



**International Atomic Energy Agency**

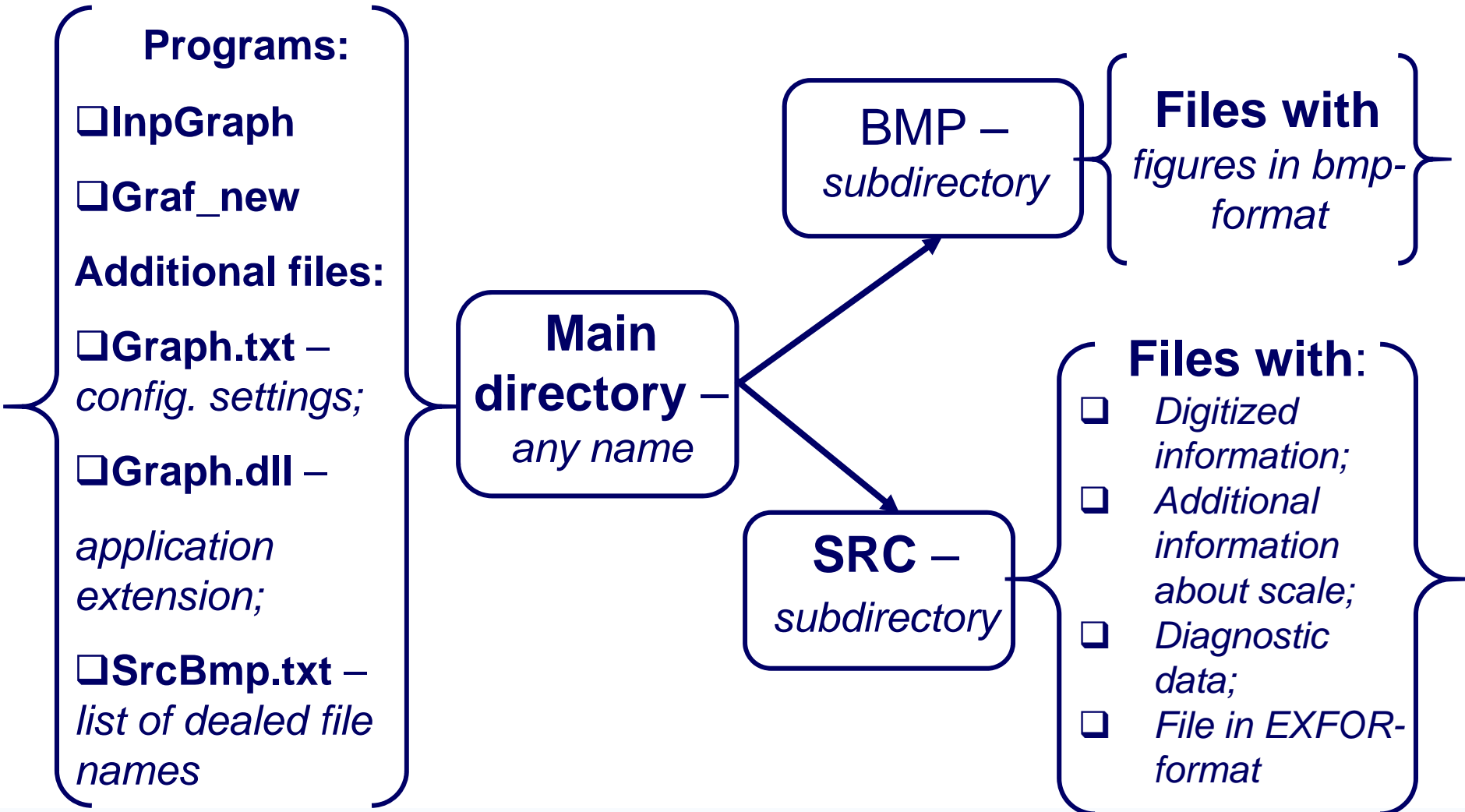
# **Software for digitizing data**

*Forth DAE-BRNS Theme Meeting on EXFOR Compilation of  
Nuclear Data*

*Panjab University, Chandigarh, 3-7 April 2011*

**Svetlana Dunaeva**

# Structure of the directories



## Sequence of input data

- **Scan figure from the article – use any scanner and related software ==> file.bmp;**
- **Digitize points from the figure -   
InpGraph;**
- **Convert digitized data with additional information about axis to file in EXFOR-format – graf\_new;**
- **Check and input additional information about experiment– ExforEditor.**

# Scan figure

Set default directory with BMP - files

Click on "Get pictures from camera or scanner"

Name	Size	Type	Date Modified
cap1	450 KB	IrfanView BMP File	2007-03-16 10:35
cap2	585 KB	IrfanView BMP File	2007-03-16 10:37
d0178f1	216 KB	IrfanView BMP File	2006-12-19 15:44
d0178f2	220 KB	IrfanView BMP File	2006-12-19 15:45
d0208f1	5 509 KB	IrfanView BMP File	2006-06-30 17:55
d0208f2	4 988 KB	IrfanView BMP File	2006-06-30 17:56
d0208f3	3 186 KB	IrfanView BMP File	2006-06-30 17:57
d0208f4	3 375 KB	IrfanView BMP File	2006-06-30 17:58
d021f1	194 KB	IrfanView BMP File	2006-12-19 16:47
d021f2	194 KB	IrfanView BMP File	2006-12-19 16:48
d0276f1	225 KB	IrfanView BMP File	2006-12-19 15:49
d0276f2	276 KB	IrfanView BMP File	2006-12-19 15:56
d0276f3	248 KB	IrfanView BMP File	2006-12-19 15:56
d0276f4	253 KB	IrfanView BMP File	2006-12-19 15:59
d0276f5	273 KB	IrfanView BMP File	2006-12-19 16:00
d0276f6	258 KB	IrfanView BMP File	2006-12-19 16:01
d0276f7	258 KB	IrfanView BMP File	2006-12-19 16:02
d0276f8			
d0276f9			
d0358f2			
d0358f3			
d0358f4			
d0358f5			
d0358f6			
d0377f1			
d0377f2			
d0377f3			
d0403f1	154 KB	IrfanView BMP File	2006-07-28 14:35
d0403f2	122 KB	IrfanView BMP File	2006-07-28 14:37
d0404f1	352 KB	IrfanView BMP File	2006-06-24 19:11
d0404f2	180 KB	IrfanView BMP File	2006-06-24 19:13
d0404f3	187 KB	IrfanView BMP File	2006-06-24 19:13
d0404f4	320 KB	IrfanView BMP File	2006-06-24 19:14
d0404f5	134 KB	IrfanView BMP File	2006-06-24 19:16
d0408f1	120 KB	IrfanView BMP File	2006-06-25 12:36
d0408f2	98 KB	IrfanView BMP File	2006-06-25 12:37
d0410f1	413 KB	IrfanView BMP File	2006-06-29 16:59
d0410f2	413 KB	IrfanView BMP File	2006-06-29 17:01
d0410f3	551 KB	IrfanView BMP File	2006-06-29 17:02
d0410f4	454 KB	IrfanView BMP File	2006-08-02 15:16
d0410f5	498 KB	IrfanView BMP File	2006-06-29 17:08
d0418f1	140 KB	IrfanView BMP File	2006-06-29 16:52
d0418f2	162 KB	IrfanView BMP File	2006-06-29 16:56
d0418f3	233 KB	IrfanView BMP File	2006-06-29 16:57
d0418f4	190 KB	IrfanView BMP File	2006-06-29 16:58
d0420f1	743 KB	IrfanView BMP File	2006-06-30 14:09
d0420f2	629 KB	IrfanView BMP File	2006-06-30 14:10
d0420f3	702 KB	IrfanView BMP File	2006-06-30 14:11
d0420f4	702 KB	IrfanView BMP File	2006-06-30 14:12
d0420f5	800 KB	IrfanView BMP File	2006-06-30 14:14
d0420f6	990 KB	IrfanView BMP File	2006-06-30 14:15
d0420f7	989 KB	IrfanView BMP File	2006-06-30 14:16

# Window with Scanner Wizard

The screenshot shows a Windows XP desktop environment. A File Explorer window is open, displaying a list of files in the folder 'D:\crw\_new\BMP'. The files are listed with columns for Name, Size, Type, and Date Modified. A 'Scanner and Camera Wizard' dialog box is overlaid on the File Explorer. The wizard has a title bar that says 'Scanner and Camera Wizard' and a close button. The main content area of the wizard contains the following text:

Welcome to the Scanner and Camera Wizard

hp scanjet 3600 series

This wizard helps you copy pictures from your camera, scanner, or other device to your computer, your network, or the Web.

To continue, click Next.

At the bottom of the wizard, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is circled in blue, and a blue arrow points from the text 'Click on button "Next"' to it.

Name	Size	Type	Date Modified
*.cap1	450 KB	IrfanView BMP File	2007-03-16 10:35
*.cap2	585 KB	IrfanView BMP File	2007-03-16 10:37
*.d0178f1	216 KB	IrfanView BMP File	2006-12-19 15:44
*.d0178f2	220 KB	IrfanView BMP File	2006-12-19 15:45
*.d0208f1	5 509 KB	IrfanView BMP File	2006-06-30 17:55
*.d0208f2	4 988 KB	IrfanView BMP File	2006-06-30 17:56
*.d0208f3	3 186 KB	IrfanView BMP File	2006-06-30 17:57
*.d0208f4	3 375 KB	IrfanView BMP File	2006-06-30 17:58
*.d0271f1	194 KB	IrfanView BMP File	2006-12-19 16:47
*.d0271f2	194 KB	IrfanView BMP File	2006-12-19 16:48
*.d0276f1			
*.d0276f2			
*.d0276f3			
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*.d0410f5			
*.d0418f1			
*.d0418f2			
*.d0418f3			
*.d0418f4			
*.d0420f1			
*.d0420f2			
*.d0420f3			
*.d0420f4			
*.d0420f5			
*.d0420f6			
*.d0420f7			

Click on button "Next"

# Choose settings

The screenshot shows a Windows Explorer window displaying a folder named 'BMP' containing numerous IrfanView BMP files. Overlaid on this is the 'Scanner and Camera Wizard' dialog box, specifically the 'Choose Scanning Preferences' step. The dialog box offers four scanning options: 'Color picture', 'Grayscale picture', 'Black and white picture or text', and 'Custom'. The 'Custom' option is selected, and the 'Custom settings' button is circled in blue. A blue arrow points from this button to the text 'Set custom settings'.

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cap1	450 KB	IrfanView BMP File	2007-03-16 10:35
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d0271f1	194 KB	IrfanView BMP File	2006-12-19 16:47
d0271f2	194 KB	IrfanView BMP File	2006-12-19 16:48
d0276f1			
d0276f2			
d0276f3			
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d0404f4			
d0404f5			
d0408f1			
d0408f2			
d0410f1			
d0410f2			
d0410f3			
d0410f4			
d0410f5			
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d0420f2			
d0420f3			
d0420f4			
d0420f5			
d0420f6			
d0420f7			

Set custom settings

# Additional window with scanning properties

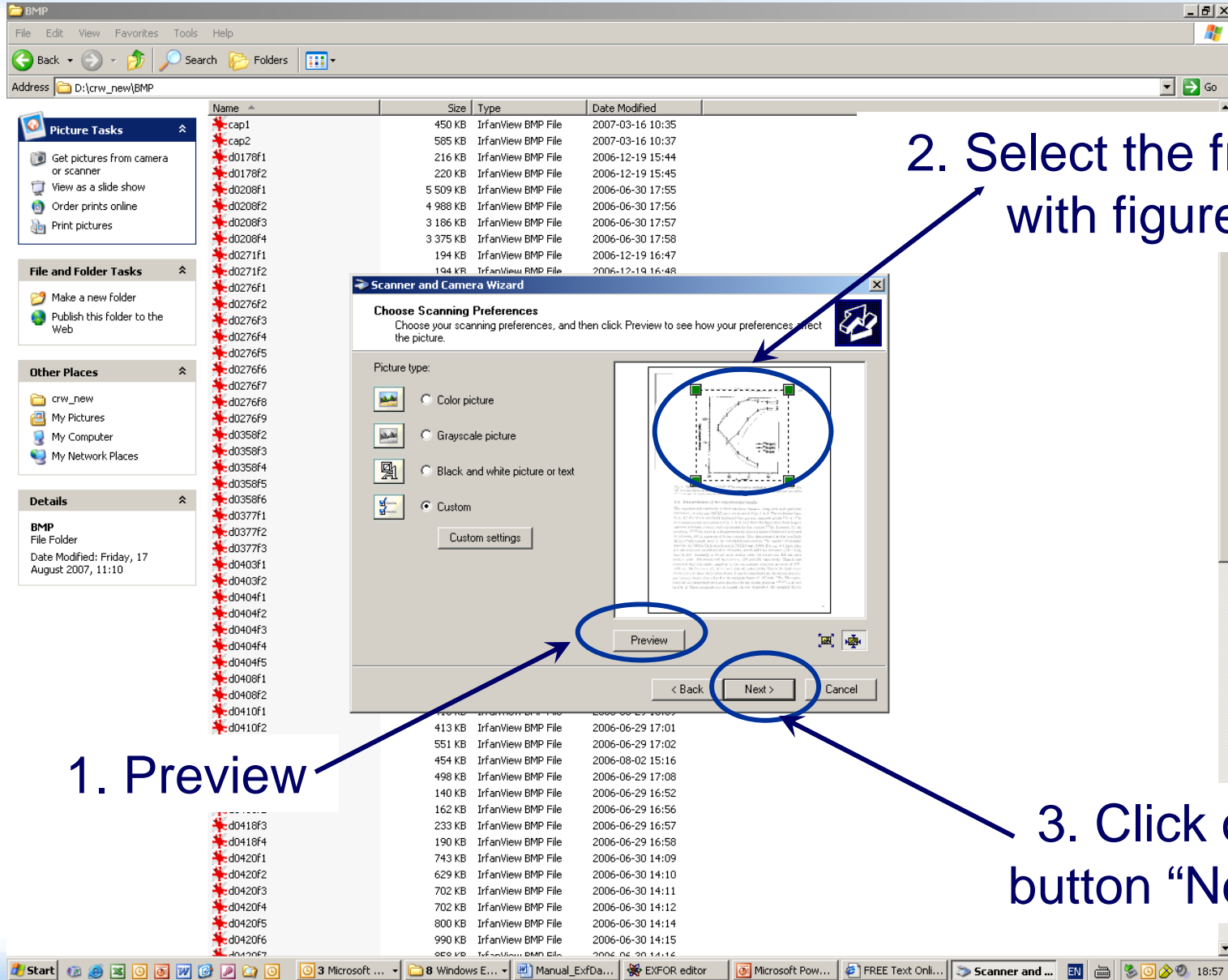
1. Resolution: 300 points

2. Picture type: Black and white picture or text

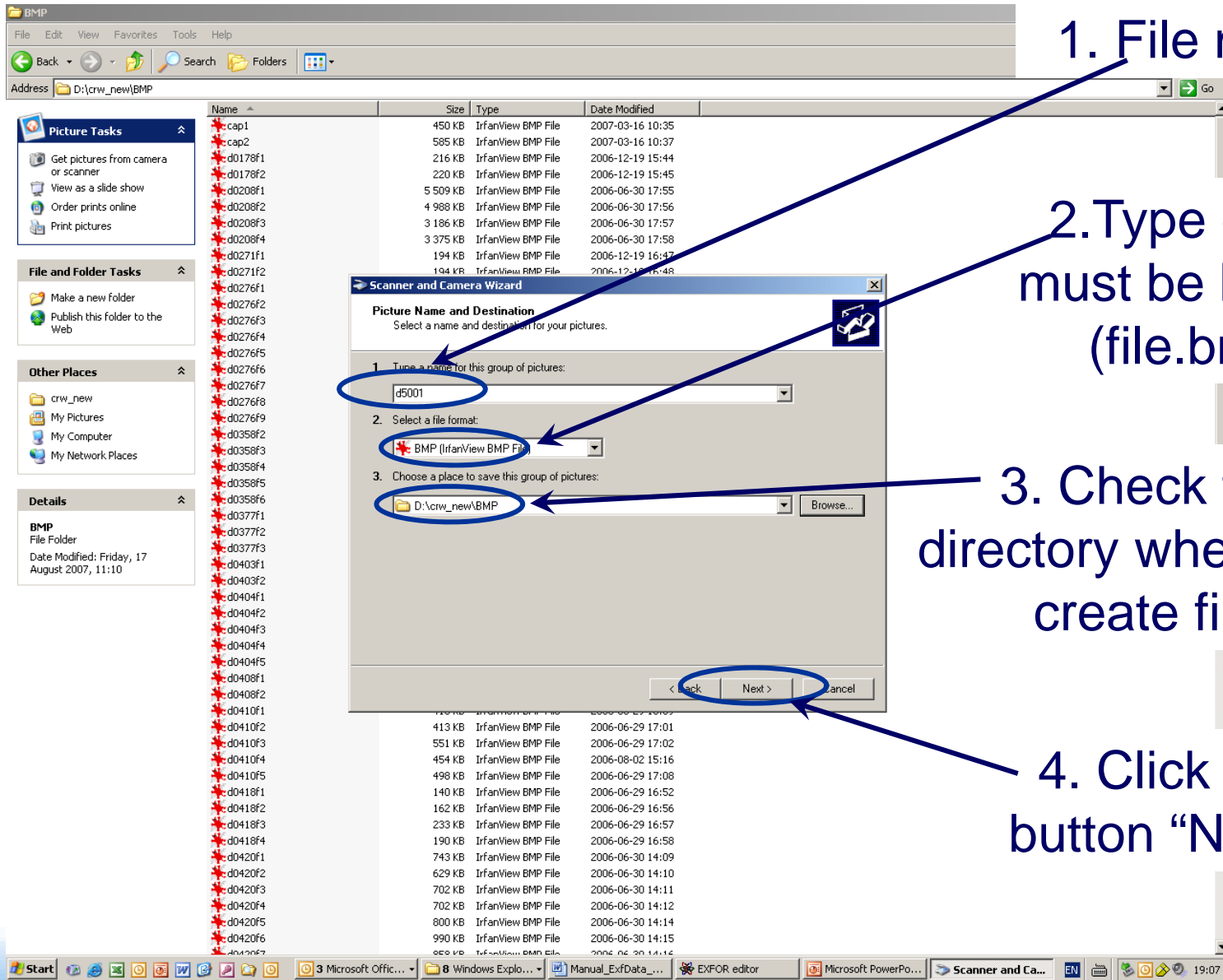
3. Exit

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d0208f3	3 186 KB	IrfanView BMP File	2006-06-30 17:57
d0208f4	3 375 KB	IrfanView BMP File	2006-06-30 17:58
d0271f1	194 KB	IrfanView BMP File	2006-12-19 16:47
d0271f2	194 KB	IrfanView BMP File	2006-12-19 16:48
d0276f1			
d0276f2			
d0276f3			
d0276f4			
d0276f5			
d0276f6			
d0276f7			
d0276f8			
d0276f9			
d0358f2			
d0358f3			
d0358f4			
d0358f5			
d0358f6			
d0377f1			
d0377f2			
d0377f3			
d0403f1			
d0403f2			
d0404f1			
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d0408f1			
d0408f2			
d0410f1			
d0410f2			
d0410f3			
d0410f4			
d0410f5			
d0418f1			
d0418f2			
d0418f3			
d0420f5			
d0420f6			
d0420f7			

# Choose figure



# Choose file name, type and directory



1. File name

2. Type of file must be bitmap (file.bmp)

3. Check the directory where you create file

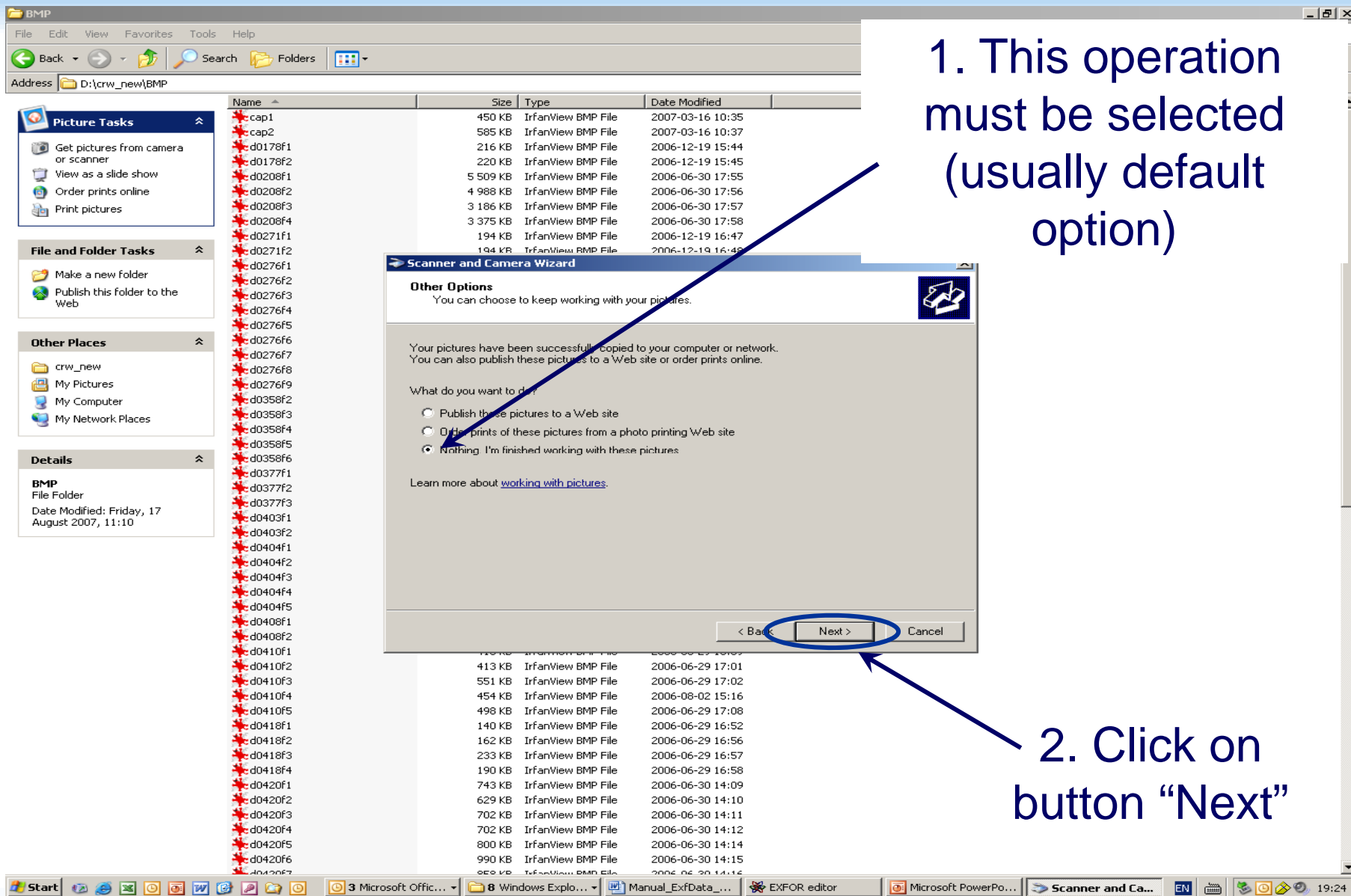
4. Click on button "Next"



# Scanning process (no action from user)

The screenshot displays a Windows XP desktop environment. In the background, a File Explorer window is open to the directory `D:\crw_new\BMP`, showing a list of files. In the foreground, the 'Scanner and Camera Wizard' dialog box is active, specifically at the 'Scanning Picture' step. The wizard indicates that the scanning process is at 0% completion. A graph within the wizard shows 'Dens (arbitrary unit)' on the y-axis and 'Time (min)' on the x-axis, with three data series labeled '100 (g/h)', '200 (g/h)', and '300 (g/h)'. The taskbar at the bottom shows several open applications, including Microsoft Office, Windows Explorer, and EXFOR editor.

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d0420fh			
d0420fi			
d0420fj			
d0420fk			
d0420fl			
d0420fm			
d0420fn			
d0420fo			
d0420fp			
d0420fq			
d0420fr			
d0420fs			
d0420ft			
d0420fu			
d0420fv			
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d0420fy			
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d0420go			
d0420gp			
d0420gq			
d0420gr			
d0420gs			
d0420gt			
d0420gu			
d0420gv			
d0420gw			
d0420gx			
d0420gy			
d0420gz			
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d0420h2			
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d0420h6			
d0420h7			
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d0420hc			
d0420hd			
d0420he			
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d0420hh			
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d0420hj			
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d0420hm			
d0420hn			
d0420ho			
d0420hp			
d0420hq			
d0420hr			
d0420hs			
d0420ht			
d0420hu			
d0420hv			
d0420hw			
d0420hx			
d0420hy			
d0420hz			
d0420i1			
d0420i2			
d0420i3			
d0420i4			
d0420i5			
d0420i6			
d0420i7			
d0420i8			
d0420i9			
d0420ia			
d0420ib			
d0420ic			
d0420id			
d0420ie			
d0420if			
d0420ig			
d0420ih			
d0420ii			
d0420ij			
d0420ik			
d0420il			
d0420im			
d0420in			
d0420io			
d0420ip			
d0420iq			
d0420ir			
d0420is			
d0420it			
d0420iu			
d0420iv			
d0420iw			
d0420ix			
d0420iy			
d0420iz			
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d0420lj			
d0420lk			
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d0420lu			
d0420lv			
d0420lw			
d0420lx			
d0420ly			
d0420lz			
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d0420mh			
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d0420nh			
d0420ni			
d0420nj			
d0420nk			
d0420nl			
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d0420nt			
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d0420nv			
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d0420ny			
d0420nz			
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d0420o6			
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d0420o9			
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d0420ob			
d0420oc			
d0420od			
d0420oe			
d0420of			
d0420og			
d0420oh			
d0420oi			
d0420oj			
d0420ok			
d0420ol			
d0420om			
d0420on			
d0420oo			
d0420op			
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d0420or			
d0420os			
d0420ot			
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d0420ov			
d0420ow			
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d0420oz			
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d0420po			
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d0420pu			
d0420pv			
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d0420px			
d0420py			
d0420pz			
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d0420q2			
d0420q3			
d0420q4			
d0420q5			
d0420q6			
d0420q7			
d0420q8			
d0420q9			
d0420qa			
d0420qb			
d0420qc			
d0420qd			
d0420qe			
d0420qf			



1. This operation must be selected (usually default option)

2. Click on button "Next"



# End of scanning procedure

The screenshot shows a Windows XP desktop environment. In the background, a File Explorer window is open to the folder 'D:\crw\_new\BMP', displaying a list of files. In the foreground, the 'Scanner and Camera Wizard' dialog box is open, titled 'Completing the Scanner and Camera Wizard'. The dialog box contains the following text:

1 picture(s) were copied.

To see your pictures on your computer or network, click the location below:  
[D:\crw\\_new\BMP](#)

To close this wizard and see your pictures, click Finish.

The dialog box has three buttons at the bottom: '< Back', 'Finish', and 'Cancel'. The 'Finish' button is circled in blue, and a blue arrow points from the text 'Click: "finish", if last figure was scanned' to it.

Name	Size	Type	Date Modified
cap1	450 KB	IrfanView BMP File	2007-03-16 10:35
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d0208f4	3 375 KB	IrfanView BMP File	2006-06-30 17:58
d0271f1	194 KB	IrfanView BMP File	2006-12-19 16:47
d0271f2	194 KB	IrfanView BMP File	2006-12-19 16:48
d0276f1			
d0276f2			
d0276f3			
d0276f4			
d0276f5			
d0276f6			
d0276f7			
d0276f8			
d0276f9			
d0358f2			
d0358f3			
d0358f4			
d0358f5			
d0358f6			
d0377f1			
d0377f2			
d0377f3			
d0403f1			
d0403f2			
d0404f1			
d0404f2			
d0404f3			
d0404f4			
d0404f5			
d0408f1			
d0408f2			
d0410f1			
d0410f2			
d0410f3			
d0410f4			
d0410f5			
d0418f1			
d0418f2			
d0418f3			
d0418f4			
d0420f1			
d0420f2			
d0420f3			
d0420f4			
d0420f5			
d0420f6			
d0420f7			

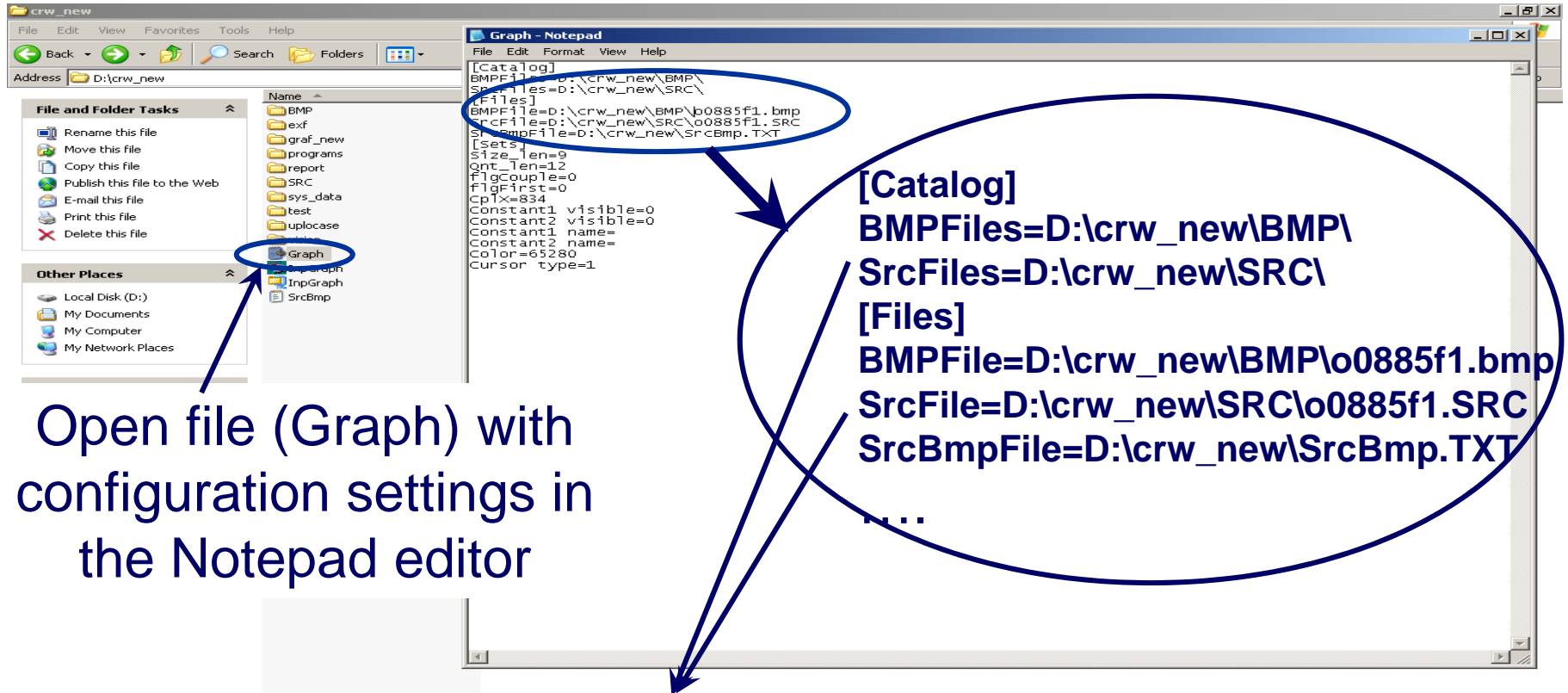
Click: "finish", if last figure was scanned

# Result of scanning

When scanned twice – file name will be slightly different:  
D5001.bmp and D5001001.bmp

Name	Size	Type	Date Modified
d0358f2	203 KB	IrfanView BMP File	2006-12-19 14:37
d0358f3	209 KB	IrfanView BMP File	2006-12-19 14:38
d0358f4	197 KB	IrfanView BMP File	2006-12-19 14:39
d0358f5	208 KB	IrfanView BMP File	2006-12-19 14:45
d0358f6	220 KB	IrfanView BMP File	2006-12-19 14:45
d0377f1	141 KB	IrfanView BMP File	2006-07-27 12:56
d0377f2	144 KB	IrfanView BMP File	2006-07-27 12:57
d0377f3	153 KB	IrfanView BMP File	2006-07-27 12:58
d0403f1	154 KB	IrfanView BMP File	2006-07-28 14:35
d0403f2	122 KB	IrfanView BMP File	2006-07-28 14:37
d0404f1	352 KB	IrfanView BMP File	2006-06-24 19:11
d0404f2	180 KB	IrfanView BMP File	2006-06-24 19:13
d0404f3	187 KB	IrfanView BMP File	2006-06-24 19:13
d0404f4	320 KB	IrfanView BMP File	2006-06-24 19:14
d0404f5	134 KB	IrfanView BMP File	2006-06-24 19:16
d0408f1	120 KB	IrfanView BMP File	2006-06-25 12:36
d0408f2	98 KB	IrfanView BMP File	2006-06-25 12:37
d0410f1	413 KB	IrfanView BMP File	2006-06-29 16:59
d0410f2	413 KB	IrfanView BMP File	2006-06-29 17:01
d0410f3	551 KB	IrfanView BMP File	2006-06-29 17:02
d0410f4	454 KB	IrfanView BMP File	2006-08-02 15:16
d0410f5	498 KB	IrfanView BMP File	2006-06-29 17:08
d0418f1	140 KB	IrfanView BMP File	2006-06-29 16:52
d0418f2	162 KB	IrfanView BMP File	2006-06-29 16:56
d0418f3	233 KB	IrfanView BMP File	2006-06-29 16:57
d0418f4	190 KB	IrfanView BMP File	2006-06-29 16:58
d0420f1	743 KB	IrfanView BMP File	2006-06-30 14:09
d0420f2	629 KB	IrfanView BMP File	2006-06-30 14:10
d0420f3	702 KB	IrfanView BMP File	2006-06-30 14:11
d0420f4	702 KB	IrfanView BMP File	2006-06-30 14:12
d0420f5	800 KB	IrfanView BMP File	2006-06-30 14:14
d0420f6	990 KB	IrfanView BMP File	2006-06-30 14:15
d0420f7	858 KB	IrfanView BMP File	2006-06-30 14:16
d0420f8	668 KB	IrfanView BMP File	2006-06-30 14:18
d0420f9	687 KB	IrfanView BMP File	2006-06-30 14:19
d0420f10	638 KB	IrfanView BMP File	2006-06-30 14:20
d0420f11	536 KB	IrfanView BMP File	2006-06-30 14:21
d0420f12	613 KB	IrfanView BMP File	2006-06-30 14:22
d0420f13	710 KB	IrfanView BMP File	2006-06-30 14:23
d0420f14	865 KB	IrfanView BMP File	2006-06-30 14:24
d0420f15	775 KB	IrfanView BMP File	2006-06-30 14:25
d0420f16	764 KB	IrfanView BMP File	2006-06-30 14:26
d0431f3	243 KB	IrfanView BMP File	2007-01-15 10:15
d0431f4	281 KB	IrfanView BMP File	2007-01-15 10:16
d0431f5	263 KB	IrfanView BMP File	2007-01-15 10:17
d0431f6	222 KB	IrfanView BMP File	2007-01-15 10:20
d0437f1	222 KB	IrfanView BMP File	2007-03-08 09:41
d0437f2	222 KB	IrfanView BMP File	2007-03-08 09:42
d0444f3	823 KB	IrfanView BMP File	2007-08-17 11:10
d5001	235 KB	IrfanView BMP File	2007-10-17 19:23
d5001 001	235 KB	IrfanView BMP File	2007-10-17 19:23

# Input own Graph settings – only once before starting work with program for the first time



Open file (Graph) with configuration settings in the Notepad editor

Put proper path of the directory name instead of "D:\crw\_new\  
"



# DEFINITIONS

- **Work** – a set of data, defining a unit of information. In EXFOR, this is related to an **ENTRY**, i.e. a set of information from the textual and numerical parts of the source

**Work may contain several GRAPHS**

- **GRAPH** - related to the **SUBENT** keyword of EXFOR, i.e. piece of numerical information from the source

**GRAPH may contain a set of CURVES**

- **CURVE** – prepared from a set of coordinate points defining the points of the physical process itself (can be set of **DATA** in **SUBENT** or subset of **DATA**)

**Additional information:**

- **LINE X or Y** - set of coordinate points defining an axis direction.
- **SCALE X or Y** - set of coordinate points defining the base points defining the scale

**Coordinates of the base points define the scale, and must be defined in the GRAPH – this additional information is used to calculate values of the physical process in the scale of the figure**



# Graph window (click on "InpGraph" button)

The screenshot shows the 'Figure Digitizing' application window. The menu bar includes 'Figure', 'Options', and 'Exit'. The main area is divided into a 'Figure's area' and a 'result's file area' which contains a table with columns 'Command', 'Coord. X', 'Coord. Y', and '#'. A keyboard-like control panel at the bottom features buttons for 'BEGW', 'BEGG', 'BEGC', 'ENDC', 'ENDG', 'ENDW', 'END', 'LNK', 'LNY', 'SCX', 'SCY', 'LIN', 'LOG', 'ERX', 'ERY', 'FLG', and 'CLF'. On the right side, there are buttons for 'Delete selected line', 'Refresh line numeration', 'Editor Option', 'Adding to the list end', 'Insert', and 'Scale' (with '1:1' and '+' '-' buttons). A 'regimes' section includes 'View' and 'Input' radio buttons, and a 'Check' button. A taskbar at the bottom shows the Start button and several open applications.

Usual Windows commands (open, close, exit, etc.)

Figure's area

result's file area

Options and buttons for output data edit

Keyword buttons for input data type

Data point type

Buttons for changing figure size

regimes

# Modes, options and buttons for data manipulation

<b>Modes</b>	<b>View</b>	<b>Look through data file</b>
	<b>Input</b>	<b>Digitize data</b>
	<b>Check</b>	<b>Check digitized data</b>
<b>Editor option</b>	<b>Two choices</b>	<b>Adding data to end of list</b>
		<b>Inserting at cursor place</b>
<b>Buttons for edit</b>		<b>Delete selected line</b>
		<b>Refresh line numeration</b>

# Keyword's buttons for input data type

- **BEGW** - Begin a new work
- **ENDW** - End the current work
- **BEGG** - Begin a new graph
- **ENDG** - End the current graph
- **BEGC** - Begin a new curve
- **ENDC** - End the current curve

For EXFOR elements

- **LNx** - Beginning of the set of points defining the direction of the X-axis
- **LNy** - Beginning of the set of points defining the direction of the Y-axis
- **SCx** - Beginning of the set of base points along the X-axis
- **SCy** - Beginning of the set of base points along the Y-axis
- **END** - End of the data set, the beginning is defined by LN<sub>x</sub>, LN<sub>y</sub>, SC<sub>x</sub> or SC<sub>y</sub>

For additional (scale) elements)

- **LIN** - Linear scale of the axis
- **LOG** - Logarithmic scale of the axis
- **SQW** - Non-linear scale of the axis
- **ERx** - Error (line width) along the X-axis
- **ERy** - Error (line width) along the Y-axis
- **FLG** - Flag. Flag value is increased by one
- **CLF** - Flag reset

For special definitions of the additional elements



# Structure of the file

## FILE



LNX  
2 points  
END  
SCX  
LIN (or LOG)  
...  
END  
LNY  
2 points  
END  
SCY  
LIN (or LOG)  
...  
END  
BEGC  
...  
ENDC

## RULES

1. *A work may contain several GRAPHS*
2. *A graph is defined by a set of CURVES*
3. *Every GRAPH starts from definitions of scale X and scale Y*
4. *Several CURVES can be digitized after one definition of scale X and scale Y*





# Choose from the open directory file name

The screenshot displays the 'Figure Digitizing' application window. An 'Open' dialog box is open, showing the 'BMP' directory. The file list contains the following entries:

- d0420f16
- d0431f3
- d0431f4
- d0431f5
- d0431f6
- d0437f1
- d0437f2
- d0444f3
- d5001
- d5001 001

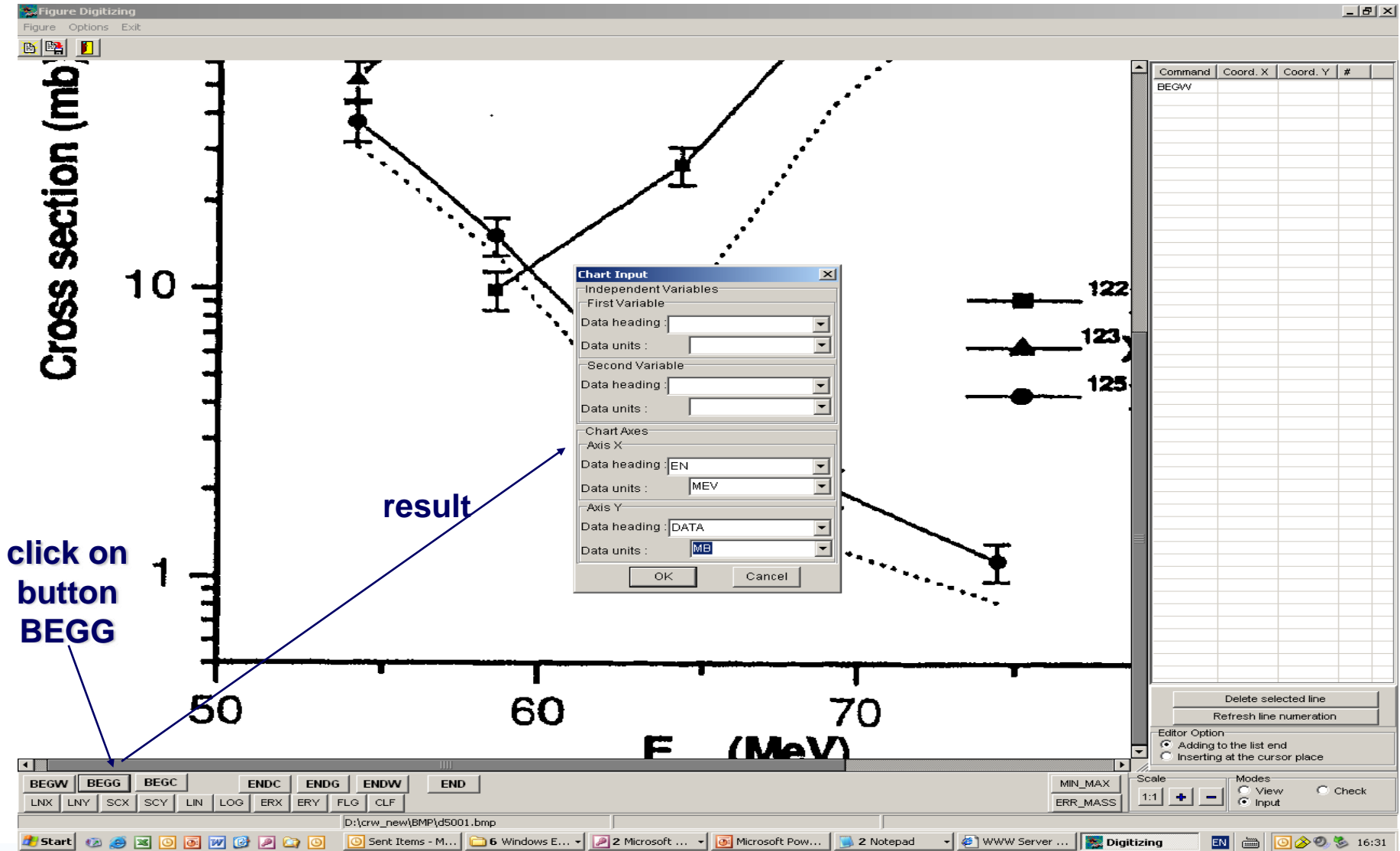
The file 'd5001' is selected. The 'File name' field contains 'd5001' and the 'Files of type' is set to 'Bitmaps (\*.bmp)'. A preview window on the right shows a digitized graph with several curves. The main application window has a menu bar (Figure, Options, Exit) and a toolbar. A data table on the right side of the application is currently empty.

Command	Coord. X	Coord. Y	#
---------	----------	----------	---

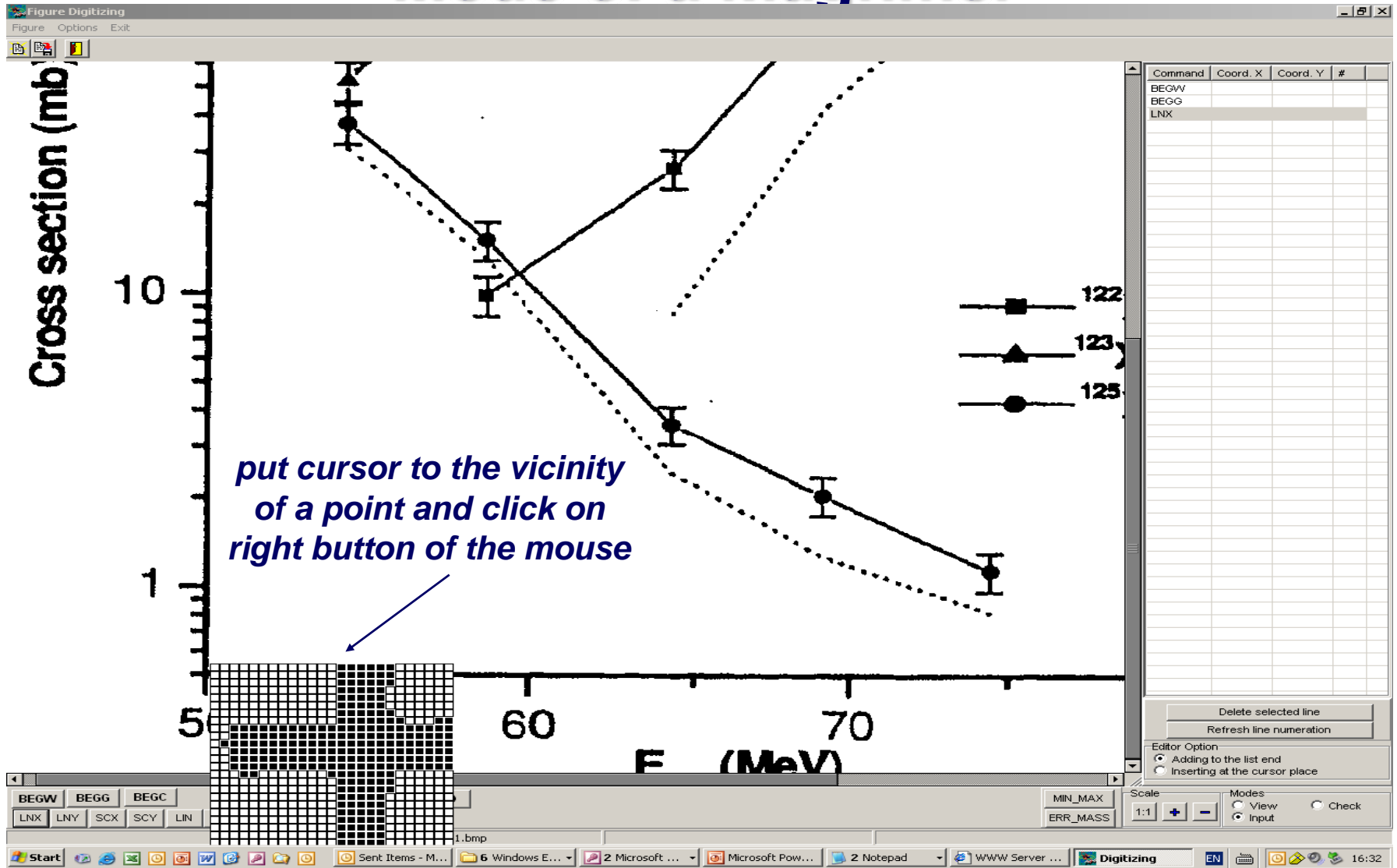
At the bottom of the application window, there is a toolbar with various digitizing commands: BEGW, BEGG, BEGC, ENDC, ENDG, ENDW, END, LNX, LNY, SCX, SCY, LIN, LOG, ERX, ERY, FLG, CLF, MIN\_MAX, ERR\_MASS, Scale (1:1), and Modes (View, Input, Check).



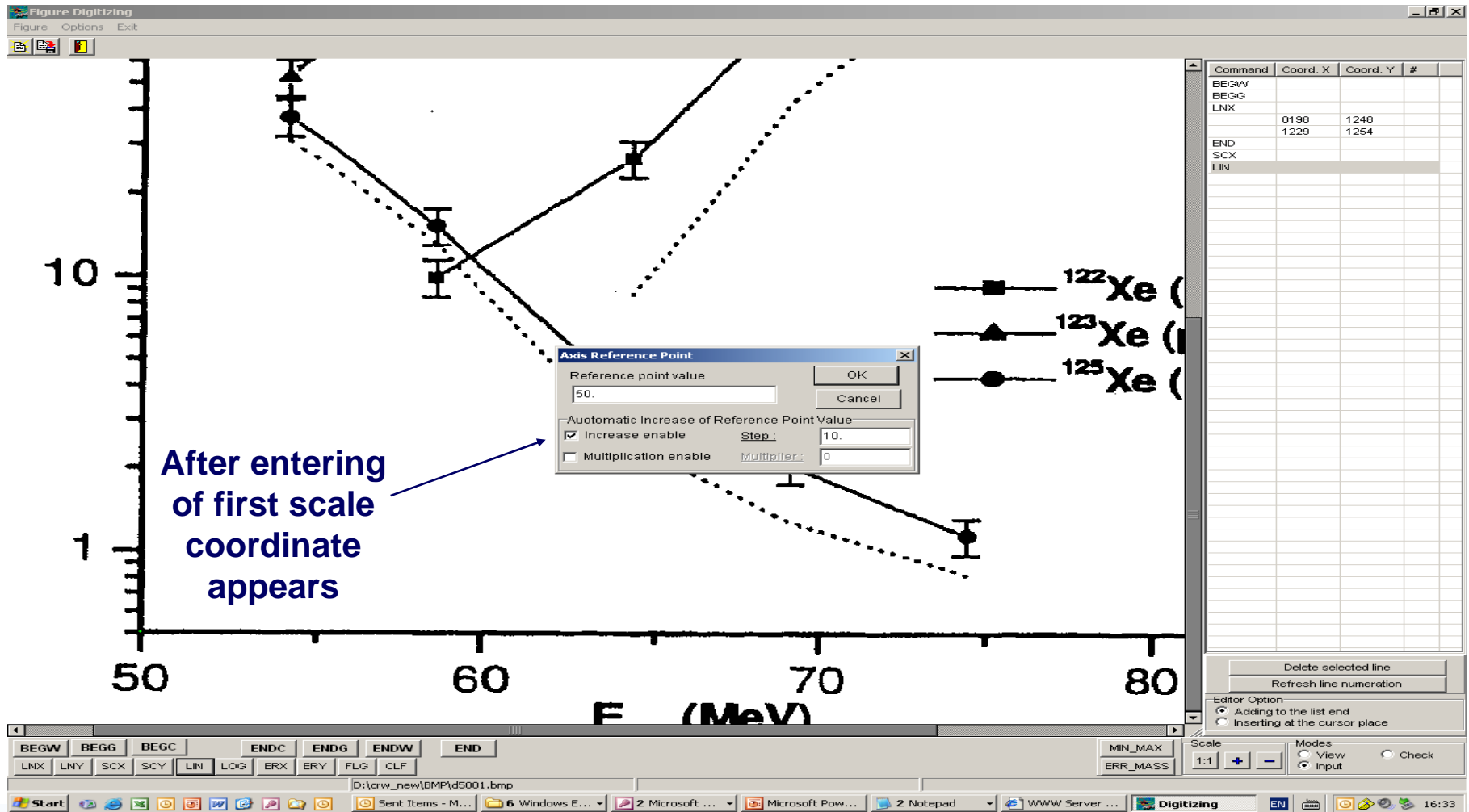
# Information about scales



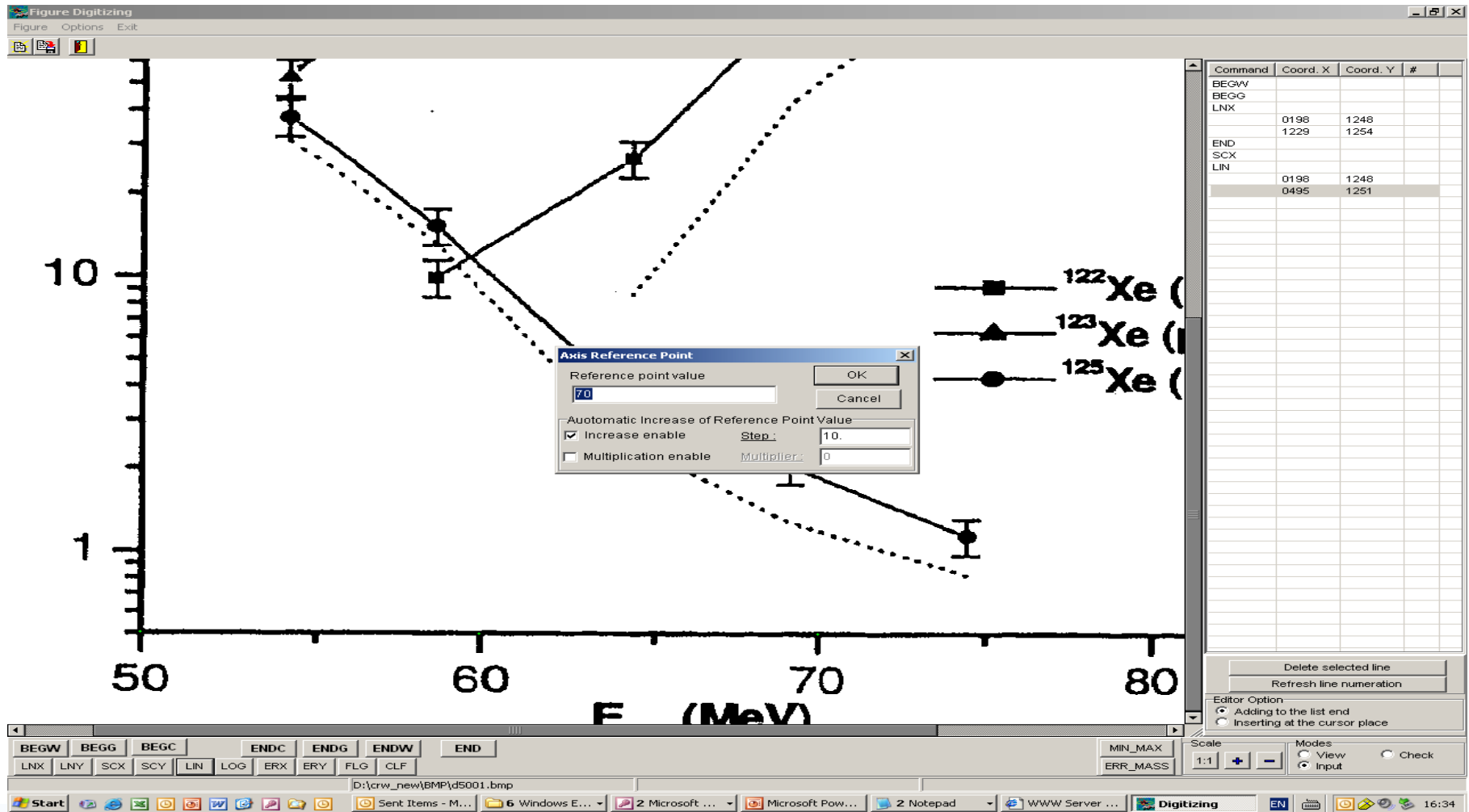
# Mode of a magnifier



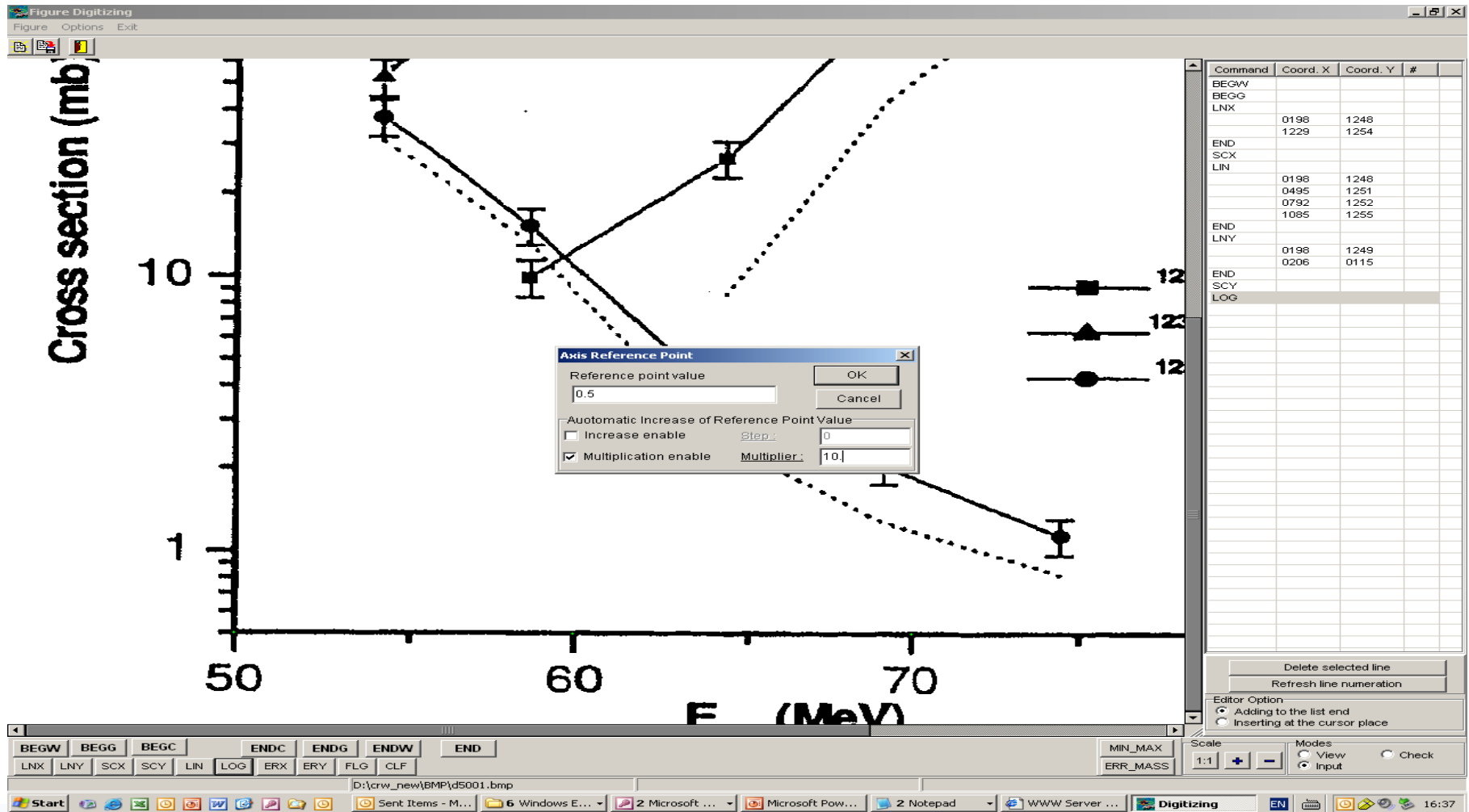
# Input physical values of scale



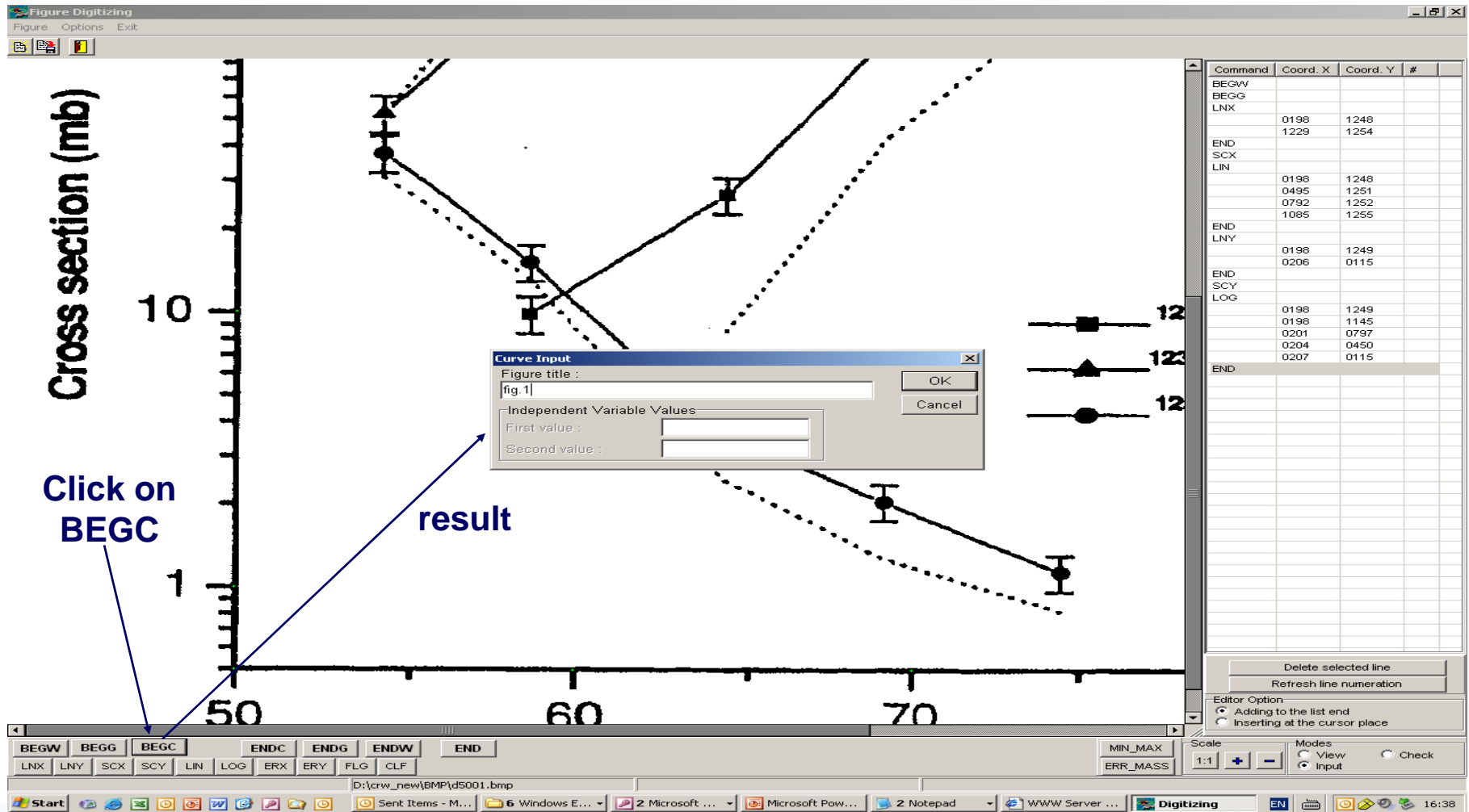
# Repeat for every scale coordinate



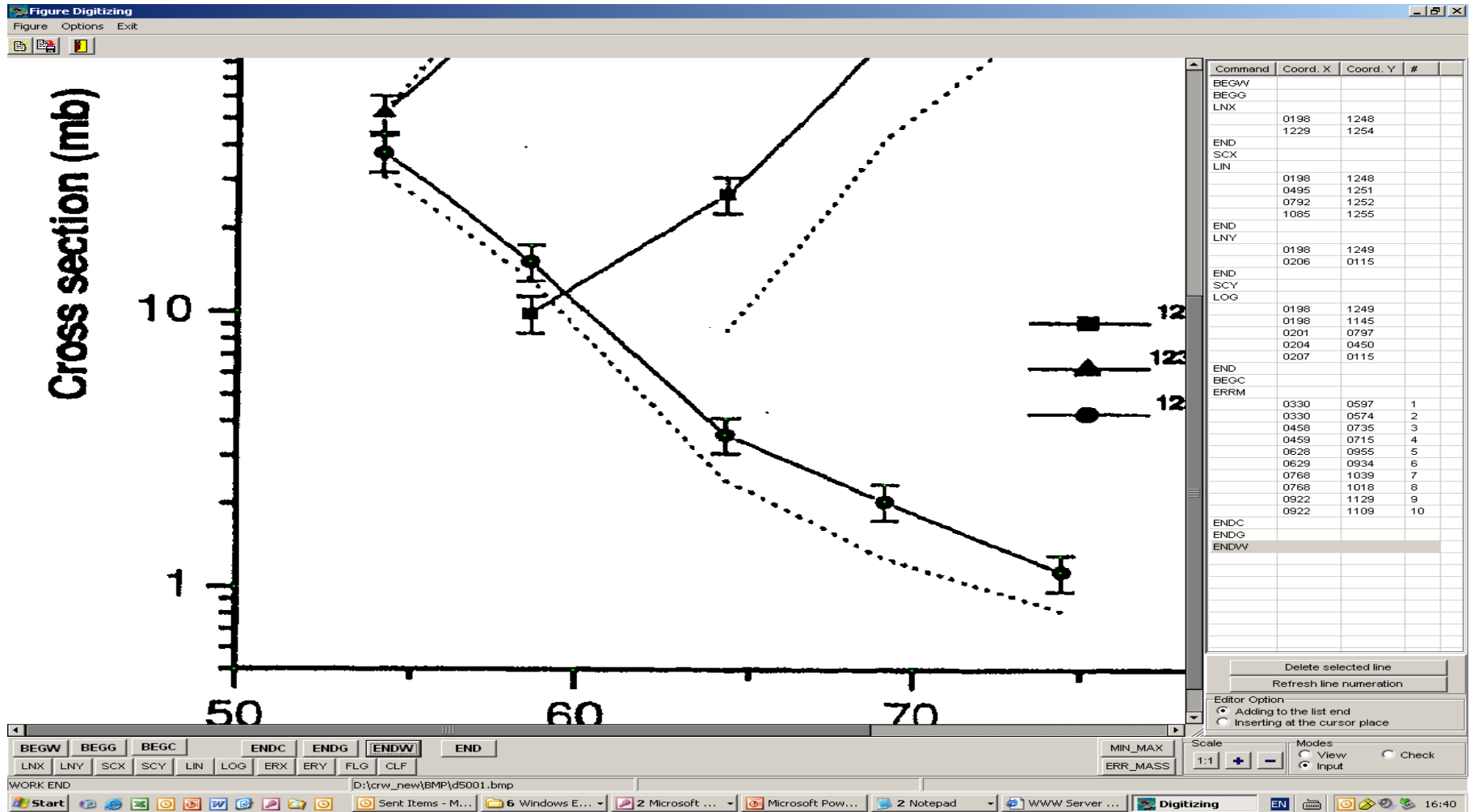
# Same procedure for Y- scale



# Digitizing points of the physical process



# Result of digitizing



# Saving

**Save As**

Save in: SRC

File name: d5001

Save as type: Digitized files (\*.SRC)

Command	Coord. X	Coord. Y	#
BEGW			
BEGG			
LNK			
	0198	1248	
	1229	1254	
END			
SCX			
LIN			
	0198	1248	
	0495	1251	
	0792	1252	
	1085	1255	
END			
LNK			
	0198	1249	
	0206	0115	
END			
SCY			
LOG			
	0198	1249	
	0198	1145	
	0201	0797	
	0204	0450	
	0207	0115	
END			
BEGC			
ERRM			
	0330	0597	1
	0330	0574	2
	0458	0735	3
	0459	0715	4
	0628	0955	5
	0629	0934	6
	0768	1039	7
	0768	1018	8
	0922	1129	9
	0922	1109	10
ENDC			
ENDG			
ENDW			

Editor Option:

- Adding to the list end
- Inserting at the cursor place

Scale: 1:1

Modes:  View  Check  Input

# Choose the end of the work with program or digitize new figure

**Confirmation**

Close the program?

Click "Yes" if finish digitizing of "No" for other action

Command	Coord. X	Coord. Y	#
BEGW			
BEGG			
LNK			
	0198	1248	
	1229	1254	
END			
SCX			
LIN			
	0198	1248	
	0495	1251	
	0792	1252	
	1085	1255	
END			
LNK			
	0198	1249	
	0206	0115	
END			
SCY			
LOG			
	0198	1249	
	0198	1145	
	0201	0797	
	0204	0450	
	0207	0115	
END			
BEGC			
ERRM			
	0330	0597	1
	0330	0574	2
	0458	0735	3
	0459	0715	4
	0628	0955	5
	0629	0934	6
	0768	1039	7
	0768	1018	8
	0922	1129	9
	0922	1109	10
ENDC			
ENDG			
ENDW			

# Run graf\_new

The screenshot displays a Windows XP desktop environment. On the left, a command prompt window titled 'D:\crw\_new\graf\_new.exe' shows the command 'File name : d50001' entered. A red arrow points from the text 'Need only to enter name of the file with digitized data (without type of the file)' to the file name 'd50001'. On the right, a file explorer window titled 'Restore Down help' shows the contents of a folder. The table below represents the data shown in the file explorer:

Name	Size	Type	Date Modified
BMP		File Folder	2007-10-18 11:55
SRC		File Folder	2007-10-18 16:41
Graph	1 KB	Configuration Settings	2007-10-18 16:41
InpGraph	714 KB	Application	2006-01-10 11:11
SrcBmp	7 KB	Text Document	2007-10-18 16:41
graf_new	357 KB	Application	2007-10-04 11:59

Need only to enter name of the file with digitized data  
(without type of the file)

# Result of program

The screenshot displays a Windows XP desktop environment. On the left, a command prompt window titled "D:\crw\_new\programs\graf\_new.exe" shows the following output:

```
file name :
d5001
-999
-999
ipr_xlin= 1 50.00000 60.00000 70.00000 80.00000
ipr_ylin= 1 1249.0000 1248.0000 1248.0000 1248.0000
198.0000 1249.000 206.0000 115.0000 198.0000
1249.000 198.0000 1145.000 201.0000 797.0000
204.0000 450.0000 207.0000 115.0000
198.0000 1248.000 1229.000 1254.000 198.0000
1248.000 495.0000 1251.000 792.0000 1252.000
1085.000 1 1255.000
900.0000 1 0.5000000 1.000000 10.00000 100.0000
fig.1ipr_kol 2 0
ngr
entry is correct
```

On the right, a file explorer window shows the contents of the "D:\crw\_new" directory. It contains a single file named "graf\_new" with a size of 357 KB, type of Application, and a date modified of 2007-10-04 11:59.

The taskbar at the bottom shows several open applications: Microsoft PowerPoint, Notepad, and a WWW Server. The system tray indicates the time is 16:46.

# Files used in data processing (one name, different types)

The screenshot shows a Windows desktop with three Notepad windows open, each displaying a different data file. The windows are titled 'd5001 - Notepad' and 'd5001 - WordPad'. The desktop taskbar at the bottom shows various icons and the system clock indicating 16:47.

**File with information about physical values and data headings (file.AXS)**

```
-999
-999
EN
MEV
DATA
MB
50., 60, 70, 80
0.5, 1., 10, 100, 900.
Fig.1
```

**File with all digitized information (file.SRC)**

```
BEGW
BEGG
LNXX
0198 1248
1229 1254
END
SCX
LIN
0198 1248
0495 1251
0792 1252
1085 1255
END
LNY
0198 1249
0206 0115
END
SCY
LOG
0198 1249
0198 1145
0201 0797
0204 0450
0207 0115
END
BEGC
ERRM
0330 0597
0330 0574
0458 0735
0459 0715
0628 0955
0629 0934
0768 1039
0768 1018
0922 1129
0922 1109
ENDC
ENDG
ENDW
```

**File with information in EXFOR format (file.EXF)**

```
ENTRY d5001 200710
SUBENT d5001001
BIB 6 6
TITLE
AUTHOR
INSTITUTE
REFERENCE
FACILITY
HISTORY (20071018C)
ENDBIB
NOCOMMON
ENDSUBENT
SUBENT d5001002
BIB 4 4
REACTION
ERR-ANALYS (EN-ERR-DIG) Digitizing error
(ERR-DIG) Digitizing error
(DATA-ERR)
STATUS (CURVE) fig.1
ENDBIB
COMMON 2 3
EN-ERR-DIG ERR-DIG
MEV PER-CENT
0.16087E-010.53402E-02
ENDCOMMON
DATA 3 5
EN DATA DATA-ERR
MEV MB MB
54.276 37.681 6.1892
58.637 15.223 2.1531
64.437 3.5831 0.53393
69.190 2.0699 0.30833
74.418 1.1500 0.16259
ENDDATA
ENDSUBENT
ENDENTRY 2 2
```

# Check through EXFOR-Editor

