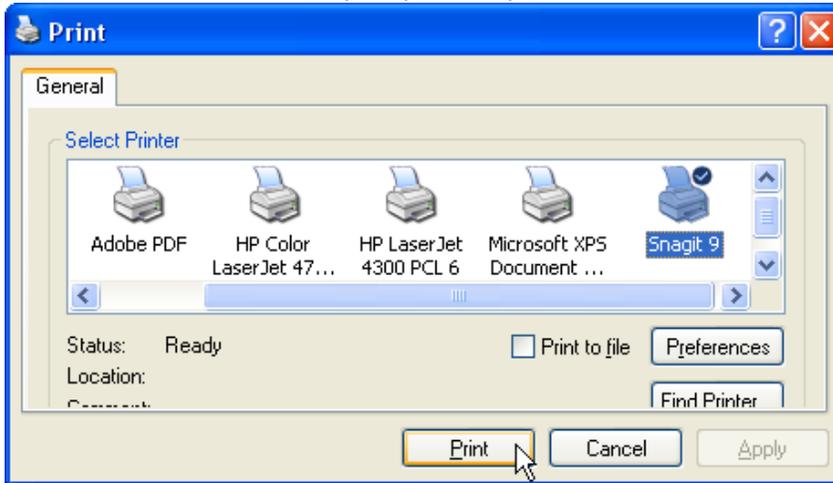


Printing Reports

1. Click the **Print Report** icon.

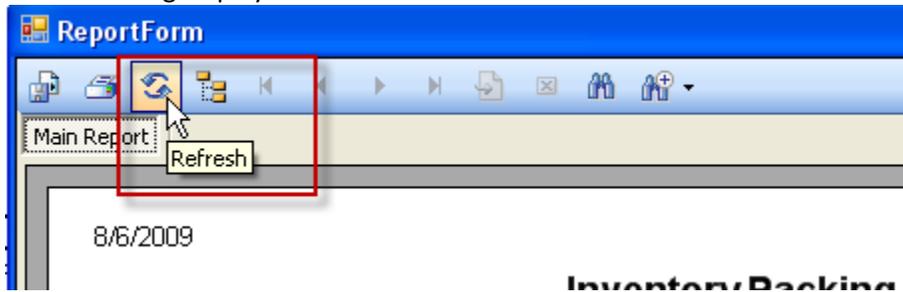


2. On the **Print** window, select your printer options; click the **Print** button.



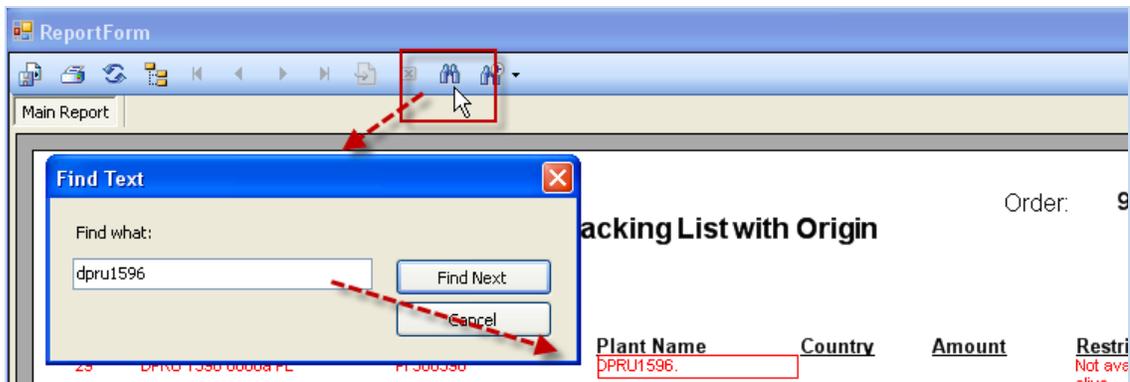
Refreshing Data

If you have had the **ReportForm** window open for some time, click the **Refresh** button to ensure that the data being displayed is current.



Finding Text

1. Click on the **Find Text** icon; type the text ("search string") in the popup window; click the **Find Next** button.



If matching text is located, the text is outlined in a box.

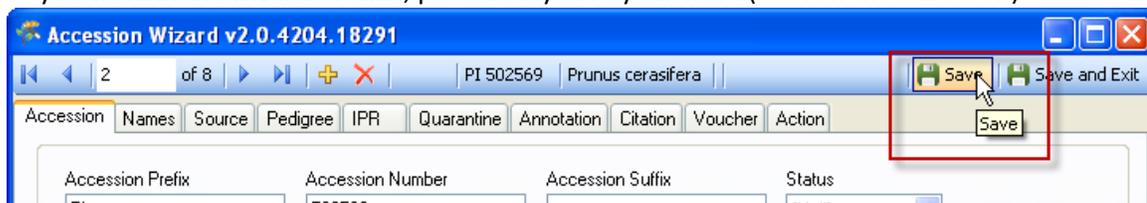
Wizards

General Notes about Curator Tool Wizards

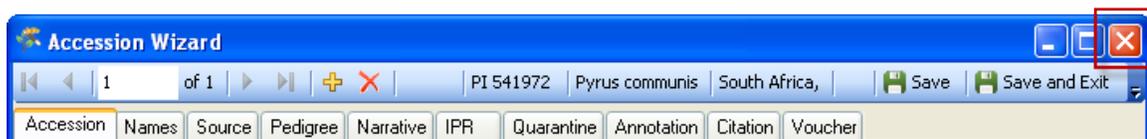
Wizards

The Curator Tool has several wizards currently available and more are in development. Wizards have some common characteristics:

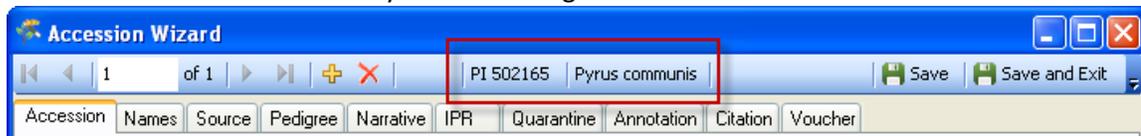
- wizards can be used to create a new record or to edit existing records
- as you work in the wizard's forms, periodically save your work (click on the **Save** icon)



- use the window's close button to cancel when necessary. *However, any data not yet saved will be dropped, not just for the current tab screen, but for any of the tabs.* (This is why the previous point is so important.)



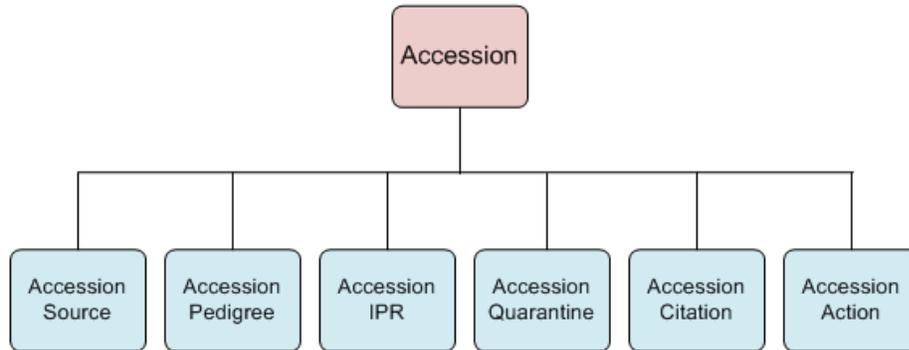
- when reviewing the wizard's screens, notice that the screen's header displays certain important fields that indicate what record you are working with



Accession Wizard Overview

The Accession Wizard facilitates the inputting of new accession data across the parent accession and its related child records.

Remember that accession data is stored in multiple related tables (not all are shown here):



The wizard can also be used to modify the children records as well as the data stored in the parent accession table.

In GRIN-Global, accession data, including the multicrop passport descriptors (MCPD) data, is distributed across multiple tables that are linked to each other. (Inventory tables contain information about the physical germplasm such as quantities available for distribution, whereas the accession tables contain, among other items, the passport information.)

In the Curator Tool, many related dataviews have been designed for inputting and editing accession data in these tables. In fact, there are at least 10 accession-related dataviews. However, many of the tables' fields are optional and may never be used by some organizations. (GRIN-Global was designed to be flexible and accommodate different organizations and genebanks with unique requirements.)

Accession Inventory Tables and Dataviews

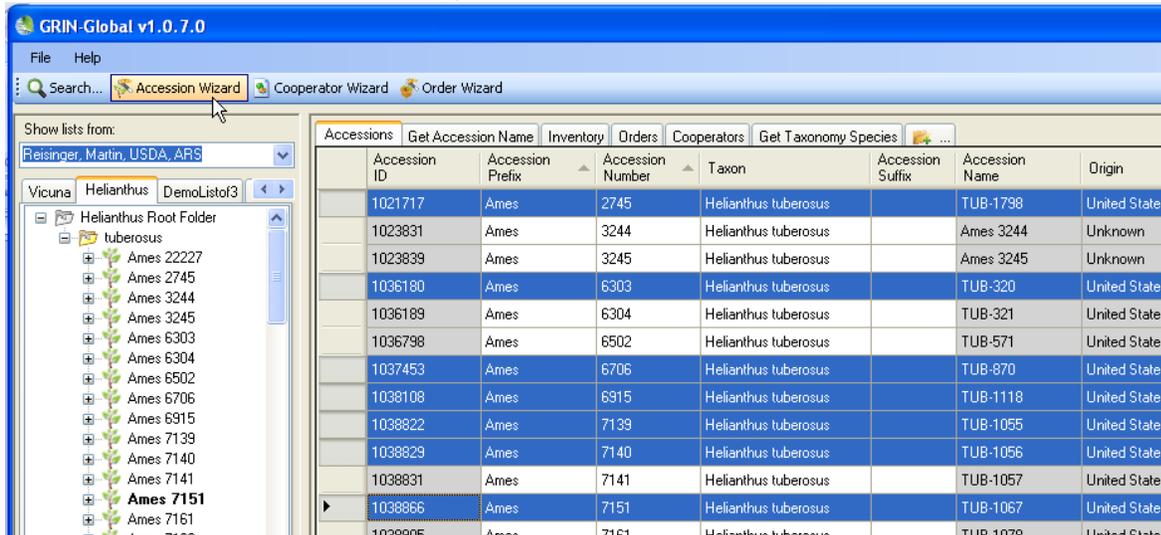
In GRIN-Global version 1.0, there is an `accession_name` table as well as an `inventory_name` table. Starting with the 2.0 schema, the accession and inventory name tables are merged into one table, taking advantage of the fact that every accession is associated with at least one inventory record. A Name record can be associated with either the accession's system-generated inventory record, hence applying to the accession in general, or associated with a specific inventory record.

Accession Dataview

Click on the **Accessions** or **Inventory** dataview tab first before invoking the wizard.

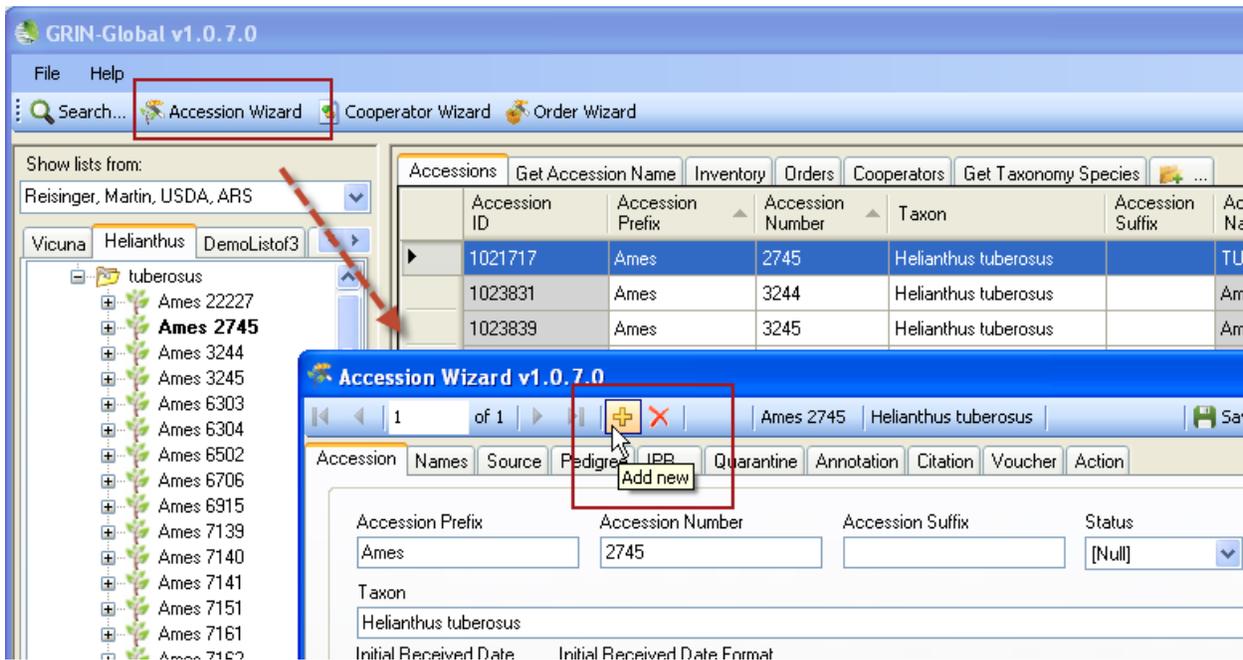
Modify existing accession records

If you wish to *modify* existing accession records, *before* starting the wizard, in the Data Grid, highlight the desired accession record (or multiple records) to be modified.



Create a new record

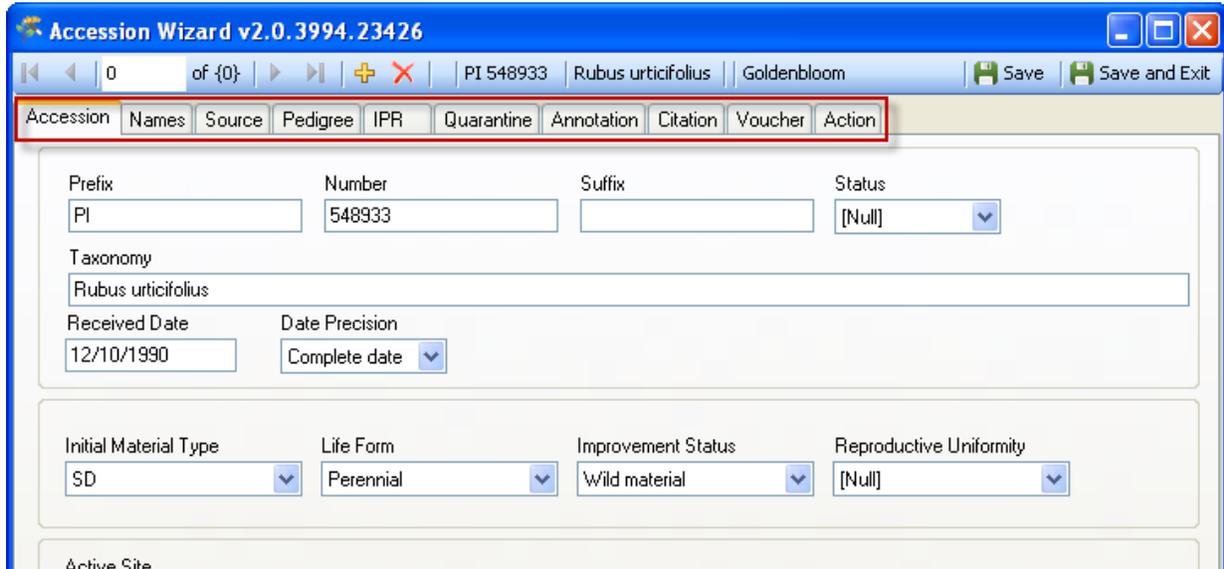
If you are *creating a new* record, it doesn't matter which accession record is highlighted. To start the wizard, click the **Accession Wizard** button. When creating a new Accession record, in the wizard screen, click the **Add New** button:



Wizards

General Accession wizard concepts

When you invoke the Accession Wizard, the **Accession** dataview displays. The accession wizard consists of 10 dataviews tabs; the tabs shown below illustrate this:



The screenshot shows the 'Accession Wizard v2.0.3994.23426' window. The 'Accession' tab is selected and highlighted with a red box. The window title bar includes 'PI 548933', 'Rubus urticifolius', and 'Goldenbloom'. The 'Accession' tab contains the following fields:

| | | | |
|-----------------------|----------------|--------------------|-------------------------|
| Prefix | Number | Suffix | Status |
| PI | 548933 | | [Null] |
| Taxonomy | | | |
| Rubus urticifolius | | | |
| Received Date | Date Precision | | |
| 12/10/1990 | Complete date | | |
| Initial Material Type | Life Form | Improvement Status | Reproductive Uniformity |
| SD | Perennial | Wild material | [Null] |
| Active Site | | | |

While using the wizard, the user can click on any of the tabs to display that tab's corresponding dataview. In this example, the **Names** tab has been selected.



The screenshot shows the 'Accession Wizard v2.0.3994.23426' window with the 'Names' tab selected. The window title bar includes 'PI 548933', 'Rubus urticifolius', and 'Goldenbloom'. The 'Names' tab contains the following elements:

New Name

| Name | Category | Name Rank | Name Group | Cooperator | Note |
|-------------|---------------|-----------|------------|---------------------|------|
| Goldenbloom | Cultivar name | 1 | | Babadoost, Mary,... | |

Saving the Data

In any window in which you enter data, in order to save the record, you must input data in the *required* fields' data. You do not need to complete each window, since they are dataviews to different tables.



When completing (or partially completing) a dataview, before proceeding to the next tab, click the **Save** button as you continue inputting in the wizard.

Use the **Save and Exit** button when you are finished using the wizard. (Since you can use the wizard to edit existing data, you can always return later and edit the data.)

The **Save and Exit** button will close the accession wizard and return to the Curator Tool, but first it will indicate that you were successful and also prompt you to add an item to the current list folder (if it is a new item). If you select **Cancel**, the record will be created, but no item will be generated in the current

list folder.



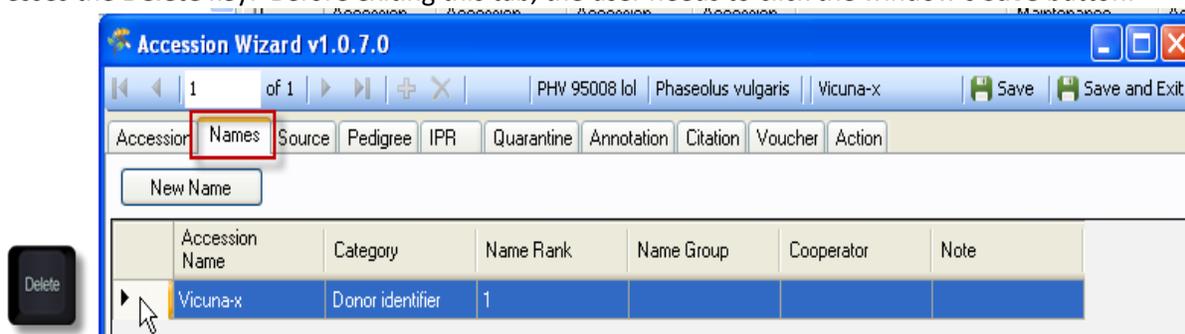
Deleting Accession Records

In a relational database where there are parent and children tables, the general principle is that a parent record cannot be deleted if it has any children records. In order to delete an Accession record, (which should be a rare occurrence), you must ensure that all of its children records are first deleted.

The Accession Wizard is useful for helping you to do this. First, select the Accession record in the Curator Tool Accession dataview that you intend to delete; click the Accession Wizard button:

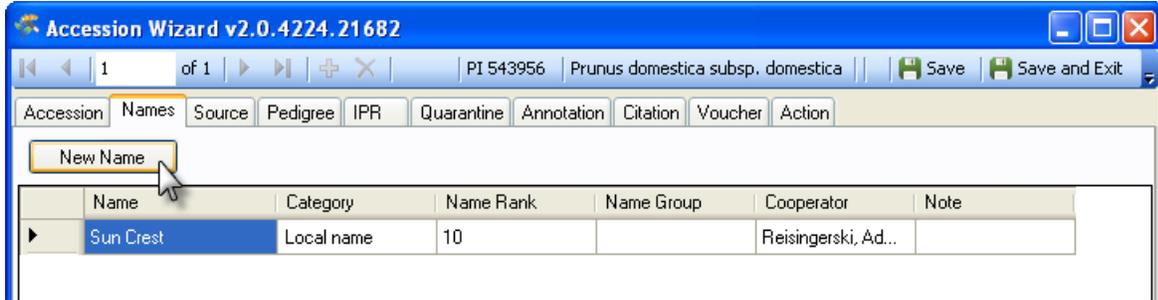


In the Accession Wizard, review for children rows. If the Accession has a child record, you can delete that record by selecting it and then clicking the keyboard's **Delete** key. In the example here, the Accession has a Name record; the user selected the row by clicking on the left margin; then the user presses the **Delete** key. Before exiting this tab, the user needs to click the window's **Save** button:

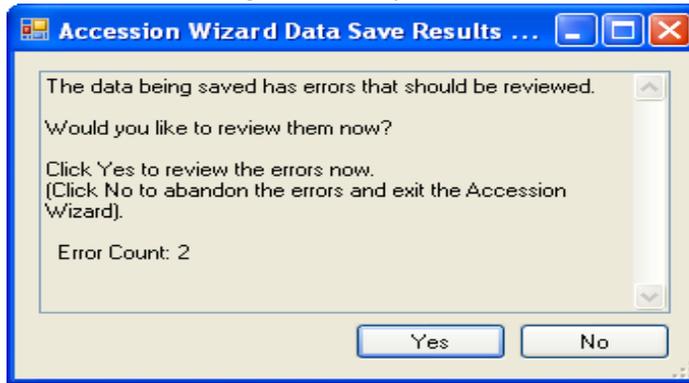


Subordinate Accession Dataviews

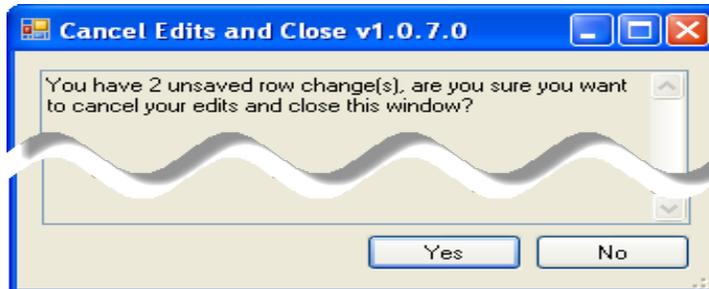
The subordinate (or “child”) dataviews have their respective tabs. On each of these windows, there is a **New dataview** button. When clicked, the Curator Tool displays a new row on the dataview grid for inputting data. Shown here is the **New Name** button on the wizard’s **Names** form.



In moving through the various subordinate Accession wizard windows, you may have clicked a **New** button without intending to do so. When you click on **Save and Exit**, you will be prompted with an error message, in which you should click **No**:



On the next window, click **Yes**:



There are several fields in the Accession wizard dataviews which are unique and will be explained in detail here. Otherwise, when you require more information, refer to the [online data dictionary](#) for any accession-related fields.

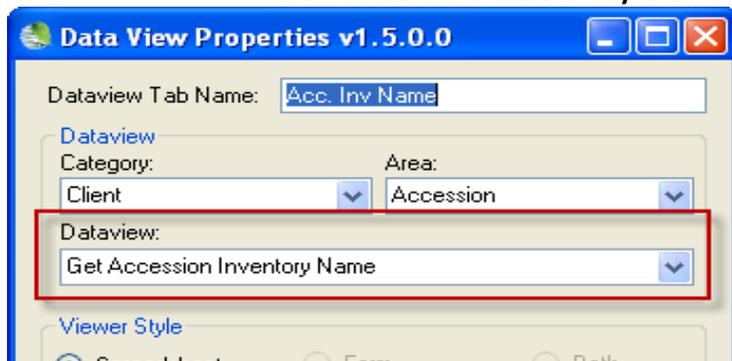
Accession Inventory Names Dataview

The same accession may be referenced by multiple names. For instance, it may have a name designated by the donor as well as a local or common name. Other developed accessions may be known by a breeder's cultivar name or in some cases a trademark name. GRIN-Global provides the capability for unlimited names to be associated with accessions. In the main Accession dataview only one accession name is displayed. A subordinate (child) table viewed by the **get_accession_inv_name** dataview (**Accession Inventory Names**) stores all of the associated names for the accession.

In the example below, in the Accessions dataview, the Accession Name displayed for Accession Number 536173 is "US 998."

| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Name | Origin |
|--------------|------------------|------------------|------------------|----------------------------------|--------|--------|
| 1004649 | Grif | 236 | | Arachis hypogaea | K-168 | China |
| 1004650 | Grif | 237 | | Arachis hypogaea | K-169 | China |
| 1004664 | PI | 602061 | | Arachis hypogaea | K-412 | China |
| 1004677 | PI | 602062 | | Arachis hypogaea | K-421 | China |
| 1004708 | PI | 602063 | | Arachis hypogaea | K-473 | China |
| 1004751 | Grif | 251 | | Arachis hypogaea | K-481 | China |
| 1004785 | Grif | 254 | | Arachis hypogaea | K-484 | China |
| 1004803 | Grif | 256 | | Arachis hypogaea | K-487 | China |
| 1004842 | Grif | 261 | | Arachis hypogaea | K-492 | China |
| 1431109 | PI | 536173 | | Arachis hypogaea var. fastigi... | US 998 | Brazil |
| 1004663 | PI | 602362 | | Arachis hypogaea | K-386 | China |
| 1004709 | PI | 666200 | | Arachis hypogaea | K-474 | China |
| 1004724 | PI | 664273 | | Arachis hypogaea | K-475 | China |

However, there are several names for this Accession when you click on the **Names** dataview. (The Names dataview's name is "**Get Accession Inventory Name.**")



| Accession Inventory Name ID | Accession | Inventory | Category | Name | Name Rank | Name Group |
|-----------------------------|-----------|---------------|----------------------|----------|-----------|------------|
| 569716 | PI 536173 | PI 536173 *** | Donor identifier | US 998 | 60 | IBPGR |
| 569717 | PI 536173 | PI 536173 *** | Collector identifier | Sv-474 | 1070 | |
| 721880 | PI 536173 | PI 536173 *** | Local name | Gaspeado | 1030 | |

How did the Curator Tool determine which name to display in the **Accessions** dataview? The Curator Tool doesn't arbitrarily pick a name from the **Name** dataview, but rather selects the name from the record in the associated **Names** dataview whose **Name Rank** field has the lowest value. In this example, the lowest **Name Rank** was "60," so the name displayed in the **Accessions** dataview was "US 998."

To keep this simple, if you have multiple records for one Accession in the Names dataview, enter "1" in the **Name Rank** field in the **Name** dataview for the record whose name is to be listed in the Accession dataview. (Some genebanks might refer to this as the "top name.") Some organizations may use a fairly complicated algorithm for assigning numeric values to names, but ultimately in the Curator Tool the name associated with the lowest value in the **Name Rank** field determines the name that will be displayed in the corresponding accession dataview record.

If two (or more) accession name records exist for the same accession and have the same lowest **Name Rank** value, then the one whose name is alphabetically first will be displayed in the accession dataview.

Accession Source Dataview

The **Source** dataview maintains data pertaining to accessions collected in the wild or obtained from farmers, markets, or other local sources, and donations from breeders.

Source Type

There are three possible **Source Types**:

- Collection source event
- Developer source event
- Donor source event

| Source Type | Source Date | Source Date Format | Is Origin? | Geography | Note |
|-------------------------|-------------|--------------------|--------------------------|-----------|------|
| Collection source event | | [Null] | <input type="checkbox"/> | | |

Is Origin?

This “**Is Origin?**” checkbox, when checked, indicates that this record’s **Geography** field will be considered as the accession’s source location.

Other Ancillary Accession Dataviews

For information about the other fields used in the accession dataviews, refer to the [online data dictionary](#).



Remember to save each view as you move from one window to another.

Source Descriptors, Codes, and Data for Source Habitat Information

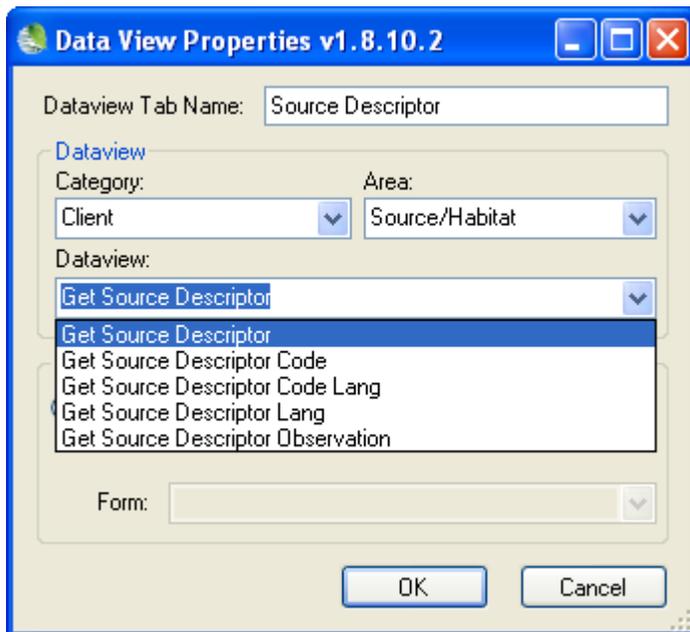
In the 1.0 schema, the habitat section of the accession_source table held the core data that has been associated with an accession collected in the wild (e.g. latitude, longitude, elevation, general source description, general associated species, etc.). In the 2.0 schema, this core set of collection site/habitat information still remains in the accession_source table, while five new source_ tables have been added. The five new tables provide an extremely flexible method for adding more detailed information about the collection site which was not possible with 1.0’s single accession_source table. Now genbank managers can create custom descriptors and codes for an unlimited amount of detail on the collection site.

For example, within a category called Soil Descriptors there could be sub-descriptors such as Moisture, Texture, Magnesium Content, etc. The level of detail and range of descriptors is up to the database managers.

In order to use this expanded functionality, there are four essential steps to follow:

1. the organization determines what habitat descriptors and codes are to be added to the database. The column names and translations of the descriptors and their codes are entered into the GG database using the Source Descriptor Lang and Source Descriptor Code Lang dataviews
2. the collectors collect and record their field data
3. an accession record is created with its child source record and a source that documents the collection event
4. the Source Descriptor Observation data is recorded in GRIN-Global in the Source Descriptor Observation dataview

In the Curator Tool, there are 5 inter-related habitat dataviews in the Source/Habitat area:



- Source Descriptor Code
- Source Descriptor Code Lang
- Source Descriptor
- Source Descriptor Lang
- Source Descriptor Observation



The Global Information System/Georeferencing data is stored in the Curator Tool in the Accession Source dataview.

Managing Inventory

Inventory Overview

Inventory is the physical stock for each accession, whereas accession tables contain, among other items, the passport information and other descriptors.

An accession may have several inventory samples. For example, there may be different generations, storage types, locations, sites, etc.

In GRIN-Global each accession also has one inventory record that does not reflect physical inventory but rather is a virtual inventory record – its Inventory type is always **.

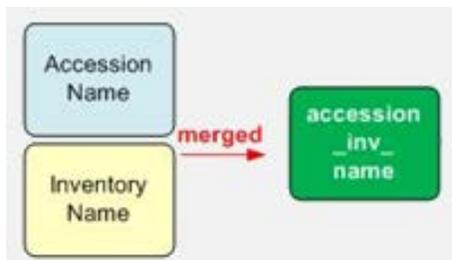
Prerequisite Data

In order to input inventory you must first have an accession to relate to. In fact, there are five required fields when inputting inventory records:

- accession
- inventory prefix (In some organizations, because of their organizational requirements, an input number and/or a suffix may also be required.)
- inventory type (In GRIN-Global, the Code Group used to store the inventory type is called GERMPLASM –FORM)
- inventory maintenance policy (a method for assigning a name to a rule for handling orders. For example, the rule can indicate how many units the genebank site will distribute for an order of a given taxon.)
- availability status (Must be one of the INVENTORY_AVAILABILITY_STATUS Code Group values in the Code Value table.)

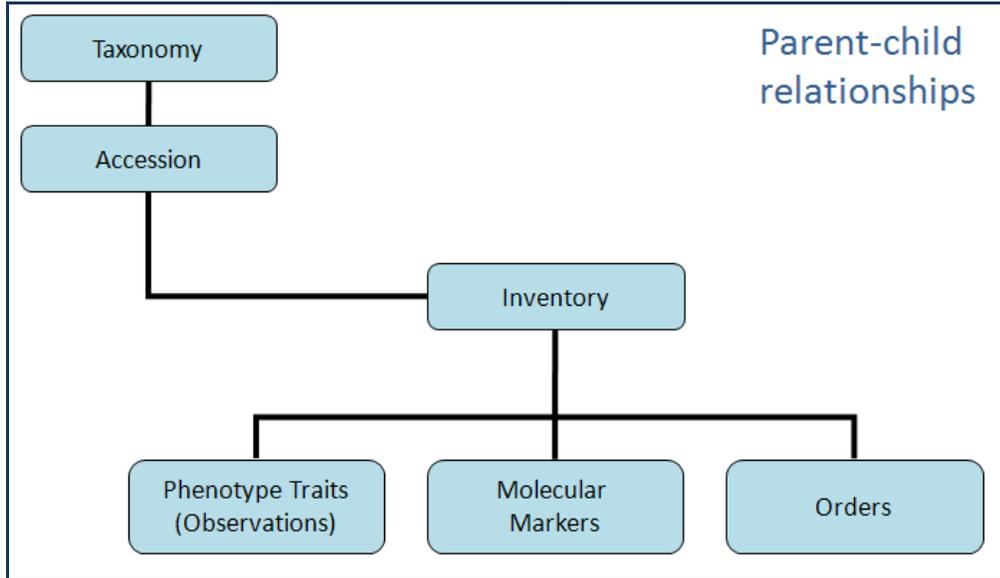
The Inventory tables store data about physical germplasm –what form the germplasm is stored, where it is stored, quantities on hand, etc. The GRIN-Global database has approximately 10 inventory related tables and the Curator Tool has about the same number of Inventory dataviews. Each table serves a particular function. For instance, the **Inventory Maintenance Policy** table stores the rules for how inventory is distributed and the **Inventory Viability** table stores data about viability.

Beginning with GG Release 1.5., the schema takes advantage of the fact that every accession always has at least one associated inventory record. In 1.5, the inventory and accession *name* tables are merged into one table. (In 1.0, there was an accession_name table as well as an inventory_name table.) In 2.0, the two name tables have been merged since a “Name” record can be associated with either the system generated inventory record, hence applying to the accession in general, or can be associated with a specific inventory record.

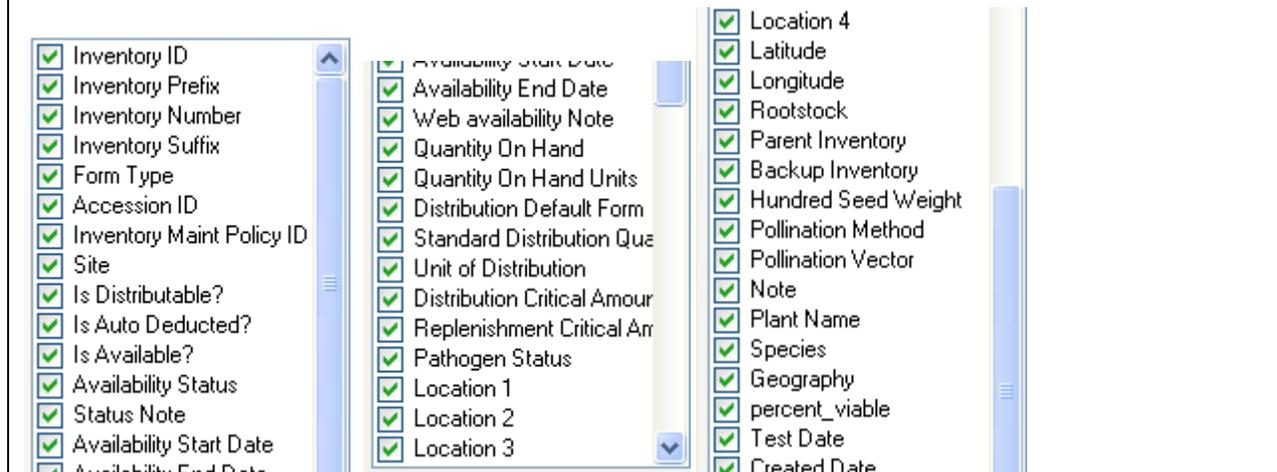


Each Inventory Record is has a Parent Accession Record

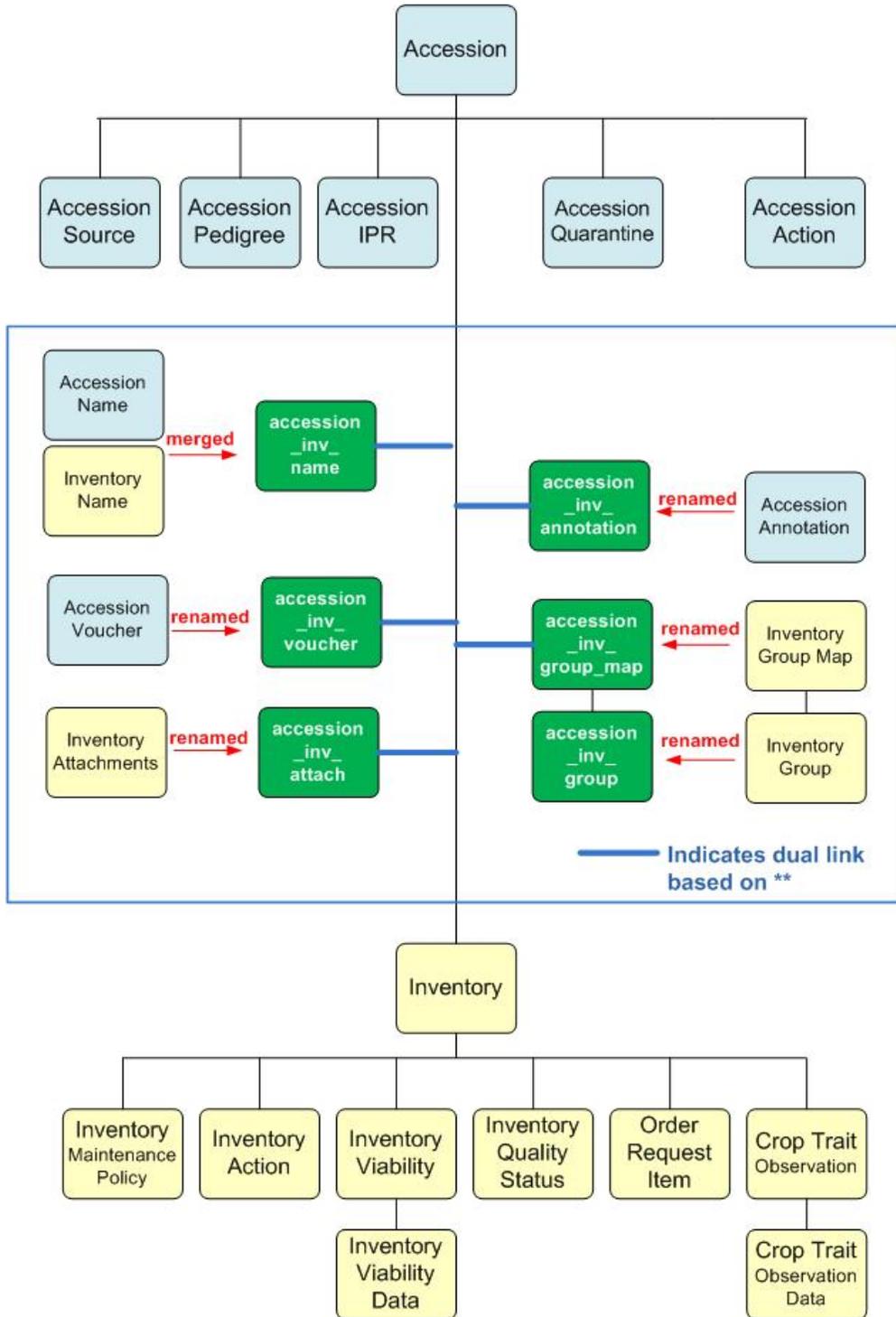
As indicated in the diagram below, an inventory record has a parent accession record.



The following graphic shows a partial list of the fields that comprise the **get_inventory** “Inventory” data view:



The table names that incorporate both accession and inventory as part of their name such as accession_inv_name can relate to either an accession by its system generated inventory record or to real physical inventory records



Default System-Generated Inventory Records

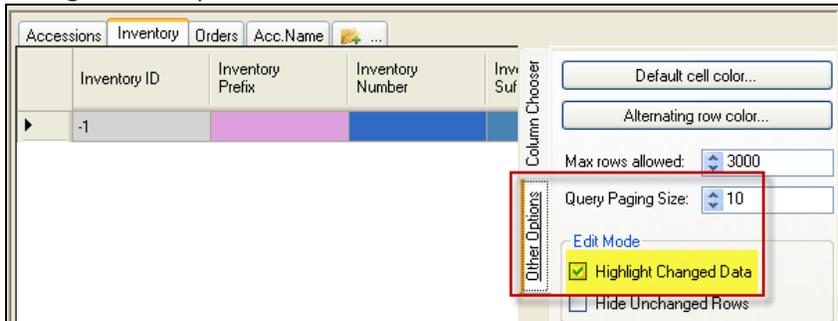
By design, every Accession record has at least one system-generated inventory record associated with it. When a user creates an accession record, this default inventory record is automatically generated.

These default inventory records are always designated with a ****** indicator for the **Inventory Type** field:

| Inventory ID | Inventory Prefix | Inventory Number | Inventory Suffix | Inventory Type | Accession | Inventory Maintenance Policy | Inventory Maintenance Site |
|--------------|------------------|------------------|------------------|----------------|-----------|------------------------------|----------------------------|
| 1046743 | PI | 537000 | .01 | PL | PI 537000 | Malus | GEN |
| 1046744 | PI | 537000 | .02 | PL | PI 537000 | Malus | GEN |
| 2207057 | NSSL | 366612 | 51 | BD | PI 537000 | CRYO | NSSL |
| 2451162 | PI | 537000 | .03 | PL | PI 537000 | Malus | GEN |
| 2451164 | PI | 537000 | .04 | PL | PI 537000 | Malus | GEN |
| 2626982 | PI | 537000 | .05 | PL | PI 537000 | Malus | GEN |
| 2626983 | PI | 537000 | .06 | PL | PI 537000 | Malus | GEN |
| 4431936 | PI | 537000 | | ** | PI 537000 | SYSTEM | GEN |

Required Fields

Although the Inventory dataview has many fields, not all are required. (Records can be saved only if their required fields are complete.) To determine what fields are required, ensure that the **Highlight Changed Data** option is checked.



The different colors provide a visual clue: required fields are violet, system-generated fields that cannot be edited are gray, and fields that allow editing, but which are not required fields, are blue.

Required:

- Accession ID
- Inventory Prefix, Number, and Suffix must be a unique combination
- Form Type
- inventory Maintenance Policy
- Availability Status

Accession ID

Since every inventory record has a parent accession record, an accession ID must be selected from the accession lookup list:

| Site | Orders | Order Request Item | Accessions | Accession Inventory Attach | Inventory | Cooperators | Crop | Crop Trait Observation |
|--------------|------------------|--------------------|------------------|----------------------------|-----------|------------------------------|----------------------------|------------------------|
| Inventory ID | Inventory Prefix | Inventory Number | Inventory Suffix | Inventory Type | Accession | Inventory Maintenance Policy | Inventory Maintenance Site | |
| 1046743 | PI | 537000 | .01 | PL | PI 537000 | Malus | GEN | |
| 1046744 | PI | 537000 | .02 | PL | PI 537000 | Malus | GEN | |
| 2207057 | NSSL | 366612 | 51 | BD | PI 537000 | CRYO | NSSL | |
| 2451162 | | | | | PI 537000 | Malus | GEN | |
| 2451164 | | | | | PI 537000 | Malus | GEN | |
| 2626982 | | | | | PI 537000 | Malus | GEN | |
| 2626983 | | | | | PI 537000 | Malus | GEN | |
| 4431936 | | | | | PI 537000 | SYSTEM | GEN | |
| -9 | | | | | | | -1 | |

Lookup Picker v1.8.10.2

HINT: For big lists, use the text filter to shorten the list search.

Filter ->

- PI 537
- PI 5370
- PI 53700
- PI 537000
- PI 537001
- PI 537002
- PI 537003
- PI 537004
- PI 537005
- PI 537006
- PI 537007
- PI 537008
- PI 537009

Refresh List OK Cancel

Inventory Prefix, Number, and Suffix

Each inventory record must have a unique key – that is, the combination of the Inventory Prefix, Number, and Suffix must be unique in the database.

Form Type

Some of the required fields depend on data from other data views. For instance, **Form Type** is a dropdown field that gets its data from the code values stored in the GERMPASM_FORM code group. In the case of a required field with a dropdown or a lookup window, you must select one of the entries.

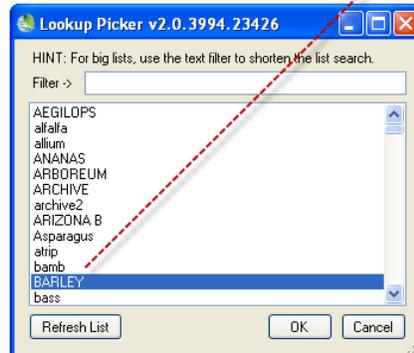
Form Type

- BL
- BL
- CA
- CL
- CM
- CT

Managing Inventory

Inventory Maintenance Policy

| Inventory ID | Inventory Prefix | Inventory Number | Inventory Suffix | Form Type | Accession ID | Inventory Maint Policy ID |
|--------------|------------------|------------------|------------------|-----------|--------------|---------------------------|
| -1 | | | | SD | | |



The **Inventory Maintenance Policy** is a method for assigning a name to a policy “rule” for handling orders. When an order comes in for an accession, how many units will be distributed? Will the units of distribution be by number of seeds, or by some other unit? For example, the rules can be set up to indicate “each order for Maize accessions will receive 50 seeds” or, alternatively by weight (“each order will receive 5 grams of seeds”). An organization can create as many maintenance policy rules as needed for their unique situation, and assign each inventory maintenance policy a name in the **Inventory Maintenance Name** data view.

Since **Inventory Maintenance Policy ID** is a required field when inputting an inventory record, the relevant **Inventory Maintenance Name** record must be created first. **Inventory Maintenance Name** records can be added via the Curator Tool. Alternatively, GRIN-Global administrators have an Import Wizard dataview available to them for bulk loading an organization’s Maintenance Names.

Availability Status

The **Availability Status** field obtains its values from the **INVENTORY-AVAILABILITY-STATUS** Code Group. By searching this field, you can look for specific inventory situations, such as low inventory, young plants

not available, etc.

| Is Available? | Availability Status | Status Note | Availability Start Date |
|-------------------------------------|----------------------------------|-------------|-------------------------|
| <input type="checkbox"/> | Removed from collection | | |
| <input type="checkbox"/> | Removed from collection | | |
| <input type="checkbox"/> | Low inventory | BASE | |
| <input type="checkbox"/> | Removed from collection | | |
| <input type="checkbox"/> | Removed from collection | | |
| <input checked="" type="checkbox"/> | Available | | |
| <input type="checkbox"/> | Removed from collection | | |
| <input type="checkbox"/> | No lot present | | |
| <input type="checkbox"/> | Added to the distribution sample | | |
| | Added to the distribution sample | | |
| | No definition code Avai | | |
| | Available to send | | |
| | In-Vitro backup plant | | |
| | Backup sample BKUP code | | |
| | No definition code CHEC | | |
| | Accession discontinued code CL | | |
| | Accession discontinued code CL | | |

Other Noteworthy Inventory Fields

Many of the inventory fields are used to manage the distribution of germplasm, such as **Is Distributable?** and **Is Auto Deducted?**.

Is Distributable?

This TRUE/FALSE flag indicates that the inventory sample is available for distribution. Per accession, there can be more than one inventory sample available for distribution. Some genebanks may use this flag to indicate which sample to distribute.

Is Available?

This field is a TRUE/FALSE flag indicating whether the inventory is available for distribution.

Is Auto Deducted?

This TRUE/FALSE flag indicates whether the **Quantity On Hand** amount is debited when the order item for this sample is shipped.

For information about other inventory fields, refer to the [online data dictionary](#).

Recording New Inventory

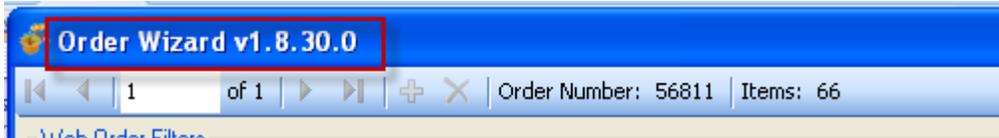
As mentioned in the [Inventory Prerequisites](#) section, when adding a new inventory record, there are required fields that must be supplied with data.

Each physical inventory should have its own record. Seed genebanks will most likely have multiple lots for one accession – each lot should have its own respective inventory record. Clonal sites will typically create one inventory record for each clone.

Order Wizard

Current release

The release being documented is:



Release 1.8.30.0 Notes

The new CT will require new dataviews (included in this email). Here are the changes you should test:

- The **Ship All** button should work for APHIS order items...
- When the completed_date is populated in the order header there is an action added with a action_code of **DONE**
- Total Cost is now being calculated for costs captured in order_request_actions
- The Feedback text box and label are now hidden
- Cancelling all order_request_items in a new order will properly populate the order_request completed_date using direct datagrid edits or the context menu
- The note for APHIS has been fixed to properly record that the order has been sent to 'Plant Inspection'
- The web_order_request_items and web_order_request dataviews now hides the created/modified/owned *by and *date columns
- The web_order_request_items and order_request_items dataviews now show a new column for xPVP status warning

Release 1.8.33.0 Notes

This new version has these changes:

- Fixed a minor bug that prevented the order_request completed date from being populated when a new order was immediately cancelled for all items.
- The 'Ship All' button should work properly for APHIS order items now...

Order Wizard

- When the completed_date is populated in the order header there is an action added with a action_code of 'DONE'
- Total Cost is now being calculated for costs captured in order_request_actions
- The Feedback text box and label are now hidden
- Cancelling all order_request_items in a new order will properly populate the order_request completed_date using direct datagrid edits or the context menu
- The note for APHIS has been fixed to properly record that the order has been sent to 'Plant Inspection'
- The web_order_request_items and web_order_request dataviews now hide the created/modified/owned *by and *date columns
- Added support for accession_source_map table in the Accession Wizard Source Tab
- Added support for source_desc_observation table in the Accession Wizard Source Tab
- Added a checkbox 'My Site's Accessions Only' to the Order Wizard Web Order Tab – basically this will split the web order up by site if it is left checked
- Added a switch statement to the 'Create Order Request' button click event to properly populate the order_request.order_type in the Order Wizard from the Web Order Request Intended Use field

Orders Overview

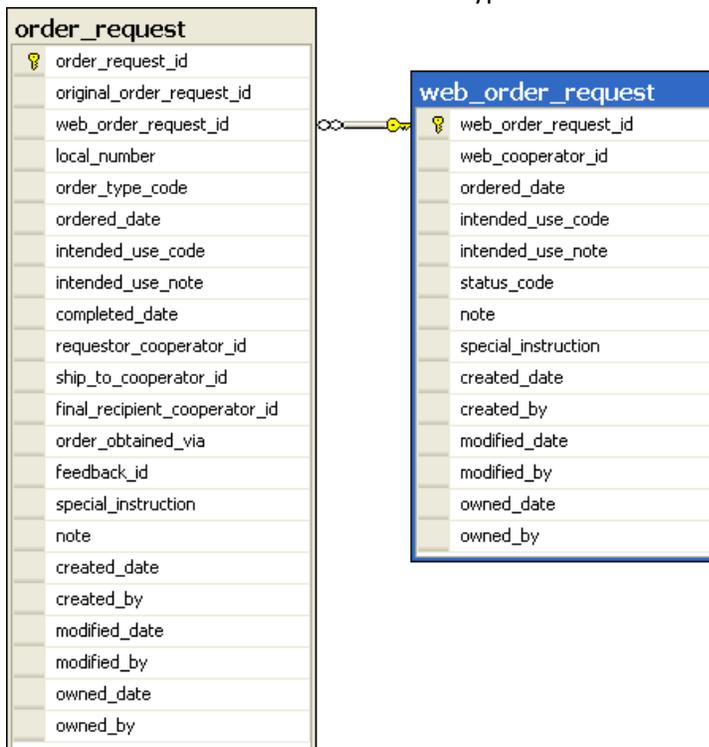
Genbank clients may send orders via the public website, email, faxes, and even the telephone. Obviously each organization will determine valid methods for accepting orders. This document will describe how orders can be processed from any source.

In many organizations, orders typically will be submitted via the Public Website. Users on an organization's Public Website will search for desired accessions and then add them to their shopping carts – eventually submitting their carts for order processing.

Relationship of “Standard” Orders to Public Website Orders

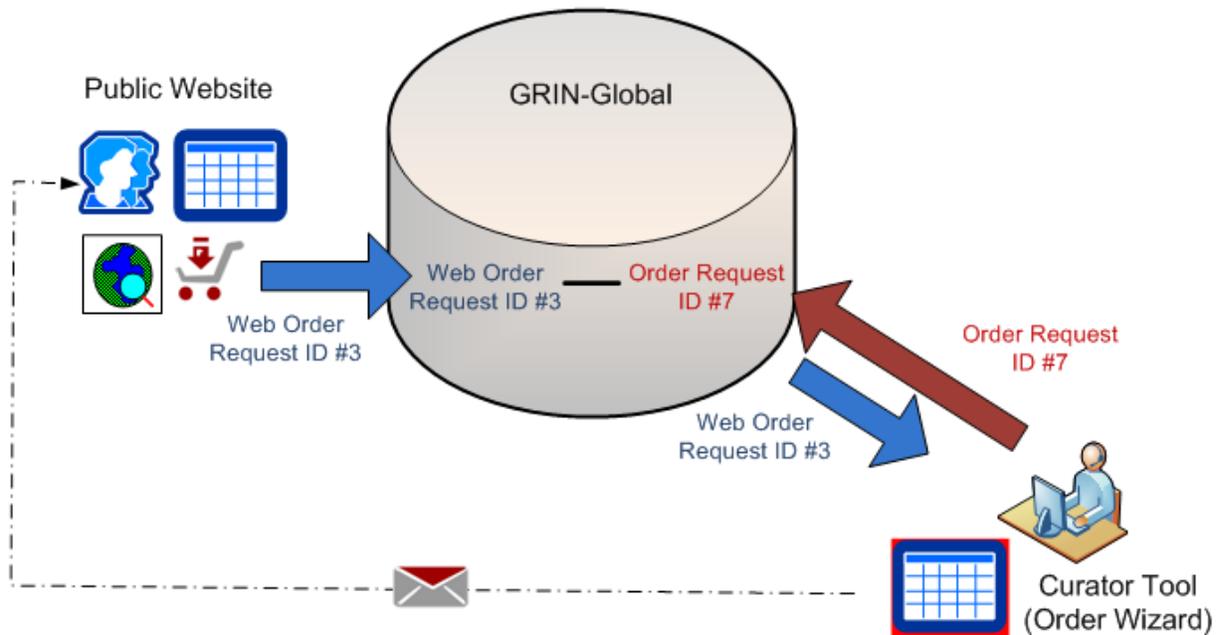
Because the Curator Tool and the Public Website are independent programs - you do not need one to run the other – the orders entered into the Public Website by the researchers and other organizational clients are not stored directly in the tables in which orders entered by genbank personnel in the Curator Tool are stored. Instead, incoming Public Website orders must be converted into GRIN-Global standard orders.

The table structures for the two order types:



When orders come via the public website, genbank personnel will review the new *web* orders and then save valid *web* orders as *standard* orders in GRIN-Global for further review and processing.

Public Website Orders Diagram



Using the Curator Tool, personnel responsible for order fulfillment at the genebank can review those incoming web orders and convert them into GRIN-Global orders. During the order processing, genebank personnel will use the Curator Tool to manage and monitor the progress (status) of the order.



During this order process, the Web Order Request record becomes the basis for a GRIN-Global Order record. The Web Order Request record's ID is its primary key field; the GG Order Request record created from it will have its own unique record ID. Although the records are inter-related, the two record IDs are distinct.

The curator tool has several dataviews that pertain to the order process.

The Curator Tool also has an Order Wizard which facilitates the ordering process. The Order Wizard provides a set of comprehensive screens in which new order records are added to the GG database, either manually when incoming orders come via the mail, emails, or verbally, or by converting the incoming web order records when the orders come from the Public Website.

NPGS Specifics

High-level Differences Between GRIN Classic and GRIN-Global

In GRIN, when adding bulk orders (multiple orders at one time), the Data Prep tables were used. With the change in GRIN-Global where most of the orders will be coming in as web orders instead of emails, you no longer need to create spreadsheets to be used with the Data Prep tables.

(You will receive emails announcing the incoming web orders, but the data will already be in the web order, eliminating the need to copy the order specifics from the email's text.)

If you did need to manually input multiple orders at one time, you could use the drag and drop method to drop the order header information into the Curator Tool, using the **Get Order Request** dataview. After the orders have been added into GG, you then have two methods to get the order item data into the database.

Method 1: Dragging Order Items into the Order Wizard

The first method is to select your new orders and start the Order Wizard. In the Order Wizard, for each order, drag the order items data from a spreadsheet into the grid at the bottom of the wizard.

Method 2: Dragging Order Items into the Order Request Items Dataview

In the second method, you could use the Curator Tool's **Get Order Request Item** dataview and drag and drop the order item data into the dataview. The **Order Number**, the **Accession**, and the **Inventory** are required fields. It is recommended that you also supply unique **Item Numbers** (especially use new Item Numbers if you are adding items to an order).

Web Cooperators and GG Cooperators in the Curator Tool

Generally, the public website user creates his or her own web cooperator record. Note that two types of cooperator records exist in GRIN-Global: *web* cooperator records and standard (used within the CT). These two cooperator record types are stored in two different GG tables.

Using the Order Wizard, a genebank employee can easily create a *standard* cooperator record from a *web* cooperator record or relate an existing *standard* cooperator record to a *web* cooperator record. Generally the associating of the *web* cooperator record to a GG cooperator record is done when a web order is being processed into a standard order.



To differentiate the two kinds of cooperator records throughout this document, we will specifically state “web” when referring to a web cooperator record. References to the standard GRIN-Global cooperator records will omit any prefix or may state “... standard cooperator record.”

Using the GRIN-Global Admin Tool, the GG administrator can also tie together a cooperator record to a web cooperator record:

A screenshot of the GRIN-Global Admin Tool interface. The window title is "User Users - localhost\sqlexpress - Administrator". The interface has a blue header bar. Below the header, there are three tabs: "General", "Permissions", and "Groups". The "General" tab is selected. Under "General", there is a "User Name:" label followed by an empty text box and a "Set Password..." button. To the right of the button is a red error message: "Password must be set before saving". Below this is a checked checkbox labeled "Enabled". A section titled "Cooperator Information" contains several sub-tabs: "General", "Web Login", "Contact Info", "Geographic", and "Notes". The "Web Login" tab is highlighted with a red box. Under "Web Login", there is a "Current Cooperator is (none)" label and a "Search..." button. Below this are three text boxes for "Title:", "First Name:", and "Last Name:". Below these is a larger text box for "Full Name (for display):". At the bottom, there are two dropdown menus: "Job:" and "Discipline:", with "Aronomy" selected in the "Discipline" dropdown.

Order Request and Order Request Items Records

A germplasm order request has two main sections: the *order request*, which some refer to as the “order header,” and the *order request items* section, which lists the details of the items being requested:

| Order Request | | | | | | | | | | |
|---------------|--------------|----------------------|--------------|---------------|-------|--------------|-------------------|--------------|----------------------|-------------------|
| Order Request | Ordered Date | Web Order Request Id | Local Number | Owner Site ID | Items | Order Type | Final Recipient | Intended Use | Special Instructions | Intended Use Note |
| 7 | 3/8/2011 ... | 3 | 2011-0308-1 | SYS (n/a) | 5 | Distribution | Reisinger, Mar... | Education | hurry w/ the order | Public education |

| Order Request Items | | | | | | | | | |
|---------------------|-----------------------------|-------------|-----------|-----------------------|----------------------|------------------|------------------------|------------------|--|
| Order Item ID | Order Request | Item Number | Accession | Inventory | Species | Quantity On Hand | Quantity On Hand Units | Quantity Shipped | |
| 14 | 7 - Reisinger, Martin, DBMA | 1 | PI 503262 | PI 503262 89ncal01 SD | Helianthus tuberosus | 7038 | count | 100 | |
| 15 | 7 - Reisinger, Martin, DBMA | 2 | PI 503279 | PI 503279 99ncalm1 TU | Helianthus tuberosus | 0 | count | 5 | |
| 16 | 7 - Reisinger, Martin, DBMA | 3 | PI 503271 | PI 503271 95ncalm1 TU | Helianthus tuberosus | 0 | count | 10 | |
| 17 | 7 - Reisinger, Martin, DBMA | 4 | PI 503266 | PI 503266 99ncalm1 TU | Helianthus tuberosus | 0 | count | 5 | |
| 18 | 7 - Reisinger, Martin, DBMA | 5 | PI 503265 | PI 503265 85ncal01 SD | Helianthus tuberosus | 0 | count | 0 | |

The Order Request includes general information about the order, such as:

- the requestor’s contact information
- how the order was obtained
- who the ultimate recipient is

The individual items being ordered are just that – the items – and each item will be stored as an individual record in the *order request items* table. In the example above, the order contained 5 items. Genebank personnel ultimately use the genebank’s inventory supply to fulfill the ordered items.

Order Dataviews

In the Curator Tool, two main dataviews are used to display the order information: the **Order Request** dataview, and the **Order Request Items** dataview. In total, there are five main order dataviews (and corresponding tables in the database). Two of these are related to “web” orders being submitted from the internet. The five main GRIN-Global order-related dataviews are:

| Dataview | Description |
|--------------------|---|
| order_request | Provides general information about the order such as the date and type of order, requestor, final recipient, etc. |
| order_request_item | Lists the specific data about the material used to fill the order such as the Accession and Inventory IDs for the material, the Quantity On Hand, the Quantity Shipped, the form of distribution (seeds, grams, etc.) and the storage location from which the order was filled. |

| Dataview | Description |
|------------------------|---|
| order_request_action | Every time the status of the order is changed, an Order Request Action record is generated. Statuses that are built into GG include Shipped, Cancelled, Partially Shipped, Filled , and so on. (Each organization can determine what ORDER_REQUEST_ACTION codes they need for their organization's order fulfillment process.) |
| web_order_request | Provides general information about web orders such as the date and type of order, requestor, final recipient, etc. This web order request is generated by a requestor using the GRIN-Global Public Website. |
| web_order_request_item | Lists the specific data about the web order material (this is the details portion of the web orders coming from the GRIN-Global Public Website) |

Order Wizard

The first three dataviews listed in the above table are Curator Tool dataviews used for editing and reviewing order record data. However, rather than use the dataviews, most Curator Tool users will find the Order Wizard to be more satisfactory for reviewing order data. (The remaining two dataviews are used during by the Public Website for the web ordering process.)



Refer to the *Creating New Order Records from Web Orders Using the Wizard* section if you are processing orders received via the Public Website. For orders emailed, faxed, etc., continue below.

Using the Order Wizard to Create a New Order

Step 1



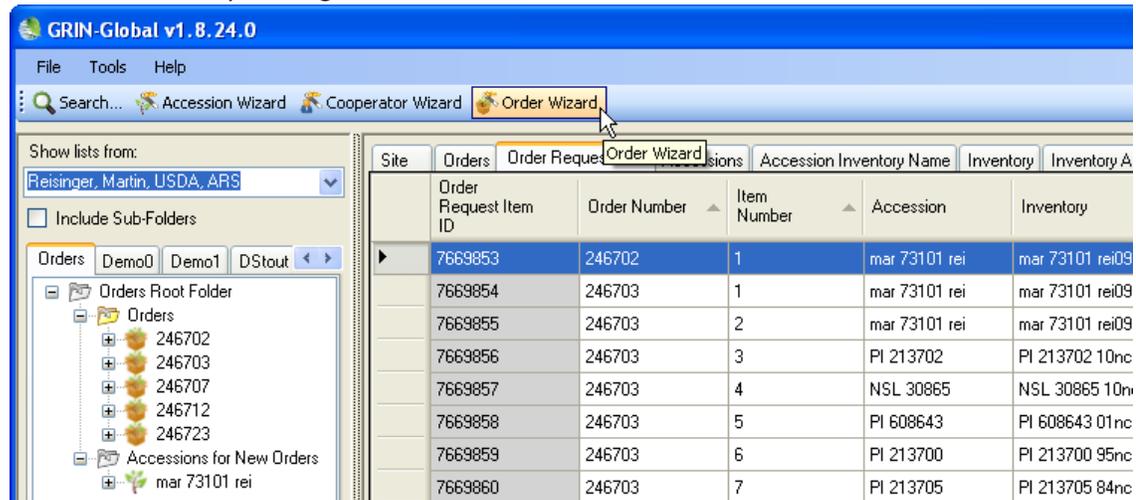
When starting up the CT, the left tab in the list panel will be active and display the lists under that tab. Consider setting up your folder hierarchy under that left tab so that the lists help with tracking your orders by status or date received or some other criterion. Although not necessary, when working with orders in the Curator Tool, have the folder active in which you intend to use to point to orders. Also helpful but not required, in the right grid, you may want to select the **Get Order Request** dataview as your active dataview.

When an email comes into the site with an order specifying the accessions, these accessions can be dragged into the Order Wizard grid and the Order Wizard will select the relevant inventory (but we are getting ahead of ourselves).



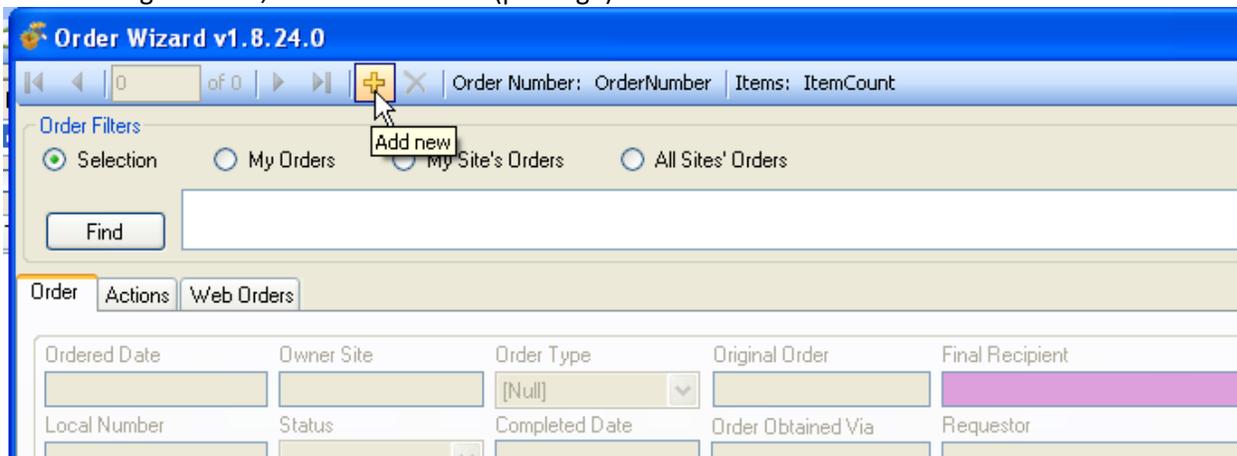
Save frequently, and save often! (when using the Order Wizard). Also, use the Save button when initially creating the order; otherwise you will receive an error message. This is necessary to save the record with the

Start the Wizard by clicking on the **Order Wizard** button:



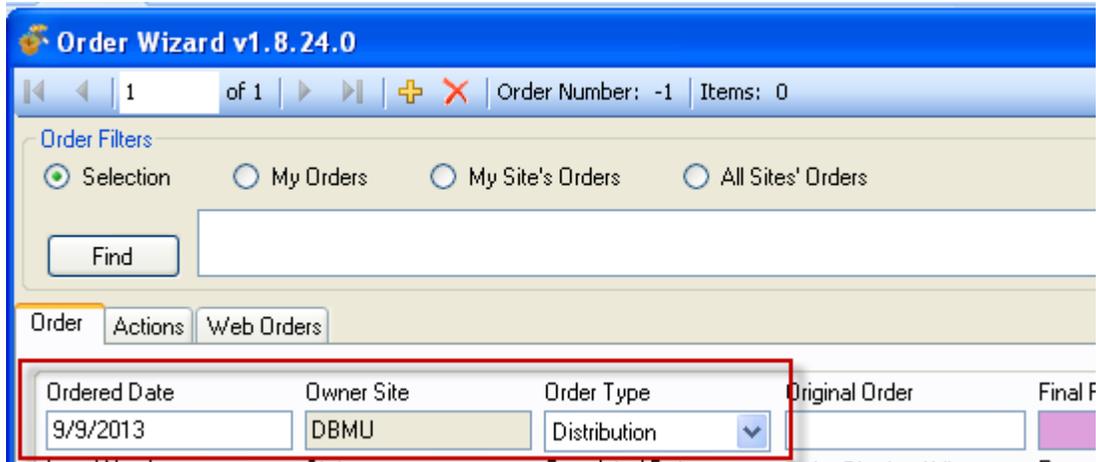
Step 2

On the navigation bar, click the **Add new** (plus sign) button to create a new order:



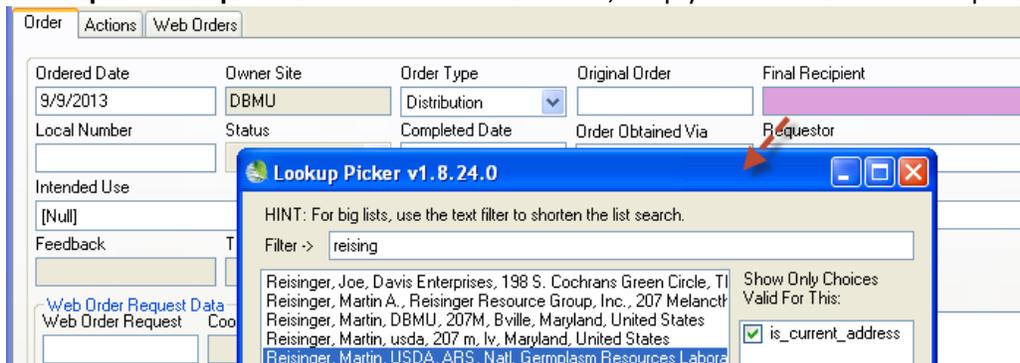
After you click the **Add new** button, the wizard automatically fills in the:

- **Ordered Date** (with the current date)
- **Owner Site** (with your site code based on your Curator Tool User ID)
- **Order Type** (with the order type **Distribution**)



Step 3

Complete the **Final Recipient** field – click in the field and type the first few characters. When you click **OK**, the **Requestor** and **Ship To** fields fill in automatically with the same cooperators. For orders where the **Ship To** or **Requestor** fields should be different, simply choose a different cooperator as appropriate.



Step 4

In the Order Wizard window, input the other fields, such as **Local Number**, **Special Instructions**, as needed.



The **Original Number** field is blank for all new orders. It is used when an order is split. It refers to the order request key field of the original (or "parent") order primary key field number.

(To be developed [tbd]): Two fields: **Feedback**, and **Total Cost** shown in some of these screen captures are not currently being used but are there as place holders awaiting future development.)

Step 5

There are multiple approaches that can be taken to assign inventory to the order. In the following sections, Step 5a through Step 5e, each approach will be described in further detail.

| Refer to Step | Approach | Description | | | | | | | |
|------------------|---|--|------------------|------------------|------------------|------------------|------------------|------------------|----------------|
| 5a | Input an Accession key, an Accession Name, or a Taxon in the Order Wizard's inventory Picker window | Use this approach when you know the desired Accession ID, Name, or Taxon information. The wizard's Inventory Picker will accept any one of these three fields. If there is a match, you then decide and select which inventory to apply to the order. | | | | | | | |
| 5b | Drag from the Search Tool grid, either accession records or inventory records | Dragging inventory records rather than accession records will give perform somewhat better because when selecting accessions the software does additional processing to select the inventory. | | | | | | | |
| 5c | Drag accession key(s) or inventory key(s) from a spreadsheet | <p>The accession key is comprised of three fields:</p> <table border="0"> <tr> <td>Accession Prefix</td> <td>Accession Number</td> <td>Accession Suffix</td> </tr> </table> <p>The wizard will interpret an inventory key based on the four fields:</p> <table border="0"> <tr> <td>Inventory Prefix</td> <td>Inventory Number</td> <td>Inventory Suffix</td> <td>Inventory Type</td> </tr> </table> | Accession Prefix | Accession Number | Accession Suffix | Inventory Prefix | Inventory Number | Inventory Suffix | Inventory Type |
| Accession Prefix | Accession Number | Accession Suffix | | | | | | | |
| Inventory Prefix | Inventory Number | Inventory Suffix | Inventory Type | | | | | | |
| 5d | Drag an accession record from the CT or the ST | The wizard will find all the inventory related to the accession and will highlight the inventory that is available and ready for distribution. | | | | | | | |
| 5e | Drag an inventory record from the CT or the ST | The wizard will create an order record using the inventory as the basis. | | | | | | | |

Step 5a

Use this approach when you know the Accession ID, Name, or Taxon information. The wizard will display related inventory. You then decide and select which inventory to apply to the order.

One example when this approach is handy is when you need to change what inventory (lots) are needed – for example, for a regeneration order (most of the lots will not be the distribution lots since you are going back to original seed or a previous parental lot).

Perhaps the easiest way to create new orders from the requestor's email using the Order Wizard may be to copy and paste the Accession ID into the Inventory Picker.

Order Wizard

First click the **Add New** icon (the Plus Sign) icon; click the **New Row** icon; then paste the Accession ID, Name, or Taxon into the **Inventory Picker** field. Select the desired inventory row from the Inventory Picker window and then click **OK**:

The screenshot shows the Order Wizard v1.8.28.0 interface. The main window displays a list of items with columns: Order Request Item ID, Order Number, Item Number, Accession, Inventory, Site, Requested Name, Requested Taxon, and Geograp. A 'New Row' button (2) is highlighted. An 'Inventory Picker' dialog box is open, showing a search for 'mar 73101' and a table of inventory items. The 'Accession Number' field (3) is highlighted, and the 'OK' button (5) is highlighted. A specific row in the inventory table (4) is highlighted.

| Inventory Prefix | Inventory Number | Inventory Suffix | Inventory Type | Site | Inventory Maintenance Policy | Is Distributable? | Is Av |
|------------------|------------------|------------------|----------------|------|------------------------------|-------------------|-------|
| mar | 73101 | 01 | SD | DBMU | Aronia | Y | N |
| mar | 73101 | rei | SD | DBMU | SYSTEM | N | N |
| mar | 73101 | rei | SD | DBMU | SYSTEM | N | N |
| mar | 73101 | re0905a | SD | DBMU | Aronia | Y | Y |
| mar | 73101 | re0906a | SD | DBMU | Aronia | Y | N |
| mar | 73101 | re0906c | SD | DBMU | Aronia | Y | N |

Step 5b: Dragging inventory or accession records from the Search Tool grid

Drag from the Search Tool grid, either accession records or inventory records

You can highlight records (inventory or accession) found in the Search Tool and drag them into the Order Wizard's grid:

The screenshot shows the GRIN-Global v1.8.33.0 interface. The main window is the Order Wizard, and a smaller window titled 'GRIN-Global Search v1.8.33.0' is overlaid on top. In the Search Tool window, the 'Basic Query' is 'Under Construction'. The search results are displayed in a table with columns: Inventory ID, Inventory Prefix, Inventory Number, Inventory Suffix, Inventory Type, and Accession. The table contains several rows of data, with the first row highlighted in blue. A red arrow points from the highlighted row in the Search Tool to the Order Wizard's main grid. In the Order Wizard, the search filters are set to 'My Users' and the search results are displayed in a table with columns: Order Request Item ID, Order Number, Item Number, and Accession. A red circle with the number 1 is on the search filters, a red circle with the number 2 is on the Search Tool's search results grid, and a red circle with the number 3 is on the Order Wizard's main grid.

| Inventory ID | Inventory Prefix | Inventory Number | Inventory Suffix | Inventory Type | Accession |
|--------------|------------------|------------------|------------------|----------------|-----------|
| 1043457 | PI | 589689 | .07 | PL | PI 589689 |
| 1044382 | PI | 590161 | .02 | PL | PI 590161 |
| 1044871 | PI | 132272 | .04 | PL | PI 132272 |
| 1045082 | PI | 158730 | .04 | PL | PI 158730 |
| 1046856 | PI | 600067 | .01 | SD | PI 600067 |
| 1046987 | PI | 600052 | .01 | SD | PI 600052 |
| 1046988 | PI | 600053 | .01 | SD | PI 600053 |

Dragging inventory records rather than accession records will give perform somewhat better because when selecting accessions the software does additional processing to select the inventory.

Order Wizard

Step 5c: Dragging accession or inventory keys from a spreadsheet

If you have one or more accession or inventory keys, you can drag them from a spreadsheet or Word doc into the grid area on the Order Wizard. The Order Wizard is capable of using the three fields of an accession key (accession_prefix, accession_number, and accession_suffix or the four fields of an inventory key (inventory_prefix, inventory_number, inventory_suffix, and inventory_type).

| | Accession Prefix | Accession Number | Acc Suf |
|---|------------------|------------------|---------|
| 3 | DPRU | 104 | |
| 7 | DPRU | 138 | |
| 9 | DPRU | 438 | |
| 1 | DPRU | 198 | |
| 8 | DPRU | 285 | |
| 2 | DPRU | 375 | |

Before dragging into the Order Wizard, click the Add new button in the Order Wizard:

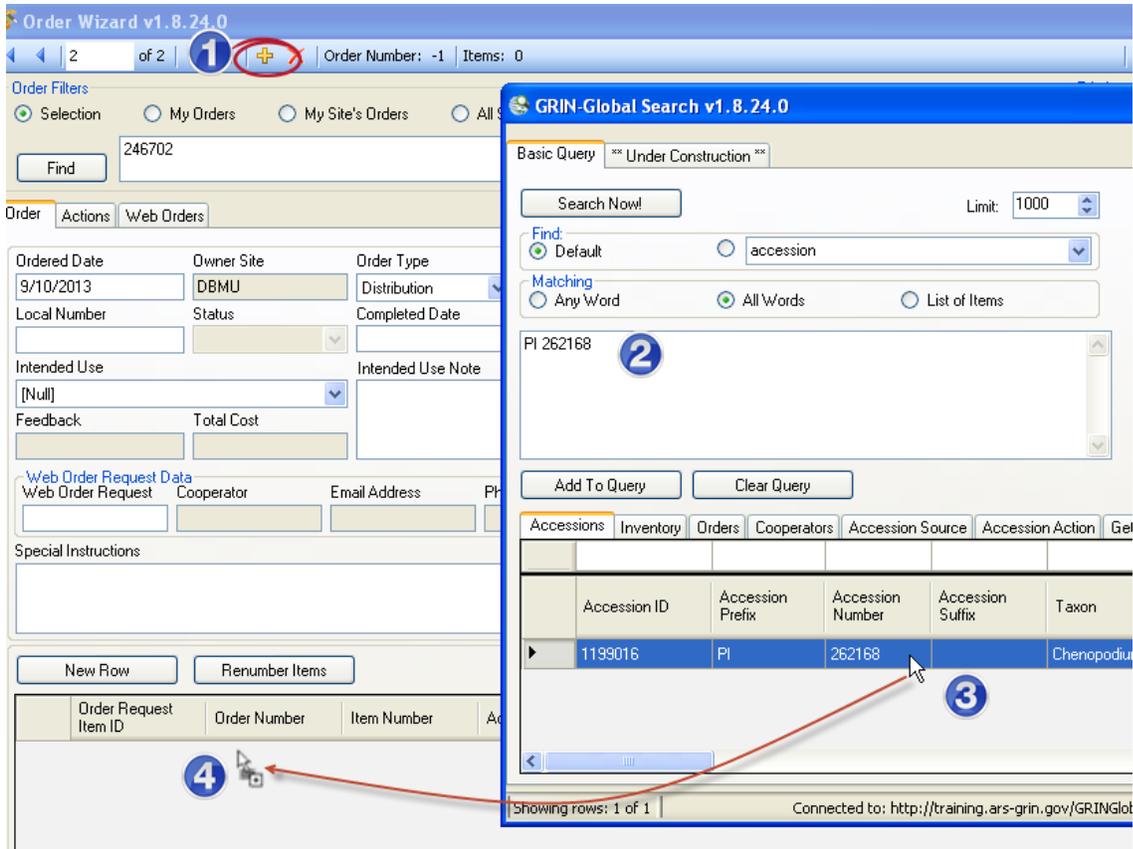
The screenshot shows the Order Wizard v1.8.28.0 interface. The top navigation bar includes a plus sign in a red circle, indicating the 'Add new' button. The main window is divided into several sections:

- Order Filters:** Includes radio buttons for 'Selection', 'My Orders', 'My Site's Orders', and 'All Sites' Orders', along with a 'Find' button and a search input field.
- Order:** Contains fields for 'Ordered Date' (9/15/2013), 'Owner Site' (DBMU), 'Order Type' (Distribution), 'Original Order', 'Final Recipient', 'Local Number', 'Completed Date', 'Order Obtained Via', 'Requestor', 'Intended Use' ([Null]), 'Intended Use Note', 'Ship To', 'Feedback', 'Total Cost', and 'Note'.
- Web Order Request Data:** Includes fields for 'Web Order Request', 'Web Cooperator', 'Email', and 'Primary Phone'.
- Special Instructions:** A text area for additional notes.
- Buttons:** 'New Row', 'Renumber Items', and 'Ship All Remaining Items'.
- Table:** A table with columns: Order Request Item ID, Order Number, Item Number, Accession, Inventory, Site, Requested Name, Requested Taxon, and Geography. The table contains 5 rows of data.

| Order Request Item ID | Order Number | Item Number | Accession | Inventory | Site | Requested Name | Requested Taxon | Geography |
|-----------------------|--------------|-------------|-----------|------------------|------|----------------|-----------------|----------------------|
| -1 | -1 | 1 | DPRU 104 | DPRU 104 0000... | DAV | Black Heart | Prunus avium | United States, N... |
| -2 | -1 | 2 | DPRU 138 | DPRU 138 PL | DAV | Merton Glory | Prunus avium | United Kingdom, ... |
| -3 | -1 | 3 | DPRU 438 | DPRU 438 0000... | DAV | Satsuma | Prunus salicina | United States, W... |
| -4 | -1 | 4 | DPRU 198 | DPRU 198 0000... | DAV | F8 15-37 | Prunus webbii | United States, Ca... |
| -5 | -1 | 5 | DPRU 285 | DPRU 285 PL | DAV | ELB-3-DHaploid | Prunus persica | United States, W... |

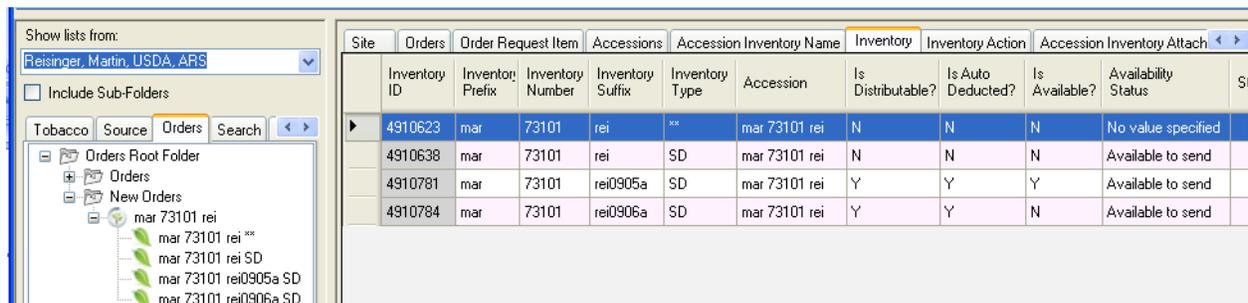
Step 5d: Dragging an Accession Row

Alternatively, you can select an Accession record via the Search Tool or from the CT, and then drag the accession into the Order Wizard grid. The program automatically chooses the best inventory to fill the order request (based on a set of programmed business rules) and then adds the appropriate inventory to the order.



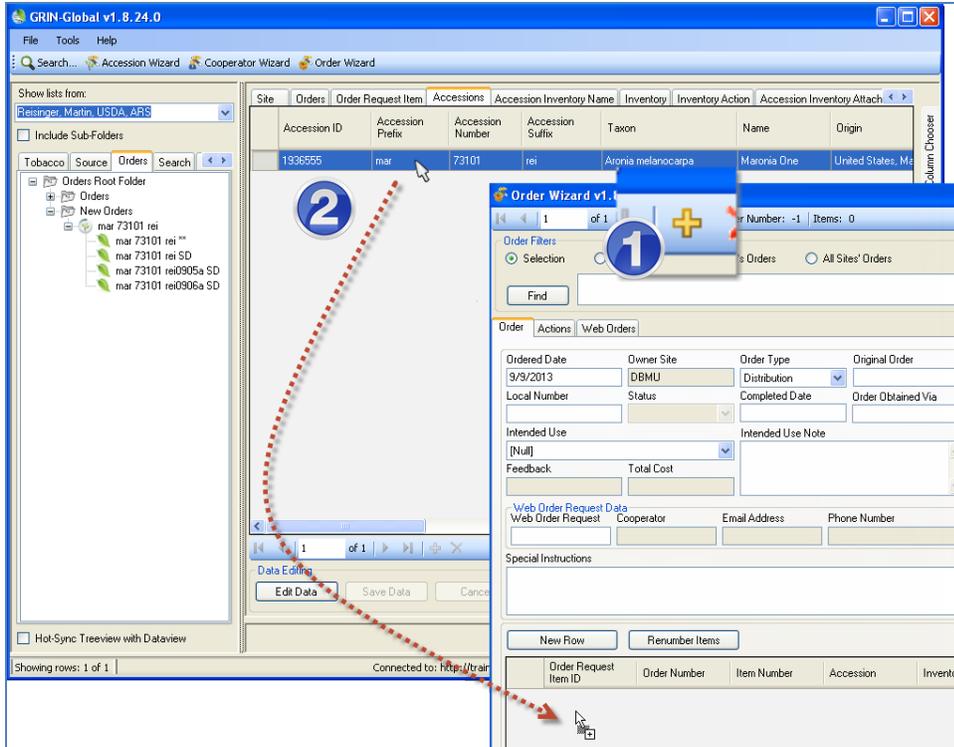
When coming from the CT, remember to drag the record from the grid, not the item from the list in the left panel.

In the following example, if the user dragged the accession record to the Order Wizard grid, which inventory would the wizard choose to use, since three of the four inventory records have a status of **Available to send**? (answer on next page)



Order Wizard

Answer: **inventory mar 73101 rei0905a SD** -- Why? Of the four inventory records, this is the only inventory record whose fields **Is Available?** and **Is Distributable?**



Step 5e: Dragging Inventory

You can also drag an inventory record *from the Curator Tool data grid* or the Search Tool grid to the Order Wizard grid in the Wizard window. The wizard will automatically fill in the order item details from the data stored in the inventory record.

When coming from the CT, remember to drag the inventory record from the grid, not the item from the list in the left panel.

Step 6: Including Order Actions

need to elaborate...

Step 7

Click the **Save** button to save your order. (If you are finished with adding records to the order, click on the or **Save and Exit** button

Step 8

Drag more inventory or accession records as needed to build the order items.



For all items in the grid, when the status is **Order item is new (NEW)** or **Order item is under processing (PENDING)** in the **Item Status** column, clicking on the **Ship All Remaining Items** button will change the status to **Shipped order item (SHIPPED.)**

Whenever the status is something other than **NEW** or **PENDING**, the **Ship...Items** button has no effect.

Also, any change to a item status automatically creates an **Order Action** record.

Step 9

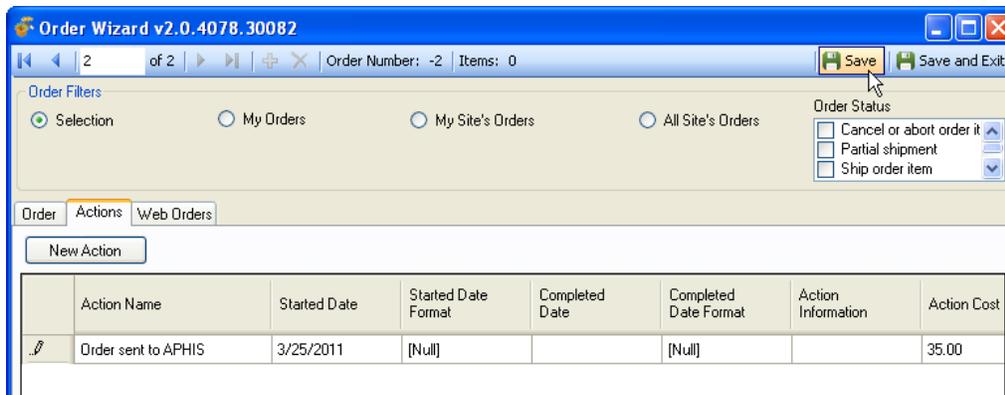
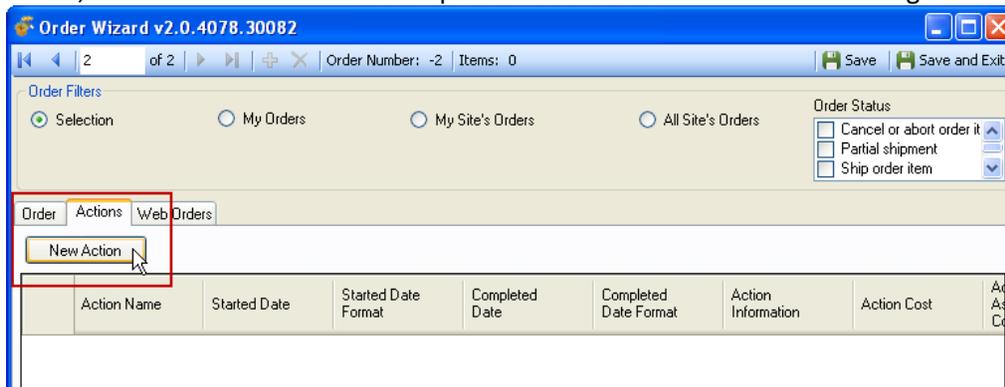
Click the **Save and Exit** button to save's your order and to exit the wizard.

Actions

Various actions may be applied to an order request; essentially the “action” is a snapshot in a moment in time indicating an order event that occurred. For example, a **New Order** action is automatically generated when the web order is converted to a standard order. Similarly, an action of Order Shipped is automatically generated when an order is shipped. In fact, when

Some of the action codes that come installed with GRIN-Global (which can be modified or supplemented) include: CANCEL, HOLD, and SHIPPED.

When an action is to be recorded for an order, use the Order Wizard’s **Actions** tab to update the order’s status; click on button and then complete and save the Action record in the grid:



[tbd]

Order shipped vs. Completed in-house order

Finding Existing Orders with the Order Wizard

The Order Wizard can be used to find existing orders for review or additional processing. You can start up the Order Wizard and input or paste the order number in the text box next to the **Find** button; click **Find**. Multiple order numbers can also be inputted or copied into the box.

Copying Existing Order Numbers into the Order Wizard

Copying these five cells from Excel...

| Order Request ID | Order |
|------------------|-------|
| 246702 | 9/5/ |
| 246703 | 9/5/ |
| 246707 | 9/6/ |
| 246712 | 9/6/ |
| 246723 | 9/9/ |

displayed this window:

Look closely at the list – the last order number in the list is 246723, which is the same number shown in the Find text box. The other numbers were also copied, but they are not visible unless you scroll up. Observe the navigation bar at the top. Notice that record 1 of 5 is currently displayed. The first number in the Excel list was the 246702 – so the wizard is simply displaying the first found record. Using the navigation bar to move through the records will show that the five were properly found.

Selecting Records before Starting the Order Wizard

The Order Wizard can be launched and used to display order details about selected Order Request records. Typically, before starting the Order Wizard, you may be viewing data in the Accession or Inventory dataviews. In order to see their related orders in the Order Wizard, consider creating a list of orders from the selected accessions or inventory records. In other words, you must have the Order Request dataview active to display orders in the Order Wizard.

Step 1: Select specific accession (or inventory records)

GRIN-Global v1.8.24.0

File Tools Help

Search... Accession Wizard Cooperator Wizard Order Wizard

Show lists from: Reisinger, Martin, USDA, ARS

Include Sub-Folders

Orders DStout Traits2 De

| Site | Orders | Order Request Item | Accessions | Accession Inventory Name | Inventory | Inventory Action | Accession Inventory Attach | Ir |
|--------------|------------------|--------------------|------------------|--------------------------|-------------------|------------------|----------------------------|----|
| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Name | Origin | | |
| 1563954 | PI | 131228 | | Prunus domestica | Prince Englebert | United Kingd | | |
| 1563959 | PI | 126882 | | Prunus domestica | Laxton's Gage | United Kingd | | |
| 1540615 | DPRU | 2404 | | Prunus domestica | Doneckaya Kons... | Latvia | | |
| 1612451 | DPRU | 2419 | | Prunus domestica | Sans Noyau | United State | | |
| 1226720 | PI | 300259 | | Prunus domestica | Poegaca | Netherlands | | |
| 1552545 | DPRU | 1839 | | Prunus domestica | Wagenheim Fruh... | Germany | | |
| 1552558 | DPRU | 1960 | | Prunus domestica | Timpurii Rivers | Romania | | |
| 1552559 | DPRU | 1963 | | Prunus domestica | Anna Spath | Romania | | |
| 1552560 | DPRU | 2006 | | Prunus domestica | T101 | Former Serbi | | |
| 1552561 | DPRU | 2011 | | Prunus domestica | W1 | Former Serbi | | |

Step 2: Make a List of these Accessions

GRIN-Global v1.8.24.0

File Tools Help

Search... Accession Wizard Cooperator Wizard Order Wizard

Show lists from: Reisinger, Martin, USDA, ARS

Include Sub-Folders

Orders DStout Traits2 De

| Site | Orders | Order Request Item | Accessions | Accession Inventory Name | Inventory | Inventory Action | Accession Invento |
|--------------|------------------|--------------------|------------------|--------------------------|------------------|------------------|-------------------|
| Accession ID | Accession Prefix | Accession Number | Accession Suffix | Taxon | Name | | |
| 1226720 | PI | 300259 | | Prunus domestica | Poegaca | | |
| 1563954 | PI | 131228 | | Prunus domestica | Prince Englebert | | |
| 1563959 | PI | 126882 | | Prunus domestica | Laxton's Gage | | |

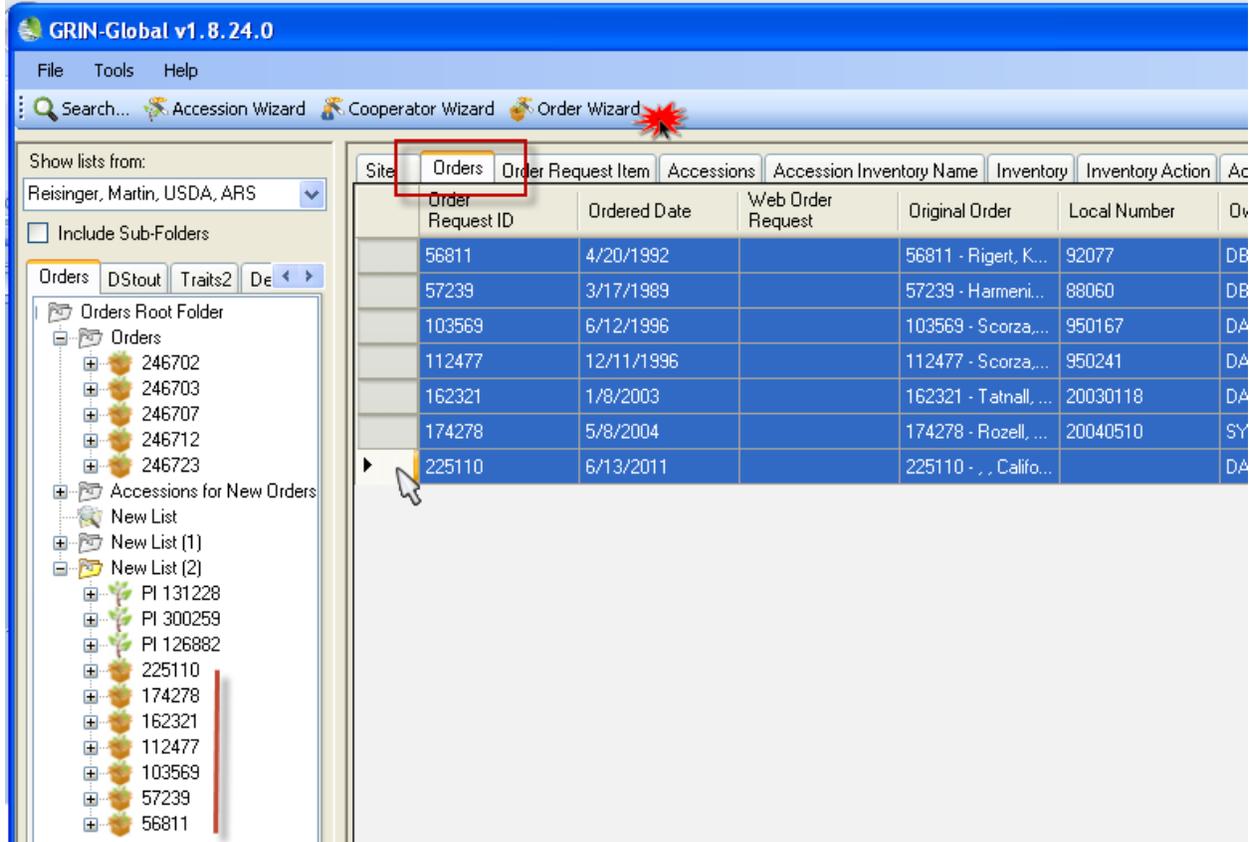
Orders Root Folder

- Orders
 - 246702
 - 246703
 - 246707
 - 246712
 - 246723
- Accessions for New Orders
 - New List
 - New List (1)
 - New List (2)
 - PI 131228
 - PI 300259
 - PI 126882

Order Wizard

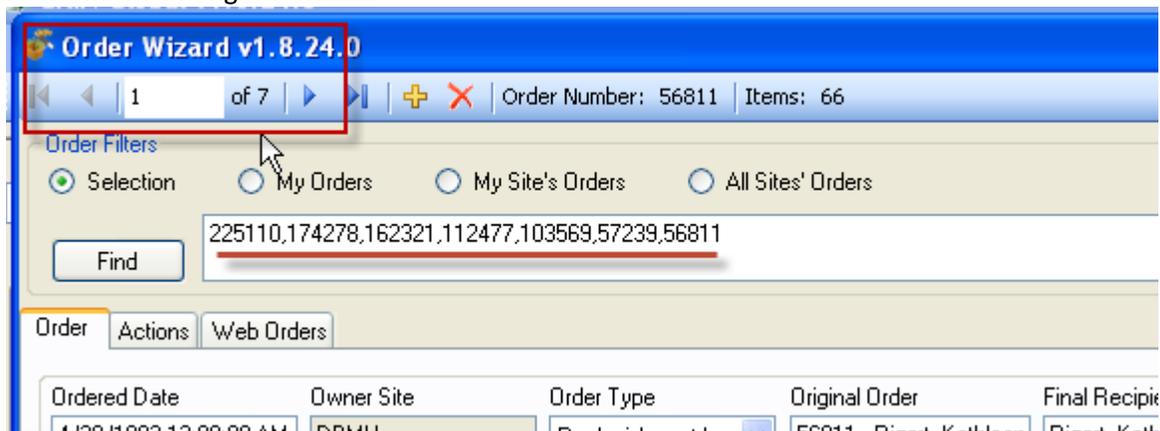
Step 3: Open the Order Request dataview

One option in this step is to consider creating a list of the orders. In any case, highlight the orders (build an order list if desired), and then click the Order Wizard button...



Resulting Order Wizard Window (when multiple orders have been selected):

The Order Wizard displays the first order. The remaining orders can be displayed by using the navigation bar to move among the orders.



Order Filters

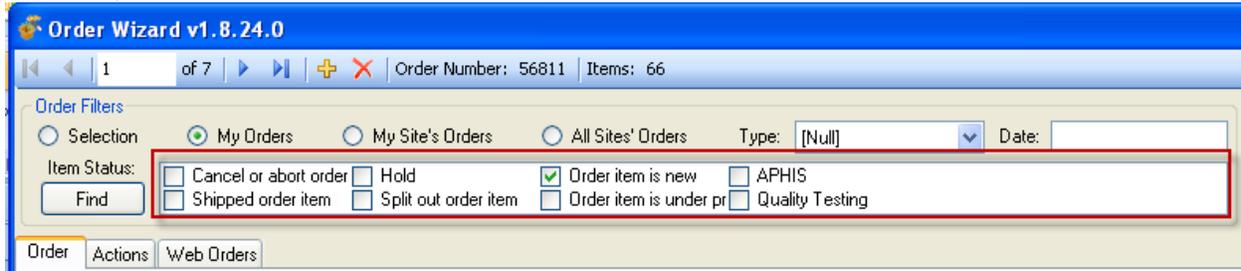
The Order Wizard has several available filters.

Selection

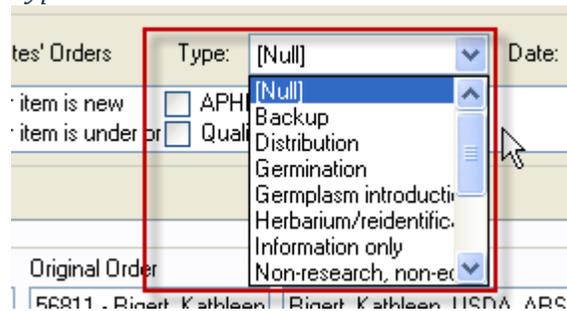
See the *Selecting Records before Starting the Order Wizard* section for details.

Radio Buttons: My Orders, My Site's Orders, and All Site's Orders

When any of these buttons are used, the Find box is filled with various Order *Item status* checkboxes.



Type

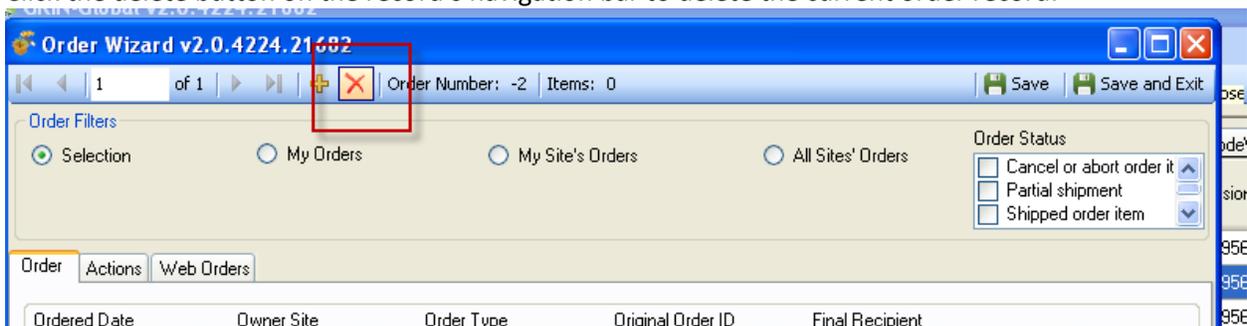


Date

Deleting Order Records and Order Items in the Wizard

Deleting an Order Record

Click the delete button on the record's navigation bar to delete the current order record:

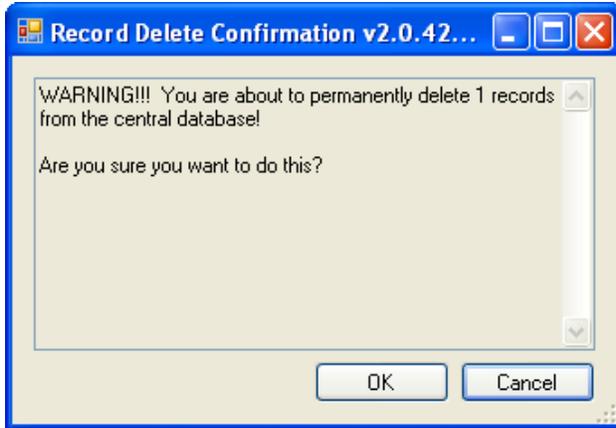


Deleting an Order Item

If you need to delete an order item, select the item's row (click on the left row header cell) in the order item grid at the bottom of the wizard window, and then press the keyboard's **Delete** key.

| | Order Item ID | Order Request | Item Number | Accession | Inventory | Item Name | Requested Taxonomy Name | Taxon |
|---|---------------|---------------|-------------|-----------|--------------------|-----------|-------------------------|-------------|
|  | 3 | -1 | 1 | PI 543956 | DPRU 1649 0000A.PL | Sun Crest | | Prunus dome |

Click **OK** to respond to the prompt:



Web Orders

Creating New Order Records from Web Orders Using the Wizard

Many of an organization's orders will be generated from the GRIN-Global Public Website. Use the Order Wizard to "convert" these web orders into GG order requests.

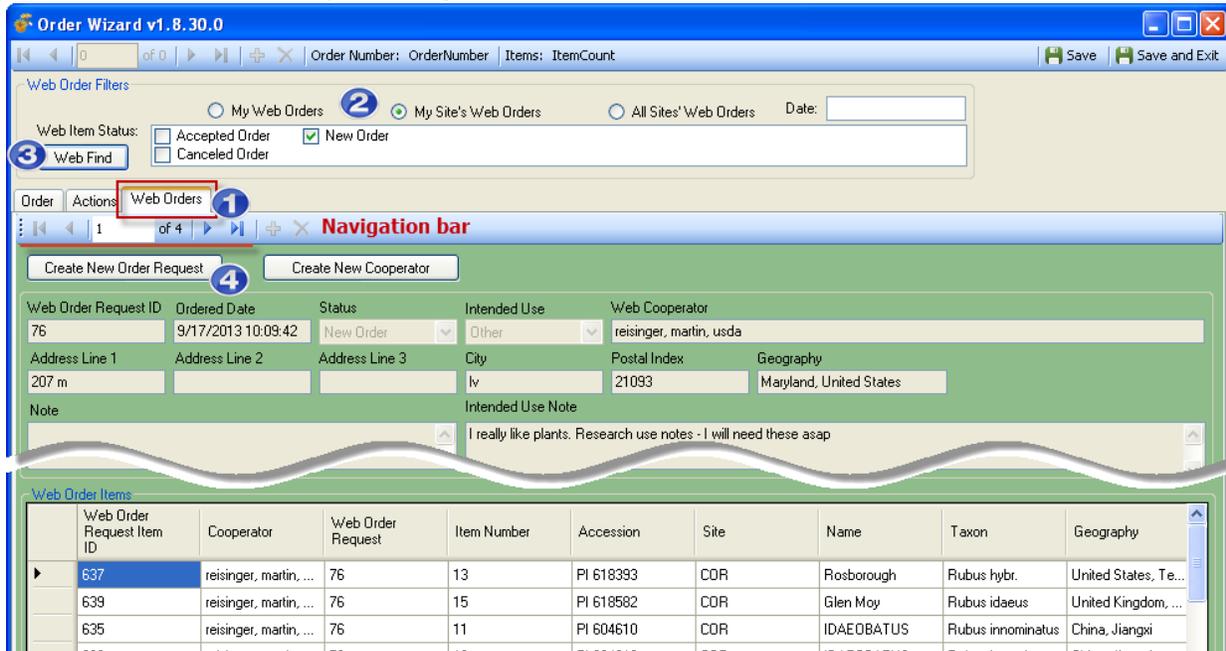
Step 1: Start the Order Wizard

1. Start the Wizard by clicking on the **Order Wizard** button:



Step 2

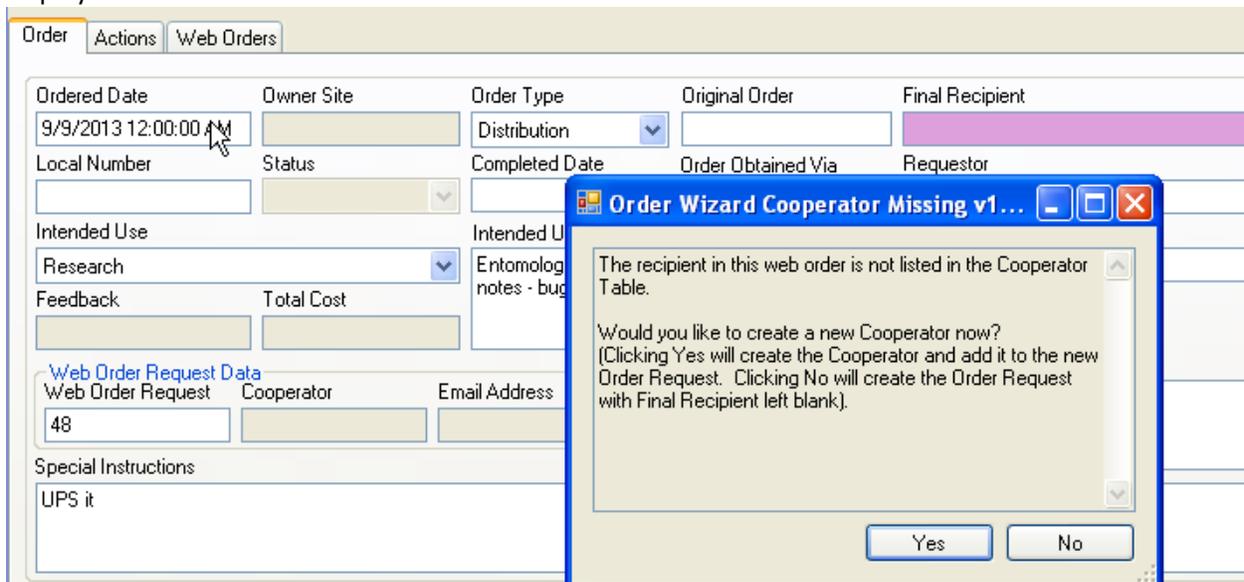
Click the **Web Orders** tab; select the pertinent radio button: (**My Web Orders**, **My Site's Web Orders**, or **All Sites' Web Orders**); for processing new orders select the **New Order** checkbox.



In the example above, there are four new web orders. The person using the Order Wizard can review each web order using the Navigation bar to move among the records and decide how to proceed – for example, there is a **Create New Order Request** button as well as a **Create New Cooperator** button.

Step 3

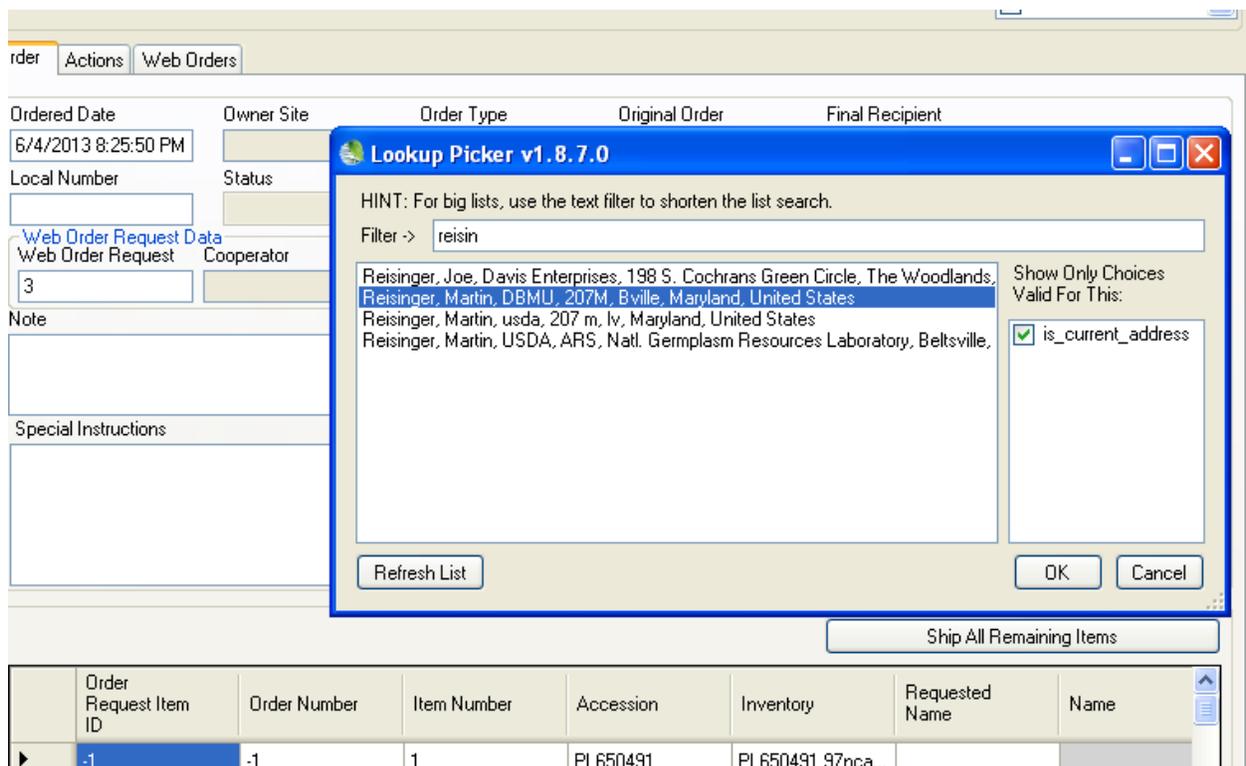
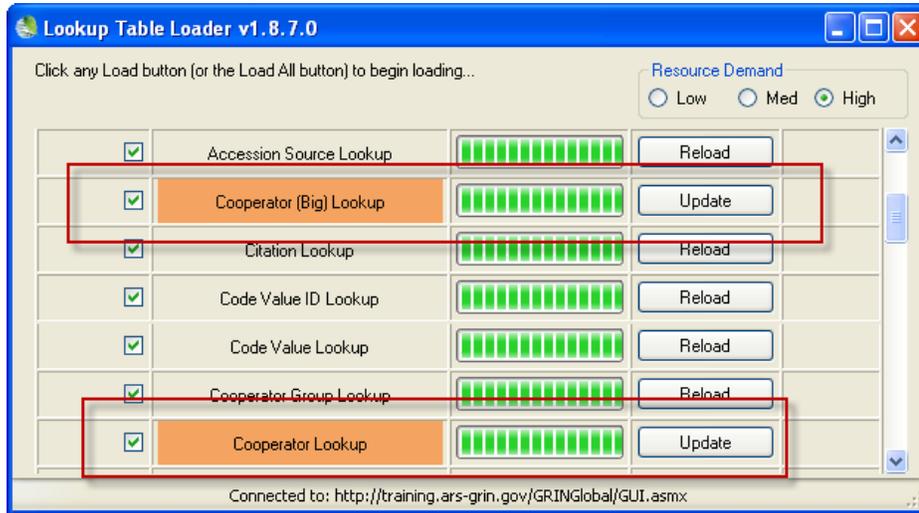
Click the **Create New Order Request** button to initiate a new GRIN-Global order request. If the incoming web order did not have a valid cooperator associated with it, the prompt to create a new cooperator will display:





If the **Create New Cooperator** button is clicked when processing the web order, you will have an opportunity to generate a standard cooperator from the user's web cooperator information.

(However, the lookup tables may need to be updated):



A blank **Final Destination** field is the result of answering **No** to the choice when prompted to create a new cooperator:

Splitting an Order

The screenshot shows the 'Order Wizard' interface. The 'Final Destination' field is highlighted with a red box. The interface includes fields for Order Date, Site, Order Type, Original Order Number, and Final Destination. There are also checkboxes for 'Cancel or abort order item', 'Partial shipment', and 'Ship order item'.

Note that **Final Destination** is a required field so it must be supplied to continue.

When answering with **Yes**, a new cooperator record is created and the **Final Destination** information is filled in:

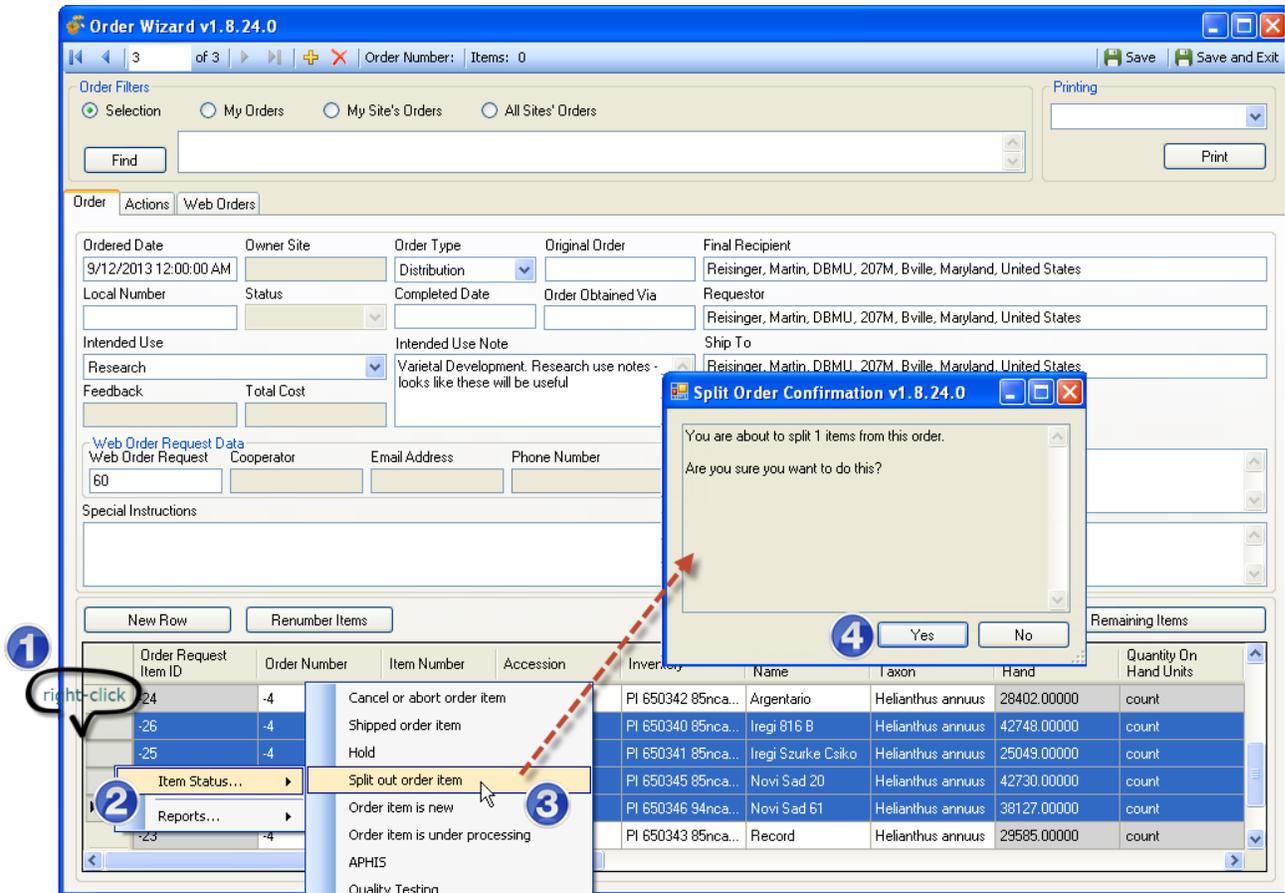
The screenshot shows the 'Order Wizard' interface with the 'Final Destination' field filled with 'Reisinger, Martin, DBMA'. The 'Ordered by' and 'Ship To' fields are also filled with the same name. The 'Final Destination' field is highlighted with a red box.

Splitting an Order

For various reasons you may need to split an order: some of the germplasm on the order may not be available so a decision is made to send what is ready and move the remaining unavailable germplasm to a new order (to be processed at a later date). Another reason (at least in the current system), is that an incoming web order that impacts multiple sites comes in on one order – a site could move its accessions from the incoming multiple order and create a new order for just their site's accessions.

How to Split an Order

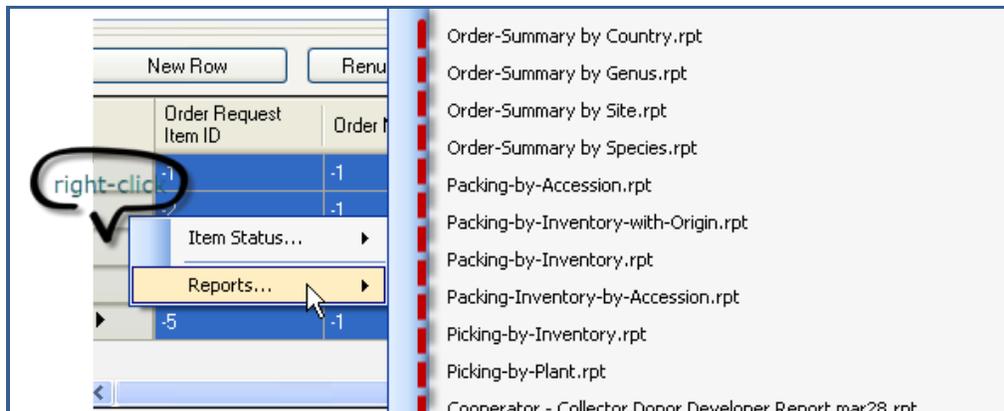
In the Order Wizard, select the order item(s); right-click. Select Item Status... then Split out order item; select **OK** on the **Split Order Confirmation** window.



Reports for Orders

(In development: the order reports will be on the Order Wizard screen in a dropdown)

Packing slips, picking slips, and other order-related reports may be launched from the Order Wizard grid. Select rows in the grid; right-click; click Reports..., and then select the desired report.



Cooperator Wizard

Use the Curator Tool’s Cooperator Wizard whenever you wish to add a new cooperator to the GRIN-Global database or edit an existing cooperator record. One advantage of using the wizard, rather than using the cooperator dataview, is that you can search the database before inputting a new cooperator.

Background Information

Note that there are two kinds of cooperator records:

- web cooperators
- “ordinary” GRIN-Global(GG) cooperators

We will always distinguish between the two types of cooperator records by including “web” when referring to “web cooperator records” and by stating only “cooperator records” when speaking of GRIN-Global cooperator records.

Web Cooperators

A user on the GRIN-Global public website has an opportunity to self-register – during this registration process the user’s contact information is stored in a *web* cooperator record. This web cooperator record is not the same thing as the GG cooperator record.

GRIN-Global Cooperator Records

In addition to the web cooperator records, GRIN-Global maintains cooperator records that are records containing data on individuals and organizations involved with germplasm activities (donors, collectors, breeders, requestors, etc.) Besides storing active address and organization data, cooperator records can be used to store historic data containing the previous addresses of a person or institution.

Also, all users of the GRIN-Global Curator Tool have a cooperator record. When the administrator adds them as Curator Tool users, a GRIN-Global cooperator record is also generated.



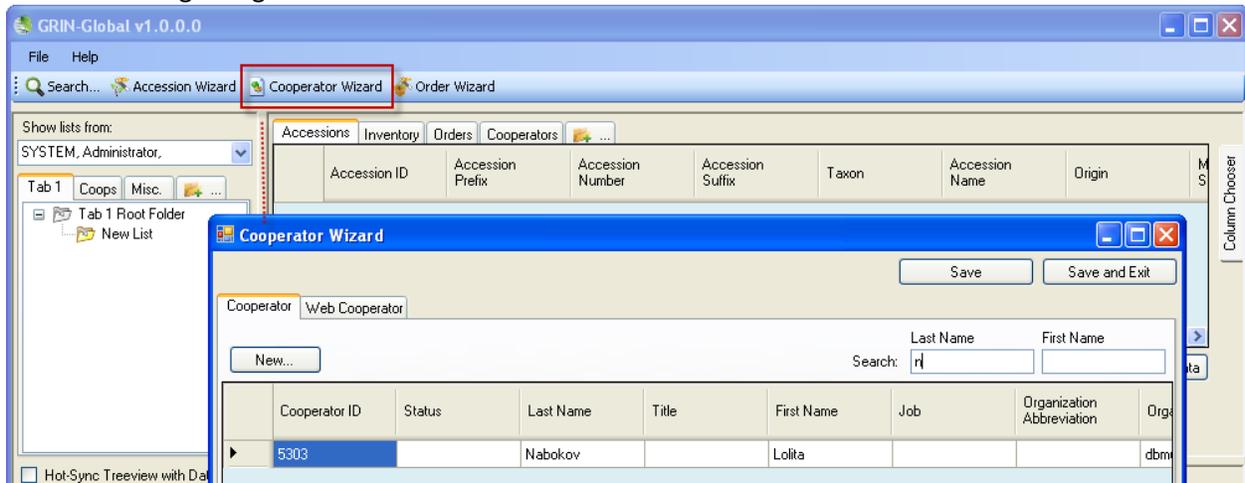
Whenever working with or searching cooperators or web cooperators, it is recommended that you update the cooperator lookup tables. Specifically, the three lookup tables are:

- Cooperator
- Cooperator (Big)
- Web Cooperator

Using the Curator Tool Cooperator Wizard

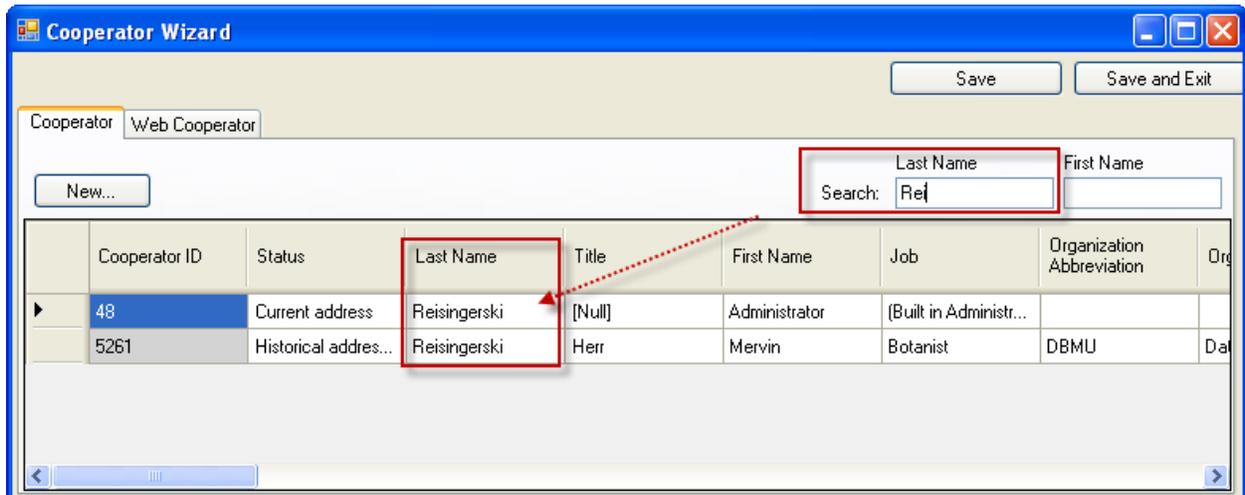
You can use the Cooperator Wizard to add new cooperators or edit existing ones. If you intend to edit an existing cooperator record, you can use the Cooperator Wizard to quickly locate the desired cooperator record. You can do this from any vantage point in the Curator Tool – you do not necessarily need to be in the cooperator dataview. In the following example, while the user had the **Accessions** dataview as the active dataview, he clicked on the **Cooperator Wizard** button and began searching for cooperators with

a last name beginning with “n”:



Search for an Existing Cooperator Record

In the example below, the user started inputting the first three letters of a person’s last name. As the user typed, the Curator Tool responded with several potential matches. As you type more characters, the search becomes more focused.



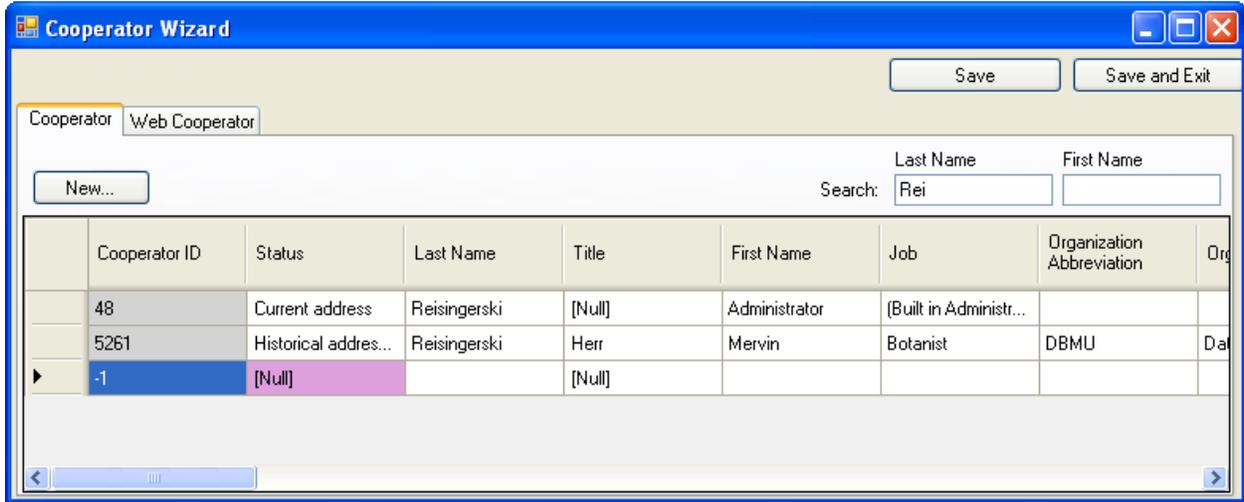
To Edit an Existing Cooperator Record

To edit the data, click in any cell in the displayed records. Make the changes, and then click either the **Save** or **Save and Exit** buttons.

To ignore any changes made, click the Window Close button (the red X in the top, right corner).

To Create a New Record

The cooperator wizard is fairly straightforward. Click on the **New...** button to create a new cooperator record. The wizard window starts a new row.



Required Fields

Input the data for the cooperator. Two cells are shown as required cell by their violet color, the **Status** and **Language** fields. In addition to those two fields, you must enter text in either the **Last Name** or the **Organization** fields.

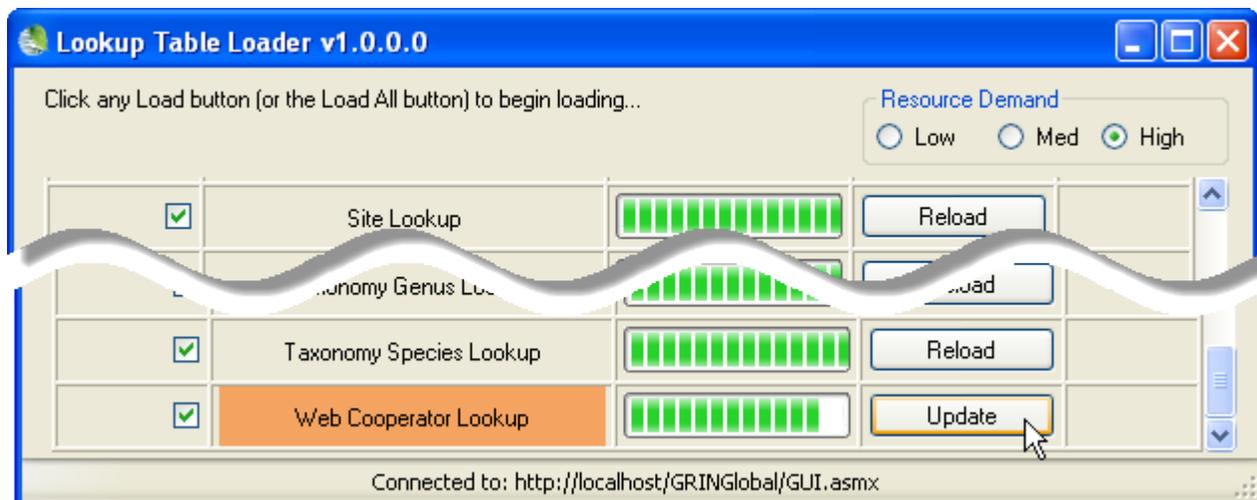
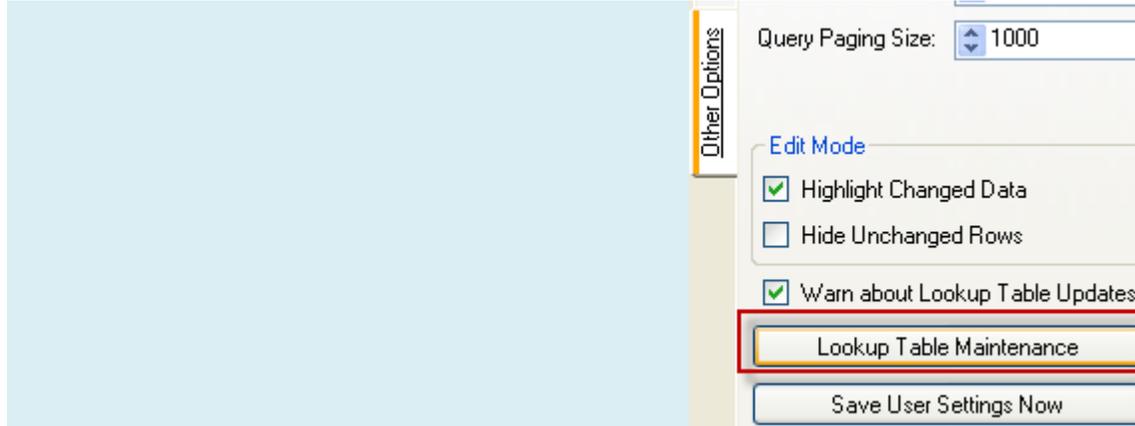
Web Cooperator Records

Users of the GRIN-Global Public Website can self-register; when they do their information becomes a web cooperator record. Each time they use the Public Website they can log in and then add items to their shopping cart.

This web cooperator record is also available to the Curator Tool's Cooperator Wizard. A curator or genebank employee with the responsibility can use the wizard to convert the Web cooperator record into a standard GRIN-Global cooperator record. They can do this via the Cooperator Wizard or via the Order Wizard also when processing an Order sent from the Public Website.

The incoming web order has a **Create New Cooperator** button.

However, before searching with the cooperator wizard, in the Curator Tool ensure that the three cooperator lookup tables are updated.

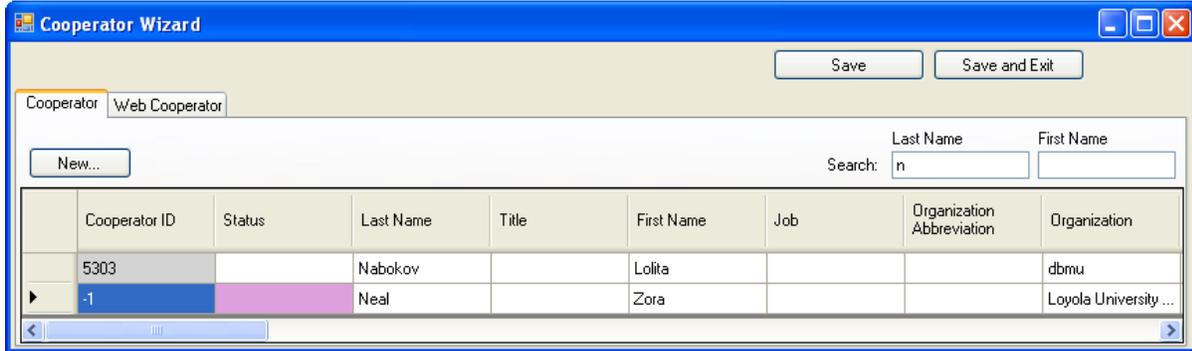


In the **Cooperator** wizard, when the desired cooperator records are found, select the row (or rows) of the desired web cooperator(s); click the **Create New Cooperator from Selection** button.

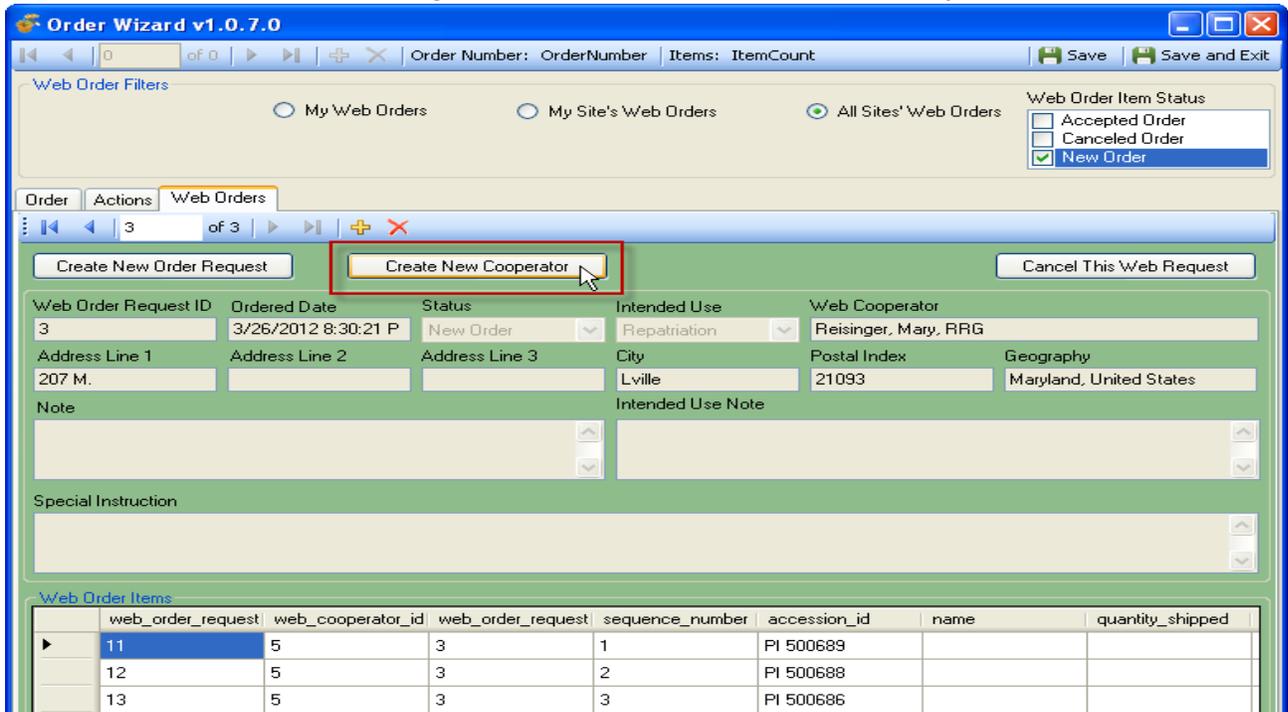


Cooperator Wizard

The wizard displays the **Cooperator** tab with the selected records. Edit / complete the record data as needed; select **Save** or **Save and Exit**.



In the **Order Wizard**, when reviewing Web Orders, click on the **Create New Cooperator** button.

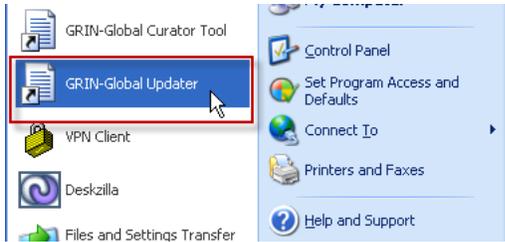


Updating the Curator Tool

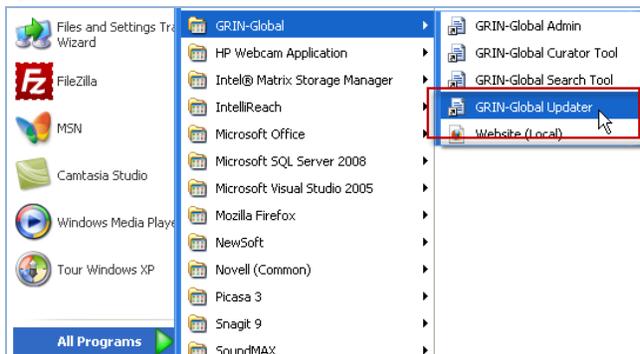
To ensure you have the current version of the Curator Tool, use the **GRIN-Global Updater** program. Click the Windows **Start** button. On the Start Menu's recent programs list, click on **GRIN-Global Updater**. If that selection is not displayed, click on **All Programs | GRIN-Global | GRIN-Global Updater**.



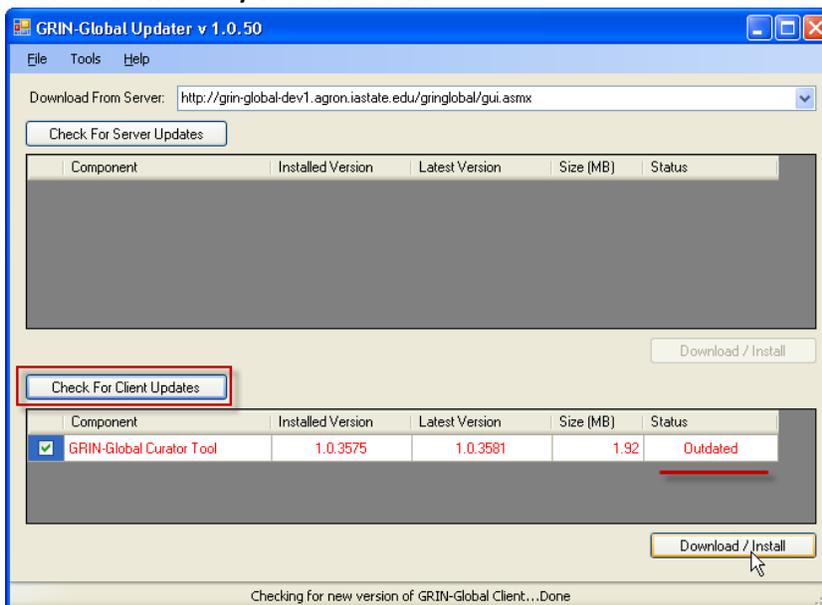
Complete Installation instructions for GRIN-Global Administrators are in the [Installation Guide](#).



-or-

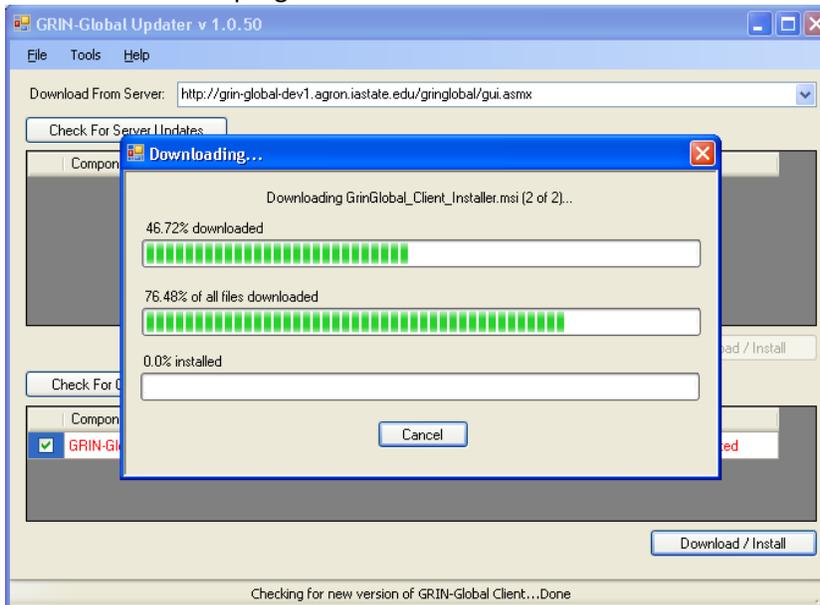


On the initial Updater window, click the **Check for Client Updates** button. If the Status is “Outdated,” click the **Download / Install** button.

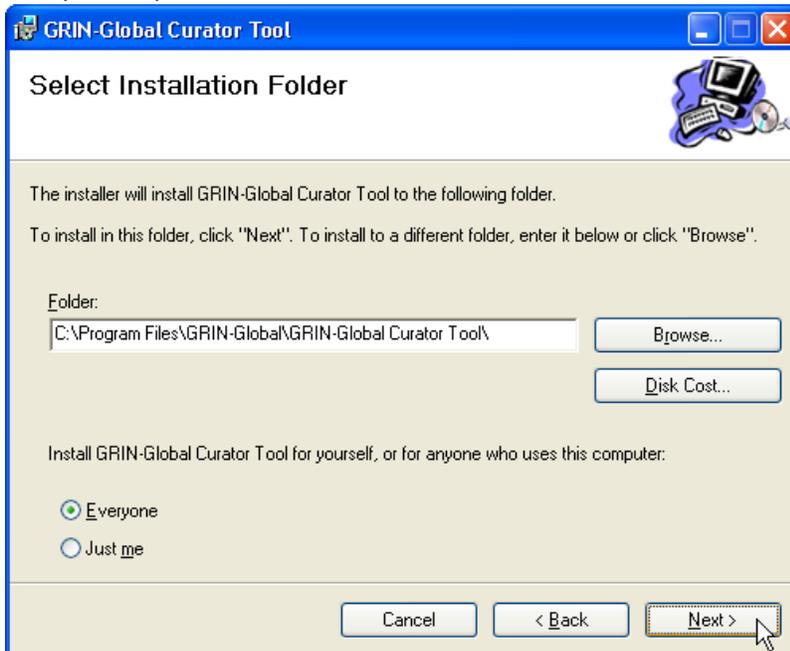


Updating the Curator Tool

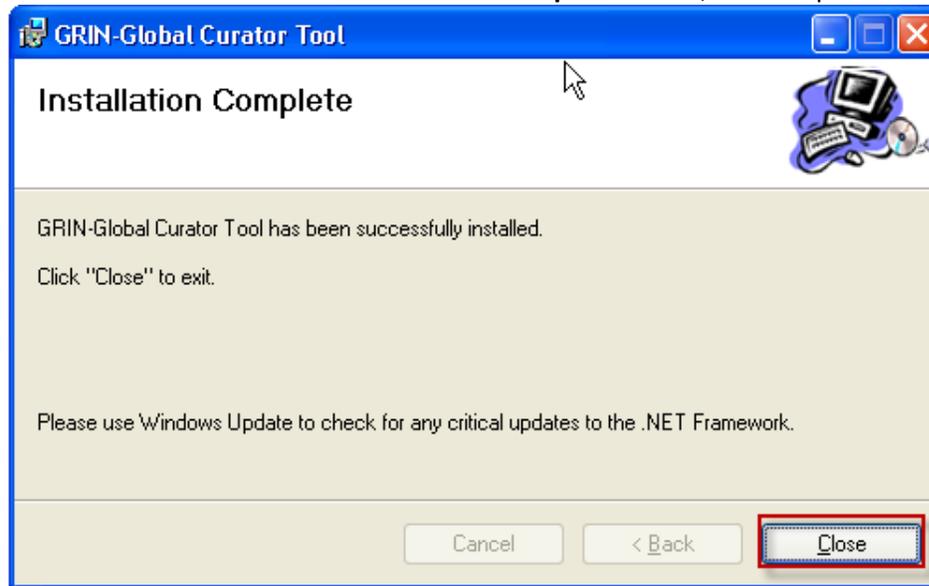
The Client Installer program will then download.



After the download completes, follow through with the installation wizard; you will be prompted by a series of screens to continue with the installation. On the Select Installation Folder screen, you can keep the default folder as listed or indicate a different location to store the Curator Tool. We recommend that you keep the folder information as it is listed.



Click the **Close** button on the **Installation Complete** screen; this completes a successful installation.



The Updater window will display the status for the Curator Tool as “Current.”

