

**LUDLUM MODEL 9DP
LOGGING SOFTWARE
INSTRUCTIONS**

February 2017

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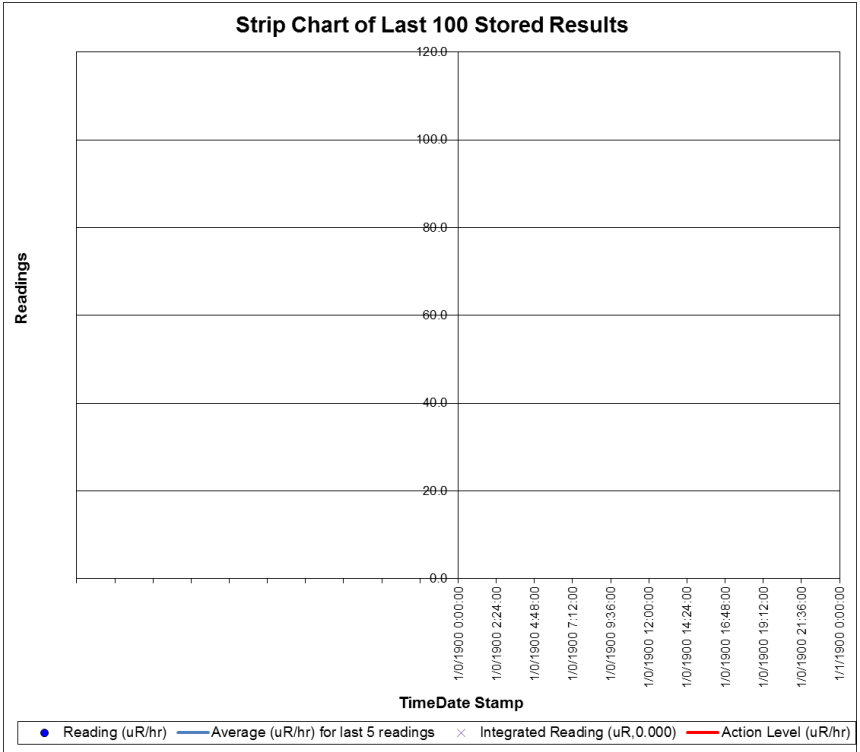
Introduction

The Model 9DP Logging Spreadsheet allows the user to log real-time data from the instrument directly to an Excel spreadsheet. The software allows the user to automatically configure the Model 9DP for data logging, or gives the option of manual configuration using a USB keyboard or USB thumb drive and the included configuration files.

The configuration (.cfg) files that come with the software can be loaded onto a USB thumb drive and inserted into the Model 9DP to easily configure the instrument to log data. A USB keyboard can also be used to configure the instrument to download. The spreadsheet then has controls to start/stop the download or data logging, to reset or zero the integrated dose, to change the logging sample period, and to set the units for recording integrated dose (R, Sv, or G). The default data shows up in columns: TimeDate Stamp, Reading ($\mu\text{R/hr}$ or $\mu\text{Sv/h}$), average for the last five readings, and Integrated Reading (μR or μSv). The software has a single-user license. A special USB cable is needed, and is supplied with the package or can be purchased separately.

There is a strip chart (example on the following page) that graphs the last 100 readings, averages, and integrated readings. Changing the action level cell (E3)

will set a line on the chart to easily identify readings that exceed this value. Up to 65,534 readings can be logged.



Installation Instructions

- 1) Connect 9DP to computer. Ensure the FTDI VCP Drivers are installed. (This happens automatically on most Internet-connected computers.) Follow the instructions in the

Installation Guide if it they are not, using included application notes (103, 104, or 119).

- 2) Configure the 9DP Data Logging feature either automatically using the “Auto-Config” button (shown below), or manually using either a USB keyboard or the supplied config file. To use the config file, copy the correct one, depending on the units, to a blank USB thumb drive. Insert the drive into the Model 9DP and wait approximately 10 seconds for the config files to be loaded.



To use a USB keyboard, plug the keyboard into the Model 9DP and press the F1 key and navigate to the Data Logging feature using the UP/DOWN/ENTER keys. Select the logging parameters to the following:

Data Logging	
Power Up Mode	ON
Operating Mode	ON
Delay on Power UP	60 (this can be user-defined)
Sample Period	User Defined

Report Setup System	
Date	OFF
Time	OFF
Chamber Temperature	OFF
High Voltage	OFF
Battery Voltage	OFF
Report Setup Instrument	
Model	OFF
Ludlum Serial Number	ON
User ID Number	OFF
User Serial Number	OFF
Report Setup Readings	
Reading	ON
Reading Multiplier	ON
Reading Units	ON
Integrated Reading	ON
Integrated Multiplier	ON
Integrated Units	ON

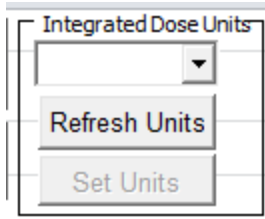
Usage

- 1) Connect supplied cable to the computer and Model 9DP if it's not already connected.
- 2) Copy the Model 9DP Logging Spreadsheet from the CD to a location on the hard drive, and open

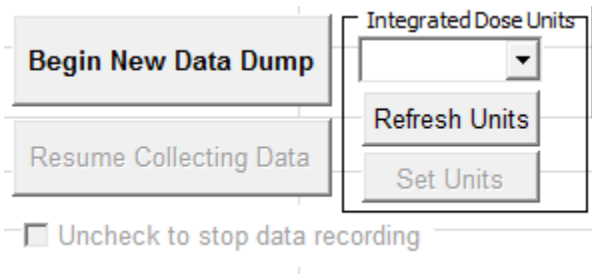
the file. There is a file marked “original,” which is a backup copy of this file.

- 3) Use the Windows Device Manager to find the Com Port number for the instrument and enter it into H2. Select from the radio box below if you are logging from a 9DP or a 9DP-1. Enter the COM port number into cell I2. This is the number of seconds between each sample taken. Refer to the device manager to find which COM port is the correct one for the cable. All COM ports are listed under the section PORTS (COM & LPT). If you are unsure which number to use, try disconnecting the cable from the computer and see which COM port disappears.

- 4) Select the integrated dose units. Pressing “Refresh Units” loads the available units and sets the drop-down box to the currently selected units. “Set units” changes the units used by the device for the integrated dose. The units for other readings are controlled based on the device’s view – this can be changed by attaching a USB keyboard and using the F1 menu.



- 5) Begin listening for and recording data using the "Begin New Data Dump" button. This will erase any values on the sheet. Pause listening by unchecking the "Uncheck to stop data recording" box. Resume listening with the "Resume Collecting Data" button. This adds new values to the spreadsheet without erasing existing ones.



- 6) The Model 9DP is continually streaming readings. The spreadsheet can be set to listen for or ignore these readings. When listening, the first reading can take as long as the sample period time before arriving.