

INPOWER 7.0 COURSE



WELCOME!



InPowerTM Pro

National Center for Technical Training **Cummins** Power Generation

Introduction



- Agenda and Logistics.
- Cafeteria and Services.
- Instructors and Materials
- Evaluations
- Audiovisual Room and Equipment
- Part 1.- Introduction to InPower Software.
- Part 2.- Installation of the InPower Software.
- Part 3.- Basic Functions of the InPower Software.
- Part 4.- InPower Software Settings
- Part 5.- InPower Software Failures.
- Part 6.- InPower Software Monitoring.
- Part 7.- InPower Software Reports.

Agenda and Logistics



- Classes will be held Monday through Friday from 9:00 a.m. to 5:00 p.m. or as progress is made.
- Cafeteria and Services.
- Evaluations.
- Instructors.
- Student Materials
- Instructor Materials.
- Rooms and Audiovisual Equipment.

- They will have cafeteria service in the Training Hall
- Lunch will be at 1:30 p.m. and we'll meet again at 2:30 p.m.
- Health Services.
- Smoking is prohibited beyond the access door to the Plant.

- Course Instructor:
- Materials and equipment required for the practice will be provided by:
- You will receive a folder with a student guide for the course.

- There will be 3 evaluations of the different topics of the course (2 theoretical and 1 practical).
- The minimum passing score for each exam will be **84%** for theoretical exams and **90%** for the practical exam, The student will have a new opportunity if he fails, only in the theoretical exams.
- A person who fails one or more exams will be considered as **NO** qualified.
- The person who qualifies in this course will have the opportunity to enroll in future courses.

- Power Gen Training Room.
- Power Gen Laboratory.
- Different Simulator Equipment for carrying out practices
- Projector (Mitsubishi)
- Whiteboard (Smart Board).

10 Minute Break



1. Introduction to InPower 7.0 Software

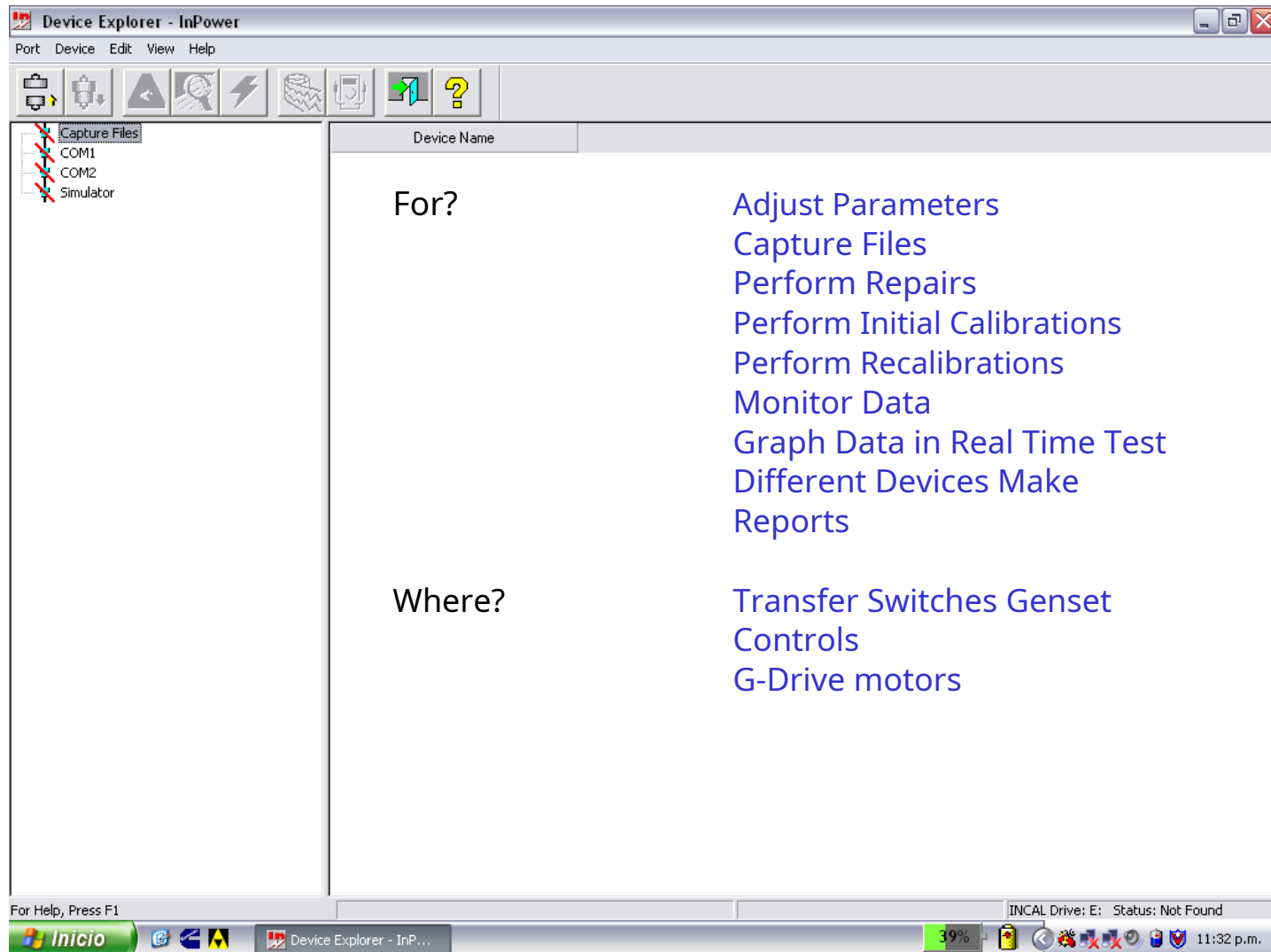
1. Introduction to InPower Software

- **Goals:**

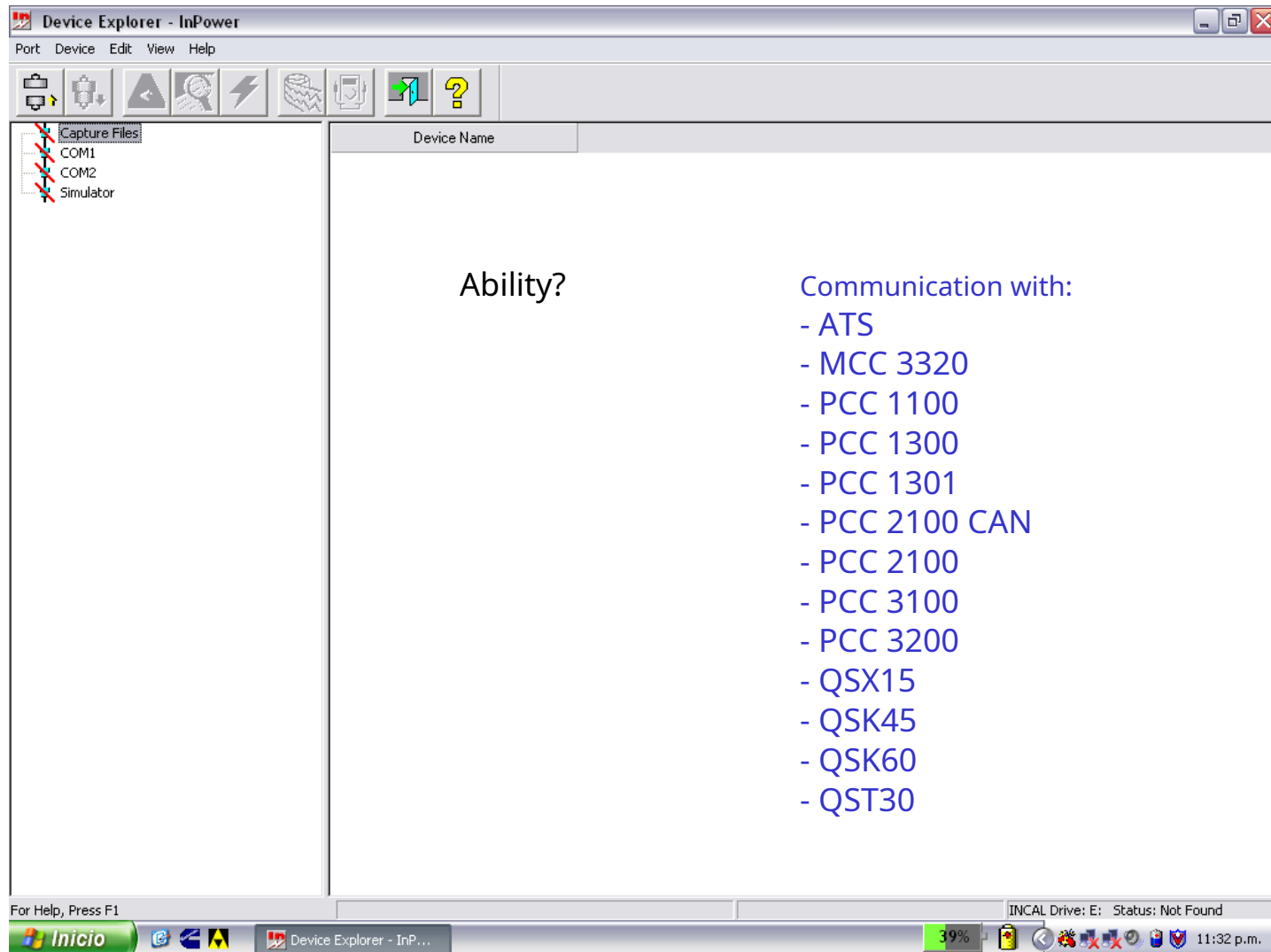
After completing this lesson you will know:

- Because we use InPower as a service tool.
- InPower software requirements for the PC.
- The reason for blocking the hardware.
- The 5 main menus of InPower.
- How the InPower is used as a service tool.
- The Software registration process.

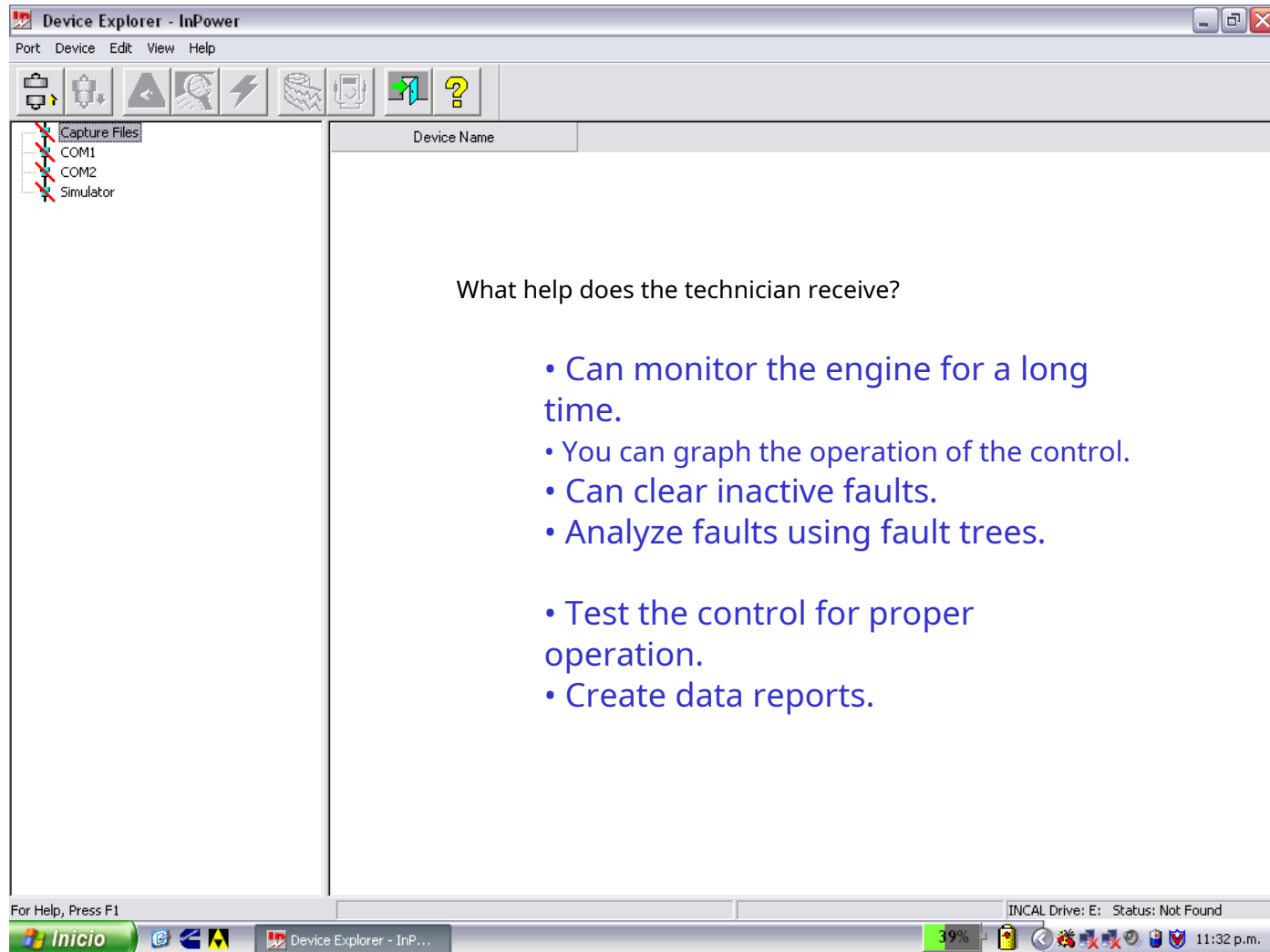
1. Introduction to InPower Software



1. Introduction to InPower Software



1. Introduction to InPower Software



1. Introduction to InPower Software

- **Requirements:**

- Pentium at 300 MHz, for XP 500 MHz or more
- Windows OS: 98, 98SE, 2000, ME, NT 6.0, and now XP
- 64 Megas RAM, for XP 128 Megas of RAM
- 1.5 GB Hard Drive or more
- Microsoft Internet Explorer version 5.5 or higher
- SVGA (1024x768) color monitor
- Mouse
- Serial Port (DB9) and Parallel Port (DB25).
- CD-ROM at 16X minimum.
- Free serial port for communication with:
 - 3163156 Cable for G-Drive.
 - 3163768 Cable for ATS or genset.
- Parallel port for the “dongle” or hardware key.
- Windows compatible printer

1. Introduction to InPower Software

- **3 different configurations:**
 - **InPower Master Pro.**
 - **InPower Non Pro for G-Drives, Generators and ATS.**
 - **InPower Lite**
- **Note:**InPower Pro allows you to download calibrations.
- **Note:**The InPower No Pro can do everything except download calibrations.
- **Note:**The InPower No Pro is for OEMs and End Customers.

1. Introduction to InPower Software

- **Product Use:**

- **Genset/ATS** **CPG Generators and Switches G-**
- **G-Drive** **Drive Cummins Engines**
- **Master** **All Generation teams**

1. Introduction to InPower Software



What is the Dongle for?

- Store permissions to use InPower.
- Store the InPower version.
- Stores the Record of the same



1. Introduction to InPower Software



When is the Dongle checked?

- At the Facility.
- At startup.
- In communication with any device
- When monitoring a device



1. Introduction to InPower Software

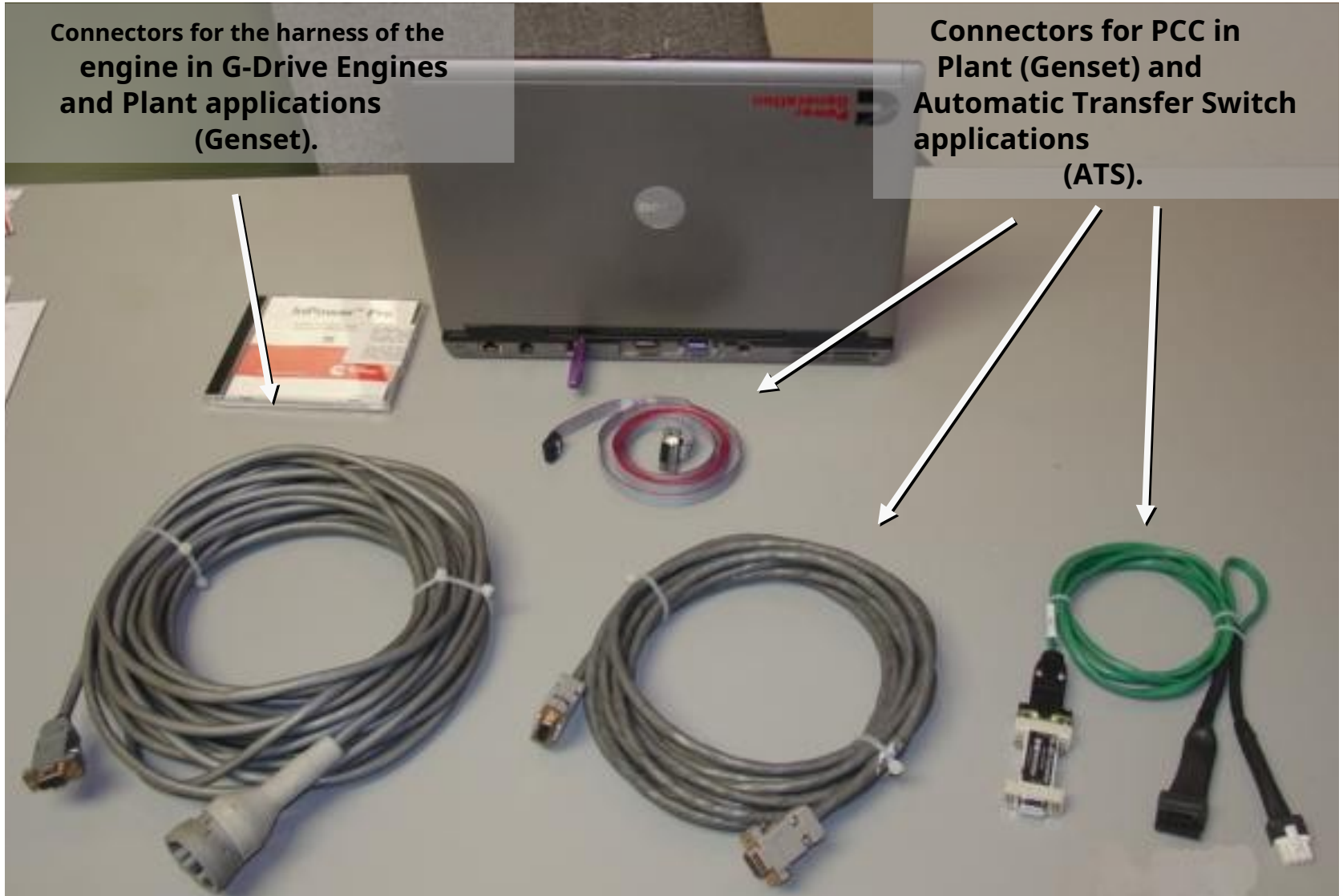
- **InPower Main Menu:**

- **Settings.**-It allows us to see the settings that the factory control brings
- **Event Configuration.**-Provides the conditions for dialogue to control the Plant.
- **Fallas.**-Checks and diagnoses engine and control faults.
- **Monitoring.**-Check the Control or control parameters.
- **Proof.**-Replaces motor or control parameters with other data for analysis.

1. Introduction to InPower Software

Connectors for the harness of the engine in G-Drive Engines and Plant applications (Genset).

Connectors for PCC in Plant (Genset) and Automatic Transfer Switch applications (ATS).



1. Introduction to InPower Software



**Service Cable
DB9 to DB9
CUMMINS PN
3163768**

- PCC1300
- PCC2100
- PCC3201
- OTPC



**Service Cable
DB9 to Connector
10 pins
CUMMINS PN
3164721**

- PCC3100



**Service Cable
for
9 connector
Deutsch pines
CUMMINS PN
3163156**



**DB9 to 5-pin Connector
Service Cable
CUMMINS PN
0338-4590**

- PC 1.X
- PC 2.X
- PC 3.X
- DMC1000
- HMI

1. Introduction to InPower Software

- **InPower Registration:**
 - open the InPower envelope.
 - Write down the serial number of the InPower.
 - Call Cummins Service Tools.
 - Write down the registration key.
 - Install and register InPower on your PC.

10 Minute Break



2. Installing InPower 7.0 Software

2. Installing the InPower Software

- **Goals:**

After completing this lesson you will know:

- **Install the InPower Software.**
- **Set Bravo Server parameters.**

- **Prerequisites:**

- **A BP2000 approved PC.**
- **Use a copy of InPower software on a CD.**
- **A security dongle.**
- **A registered access key.**

2. Installing the InPower Software

Installation Procedures:

- 1. PC de-powered**
- 2. Attach the dongle to the Parallel Port**
- 3. Start the PC**
- 4. D:\InPower\Setup.exe**
- 5. Install the InPower Software**
- 6. Install the Bravo Server**
- 7. Set the Bravo Server**

2. Installing the InPower Software

Perform the Activity that the Instructor Tells You

10 Minute Break



3. Basic Functions of InPower 7.0 Software

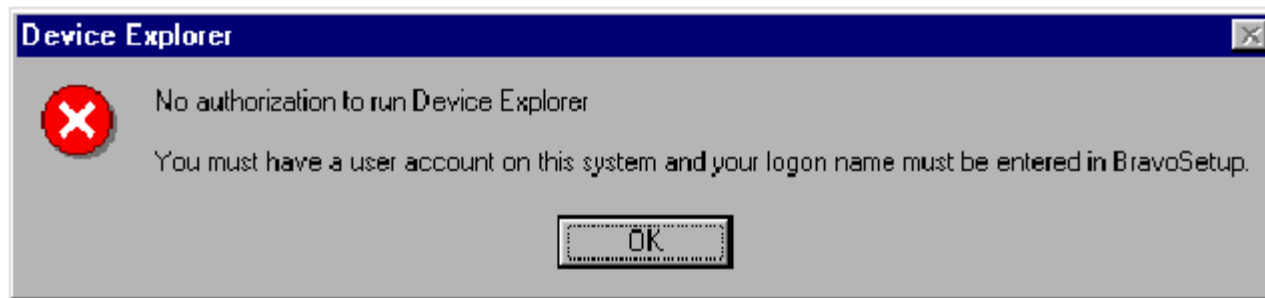
3. Basic Functions of InPower Software

- **Goals:**

After completing this lesson you will know:

- Describe the main parts of Windows.
- Connect to a port.
- Connect to a device.
- Describe the parts of the InPower menu.
- Use Device Explorer.
- Connect to the InPower simulator file.
- Quickly locate a parameter or group of parameters.

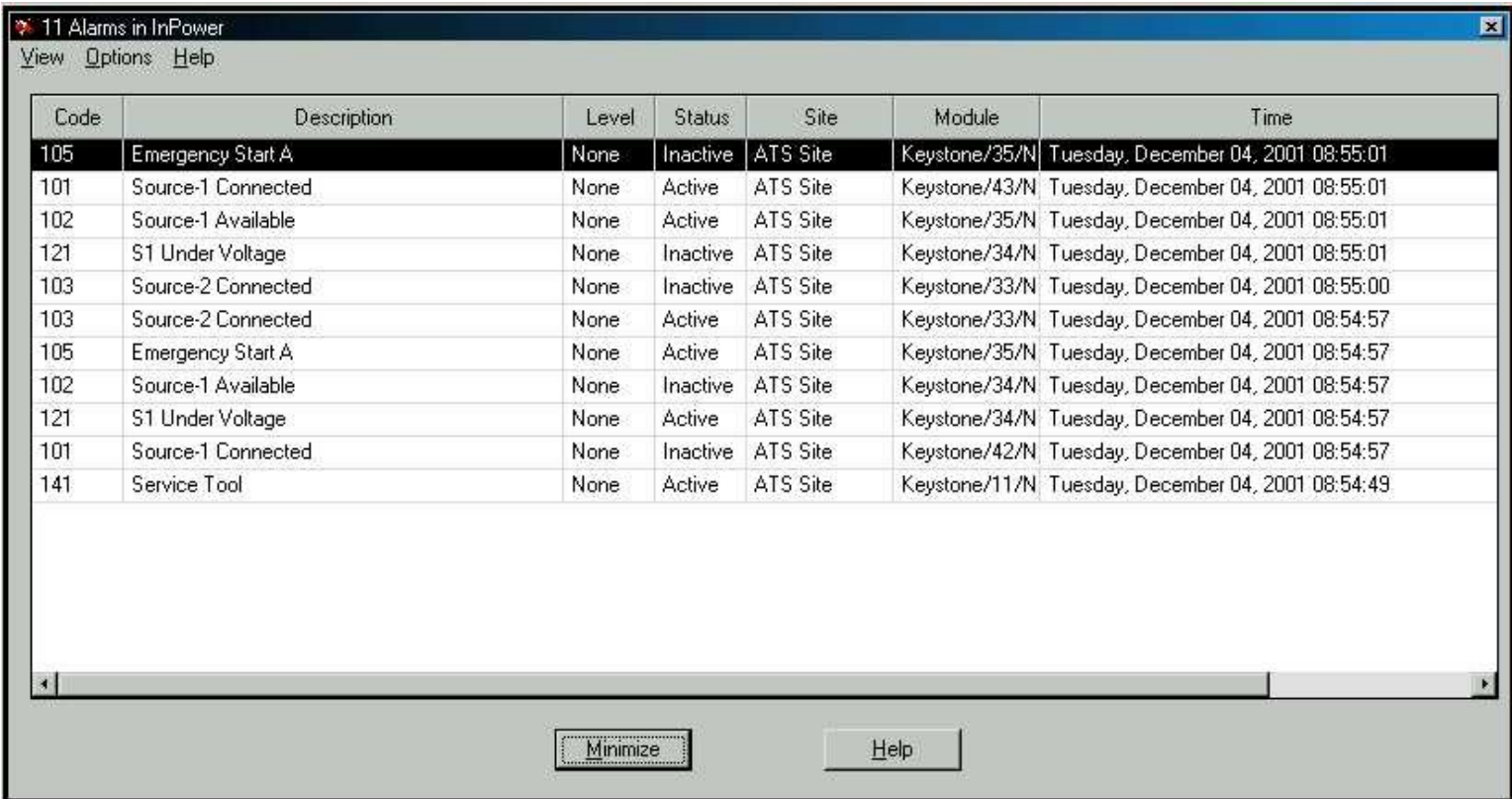
3. Basic Functions of InPower Software



This error is caused by:

- Not registering with your machine's security key means you are not authorized to operate the PC.
- You forgot to connect the dongle to the parallel port.

3. Basic Functions of InPower Software

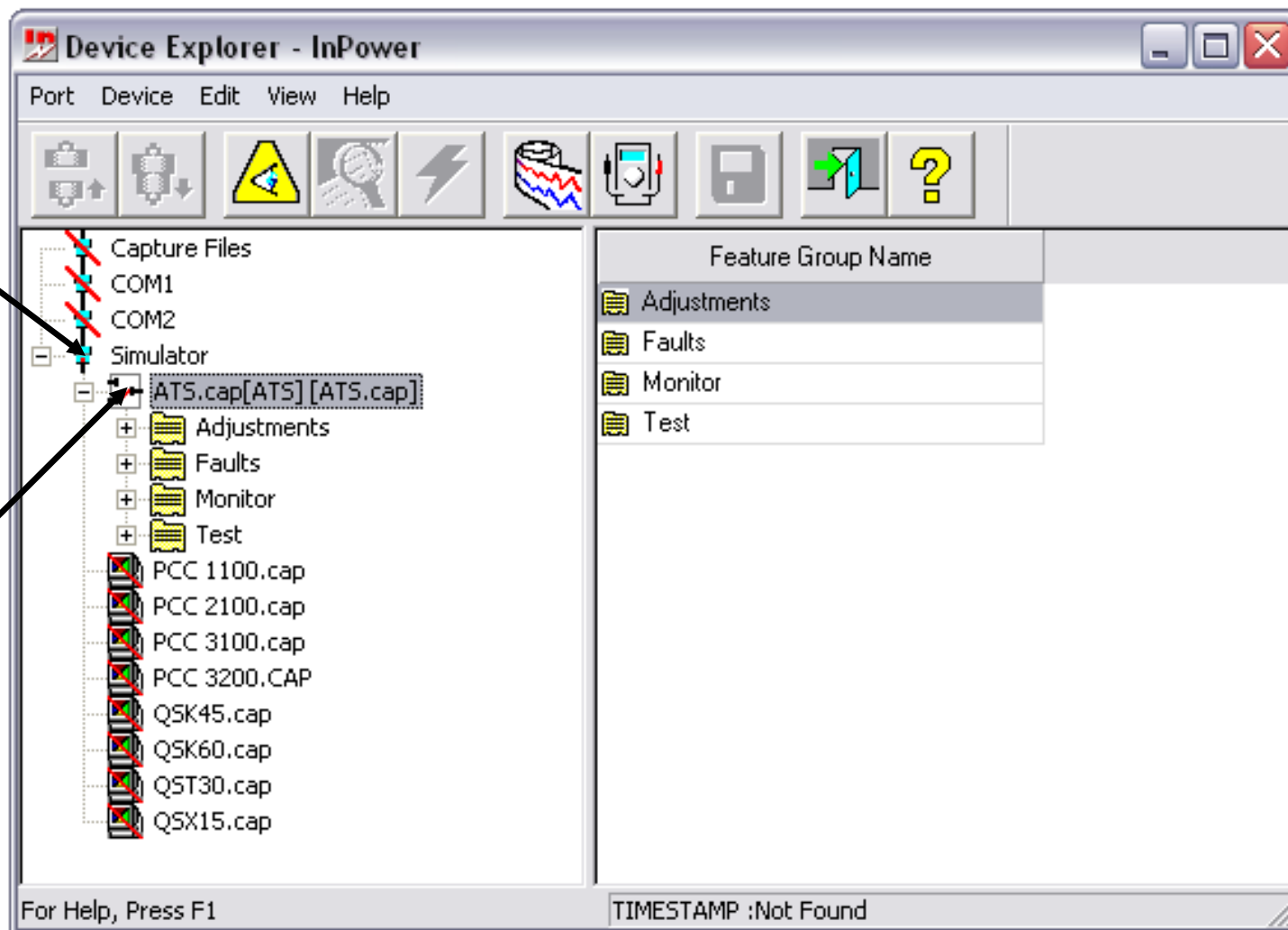


The screenshot shows a software window titled "11 Alarms in InPower" with a menu bar containing "View", "Options", and "Help". Below the menu is a table with 7 columns: Code, Description, Level, Status, Site, Module, and Time. The table contains 11 rows of alarm data. At the bottom of the window are "Minimize" and "Help" buttons.

Code	Description	Level	Status	Site	Module	Time
105	Emergency Start A	None	Inactive	ATS Site	Keystone/35/N	Tuesday, December 04, 2001 08:55:01
101	Source-1 Connected	None	Active	ATS Site	Keystone/43/N	Tuesday, December 04, 2001 08:55:01
102	Source-1 Available	None	Active	ATS Site	Keystone/35/N	Tuesday, December 04, 2001 08:55:01
121	S1 Under Voltage	None	Inactive	ATS Site	Keystone/34/N	Tuesday, December 04, 2001 08:55:01
103	Source-2 Connected	None	Inactive	ATS Site	Keystone/33/N	Tuesday, December 04, 2001 08:55:00
103	Source-2 Connected	None	Active	ATS Site	Keystone/33/N	Tuesday, December 04, 2001 08:54:57
105	Emergency Start A	None	Active	ATS Site	Keystone/35/N	Tuesday, December 04, 2001 08:54:57
102	Source-1 Available	None	Inactive	ATS Site	Keystone/34/N	Tuesday, December 04, 2001 08:54:57
121	S1 Under Voltage	None	Active	ATS Site	Keystone/34/N	Tuesday, December 04, 2001 08:54:57
101	Source-1 Connected	None	Inactive	ATS Site	Keystone/42/N	Tuesday, December 04, 2001 08:54:57
141	Service Tool	None	Active	ATS Site	Keystone/11/N	Tuesday, December 04, 2001 08:54:49

This screen appears when you open InPower, showing fault codes, or when a fault occurs if you are using InPower.

3. Basic Functions of InPower Software



3. Basic Functions of InPower Software



Port
<u>C</u> onnect
<u>D</u> isconnect
<u>E</u> xit

Device
<u>C</u> onnect
<u>D</u> isconnect
<u>P</u> rint Selected Features Ctrl-P
<u>S</u> ave Adjustments...
Clear <u>F</u> aults
<u>C</u> apture to file...

Edit
<u>C</u> opy Ctrl-C
<u>P</u> aste Ctrl-V
<u>F</u> ind Ctrl-F
Find <u>N</u> ext F3
Find <u>P</u> revious Shift-F3

View
☒ <u>T</u> oolbar
☒ <u>S</u> tatus Bar
<u>S</u> plit
<u>F</u> ault Trees
<u>S</u> napshot...
<u>S</u> tripchart
<u>M</u> onitor

Help
Search for Help <u>O</u> n...
Help <u>C</u> ontents
<u>H</u> ow to Use Help
<u>S</u> ervice and Support
<u>A</u> bout Device Explorer...

Port:

- To connect or disconnect to a port.

Device:

- Connect and Disconnect a Device.
- Print Reports.
- Save Settings.
- Delete Inactive Faults.

Edit:

- Copy and paste parameters between InPower and Monitor and Grapher, and find parameters in InPower.

3. Basic Functions of InPower Software



Port	Device	Edit
<u>C</u> onnect <u>D</u> isconnect <u>E</u> xit	<u>C</u> onnect <u>D</u> isconnect <u>P</u> rint Selected Features Ctrl-P <u>S</u> ave Adjustments... Clear <u>F</u> aults <u>C</u> apture to file...	<u>C</u> opy Ctrl-C <u>P</u> aste Ctrl-V <u>F</u> ind Ctrl-F Find <u>N</u> ext F3 Find <u>P</u> revious Shift-F3
View	Help	
☒ <u>T</u> oolbar ☒ <u>S</u> tatus Bar <u>S</u> plit <u>F</u> ault Trees <u>S</u> napshot... <u>S</u> tripchart <u>M</u> onitor	Search for Help <u>O</u> n... Help <u>C</u> ontents <u>H</u> ow to Use Help <u>S</u> ervice and Support <u>A</u> bout Device Explorer...	

View:

- Activates and deactivates the Menu and Tool Bars.
- See Fault Trees.
- See Sanpshots for certain parameters.
- Graphic designer and monitor.

Help:

- Works only in any other Windows-based Help menu.

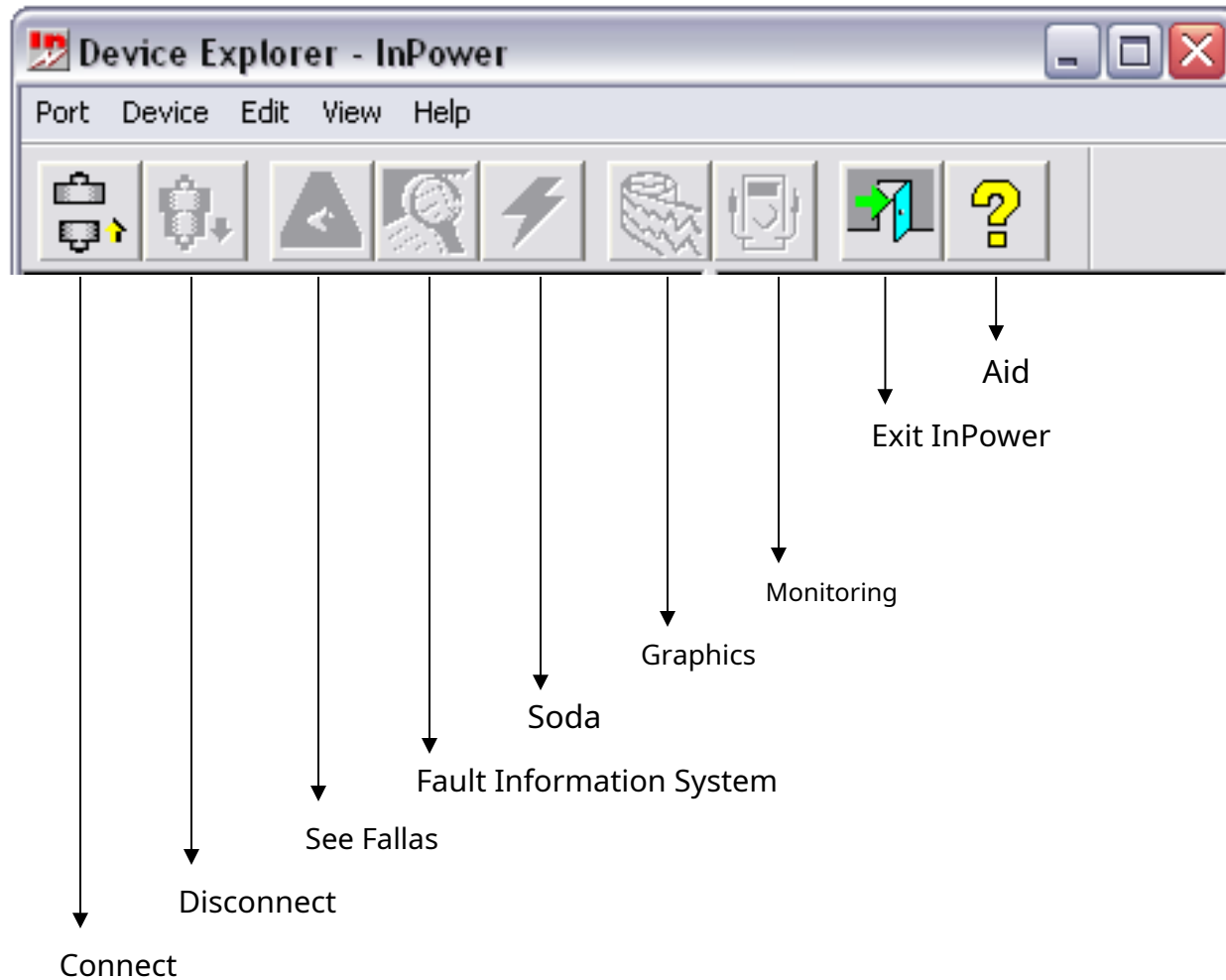
3. Basic Functions of InPower Software



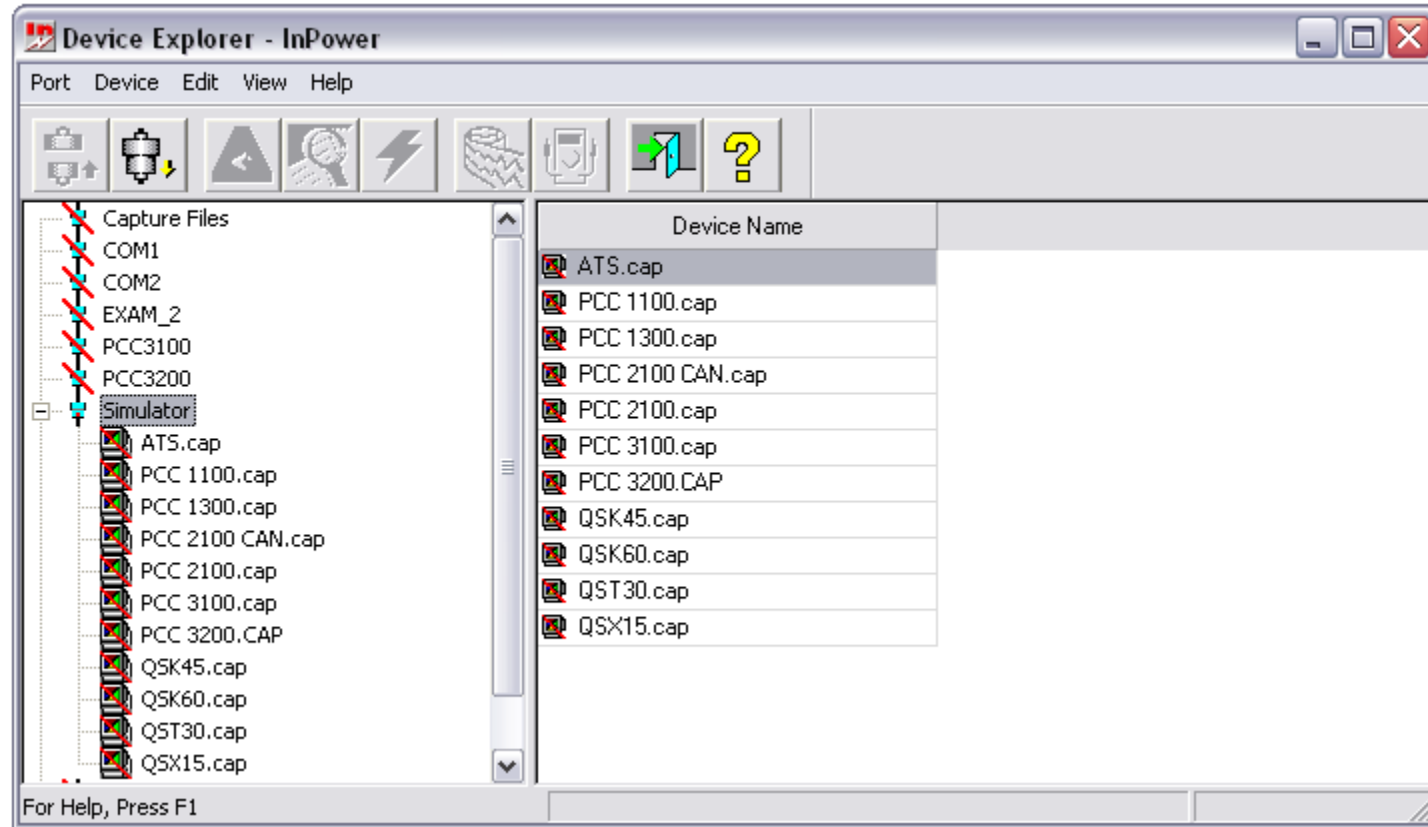
When you select Help this message will appear which contains:

- The version of InPower you have.
- The Bravo Server version you have.
- The type of Dongle you are using.

3. Basic Functions of InPower Software



3. Basic Functions of InPower Software

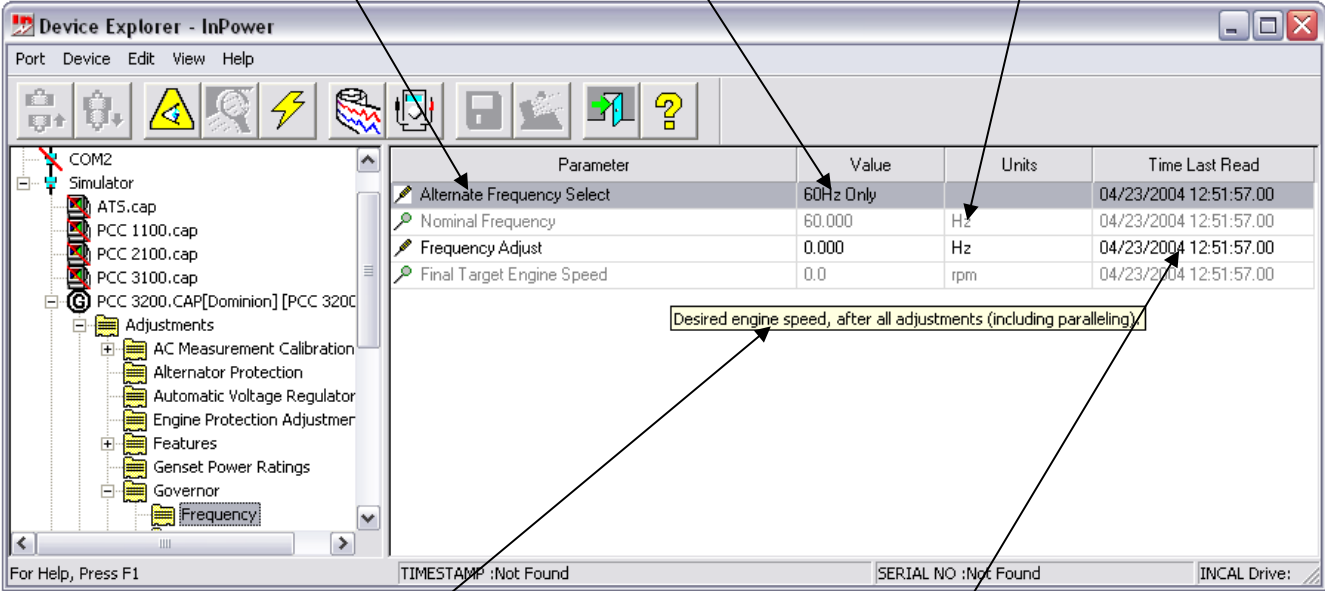


Simulator File:

- You can change parameters.
- Unable to update changes to the Simulator file
- The Simulator File can be used to show them to clients.

3. Basic Functions of InPower Software

Parts of an InPower Parameter:



The screenshot shows the 'Device Explorer - InPower' window. On the left is a tree view of the device hierarchy. The main pane displays a table of parameters. Annotations with arrows point to specific parts of the interface:

- Parameter Description:** Points to the 'Parameter' column header.
- Parameter Value:** Points to the 'Value' column header.
- Unit of Measurement of the Parameter Value:** Points to the 'Units' column header.
- Popup Box Information:** Points to a yellow box that appears when hovering over the 'Final Target Engine Speed' parameter, containing the text: 'Desired engine speed, after all adjustments (including paralleling)'.
- The last time the Parameter value was read:** Points to the 'Time Last Read' column header.

Parameter	Value	Units	Time Last Read
Alternate Frequency Select	60Hz Only		04/23/2004 12:51:57.00
Nominal Frequency	60.000	Hz	04/23/2004 12:51:57.00
Frequency Adjust	0.000	Hz	04/23/2004 12:51:57.00
Final Target Engine Speed	0.0	rpm	04/23/2004 12:51:57.00

If you place the cursor arrow in the Popup box, a brief description of the parameter will appear in a box.

3. Basic Functions of InPower Software

Ver solamente el Parametro

Parametro Ajustable

Lista Opciones

Parameter	Value	Units
 Alternate Frequency Select	60Hz Primary	
 Nominal Frequency	60Hz Primary	Hz
 Frequency Adjust Trim	0	Hz
 Final Target Engine Speed	0	rpm

60Hz Primary
50Hz Primary
60Hz Only
50 Hz Only

 Ver solamente

 Ajustable

 Temporalmente Fijo

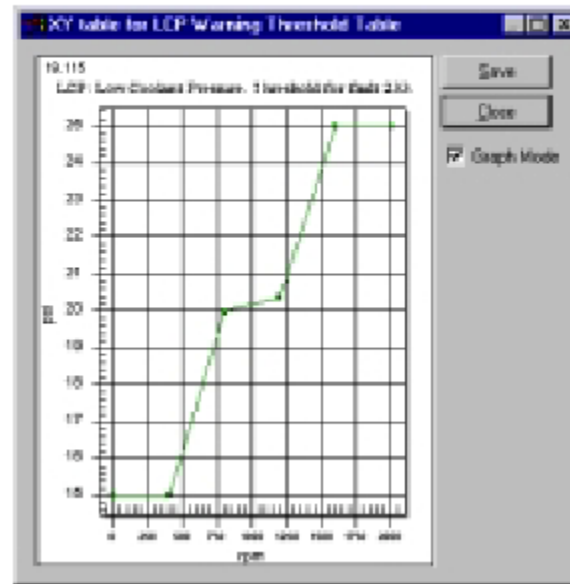
 Ajustado de Fabrica

Temporarily fixed: These are parameters that can be modified, but when InPower is restarted, they are reset to the original value.

Factory Default: Can only be modified by changing the calibration file.

3. Basic Functions of InPower Software

 LCP Warning Threshold Table	<XYtable>	06/28/2000 16:40:10.19
 LCP Shutdown Threshold Table	<XYtable>	06/28/2000 16:40:10.19



These parameters give the user a range of values to select from. Select the point on the graph you want to change, click, and drag it with the mouse to the desired value, then click again.

If you select graph mode, you will see the adjustable parameters in a table.

3. Basic Functions of InPower Software

Perform the Activity that the Instructor Tells You

10 Minute Break



4. InPower 7.0 Software Settings

4. InPower Software Settings

- **Goals:**

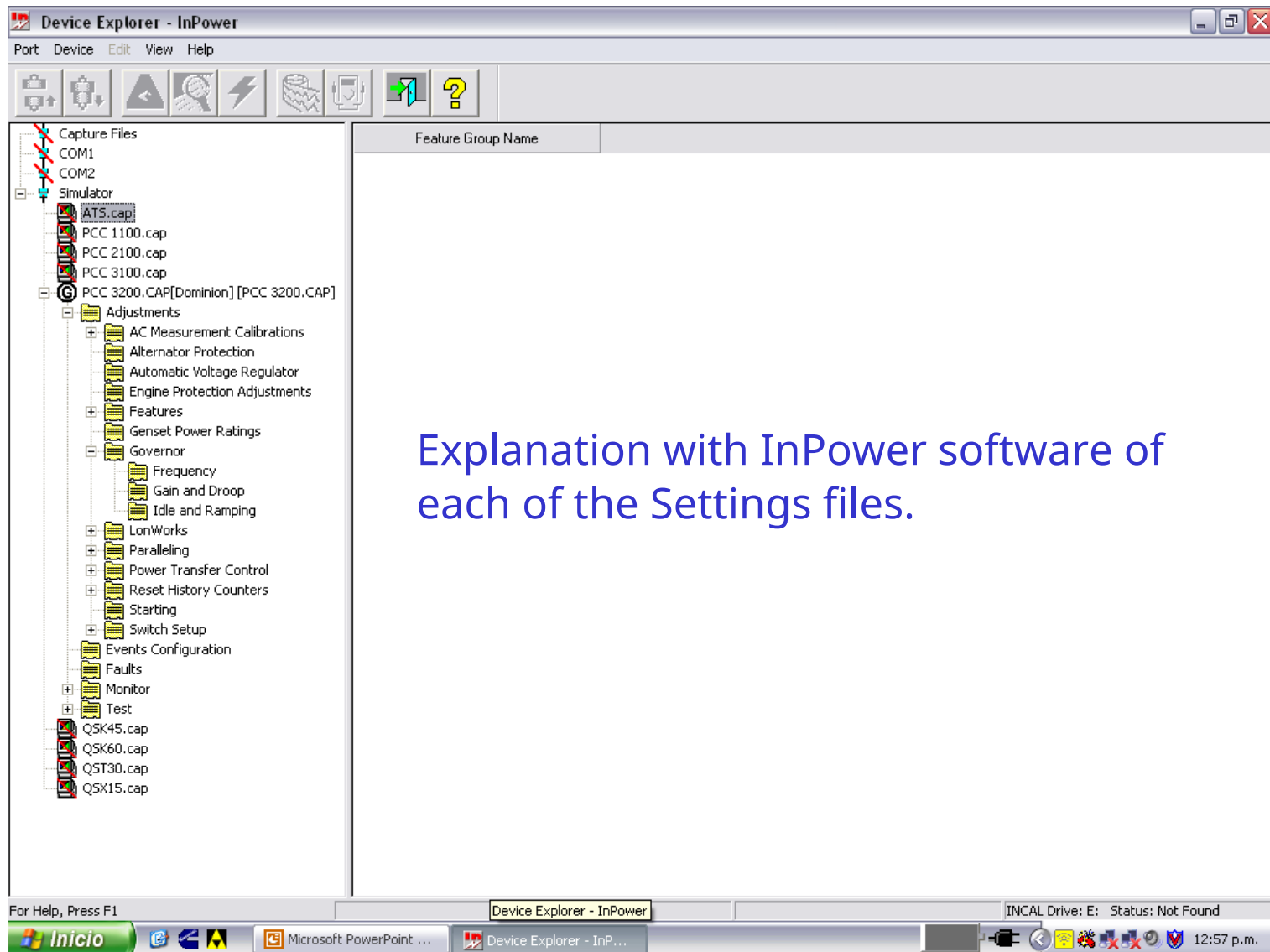
After completing this lesson you will know:

- Identify parameter group settings.
- Adjust different types of parameters with InPower.
 - To the Governor: Profit and “droop.”
 - To the Governor: Idle and ramp time to working speed “Run”.
 - Customer Failures: “Customer Switch 1” Status.
 - Motor Protection: Alarm Triggering.

4. InPower Software Settings

- **Main Folders of Adjustable Parameters.**
 - AC Meter Calibrations.
 - Alternator Protection.
 - Automatic Voltage Regulator.
 - Engine Protection Settings.
 - Governor.
 - LonWorks card.
 - Parallelism.
 - Switch Adjustment.

4. InPower Software Settings



Explanation with InPower software of
each of the Settings files.

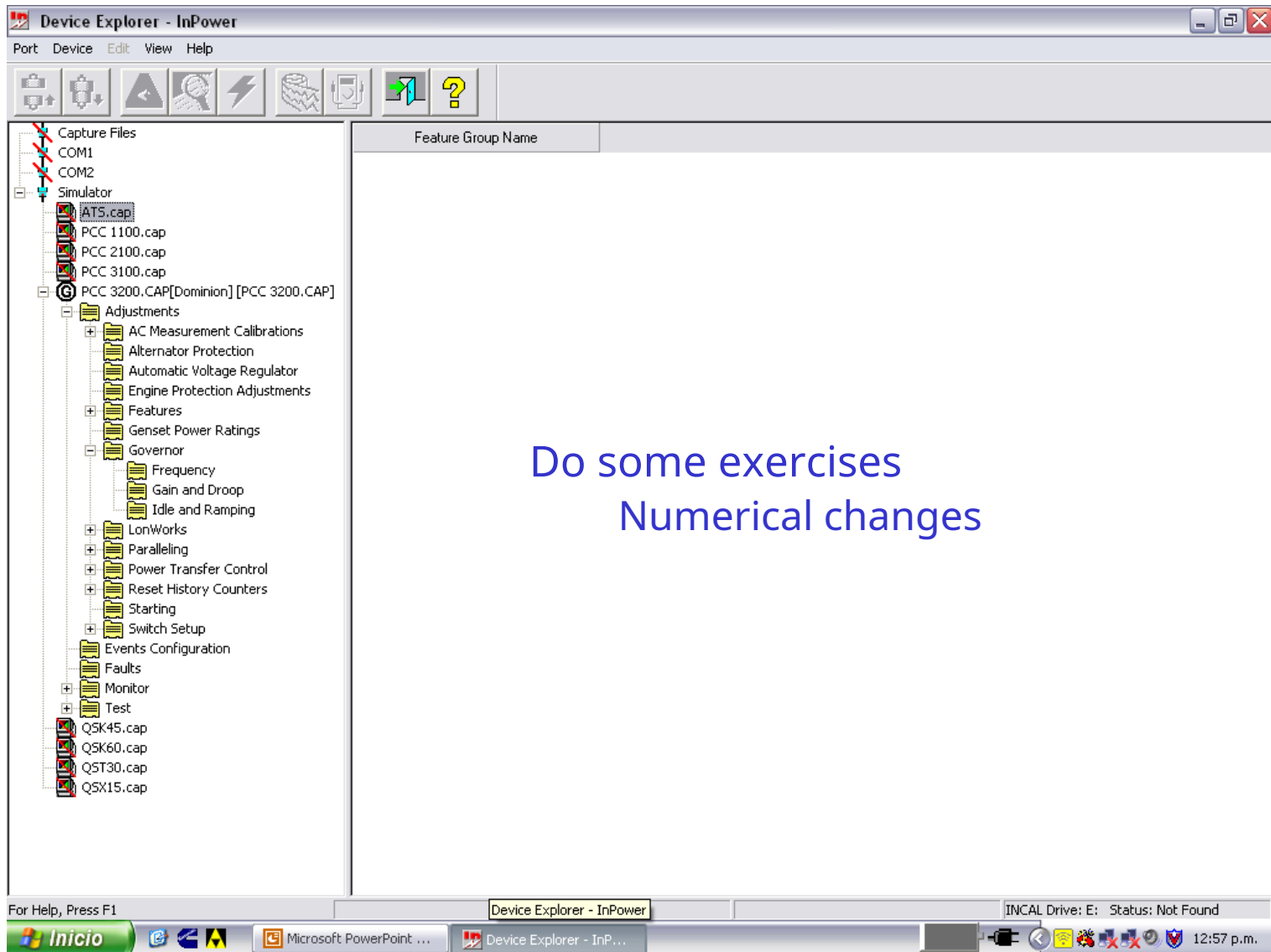
4. InPower Software Settings

- **Changing a numeric setting.**
 - Double-click the numeric value.
 - The field value will open and the change can now be made.
 - To save the change made to the RAM memory just select another parameter and the change will be made.
 - If you want to save this parameter to the EEPROM memory you must select it in the menu **“Device”** save settings.

4. InPower Software Settings

- **Changing a numeric setting.**
 - If you make any adjustments outside the established parameters for that parameter, a message will appear stating that there is an error and that the parameter must be within the minimum or maximum limits.
 - In some cases, when you double-click on the number you want to change, a button with a downward-pointing arrow will appear. You must press it and select which of those points you want.

4. InPower Software Settings



Device Explorer - InPower

Port Device Edit View Help

Feature Group Name

Do some exercises
Numerical changes

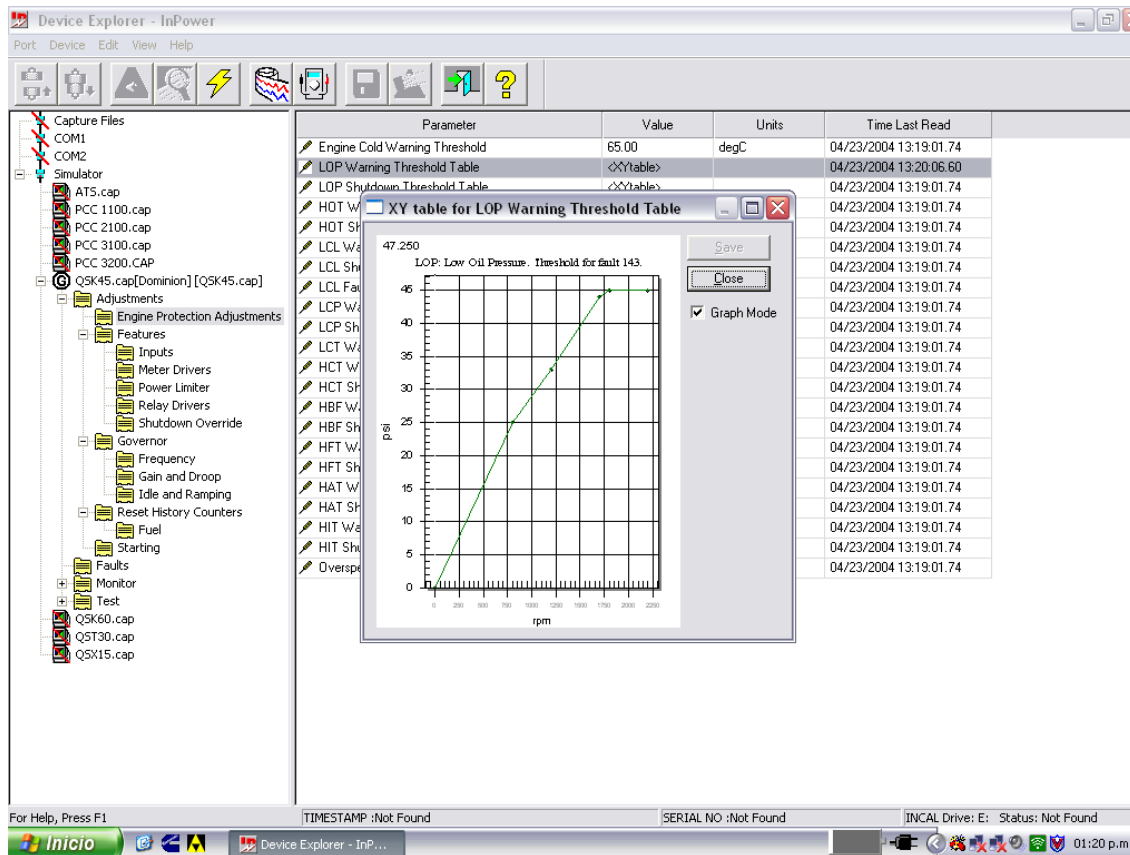
For Help, Press F1

Device Explorer - InPower

INCAL Drive: E: Status: Not Found

12:57 p.m.

4. InPower Software Settings



You can adjust the range of a parameter (XY graph).

For example:

Low Oil Pressure.

- You can change the oil pressure or rpm.

However, you should not exceed a range already established.

10 Minute Break



5. InPower 7.0 Software Failures

5. InPower Software Failures

- **Goals:**

After completing this lesson you will know.

- See Fallas.
- See the Snapshot icon for more information about the fault.
- Clean up inactive faults.
- View the fault information system.

5. InPower Software Failures

Device Explorer - InPower

Port Device Edit View Help













Fault Code	Fault Description	Status
1435	Engine Cold Warning - Engine may not start	Inactive
1434	Controller has received a remote Emergency Stop comma	Inactive

Capture Files
 COM1
 COM2
 Simulator
 QSK45.cap[Dominion]
 Adjustments
Faults
 Monitor
 Test
 QSK60.cap
 QST30.cap
 QSX15.cap

Explain each piece of information about the fault

5. InPower Software Failures

- **Delete Inactive Faults:**
 - Connect to a Device
 - Select Device/Clear Faults
 - Clear Faults Button

Note: If the Device has no inactive faults the icon or legend will be grayish in color.

5. InPower Software Failures

Snapshot Info.

Fault Code: 1435 Count: 1

Fault Occurrence	First	Last
Snapshot Type	Type 2	
Event Identifier	1435	
Event Count	0	
Time Of Snapshot - COT	3.1756	
Time Of Snapshot - ERT	0.86169	
Operator Interface Mode	STARTING	
Filtered Time Engine Speed	251.9	
Coolant Temperature	54.89	

<< Previous Next >> Help Close

Snapshot:

- Displays information related to the fault.
- Operating conditions at the time the failure occurred.
- Operating conditions of the alternator at the time the failure occurred.
- Some faults do not have a Snapshot

10 Minute Break



6. Monitoring InPower 7.0 Software

6. InPower Software Monitoring

- **Goals:**

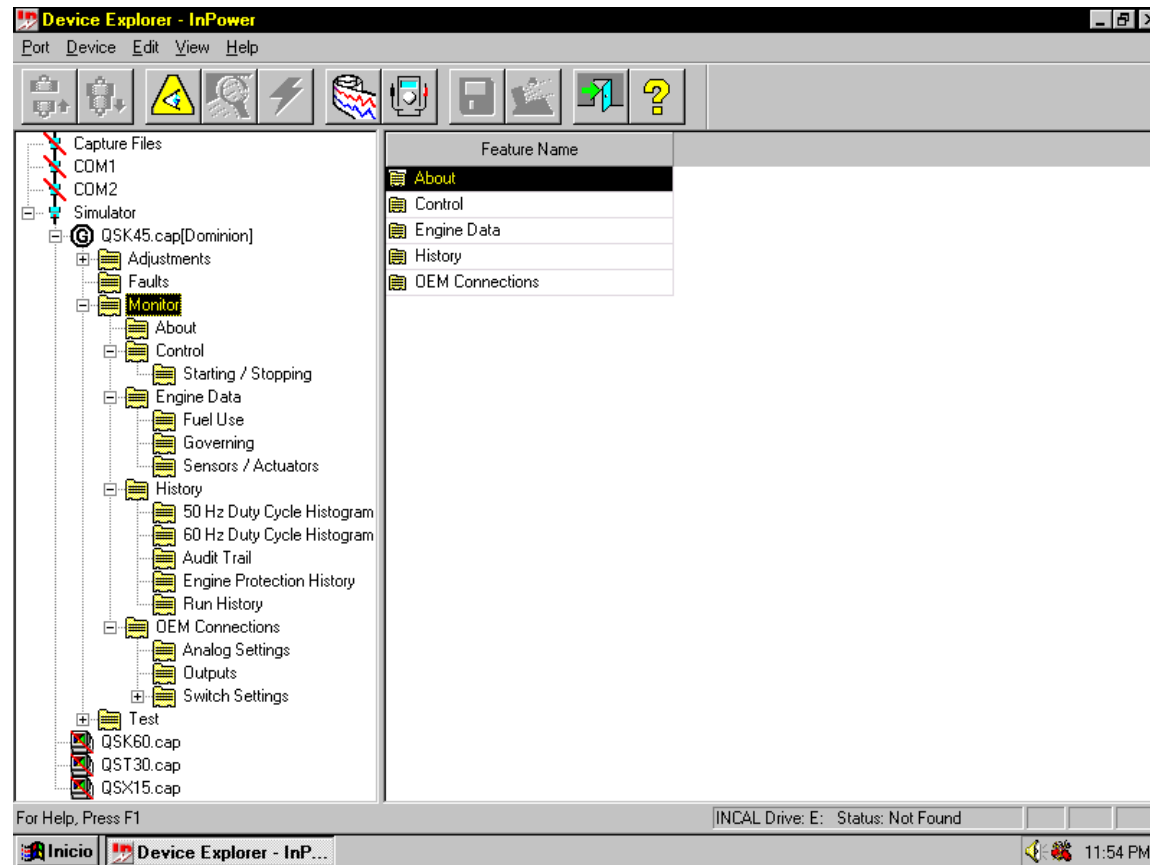
After completing this lesson you will know.

- Identify groups of monitor screen parameters.
- Monitor parameters in “device explorer”.
- Use the “Custom Monitor Dialog”.
- Add Parameters to the “Custom Monitor Dialog”.
- Use the “Datalog” feature.
- Save settings to “Custom Monitor”

Note: This lesson covers two methods for monitoring parameters using the InPower tool.

6. InPower Software Monitoring

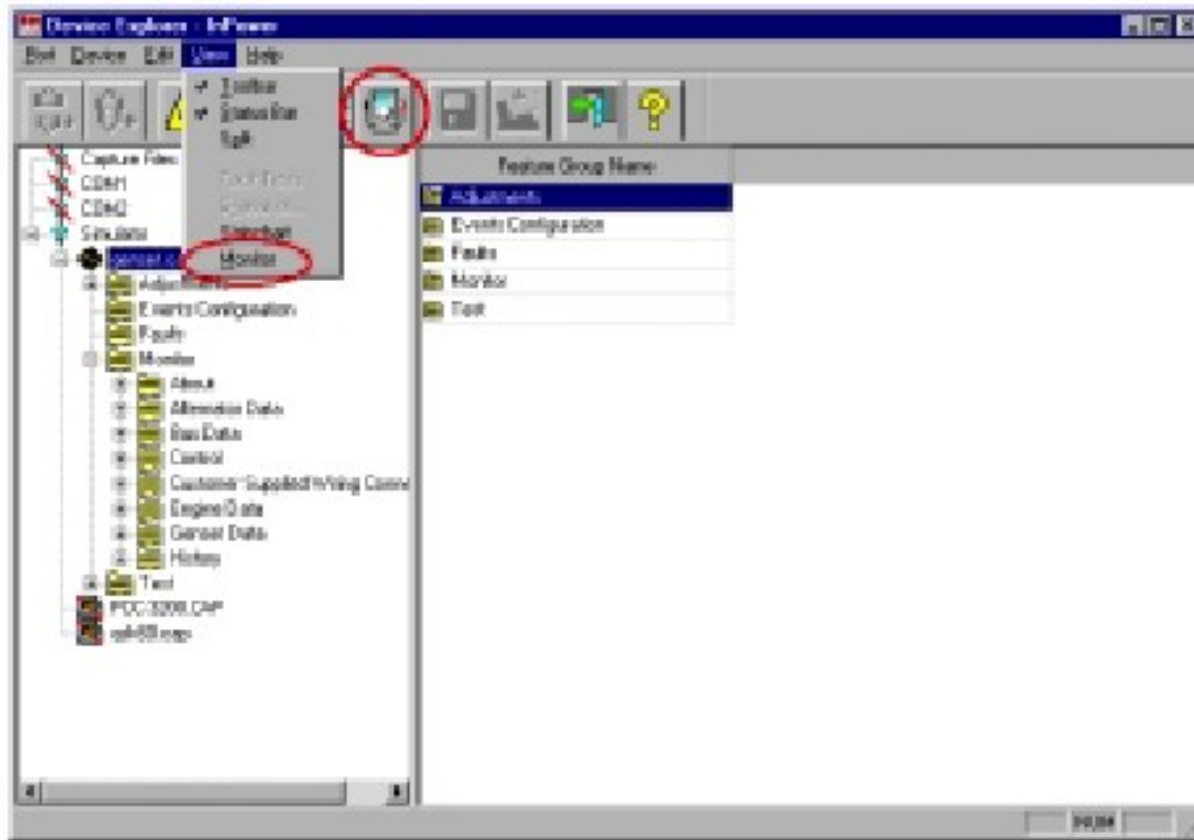
The Monitor Folder has several subfolders



Review each of the subfolders in the Monitor folder

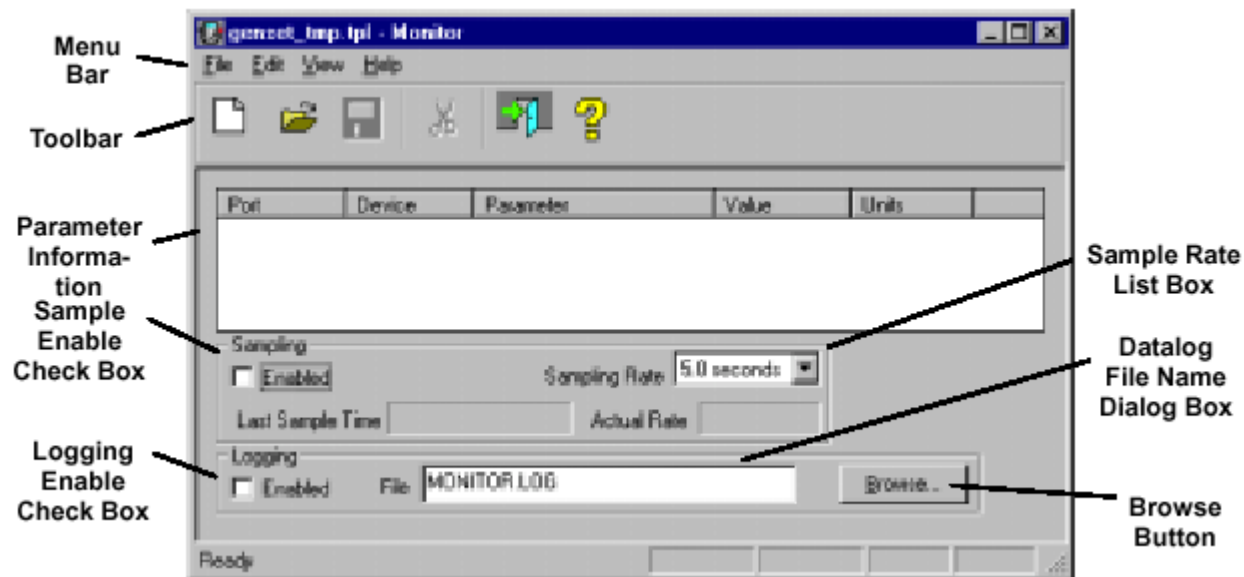
6. InPower Software Monitoring

Monitor information



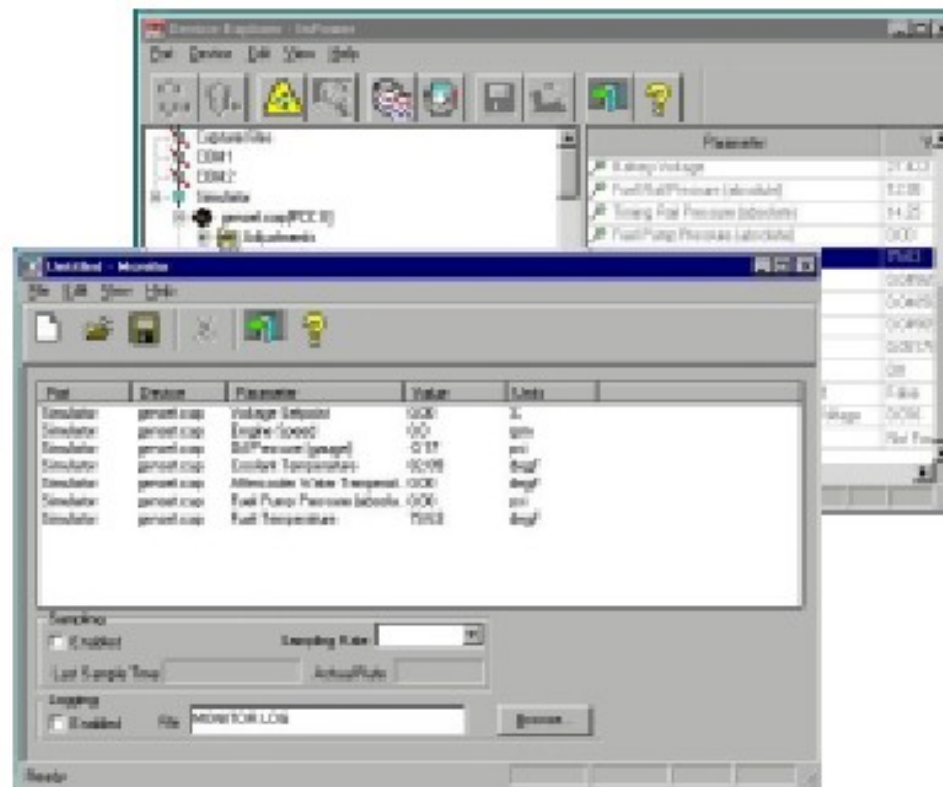
6. InPower Software Monitoring

Glossary of terms and their description



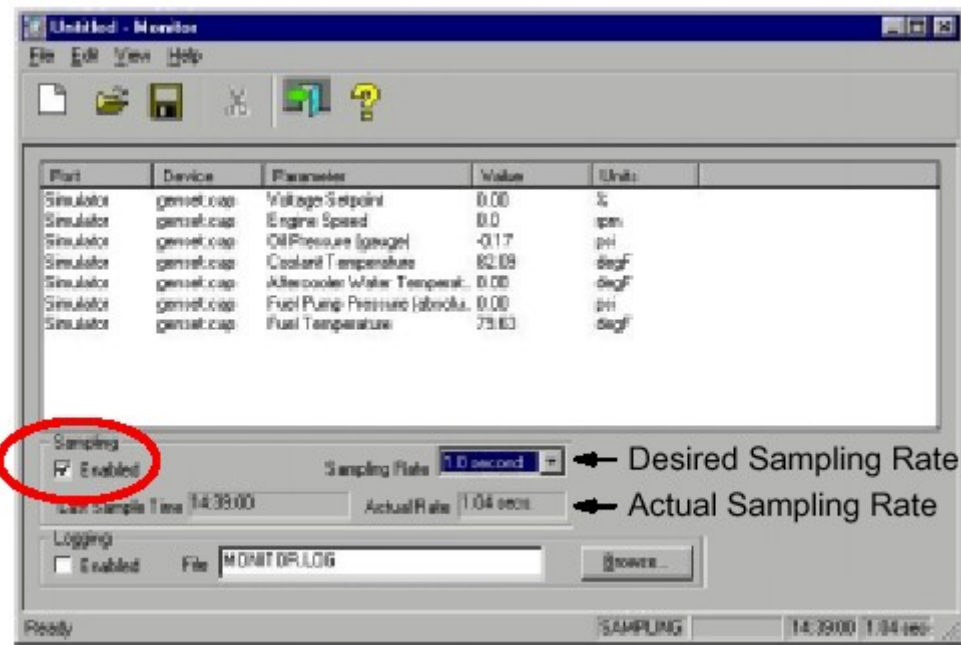
6. InPower Software Monitoring

Glossary of terms and their description



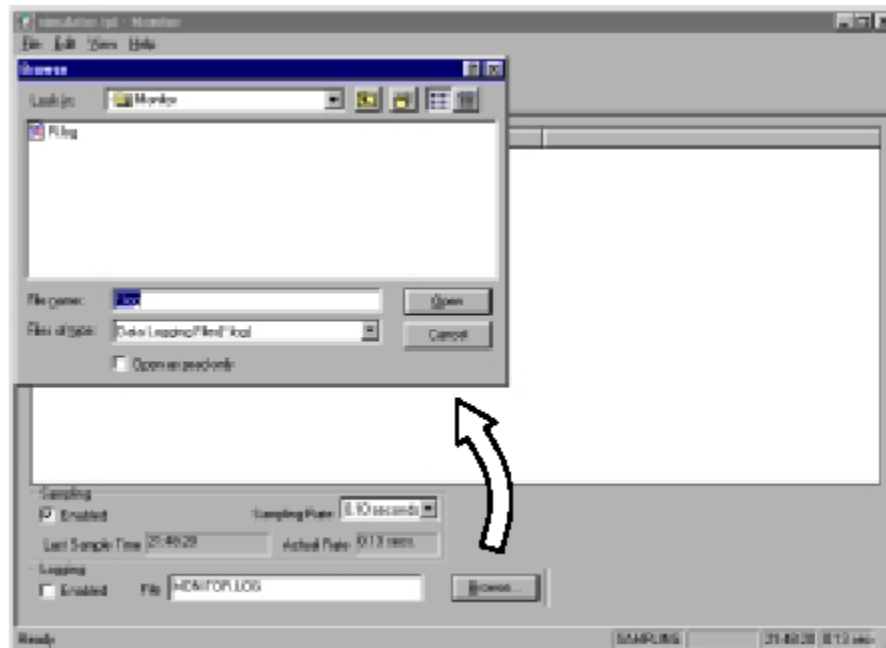
6. InPower Software Monitoring

Glossary of terms and their description



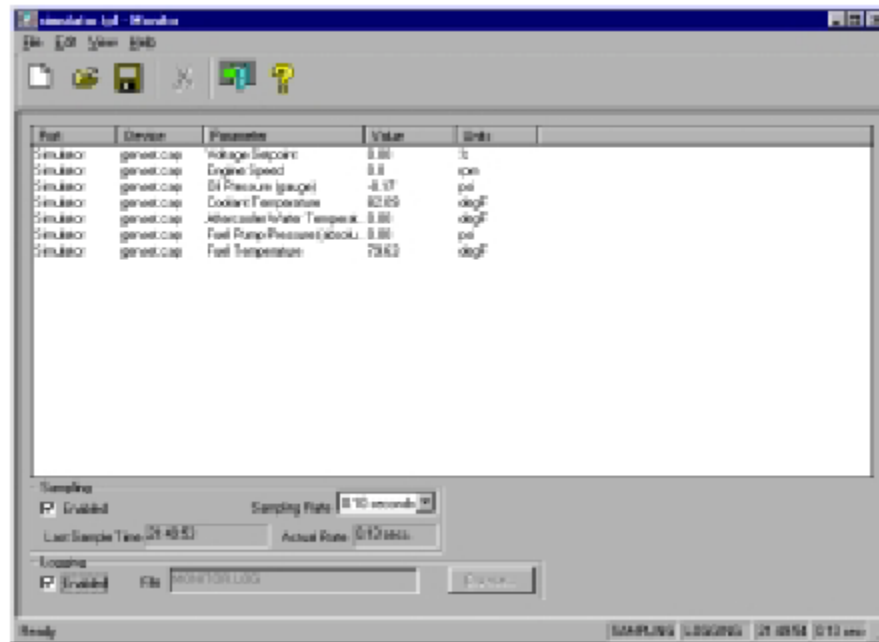
6. InPower Software Monitoring

Glossary of terms and their description



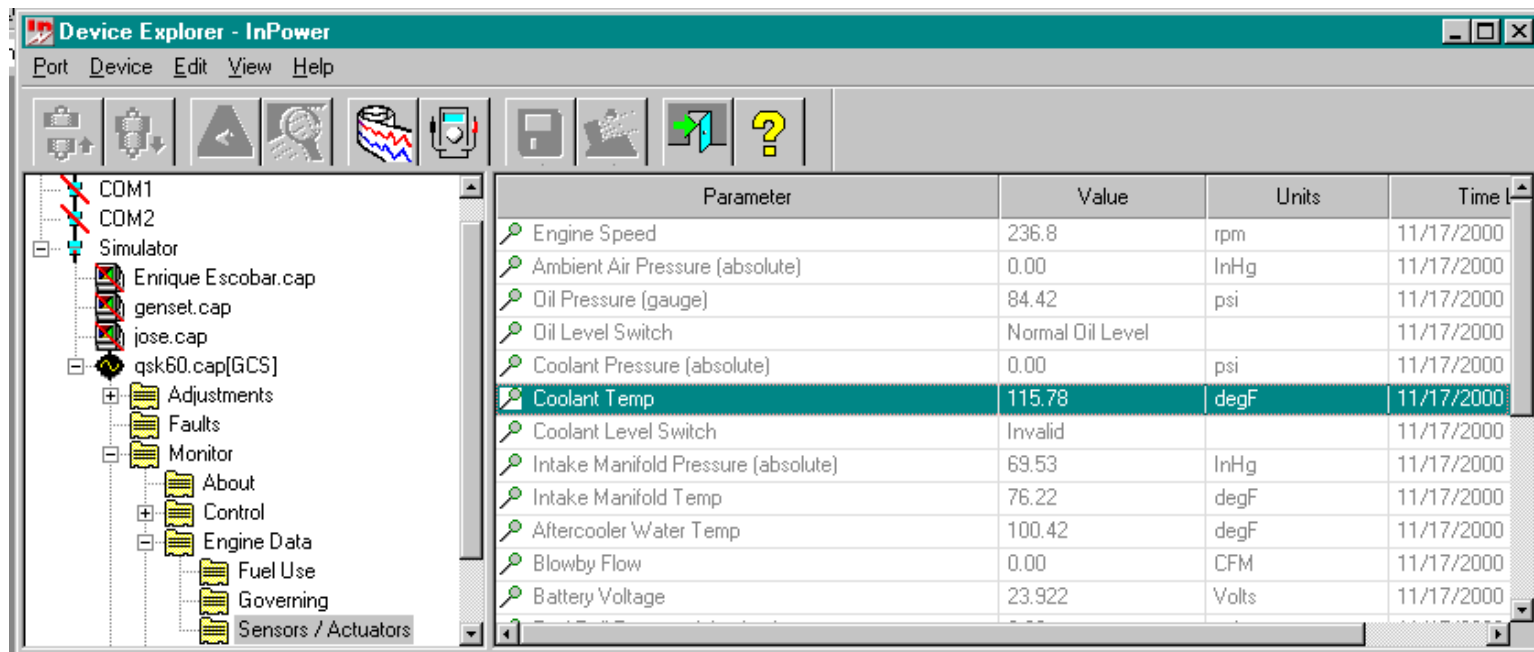
6. InPower Software Monitoring

Glossary of terms and their description



6. InPower Software Monitoring

Generate a Report Through Monitoring



The screenshot shows the 'Device Explorer - InPower' window. The left pane displays a tree view of the device hierarchy, including 'COM1', 'COM2', 'Simulator', and various .cap files. The right pane shows a table of monitored parameters.

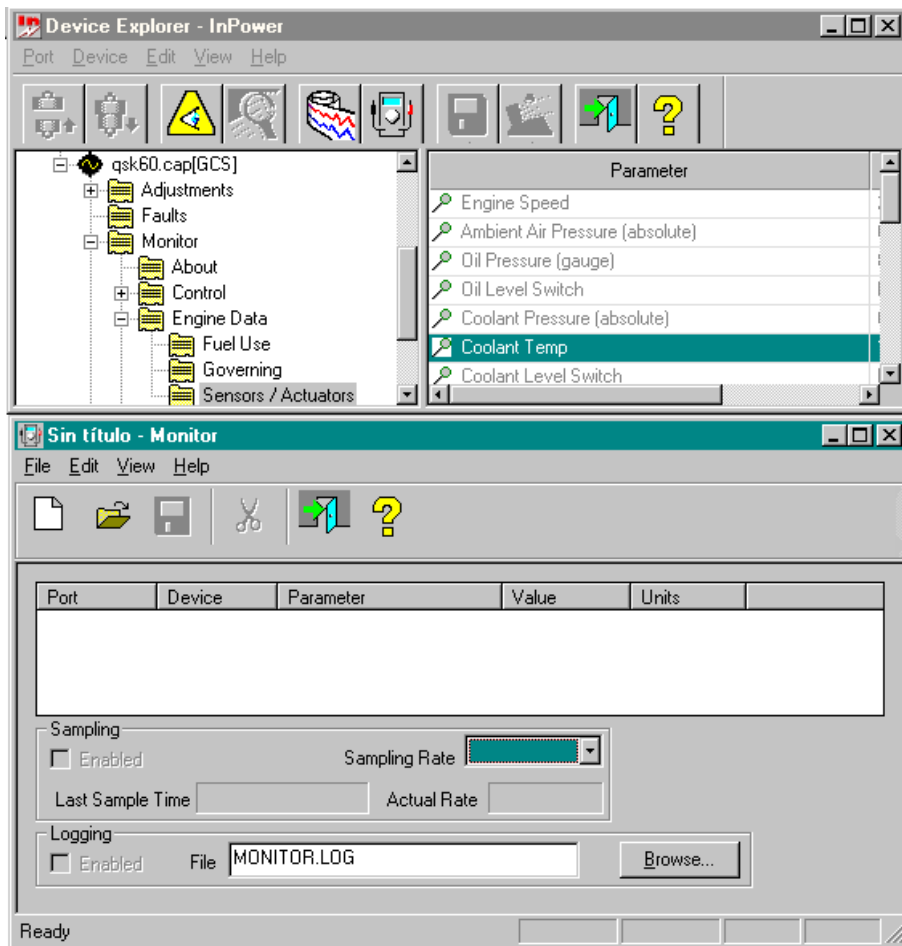
Parameter	Value	Units	Time
Engine Speed	236.8	rpm	11/17/2000
Ambient Air Pressure (absolute)	0.00	InHg	11/17/2000
Oil Pressure (gauge)	84.42	psi	11/17/2000
Oil Level Switch	Normal Oil Level		11/17/2000
Coolant Pressure (absolute)	0.00	psi	11/17/2000
Coolant Temp	115.78	degF	11/17/2000
Coolant Level Switch	Invalid		11/17/2000
Intake Manifold Pressure (absolute)	69.53	InHg	11/17/2000
Intake Manifold Temp	76.22	degF	11/17/2000
Aftercooler Water Temp	100.42	degF	11/17/2000
Blowby Flow	0.00	CFM	11/17/2000
Battery Voltage	23.922	Volts	11/17/2000

Open InPower to the parameters you want to monitor.

6. InPower Software Monitoring

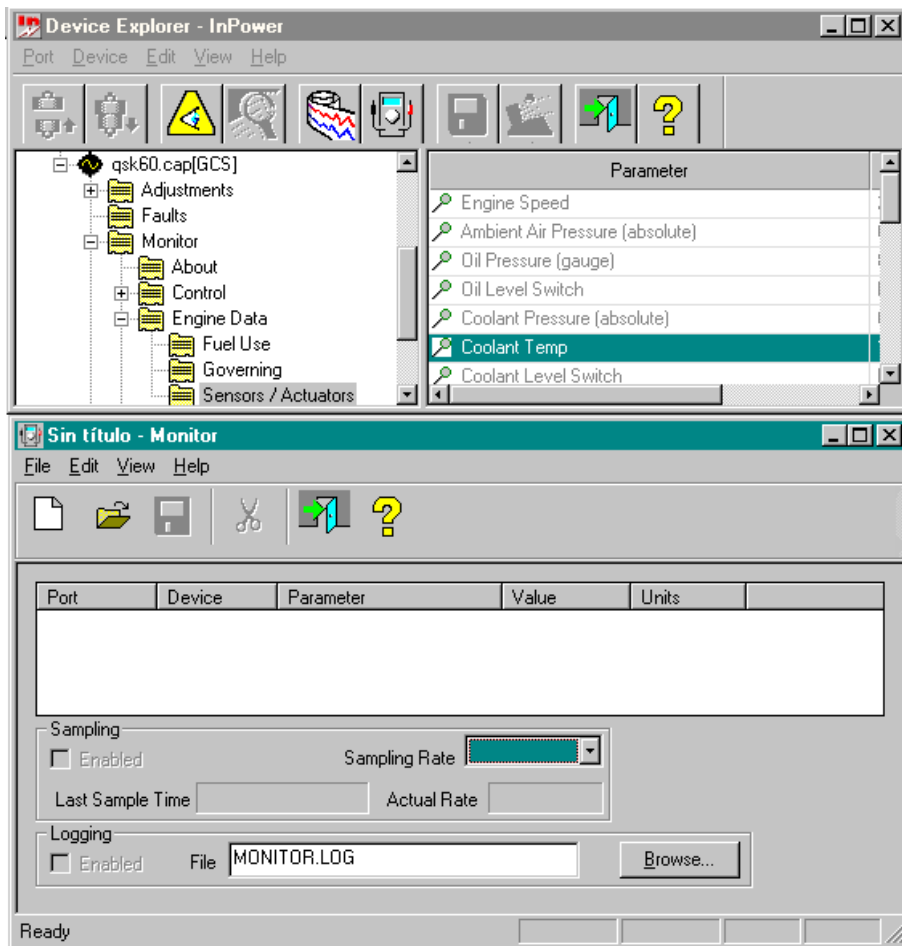
Open both screens:

**1. Device Explorer
in InPower**



2. Monitor

6. InPower Software Monitoring



Pass the data to Monitor to the Monitor Screen.

Select the Parameter/Edit/Copy or drag it.

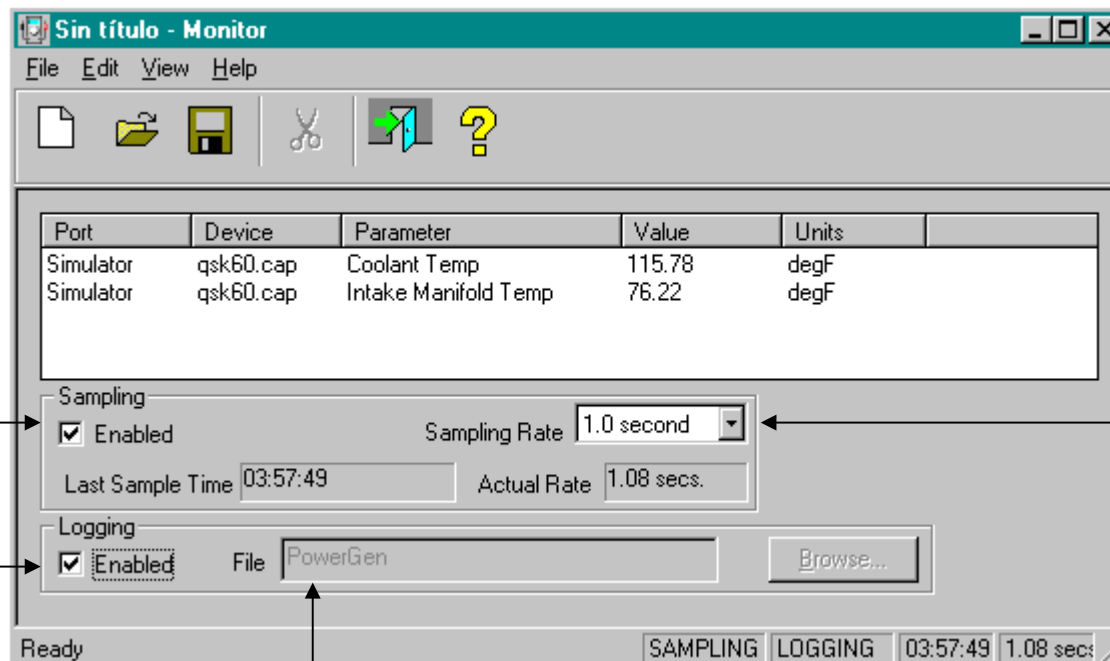
Edit/Paste/Parameter.

6. InPower Software Monitoring

Select the data to activate Monitoring

Start the
Monitoring

Binnacle
Available

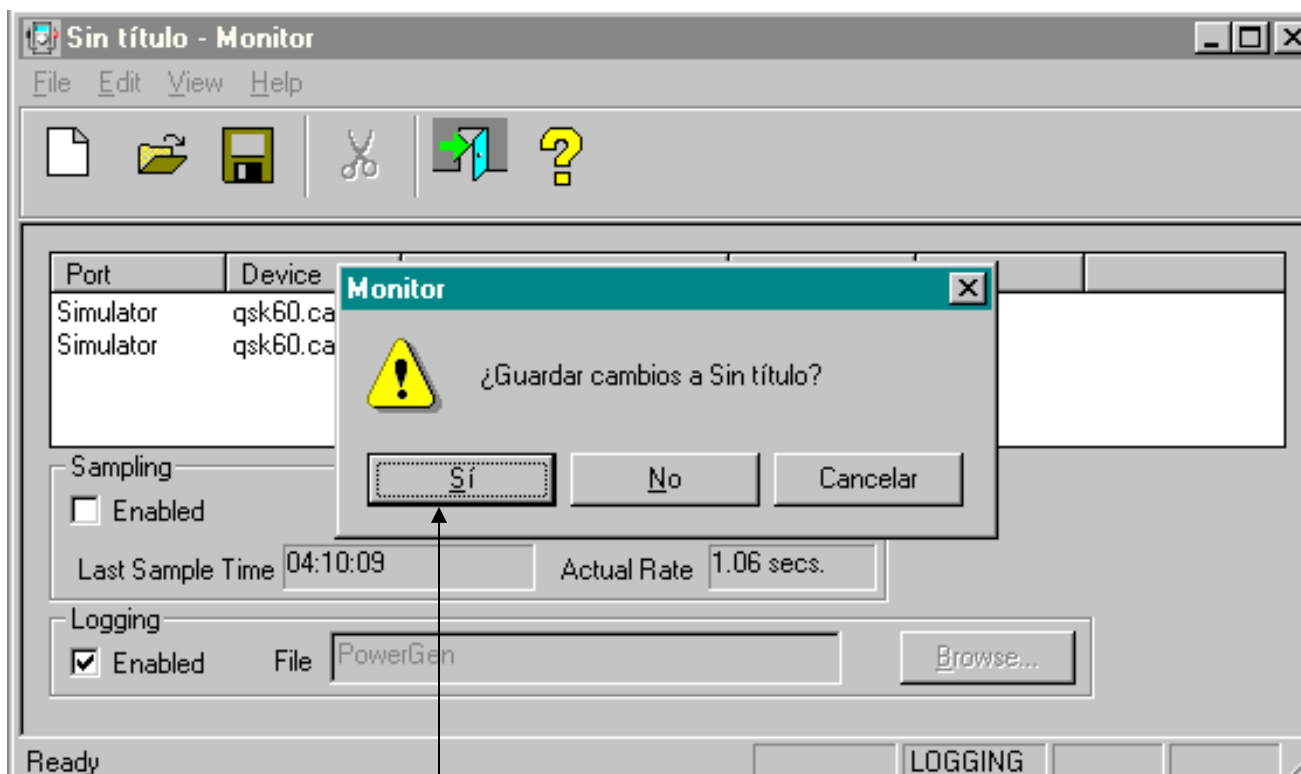


Interval of
Record

Naming the File

6. InPower Software Monitoring

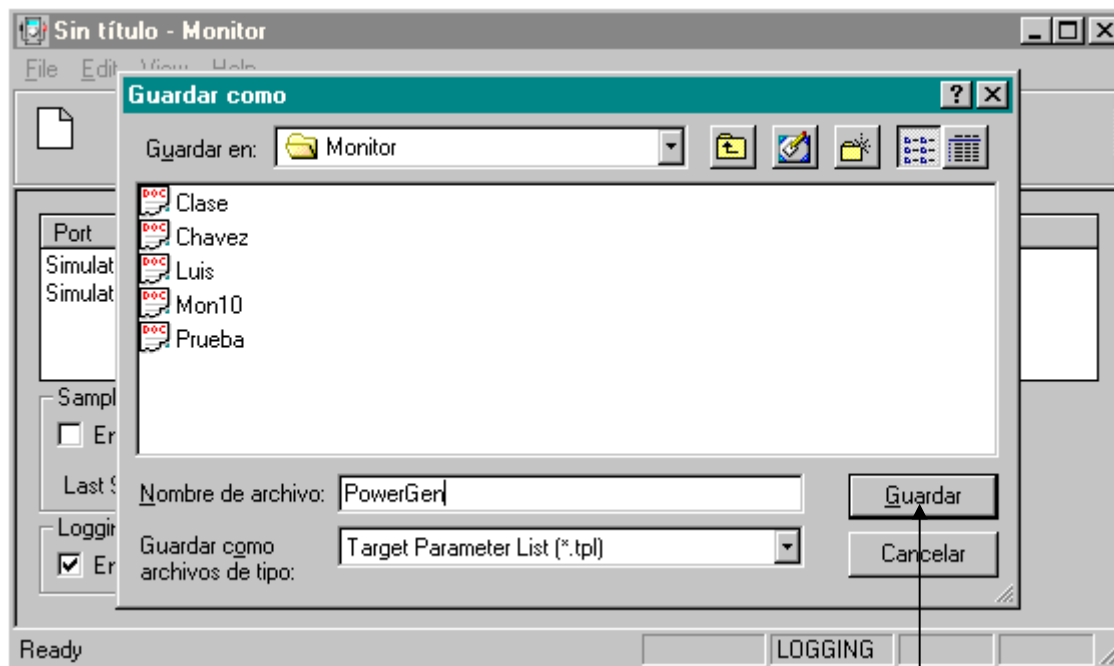
Save Monitored Data



Press

6. InPower Software Monitoring

Naming the File



Press

6. InPower Software Monitoring

1. Locate the File

- It is located in:
**C:\Program Files\Common Files\Cummins
Shared\Power Generation\Test**

2. Right-click on it

3. Select the Open with option

4. Select the Excel program

6. InPower Software Monitoring

Select the data and copy it

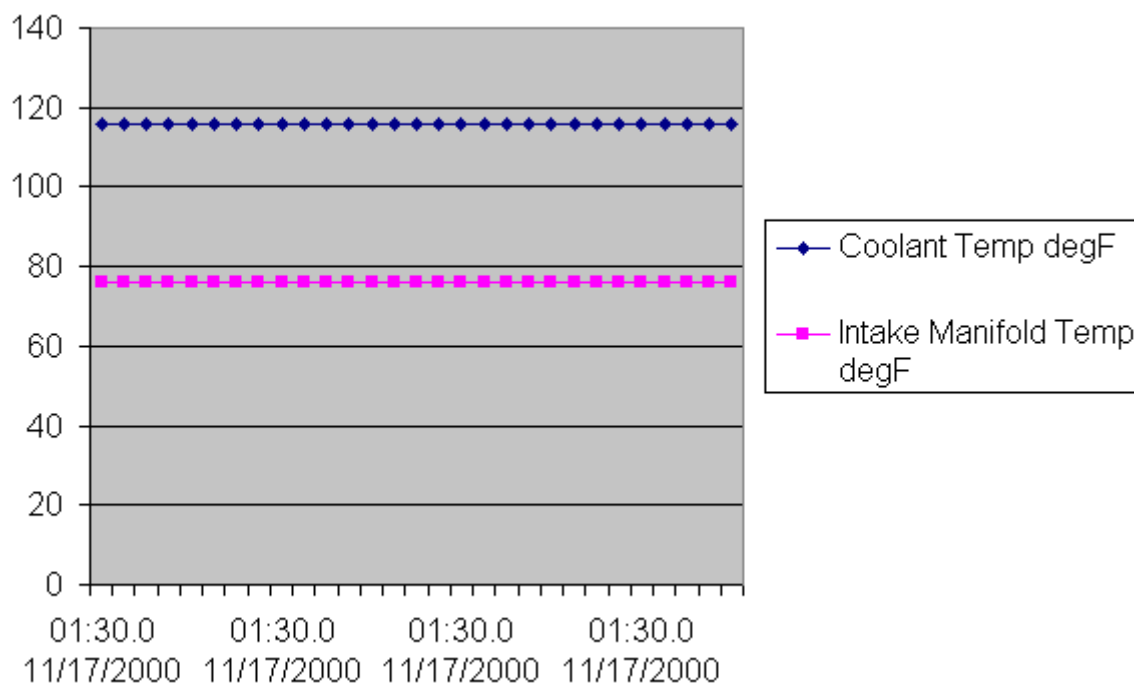
[illegible]

Pass and Arrange Data in an Excel Sheet

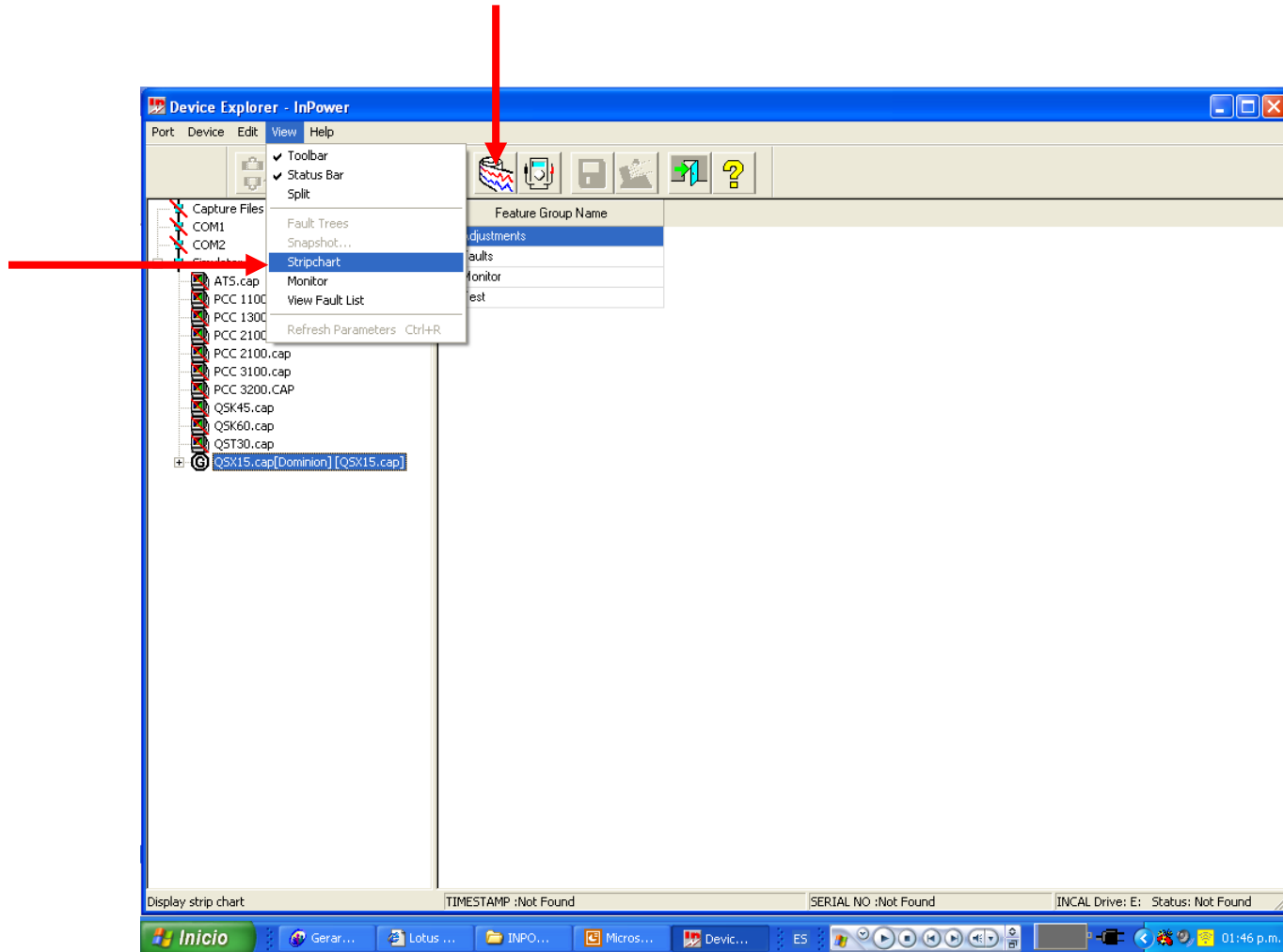
[illegible]

6. InPower Software Monitoring

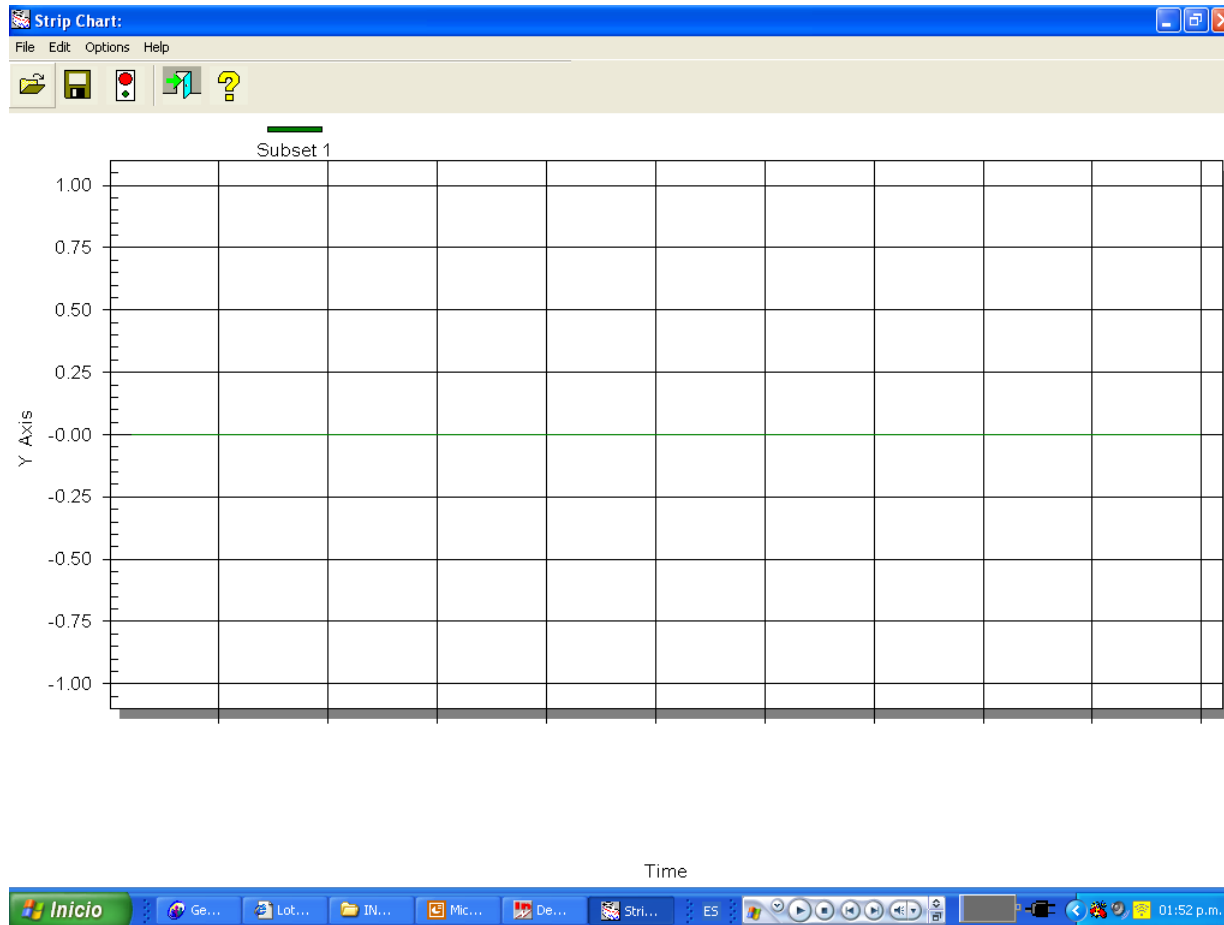
Transfer data from Excel to a graph and arrange the graph to your liking



6. InPower Software Strip Chart

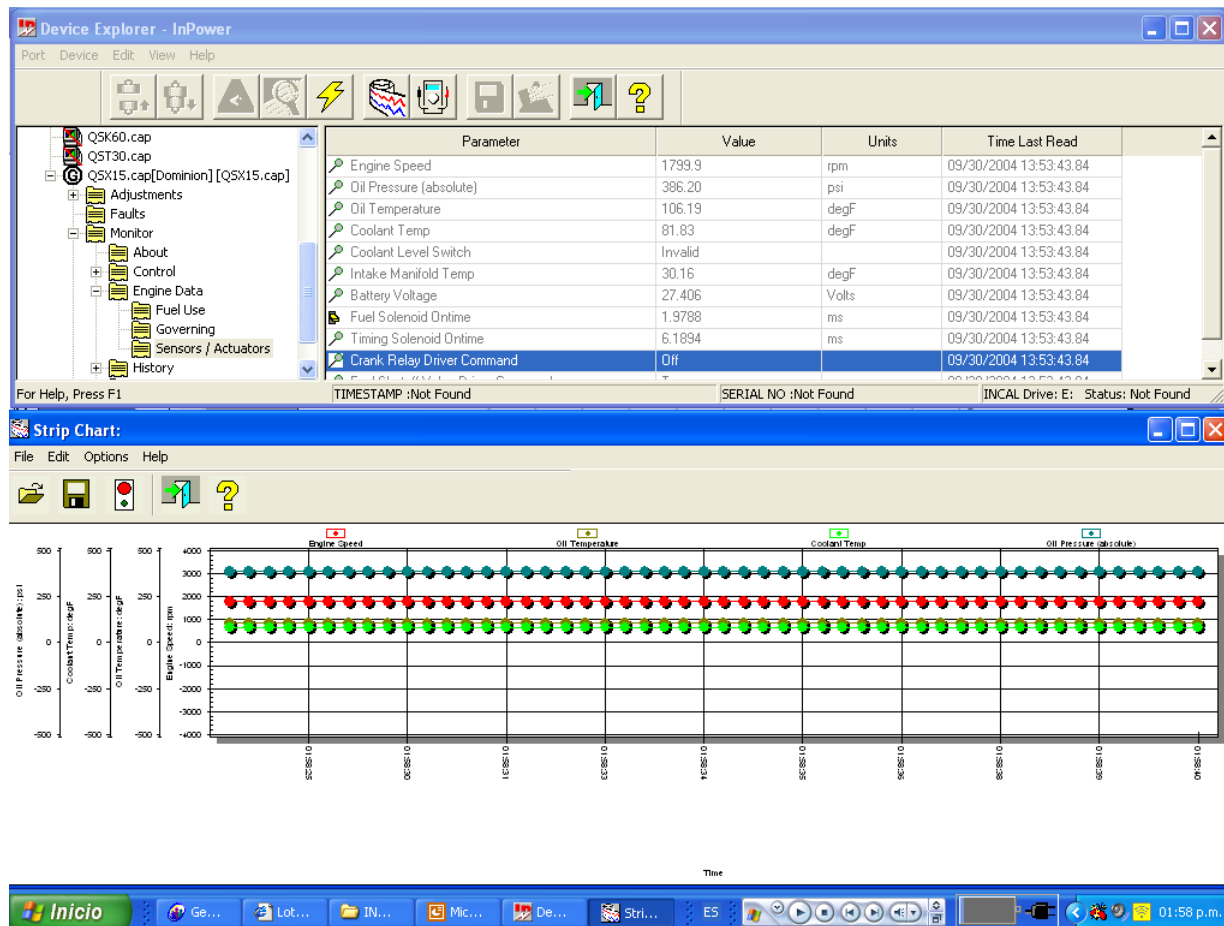


6. InPower Software Strip Chart



6. InPower Software Strip Chart

Maximum 6 graphed parameters



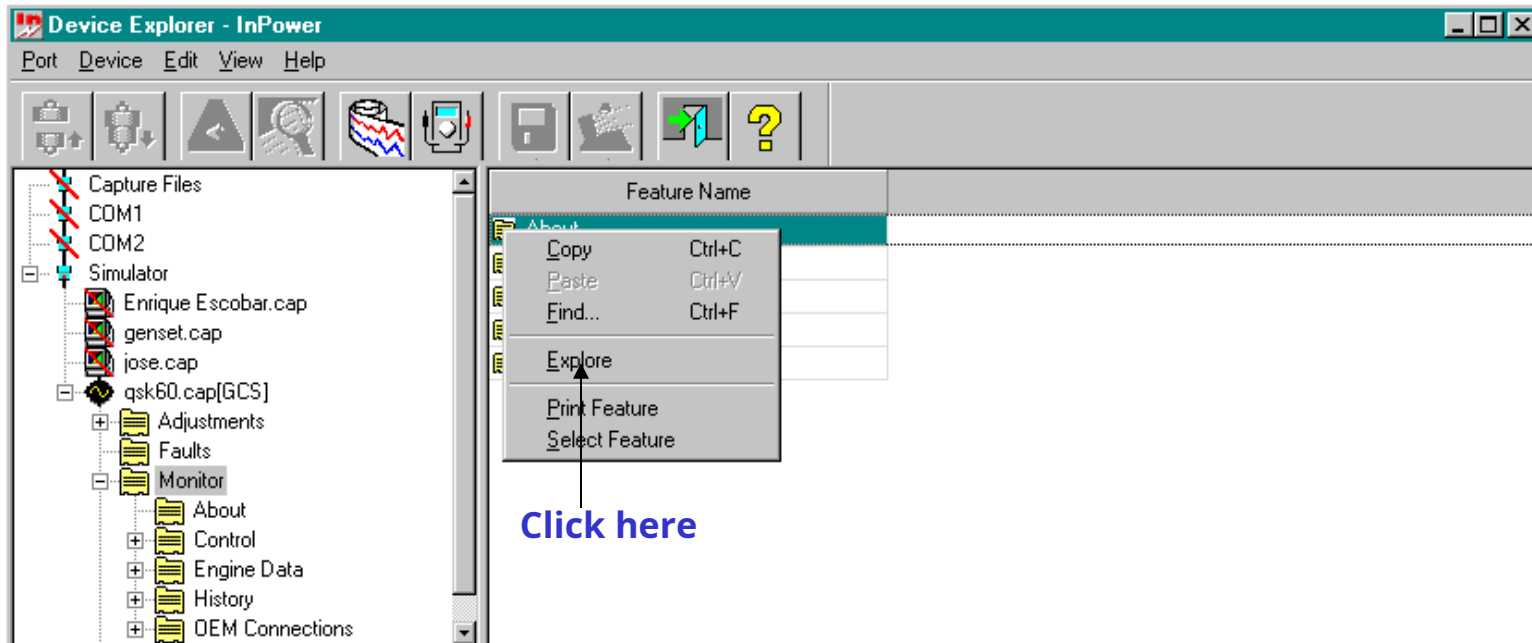
10 Minute Break



7. InPower 7.0 Software Reports

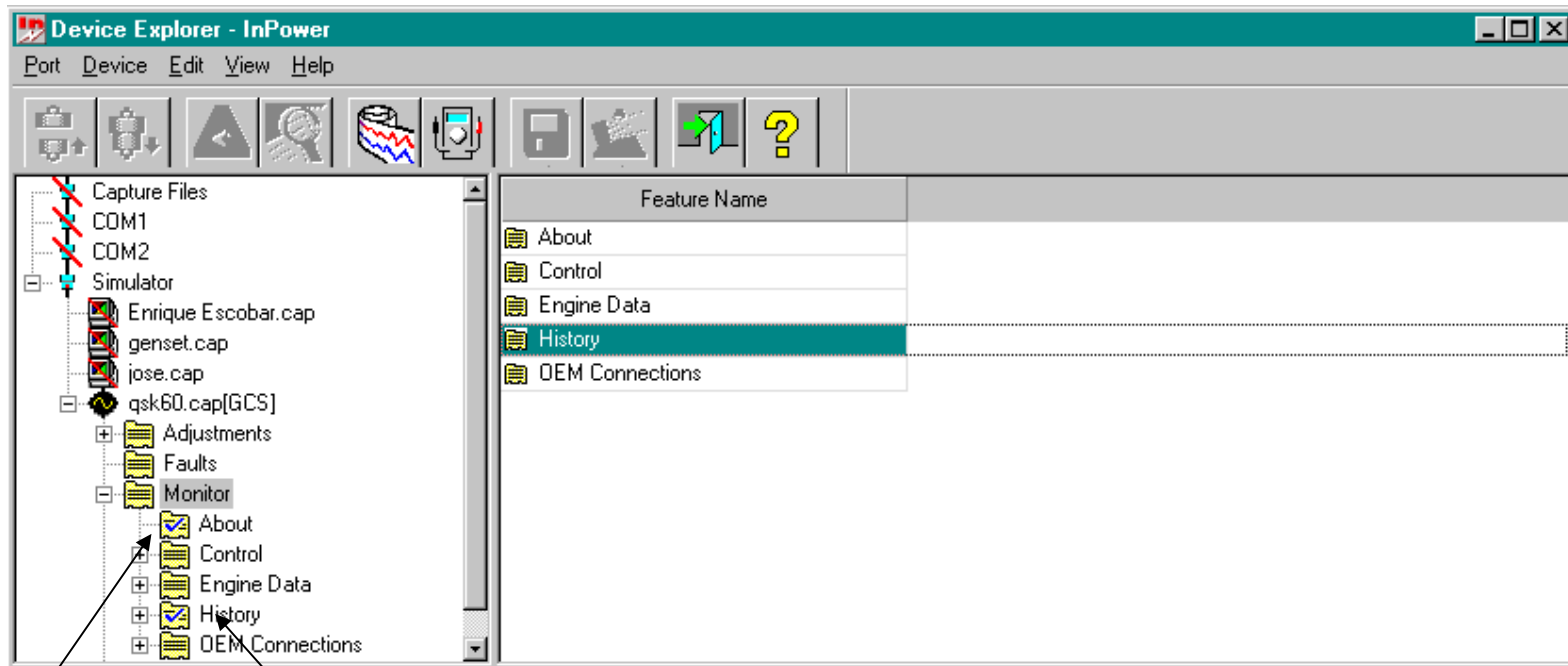
7. InPower Software Reports

Select the files you want to have in the Report



7. InPower Software Reports

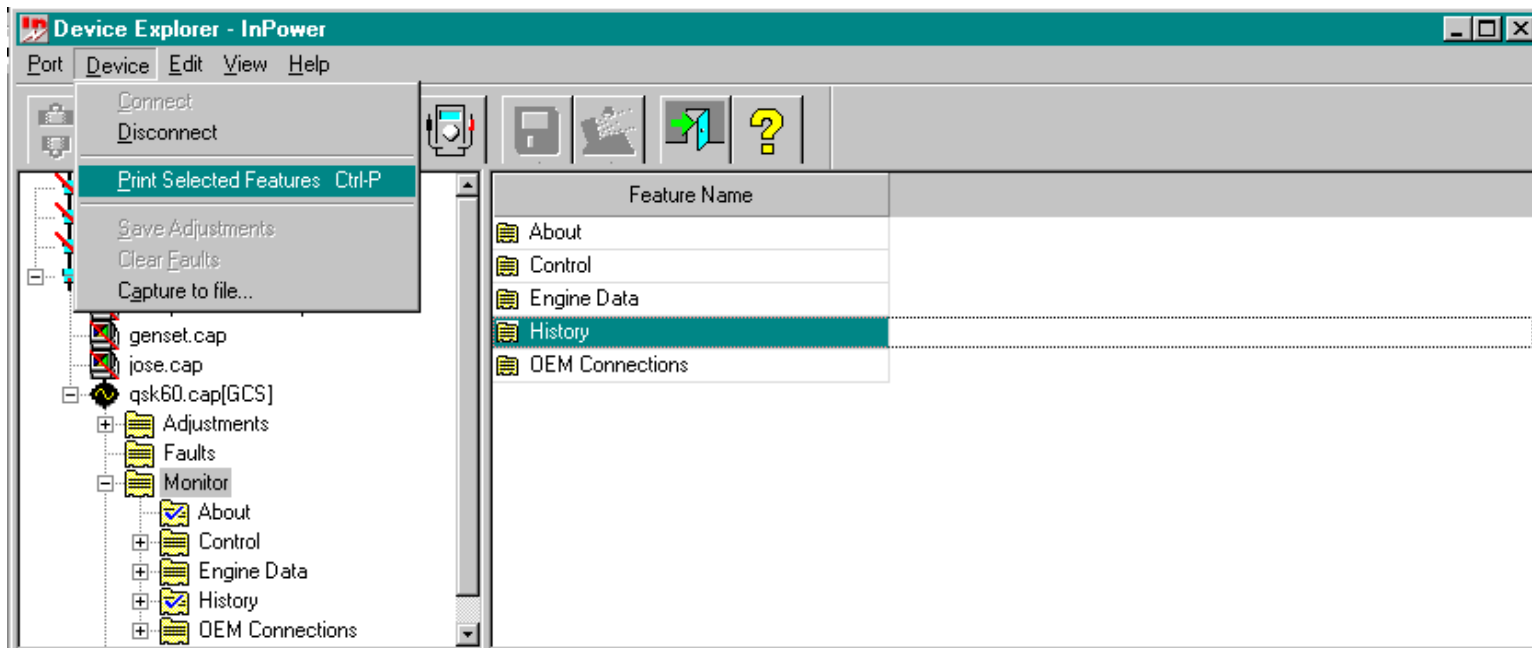
Selected files are marked with a check mark



**Files
Selected**

7. InPower Software Reports

Now select “Print Selected Features” in Device



7. InPower Software Reports

Send the Report to a Printer

C:\Archivos de programa\Archivos comunes\Cummins SharedPower Generation\EngProt.rpt

1 of 1 Total: 21 100%

Noviembre 17, 2000

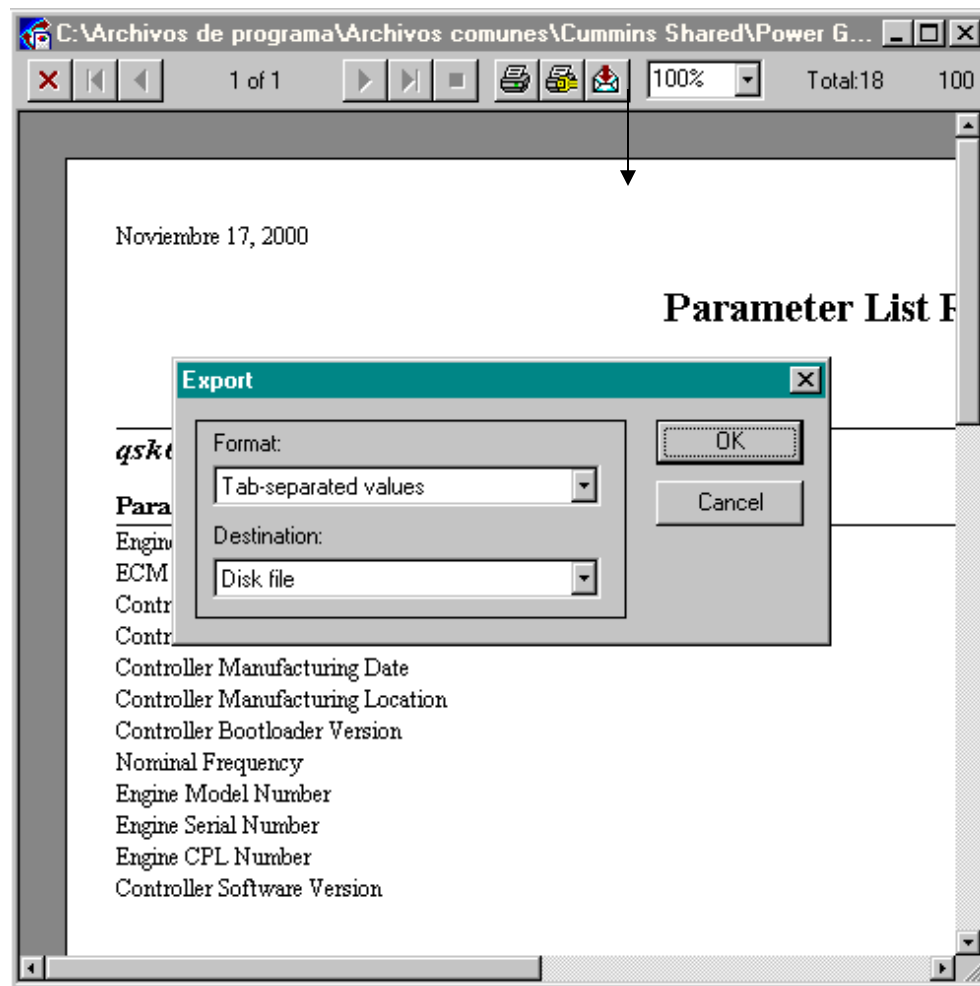
Engine Protection Report

DOMNI\Monitor\History\Engine Protection History

Fault Code	Fault Description	Value	Units	Duration	ECM Time	Real Time	Response
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
0		0,00 ---		0	0,00	0,00	None
-		---		-	---	---	--

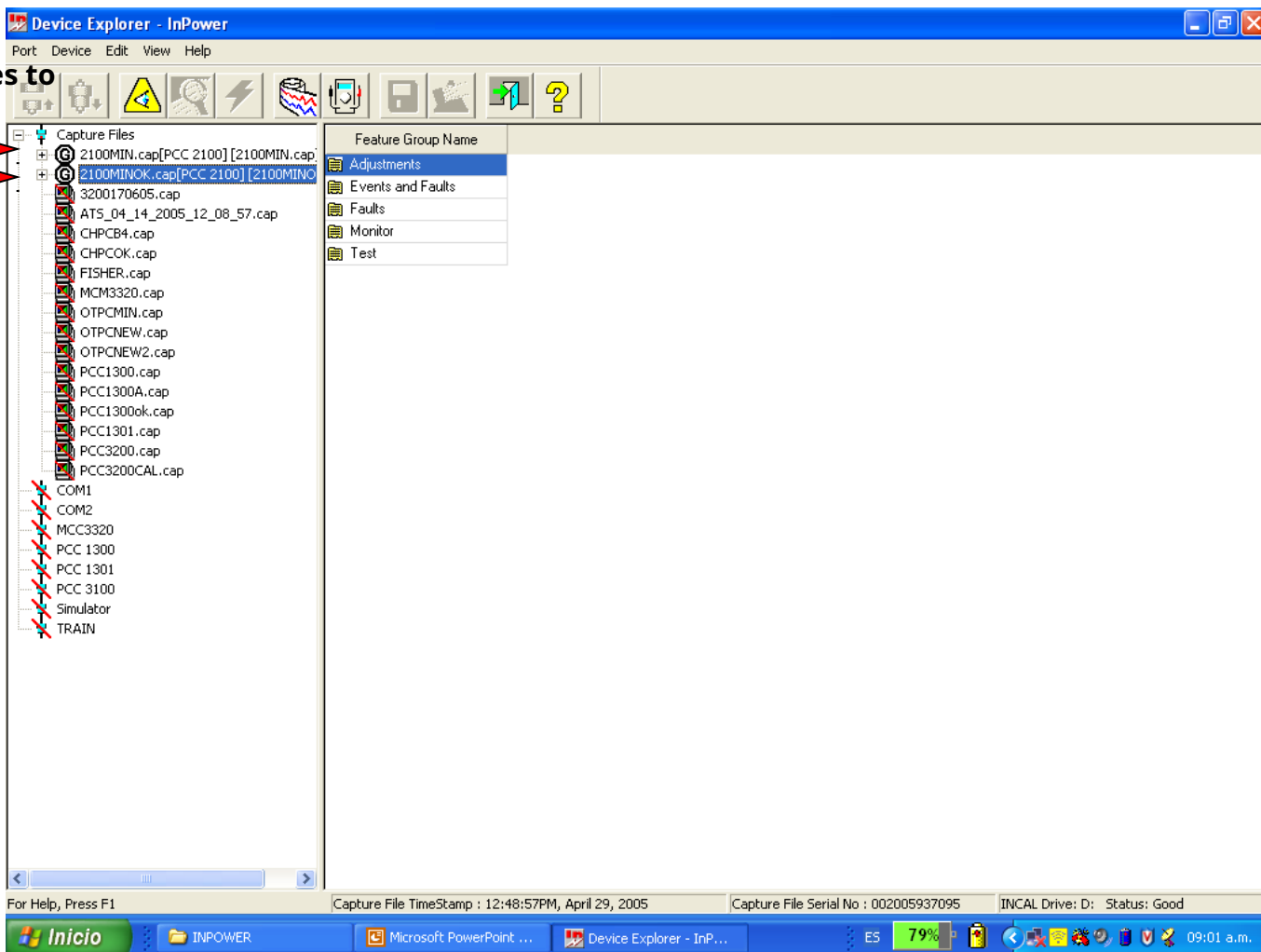
7. InPower Software Reports

Save the Information to a File



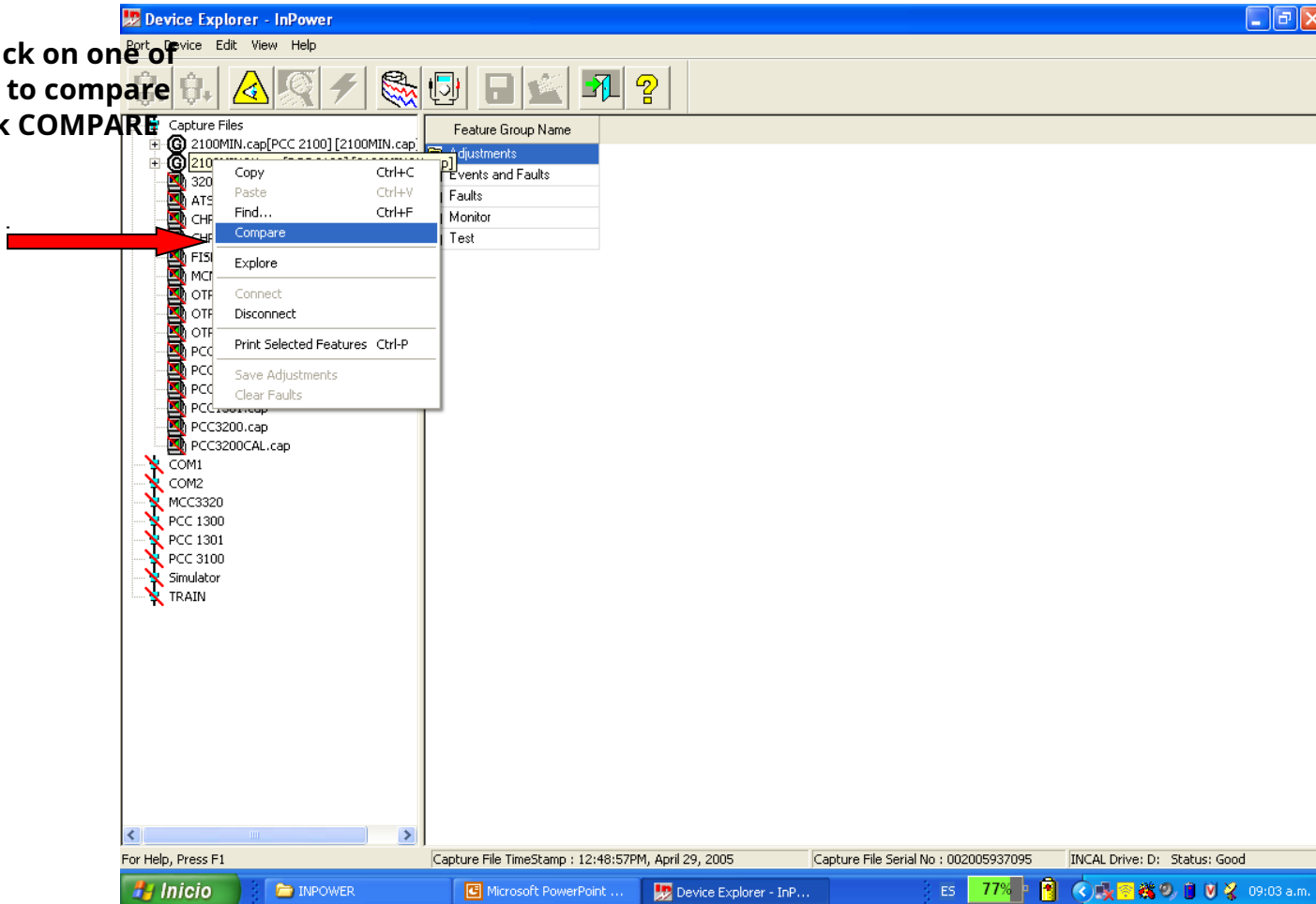
8. Comparing 2 Files in InPower 7.0

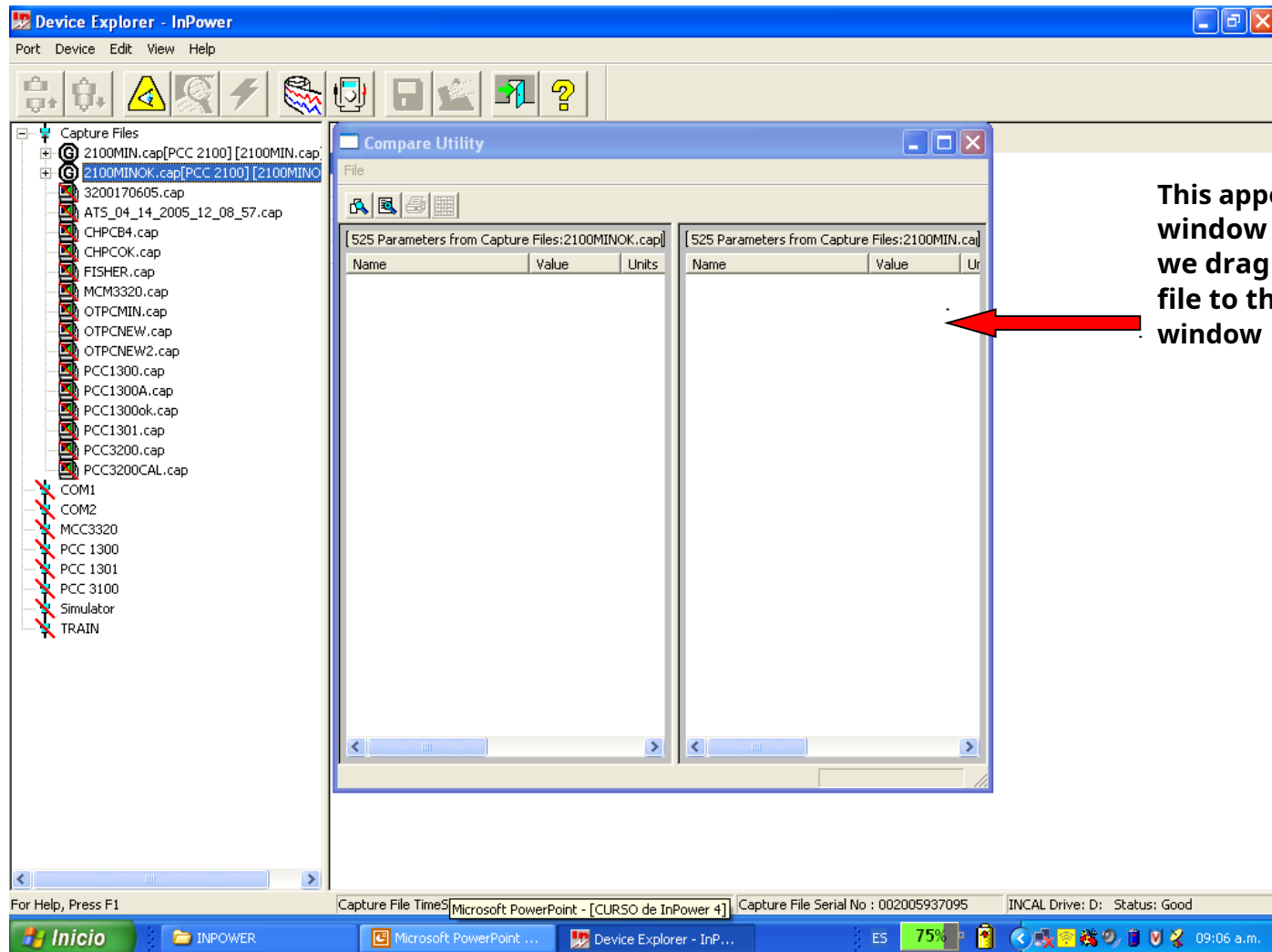
Open the 2 files to
compare





Right-click on one of
the files to compare
and click COMPARE





**This appears
window and then
we drag the 2nd
file to this
window**

Device Explorer - InPower

Port Device Edit View Help

Capture Files

- 2100MIN.cap[PCC 2100] [2100MIN.cap]
- 2100MINOK.cap[PCC 2100] [2100MINOK.cap]
- 3200170605.cap
- AT5_04_14_2005_12_08_57.cap
- CHPCB4.cap
- CHPCOK.cap
- FISHER.cap
- MCM3320.cap
- OTPCMIN.cap
- OTPCNEW.cap
- OTPCNEW2.cap
- PCC1300A.cap
- PCC1300AOk.cap
- PCC1301A.cap
- PCC3200A.cap
- PCC3200CAL.cap
- COM1
- COM2
- MCC3320
- PCC 1300
- PCC 1301
- PCC 3100
- Simulator
- TRAIN

Compare Utility

File

- Filter
- Compare
- Print
- Export
- Close

from Capture Files:2100MINOK.cap

Name	Value	Unit
12V High Battery Threshold	16.000	Volt
12V Low Battery Running Thre	12.000	Volt
12V Low Battery Stopped Thre	12.000	Volt
12V Weak Battery Threshold	8.000	Volt
24V High Battery Threshold	32.000	Volt
24V Low Battery Running Thre	24.000	Volt
24V Low Battery Stopped Thre	24.000	Volt
24V Weak Battery Threshold	14.391	Volt
AVR (%)	0.0	%
AVR Gain Adjust	1.000	gain
Accel Ramp for Speed Override	15.0	sec
Alternator % Application Total	0.000	%
Alternator % Standby L1 Curr	0.000	%
Alternator L1 Current	0	Am
Alternator L1 Current Adjust	1.100	
Alternator L1 Lead/Lag Status	Current Lags V	
Alternator L1 Power Factor	1.000000	
Alternator L1 Power Factor Ad	0.00	
Alternator L1 kVA	0.0	kVA
Alternator L1 kVAR	0.0	kVA
Alternator L1 kW	0.0	kW
Alternator L1-L2 Voltage	0	Volt
Alternator L1-L2 Voltage (%)	0.000	%
Alternator L1-L3 Voltage	0	Volt
Alternator L1-L3 Voltage (%)	0.000	%
Alternator L1-N Voltage	0	Volt
Alternator L1-N Voltage Displa	0.049	

525 Parameters from Capture Files:2100MIN.ca

Click on File ,
Compare and that's it
we have 2 files
compared

For Help, Press F1

Capture File TimeStamp : 12:48:57PM, April 29, 2005

Capture File Serial No : 002005937095

INICAL Drive: D: Status: Good

Inicio INPOWER Microsoft PowerPoint ... Device Explorer - InP... ES 72% 09:09 a.m.