

# 1. Importing a MISER Report to a PC Application

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There are times when it is useful to take the output of a MISER application and process it with a PC application program. This might come about because it is desired to incorporate a MISER report into a document being prepared with a word processor or in order to further massage the data from a history report with a spreadsheet program.

MISER applications that print out reports have the ability to direct their output to a disk file. This Application Note details the steps to create these files and to import the reports to PC applications. Once the information on the report has been imported to the PC application, the functionality of the PC program can be used to further format and massage the data or to include it into reports prepared with a word processor.

The following procedures are written assuming that your PC runs the Microsoft Windows NT operating system and Microsoft Excel spreadsheet. If you have a different operating system or spreadsheet program, the steps will be similar but may vary in the details.

There are basically three steps:

1. Create the report file on the MISER system
2. Transfer the file to the PC
3. Import the file into the PC application program.

The following procedures are written so all the steps can be done from the PC's keyboard.

It is possible to automate the generation and transfer of report files to a PC and have it occur periodically. Because this would depend on specific details of the system, it is not described in an Application Note. If you are interested in that capability, contact HSQ Support.

This procedure assumes the PC has connectivity to the MISER SCADA Server and that the user has an account on the MISER System with privileges that allow the user to log on to the server and run the desired applications. If you do not have a network connection between the PC and the MISER system, then you can use the dial-in port that every MISER system has. Use RAS (Remote Access Services) on the PC to connect to the MISER system. Once this connection has been made, follow all of the steps below, the same as if the connection between the PC and the MISER system were through a local area network.

## 1.1 Create the Report File

In order to run software on the MISER system from the PC, a logical connection must be established between the PC and the MISER host server node. This is done using Telnet.

Start a “Command Prompt” window on the PC. In this DOS box type the following:

```
TELNET NodeName
```

where NodeName is the name of the on-line MISER host server node.

A Telnet application window will open on the PC and a welcome message should appear along with a prompt for the Username. Enter your Username and Password for the MISER system. You should now be logged into the MISER system and ready to create the report file.

**Note:** Each time you write to a filename, the OpenVMS operating system will create a new, distinct file (with the same file name but a different version number). Unlike the Windows operating system, OpenVMS will not overwrite previous version of the report file. You should delete earlier, unneeded versions of files. To get to the directory where the report files are saved, if you are dealing with files that will be created by RDU then type in the following:

```
set def site$data
```

If you are dealing with files that will be created by other MISER applications, do not enter anything. This will leave your default directory as your Login directory.

The steps to have MISER’s RDU write its results to a file are different than how other MISER applications do this. The two situations are addressed in the following Sections.

### Creating an RDU Report File

MISER’s RDE program executes report definitions which have been created through the Report Definition Utility (RDU). It performs the same function as the Execution option on the RDU main menu but it also allows you to direct the output to go to a file rather than to a printer, and to specify which format that file should be.

RDU and RDE have the ability to output the results to a file in three different formats: ASCII text (called the REPORT option in RDU), Excel XLS, and Data Interchange Format (DIF). While the ASCII text format is convenient for directly making additional copies on a printer or for inclusion into a word processing document, the DIF and XLS formats are nominally more appropriate for interfacing with other application software. However; since Microsoft occasionally changes the format of the XLS file, the XLS files generated by RDU may not work well with current versions of Excel. The DIF format, on the other hand, is a file standard that is widely supported and documented. Hence, the DIF format is the preferred method for transferring data to a PC spreadsheet program.

Run RDE by typing in the following:

```
RDE ReportName /OUT=FileName/TYPE=ReportType
```

where:

*ReportName* = the Report Name as listed in RDU

*FileName* = the name of the file to which the report should be written. RDE adds the file type extension based on the /TYPE qualifier. The file is sent to the site\$data directory on the on-line host.

*ReportType* = the format of the file that is created. Possible formats are: REPORT (ASCII text suitable for copying to a printer), DIF (for subsequent input to other application programs), and XLS (format used by Microsoft Excel). Since the XLS format that is generated by MISER is not fully compatible with the latest version of Excel, using the DIF format is recommended.

For example,

```
RDE HOURLY /OUT=HR110499/TYPE=DIF
```

will cause the report HOURLY to be written to the file HR110499.DIF.

Once you have run RDE, logoff from the MISER system, by entering

```
LOGOFF
```

You can then close the Telnet application window. Use normal methods for closing a local application window on a PC, e.g. select EXIT from the Connect pull-down menu or select the Close icon in the top right portion of the window's Title Line.

See the Appendix on Report Execution (RDE) in the MISER Report Generator (RDU) Manual for more information about options that are available when creating a report file.

### Creating a Report File From Other MISER Applications

Any MISER command that generates output (PFS, for example) can have its output directed to a file. This is done by appending the switch /FL at the end of the MISER command. For example:

```
PFS WELL-LEVEL/FL=DATA.TXT
```

will write single line point summaries for all points in the data base whose acronyms begin with "WELL-LEVEL" to the file DATA.TXT. Files created this way will be ASCII text format. Knowing the type of file format will be needed when transferring the file to the PC. See the section on Output Qualifiers in the Getting Started chapter of the MISER Operator's Manual for more information about the FL switch.

## 4 Importing a MISER Report to a PC Application

Once you have run the MISER application and created the report file, logoff from the MISER system by entering:

```
LOGOFF
```

You can then close the Telnet application window. Use normal methods for closing a local application window on a PC, e.g. select EXIT from the Connect pull-down menu or select the Close icon in the top right portion of the window's Title Line.

## 1.2 Transfer the File to the PC

In order to copy the file from the MISER system to the PC, the FTP program will be used. **Note:** All commands to the FTP program must be entered in lower case.

From the "Command Prompt" window on the PC, make the following entries:

Entry	Purpose
<code>C:\ &gt; CD FILES</code>	Change to the C:\FILES directory so the downloaded file will be placed there. Choose whatever directory you want at this point. If you do not change the default directory at this point then FTP will put any files it transfers into the root directory of the C: drive on your PC.
<code>C:\FILES&gt; FTP nodename</code>	Runs the FTP program on the PC and opens a connection to the MISER node <i>nodename</i>
<code>Connected to nodename. 220 nodename FTP Server (Version 5.0) Ready. User (nodename): Username</code>	Enter your Username in the MISER system
<code>Password: Password</code>	Enter your Password in the MISER system
<code>User Logged In.</code>	Indicates that you have successfully logged in to the MISER system

`ftp> cd site$data`      **IMPORTANT: This step is only done if the report file had been created by RDU or RDE. For files that were created by other applications, skip this step.** Changes to the data directory on the MISER system where the report file was stored (change to `site$data` for reports created by RDU or RDE and remain in the Login Directory for reports from all other MISER applications).

`ftp> bin`      **IMPORTANT: If an ASCII text or DIF format file was created then do not perform this step.** This step tells ftp that the file being transferred is a binary; not an ASCII, file. This entry should only be made if the file created by RDE used the XLS format.

`ftp> get FileName`      Tells ftp to retrieve your file (where *FileName* is the name you gave the file when creating it with RDE) from the MISER Server and copies it to your PC.

`ftp> bye`      Closes the ftp session

**Goodbye**      ftp's acknowledgement that the session has ended.

`C:\FILES> EXIT`      This will close the Command Prompt session on your PC.

The file will now be in the `C:\FILES` directory with the same name that it had on the MISER system (i.e., that was used in step 1 above when the report file was created).

### **1.3 Import the File to PC Application Program**

The two major PC applications you are likely to use are a word processor and spreadsheet. The word processor can deal with plain ASCII files and the spreadsheet can accommodate files with the DIF and XLS formats.

In either case you can just “Open” the file from the application. You may have to change the default file type in the Open dialog box to have the report file appear in the list of files.

Note: When a report is transferred via a DIF file, the numbers and alpha text are transferred but not the column widths or underlying formulas. All numeric data will be in scientific notation. Once the Spreadsheet application has opened the report file, apply any desired formatting to the data.

Note: If an ASCII file (other than the DIF type) had been created by the MISER application it will contain some printer control commands and header line. You will want to edit these out when massaging the file in your PC application.

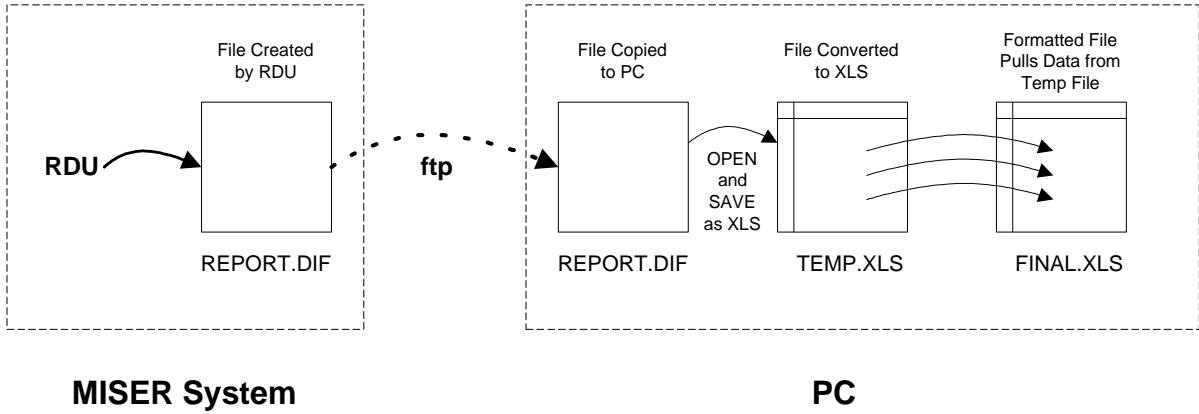
#### **Example: Reusing a Previous Spreadsheet’s Format**

Since the DIF file created by RDU does not contain any appearance formatting information, when a report file is brought over to a PC as a DIF and then used with a spreadsheet program, it must be reformatted to make it look “nice”. On a one-time basis this may not be a concern, but you may wish to transfer the same MISER report repeatedly, e.g. once a month. This example describes a method to reuse the formatting of the final spreadsheet file each month.

The key to this scheme is to move the data from the MISER system to a temporary spreadsheet file which gets overwritten each time but the data always gets written to the same cells. A separate spreadsheet file, which has been formatted to present the data in a polished form then populates itself by referencing the data cells in the temporary spreadsheet file.

A DIF format report file is created by the RDU program. The file is then copied to the PC, using the ftp program. At this point the file is still in the DIF format. Using your spreadsheet, e.g. Excel, open up the REPORT.DIF file and then save it as an Excel file with the name TEMP.XLS. The data now is contained in a file format that can be directly accessed from another spreadsheet. The last step is to create a spreadsheet in a separate file which pulls all of its data from the TEMP.XLS file (via references to the cells in the temporary spreadsheet) and is formatted to appear as desired. In addition to the data that is pulled from the TEMP.XLS file, the final spreadsheet can have whatever additional calculations are desirable.

**This sequence is shown in the diagram below.**



To reference data from another spreadsheet, the cell formula is as follows:

```
=filename!cell
```

where: filename = the name of the spreadsheet that has the data being referenced  
 cell = is the address of the cell with the data

For example, the formula “=TEMP.XLS!B6” would retrieve the value from cell B6 in spreadsheet TEMP.XLS.