

Assignment 2:

Hands-on Practice with the Curator Tool



Revision Date

October 18, 2023

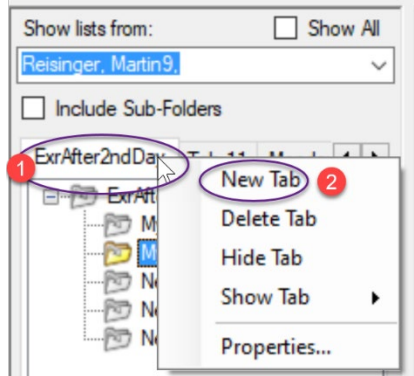
This exercise should be completed after attending the 2nd GRIN-Global webinar session.

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Searching the database

Create a new Tab

In the Curator Tool (CT), set up a new tab. Right click on an existing tab in the left, list panel.



Name the tab something – anything you prefer.

Searching the database

Open the Search tool. Search for a favorite genus of yours, such as *Humulus* or *Rubus*. Remember that the Taxon field expects a complete *Genus species*, so the genus by itself is not a complete entry for Taxon. Use a wild card with the genus, such as **Humulus%**.

Basic Query

Search Now!

Find: Default accession

Matching Any Word All Words List of Items

Search Criteria

@accession.taxonomy_species_id IN (454416, 415439, 19414, 19415, 415438, 415437, 415440, 415435, 415436, 316513, 317824, 316512)

Search Results

Add To Query Clear Query Limit: 10000

Accessions	Inventory	Orders	Cooperators	Get Crop	Get Crop Trait	Get Crop Trait Code Lang	Get Taxonomy Crop Map	Get Crop Trait Observ
						Humulus%		
Accession ID	Digital Object Identifier	Accession Prefix	Accession Number	Accession Suffix	Taxon	Name	Origin	Maintenance Site
1184		DNK	1718		Humulus lupulus	Carlsberg 9		AU-FOOD
1191		DNK	1751		Humulus lupulus	Homdrup		AU-FOOD
1192		DNK	1750		Humulus lupulus	2800 Lyngby		AU-FOOD
1193		DNK	1749		Humulus lupulus	Obtained		AU-FOOD



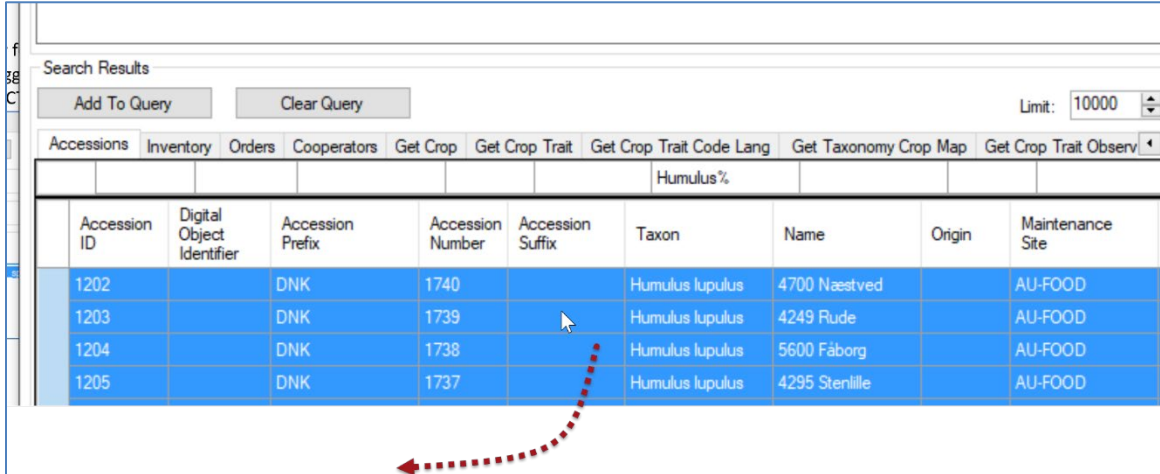
During this exercise, keep the Search Tool open. Minimize its window when you are not using it.

Build some folders

Build some folders

- a. In the CT, create / name a new list / folder **My Favs**.

In the Search Tool, find some accessions for the Taxon in which you are interested. Drag some or all of the records from the Search Tool (ST) to the **My Favs** folder icon in the CT.



Search Results

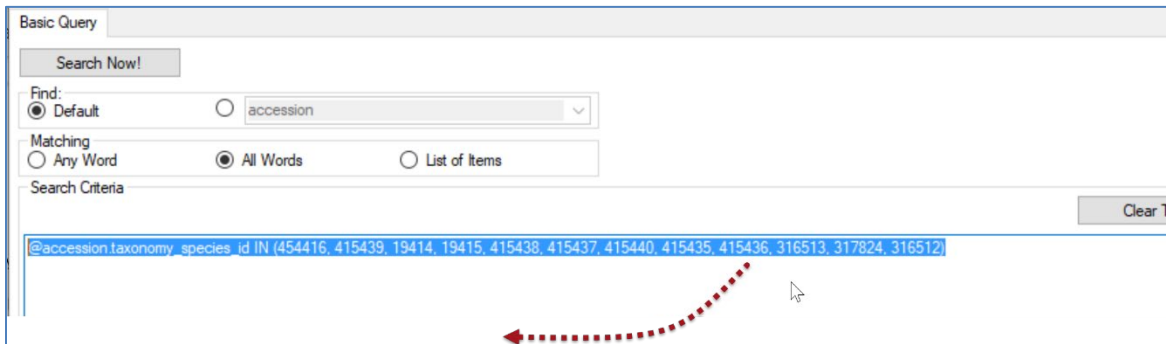
Accessions Inventory Orders Cooperators Get Crop Get Crop Trait Get Crop Trait Code Lang Get Taxonomy Crop Map Get Crop Trait Observ

Humulus%

Accession ID	Digital Object Identifier	Accession Prefix	Accession Number	Accession Suffix	Taxon	Name	Origin	Maintenance Site
1202		DNK	1740		Humulus lupulus	4700 Naestved		AU-FOOD
1203		DNK	1739		Humulus lupulus	4249 Rude		AU-FOOD
1204		DNK	1738		Humulus lupulus	5600 Fåborg		AU-FOOD
1205		DNK	1737		Humulus lupulus	4295 Stenlille		AU-FOOD

- b. In the CT, create / name another folder **My Dynamic Favs**.

Switch back to the Search Tool again – this time, instead of dragging the found records, drag the text (the code) from the Search Tool's large text box to the dynamic folder **My Dynamic Favs** in the CT.



Basic Query

Search Now!

Find: Default accession

Matching: Any Word All Words List of Items

Search Criteria

@accession.taxonomy_species_id IN (454416, 415439, 19414, 19415, 415438, 415437, 415440, 415435, 415436, 316513, 317824, 316512)

Build some folders



The Search box in the Search Tool is essentially the same as the search box on the Public Website. The Public Website sometimes uses additional coding, so the effects are not always *exactly* the same. However, you may find it handy to create a search criterion in the Search Tool, and then copy it to the Public Website. (You may even sometimes email this criterion to a public user, to assist them in their use of the PW.)

The screenshot shows the NPGS Search Tool interface. At the top, there is a navigation bar with links: Accessions, Descriptors, Taxonomy, View Cart, Reports, My Profile, About GRIN-Global, and Help. Below this is a breadcrumb trail: NPGS Home Page > Accessions > General. The search criteria section shows a search string: @accession.taxonomy_species_id IN (454416, 415439, 19414, 19415, 415438, 415437, 415440, 415435, 415436). The search results are displayed in a table with columns: Plant ID, Plant Name, Taxonomy, Origin, Material, and Maintained By. The results show three entries for Humulus lupulus: KL_1 (KitKat), TW_2 (Star), and KL_2 (Vulpecula).

Plant ID	Plant Name	Taxonomy	Origin	Material	Maintained By
KL_1	KitKat	Humulus lupulus		Seed	NORDGEN
TW_2	Star	Humulus lupulus		Seed	NORDGEN
KL_2	Vulpecula	Humulus lupulus		Seed	NORDGEN

Shown here is a partial window of results that for **Humulus%**

The screenshot shows a software application window with a menu bar (File, Tools, Help) and a toolbar with various wizards. The main window displays a table of accessions for Humulus lupulus. The table has columns: Accession ID, Digital Object Identifier, Accession Prefix, Accession Number, Accession Suffix, Taxon, and Name. The results show several entries for Humulus lupulus with accession numbers ranging from 1184 to 1204.

Accession ID	Digital Object Identifier	Accession Prefix	Accession Number	Accession Suffix	Taxon	Name
1184		DNK	1718		Humulus lupulus	Carlsberg 9
1191		DNK	1751		Humulus lupulus	Homdrup
1192		DNK	1750		Humulus lupulus	2800 Lyngb
1193		DNK	1749		Humulus lupulus	Ørbæk
1194		DNK	1748		Humulus lupulus	5762 Veste
1202		DNK	1740		Humulus lupulus	
1203		DNK	1739		Humulus lupulus	4249 Rude
1204		DNK	1738		Humulus lupulus	5600 Fåbor

Which of the folders on the previous page would be better for tracking a group of *specific* accessions?
(a) or (b)

Bulk adding of accessions

Bulk adding of accessions

By this, I mean creating new accessions by dragging rows from a spreadsheet to the Curator Tool.

The key points are:

- columns must be **identically spelled** in the CT and in the spreadsheet
- when adding new records, not all the columns need to be included, but the **ID column must be included**
- when **adding new** records, the cells under the **ID column** are **empty**
- when **updating existing** records, the ID column **is filled** with the corresponding IDs of the existing records
- the CT must be in edit mode when you drag the rows from Excel to the CT

Adding records:

Accession ID	Digital Object Identifier	Accession Prefix	Accession Number	Accession Suffix	Taxon	Name	Origin
		MAR	-1 RRG	Humulus lupulus	GREE		
		MAR	-1 RRG	Humulus lupulus	Golde		
		MAR	-1 RRG	Humulus lupulus	Golde		
		MAR	-1 RRG	Humulus lupulus	Golde		

Updating records:

Accession ID	Digital Object Identifier	Accession Prefix	Accession Number	Accession Suffix	Taxon	Name	Origin
50306		MAR	1 RRG	Musa acuminata	MARTYGOLD		
50309		MAR	2 JNH	Humulus lupulus	OLIVERGOLD U		
50323		MAR	3 RRG	Humulus lupulus	Marty's Gold		



Practice!

Drag and Drop

Practice *adding* a set of (~ 10 or so?) Accession records from a spreadsheet at one time. Remember when adding the new accessions from the sheet to the CT that you will include the **Accession ID** heading, but the IDs will be empty.

- You might consider using the Search Tool to find Accessions from which you can use to model your new accessions. You can drag one or more Accessions from the Search Tool to a spreadsheet.
- In the spreadsheet, modify some of the fields – don't worry about the audit fields (or any gray fields). Be sure to include the field **Is Web Visible?** and indicate with **Y** for the column.
- Drag the spreadsheet records to the CT, and drop in the datagrid in the right panel.
- Open a browser window and use the URL: <https://training.ars-grin.gov/gringlobal/search> to search for one of your new accessions. Example:

Select the tab for the type of search. Each tab has everything you need to do to perform that type of search.

Return up to

(Results of more than 500 will not return images.)

The more information you provide, the better the search will be.

Scientific name (any part)

System Inventory Records

When you switch from the Accession dataview to the inventory dataview, you will see system inventory records that are needed by the CT. However, since they are not meaningful to the CT user, they can be hidden.

If you have a folder with a list pointing to Accessions records, and then switch to the inventory dataview, try hiding the system inventory records. What do you do to hide them? (answer on the next page)

System Inventory Records

Hint:

Inventory ID	Inventory Maintenance Policy	Accession	Inventory Prefix	Inventory Number	Inventory Suffix	Inventory Type	Invento Maintainer Site
1028	DNK_CL_N/A_N/A_N/A	DNK 1748	DNK1748	1	1	CL	AU-FOO
1031	DNK_CL, N/A N/A N/A	DNK 1749	DNK1749	1	1	CL	AU-FOO
3256	SYSTEM	DNK 1737	DNK	1737		**	AU-FOO
3258	SYSTEM	DNK 1738	DNK	1738		**	AU-FOO
3259	SYSTEM	DNK 1739	DNK	1739		**	AU-FOO
3262	SYSTEM	DNK 1740	DNK	1740		**	AU-FOO
3265	SYSTEM	DNK 1741	DNK	1741		**	AU-FOO

Right-click in the field **Inventory Type** field; select **Hide rows...**

Inventory Prefix	Inventory Number	Inventory Suffix	Inventory Type	Invento Maintainer Site
DK1748	1	1	CL	AU-FOO
DK1749	1	1	CL	AU-FOO
DK1750	1	1	CL	AU-FOO
DK1751	1	1	CL	AU-FOO
DK	1718		**	AU-FOO
DK	1737		**	AU-FOO
DK	1738		**	AU-FOO
DK	1739		**	AU-FOO
DK	1740		**	AU-FOO
DK	1741		**	AU-FOO

Other Options Column Chooser

1

Show only rows with this data

Hide rows with this data

2

Reset row filter

Security Wizard...

Name Groups

- e. Leave the browser window open, but return to the CT and edit the records in the CT. Change at least one of the accession to have its **Is Web Visible?** column unchecked (not selected) and return to the Public Website to see what effect this has. What effect does it have?

Name Groups

To simplify the discussion of adding a Name record, we never really discussed the **Name Group** field. Let's explore that now. Here's an example of one Name Group used in the USDA database:

The screenshot shows a search interface with the following elements:

- Search Now!** button
- Find:** Default, accession
- Matching:** Any Word, All Words, List of Items
- Search Criteria:** @name_group.group_name = CIMMYT
- Search Results:** Add To Query, Clear Query, Limit: 100, Page Size: 1000
- Table Headers:** Accession, Get Accession Action, Get Accession Inventory Name, Inventory, Cooperator, Orders, Get Crop Trait, Get Inventory Action, Get, Show All C
- Table Data:**

Accession Inventory Name ID	Accession	Inventory	Category	Name	Name Rank	Name Group	Cooperator
18781	Ames 24615	Ames 24615 **	Donor identifier	GUAT 897	60	CIMMYT	
19262	Ames 24605	Ames 24605 **	Donor identifier	CAMP 77	60	CIMMYT	
19419	Ames 24608	Ames 24608 **	Donor identifier	CHIH 23	60	CIMMYT	
20106	Ames 24606	Ames 24606 **	Donor identifier	CHIS 46	60	CIMMYT	
31443	Ames 24610	Ames 24610 **	Donor identifier	COAU 55	60	CIMMYT	

In this example, these records are the names for accessions that came from the CIMMYT genebank. When creating a new **Name** record, the **Name Group** field is selected from a Lookup Table. That means then that a table of Group Names is being used for this field, so you cannot simply enter anything. You must use an existing **Name Group**.

The document, **Grouping Summary Guide**, summarizes several ways to group records in GG including these Name Groups. See https://www.grin-global.org/docs/gg_grouping_summary.docx

On page two I summarized what Name Groups are typically used for: "Name Group can be used to group plant names. An accession inventory name can belong to just one group..."



Practice! (Easy to do!) Explore making a **Name Group**. Use the document mentioned above. Create a new **Name Group** record. Then use it while making a **Name** record. If initially the name doesn't display in the Lookup Picker window, use the Refresh button and it should display then.

I'll discuss grouping later, and show another way to group accessions which I think is more useful than Name Groups for grouping accessions easily for Public Website users.

Inventory



Practice! Back to something said earlier. Try deleting the **Accession** record for which you had created the **Name** record. ...You can't!

Inventory

The complete Inventory Guide is online at https://www.grin-global.org/docs/gg_inventory.docx

Some bullet points here:

- every accession has at least one inventory record; this record is referred to as the system inventory record. It *does not represent a physical inventory lot*, such as a jar of seeds.

When a new accession record is created, the accession's system inventory record is also created.

- system inventory records always have the same **Type** field: **
- every inventory identifier must be a unique combination of 4 fields:
 - **Prefix**
 - **Number**
 - **Suffix**
 - **Type**
- An accession may have several (or even many) inventory lots – there is no limit. But always keep in mind the rule immediately above...

Examples:

Inventory ID	Inventory Maintenance Policy	Accession	Inventory Prefix	Inventory Number	Inventory Suffix	Inventory Type	Inventory Maintenance Site	Is Default Inventory?	Is Auto Deducted?	Is Available?	Availability Status
240696	SYSTEM	MAR 35 RRG	MAR	35	RRG	**	NORDGEN	N	N	N	No value specified
240704	MAR-HOPS	MAR 35 RRG	MAR	35	RRG	CT	NORDGEN	Y	N	Y	Available
240719	Barley_MFL	MAR 35 RRG	MAR	35	RRG	SD	NORDGEN	N	N	Y	Available
240720	MAR-HOPS	MAR 35 RRG	MAR	35	RRG.2	SD	NORDGEN	Y	Y	Y	Available

Search Results

Add To Query Clear Query Limit: 200 Page Size: 100

Accessions **Inventory** Orders Cooperators Get Crop Get Crop Trait Get Crop Trait Code Lang G Show All Columns

Inventory ID	Inventory Prefix	Inventory Number	Inventory Suffix	Inventory Type	Accession	Inventory Maintenance Policy	Inventory Maintenance Site
32	DNK201	1	1	CL	DNK 201	DNK_CL_N/A_N/A_N/A	PMT
1263	DNK201	1	2	CL	DNK 201	DNK_CL_N/A_N/A_N/A	PMT

Inventory Maintenance Policy

In a few minutes you will create several inventory records for at least two of your accessions. However, before you can do that, you need to understand the role of the Inventory Maintenance Policy...

One of the inventory record's required fields is the **Inventory Maintenance Policy**. Before you create an inventory record, you must decide on what **Inventory Maintenance Policy** you will use. In the current database, some of these policies exist – you could use one of them. But it would be better if you didn't, but instead create your own policy.

An important rule to remember in GG is that whoever owns the policy record, when it is used in creating the new inventory record, will also be the owner of the inventory record. Why was this designed to work this way?

Think of this case – as the curator, you may have many technicians, students, or perhaps even volunteers who may be cleaning and counting seeds and in turn creating GG inventory records. As the curator you may want them to do that, and also create the corresponding inventory records, in the database. But later you will want to control these records and be able to edit the records. (Later we'll discuss ownership and permissions in detail.)

All that said, for this exercise you should create your own **Inventory Maintenance Policy** (IMP) record; otherwise, use an existing policy. Unless you use your IMP, *you will not own the new inventory record.*

Think of a policy as nothing more than a template for creating a *new* inventory record. You might expect the policy (because of the word “policy”) to continue to control the inventory record, but after the inventory has been created, the policy basically no longer impacts the inventory record.

Inventory Maintenance Policy

From page 14:

An **Inventory Maintenance Policy** record (shown here with the red letters) will fill in the respective fields in the new inventory record when the inventory record is saved.

Inventory Maint Policy ID	Maintenance Name	Form Type	Quantity On Hand Units	Web Availability Note	Is Auto Deducted?	Distribution Default Form	Standard Distribution Quantity	Unit of Distribution	Distribution Critical Amount	Replenishment Critical Amount	Regeneration Method
1	SYSTEM	**	[Null]	A	B	C	D	E	F	G	[Null]
690	Humulus-RRG-SD	SD	count		<input checked="" type="checkbox"/>	SD	25.00000	count	2000.00000	5000.00000	[Null]
691	Humulus-RRG-CT	CT	count	Cuttings are seasonally available.	<input checked="" type="checkbox"/>	CT	5.00000	count	20.00000	50.00000	[Null]
692	Humulus-RRG-IV	IV	count		<input checked="" type="checkbox"/>	IV	3.00000	count	10.00000	20.00000	[Null]

Accession	Inventory Maintenance Policy	Inventory Maintenance Site	Is Default Inventory?	Is Auto Deducted?	Is Available?	Availability Status	Status Note	Quantity On Hand	Standard Distribution Quantity	Quantity On Hand Units	Standard Distribution Form	Unit of Distribution	Distribution Critical Amount	Replenishment Critical Amount
1 RRG	SYSTEM	NC7	N	N	N	No value specified								
1 RRG	Humulus-RRG-SD	NC7	N	Y	Y	No value specified		7500.00000	25.00000	count	SD	count	2000.00000	5000.00000
1 RRG	Humulus-RRG-CT	NC7	Y	Y	Y	Available		50.00000	50.00000	count	CT	count	20.00000	50.00000
1 RRG	Humulus-RRG-SD	NC7	Y	N	Y	Available		8000.00000	25.00000	count	SD	count	2000.00000	5000.00000

(Web Availability Note not shown in the second graphic, but that field would be empty in this example since the corresponding policy has an empty Web Availability Note field.)

Some more bullet points on inventory:

- It is now possible in GG for the Public Website user to select a preferred inventory form when more than one form is available. (This was a fairly recent change to GG.)

Query Criteria:
Search String: mar 35 rrg

Search For: Help Display: Help

Accessions: Include unavailable Include HISTORIC With images With NCBI link With genomic data

Advanced Search Criteria Return up to accessions

Alternative Search method using a list of accession identifiers Help

Actions...
Select: All, None, Inverse, Highlighted Options: Show items << < of 1 >> Export...

Group By:
 Plant ID Plant Name Taxonomy Origin Material Maintained By Availability

MAR 35 RRG Humulus lupulus **Cutting Seed** NORDGEN Add to Cart

- In future releases, GG will most likely be modified to handle seasonal date restrictions, and possibly allow the user to select from inventory when multiple lots of the same type are available for the accession. For example, one accession may be growing in the field and has several plants. Some curators might want to make each individual plant available for cuttings
- Inventory is only considered available when two fields on the inventory record are = "Y"*
 - Is **Default Inventory?**
 - Is **Available?**

Inventory Maintenance Policy

Inventory ID	Inventory Maintenance Policy	Accession	Inventory Prefix	Inventory Number	Inventory Suffix	Inventory Type	Inventory Maintenance Site	Is Default Inventory?	Is Auto Deducted?	Is Available?	Availability Status
240696	SYSTEM	MAR 35 RRG	MAR	35	RRG	**	NORDGEN	N	N	N	No value specified
240704	MAR-HOPS	MAR 35 RRG	MAR	35	RRG	CT	NORDGEN	Y	N	Y	Available
240719	Barley_MFL	MAR 35 RRG	MAR	35	RRG	SD	NORDGEN	N	N	Y	Available
240720	MAR-HOPS	MAR 35 RRG	MAR	35	RRG.2	SD	NORDGEN	Y	Y	Y	Available



Practice! Create at least one **Inventory Maintenance Policy** record.
Create several **Inventory** records for your accessions.



Make a folder. Drag your **Inventory Maintenance Policy** record to the folder. Then, on the right grid, switch to the accession and then to the inventory dataviews. Note what records are listed.

GRIN-Global v1.9.9.7

File Tools Help

Search... Accession Wizard Cooperator Wizard Crop Trait Wizard Inventory Attachment Wizard Order Wizard

Show lists from: Show All
Martin A., Reisinger Resource Group, Inc.

Include Sub-Folders

NRRs COTTON Barbi1 MIAMI

Barbi1 Root Folder

- New List
- PI 106941
- New List (2)
- AVOCADO
- AVOCADO-MIA
- AVOCADO invs
- New List (4)

Get Site	Accessions	Get Accession Pedigree	Get Cooperator	Inventory	Get Order Request	Get Order Request
Accession ID	Accession Prefix	Accession Number	Accession Suffix	Taxon	Name	
1090397	MIA	24622		Persea americana	BROOKSVIL	
1127606	PI	99805		Persea americana	Arue	
1209424	PI	281755		Persea americana	Chapultepec	
1209541	PI	281922		Persea americana	Borrego	
1709265	PI	317876		Persea americana	Roatan	
1727834	MIA	36124		Persea americana	Baldemar	
1089825	MIA	24252		Persea americana		



To expedite your response time, consider setting a Limit of 100 or 500 records before doing the following exercises since this is just practice.

GRIN-Global Search v1.9.6.41

Basic Query

Search Now!

Limit: 500

Find: Default accession

Matching: Any Word All Words List of Items

Search Criteria

Clear Text

Do the following:

- Using the **Inventory** tab, use the **Inventory Status** field, and search for records whose status is "Not available."

Inventory Maintenance Policy

Basic Query

Search Now!

Find: Default accession

Matching Any Word All Words List of Items

Search Criteria

@inventory.availability_status_code = 'NA'

Search Results

Add To Query Clear Query Limit: 200

Accessions **Inventory** Orders Cooperators Get Crop Get Crop Trait Get Crop Trait Code Lang

	Is Available?	Availability Status	Status Note	Availability Start Date	Ava End
		Not available			
?	N	Not available			
	N	Not available			
	N	Not available			
	N	Not available			

- b. Try several different searches using multiple criteria – in different QBE cells. Experiment with the two **Matching** options, **Any Word** and **All Words**, indicating OR and AND conditions.

Basic Query

Search Now! Limit: 5000

Find: Default inventory

Matching Any Word All Words List of Items

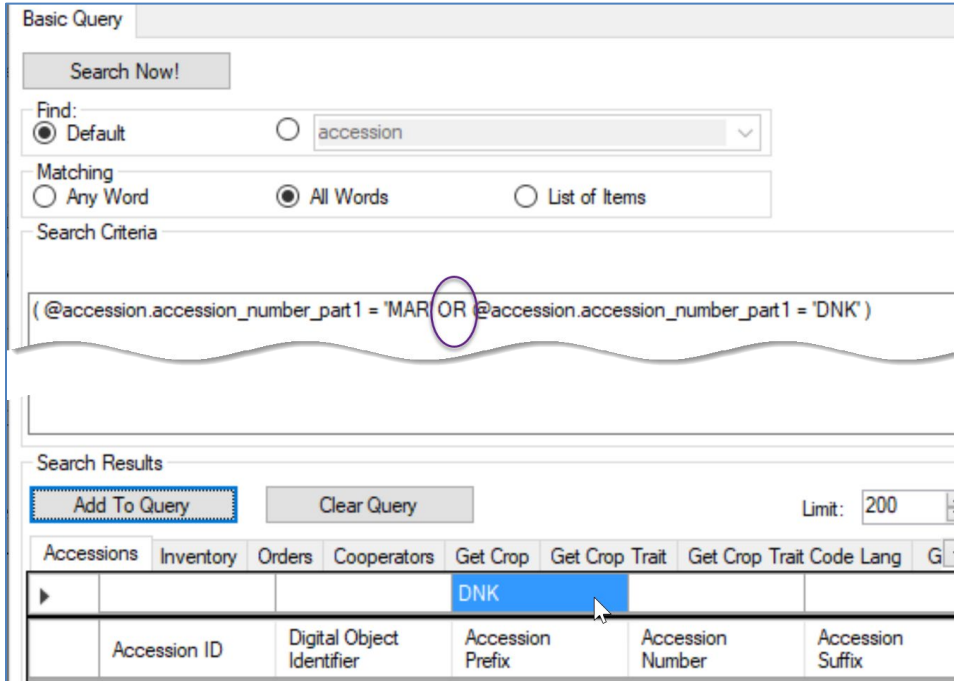
Search Criteria

Inventory Maintenance Policy

The screenshot shows the GRIN-Global Search v1.9.6.41 interface. The main window has a 'Basic Query' tab with a 'Search Now!' button and a 'Limit' of 5000. The search criteria include 'Find: Default' and 'inventory' in the search box. The 'Matching' options are 'Any Word', 'All Words' (selected), and 'List of Items'. A 'Data View Properties' dialog box is open, showing 'Client' as the category and 'Accession' as the area. The 'Area' dropdown menu is open, listing various options: Accession, Accession/Inventory (highlighted with a red arrow), Citation, Code, Cooperator, Crop, Genetic, Geographic, Inventory, Method, Order, Other, Source/Habitat, System, Taxonomy, and Web. The 'Viewer Style' is set to 'Spreadsheet'. The background shows a table of search results with columns for 'Order Request' and 'Local Number'.

Order Request	Local Number	Owner Site
61108	40315	NC7
61124	30827	NC7
61185	20727	NC7
61218	920353	NC7

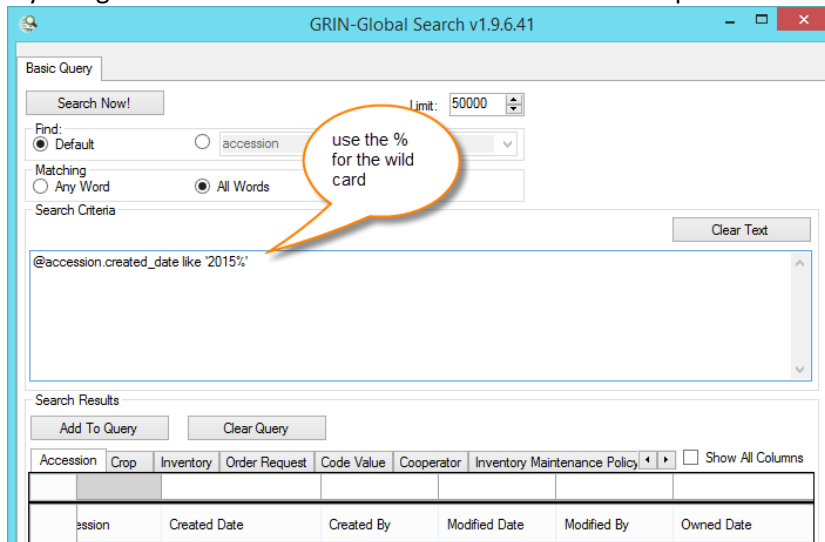
- c. Try several different searches using multiple criteria – in the *same* QBE cells. To do that, each time you enter a criterion, click the **Add to Query** button.



- d. (The server is using Microsoft’s SQL Server database. The following is true for dates in this environment.)

Use '2015%' to find 2015 records. Note that you must end the search string with a wildcard, because the date fields also store time in the field.)

Try using wildcards in at least one date search. For example:



Best query is in the format: **YYYY-MM-DD** (Trailing wildcard is required or the query will fail.)

Extra Exercise: Dynamic Folders

No other date formats are supported. So the following are valid searches:

@accession.created_date like '2015%'
@accession.created_date like '2015-09-%'
@accession.created_date like '2015-09-05%'
@accession.created_date like '2015-%-05%'



For consistency, time is converted to Greenwich Mean Time (GMT). For example, records added on the East Coast at 10 pm may be found showing the next day's date.

Extra Exercise: Dynamic Folders



Practice making several dynamic folders. Refer to the online document *Dynamic Folders* https://www.grin-global.org/docs/gg_dynamic_folders.docx for complete details and examples (which you can copy and paste into the Search Tool).