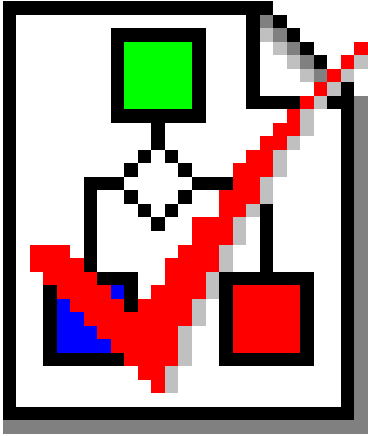


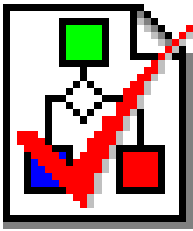


PRODUCTIVITY
ENHANCEMENT
SYSTEMS



TYX TestBase[®]

Design-To-Test Demonstration



Design-to-test – eXpress integration

1. UUT Model Input

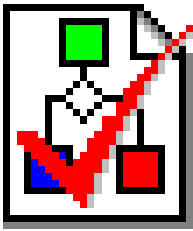
2. Test Data Input

The screenshot displays the eXpress software interface with two windows open. The top window, titled 'eXpress - [Demo UUT.exd:1]', shows the 'Design' view. The left pane contains a hierarchical tree of objects including C1, D1, D2, FUSE1, FUSE2, R1, R2, I/O FLAGS, CONNECTORS, ANNOTATIONS, NETS, OPERATING MODES, TEST SETS, DIAGNOSTIC STUDIES, and FMECA STUDIES. The main workspace shows a circuit diagram with a red arrow pointing to the input and a green arrow pointing to the output. The bottom pane shows the 'Details' tab for a selected component, with the following data:

Name	Value
ExecutionEnv	TCA_DLL.TCA_DI
HighLimit	11300.0
Locator	Demo_CVI.dll:Ban
LowLimit	7407.0

The bottom window, titled 'eXpress - [Demo UUT.exd:1]', shows the 'Test Set Management' view. The left pane shows a tree with 'Bandwidth HI' selected, containing 'Function(s) Covered by Ins', 'C1', and 'Object to Inspect'. The main workspace shows the same circuit diagram. The bottom pane shows the 'Details' tab for a selected component, with the following data:

Type	Object Color
Generic Object	Pale Blue
Abbr.	Text Color
C1	Other
Item Reference:	Text Position
C1	X: 80 Y: .5
	Description: 10nF

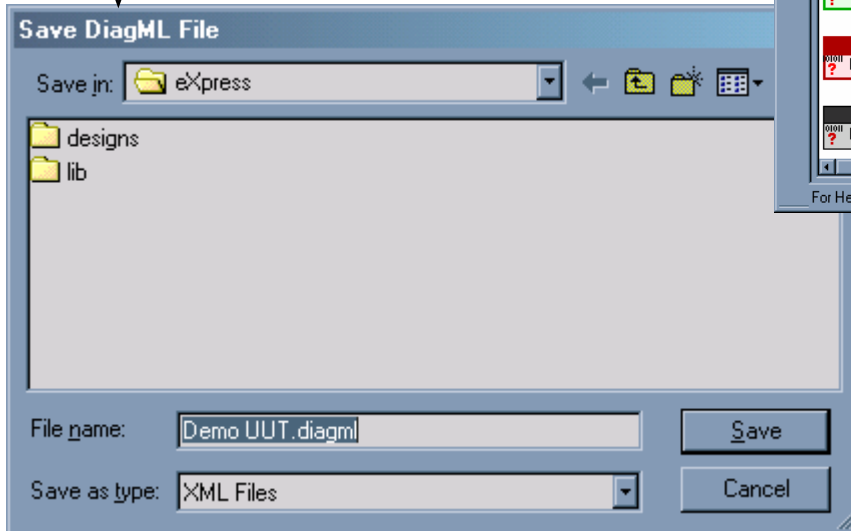
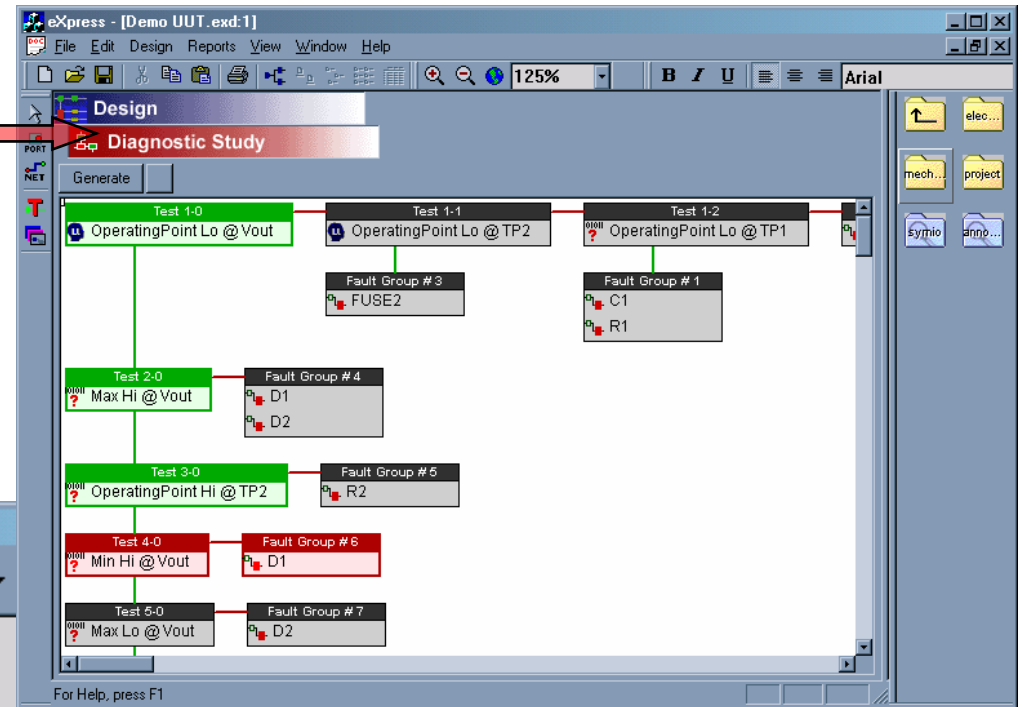
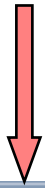


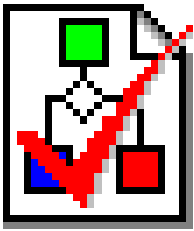
Design-to-test – eXpress integration...

3. Test Strategy Generation



4. DiagML Export



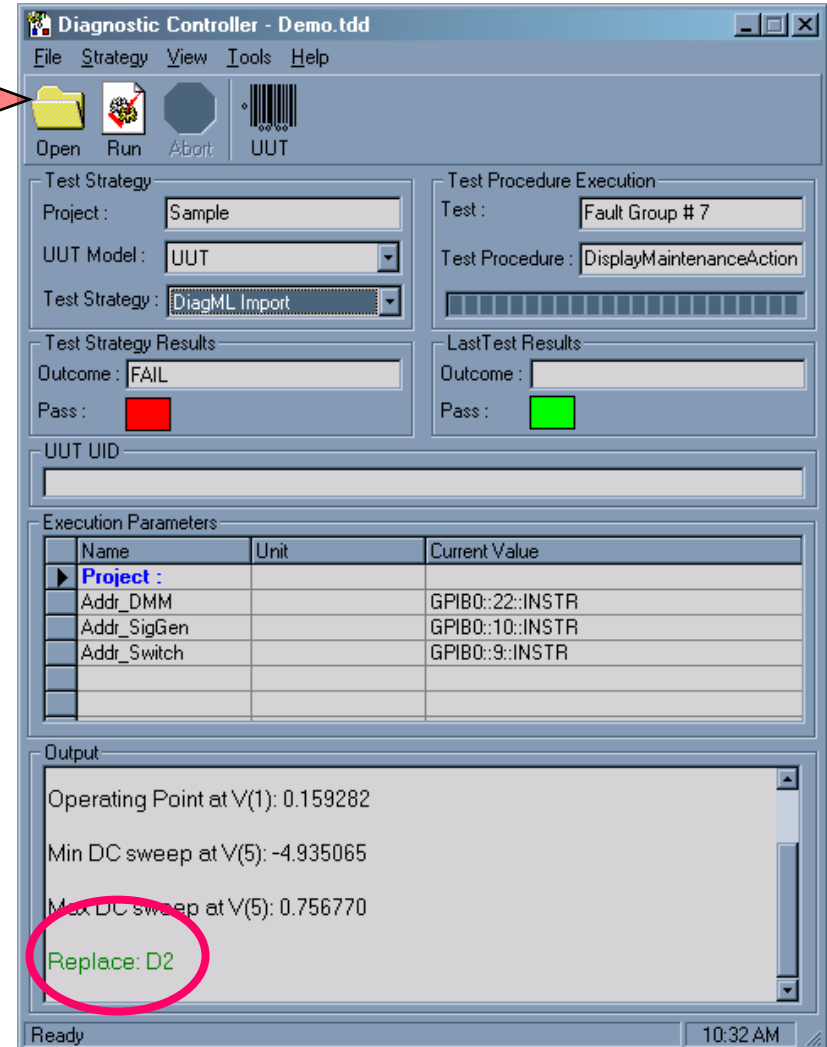
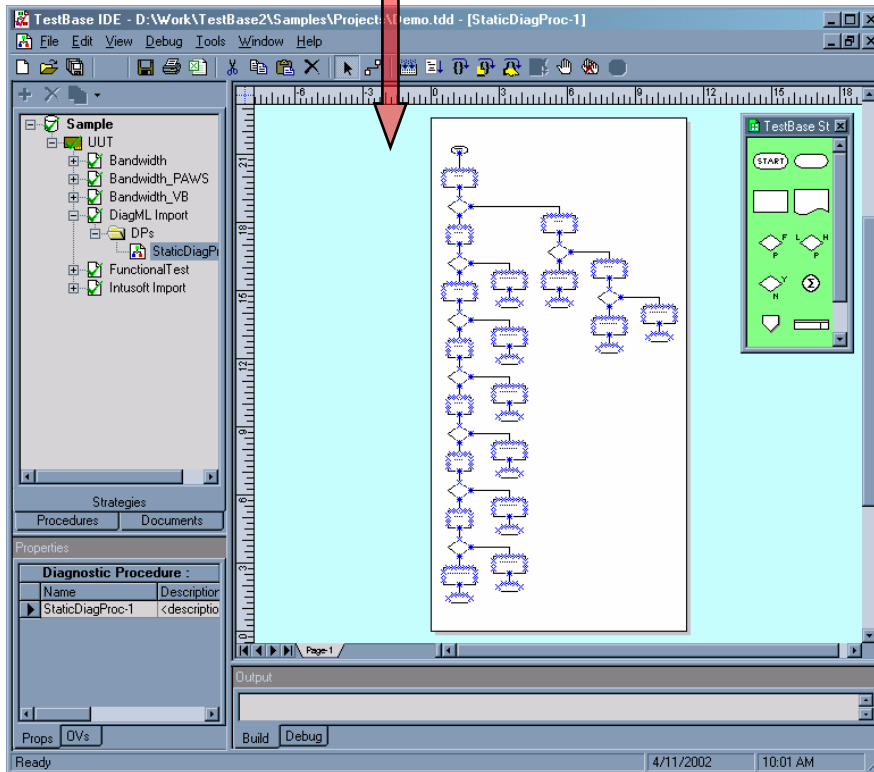
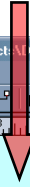


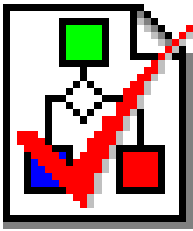
Design-to-test – eXpress integration...

6. Test Strategy Execution



5. Test Strategy Import in TestBase

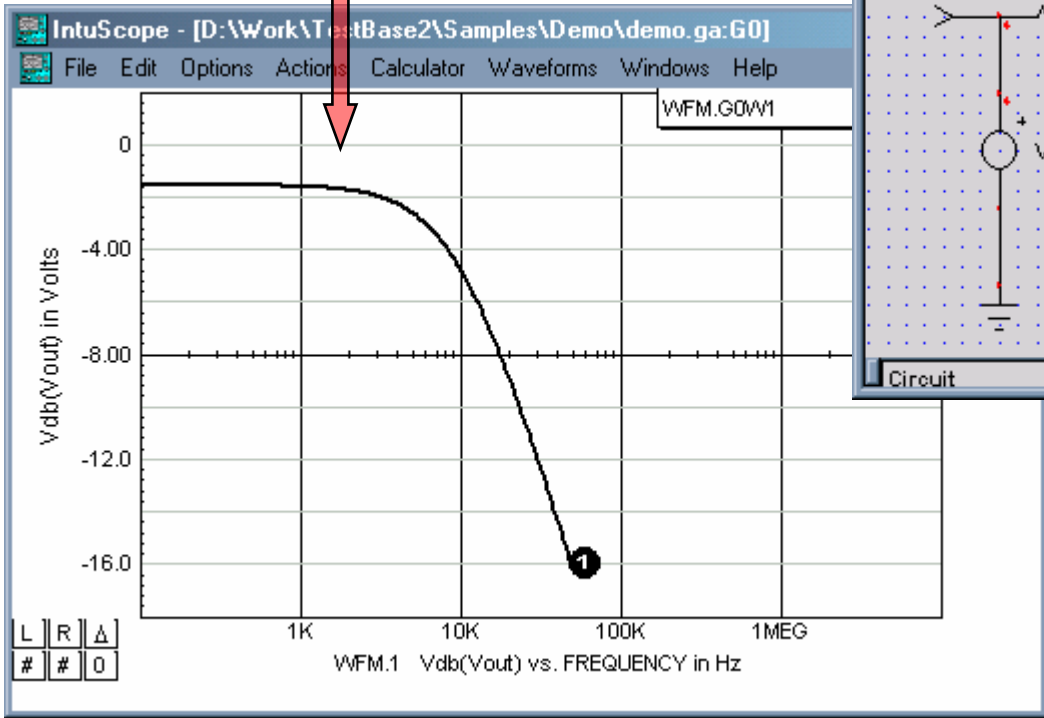
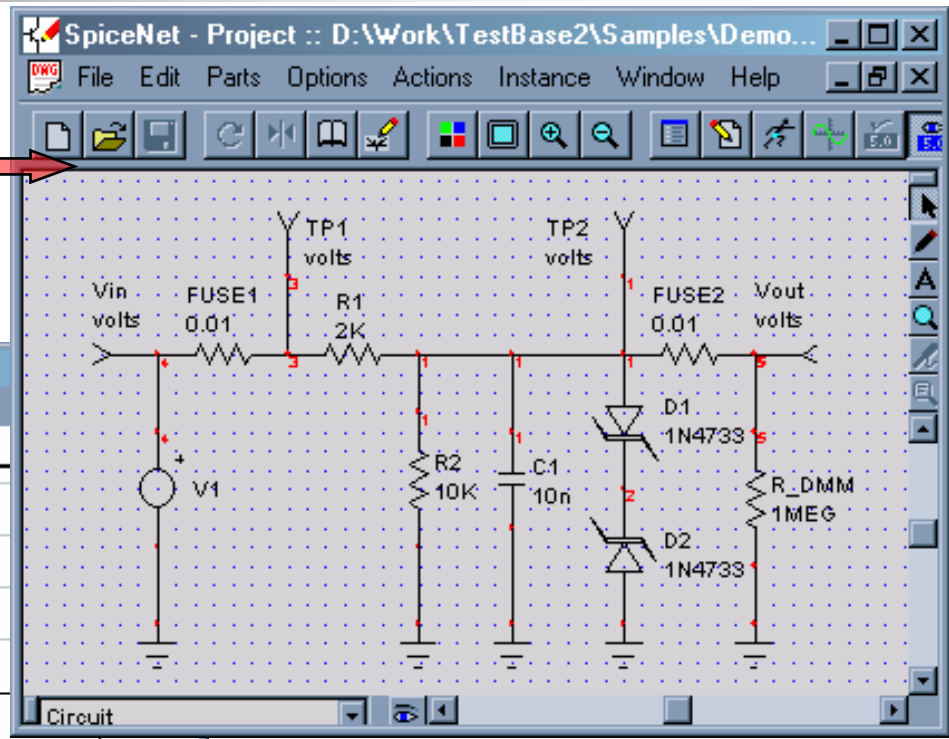


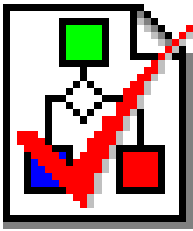


Design-to-test – Intusoft integration

1. UUT Data Input

2. UUT Simulation





Design-to-test – Intusoft integration...

3. Fault Definition

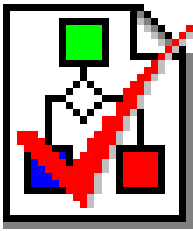


Parameters	I	>>Short	Open	3	4	5
Ref Des	GD	-	-			
Part number	GD	-	-			
Type	GD	-	-			
.Model	GD	-	-			
anode node	GD	Short	Open			
cathode node	GD	Short	-			
Area	GD	-	-			
Temp	GD	-	-			
Off	GD	-	-			

4. Fault Simulation



Meter	RefDes::Fail...	Measured	Pass/fail	Min	Nominal	Max
	C1::Short	9.999u	Fail	0.1514	0.1664	0.1814
	R1::Open	19.80u	Fail	0.1514	0.1664	0.1814
	FUSE1::O...	19.80u	Fail	0.1514	0.1664	0.1814
	C1::Open	0.1664	Pass	0.1514	0.1664	0.1814
	C1::OutOfTol	0.1664	Pass	0.1514	0.1664	0.1814
	D2::Short	0.1664	Pass	0.1514	0.1664	0.1814
	D2::Open	0.1664	Pass	0.1514	0.1664	0.1814
	D1::Short	0.1664	Pass	0.1514	0.1664	0.1814
	D1::Open	0.1664	Pass	0.1514	0.1664	0.1814
	FUSE2::O...	0.1667	Pass	0.1514	0.1664	0.1814
	R2::Open	0.1996	Fail	0.1514	0.1664	0.1814



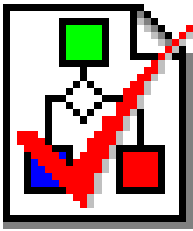
Design-to-test – Intusoft integration...

5. Test Strategy Generation

The screenshot shows the 'Test Design: Fault Tree with Entropy Selection' window. It is divided into several panes:

- Group sequence and selection:** A table with columns 'Sequ...', 'Test Group', and 'Config'. It lists four test groups: 4 (Bandwidth), 1 (OperatingPoint), 2 (Max), and 3 (Min).
- Fault Tree Structure:** A tree view showing nodes like 'V(5) lo 8, 4', 'V(1) lo 1, 3', 'V(3) lo 2, 1', 'V(1) hi 7, 1', 'V(5) hi 5, 2', 'V(5) lo 4, 1', 'V(5) hi 3, 1', 'lo 2, 1', and 'hi 1, 1'. A red arrow points to the top node.
- Test Description:** A text area containing test steps and logic: 'Step 1', 'V(5) lo 8, 4', 'OperatingPoint V(5) lo', 'IF test fails', 'goto Step 2', 'ELSE', 'goto Step 4'. It also includes 'Test Description: Test Fails if measurement is below low limit', 'Measurement limits are: High Limit = 0.1814, Low Limit = 0.1514, Guard Band = 15.00m', and 'Fail Ambiguity Group, pFail = 0.3333'.
- Entropy Table:** A table with columns 'Test', 'Entropy', and 'Test Group'. It shows 'V(1) hi' with entropy 0.3768 and 'V(5) hi' with entropy 0.3768.
- Buttons:** 'New', 'Edit', 'Save', 'Help', 'Summary', 'Auto Build', 'Insert', 'Delete', 'Recalc', 'Done'.

6. Test Strategy Export



Design-to-test – Intusoft integration...

7. Test Strategy Import in TestBase

8. Test Strategy Execution

The screenshot shows the TestBase IDE interface. The main window displays a hierarchical test strategy diagram with various test points and decision diamonds. The left sidebar shows a project tree with folders for 'Sample', 'UUT', and 'Intusoft Import'. The bottom status bar indicates the date 4/11/2002 and time 10:03 AM.

The screenshot shows the Diagnostic Controller - Demo.tdd window. The 'Test Strategy' section is set to 'Intusoft Import'. The 'Test Procedure Execution' section shows 'Test: OperatingPointV(3)' and 'Test Procedure: OperatingPoint'. The 'Test Strategy Results' section shows 'Outcome: FUSE1::Open' and 'Pass: [Red]', which are circled in red. The 'Execution Parameters' table is shown below, and the 'Output' section displays test results for Operating Point at V(5), V(1), and V(3).

Name	Unit	Current Value
Project :		
Addr_DMM		GPIO0::22::INSTR
Addr_SigGen		GPIO0::10::INSTR
Addr_Switch		GPIO0::9::INSTR

Output

Operating Point at V(5): -0.000003
Operating Point at V(1): -0.000002
Operating Point at V(3): -0.000002