

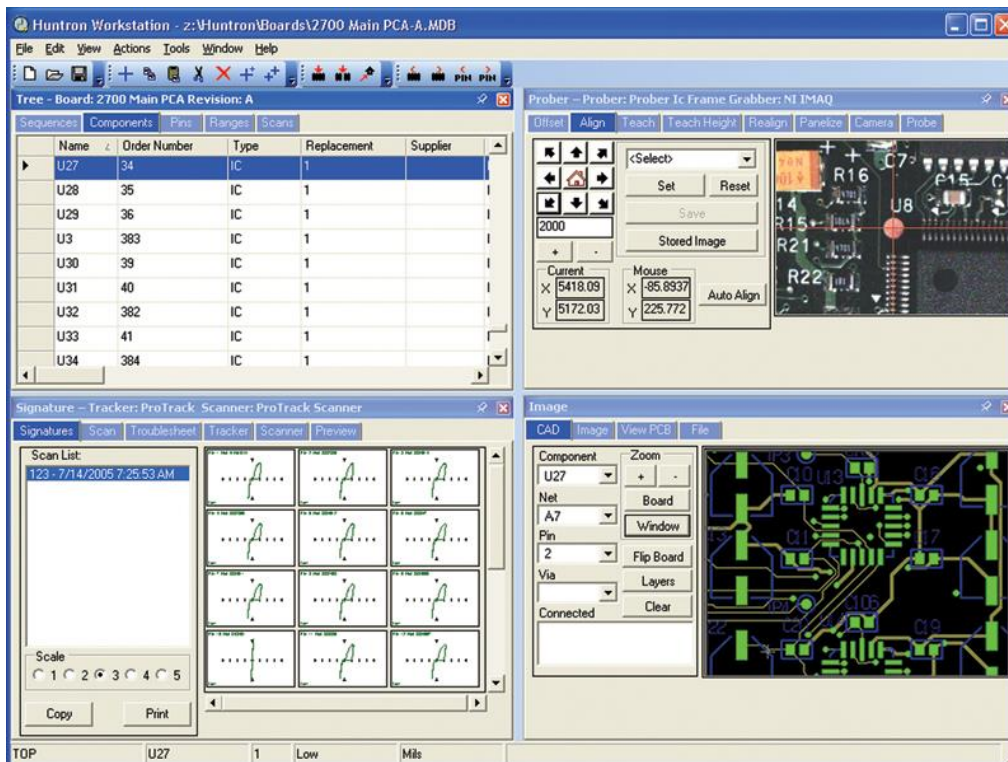
Huntron Workstation SDK

Introduction

The Huntron Workstation SDK provides a method for integrating control of instruments to the Huntron Workstation software and use with the Huntron Probers. This integration allows the Huntron Workstation software to move the prober to a location, control the instrument(s), display data, make comparisons and show results. The SDK supports numeric measurements, waveforms and images. The integration is performed creating/modifying a .NET DLL. The combination of Huntron Workstation software, Huntron Probers, other instruments and the customized DLL create a fast and easy way to create effective custom prober systems.

Huntron Workstation

Using the four panes of the Huntron Workstation software (see below) with an integrated DLL allows hardware connection, test building, prober control, instrument control, display of data and results. The connection of the integrated instrument is performed in the options screen like the Huntron instruments. The test is built in the grid style tree pane, with the ranges allowing selection of the integrated instrument settings. The prober locates test locations in the Prober pane. Capturing and display of data is performed in the Signature pane. The Image pane is used to display PCB layout, PCB image and test point locations.



Instrument Control

The SDK supports 3 numeric measurements, a waveform and an image for each test range. The settings for obtaining the data are customizable windows controls consisting of 6 dropdown list boxes, 6 text boxes and 6 check boxes. The text of the labels for the controls is set in the DLL. The values in the dropdowns are also set in the DLL. In addition there is a delay field for delaying the measurement after the probe has made contact and + and – tolerance fields for comparison.

Integration DLL

The integration is performed creating/modifying a .NET DLL. The shell DLL is created in VB.NET but can be converted to other languages that can create .NET DLLs. Below is a list of functions that can be coded in the DLL.

Function List

Close

CompareImages

CompareWaveforms

CompareReadings

ErrorMessage

GetComponentColor

GetComponentSelectionValues

GetDifferenceGridColor

GetGridColor

GetMeasurementTime

GetName

GetPinSelectionValues

GetProberOffset

GetSelectionValues

GetSequenceSelectionValues

GetSerialNumber

GetSignatureFields

GetVersion
GetWaveformLimits
GetWaveformUnits
Init
MergeReadings
MergeScan
MergeWaveforms
ProcessTroubleshoot
QueryImage
QueryReading
QueryWaveform
QueryWaveformReading
Reset
SetComponentConfiguration
SetConfiguration
SetPinConfiguration
SetSequenceConfiguration

Contents

The Huntron Workstation SDK includes the stub DLL source code. The source code includes comments that provide assistance in writing the code and how the functions are used by the Huntron Workstation software. A Huntron Workstation activation code is provided that enables the one of the four available .NET DLLs.

Conclusion

The combination of Huntron Workstation software, Huntron Probers, other instruments and the customized DLL create a fast and easy way to create effective custom prober systems. Integrate instruments like a DMM, Scope, DAQ, Digital IO, Spectrum analyzer, power meter, function generator and any other instrument that would work well with a robotic prober.



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