IBM Software Group

IBM Developer for z Systems – for ISPF Developers

Module 5 – Remote Systems – MVS Dataset Access & Organization

DevOps

Jon Sayles/IBM: jsayles@us.ibm.com

IBM Trademarks and Copyrights

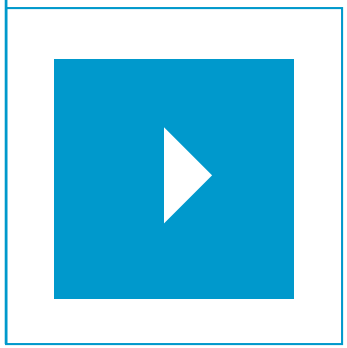
The information contained in these materials is provided for informational purposes only, and is provided AS IS without warranty of any kind, express or implied. IBM shall not be responsible for any damages arising out of the use of, or otherwise related to, these materials. Nothing contained in these materials is intended to, nor shall have the effect of, creating any warranties or representations from IBM or its suppliers or licensors, or altering the terms and conditions of the applicable license agreement governing the use of IBM software. References in these materials to IBM products, programs, or services do not imply that they will be available in all countries in which IBM operates.

This information is based on current IBM product plans and strategy, which are subject to change by IBM without notice. Product release dates and/or capabilities referenced in these materials may change at any time at IBM's sole discretion based on market opportunities or other factors, and are not intended to be a commitment to future product or feature availability in any way.

IBM, the IBM logo, the on-demand business logo, Rational, the Rational logo, and other IBM Rational products and services are trademarks or registered trademarks of the International Business Machines Corporation, in the United States, other countries or both. Other company, product, or service names may be trademarks or service marks of others.

UNIT

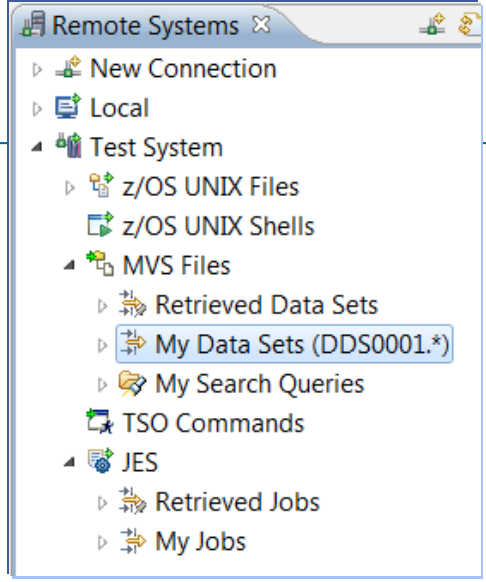
The IDz Workbench



Topics:

- **Accessing and Organizing MVS Datasets**
- z/OS File Mapping and Property Groups
- Miscellaneous Remote Systems Capabilities

Accessing and Organizing MVS Datasets



After connecting to z/OS, IDz provides access to all of the Datasets you have created with your TSO ID as the file's high-level qualifier ➔

There are three ways to get to Datasets with high-level qualifiers other than your TSO ID:

1. Retrieve Data Sets

- Return a searched-for dataset name into a FIFO queue, best for "one-off" (occasional or singular) access to a Dataset

2. MVS File Filters

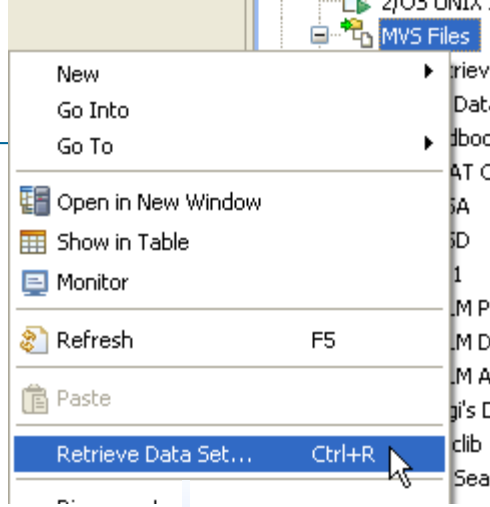
- Used to create a persistent container (filter) that groups DSNs by some abstraction (project/task/file-type/etc.)

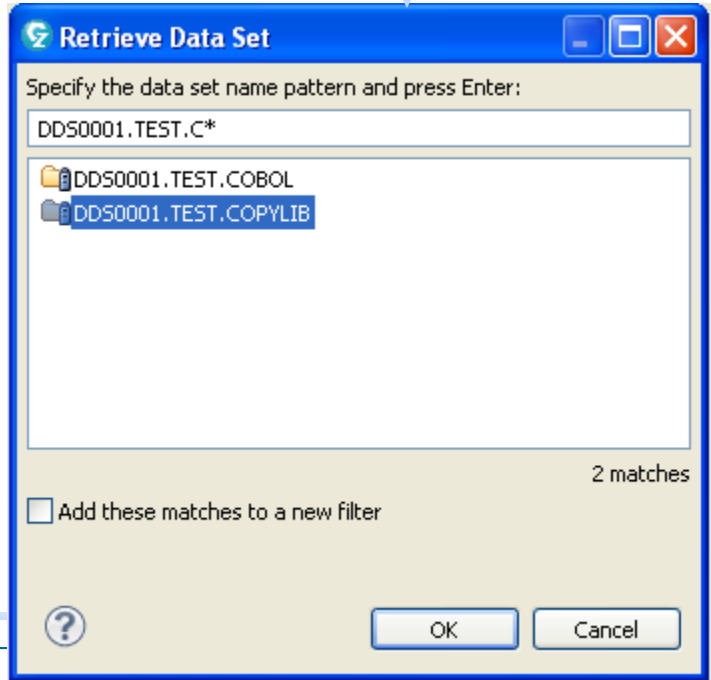
3. Search – and Saved Search Queries

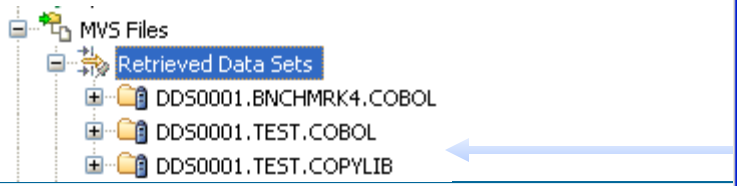
- Described in the last section of the course

Retrieve Data Sets – IDz's ISPF 3.4 – DSLIST – Feature

- In your application area there are (minimally) tens to hundreds of thousands of datasets that you did not create (they don't show up under My Datasets)
- To provide quick access to datasets with high-level qualifiers other than your TSO ID, you can:
  - Search for and select specific Data Sets into a list of "Retrieved Data Sets"
  - Select (access) the Data Sets from the:
    - Retrieved Data Sets filter
    - Optional added filter
- Retrieved Data Sets:
  - Are like Windows "recently accessed datasets"
  - Up to 10 data set names are stored in the list
    - Data Sets that are added after 10, "bump" the least recent data set off the list
  - Can be shown in a table
  - Retrieved Data Sets are like ISPF Reference Lists
    - http://publib.boulder.ibm.com/infocenter/zos/v1r11/index.jsp?topic=/com.ibm.zos.r11.f54ug00/refl.htm



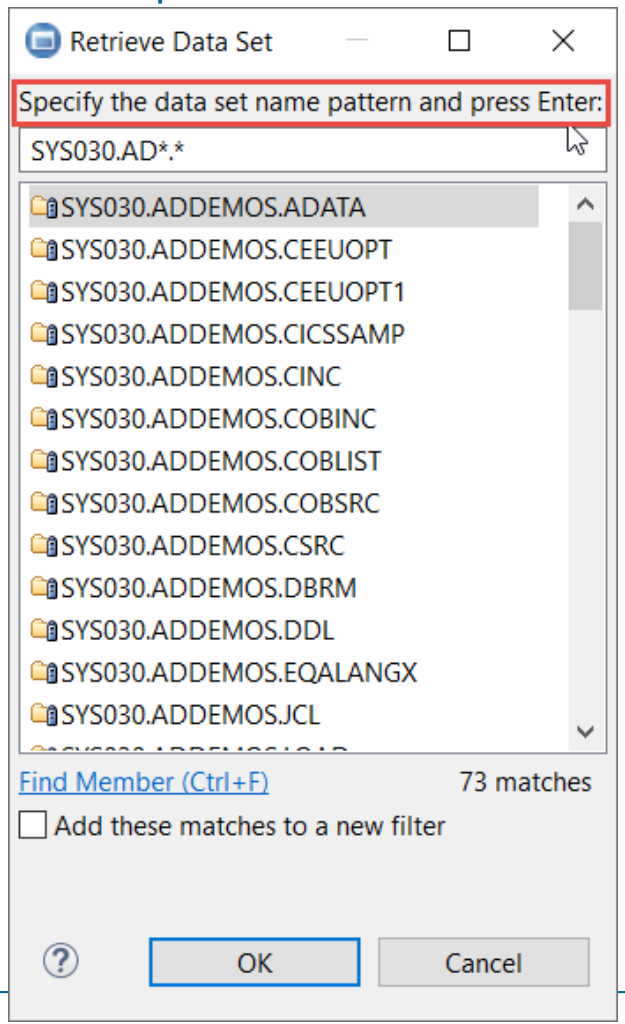


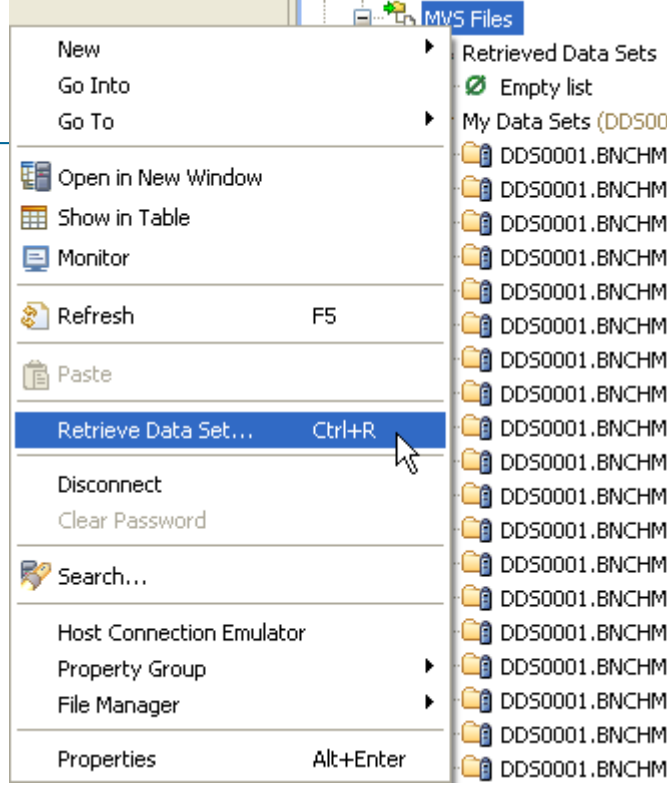


Retrieve Data Set…

From Remote Systems:

1. **Right-click over MVS Files**
2. **Select Retrieve Data Sets** - or press **Ctrl+R**
   - This opens a Retrieve Data Set dialog





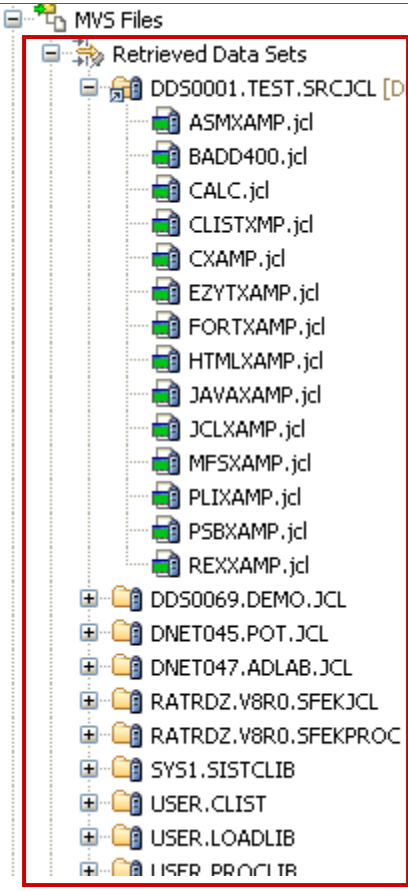
From the Retrieve Data Set dialog:

3. Enter an ISPF 3.4 search pattern (* = wildcard text)
4. Press ↵ **Enter**
5. Scroll down the list to find the DSN you're looking for
   - Note that files are listed in order by type
6. Double-click to select a dataset

- The **Retrieved Data Sets** filter is populated with your selected dataset *(next slide)*

Retrieve Data Sets – Considerations

- After you have successfully retrieved your data set, the DSNAME will be entered into a FIFO (First In/First Out) queue
  - (By default) The queue holds 10 datasets
  - When you retrieve the 11th dataset, the first one's DSN is removed from the list
    - In IDz v9 you can specify more than 10 datasets
  - You can access the files in Retrieved Data Sets the same way you'd access any file in Remote Systems Explorer
    - The files in Retrieved Data Sets will inherit your workspace's properties for:
      - z/OS File System Mapping (covered later in this PowerPoint)
      - Property Groups (also covered later)



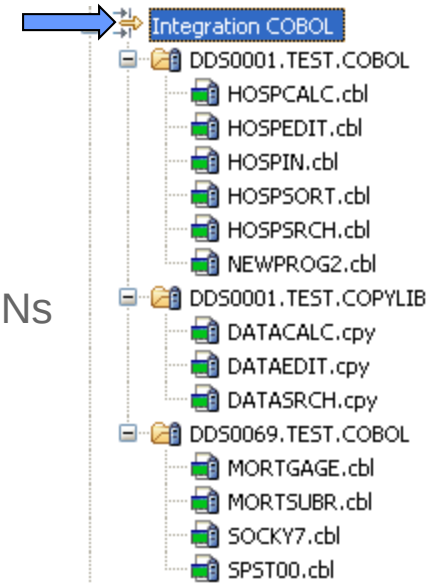
- The Retrieve Data Set names list has a hard-limit of 1,000 file names returned.

- If you have search requirements for file names that could return > 1,000 rows use:
  - Filters (next topic)
  - Search on Dataset name patterns

MVS File Filters

- If you've worked on z/OS for any length of time you have probably seen that the sheer quantity/number of files you need to access can pose a challenge.

- MVS File Filters - which you can think of as “persistent ISPF 3.4 search results” can be used to:
  - Organize z/OS resources into separate collapsible lists
  - Incorporate or isolate specific z/OS resources
  - Share views of mainframe resources
  - Simplify your Remote Systems view
    - If your <HLQ> has 100's of datasets, create filters for subsetting the DSNs and use the filters (primarily) in your daily work
  - Subset (or create supersets of) files for access and analysis
    - Filters with multiple HLQs and subset DSN lists
    - Search within filtered files (using Remote Index Search)



- You can use Filters to better manage your:
  - z/OS libraries and datasets (QSAM/VSAM/GDG files)
  - JES (batch) Jobs
  - USS files

MVS File Filters are a very powerful organization feature for your files and jobs

They provide a means for you to create subsets and supersets of files that allow you to mix/match and isolate just the elements you need to work on in a large project
- Lower complexity
- Raise productivity

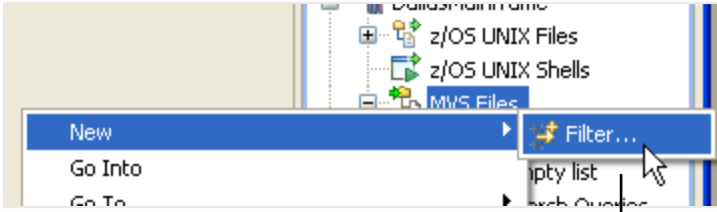
Best Practice - **Custom Filters and Common SCM Libraries**

- It is a good idea to create Filters for your primary source libraries – whether these libraries are:
  - Standard PDS/PDSE datasets
    - Program source libraries, Copy/Include libraries, JCL/PROC libraries, etc.
  - Endevor:
    - 'Endevor target files' - written to by a Endevor processor (normally a PDS/PDSe)
  - CA Panvalet / CA Librarian:
    - Managed PDS/PDSE datasets
  - Serena Changeman:
    - Managed PDS/PDSE datasets

- By doing this (by setting up filters for these external managed libraries), you will simplify workflow for common source analysis

Steps - Create a Custom MVS Files Filter – 1 of 3

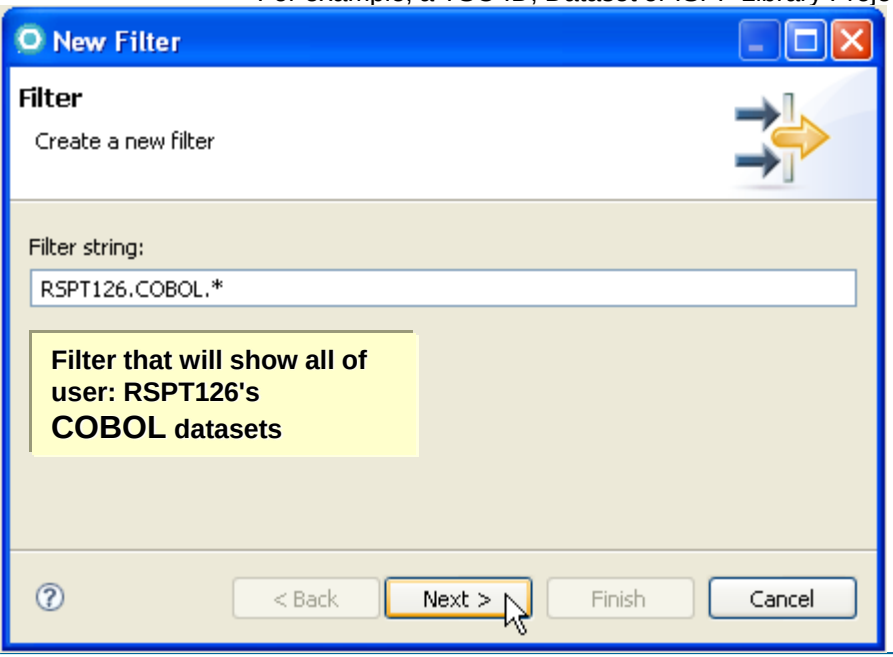
1. In the Remote Systems view, under the connection name, right click MVS Files and click **New > Filter…**
2. In the Filter string field of the New Filter window, type an uppercase filter string and click **Next >**



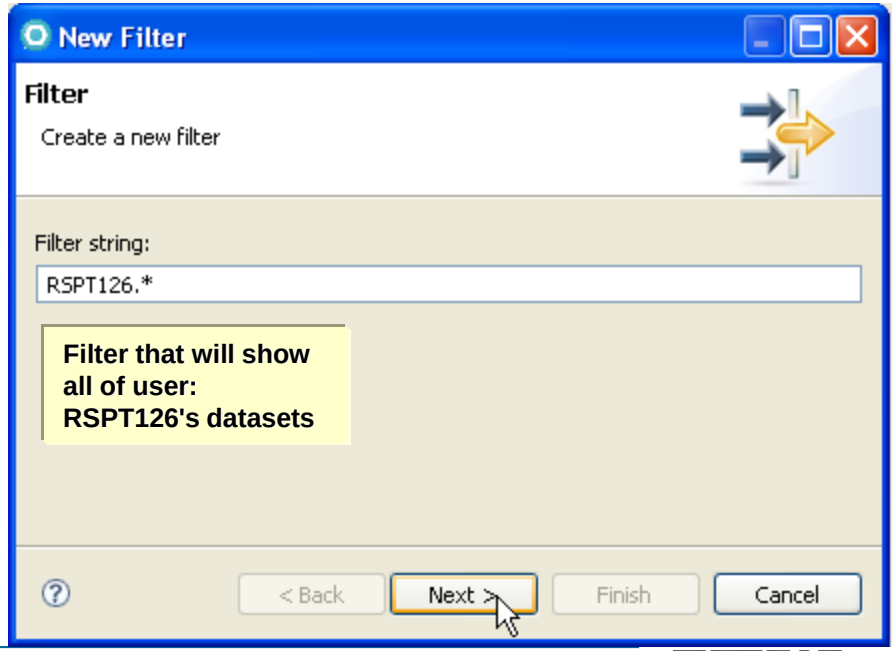
Notes:

- The filter string is the same as the data set name level.
- The string must be uppercase and end in: **.***
- For example
  - **<HLQ>.<MLQ>.CO*** is valid
    - Where <HLQ> and <MLQ> are 1-8 character DSN qualifiers

For example, a TSO ID, Dataset or ISPF Library Project qualifier



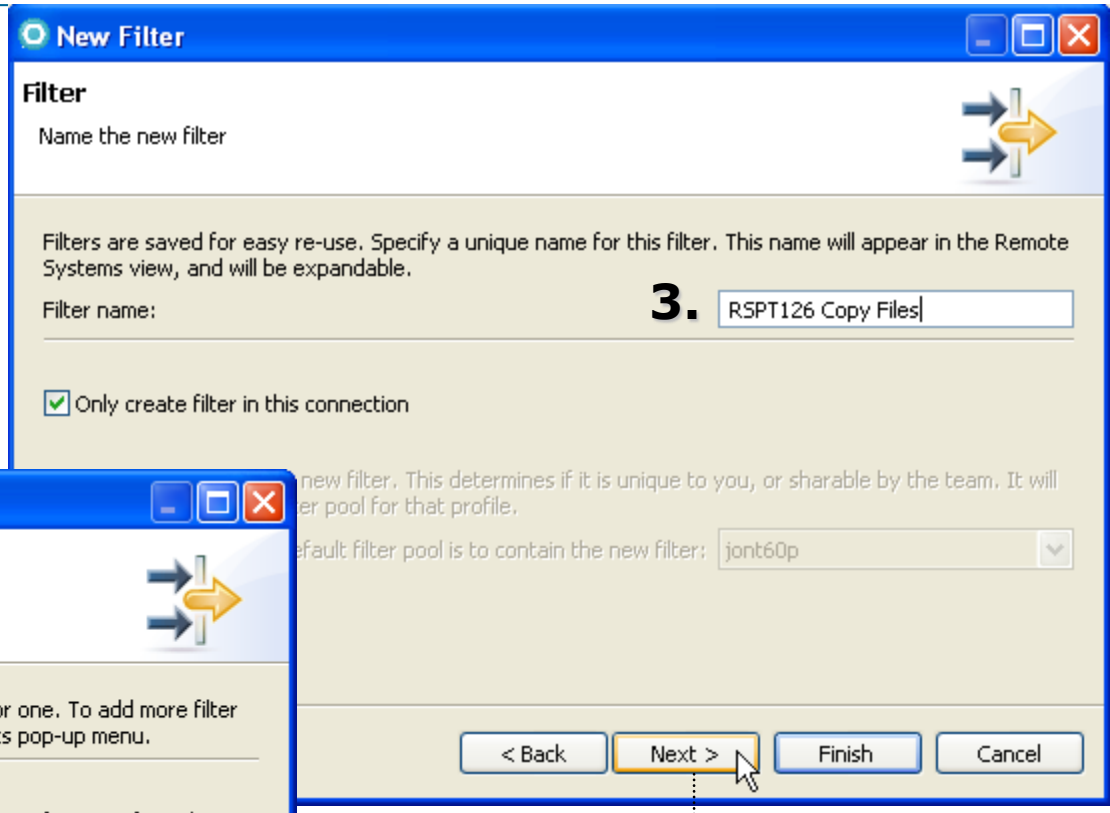
2.

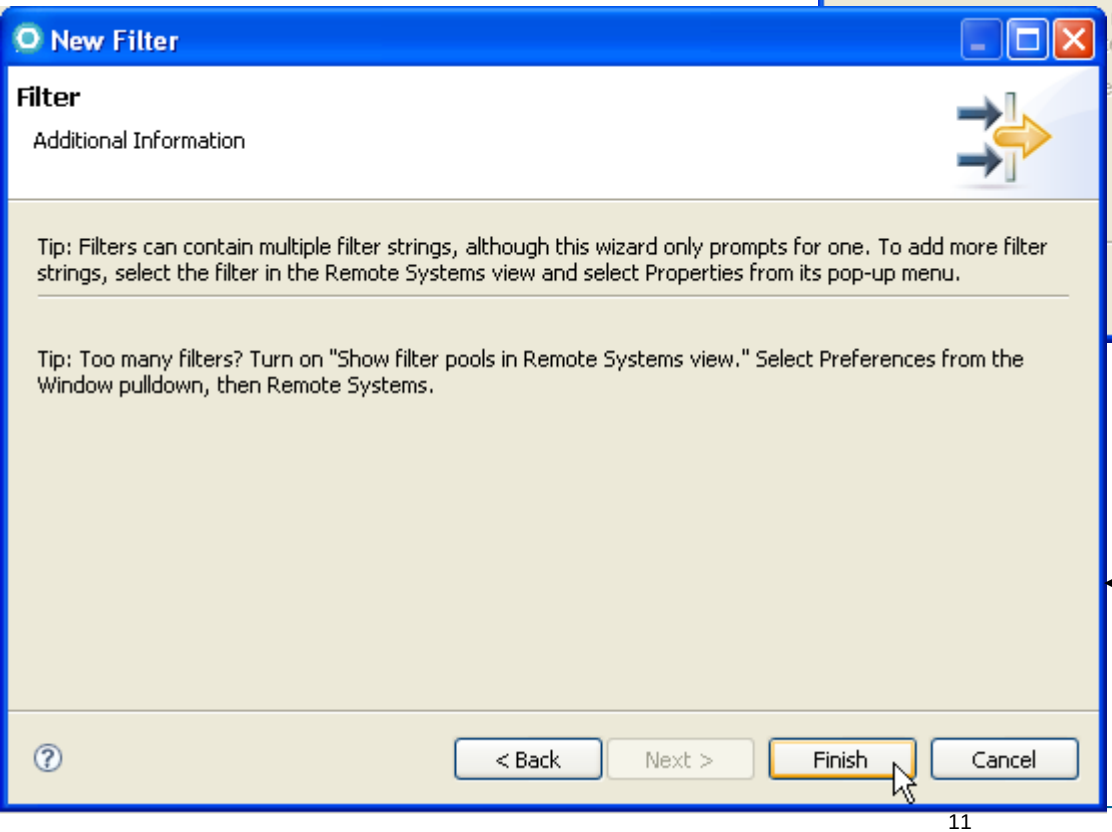


Steps - Create a Custom MVS Files Filter – 2 of 3

3. In the Filter name field, type a name for your filter and click: **Next >**

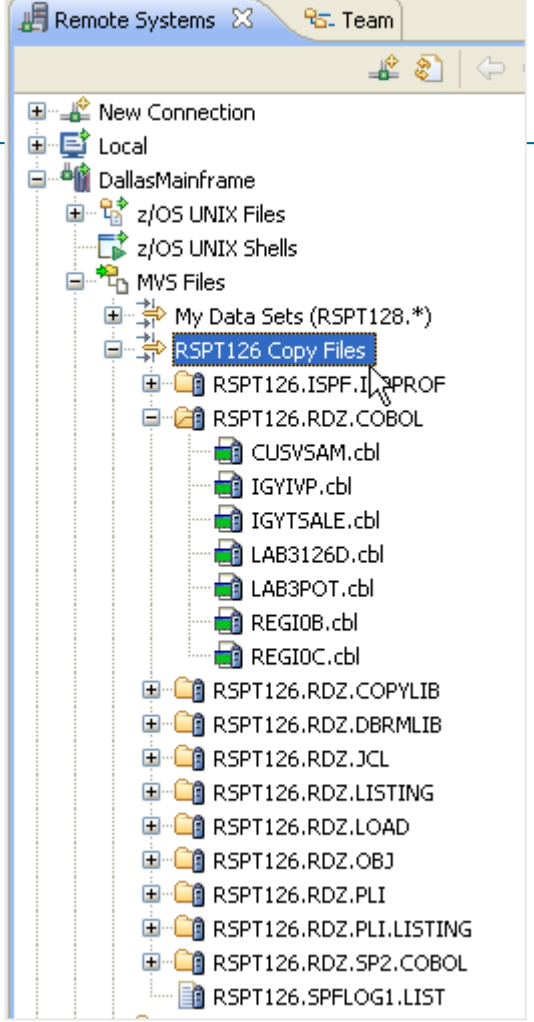
4. Read the Additional Information about Filters, and click: **Finish**



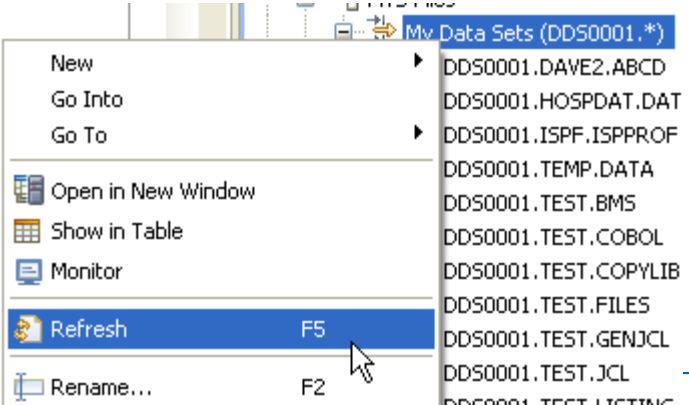


Steps - Create a Custom MVS Files Filter – 3 of 3

5. Expand the filter ➔



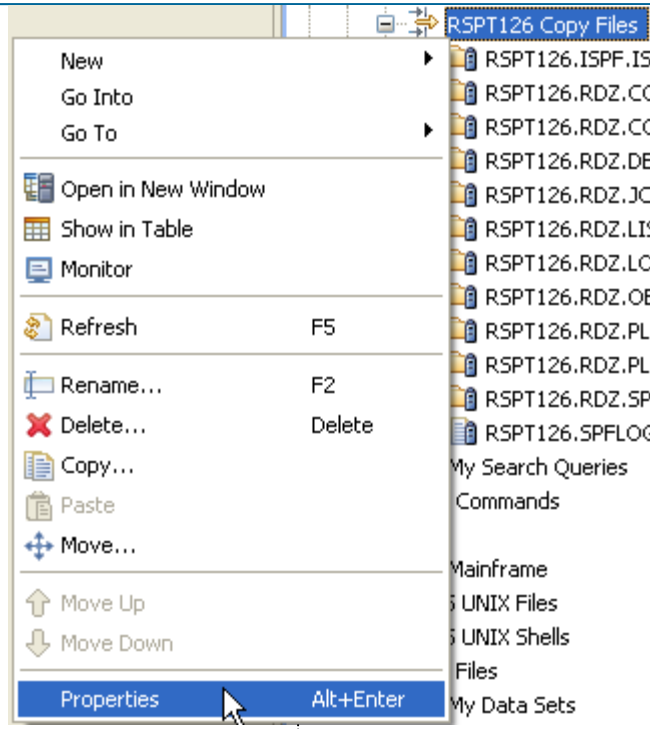
Note: When you create new files that are viewed through a filter, you will need to Refresh(F5) in order to see newly added datasets. This is true even for your base TSO ID Refresh "My Data Sets" or the corresponding filter (**not** your z/OS connection)

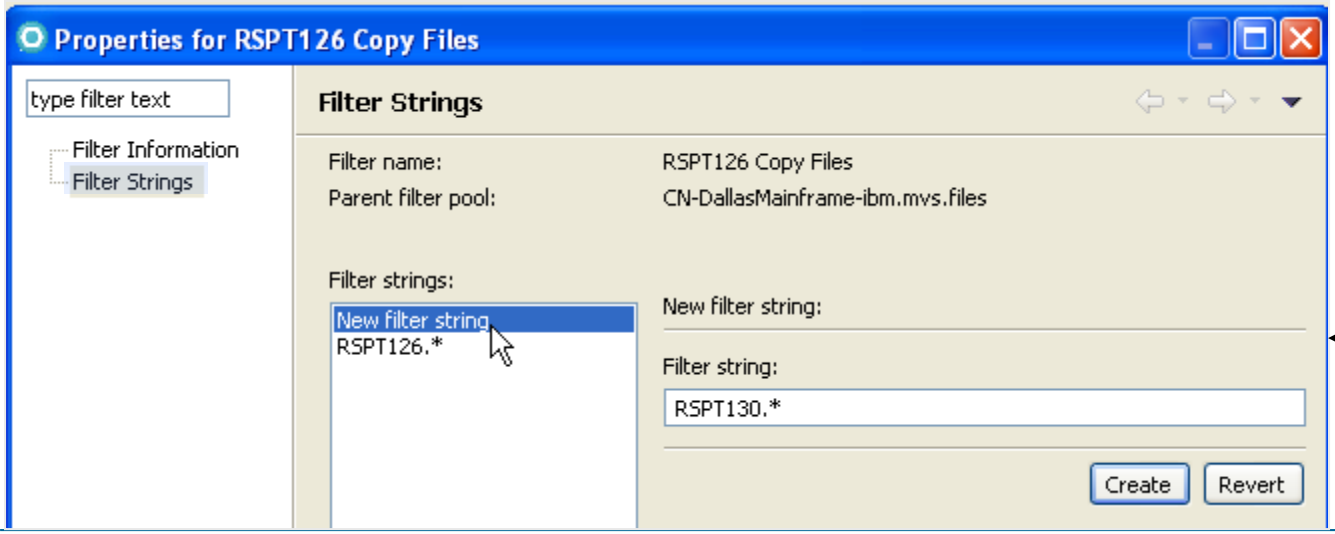


Modify (Add Filter Strings to) **an MVS File Filter** – 1 of 2

Filter Strings allow you to create **subset** or **super-set** organizers for your datasets by adding additional Filters Strings. To do this – from Remote System Explorer:

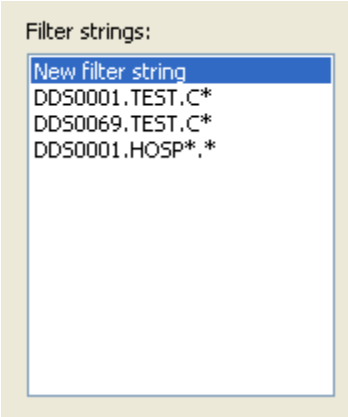
1. Select the MVS File Filter you wish to extend
2. Right-click and select **Properties**
3. From the **Properties for** … dialog:
   - Select **Filter Strings**
   - Click: **New filter string** and type in additional filter string wildcard text:
     - Adhere to the Filter String coding rules described on the previous slide
   - Click **Create**



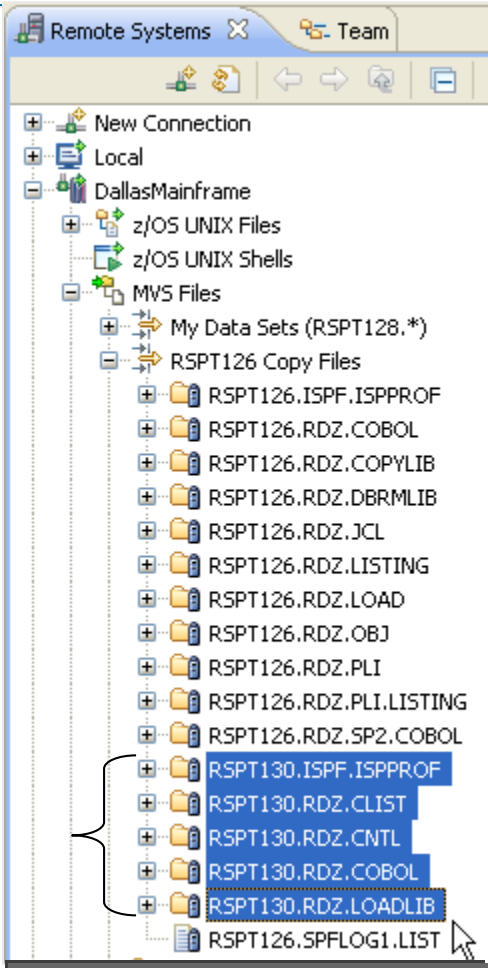


Modify (Add Filter Strings to) an MVS File Filter – 2 of 2

- Filters can include files based on any combination of dataset qualifiers – and can provide you with very specific DSN lists.



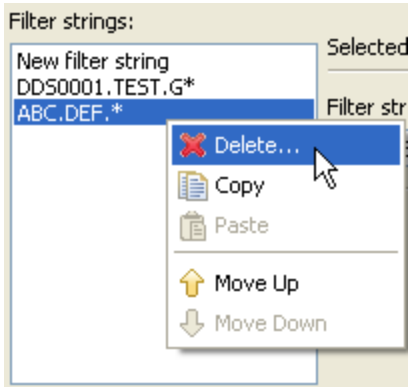
MVS Files Custom Filtered datasets for both RSPT126 and RSPT130➔



Note: The files you see in your Remote Systems View will be different than those shown in this screen capture

You can remove a filter string using the Context Menu

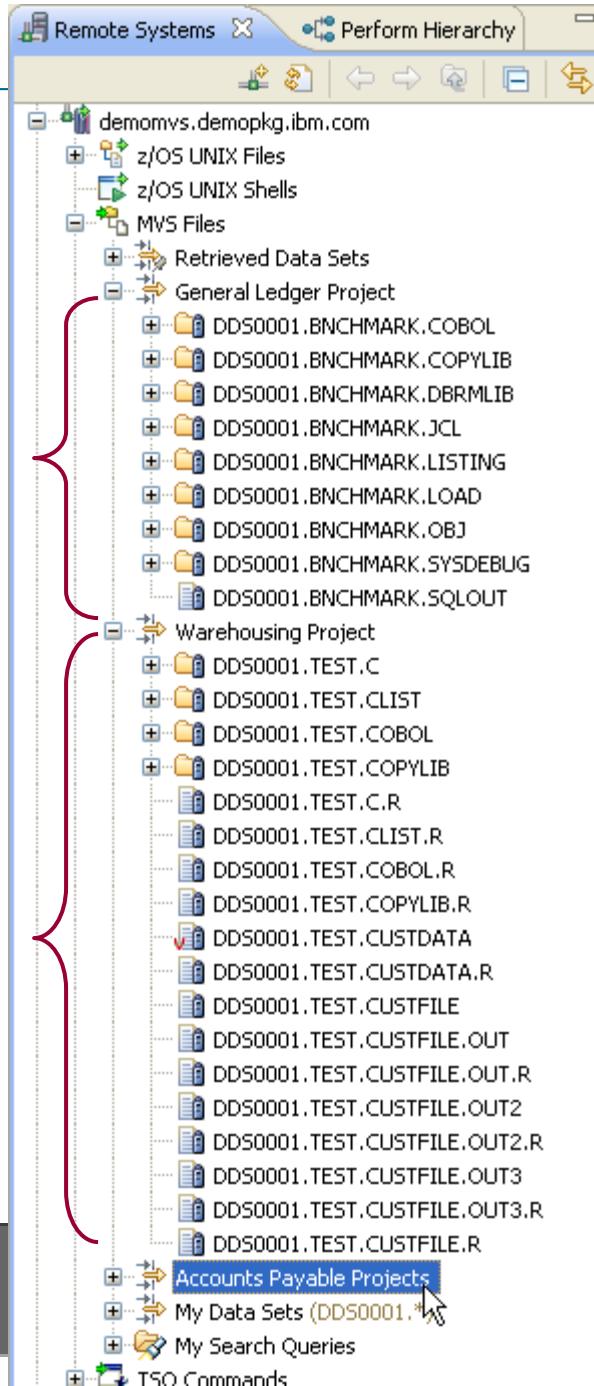
But note that if there is only one Filter String you can change it, but not delete it



If you delete an MVS File Filter the datasets referenced by the Filter are **NOT** deleted

MVS File Filters as Organizers for Your Datasets

- Along with providing convenient access to datasets ***not*** owned by you, File Filters can help manage the (typically) large number of datasets defined with your TSO ID as the high-level qualifier.
- If you do have (go ahead… admit it) 100, 200, 300+ libraries and as many flat-files that you've been hoarding over the past decade or so, the "My Data Sets" filter becomes an inconveniently long list of DSNs to scroll
- Defining MVS File Filters with Filter Strings that effectively classify your datasets into manageable subsets can make for more efficient product use



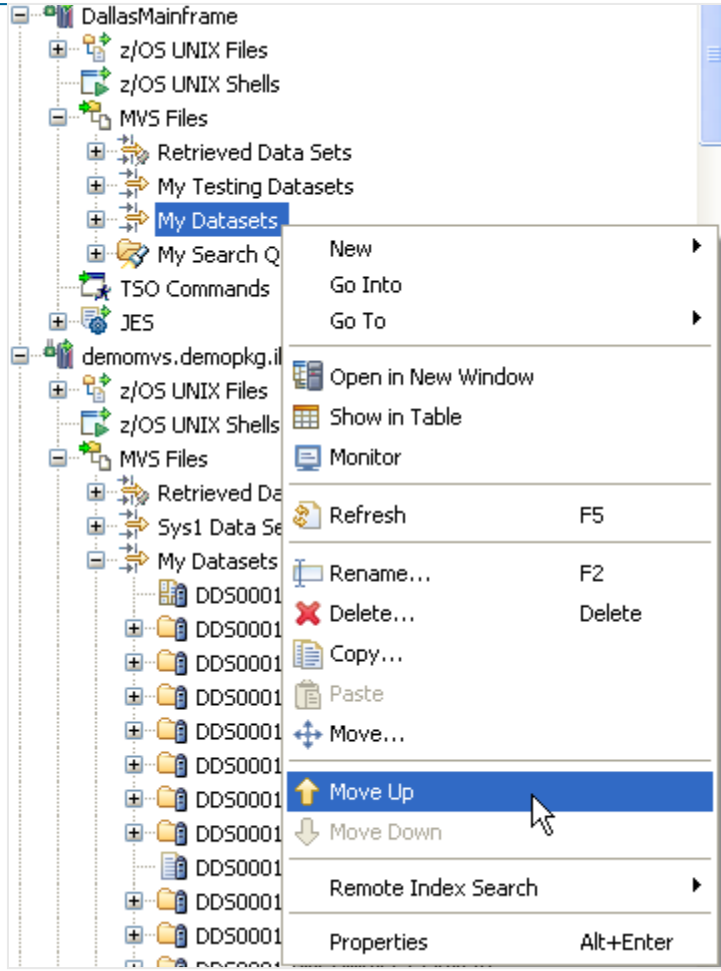
Note: **In an upcoming module of this course you will see another powerful IDz facility for organizing files: MVS Subprojects**

Move Your Filters – Up or Down Within MVS Files or JES Job Lists

You can move your custom filters (and the My Datasets and My Jobs filters) around inside of MVS Files or JES:

- Right-click over the filter and select:
  - Move Up (unless the filter is at the top of the list)
  - Move Down (unless the filter is at the bottom of the list)

- This can simplify Remote Systems – and provide quicker access to the datasets you need



IDz Admin Note: You can export MVS File and JES Job Filters by exporting the Connection they're created in