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Databear settings

Databear Unit: Serial # 1312
Project (7 char.)

Calendar and clock:
Computer:
Databear:

Channels:

Use	Reference (29 characters)	Sensor (7)	Units (4)	Slope	Offset
<input type="checkbox"/> 0	DataBear has been Initialized	Temp. Deg	°F	0.5	0
<input checked="" type="checkbox"/> 1	CO set with Measurers	CO	ppm	0.5	0
<input checked="" type="checkbox"/> 2	Temp set with Measurers	Temp	°F	0.5	0
<input checked="" type="checkbox"/> 3	High CO set with M&W	CO	ppm	0.05	0
<input type="checkbox"/> 4		Voltage	mV	5	0

Period (sec):

Each channel 10240 samples.
Sampling time to full memory 7.1 days.

This is an example of the dialog which allows all variables stored within each DataBear to be modified. Any text changes are entered; then, by selecting 'Send', these are installed without erasing gathered measurements. Changing the period or channels can be 'Reset', erasing stored samples.

Measurer's Windows

Bear Facts -- #109

As the DataBear moves into the millennium we introduce a new Windows-based program to retrieve data from and reset parameters in this rugged portable storage core for several Langan Instruments. Now it is easy to use our instruments with both mainline computer operating systems.



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the DataBear

Bear Facts are published to provide useful insights into the operation and applications for the DataBear™ Measurer and associated complete instruments.

Langan Products, Inc. (LPI) has stated before that our use of the Macintosh is based upon the availability of this graphics capability when we first designed our software. Limited resources have allowed slow progress toward incorporating the more ubiquitous Microsoft Window® environment, but now we have a product to serve users dedicated to this platform. Two prior applications allowed direct DOS usage¹; this new program allows use of the Windows graphics user interface itself.

“Measurer’s Windows” (M’W) is designed for desktop or laptop computers with 32-bit Windows Operating Systems: Windows95®, Windows98®, WindowsNT® and Windows2000®. It will not run on the earlier 16-bit machines² (which can still use our DOS programs!) M’W will read any data saved with the DOS programs, so prior archives can be reviewed.

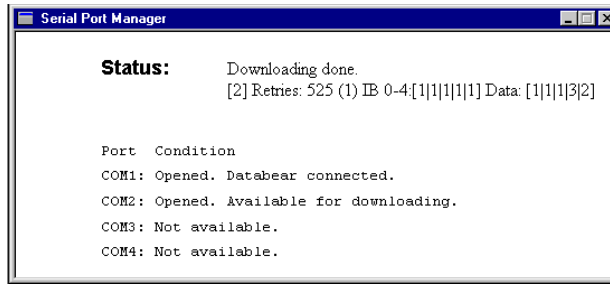
With the program opened, M’W allows the user to attach any DataBear to any newer Wintel platform’s COM port to retrieve all measurements automatically. Each channel of data is presented in one document window and a plot of the results is made. This can be printed for a one-page summary.

The results can be saved as ‘native’ files, automatically labeled with serial number, channel, parameter and date. They can also be saved as text files for exportation to spreadsheets or word processors.

All of the variables of the DataBear’s Information Block can be set, or reset, from a single dialog, as shown overleaf. This makes it convenient to adapt any measurements to different projects.

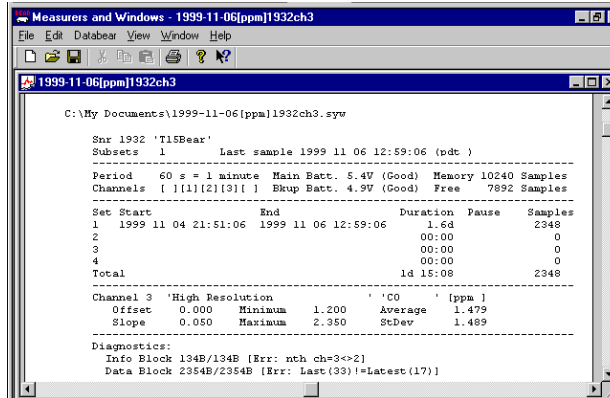
Results can be compared on a separate document window for a quick review of any interaction.

M’W will evolve in the future, based upon the desires of our users; initially is released to bring the operation of the DataBear into ‘Y2K’ conformity. This is done blindly to the user so that all that needs to be done with any DataBear is to reset the time³! LPI took this opportunity to develop the Windows capability; if the user still relies upon 16-bit software operating systems, it is necessary to continue to use the DOS application⁴.

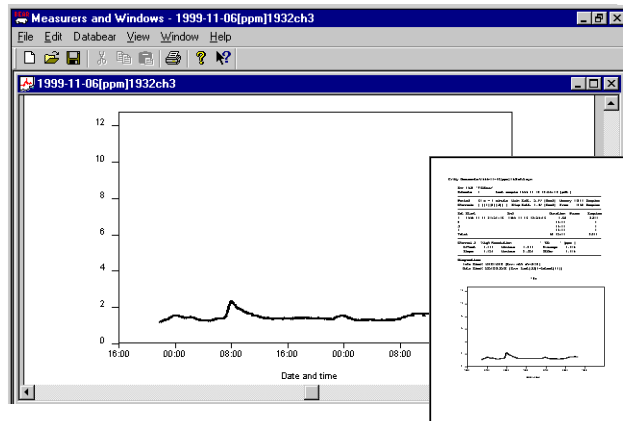


The Serial Port Manager (SPM) document window, when opened, shows the status of the connection ports. If a Measurer is attached, all channels will be downloaded automatically. To disable data retrieval, close the SPM.

NOTE: The exact views and nomenclature of this software are changed in the final release. The functionality remains.



one channel = one document window = one file
Each document window shows the summary of the retrieved data (above) and a plot of the results (below). Both are printed on a single sheet for ease of review (insert).
The data can be saved as ‘native’ (small) files or exported as text.



1 “IBearM Reader” (for 5-channel DataBears) and “BMI Reader” (for the earliest 2-channel DataBears)
2 A 16-bit Windows 3.1 program was created in 1995 (see Bear Facts #62), but programming was never completed due to personnel changes. It was never released because the DOS programs were in use.
3 The DataBear’s realtime calendar integrated circuit does not roll over into the new century; the ‘fix’ is quite straightforward: a number of years are subtracted before time is entered into the DataBear and

these same years are added back when data are retrieved. We arbitrarily selected 68 years to accommodate leap years; this works because it is normally our Macintosh or Windows software that interacts with the DataBear. Both M&W and the Macintosh Sense-Your-World! are y2k compliant.
4 In this case, using IBearM Reader software, the user will have to set the date back and forth manually. We suggest the use of 68 years. Thus, 990925:102538 becomes 310925:102538 or 200105:110000 becomes 320105:110000, etc..

The Langan DataBear is the data acquisition core to most of our 'measurers', our combined sensor/storage/software products developed for immediate use. The availability of 'Measurers and Windows' and 'Sense-Your-World!' provides the convenience of these reliable instruments to most users.