

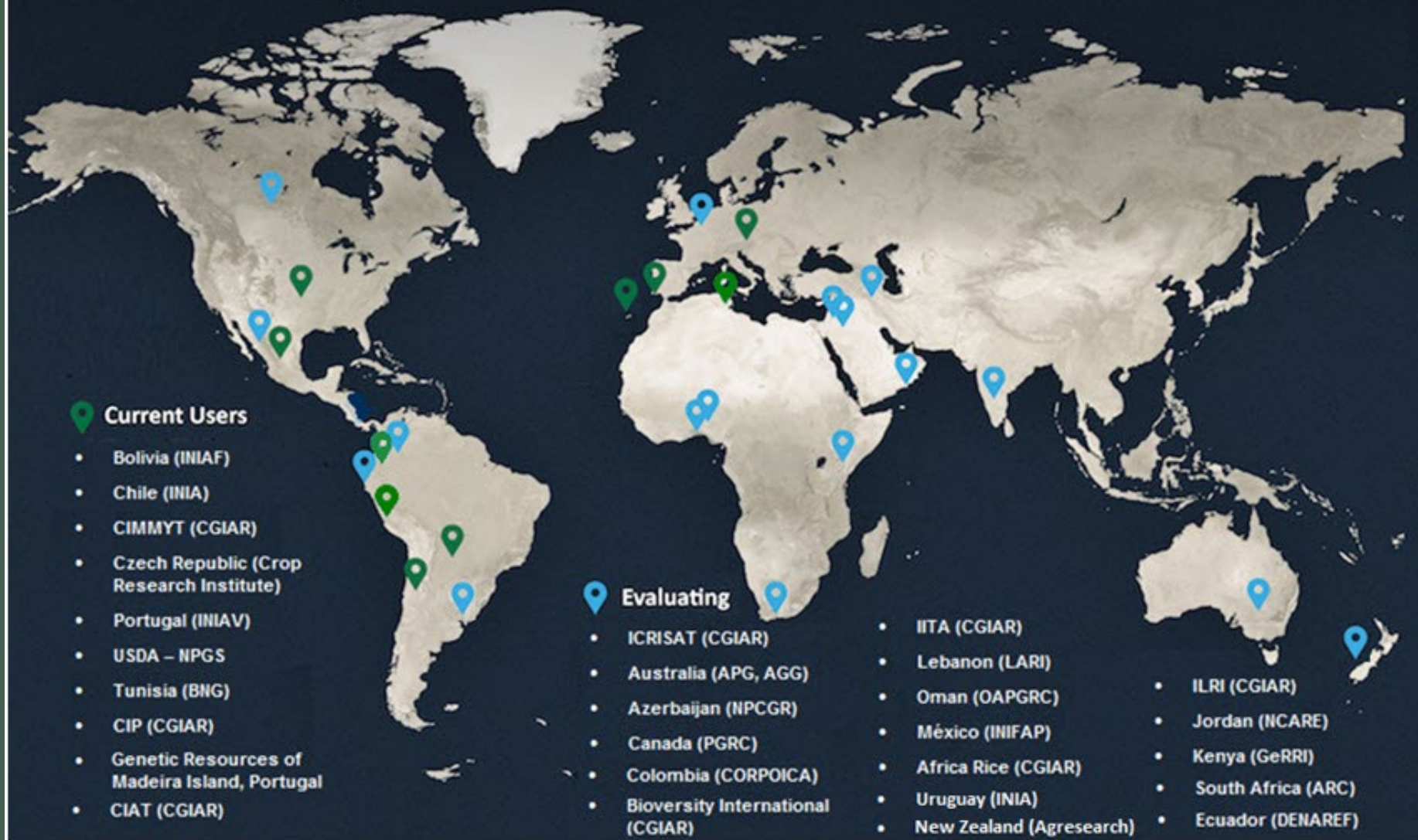


GRIN-GLOBAL PROJECT

the global plant genebank
information management system



GRIN-Global Around the World



What is GRIN-Global?

- software used by plant genebanks to manage their germplasm collections
- a database - collection of data stored in many tables
- the database is “relational” -- tables are related by key fields



What is GRIN-Global?

- library collections consists of titles – genebank collections are comprised of accessions
- as libraries may have multiple versions of the same title, a genebank can maintain multiple lots for the accessions – in GG, “inventory”
- The GG software manages the accession and inventory data, as well as other ancillary data

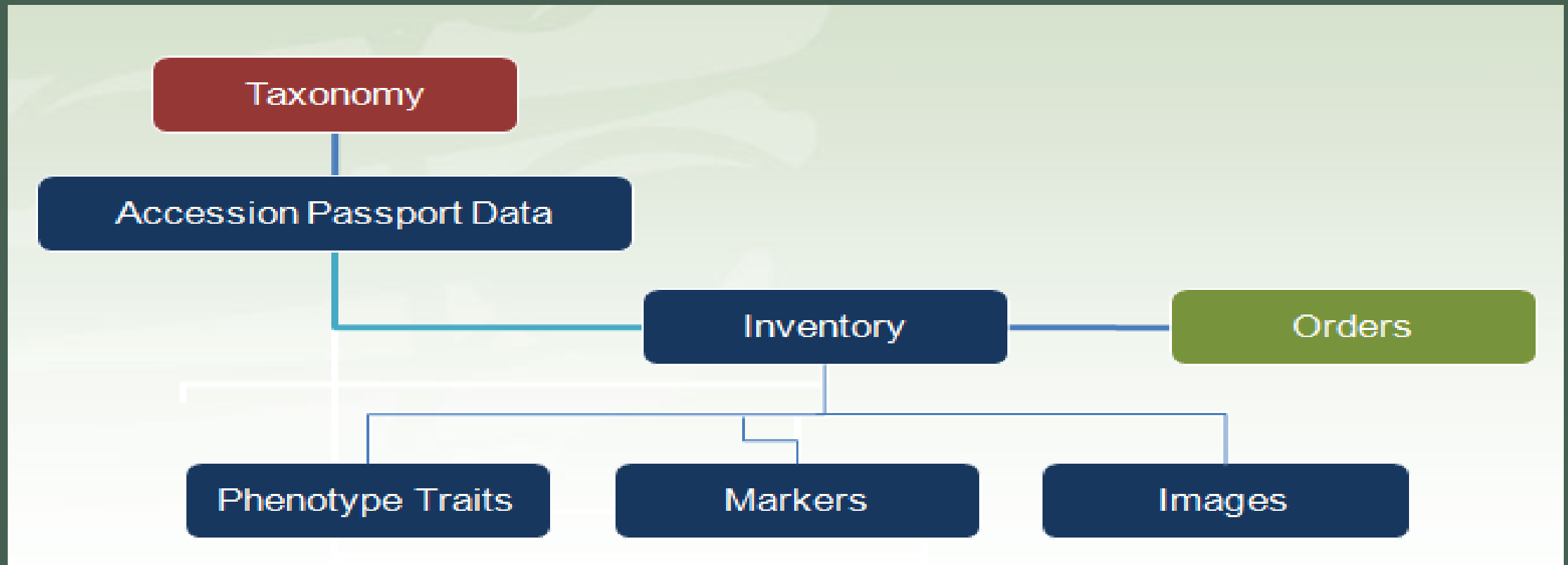


Is there one GRIN-Global?

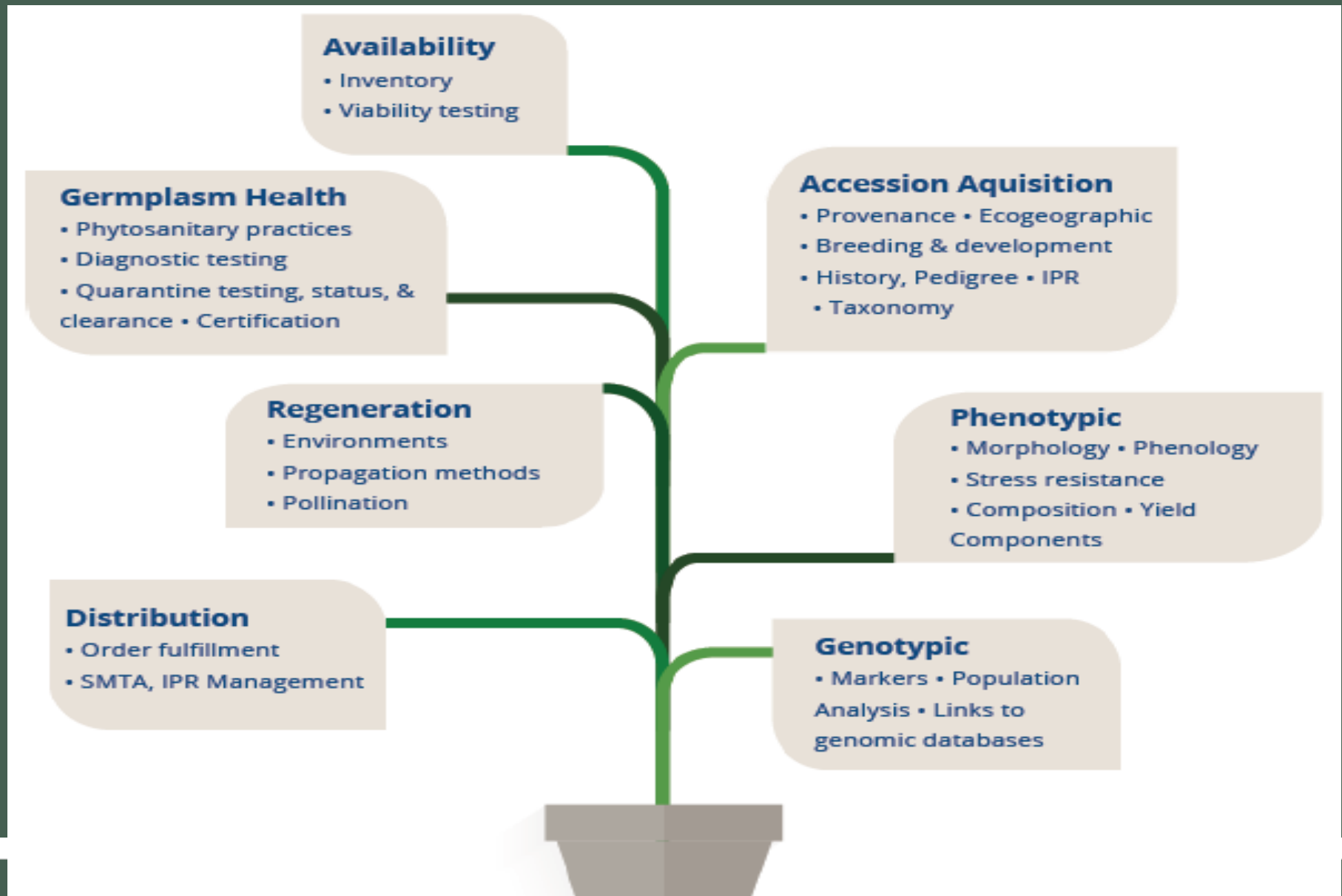
- A version of the GG software is used independently by each genebank running GG. These systems are not connected.
- “Global” is more of a name describing the software – the software is open source and any genebank can use it on their server to manage their collection of accessions
- Genebanks that run GG often upload their accession passport data to the [Genesys](#) portal. Genesys is a collection of data contributed by many genebanks.



What data does GG store?

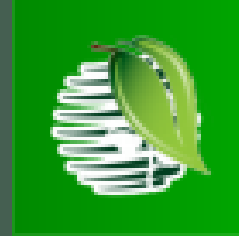


GG: *The* Genebank Information Management Tool



GG consists of several programs

- Curator Tool & Search Tool



- Public Website



- Admin Tool

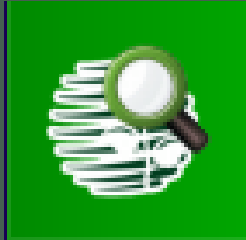
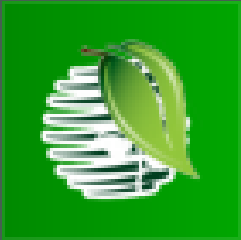


- Updater



...GG consists of several programs

- Genbank staff typically uses two main tools – the Curator Tool and the Search Tool



- Public researchers access GG via the website (if the genbank makes it publicly available) Internal staff also will use the website.



...GG consists of several programs

- the Admin Tool and the Updater programs are used exclusively by the genebank's IT staff supporting GG



Curator Tool

designed for
genebank staff to
create & manage
their genebank's
data

GRIN-Global v1.9.8.14

File Tools Help

Search... Accession Wizard Cooperator Wizard Inventory Attachment Wizard Order Wizard Viability Wizard

Show lists from: ☐ Show All
lger, Martin A., Reisinger Resource Group, Inc.
☐ Include Sub-Folders

Feb Jan Dec Nov. Search

PHASEOLUS & Obs

- DACT 189 0000A PL - Style
- DACT 101 0004A PL - Style
- DACT 90 0002A PL - Style
- DACT 86 0002A PL - Style
- DACT 85 0007A PL - Style
- DACT 194 0000A PL - Style
- DACT 148 0000C PL - Style
- DACT 139 0000C PL - Style
- DACT 94 0002A PL - Style
- PI 608698 98o SD - Genetic
- PI 608697 98o SD - Genetic
- PI 608693 98o SD - Genetic
- PI 608688 98o SD - Genetic
- PI 583644 92o SD - Genetic
- PI 608680 95o SD - Genetic
- PI 583638 91o SD - Genetic
- PI 608690 98o SD - Genetic
- PI 608711 98o SD - Genetic
- PI 608692 98o SD - Genetic
- PI 583643 95o SD - Genetic
- PI 608710 98o SD - Genetic
- PI 608708 98o SD - Genetic
- PI 608704 98o SD - Genetic
- PI 608707 98o SD - Genetic

☐ Hot-Sync Treeview with Dataview

Showing rows: 27 of 27

Get Site	Accessions	Inventory	Inventory Quality Status	Get Accession Inventory Name	Orders	Cooperators	Get Taxonomy Sp		
	Accession ID	Accession Prefix	Accession Number	Accession Suffix	Taxon	Name	Origin	Maintenanc Site	Is Cor
	1275965	PI	368362		Allium cepa	Bel	Macedonia	NE9	N
	1557871	PI	608693		Phaseolus vulgaris	Genetic Marker 46		W6	N
	1557870	PI	608692		Phaseolus vulgaris	Genetic Marker 45		W6	N
	1478614	PI	583643		Phaseolus vulgaris	Genetic Marker 18		W6	N
	1557887	PI	608708		Phaseolus vulgaris	Genetic Marker 62		W6	N
	1557889	PI	608710		Phaseolus vulgaris	Genetic Marker 64		W6	N
	1641385	PI	667956		Actinidia deliciosa	Vincent	United States, Ca...	DAV	N
	1557865	PI	608687		Phaseolus vulgaris	Genetic Marker 40		W6	N
	1557890	PI	608711		Phaseolus vulgaris	Genetic Marker 65		W6	N
	1564181	PI	667931		Actinidia chinensis	P.IC14	Italy, Latium	DAV	N
	1478609	PI	583638		Phaseolus vulgaris	Genetic Marker 17	United States	W6	N
	1557875	PI	608697		Phaseolus vulgaris	Genetic Marker 50		W6	N
	1557876	PI	608698		Phaseolus vulgaris	Genetic Marker 51		W6	N
	1509132	PI	608680		Phaseolus vulgaris	Genetic Marker 33	United States	W6	N
	1557866	PI	608688		Phaseolus vulgaris	Genetic Marker 41		W6	N

1 of 27

Data Editing
Edit Data Save Data Cancel

Refresh Data

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

Search Tool

used by
genebank staff
to search using
search criteria

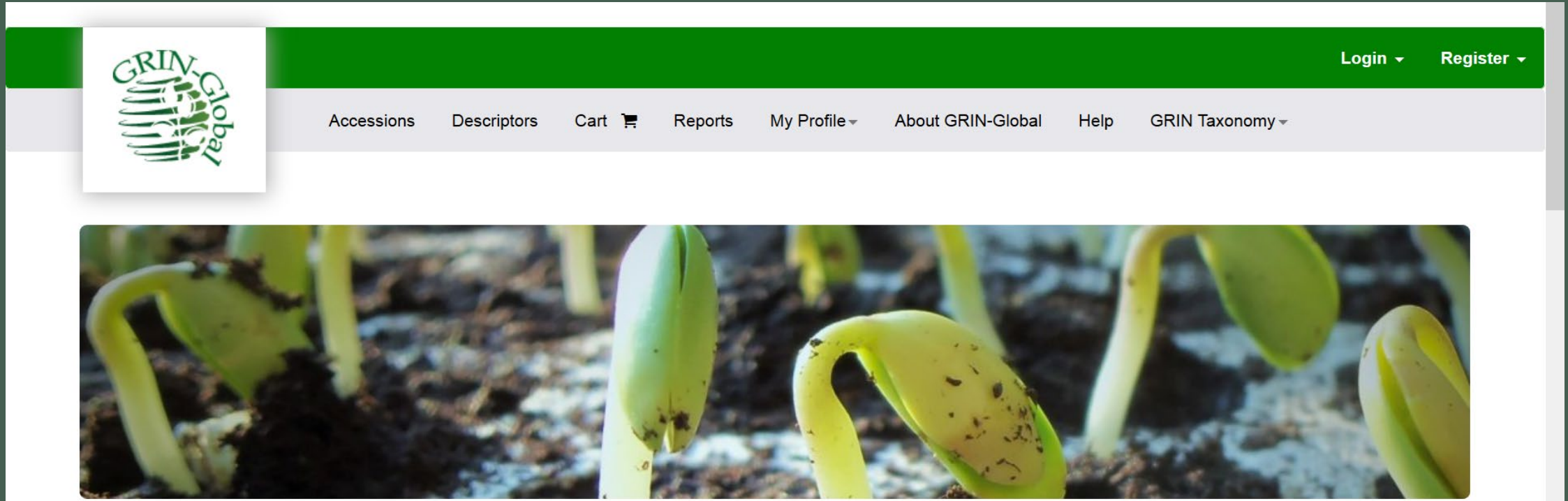
The screenshot displays the GRIN-Global Search v1.9.8.14 web interface. The 'Basic Query' section includes a 'Search Now!' button, a 'Limit' of 500000, and search options for 'Find' (Default, accession) and 'Matching' (Any Word, All Words, List of Items). The 'Search Criteria' field contains the query '@taxonomy_genus.name = 'Humulus''. Below the search results, there are buttons for 'Add To Query' and 'Clear Query'. The results are displayed in a table with columns: Inventory, Cooperators, Web Cooperator, Taxonomy Species, Orders, Get Web Order Request, Get, and Show All Columns. The table shows 12 rows of results for Humulus species.

Inventory	Cooperators	Web Cooperator	Taxonomy Species	Orders	Get Web Order Request	Get	Show All Columns
							Humulus
							Humulus
							Humulus
							Humulus
							Humulus
							Humulus
							Humulus
							Humulus
							Humulus
							Humulus
							Humulus
							Humulus

Showing rows: 12 of 12 | Connected to: <https://training.ars-grin.gov/GRINGlobal/GUI.aspx>

Public Website (PW)

primarily for external clients searching the GG database



genebank staff
also use the PW

Components

are installed on a PC
with the CT
(if they haven't been
previously installed)

Crystal
Reports
Viewer

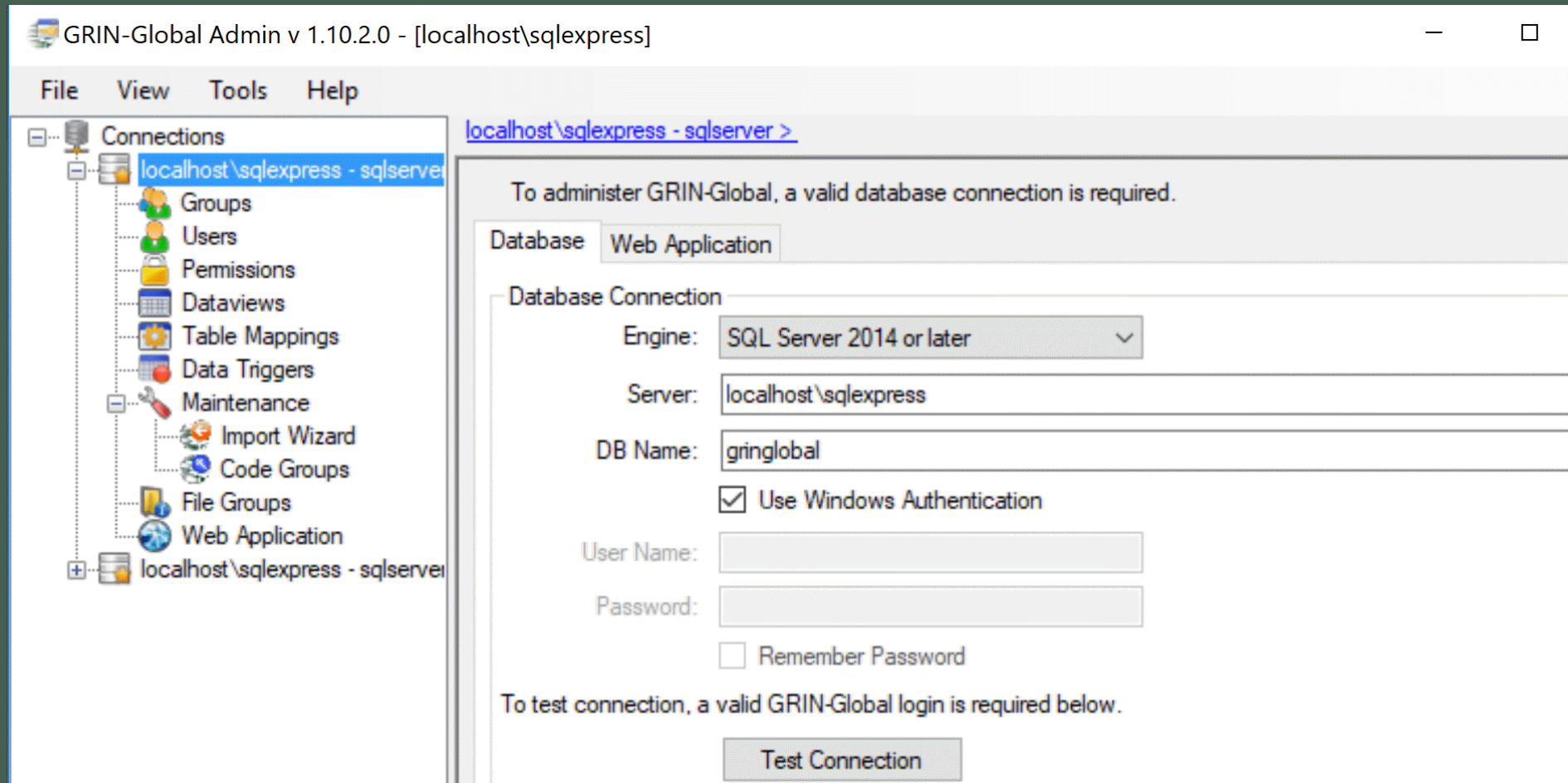


SQL
Server
Express

.net

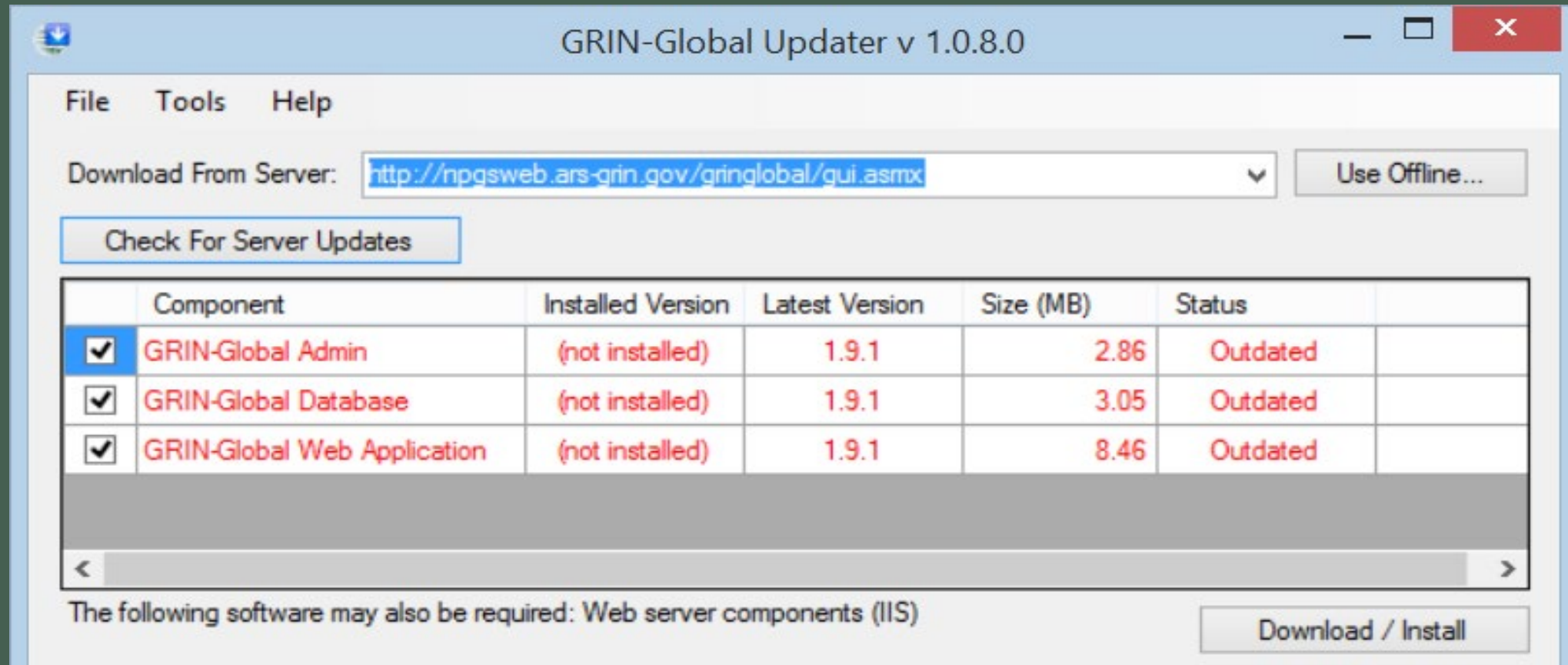
Admin Tool

manage user accounts, codes, dataviews, GG settings, etc.



Updater

administrators use to install the server GG components



GG – an Open Source project

- Supports free or open source DB management systems:
primarily Microsoft SQL
- source code is available



...Environment

- flexible – dataviews can be added / modified
- expandable – wizards can be added; languages can be added
- customizable
- still evolving

Alternative GRIN-Global Configurations

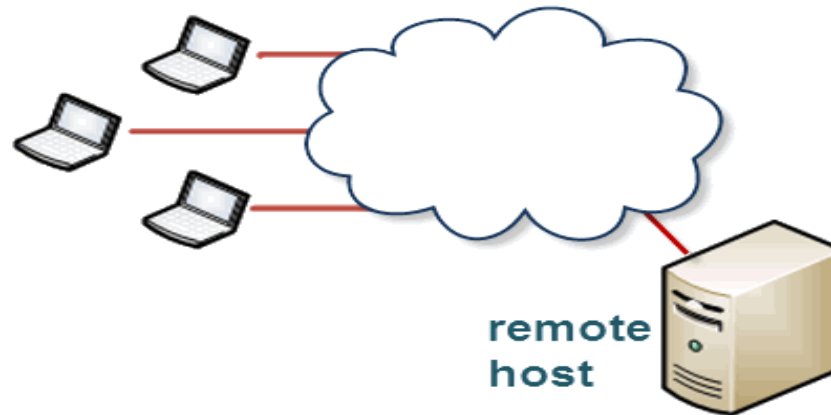
Alternative 1: Standalone PC

The entire GRIN-Global application suite installed on one PC



Alternative 2: PC Networked to a Server

Client application installed on each PC; server applications on the remote server

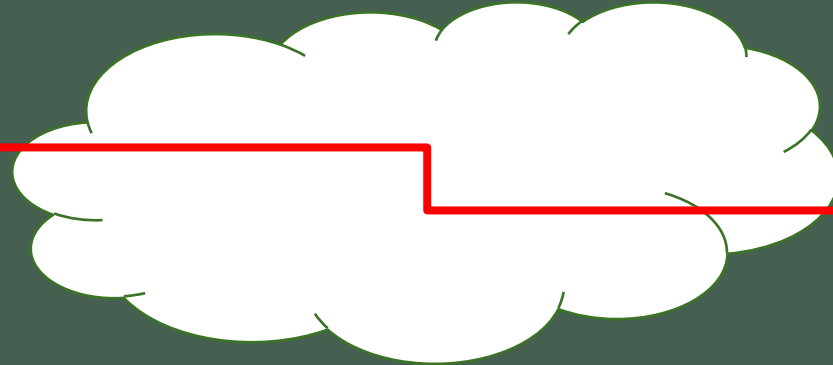
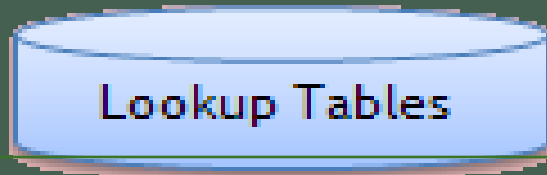


Although possible, alternative 1 is rarely done

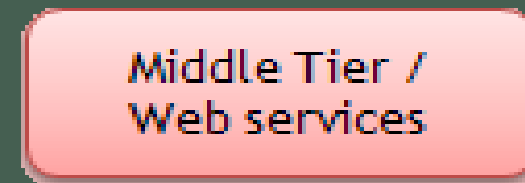
GG in a Network Configuration

User's PC

 Curator Tool
 Search Tool

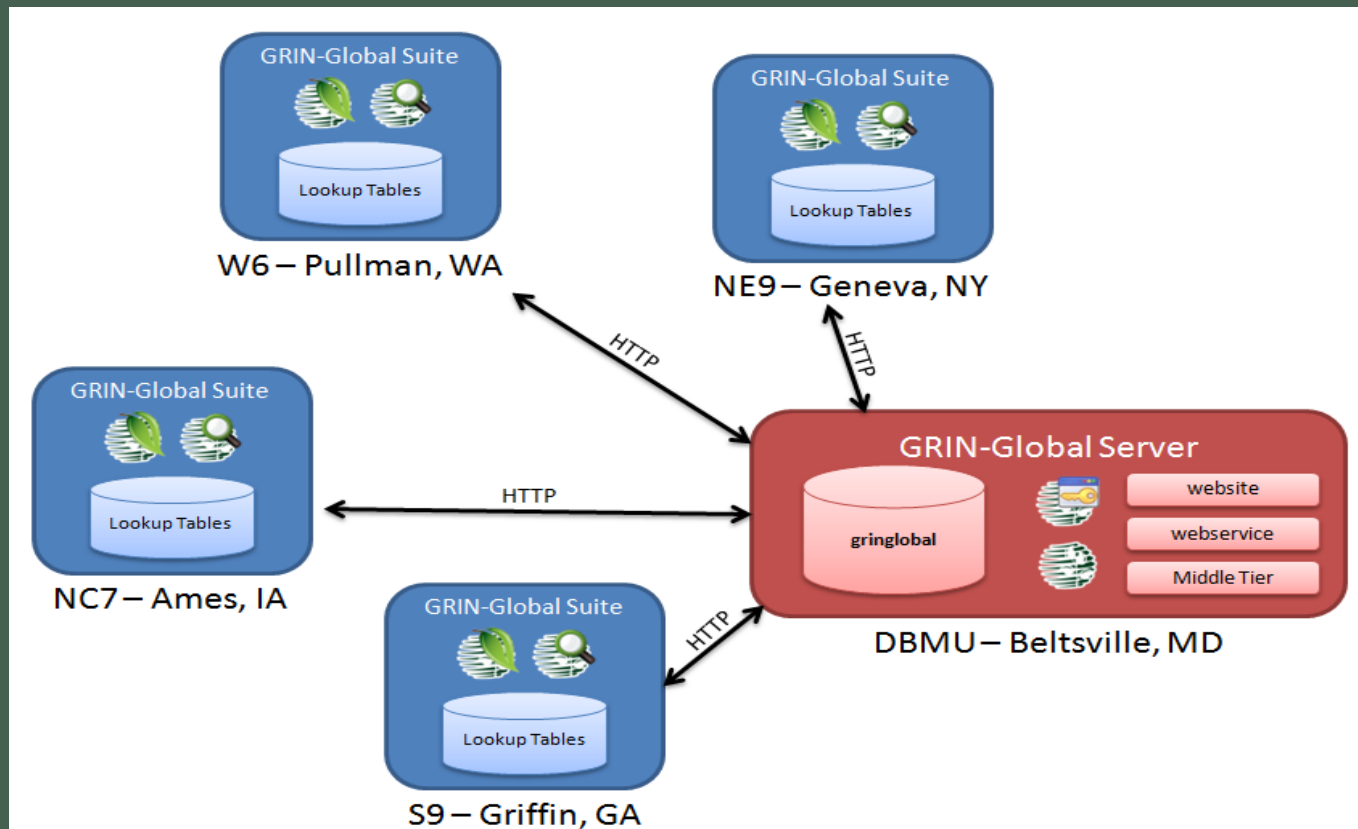


Server



GRIN-Global System Architecture Overview

– Networked to a Server



GRIN-Global Suite

Start



For additional information,
please visit:

<https://www.grin-global.org/>

