CL Command for Creating DB2 Web Query Synonyms

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1 CL Command for Creating DB2 Web Query Synonyms

Command CRTWQSYN allows the user to create DB2 Web Query synonyms from a Command Line (CL) interface. Before creating DB2 Web Query reports and graphs that query your own data, you must first create Master (.mas) and Access (.acx) Files. These files reside in a folder in the Integrated File System (IFS) and are referred to as DB2 Web Query synonyms. Master Files describe the database objects, columns (fields) and their attributes so that DB2 Web Query can report on it. Access Files provide information that DB2 Web Query needs to locate the database object. A synonym is a collection of Master and Access Files for a specific data source.

The command can be called in a batch input stream, in a CL program, in a REXX procedure, in a CL ILE module, or when processed interactively. It can also be passed to the system API programs QCMDEXC, QCAEXEC, and QCAPCMD for processing. This gives IBM i developers and administrators the ability to create DB2 Web Query synonyms from a variety of interfaces – both interactive and programmatic.

A Web Query synonym can be created over a file that is any of the following file types:

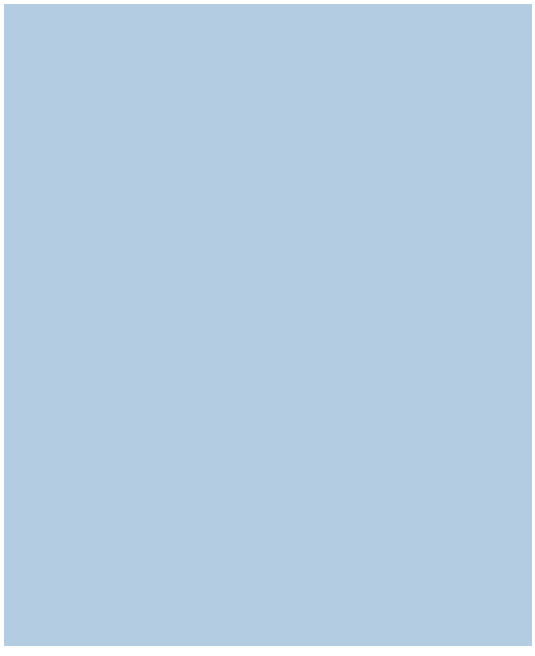
- Table

Topics:

- Command Parameters

- Physical File
- SQL View
- Logical File
- Materialized Query Table (MQT)
- SQL Alias

Note: The CRTWQSYN command will only create synonyms based on the DB2 CLI adapter. The command will NOT create synonyms based on the DB Heritage file or Query/400 adapters. It also does not support the creation of synonyms over stored procedure data sources. If you need to create synonyms over these types of data sources, you must use the DB2 Web Query metadata console from a web browser or the DB2 Web Query Developer Workbench tool.



Command Parameters

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The following are the parameter names, descriptions, and valid values for the CRTWQSYN command.

File

Enter the name of the database file object to create the DB2 Web Query synonym over. Valid values include:

- ***ALL** specifies to create DB2 Web Query synonyms over all of the objects in the specified schema.
- **Generic-name** specifies the generic name of the database file to create a DB2 Web Query synonym over. A generic name is a character string that contains one or more characters followed by an asterisk (*). If a generic name is specified, all objects that have names with the same prefix as the generic name are shown.
- **Name** specifies the name of the file.

  Note: You may specify either the SQL (long) name or the system (short) name.

Schema

Enter the name of the database schema (library) which contains the files you wish to create DB2 Web Query synonyms.

Note: You may specify either the SQL (long) name or the system (short) name of the schema/library.

FILETYPE

When *ALL is specified for the file parameter, specify what types of files are to be searched for and included in the synonym creation process. Up to four file types can be specified. Valid values include:

- ***ALL** all file types will be located and synonyms created for. This includes the following:
  - SQL Tables
  - Physical Files
  - SQL views
  - Materialized Query Tables (MQTs)
  - SQL aliases
- ***TABLE** creates all SQL tables and physical files that will be located in the specified schema and synonyms for each such object.
- ***VIEW** creates all SQL views and logical files that will be located in the specified schema and synonyms for each such object.
- ***ALIAS** creates all SQL aliases that will be located in the specified schema and synonyms for each such object.
- ***MQT** creates all Materialized Query Tables that will be located in the specified schema and synonyms for each such object.

Note: This parameter is only applicable when *ALL is specified for the FILE parameter.

EXCLSYSFL

When *ALL or a generic* value is specified for the file parameter, specifies whether to exclude system files and catalogs when locating and creating synonyms for the files in the specified schema. Valid values include:

- ***YES** excludes all system files and catalogs when searching for candidate files. Synonyms will not be created for such objects.

- ***NO** includes all system files and catalogs when searching for candidate files. Synonyms will be created for such objects.

Note: This parameter is only applicable when *ALL is specified for the FILE parameter.

EXCLSRCPF

When *ALL or a generic* value is specified for the file parameter, specifies whether to exclude source physical files when locating and creating synonyms for the files in the specified schema. Valid values include:

- ***YES** excluded all source physical files when searching for candidate files. Synonyms will not be created for such objects. Synonyms will only be generated for data files.
- ***NO** included all source physical files when searching for candidate files. Synonyms will be created for such objects.

  Note: This parameter is only applicable when *ALL is specified for the FILE parameter.

PREFIX

Specifies the prefix to append to the beginning of the synonym name. If you have tables with identical table names, assign a prefix or a suffix to distinguish them. For example, if you name human resources and payroll tables identically, assign the prefix HR to distinguish the synonyms for the human resources tables. Note that the resulting synonym name cannot exceed 64 characters.

Note: If all tables and views have unique names, leave prefix and suffix fields blank.

SUFFIX

Specifies the suffix to append to the end of the synonym name. If you have tables with identical table names, assign a prefix or a suffix to distinguish them. For example, if you have identically named human resources and payroll tables, assign the prefix HR to distinguish the synonyms for the human resources tables. Note that the resulting synonym name cannot exceed 64 characters.

Note: If all tables and views have unique names, leave prefix and suffix fields blank.

APPFLR

Specify the name of the application folder where the synonym is to be created. Valid values include:

- ***BASEAPP** is the folder where the synonym is to be created.
- **Name** specifies the name of the application folder in which the synonym is to be created.

FRGNKEYS

Specifies whether the synonym should include foreign key relationship definitions. If specified, the synonym being created will automatically include every table related by a foreign key to the table specified in the FILE parameter. The resulting multi-table synonym describes all table foreign key relationships. Valid values include:

- ***NO** does not include foreign key relationships in the synonym.
- ***YES** includes foreign key relationships in the synonym.

QUALLIB

Specifies whether to generate a library qualified table name in the DB2 Web Query synonym Access file (.acx) for the specified table. Valid values include:

- ***YES** is the library portion of the table name is included in the synonym access file. The explicit name of the library (specified in the SCHEMA parameter) that contains the table is used. For example:

  ```
  TABLENAME=MYLIB/MYTABLE
  ```

  With this explicit type of entry in the Access File, at run time the table is directly located in the specified library. This setting is equivalent to not checking the One-Part Name setting when using the DB2 Web Query metadata console from the web browser or Developer Workbench.

- ***NO** is the library portion of the table name is omitted from the synonym access file and appears as follows:

  ```
  TABLENAME=MYTABLE
  ```

  With this type of entry in the Access File, at run time the library list of the job is searched until the table name is located. Specifying this value is equivalent to checking the One-Part Name setting when using the DB2 Web Query metadata console from the web browser or Developer Workbench.

OPTION

Specifies what action to take if the specified synonym name (including prefix and suffix) already exists in the specified application folder. Valid values include:

- ***NONE** means that no action is taken. If the synonym already exists it will NOT be overwritten and the CRTWQSYN request will fail. If the synonym does not exist, it will be created.
- ***REPLACE** deletes and replaces an existing synonym.

- ***REFRESH** refreshes an existing synonym. Refreshing a synonym enables you to update field information while preserving the original synonym title, description, usage virtual field, and DBA information. The action also synchronizes the Master File with the table on which the synonym is based. Use this option if the underlying object has been altered (for example if a new column has been added to a table or an old one was deleted) and you want synchronize the synonym to reflect this change.

  Note: As of Hotfix 4, the REFRESH option is not working. Users that attempt to use this option will receive the following error, as shown in the following image.

  In a future Web Query release *REFRESH functionality will be added.

SHORTALIAS

When generating the table's column level information in the Master (.mas) file, the SHORTALIAS command parameter specifies whether to use the table's system (short) name for the synonym's alias. This allows the DB2 Web Query report developer to see and use both the SQL (long) name of the column as well as the system (short) name when using the report development tools. Valid values include:

- ***NO** uses the field's SQL (long) name as the column alias in the synonym.
- ***YES** uses the field's system (short) name as the column alias in the synonym.