
FTI STUDIO™ OPERATOR MANUAL

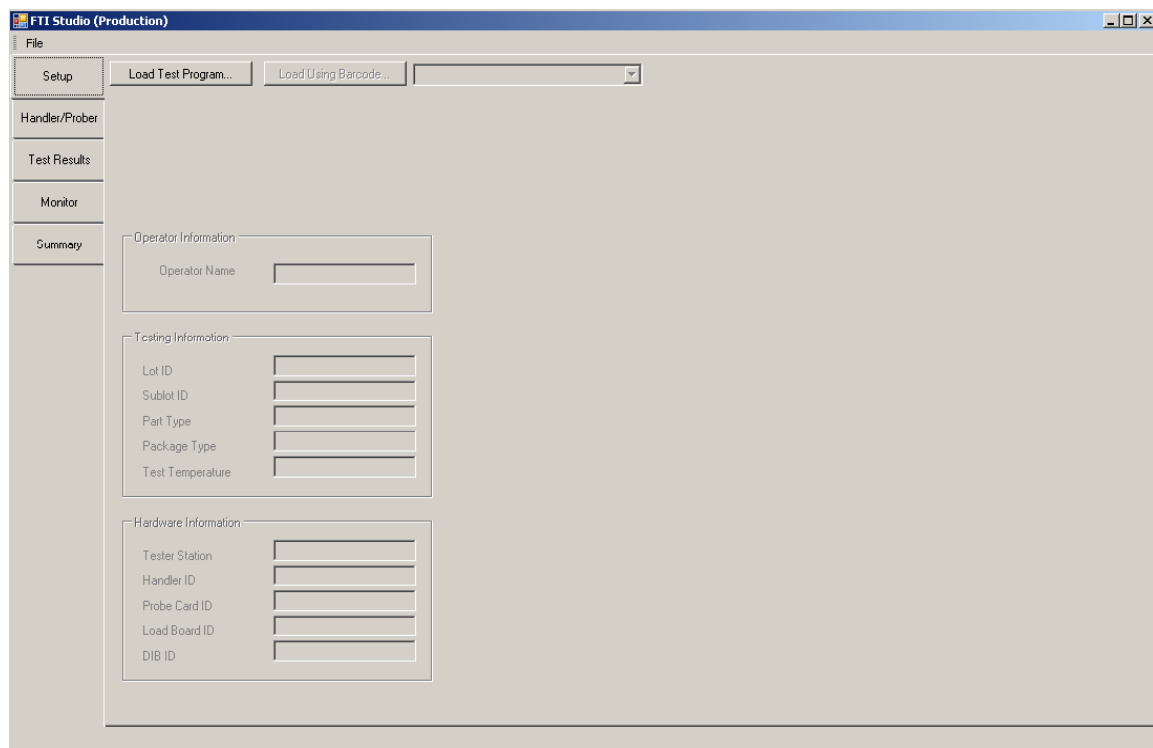
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1 INTRODUCTION

This manual describes how use FTI Studio™ Production operator interface. It covers loading test programs, entering lot information, connecting handling equipment, and other production tasks. You can perform similar operation with the FTI Studio™ interface, but operators are encouraged to use the Production interface which is much simpler.

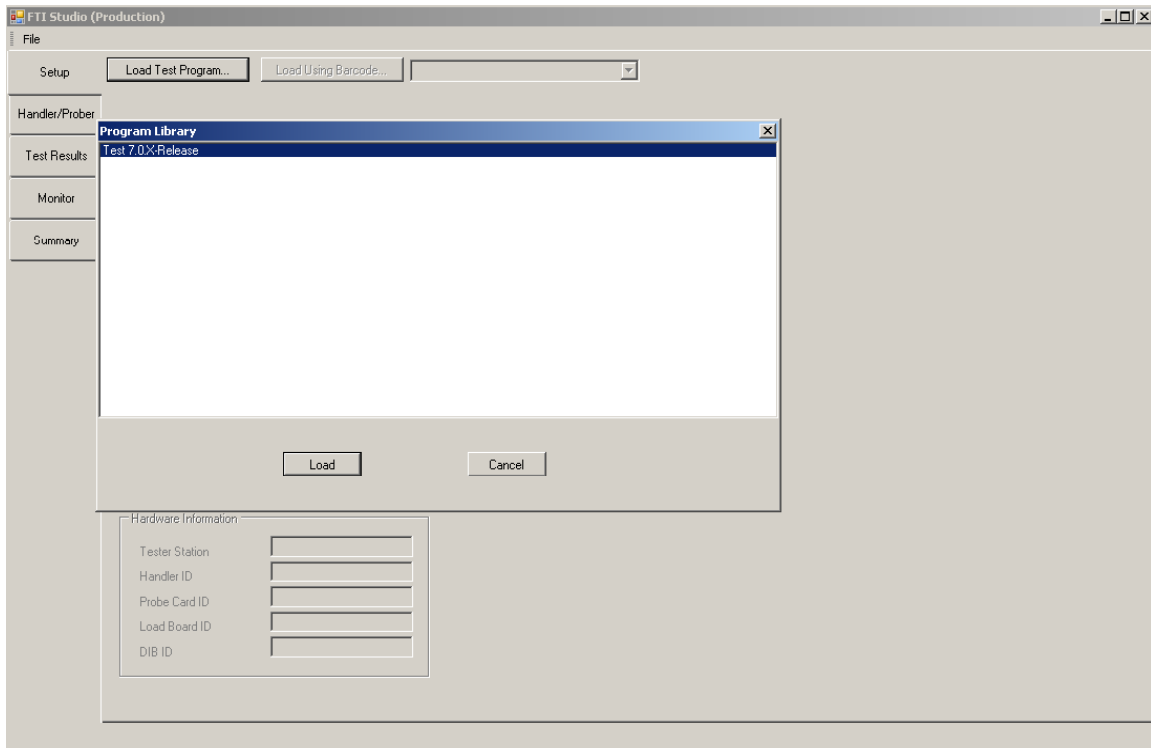
2 MAIN FUNCTIONS

The Production screen layout looks like this:



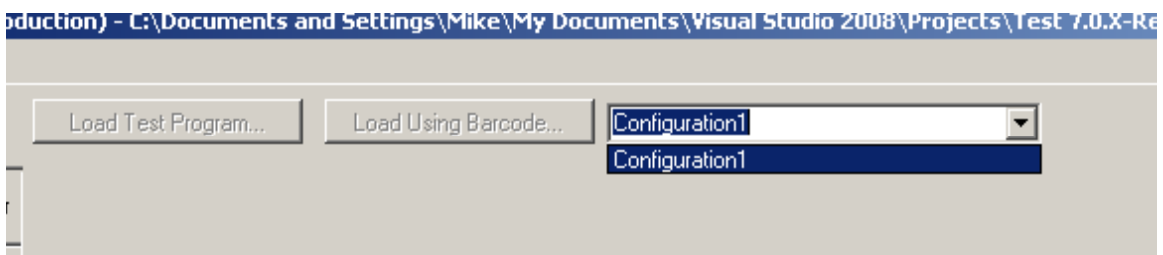
There are 5 tabs on the left side, in roughly the order the operator uses the interface. The Setup tab is used to load programs and enter log information, the Handler/Prober tab is used to setup the interface, Test Results is used to monitor yields, Monitor is used to monitor failure patterns, and Summary contains the final results of a lot/sublot.

Load a test program by pressing the Load Test Program... button:



The program library dialog will be displayed. Choose a program from the list and press Load. Note, if a bar code reader is configured, you can press on the Load Using Barcode... and scan the bar code on the traveler and it will automatically load from the library.

Next, choose which configuration you want to run:



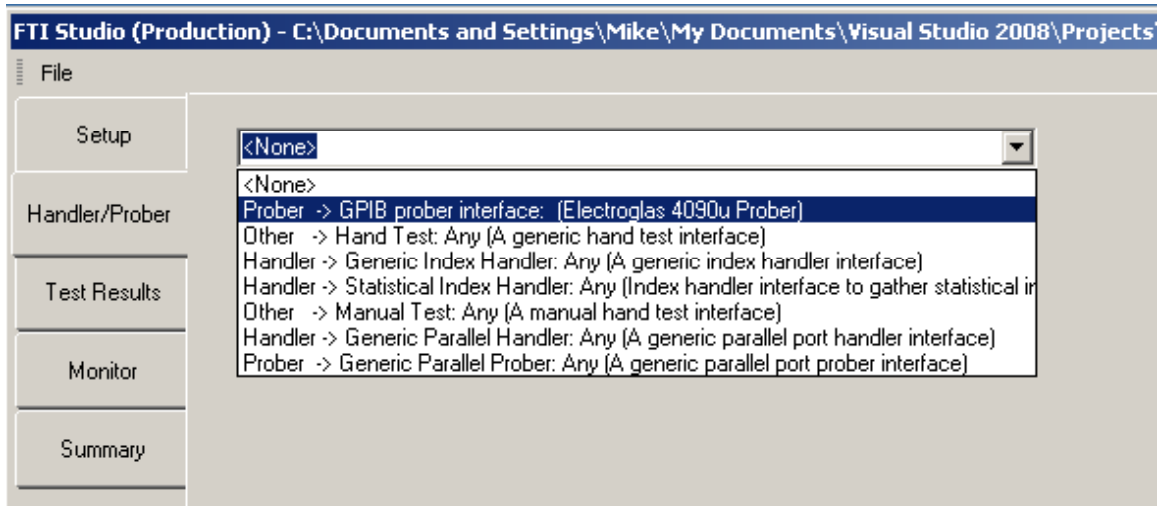
Normally configurations will be named with meaningful names such as "FT" or "QA."

Fill in the lot information:

Operator Information	
Operator Name	Kai Chen
Testing Information	
Lot ID	124978
Sublot ID	43
Part Type	MOSFET
Package Type	DPAK
Test Temperature	25C
Hardware Information	
Tester Station	2
Handler ID	45
Probe Card ID	
Load Board ID	
DIB ID	

Note: some equipment plug-ins on the third tab will take control over Lot ID and/or Sublot ID. There is no harm in entering them here, but there is no need in those cases.

Now that you are done with the Setup tab, press the Handler/Prober tab and select which handler/prober you are using:

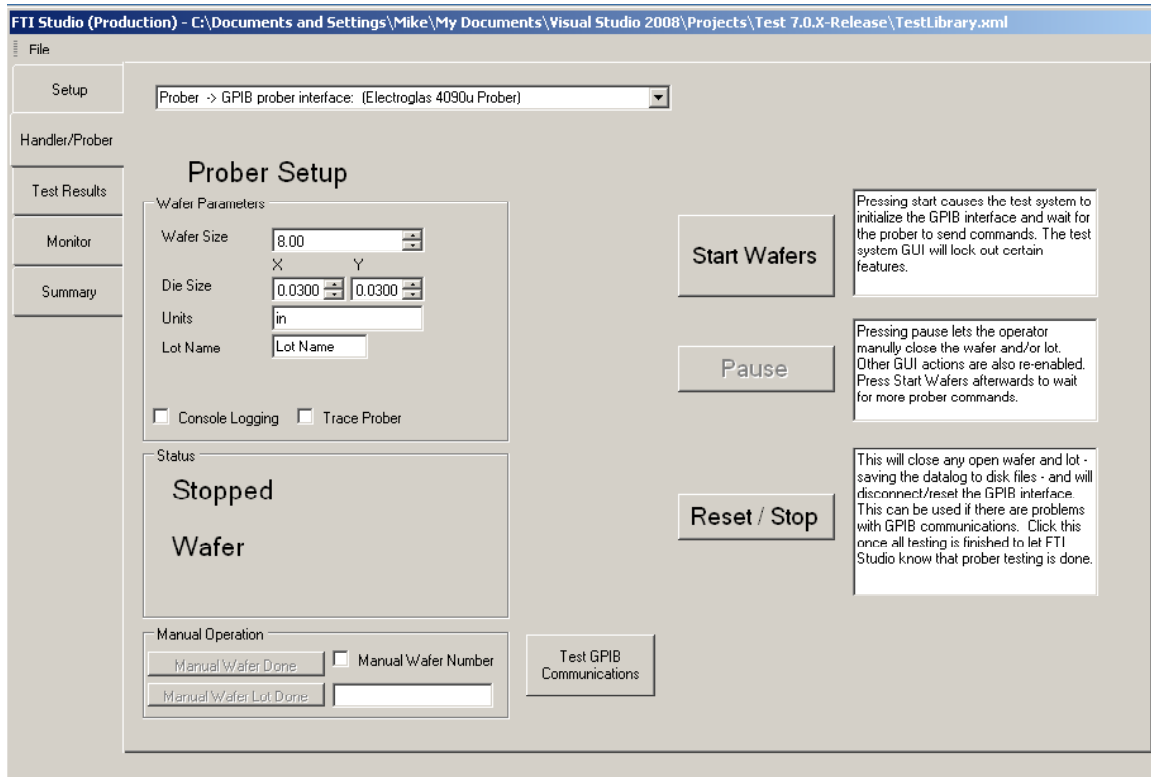


Each choice is a plug-in to FTI Studio, therefore your company may have custom plug-ins, or standard plug-ins may have been removed, so your list may be different. Once selected, you will see the

handler/prober

control

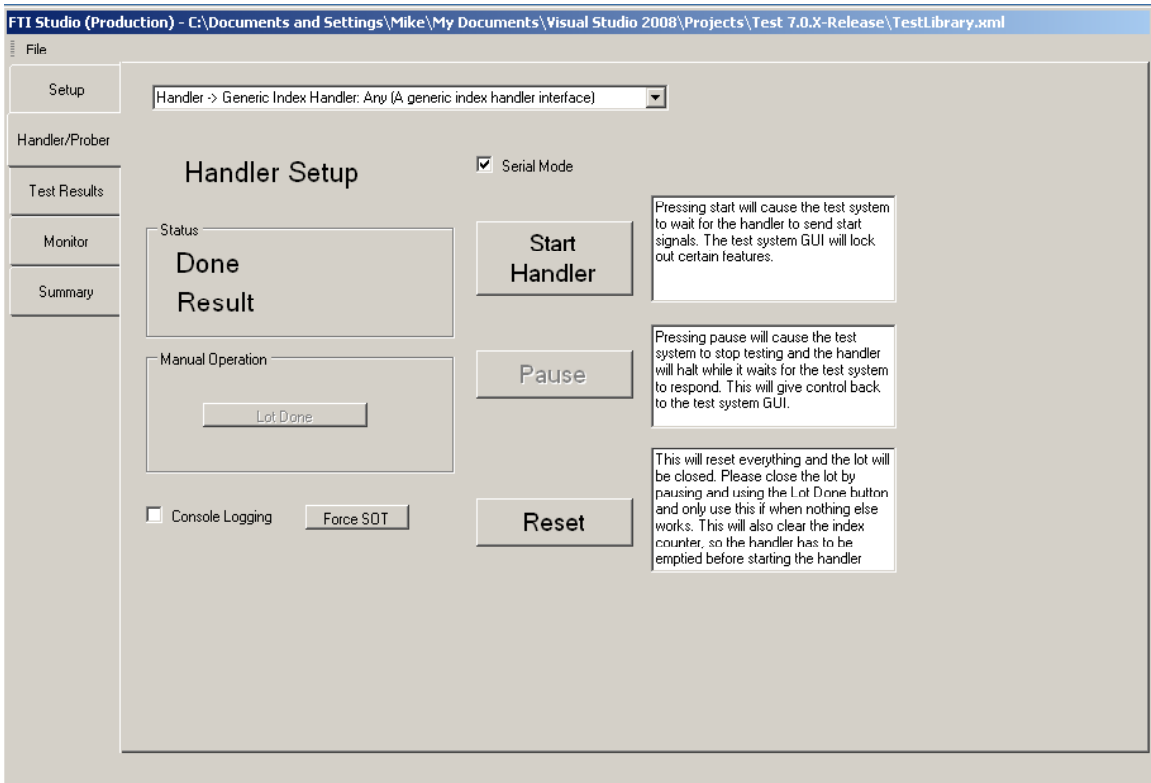
GUI:



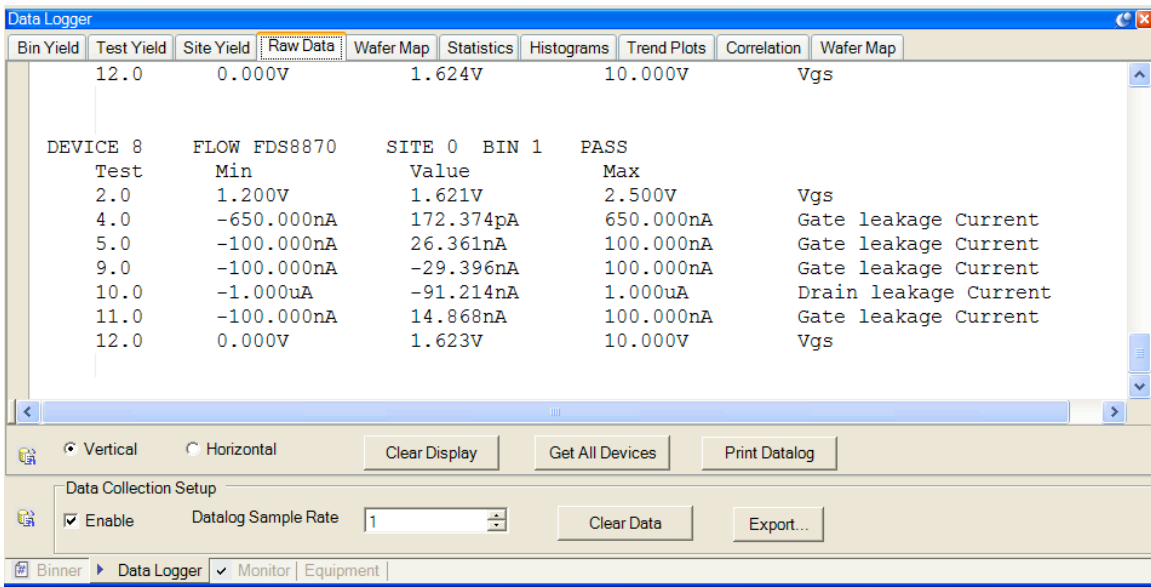
In this case, we have chosen a 4090 Electroglas GPIB controlled prober. Notice there is a place for the Lot Name. This will override any data put in on the Setup tab. Wafer numbers are auto generated. The software will query the prober for the wafer number and it will be used for the Sublot Name, thus it will also override the Set tab. The Manual Wafer Done and Manual Wafer Lot Done are used if the prober does not issue the proper commands to the software when wafers and wafer boats complete.

Once the prober is setup, you press Start Wafers, then tell the prober to start testing. Pressing pause will halt testing, but be aware that the prober may timeout. Normally you would pause the prober first. Pressing Reset/Stop will stop testing, and close the subplot and lot. There is no way to continue once Reset/Stop is pressed.

If you are using a handler, your interface might look like this:

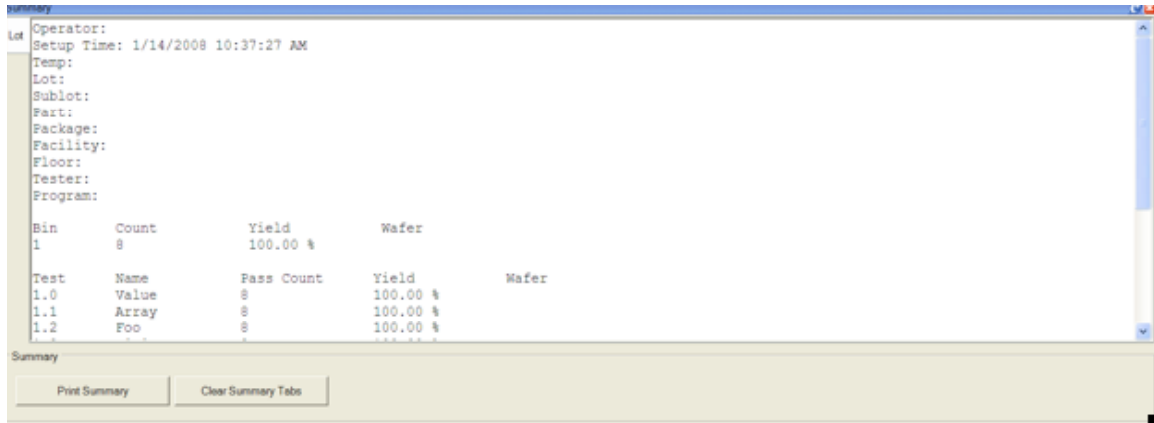


Once you are running, you can use the Test Results tab to monitor data. The Data Logger shows raw data and contains yield data and analysis tools. For example:



Be careful with the Clear Data button. It erases the data for all devices tested so far.

When the lot closes, the summary is created and the raw data saved.:



The whole summary report contains yield data. For example:

```

Operator:   Mike
Setup Time: 7/12/2007 10:09:37 PM
Temp:      25C
Lot:       1334167
Sublot:    0
Part:      FDS8870
Package:   SOIC
Facility:
Floor:
Tester:
Program:
    
```

```

Bin      Count      Yield      Wafer
1        8          100.00 %
    
```

```

Test     Pass Count  Yield      Wafer
2.0     8          100.00 %
4.0     8          100.00 %
5.0     8          100.00 %
9.0     8          100.00 %
10.0    8          100.00 %
11.0    8          100.00 %
12.0    8          100.00 %
    
```

```

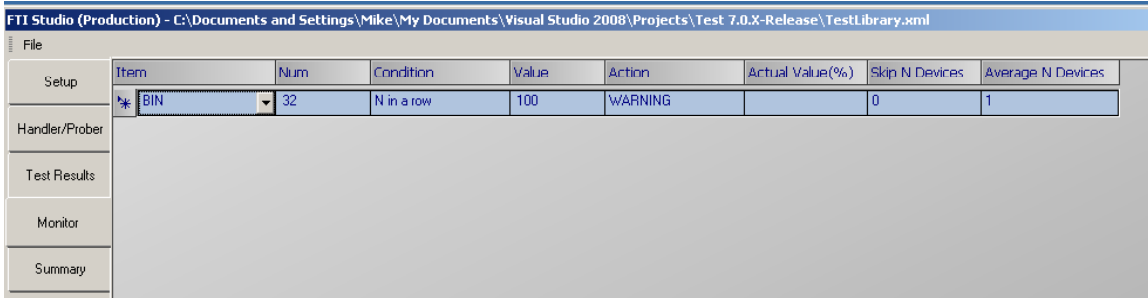
Site     Bin      Count      Yield      Wafer
0        1        8          100.00 %
    
```

```

Site     Test     Pass Count  Yield      Wafer
0        2.0     8          100.00 %
0        4.0     8          100.00 %
0        5.0     8          100.00 %
0        9.0     8          100.00 %
0        10.0    8          100.00 %
0        11.0    8          100.00 %
0        12.0    8          100.00 %
    
```

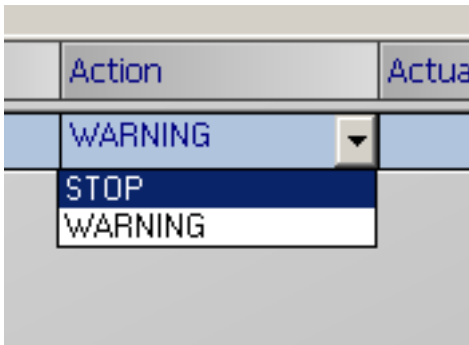
The raw data file is stored in the install directory. The default is C:\Program Files\Focused Test Inc\FTI Studio\ProductionData.

The monitor tab is used to monitor failure patterns:



File	Item	Num	Condition	Value	Action	Actual Value(%)	Skip N Devices	Average N Devices
Setup	* BIN	32	N in a row	100	WARNING		0	1
Handler/Prober								
Test Results								
Monitor								
Summary								

In this example, if there are 100 bin 32's in a row, there is a warning, and the row becomes yellow. Skip N Devices is used for wafers where you don't want the first couple of rows to participate in the monitoring. Average N Devices will smooth the data so that false warnings are not generated. Action can also be changed to Stop:



When this happens, testing stops until the handler/prober is started. The stop puts the handler/prober control on the Handler/Prober tab into pause mode.