

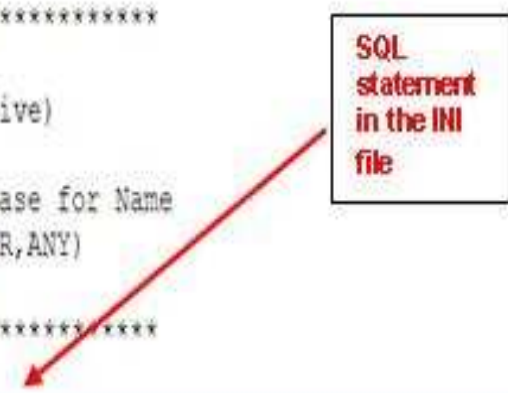
GMS Search – Summary of New Features

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Displaying DMS Information

- Relevant information in a study is now displayed in a separate tab.
 - To view this information, set the sql statement in the StudySQL key in the [GMSSRCH] section of INI file

```
[GMSSRCH]
#*****
# LOCAL_DB_SEARCH - Sets the default sign of the
#                   GID searched (i.e. YES for negative)
#
# DEF_CASE_FOR_NAME_SEARCH - indicates the default case for Name
#                             Search (e.g. UPPER,LOWER,ANY)
#
#*****
LOCAL_DB_SEARCH=NO
DEF_CASE_FOR_NAME_SEARCH =ANY
STUDYSQL=SELECT DMS_Data.LVALUE, DMS_Data.VNAME, DMS_Data.DVALUE FROM DMS_Data WHERE (((DMS_Data.LVALUE)=?))
FILE_EXPORT_PATH=e:\ICIS5\exportfiles
```



- When searching for a germplasm, DMS information is shown on the Study Data tab

The screenshot displays the 'Search GMS' application window. At the top, there are search filters for Name, GD, Attribute, and Cross(Single). The search criteria are set to 'Name' with the value 'IR 64'. Below this, a table lists search results with columns for Name, Method, Location, and Unique ID. The first result is highlighted: 'IR 64, IRYP 12159, IR 18348-16-3-3' with Method 'DGP' and Location 'IRRI-INTERNATIONAL RICE RESEARCH INSTITUTION 10-50533'.

The main section of the window is titled 'Germplasm Characteristics' and shows detailed information for the selected entry. It includes fields for Preferred Name (IR 64), Date Named (1985-), Name Location (IRRI-INTERNATIONAL RICE RE), Germplasm Creation (SINGLE PLANT SELECTION SF, 1985-), Germ. Date Creation (IRRI-INTERNATIONAL RICE RE), Cross (IR 5657-33-2-1/IR 2061-465-1-5-5), and Generation No. (D2W(F4,83)D8P). The Unique ID is listed as IRIS 10-50533.

At the bottom of the characteristics section, there are several tabs: 'Names/Attributes', 'Relatives', 'Neighborhood', 'Lists', 'Study Data', and 'Stocks'. The 'Study Data' tab is selected and highlighted with a red box. A red arrow points from a text box to this tab. The 'Study Data' tab contains a table with columns 'LVALUE', 'VNAME', and 'DVALUE'. The table lists various attributes for the germplasm, such as PLTHT, TILLR, LOGGING, THRESH, PANICL, PANICLCP, ANKLOSE, GELLOW, BPH1, BPH2, BPH3, GCM, BLART, BSI, BNS, RST, DRTS, DRTS, and GENLTH.

A text box with a red border and red text is overlaid on the bottom left of the 'Study Data' tab, containing the message: 'DMS information is displayed in the Study Data tab'.

Sorting of Columns in Search Result

- GMS search is now capable of sorting records in the search result window
 - Initially the search result window has unsorted columns.

The screenshot displays the 'Search GMS' application window. At the top, there are search filters for Name, GD, Attribute, and Cross(Single). The search results table is highlighted with a red border and contains the following data:

Names (no. of hits : 33)	Method	Location	Unique ID
IR_64,IR6P 12158,IR 18348-36-3-3	DSP	IRRI-INTERNATIONAL RICE RESEARCH INSTITUTE, LOS BANOS	IRIS 10-50533
IR_64	ISE	IRRI-INTERNATIONAL RICE RESEARCH INSTITUTE, LOS BANOS	IRIS 109-9014
IR_64	VCA	Mozambique	IRIS 10-569052
IR_64,Q 35020	ACL	IRRI-INTERNATIONAL RICE RESEARCH INSTITUTE, LOS BANOS	IRIS 30-2458
IR_64,PI 497682	ACL	IRRI-INTERNATIONAL RICE RESEARCH INSTITUTE, LOS BANOS	IRIS 30-24039

Below the search results, the 'Germplasm Characteristics' section is visible. A red arrow points to the 'Unique ID' column in the search results table, with a text box labeled 'Unsorted columns' next to it. The characteristics section includes fields for Date Named, Name Location, Germ. Date, Germ. Location, Cross, and Generation No. Below this, there is a table with columns 'LVALUE', 'PNAME', and 'DVALUE'.

LVALUE	PNAME	DVALUE
50533	FLOWD	1
50533	FLM	88
50533	FLWGT	102
50533	TILLER	20
50533	LOGGING	1
50533	THRESH	1
50533	PANEXE	3
50533	PHEMACOP	1
50533	ANFLORE	22
50533	SELOCN	68
50533	BPH1	1
50533	BPH2	3
50533	BPH3	3
50533	SLE	5
50533	SLAST	8
50533	BB1	1
50533	SHB	5
50533	RST	42
50533	DRT8	6
50533	DRT9	5
50533	GRSLTH	1
50533	one	1

- To sort rows in this window, just click on the column header of your choice.

The screenshot shows the 'Search GMS' window with the search criteria set to 'Name' and 'IR 64'. The search results are displayed in a table with the following columns: Name (no. of hits: 33), Method, Location, and Unique ID. The first row is highlighted in blue, indicating it is the selected result.

Name (no. of hits: 33)	Method	Location	Unique ID
IR 64,BCF 937,ACC 1396	ACL	CIAT-INTERNATIONAL CENTER FOR TROPICAL AGRICULTURE, CALI	IRIS 1-28401
IR 64,Q 35020	ACL	IRRI-INTERNATIONAL RICE RESEARCH INSTITUTE, LOS BANOS	IRIS 30-2459
IR 64,PI 497682	ACL	IRRI-INTERNATIONAL RICE RESEARCH INSTITUTE, LOS BANOS	IRIS 30-24039
IR 64-CROSS,IR 64	C2W	IRRI-INTERNATIONAL RICE RESEARCH INSTITUTE, LOS BANOS	IRIS 10-110
IR 64,IRTF 12158,IR 18348-36-3-3	DSP	IRRI-INTERNATIONAL RICE RESEARCH INSTITUTE, LOS BANOS	IRIS 10-50533
IR 18348-36-3-3,BCF 1251,IR 64,MO 32	DSP	CIAT-INTERNATIONAL CENTER FOR TROPICAL AGRICULTURE, CALI	IRIS 5-11911
IR 64,IRT 9478	ISE	India	IRIS 10-679644

Below the search results, the 'Germplasm Characteristics' window is open for 'IR 64'. It shows a tree view on the left and detailed characteristics on the right, including 'Preferred' (IR 64), 'Germplasm Creation' (SINGLE PLANT SELECTION SF), 'Cross' (IR 5657-33-2-1/IR 2061-465-1-5-5), and 'Generation No.' (C2W(PI,33)DSP). A table of 'Names/Attributes' is also visible, with columns for I/VALUE, I/NAME, and D/VALUE. A red arrow points to the column headers of this table with the text 'Sorted columns'.

I/VALUE	I/NAME	D/VALUE
50533	PL2YG	1
50533	FLW	88
50533	PLTMGT	102
50533	FILLER	20
50533	LOGGING	1
50533	TWRECK	1
50533	PANEXE	3
50533	PHENACCP	1
50533	AMYLOSE	22
50533	GELOCK	68
50533	SPH1	1
50533	BPRE	9
50533	BPH3	3
50533	GLH	5
50533	BLAST	8
50533	BB1	1
50533	FRS	5
50533	RSY	42
50533	ERTS	6
50533	DR29	5

Icons to Differentiate Breeding Methods

- To differentiate breeding methods, icons were added.

Tree

Expand All Draw Tree

IR 64

IR 18348

IR 5657-33-2-1

IR 5657

IR 5236

IR 5338

IR 2061-465-1-5-5

IR 2061

IR 833-6-2-1-1

IR 2040

IR 1561-149-1

IR 1737

IR 24

IR 661

IR 1721

IR 24

Icons for descendant tree, male and female parent

Preferred
IR 64

Germplasm Cre
SINGLE PLANT S

Cross
IR 5657-33-2-

Generation No.

Names/Attribu

LVALUE
50533
50533
50533
50533
50533
50533
50533

Generative ■ Derivative ■

- an orange tree represents a derivative descendant tree
- a green tree represents a generative descendant tree
- an orange cross symbol represents a descendant with method = derivative
- an orange male gender symbol represents a male parent with method = derivative
- an orange female gender symbol represents a female parent with method = derivative
- a green cross symbol represents a descendant with method = generative
- a green male gender symbol represents a male parent with method = generative
- a green female gender symbol represents a female parent with method = generative

Setting of Default Tab

- The INI key DEF_TAB in GMSSRCH section sets the active tabpage at startup.

```
[GMSSRCH]
*****
# LOCAL_DB_SEARCH - Sets the default sign of the
#                   GID searched (i.e. YES for negative)
#
# DEF_CASE_FOR_NAME_SEARCH - indicates the default case for Name
#                           Search (e.g. UPPER,LOWER,ANY)
# DEF_TAB - sets the active tabpage at start up:
#           (i.e. Names/Attributes, Relatives, Neighborhood)
#
#
*****
LOCAL_DB_SEARCH=NO
DEF_CASE_FOR_NAME_SEARCH =ANY
STUDYSQL=SELECT DMS_Data.LVALUE, DMS_Data.VNAME, DMS_Data.DVALUE FROM DMS_Data WHERE ((DMS_Data.LVALUE)=?)
DEF_TAB=Relatives
FILE_EXPORT_PATH=e:\ICISS\exportfiles
```

Default tab is set in the INI file

Search for: Name GID Attribute Cross(Single)

Name: Go More

Name Type: <Not specified>

Names	Method	Location	Unique ID

Tree: Germpasm Characteristics

Expand All Draw Tree

Preferred: Date Named: Name Location:

Germpasm Creation: Germ. Date Creation: Germ. Location:

Cross: Levels:

Accession No. ... Design ID:

Names/Attributes **Relatives** Neighborhood Lists Study Data Stocks

Dependents Group Relatives

Generative Derivative

Generation History:

Default tab at startup

Setting of Default Character Case of searched names

- To standardize the letter case while searching, a new INI key is added in the GMSSRCH section of the INI file.

```
[GMSSRCH]
*****
# LOCAL_DB_SEARCH - Sets the default sign of the
#                   GID searched (i.e. YES for negative)
#
# DEF_CASE_FOR_NAME_SEARCH - indicates the default case for Name
#                           Search (e.g. UPPER, LOWER, ANY)
#
*****
LOCAL_DB_SEARCH=NO
DEF CASE FOR NAME SEARCH =UPPER
STUDYSQL=SELECT DMS_Data.LVALUE, DMS_Data.VNAME, DMS_Data.DVALUE FROM DMS_Data WHERE (((DMS_Data.LVALUE)=?))
FILE_EXPORT_PATH=e:\ICISS\exportfiles
```

Set the default letter case in the INI file.

- For example, setting DEF_CASE_FOR_NAME_SEARCH = UPPER defaults the name search field to UPPERCASE

The screenshot shows the 'Search GMS' application window. At the top, there are radio buttons for 'Name', 'GID', 'Attribute', and 'Cross(Single)'. The 'Name' search field is highlighted with a red box and contains the text 'IRGC 7234'. A red arrow points from a text box on the right to this field, with the text 'Name search field is in uppercase.' Below the search field, a table shows search results:

Name (no. of hits: 1)	Method	Location	Unique ID
KAO PUDAS 182, IRGC 7234	ISE	T.V. CHANG GENETIC RESOURCES CENTER, THIRU G-143734	

The main content area displays 'Germplasm Characteristics' for 'KAO PUDAS 182'. It includes fields for 'Preferred' (KAO PUDAS 182), 'Date Named', 'Name Location', 'Germplasm Creation' (IMPORT), 'Germ. Date Creation' (1962-11-14), 'Germ. Location' (T.V. CHANG GENETIC RESOUR), 'Cross' (KAO PUDAS 182), 'Levels', 'Generation No.' (UKN(F2)ISE), 'GID' (371368), and 'Unique ID' (IRIS G-143734). There are tabs for 'Names/Attributes', 'Relative', 'Neighborhood', 'Lists', 'Study Data', and 'Stocks'. The 'Names/Attributes' tab shows 'Alternative Names' and 'Attributes'.

Type	Name
ACONO	IRGC 7234
CYNAM	KAO PUDAS 182

Type	Value
ISORG	IRGC 7234 ;1
COLL	IRGC 7234 ;0- SACIVA;;;TKA
ORI_COUN	THAILAND
SPP_CODE	O. SACIVA
TAXNO	Oryza sativa (L.)
SamplStat	3
IPSTAT	PAO (14/09/1994)
NLS_DATE	14-SEP-1994
STATUS_ACC	AV

Multiple Select and Copy of items in the Tabpages

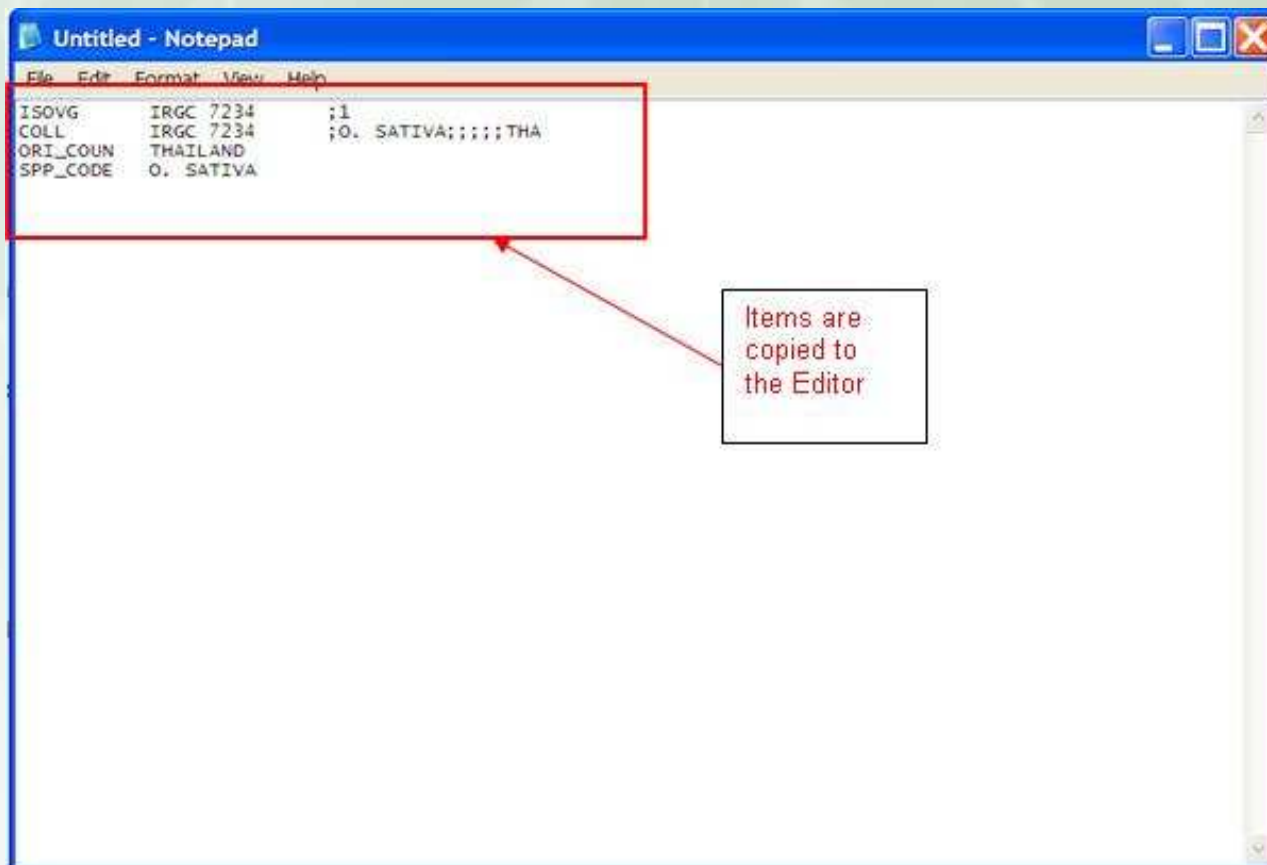
- One of the nicest features of GMS Search is the ability to copy multiple items to the clipboard and pasting these items in any editor, like the Notepad or Microsoft Word.
 - To copy multiple items in the tab, just click on the row of each item, then right click on the white space then select *Copy* on the pop-up menu.

The screenshot shows the GMS Search application window. The search criteria are Name: IRGC7234. The search results table shows one entry: KAO PUDAS 182, IRGC 7234, located at P.T. CHANG GENETIC RESOURCES CENTER, IRIRIS 6-145734. The detailed view for KAO PUDAS 182 is shown, including its preferred name, germplasm creation details (IMPORT, 1962-11-14, P.T. CHANG GENETIC RESOURC), and generation information (GEN(P)ISE, OID 371368, Unique ID IRIS 6-145754). The 'Attributes' table is highlighted, showing columns for Type and Name. The 'Copy' button is visible in the bottom right corner of the 'Attributes' table. Red boxes and arrows point to the selected rows and the 'Copy' button, with text boxes explaining the process: 'Select multiple items by clicking on each row' and 'Right-click on white space to view pop-up menu'.

Type	Name
ACUMI	IRGC 7234
CYNAM	KAO PUDAS 182

Type	Name
IRCVG	IRGC 7234 ;1
DOLL	IRGC 7234 ;0, RASTVA;;;;THA
ORI COUN	PHAILAND
SPV CODE	O. SATIVA
TAXNO	Oryza sativa (L.)

- Open an editor, for example, Notepad, then right-click on the white space and select *Paste* on the pop-up menu. The items are copied to the editor



Setting of auto-completion of Recently Typed-in Text For Editboxes

- Autocompletion is a feature of GMS Search that pops-up a window, listing possible completions for searched names that the user has previously typed

The screenshot shows the 'Search GMS' window. The search criteria are set to 'Name'. The search input field contains 'IRGC7234'. A dropdown menu is open, showing suggestions: 'epo', 'IR 8', and 'IRGC7234'. A red arrow points to the 'IRGC7234' suggestion. Below the search input, a table displays search results with columns for Name, Method, Location, and Origin. The first row is highlighted in blue. A text box on the right side of the table contains the text: 'Previously searched names are displayed in dropdown window'.

Name	Method	Location	Origin
IR 8, PI 400151	ACL	IRRI-INTERNATIONAL RICE RESEARCH INS	
IR 8-CROSS, IR 8, PETA/DGWS	C2W	IRRI-INTERNATIONAL RICE RESEARCH INS	
IR 8	VCR	Burkina Faso	
IR 8	VCR	Cameroon	
IR 8	VCR	Ghana	

History of Searched GIDs

- automatic GID completion is another feature of GMS Search which displays possible searched GIDs in a dropdown window.



The screenshot shows the 'Search GMS' interface. At the top, there are radio buttons for 'Name', 'GID', 'Attribute', and 'Cross(Single)'. Below this is a search input field with a dropdown arrow. A red box highlights the dropdown menu, which contains the following text:

123
-203424
204538

Below the dropdown is a table with the following columns: Names (No. of hits: 40), Method, Location, and Accession ID. The table contains the following data:

Names (No. of hits: 40)	Method	Location	Accession ID
IR 8, PI 400151	ACL	IRRI-INTERNATIONAL RICE RESEARCH INSTITUTE	IRIS 30-1759
IR 8-CROSS, IR 8, PETA/DGWS	C2H	IRRI-INTERNATIONAL RICE RESEARCH INSTITUTE	IRIS 10-17
IR 8	VCR	Burkina Faso	IRIS 10-5691
IR 8	VCR	Cameroon	IRIS 10-5691
IR 8	VCR	Ghana	IRIS 10-5691

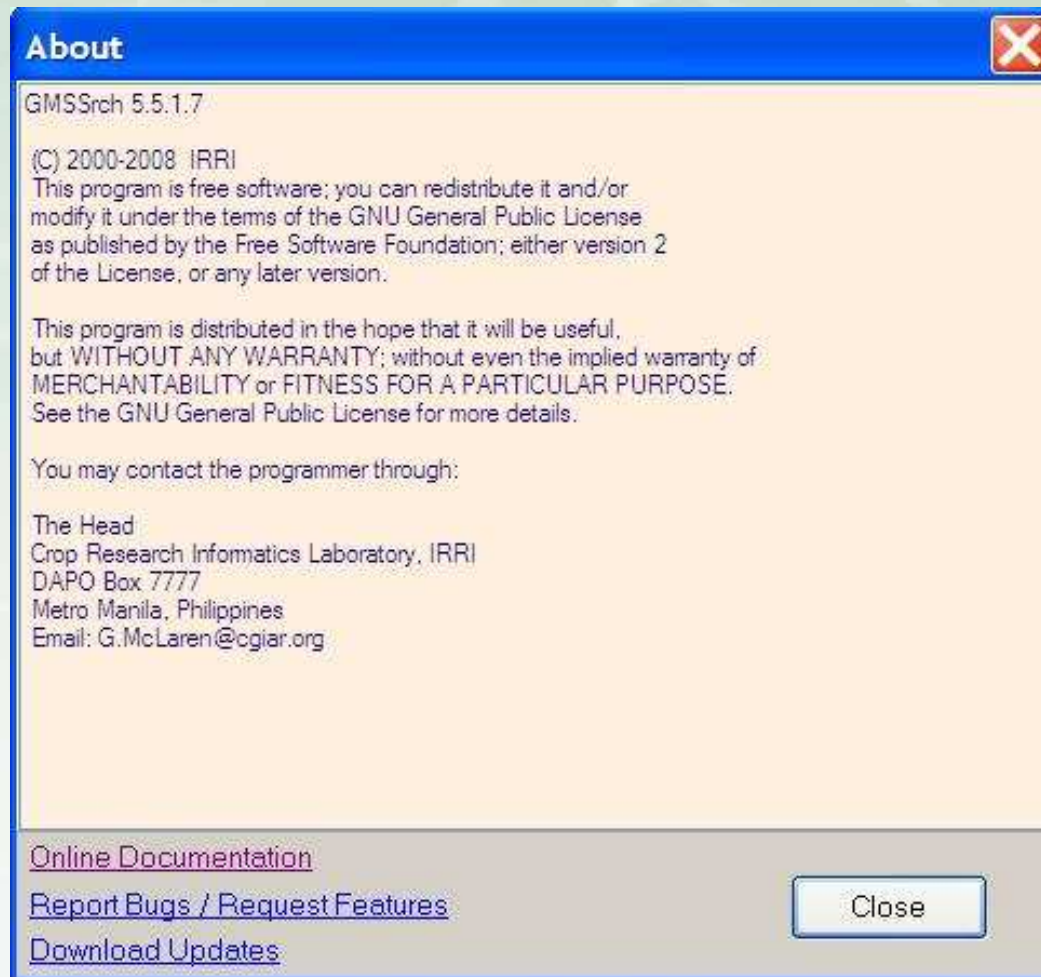
A red arrow points from the dropdown menu to the table. A text box on the right side of the table contains the text: 'Previously searched GIDs are displayed in dropdown window'.

Configuration Settings

- GMS Search settings can be changed through the configuration settings window



Important Links included in About Form



Thank you !