Munsys 14

EXPORT ADMINISTRATOR USER MANUAL

Munsys® Export Administrator User Manual

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Chapter 1
Introducing Export Administrator User Manual

Introduction

Munsys® Export Administrator is used to export spatial data to formats supported by various GIS vendors. Export Administrator is installed together with the Munsys Management Console, which forms part of the Munsys product family.

The MunXport executable file reads the content of the definition file and creates the resultant output file. MunXport.exe can be run directly from the command prompt.

Munsys® Export Administrator is a standalone application that facilitates the creation of the export definition files through a user friendly user interface. It allows users with relevant privileges to define, save, load and run definition files which determine which data is to be exported and in what format.

The Munsys® Export Administrator application is used to create the export definition file which is saved as either an *.ini* or a *.def* file. The layout of the definition file is similar to that of an INI file, previously used by Microsoft Windows® Operating Systems for initialization purposes.

The contents of a table (both of geometric and alphanumeric nature) can be exported to file(s) that represent one of the following data formats:

- Autodesk MapGuide (SDF)
- ESRI Shape File (SHP)
- MapInfo Files (MIF/MID)

About this manual

The *Export Administrator User Manual* contains the information you will need to export spatial data to formats supported by various GIS vendors.

What's in this manual

The *Export Administrator User Manual* consists of the following chapters:

- Chapter 1 – Introducing the Export Administrator User Manual
- Chapter 2 – Using Munsys Export
- Chapter 3 – Supported SDF Features
- Chapter 4 – Supported SHP Features
- Chapter 5 – Supported MIF Features

Conventions in this manual

The following table lists the typographical conventions used in this manual.

Text element	Example
Keys you press on the keyboard	CTRL, ENTER, DEL
Screen buttons	Click Close.
Folder paths	C:\Program Files\Open Spatial
Hypertext links to more information	http://www.openspatial.com
Dialog box/screen names	The Configuration dialog box

Table 1 Munsys typographical conventions

Installing Munsys Export Administrator

The Munsys Export Administrator can be installed separately using the Munsys Management Console installation files by selecting the Munsys Export feature.

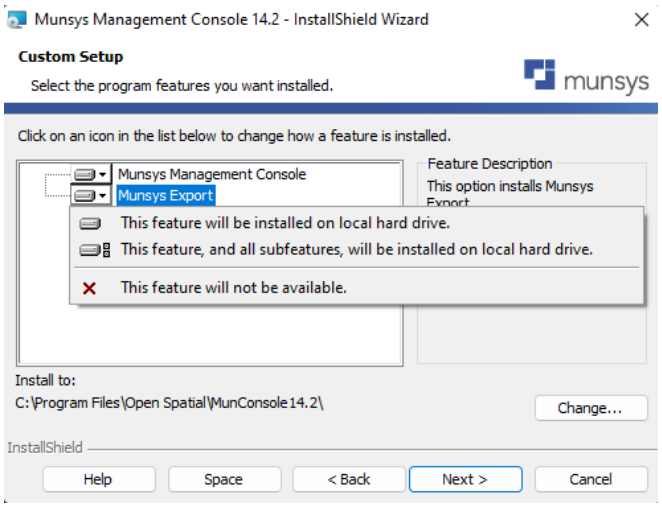


Figure 2 Selecting the Munsys Export feature to install

Chapter 2
Using Export Administrator and MunXport

Introduction

This chapter provides an introduction to the Munsys Export Administrator interface, as well as the way the application is structured. You will also be shown how to launch MunXport from the command line, start the Munsys Export Administrator application, and how to create a definition file:

- launching MunXport from the command line.
- launching Munsys Export Administrator.
- create a definition file manually or by using Munsys Export Administrator.
- save, load and run the definition file using Munsys Export Administrator
- check the log file.
- manually setting up the output section of the definition file.

Launching MunXport from the Command Line

To launch MunXport from the command line, do one of the following:

1 Choose **Start** > **Run…**

- Browse to the directory containing the **MunXport.exe** file by clicking the **Browse…** button.
- Double-click **MunXport.exe**
- At the end of the string containing the executable, append the following string to specify the name of the definition file to use: **-f**`definitionfile`

2 Choose **Start** > **Programs** > **Command Prompt**.

- Browse to the directory containing the **MunXport.exe** file, by making use of the change directory command (**cd**)

Example `C:\>cd Program Files\Open Spatial\MunConsole14.2\MunXport`

- Type **MunXport -f**`definitionfile`

Example `MunXport -fSEWGPIPE.DEF`

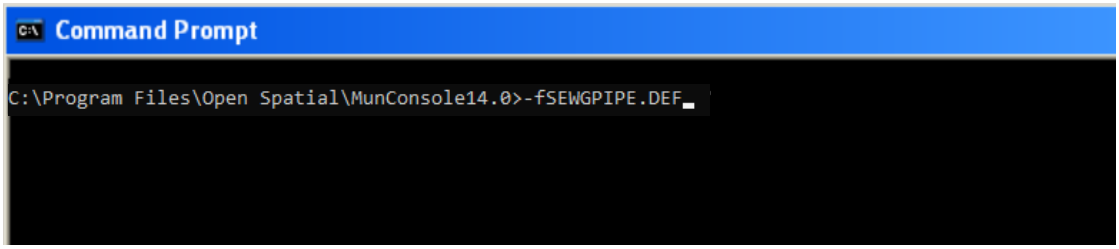


Figure 1 Example: Running MunXport while specifying a definition file

Note MunXport.exe is a DOS command line utility. To execute MunXport, you will be required to supply a minimum of one command line argument. This argument refers to a definition file that must be created prior to running MunXport. Munsys Export Administrator provides a user interface to easily create the definition files.

Launching Munsys Export Administrator

To launch Munsys Export Administrator, do one of the following:

1 Choose **Start** > **All Programs** > **Open Spatial > Munsys 14.2 > Munsys Export Administrator 14.2**

or

2 Double-click the **Munsys Export Administrator 14.2** icon on the Windows desktop.

Figure 2 Munsys Export Administrator desktop icon

3 The Munsys Export Administrator dialog box is displayed.

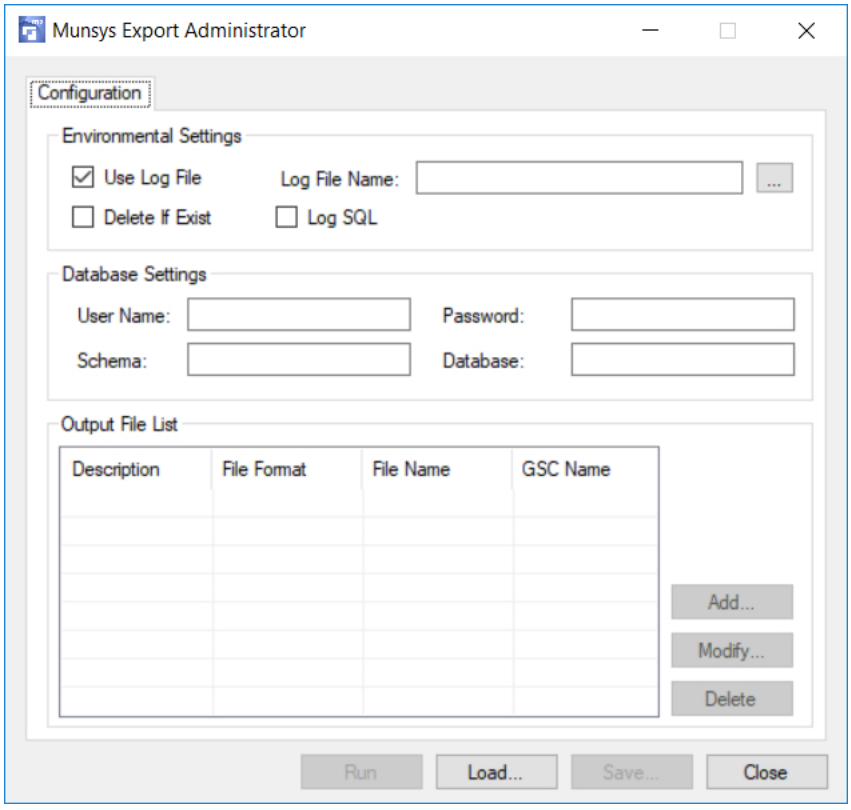


Figure 3 Munsys Export Administrator dialog box

Munsys Export Administrator Configuration

The Munsys Export Administrator Configuration dialog box consists of 3 sections, namely:

- Environmental Settings
- Database Settings
- Output File List

Together, these 3 components make up the export definition file that must be run in order to generate the export files.

Environmental Settings

The Environmental Settings section is where the user determines if a log file is to be generated or not, and requires that a file name, file extension and file location of the resultant Log File be entered.

The log file is used to log the export process and will report any errors. It is recommended that the user check the log file after the export has been run to ensure that no errors were encountered.

- The first check box for Use Log File determines whether a log file will be created or not when the export process is run. By default this check box is checked, and a valid log file name must be entered in the Log File Name text box.
- The Log File Name: text input box enables the user to type the file name, file extension and full path location.
- The Delete if Exist check box determines if the log file will be automatically truncated and rewritten if it already exists. By default this check box is not checked, and if the log file already exists, the new log entries will be appended to the existing log file.
- The Log SQL check box determines if the SQL syntax used to define any filter conditions is to be written to the resultant log file.

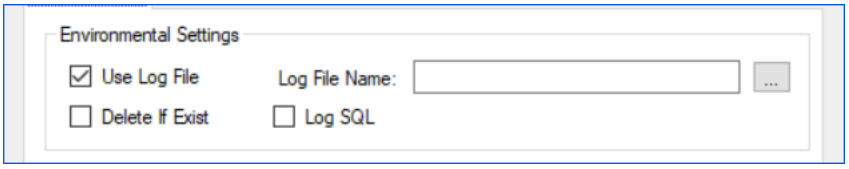


Figure 4 Environmental Settings

Database Settings

The Database Settings section requires the user to enter a valid user name, password, schema name and database name of the schema from which the data must be exported from.

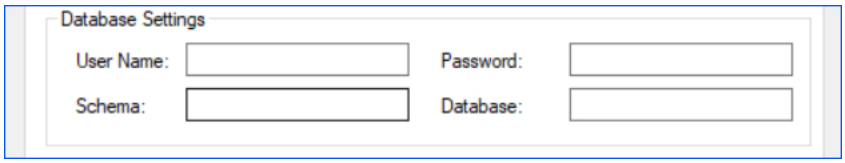


Figure 5 Database Settings

Note Oracle 11g databases are case sensitive and the username and password must be entered correctly.

Output File List

The Output File List displays the list of output files that are defined within the definition file. The definition file can contain different output files, for example:

Example A definition file can be saved as **Water Network.ini** and contain various output files for the Water Pipes, Water Nodes, Water Service Connections and Water Symbols.

- The Add... button opens the Output File dialog box where the user defines the input, output, parameters, columns and filters to add a new output file to the definition file.
- The Modify... button opens the Output File dialog box pre populated with the output file settings allowing the user to modify the contents, file format, output file name and settings.
- The Delete button removes the selected output file from the definition file.

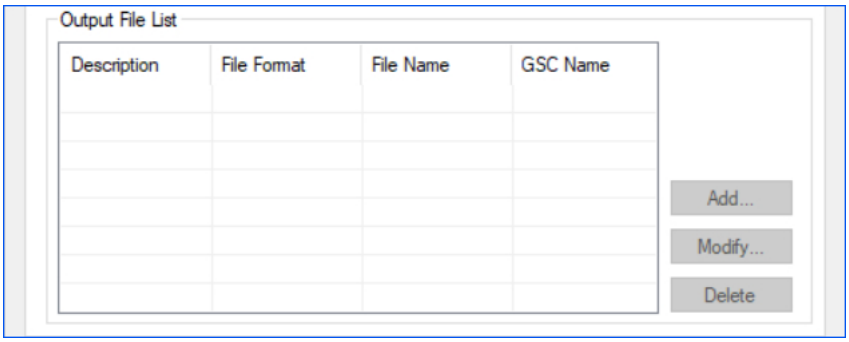


Figure 6 Output File List

Creating a definition file

The user has the option to continue using a text editor to manually create the definition file, or they can use the Munsys Export Administrator application.

The Munsys Export Administrator provides a user friendly user interface that steps through the creation process and allows you to make selections from drop down lists, thus assisting in eliminating misspelled table and column names etc. The Munsys Export Administrator also has a SQL builder function that enables you to easily apply SQL conditions to the data being exported.

The Use GSC setting allows you to select a user created GSC, which applies an additional spatial filter to the data being exported from the database.

Selecting a text editor for manual creation

When manually creating a definition file, the user is required to choose a text editor that does not insert any white space characters, such as tabs, into the definition file.

The end of line should be terminated by a carriage return/linefeed pair, in other words, each line should be inserted into the text file, as is the default standard for an MS-DOS type text file.

Tip It is recommended that the definition file is saved with the extension .DEF or .INI so that it is easily distinguishable as a definition file.

Understanding the syntax of a definition file

The layout of a definition file consists of section headers, commands and values. Section headers and commands can be encountered repetitively. Some sections and commands apply to a single value only; in this case, the final item encountered in the file will apply. A definition file is loaded when the application starts, and applies all values encountered in the definition file.

A definition file is structured as follows:

- [Environmental Settings] This section must not be repeated
- command(Unique string)=value1(affects a specific item),"Stringvalue",…,valueN
- …
- ; All blank lines in the definition file are ignored. If any line contains a semi-colon in the first column, then this line is treated as a comment line, which is ignored.
- …
- …
- command=value1,value2,…,valueN

Example

[Environmental Settings]

```
Use Log File=Yes,"d:\Temp\err.log"
Delete If Exist=Yes
```

- [Database Settings] This section must not be repeated
- command=value1,value2,…,valueN
- …

Note

The User Name and Password can be omitted and entered as external parameters at the command line using -u and -p

Example

```
Database=ORCL11G
Schema=MCITY14US
User=MCITY14US,MCITY14US
```

[Output File] This section can be repeated for multiple output files

command=value1,value2,…,valueN

- File Format=SDF (e.g. requires one value)
- File Name="d:\test","parcel" (requires two values, the first identifies the folder and the second identifies the name of the file)
- Table=SP_SEWGPIPE

Examples

[Output File 1] ;Sewer Gravity pipes as SHP files

File Format=SHP

File Name="D:\Temp","Sewergpipes"

Table=SP_SEWGPIPE

Column=GID

ARC TOLERANCE=0.5

Use GSC="GREYMONT"

[Output File 2] ;Sewer Gravity pipes as MIF files

File Format=MIF

File Name="D:\Temp","Sewergpipes"

Table=SP_SEWGPIPE

Column=GID

ARC TOLERANCE=0.5

Use GSC="GREYMONT"

```
[Output File 3]              ;Sewer Gravity pipes as an SDF file
File Format=SDF
File Name="D:\Temp","Sewergpipes"
Table=SP_SEWGPIPE
Geometry Type=Polyline
Key=GID
Label=TAG_VALUE
ARC TOLERANCE=0.5
Use GSC="GREYMONT"
```

MunXport definition file structure

Examples of commands and values for the Environmental section

Command	Description	Value #	Value Description	Default Value
Use Log File	Specify a log file to trap all error and progress information	1	Yes – use a log file, No – don't use a log file. If Yes, then Value 2 must also be specified	No
		2	Full path and filename for log file	
Delete If Exist	Related to the log file, it informs the utility if it should truncate the log file before logging the first event	1	Yes – must truncate the file, No –will append all events to the end of the existing file	No

Table 7 Commands and values for environmental settings

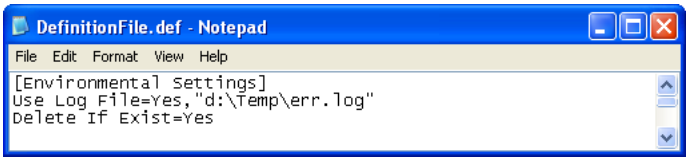


Figure 8 Example: Environmental Settings

The log file is used to log the MunXport process and will report any errors. It is recommended that the user check the log file to ensure that no errors were encountered.

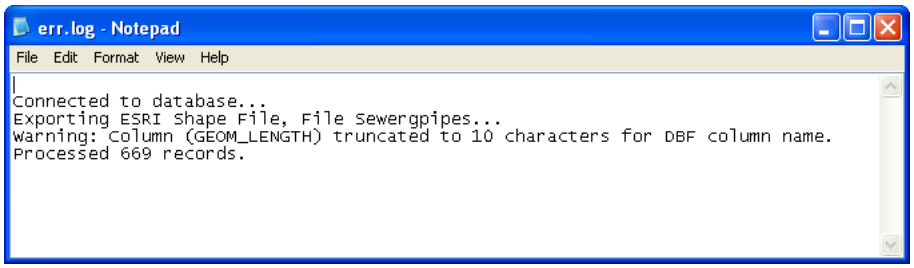


Figure 9 Example: Log file

Examples of commands and values for the database settings

Command	Description	Value #	Value Description	Command Line Flag
Database	Specifies the name of the Oracle database to use.	1	Database Name	
Schema	Specifies the Munsys schema containing the tables to be used as input.	1	Schema Name	
User	Specifies a user log on name and password. If completely or partially omitted, then the –u and/or –p command line options must be used to specify this.	1	User Name	-u
		2	Password	-p

Table 3 Commands and values for database settings

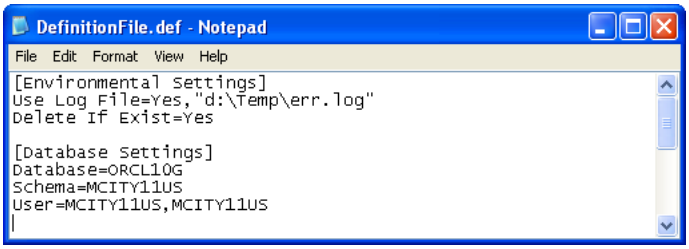


Figure 4 Example: Database settings

In some cases, security is an issue and the user name and password must be entered at the time the export file is run rather than being saved as part of the export definition file.

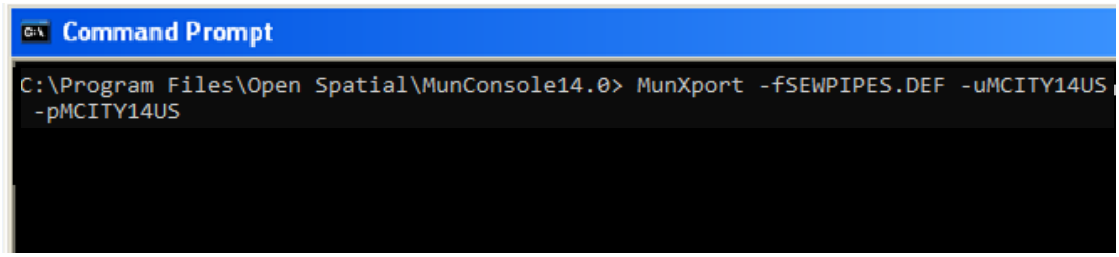


Figure 5 Example: Running MunXport while specifying a definition file, username and password

Example of commands and values for the Output file section that determine the Input data

Command	Description	Value #	Value Description
Table	Specifies the name of a Munsys spatial table in the schema	1	“Table Name”
SQL Clause	Specifies an additional "WHERE" clause used to filter out specific data from the spatial table. If this is not specified then the whole table will be extracted. The statement must conform to SQL rules and will result in an error if specified incorrectly.	1	“SQL String”

Table 4 Commands and values for the Output file section that determines Input data

Examples of commands and values for the Output file section that determine the Output file

Command	Description	Value #	Value Description
File Format	Specifies the type of file to be exported.	1	Values can either be: SDF, SHP or MIF
File Name	This identifies the location and output name for the resulting data set. The application of the file name is format-specific. Extensions must not be included as part of the file name.	1	Path name for the location of the resulting format file(s).
		2	File name for the resulting set. The type of format selected determines how the filename will be applied.
Description	This is not supported by all formats but is used to specify a description string for the output file.	1	Description
Precision	Specifies the number of digits after the decimal point in ASCII related formats.	1	Precision value – defaults to a value of 4 if this is not specified. In the case of SDF exports, the default is 32, and can be set to 64 if necessary.
Key	Specifies the name of a column that represents the key of the exported spatial feature. The key is not supported by all formats and will be ignored when this is the case.	1	Column Name
Label	Specifies the name of a column that represents a label for the spatial feature. The label is not supported by all formats and will be ignored where redundant.	1	Column Name
Column	Specifies a column to be exported. This will recur for each column to be exported.	1	Column Name from table. If Value 2 is not used, then this name will be used as identifier for the column in the exported dataset.
		2	Alternative column name. Use this to rename the column in the data if the original column name does not satisfy.
Arc Tolerance	Specifies the tolerance value used for densifying arcs and circles	1	<arc tolerance> (a real value)
Use GSC	Specifies the names of user-created GSCs.	1	GSC Name from MUNSYS_GSC. The selected GSCs settings are applied as restrictions on the geographic extent of all the spatial data retrieved from the database.

Table 5 Commands and values for the Output file section that determine the output file

Using Munsys Export Administrator to create the definition file

The export definition file (.INI or .DEF) can be easily created using the Munsys Export Administrator application. This application displays dialog boxes with various settings that can be populated according to user specific criteria and selections.

The Munsys Export Administrator facilitates the creation of the Output files which comprise of the following sections:

- Environmental Settings - these must be defined to setup the export environment.
- Database Settings - these must be entered to facilitate the connection to the database.
- Output File List - the list must be generated to indicate the objects to be exported and their output format.
- Save the configuration file for future use.
- Load the configuration file for editing or running the export process.

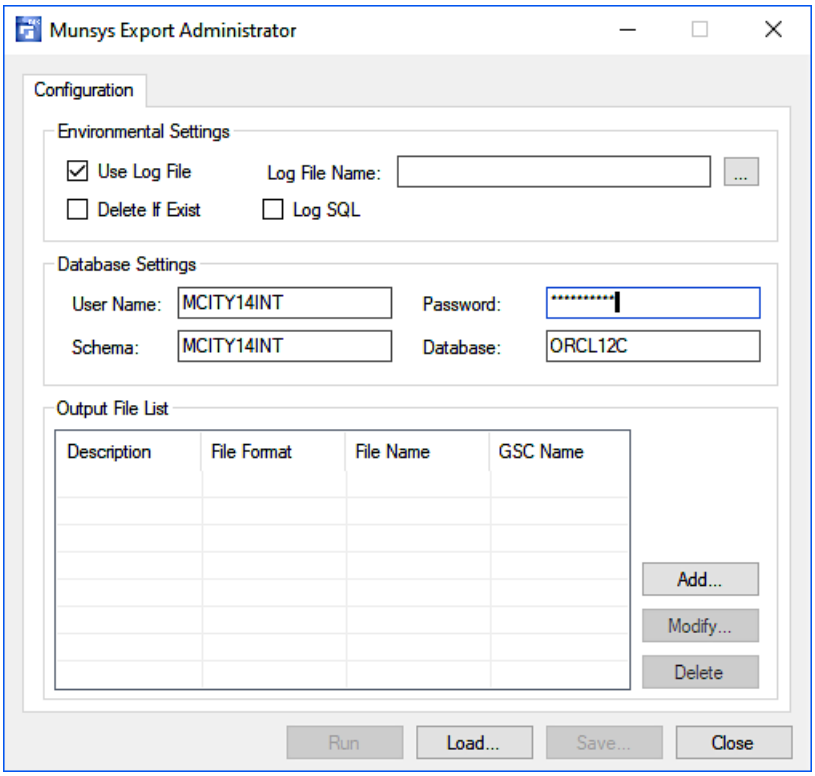


Figure 6 Configuration Dialog

Defining the Environmental Settings

The environmental settings determine if a LOG file will be generated or not when the export is run. The settings also set the LOG file name and location. The actual LOG file records all errors and progress information. It is recommended that the user check the log file to ensure that no errors were encountered.

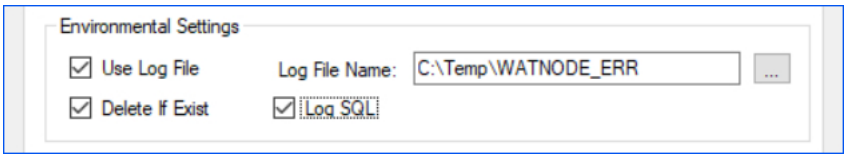


Figure 7 Example: Completed Environmental Settings

Use Log File

By default the Environmental Settings are set to Use Log File. The file name and the file location must be specified if the Use Log File check box is checked. If this check box is unchecked, no log file is generated.

Log File Name

1 To set the **Log File Name** click **...** and browse to the file location.

The Set Log File dialog is displayed

2 Navigate to the required folder and enter in a file name, for example **SEWER.LOG**. You are required to include the file extension with the file name.

By default, the folder is set to the temporary folder *C:|TEMP|*

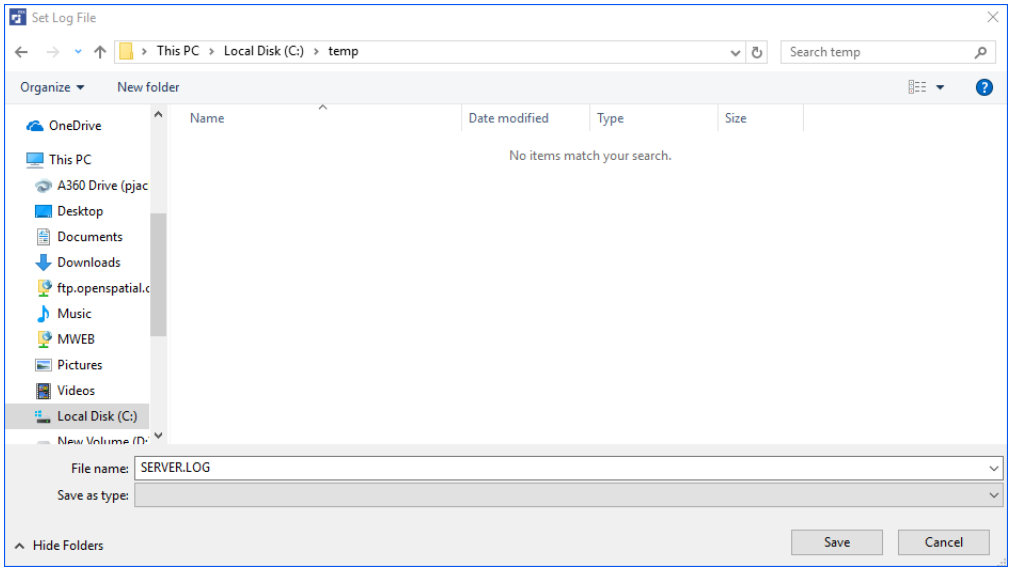


Figure 8 Set Log File

3 Click the **Save** button to set the log file path and filename.

Delete If Exist

The Delete If Exist check box is unchecked by default. This setting is related to the log file and informs the application if it should truncate the log file before logging the first event.

- If the Delete If Exist check box is checked, the log file will be truncated if the log file already exists.
- If the Delete If Exist check box is not checked, all events will be appended to the end of the log file if the log file already exists.

Log SQL

The Log SQL check box is unchecked by default. This setting, if checked, records the full SQL used to generate the export file in the LOG file.

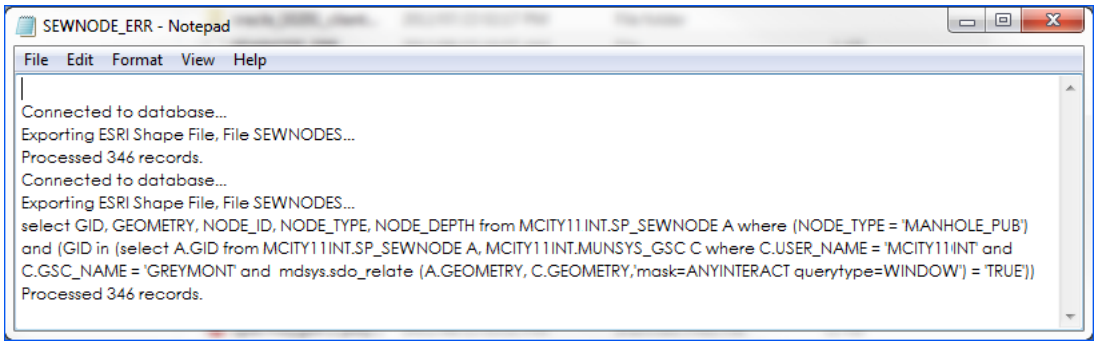


Figure 9 Example of the resultant log file with the SQL logged

Defining the Database Settings

The database settings specify the name of the Munsys schema containing the tables to be used as input. It also specifies the user name, password and schema name used to connect to the specified Munsys schema.

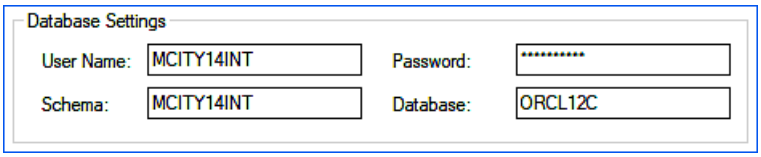


Figure 10 Example: Completed Database Settings

A user must have a minimum of MUNSYS_[*APP*]_QUERY role assigned into order to run the export utility, for example MUNSYS_CMS_QUERY.

Output File List

The Output File List section lists the files that have been added to the export definition file. The list displays the output file description, file format (SDF, SHP or MIF), the output file name and the name of the GSC if applied as a spatial filter.

Note An export definition file must contain at least one output file.

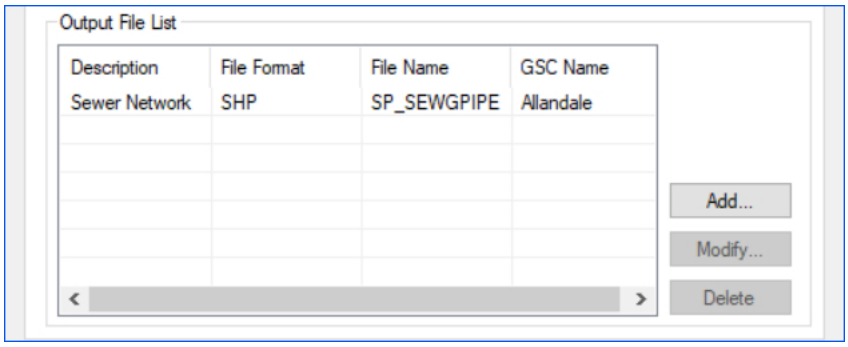


Figure 11 Output File List

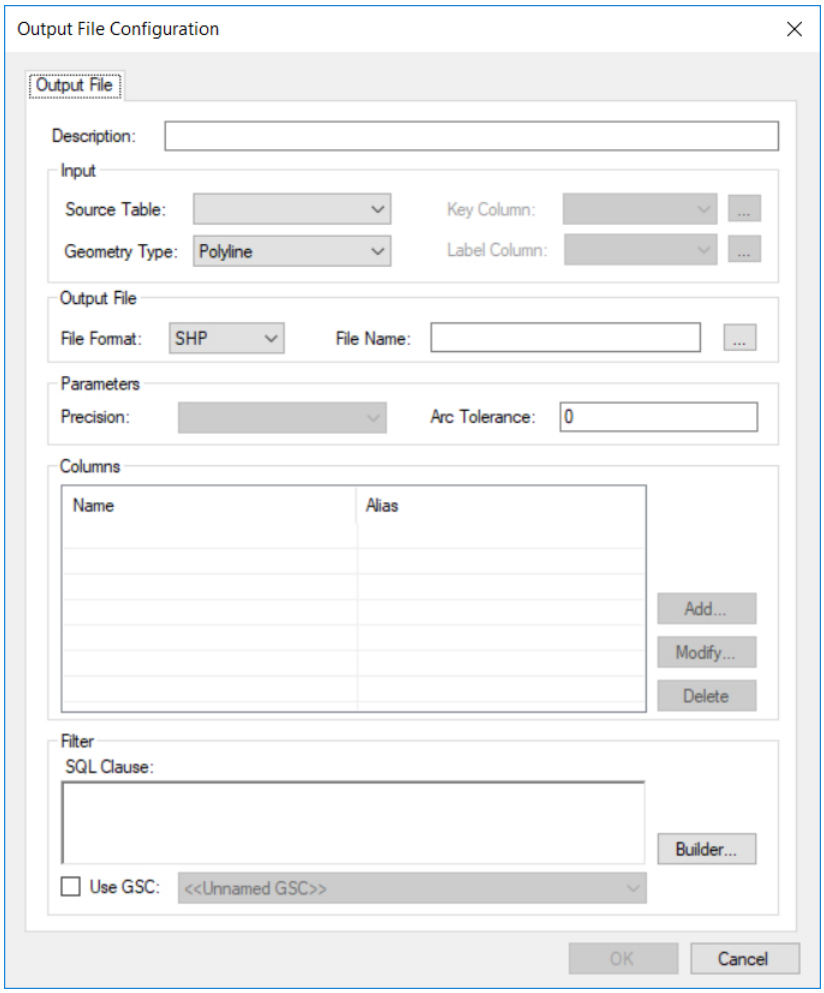
Note The **Add...** button is only available for selection once a valid username and password has been entered.

The **Modify...** button is only available for selection once a Output File is created or an existing definition file is loaded.

Adding an Output File in Munsys Export Administrator

To add an output file to the definition file do the following:

1 Click on the **Add...** button.



The Output File Configuration dialog box is displayed.

Figure 12 Output File Configuration dialog box

2 The following Output File sections must be completed or selected:

- Description - this is used to specify a description for the output file.
- Input - indicates which spatial table will be used as the source for the export.
- Output File - indicates the file name and in which format the data will be written to.
- Columns - indicates which columns will be used for the associated attribute values.
- Filter - displays the SQL clause used to apply a filter to the data being exported.
- Use GSC - indicates the name of the user defined GSC to apply as a spatial filter.

Input section

Some of the input default settings are only available depending on the File Format selected in the Output section.

- Source Table - select the spatial table from the available drop down list. This list displays all spatial tables within the specified Database Settings.
- Geometry Type - select the geometry type to use when writing out the export file. The Geometry Type is automatically updated according to the geometry type assigned to objects in the selected source table.

Note The Key Column and Label Column drop down lists are only available for selection when an SDF File Format is selected.

- Key Column - select the column to be used as the primary key for the SDF file. The Key Column defaults to use the primary key from the selected source table. The drop down list allows you to select an alternative key column.
  - ... - is used to create a compound column definition. For example, the key column could be specified as a concatenation of the GID and PIPE_ID columns.
- Label Column - select the column to be used as the label value for the SDF file. The drop down list allows you to select which column is used for Labels in the SDF key column.
  - ... - is used to create a compound column definition. For example, the Label column could be specified as a concatenation of the PIPE_DIA and PIPE_MATRL columns.

Output File section

- File Format - from the drop down list the user must select the type of file to be exported. The user must select either the SDF, SHP or MIF format.

Note There is no **SDF** option for the 64-bit version of Munsys Export Administrator since the Autodesk MapGuide Component Toolkit (sdfcomtk.dll) is a 32-bit dll and cannot be registered in a Windows 64-bit environment.

- File Name - This identifies the location and output name for the resulting dataset. The user must select the ... button to selection the folder location. The file extension is determined from the File Format selection.

Parameters Section

- Precision - this refers to the number of digits after the decimal point in ASCII related formats.
  - This value is not available for editing if the SHP file format is selected.
  - This value defaults to 4 is the MIF file format is selected.
  - This value defaults to 32 if the SDF file format is selected.
- Arc Tolerance - specifies the tolerance value used for densifying arcs and circles. The default value is 0.

Adding Columns to the Output File

If specific column values are required when exporting the spatial data to SHP and MIF formats, these columns must be specified in the definition file. They can be expressed as the original column name, or renamed by means of a column alias.

Note Attribute data cannot be exported for SDF file formats.

To add the columns to the output file, do the following:

1 Click on the **Add...** button.

The Add Export Column dialog box is displayed

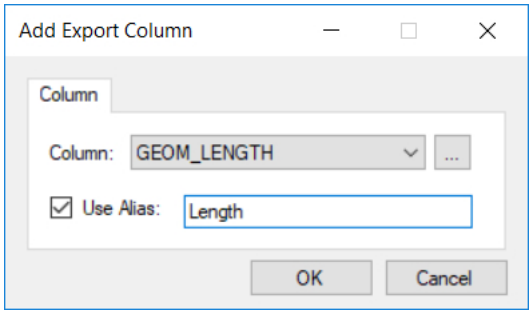


Figure 13 Example: Add Export column with column alias

2 Using the drop down list of columns, select a column to add to the output file.

The drop down list is populated with the columns from the selected Source Table.

3 Use **Add...** to add compound column definitions.

4 Check the **Use Alias** check box if an Alias is to be defined

The Use Alias: text box is available for entering the column alias name.

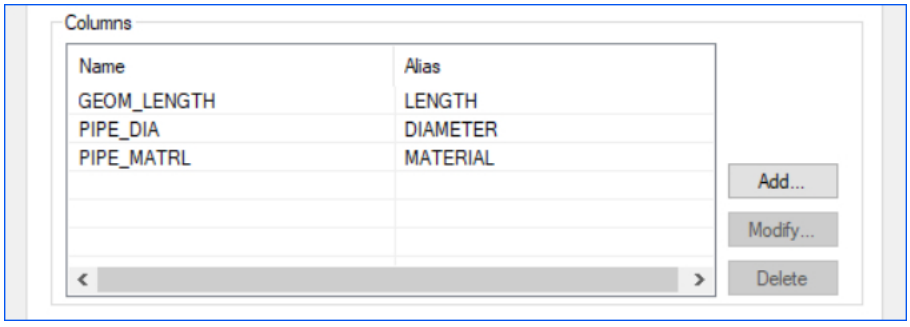


Figure 14 Example: Multiple columns added to the Output file.

Complete steps 1- 4 for each column to be added to the output file, until all required columns have been added.

Warning For SHP export files, any column that exceeds 10 characters will be truncated when exported because the DBF structure has a limit of 10 characters. For this reason it is recommended that a column alias be used to rename the column to something more meaningful when exporting using this file format.

Modifying Columns in the Output File

A column that has been previously defined in the output file can be modified or redefined.

To edit a column in the output file, do the following:

Note Only one column in the output file can be edited at a time

1 Click on the **Modify...** button.

The Edit Export Column dialog box is displayed

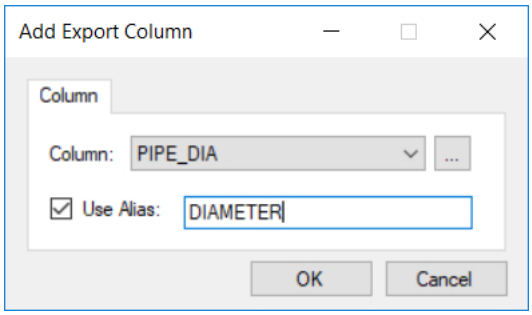


Figure 15 Example: Edit Export Column

2 Use the drop down list of columns to select an alternative column to add to the export output file.

The drop down list is populated with the columns from the selected Source Table.

3 Use **...** to edit any compound column definitions.

4 Check or uncheck the Use Alias check box if an Alias is to be defined or removed.

The Use Alias: text box is available for entering the column alias name.

Complete steps 1- 4 for each column to be modified in the output file.

Deleting Columns in the Output File

A column that forms part of the output file can be deleted and removed from the output file.

To delete a column in the output file, do the following:

Note Only one column in the output file can be deleted at a time

1 Click on the **Delete** button.

The column is deleted immediately from the output file.

Note To reinstate a column, follow the procedures detailed in the Adding Columns to the Output File section.

Adding a Filter to the Output File

A filter allows users to specify criteria that will be used to filter the data during the export process.

A filter is optional and when present, consists of one or more SQL statements that are sent to the database. The conditions are specified by using the SQL syntax. The expression syntax should be correct, otherwise the export will fail.

The conditions are specified by either typing the SQL statement into the SQL Clause text box, or by using the SQL Builder. The sequence in which the conditions appear (from top to bottom) is the sequence in which they will be executed.

The first condition must not have a Joiner (AND/OR), but from the second condition on this is required. As the SQL conditions are added they are concatenated to form a single combined expression.

Adding a new condition

To add a condition, do the following:

1. In the Filter section, click the **Builder...** button

   The Add Condition dialog box is displayed

2. Specify the following:

   - A Joiner - the joiner us used to join a previous condition to a new condition, and must not be set for the first condition. Available value in the drop down list are AND and OR.
   - Column - this list is populated with a list of all the columns from the Source Table.
   - Operator - The Operator is used to specify how the value from the column will be compared to the value specified in the Value box. This list is populated with the following values:
     - = Equal To
     - > Greater Than
     - >= Greater Than or Equal To
     - < Less Than
     - <= Less Than or Equal To
     - <> Not Equal To
     - Like SQL “LIKE” command (Value to be prefixed or suffixed with %)
     - In SQL “IN” command (Character values to be comma delimited as in ‘A’,’B’, ‘C’)
     - Is Null SQL “IS NULL” command (no value allowed)
     - Is Not Null “IS NOT NULL” command (value allowed)

- Value - select one or more values that will be used as a comparison value against all values from the specified column. Use the Values... button to select the value(s) from the database, as seen in the following example:

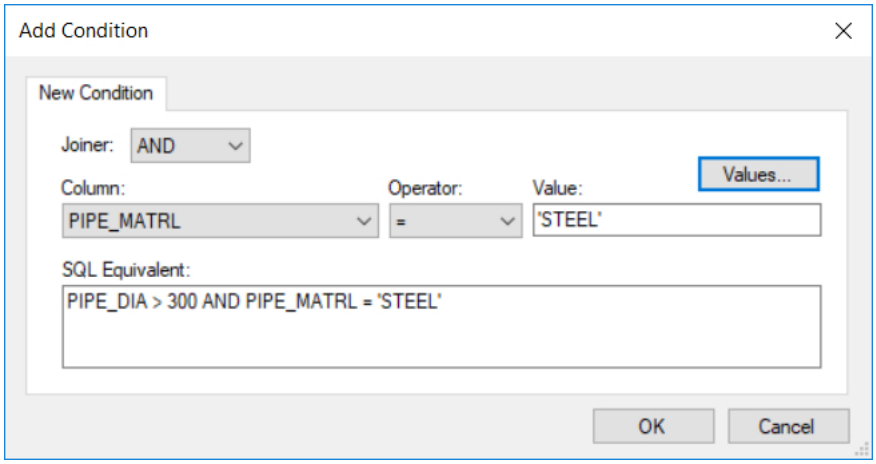


Figure 16 Add Condition: Unique Values

- SQL Equivalent - this field is populated when the other fields have been filled in.

3 Click OK to add the condition to the SQL Clause.

Steps 1 to 3 must be repeated for each condition to be added to the filter.

Using a GSC

The Use GSC check box is used to specify whether you want to add the GSC as a spatial filter. When the Use GSC check box is checked the drop down list displays all GSC's saved for the username specified in the Database Settings.

If a GSC is used the objects will be retrieved from the database according to the GSC settings defined for the selected GSC.

A GSC locates spatial objects from the database by their geographical location, making use of a polygon, window, fence, radius or object definition. The GSC settings apply restrictions on the geographical extent of spatial data extracted from the database. See the *Munsys Concepts User Guide* on how to create a GSC from within the Munsys applications.

Saving Configuration files

Once all the parameters and settings have been defined and setup, the definition file should be saved for later use. The Save button is disabled if one of the following is true:

- If the User Log File is checked but no log file name is specified.
- If any of the database connection details are empty
- If no output files have been configured.

To save the definition file configuration do the following:

1 Click on the **Save...** button.

The Save As window is displayed.

2 Enter the required File Name and click the **Save** button.

If the definition file already exists, the Confirm Save As dialog box is displayed and prompts if the file must be replaced or not. Click on Yes to replace the configuration file, or click No to enter in a new file name.

Loading Configuration Files

Existing definition Files can be loaded and the output file(s) modified to change the settings, parameters and values defined. To load a pre configured definition file, do the following:

1 Choose **Start** > All **Programs > Open Spatial > Munsys 14.2> Munsys Export Administrator 14.2**

or

2 Double-click the **Munsys Export Administrator 14.2** icon on the Windows desktop.

Figure 17 Munsys Export Administrator desktop icon

3 The Munsys Export Administrator dialog box is displayed.

4 Click the **Load...** button.

The Open window is displayed.

5 Navigate to the required definition file (INI or DEF) to be loaded

6 Select the file and select the **Open** button.

The definition file is loaded ready to be run or to modify.

Running Configuration Files

Existing definition files can be loaded and run to create the export files specified. To run a definition file, do the following:

1 Choose **Start** > All **Programs** > **Open Spatial >Munsys 14.2> Munsys Export Administrator 14.2**

or

2 Double-click the **Munsys Export Administrator 14.2** icon on the Windows desktop.

Figure 18 Munsys Export Administrator desktop icon

3 The Munsys Export Administrator dialog box is displayed.

4 Click the **Load...** button.

The Open window is displayed.

5 Navigate to the required definition file (INI or DEF) to be loaded

6 Select the file and select the **Open** button.

The definition file is loaded ready to be run.

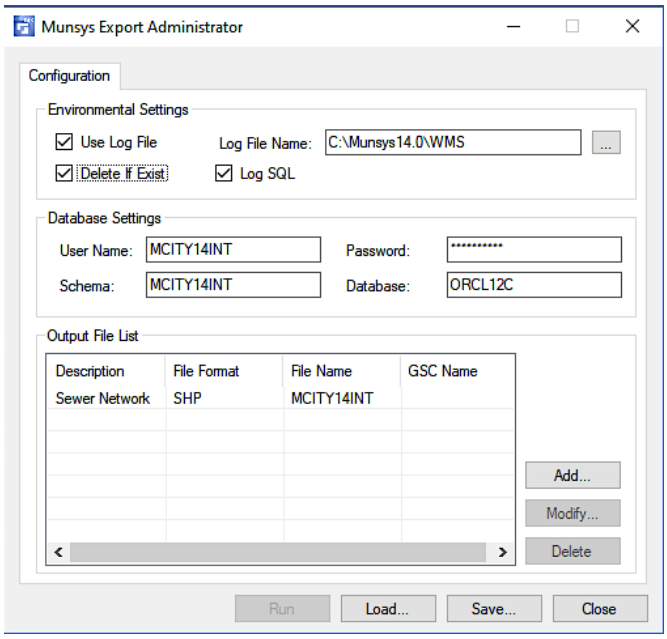


Figure 19 Example: Loading the Configuration File to Run

7 Click the **Run** button

8 The Munsys Export Administrator application checks the database settings before running the export process.

If the username/password settings are incorrect, the following warning message is displayed

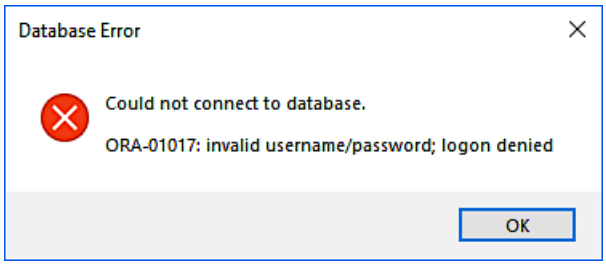


Figure 20 Username/password error message

If the schema name setting is incorrect, the following warning message is displayed

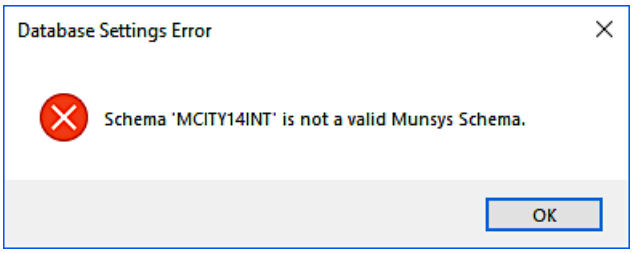


Figure 21 Schema error message

If the database name setting is incorrect, the following warning message is displayed

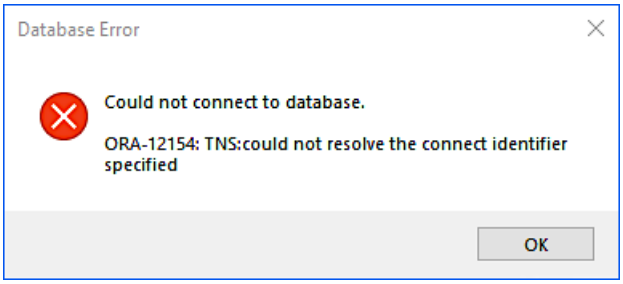


Figure 22 Database error message

9 A DOS **Command Window** is opened for the duration of the export process.

Note Remember to check the resultant log file to make sure no errors were recorded.

Exiting Munsys Export Administrator

If you exit the Munsys Export Administrator without first saving the Output File configurations, the information will be lost. To exit from the Munsys Export Administrator application do the following:

1 Click on the **Close** button

The Exit Munsys Export Administrator message is displayed.

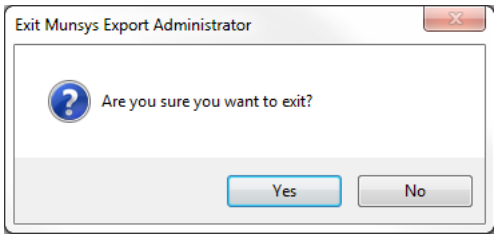


Figure 23 Exit message

2 Selecting the **Yes** button will exit the application immediately.

3 Selecting the **No** button returns the user to the Munsys Export Administrator application.

Chapter 3
Supported SDF Features

Introduction

This chapter describes the following:

- Working with SDF spatial and attribute data
- Supported geometry types
- Examples of SDF definition files

Data output representation

Export Administrator maps Oracle geometry types to geometry types supported by the exported application. This section reflects how the individual data items are handled during the export process.

Supported SDF features

Before you start

The value stored in the Snap Tolerance variable TOLERANCE in the MUNSYS_DB_SETTINGS table is used to reduce the number of coordinates. If the TOLERANCE value is set to 0.01, two adjacent coordinates will not be written out if they fall inside the 0.01 tolerance. This is usually crucial where data is stored in LAT/LONG format, as a tolerance of 0.01 (or even up to 0.0001) will thin out a lot of data. If we work on the assumption that 1 degree resembles a distance of approximately 114km, then a tolerance of 0.0001 will drop all coordinates within approximately 100 meters of each other.

Attribute data

Export Administrator does not export attribute data for the SDF format.

Note There is no **SDF** option for the 64-bit version of Munsys Export Administrator since the Autodesk MapGuide Component Toolkit (sdfcomtk.dll) is a 32-bit dll and cannot be registered in a Windows 64-bit environment.

Spatial data

The following table shows how the different Oracle geometry types are handled for the SDF format, and as what they will be stored in the SDF file.

Oracle Geometry Type	SDF Geometry Equivalent	Comments
POINT	Point Object	A single point object is created.
MULTIPOINT	Point Object	A single point will be created using the coordinate of the first point of the original multipoint.
LINESTRING	Polyline Object	A single polyline object is created.
MULTILINESTRING	Polyline Object	Multiple polyline objects will be created. If a key or label is to be assigned, then all polyline objects will be created with the same key or name.
POLYGON	Polygon Object	A single polygon object is created.

MULTIPOLYGON	Polygon Object	Multiple polygon objects will be created (all with the same key or name).

Table 1 SDF objects created from Oracle geometry

The following table lists the values from the definition file that can also influence the nature of the resulting SDF file:

Definition File Value	Affected SDF Item	Comments
Description	File Description	Ignored if this has not been specified.
Precision	File Precision	This may either be 32 or 64. If absent, then a value of 32 is used.
Key	Object Key	If a key is present then the object will be assigned a key value as extracted from the associated column.
Label	Object Name	If a label is present then the object will be assigned a name as extracted from the associated column.

Table 2 Definition File influences on SDF

Examples of SDF definition files

Standard definition file

In the definition file example below all the water nodes will be written out to a SDF file using the file name specified i.e. WATNODES.SDF. The file must contain the relevant Geometry Type i.e. Point, a Key column i.e. GID and optional is the Label column i.e. NODE_TYPE.

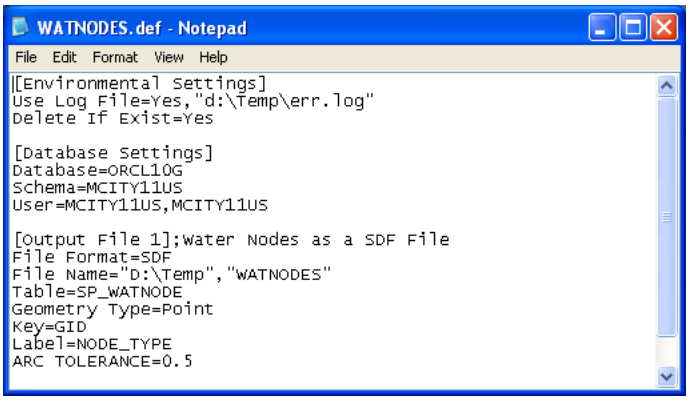


Figure 1 Example: Output file section for SDF files

Definition file with a SQL Clause

A SQL clause will limit the number of objects exported based on specified criteria. In the example below only those water nodes that are classified as being Potable will be exported.

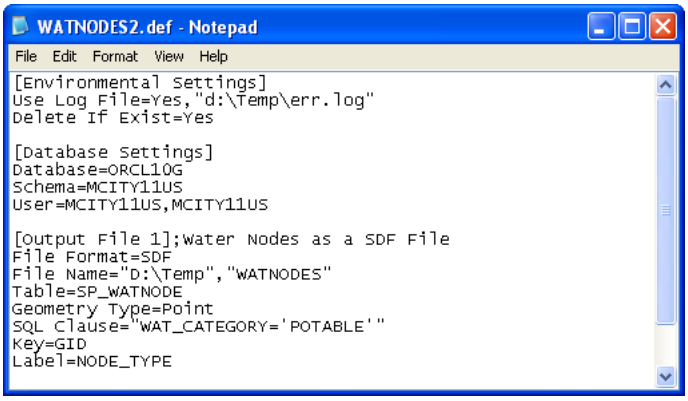


Figure 2 Example: Output file section specifying a SQL Clause

Chapter 4
Supported SHP Features

Introduction

This chapter describes the following:

- Working with SHP spatial and attribute data
- Supported geometry types
- Examples of SHP definition files

Supported SHP features

Before you start

The value stored in the Snap Tolerance variable TOLERANCE in the MUNSYS_DB_SETTINGS table is used to reduce the number of coordinates. If the TOLERANCE value is set to 0.01, two adjacent coordinates will not be written out if they fall inside the 0.01 tolerance. This is usually crucial where data is stored in LAT/LONG format, as a tolerance of 0.01 (or even up to 0.0001) will thin out a lot of data. If we work on the assumption that 1 degree resembles a distance of approximately 114km, then a tolerance of 0.0001 will drop all coordinates within approximately 100 meters of each other.

The GEOMETRY parameter in the INI/DEF file is only used if the table does not have an equivalent entry in the MUNSYS_SP_TABLES table. If there is NO entry in MUNSYS_SP_TABLES, the GEOMETRY parameter must be specified, otherwise you will get a Geometry error when exporting the data.

Attribute data

The user must specify at least one column to be written out to the DBF file. If you use Arcview 3.1 to load the SHP file it will complain about “Mismatched records” if this is not done.

Export Administrator exports the columns identified in the definition file to the DBF file. Any column name that exceeds 10 characters will be truncated when exported because the DBF structure has a limit of only 10 characters. For this reason it is recommended that a column alias be used to rename the column to something more meaningful when exporting using this file format.

The values of exported columns will be truncated where they exceed the DBF limits.

Spatial data

Although the later versions of SHP files allow for multiple geometry types in a single SHP file, the utility only exports a single geometry type to an SHP file.

The following table shows how the different Oracle geometry types are handled for the SHP format and what they will be stored as in the SHP file:

Oracle Geometry Type	**SHP** Geometry Equivalent	Comments
POINT	Point	A single point is created.
MULTIPOINT	Point	A single point will be created using the coordinate of the first point of the original multipoint.
LINESTRING	PolyLine	A single PolyLine is created.
MULTILINESTRING	PolyLine	Multiple PolyLines will be created.
POLYGON	Polygon	A single polygon is created.
MULTIPOLYGON	Polygon	Multiple polygons will be created.

Table 1 SHP Objects created from Oracle Geometry

Examples of SHP definition files

Standard definition file

In the definition file example below, all the sewer gravity pipes will be written out to SHP, SHX and DBF files using the file name specified, i.e. Sewergpipes.SHP, Sewergpipes.SHX and Sewergpipes.DBF. The only attribute data to be written out with the pipes will be the GID column.

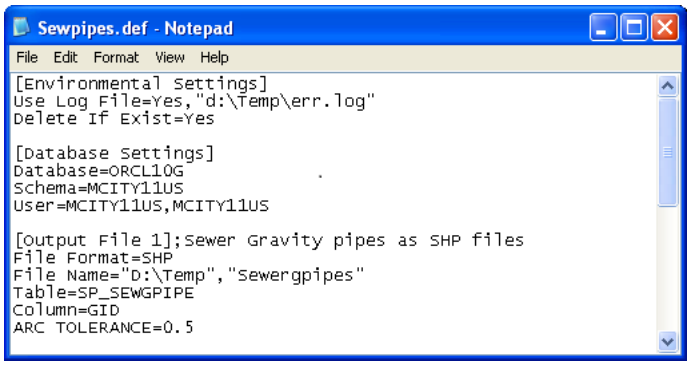


Figure 1 Example: Output file section for SHP files

Definition file specifying columns

If specific column values are required when exporting the spatial data to SHP formats, these columns must be specified in the definition file. They can be expressed as the original column name, renamed by means of a column alias or expressed as SQL expressions. In the example below the pipe GID, pipe diameter, pipe material, pipe type, start node, end node and pipe gradient attributes are written out.

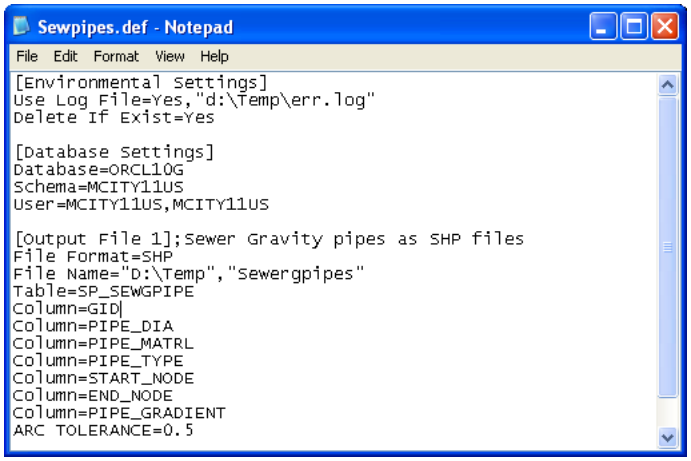


Figure 2 Example: Output file section specifying required columns

Definition file using column alias

In the event column names exceed 10 characters columns can be expressed with a column alias. This will give a more meaningful naming convention instead of them being truncated to 10 characters.

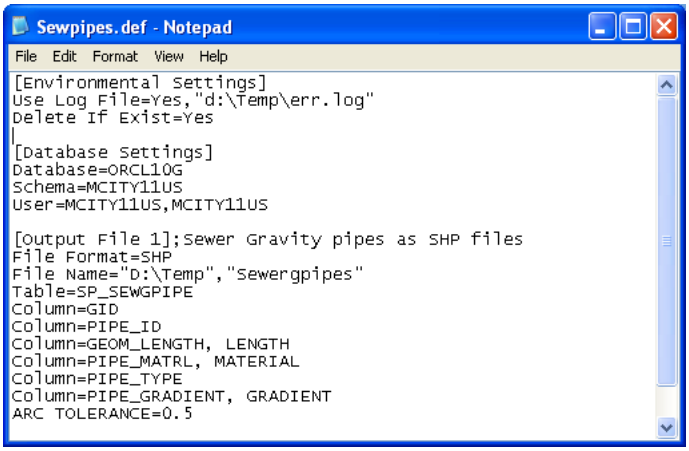


Figure 3 Example: Output file section specifying column alias

Definition file with columns as SQL expressions

Data can also be exported using SQL expressions for the required attribute data. In the example below, the pipe diameter, pipe material and pipe type have been joined as one value in a SQL expression.

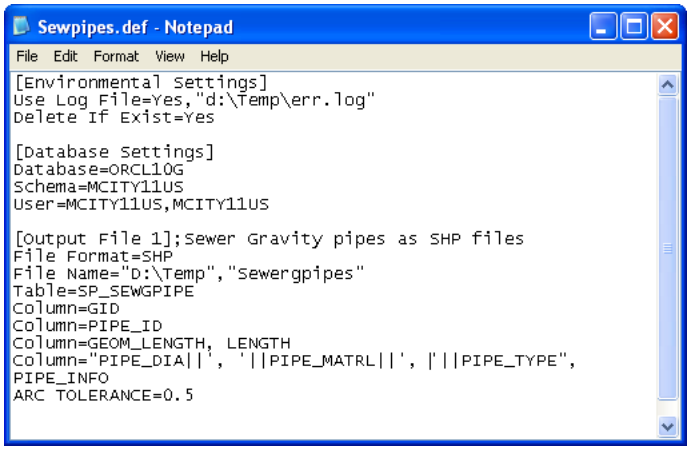


Figure 4 Example: Output file section specifying column as SQL Expression

Definition file with a SQL Clause

A SQL clause will limit the number of objects exported based on specified criteria. In the example below, only those sewer pipes that have a type of OUTFALL will be exported.

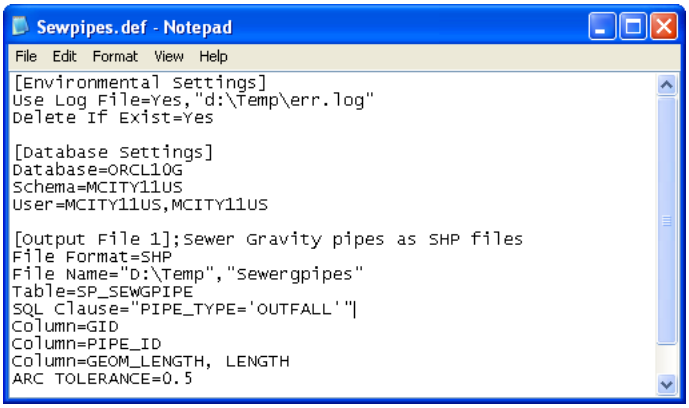


Figure 5 Example: Output file section specifying a SQL Clause

Chapter 5
Supported MIF Features

Introduction

This chapter describes the following:

- Working with MIF spatial and attribute data
- Supported geometry types
- Examples of MIF definition files

Supported MIF features

Before you start

The value stored in the Snap Tolerance variable TOLERANCE in the MUNSYS_DB_SETTINGS table is used to reduce the number of coordinates. If the TOLERANCE value is set to 0.01, two adjacent coordinates will not be written out if they fall inside the 0.01 tolerance. This is usually crucial where data is stored in LAT/LONG format, as a tolerance of 0.01 (or even up to 0.0001) will thin out a lot of data. If we work on the assumption that 1 degree resembles a distance of approximately 114km, then a tolerance of 0.0001 will drop all coordinates within approximately 100 meters of each other.

The GEOMETRY parameter in the INI/DEF file is only used if the table does not have an equivalent entry in the MUNSYS_SP_TABLES table. If there is NO entry in MUNSYS_SP_TABLES, then the GEOMETRY parameter must be specified, otherwise you will get a Geometry error when exporting the data.

Attribute data

Export Administrator exports the columns identified in the definition file to the MID file. It is the operator's responsibility to ensure that column names are given alternative names where they exceed the MID limit.

If no columns are identified in the definition file, a MID file will not be created.

Spatial data

Although MIF files allow for multiple geometry types in a single MIF file, the utility only exports a single geometry type to a MIF file.

The utility does not support any display attributes at this time.

The utility does not cater for multiple projection coordinate systems at this time. The following line is inserted into the header section of the MIF file for projection purposes:

CoordSys NonEarth Units "m" Bounds (-10000000, -10000000) (10000000, 10000000)

The following table shows how the different Oracle geometry types are handled for the MIF format, and as what they will be stored in the MIF file:

Oracle Geometry Type	**MIF** Geometry Equivalent	Comments
POINT	POINT	A single POINT is created.
MULTIPOINT	POINT	Multiple points will be created.
LINESTRING	PLINE	A single Pline is created.
MULTILINESTRING	PLINE MULTIPLE	Multiple Plines will be created.
POLYGON	REGION	A single Region is created.
MULTIPOLYGON	REGION	Multiple Regions will be created.

Table 1 MIF Objects created from Oracle Geometry

The following table lists the values from the definition file that can also influence the nature of the resulting MIF file:

Definition File Value	**Affected SDF Item**	Comments
Precision	Decimal Precision	Since the MIF file is a text file, the precision is used to determine the number of digits after the decimal point, for all real values. If a precision is not specified then the default is 4

Table 2 Values from the definition file

Examples of MIF definition files

Standard definition file

In the definition file example below all the parcels will be written out to MIF and MID files using the file name specified i.e. Parcels.MIF and Parcels.MID. The only attribute data to be written out with the parcels will be the GID column.

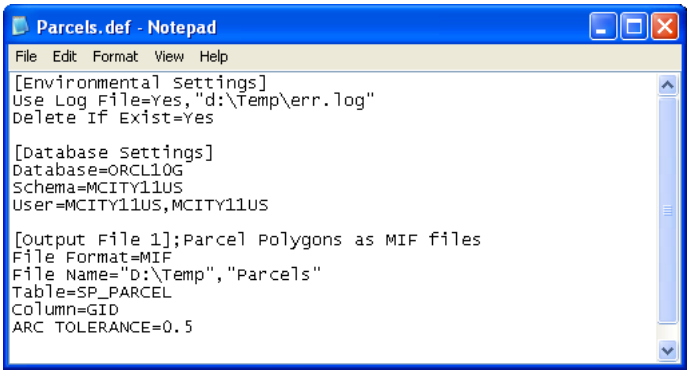


Figure 1 Example: Output file section for MIF/MID files

Definition file specifying columns

If specific column values are required when exporting the spatial data to MIF formats, these columns must be specified in the definition file. They can be expressed as the original column name, renamed by means of a column alias or expressed as SQL expressions. In the example below the GID, parcel key, parcel type, area and tag values are written out.

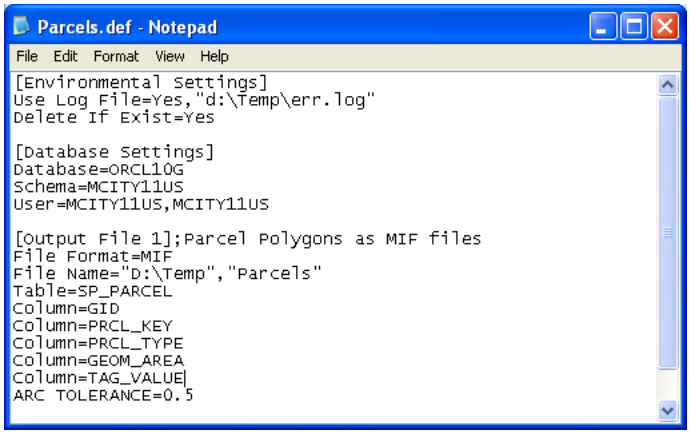


Figure 2 Example: Output file section specifying required columns

Definition file using column alias

Columns can be expressed with a column alias to give a more meaningful naming convention.

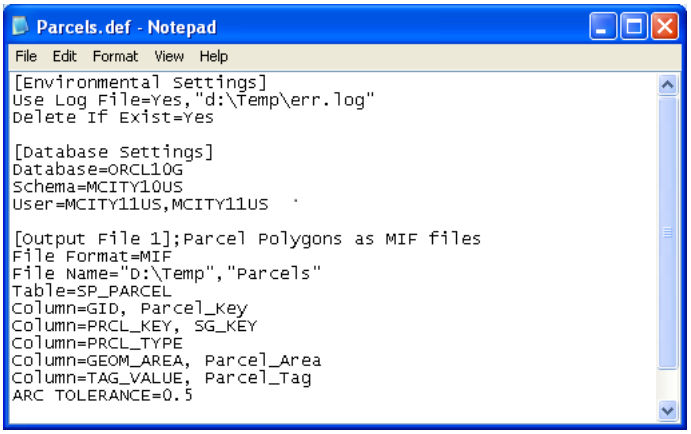


Figure 3 Example: Output file section specifying columns alias

Definition file with columns as SQL expressions

Data can also be exported using SQL expressions for the required attribute data. In the example below, the parcel key column has been divided into the town code, stand number and portion numbers using the SQL substring command.

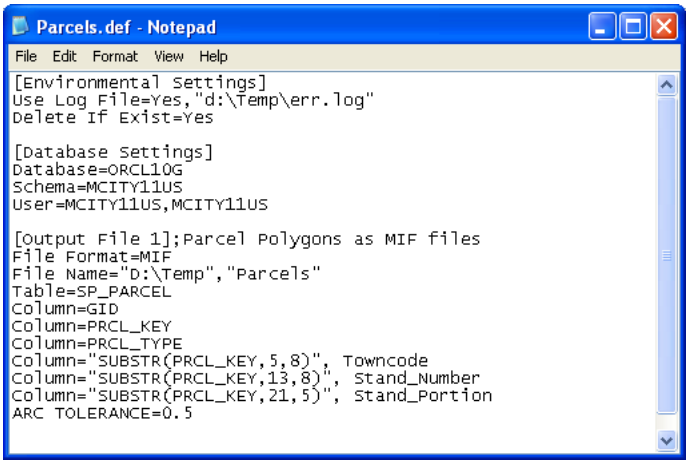


Figure 4 Example: Output file section specifying column as SQL Expression

Definition file with a SQL Clause

A SQL clause will limit the number of objects exported based on specified criteria. In the example below only those parcels that are categorized as parks and have an area greater than 50 000 will be exported.

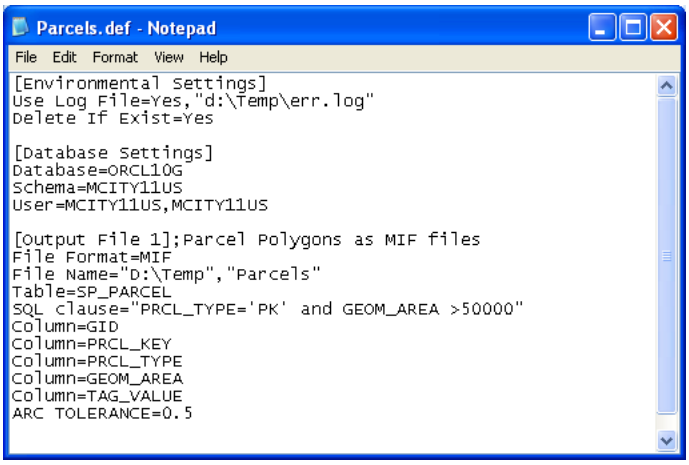


Figure 5 Example: Output file section specifying a SQL Clause

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