

**ORTEC<sup>®</sup>**

**DataMaster**  
**Spectrum File Conversion Software**  
**for Microsoft<sup>®</sup> Windows 95/98/2000/NT<sup>®</sup>/XP<sup>®</sup>**

**A49-B32**  
**Software User's Manual**  
**Software Version 1.3**

**Advanced Measurement Technology, Inc.**

a/k/a/ ORTEC<sup>®</sup>, a subsidiary of AMETEK<sup>®</sup>, Inc.

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**DataMaster was developed for ORTEC by Silicon Valley Connection.**

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# TABLE OF CONTENTS

1. INTRODUCTION .....	1
1.1. Overview .....	1
1.2. Hardware .....	1
2. INTERACTIVE MODE .....	3
3. MENU DESCRIPTIONS .....	5
3.1. File Menu .....	5
3.1.1. Open .....	5
3.1.1.1. Spectrum .....	5
3.1.1.2. Select Multiple Files to Convert... ..	6
3.1.2. Open Input Files As... ..	6
3.1.3. Save As... ..	6
3.1.4. Exit DataMaster .....	7
3.2. Help .....	7
3.2.1. About DataMaster .....	7
4. COMMAND LINE MODE .....	9
APPENDIX A. INSTALLATION .....	11
INDEX .....	13

## NOTE!

We assume that you are thoroughly familiar with 32-bit Microsoft Windows usage and terminology. If you are not fully acquainted with the Windows environment, including the use of the mouse, *we strongly urge you to read the Microsoft documentation supplied with your Windows software and familiarize yourself with a few simple applications before proceeding.*

The convention used in this manual to represent actual keys pressed is to enclose the key label within angle brackets; for example, <F1>. For key combinations, the key labels are joined by a + within the angle brackets; for example, <Alt + 2>.



## INSTANT INSTALLATION

Put the distribution CD in the CD reader. The remainder of the installation is automatic — just answer the questions.

To start DataMaster, double-click on the DataMaster desktop icon or go to the Taskbar and select **Start, Programs, ORTEC DataMaster, and DataMaster.**

For more detailed installation instructions, see Appendix A.

# 1. INTRODUCTION

## 1.1. Overview

DataMaster is a Windows-based program for translating spectra created in a number of different spectral data formats into the formats used by ORTEC software. The program is normally used interactively from the user-friendly graphic interface. Individual files or groups of files can be converted from the user menus. For added flexibility, the program can also be controlled from the command line for special uses in other programs. In addition, DataMaster's file-conversion capabilities can now be directly accessed by the spectrum import and export commands in our GammaVision-32<sup>®</sup> Gamma-Ray Spectrum Analysis and MCA Emulator program.

## 1.2. Hardware

The program will run on any PC that supports any of the following:

Microsoft Windows 95, 98, NT, 2000, and XP.

The complete DataMaster program requires less than 10 megabytes of hard drive space.





## 2. INTERACTIVE MODE

The primary user interface for the DataMaster program is shown in Fig. 1. The simple and intuitive user interface provides enough information to give a high level of confidence of correct translation to the user. A graphical display of the spectral data along with the **Sample ID** field and the acquisition parameters (**Live Time**, **Real Time**, and **Acquisition Date**) are the details of the input spectrum displayed for the user to verify the correct spectrum is selected.

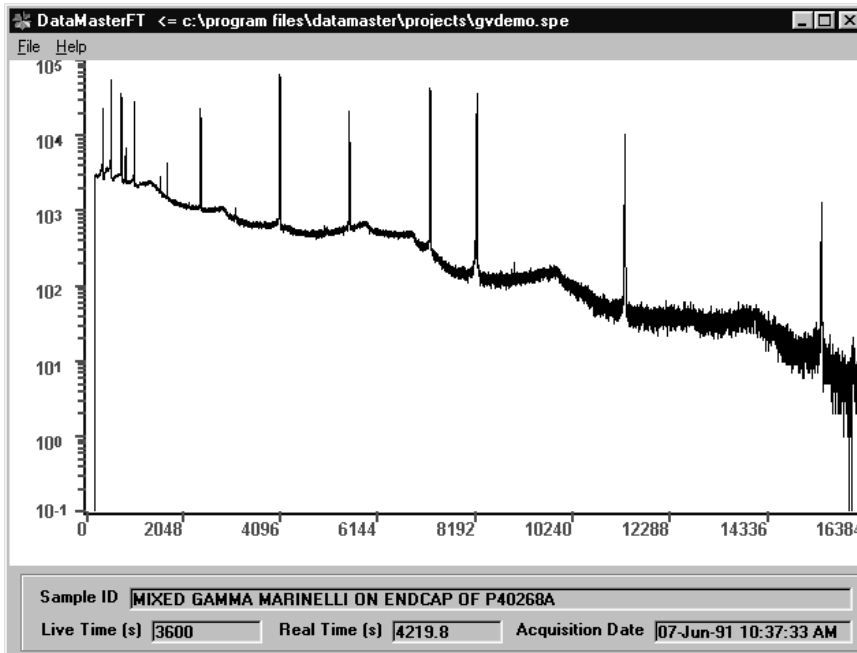


Fig. 1. DataMaster Interactive, Mode-User Interface.

The input spectrum may be selected from the **File/Open/Spectrum** (see Section 3.1.1.1) or by using the standard Windows “drag-and-drop” to select a file name from an open Windows file list, such as Explorer, or “File Contents” window and drop it onto the spectral data window (the plot of the spectrum) of DataMaster.

**NOTE** The input file format is determined only by the format selection specified with the **Files/Open Input Files As...** menu item (see Section 3.1.2) and NOT by the value of the file extension present on the specific input data file. A list of input formats supported in this version is shown in Table 1 on page 9 and in the menu selection for **Files/Open Input Files As...**

The format of the output spectrum is selected using the **File/Save As...** menu item (see Section 3.1.3), and are listed in Table 1.

More than one input spectrum may be converted at a time by selecting the **File/Open/Select Multiple Files to Convert** menu item (see Section 3.1.1.2). All the selected input files must be of the same format type (see NOTE above), and the format of the output files will be the current format selected from the **File/Save As...** dialog.

The name of the output file(s) created will be the name of the input file with (1) the extension added to the main name and separated by an underscore: “\_”, and (2) the default extension of the selected output file format added as the new extension. For example, if the two selected files shown in Fig. 5 were converted to ORTEC INFORM (.SPC) format, their names would become **aptec\_s0.spc** and **chern\_s0.spc**, respectively.

## 3. MENU DESCRIPTIONS

### 3.1. File Menu

The File menu is shown in Fig. 2.

#### 3.1.1. Open

The Open menu consists of two sub-menu items as shown in Fig. 3.

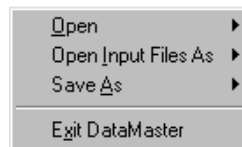


Fig. 2. File Menu.

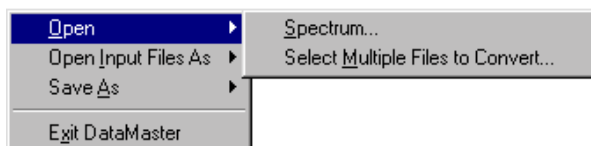


Fig. 3. Open Menu.

#### 3.1.1.1. Spectrum

Displays a standard Windows file-open dialog box as shown in Fig. 4. The format of the selected input file is determined only by the format selection specified in the **Files/ Open Input Files As...** dialog (see Section 3.1.2), and *not* by the value of the file extension of the selected input file.

Also the **Files of Type** selects only the files to display and not the file format. Some file extensions (types), such as **.txt**, have multiple formats associated with them.

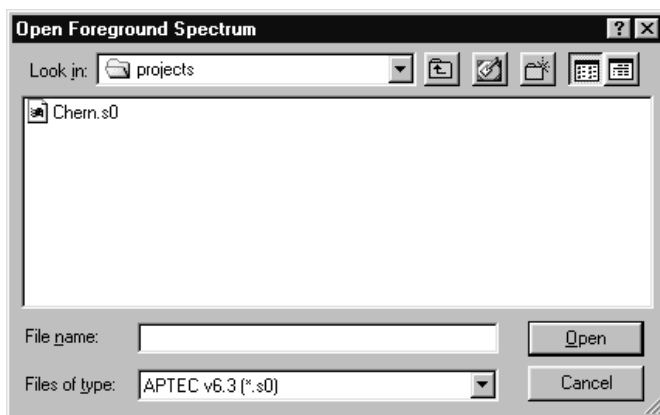


Fig. 4. File Open Dialog for an Individual Input Spectrum.

### 3.1.1.2. Select Multiple Files to Convert...

This dialog allows you to select multiple files of the same format type to be converted at one time. The format of the selected input files is determined only by the format selection specified in the **Files/Open Input Files As...** menu item (see Section 3.1.2), and *not* by the value of the file extension of the selected input file.

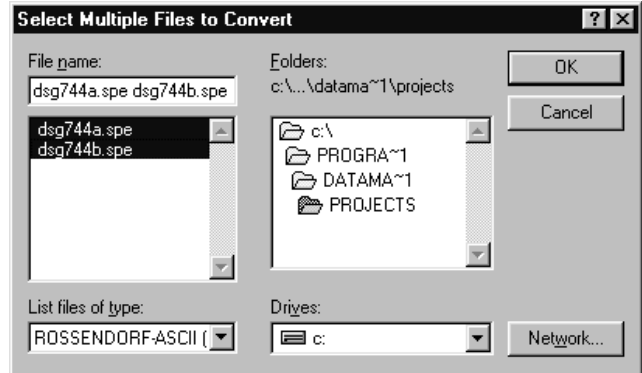


Fig. 5. File Open Dialog Box for Multiple Input Spectra.

The name of the output file(s) created will be the name of the input file with (1) the extension added to the main name and separated by an underscore: “\_”, and (2) the default extension of the selected output file format added as the new extension. For example, if the two selected files shown in Fig. 5 were converted to ORTEC INFORM (.SPC) format, their names would become `aptec_s0.spc` and `chern_s0.spc` respectively.

### 3.1.2. Open Input Files As...

The selection in this dialog determines the format of spectral data files input when opening a single spectrum or converting multiple spectral files. The input file format is determined only by the format selection specified (see Fig. 6) and *not* by the value of any file extension present on a specific data file.

**NOTE** The CI CAM format is only available on systems equipped with the appropriate CI Genie-2000 software. The CI files supplied with the Genie software are `SADVB.DLL` and `G2K_VB.DLL`.

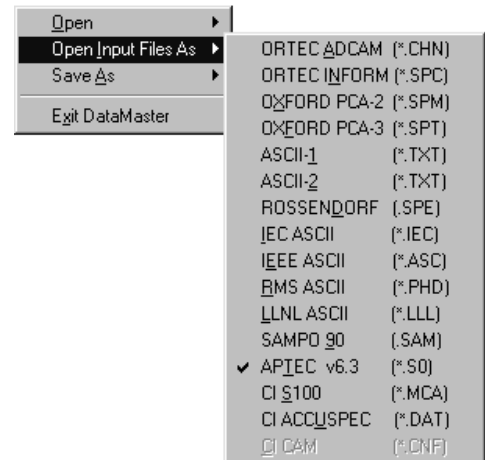


Fig. 6. Selection of Input File Format.

### 3.1.3. Save As...

This dialog selects the format of spectral data files created for the output of a single spectrum file or for

all the output files when converting multiple spectral files. The output file format is determined only by the format selection specified (see Fig. 7) and *not* by the value (if any) of any file extension present on a specific data file.

**NOTE** The CI CAM format is only available on systems equipped with the appropriate CI Genie-2000 software. The CI files supplied with the Genie software are **SADV.B.DLL** and **G2K\_VB.DLL**.

### 3.1.4. Exit DataMaster

This closes the DataMaster program. The input and output file selections are restored when the program is restarted.

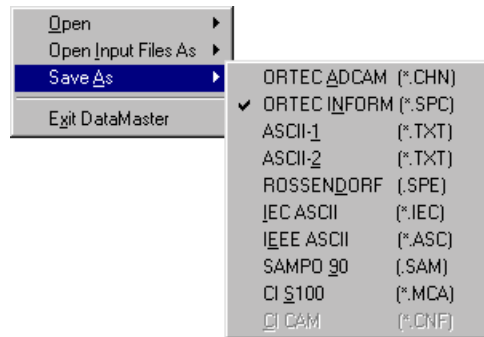


Fig. 7. Output File Format Selection.

## 3.2. Help

### 3.2.1. About DataMaster

This displays the About dialog (Fig. 8) which contains system and software version information that will be helpful should you need technical support.



Fig. 8. About DataMaster.



## 4. COMMAND LINE MODE

The command line mode is used to convert a single spectrum as specified on the MS-DOS command prompt. The syntax of the command line is:

**DataMaster -i InputFileName -j OutputFileName**

where i is the format type number for the input file, and j is the format specifier for the output file. The arguments are separated by spaces. Values of i and j valid for input and output are shown in Table 1.

**Table 1. Format Type Values for Input and Output Files in Command Line Mode.**

i, j	Spectrum File Format	Input	Output
1	ORTEC ADCAM (*.chn)	Yes	Yes
2	ORTEC INFORM (*.spe)	Yes	Yes
3	OXFORD PCA-2 (*.spm)	Yes	No
4	OXFORD PCA-3 (*.spt)	Yes	No
5	ASCII-1 (*.txt)	Yes	Yes
6	ASCII-2 (*.txt)	Yes	Yes
7	ROSSENDORF ASCII (*.spe)	Yes	Yes
8	IEC ASCII (*.iee)	Yes	Yes
9	IEEE ASCII (*.asc)	Yes	Yes
10	RMS ASCII (*.phd)	Yes	No
11	LLNL ASCII (*.lll)	Yes	No
12	SAMPO 90 (*.sam)	Yes	Yes
13	APTEC v6.3 (*.s0)	Yes	No
14	CI S100 (*.mca)	Yes	Yes
15	CI ACCUSPEC (*.dat)	Yes	No
16	CI CAM (*.cnf)	Yes	Yes <sup>1</sup>

<sup>1</sup>Only available on systems equipped with the appropriate CI Genie-2000 software.

Input and output filenames may include embedded spaces if the entire filename is contained within double quotes. The following are examples of valid command lines.

```
DataMaster -4 E:\OldData\pca3demo.spt -2 C:\Spectra\Pca3Demo_spt.spc  
DataMaster -4 E:\OldData\pca3demo.spt -2 "C:\Spectra\Converted Pca3Demo.spc"
```

If an error is detected in the command line in reading the input file or writing the output file, the program will attempt to recover from the error and switch into interactive mode.



# APPENDIX A. INSTALLATION

Insert the distribution disk in the CD reader. If the install wizard does not autorun, go to the Taskbar and click on **Start, Run...** In the Run dialog, enter **D:\SETUP.EXE** (use your CD drive designator instead of D:\) and click on **OK**. Just answer the wizard prompts and installation will proceed automatically from this point.

Once installed, DataMaster can be run either by double-clicking on the desktop icon or with **Start, Programs, ORTEC DataMaster, and DataMaster** (Fig. 9). DataMaster operates like other Windows programs, making it very easy to learn.

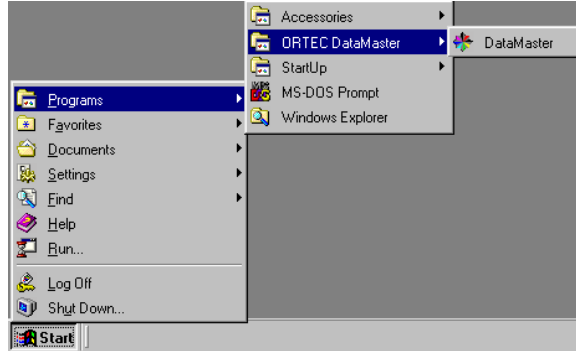


Fig. 9. Starting DataMaster.



# INDEX

CI CAM format .....	6, 7
command line .....	9
Drag and Drop .....	3
input file format .....	3, 6
Live time .....	3
Multiple Files to Convert .....	6
output file format .....	3
primary user interface .....	3

