

Custom Masks For SDA

Create Custom Masks For Serial Data Analysis

The SDA series of Serial Data Analyzers are powerful tools for the measurement and analysis of serial communications systems. While they contain an ever growing library of serial data standards there is always a need to be able to create or modify test masks for newer or modified serial communications standards. The LeCroy Masks Database Editor is a software tool which allows users to quickly create and load custom test masks in and SDA series analyzer.

The masks database editor creates a mask files based on data entered from the test mask description. A typical test mask specification is shown in figure 1. You will need this information along with the clock frequency for the standard being tested.

Start the mask editor by minimizing the scope function and running the program:

"C:\progamfiles\lecroy\xstream\masksdatabaseeditor.exe."

The opening screen of the editor will be a spreadsheet like table shown in figure 2. Select "New" form the file pull down menu. This will display the open file dialog box also shown in

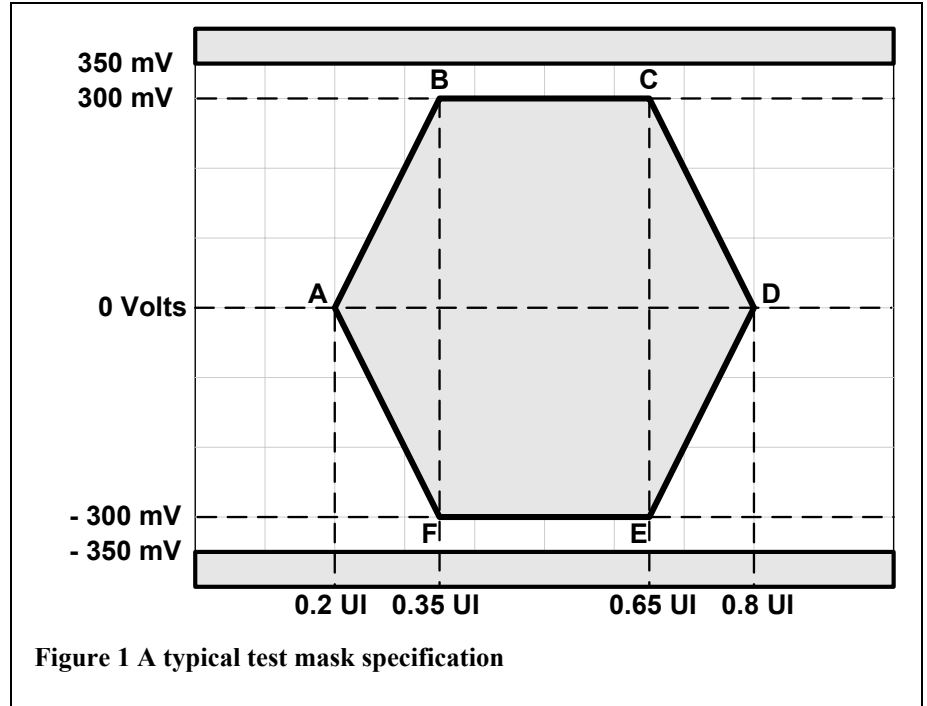


Figure 1 A typical test mask specification

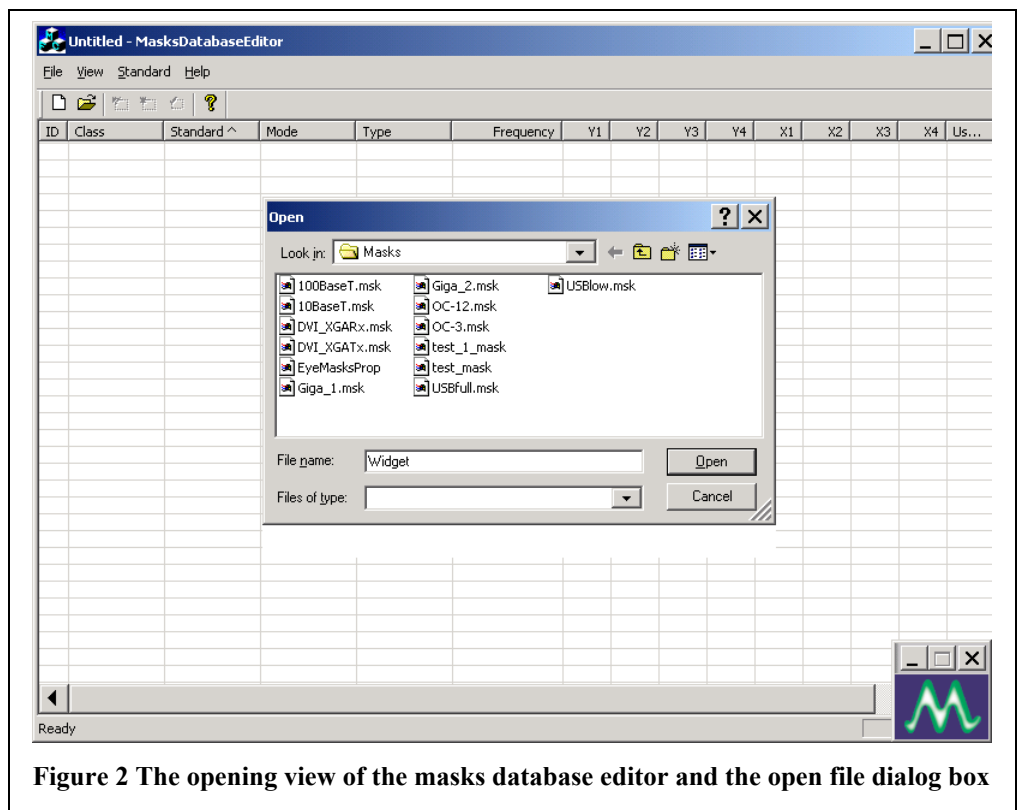


Figure 2 The opening view of the masks database editor and the open file dialog box

figure 2. Enter the name of the mask database file, in this exam-

ple the file was named "Widget". Press the "Open" button to enter the file name. Select "New" from the Standards pull down menu. This will give access to the "Standard Edit" dialog box shown in figure 3.

Using the information contained in the mask specification (figure 1) enter the coordinates of each of the vertices and levels in the test mask matching the locations marked by the X_n and Y_n labels in the test mask diagram in the standard edit menu. Enter the name and class of the mask along with the clock frequency. If the vertical coordinates of the specification are in Volts select Absolute as the mask type. If the vertical units are specified in relative units select normalized. The mode field allows you to enter a brief description of the test mode, in this example we indicate a test on the receiver which has absolute vertical scaling. Click OK to generate the mask database file MyMask.mdb. This file should be stored in the folder: "D:\Masks" on the SDA analyzer. When the SDA boots it will now add the mask "My-Mask" to its selection as shown in figure 4.

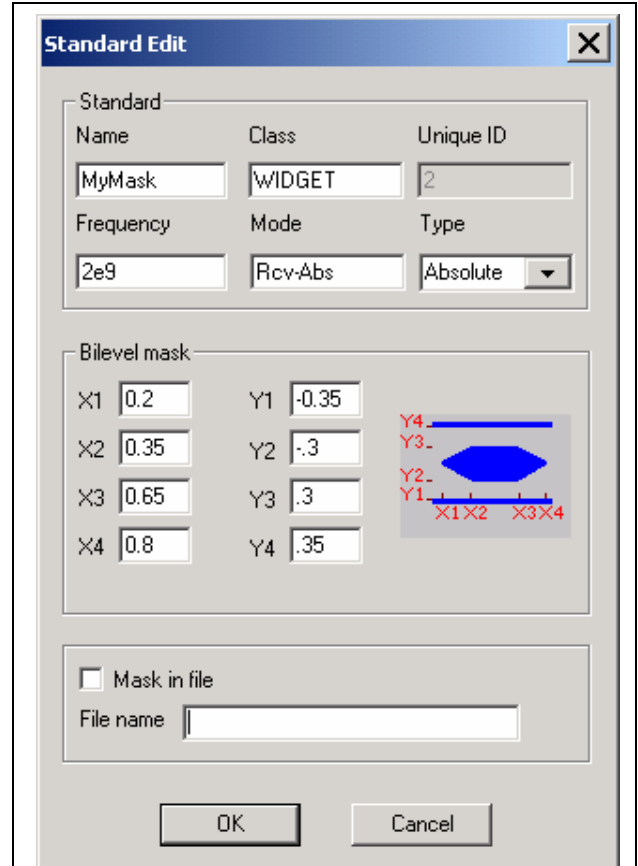


Figure 3 The mask specification entered into the standard edit dialog box

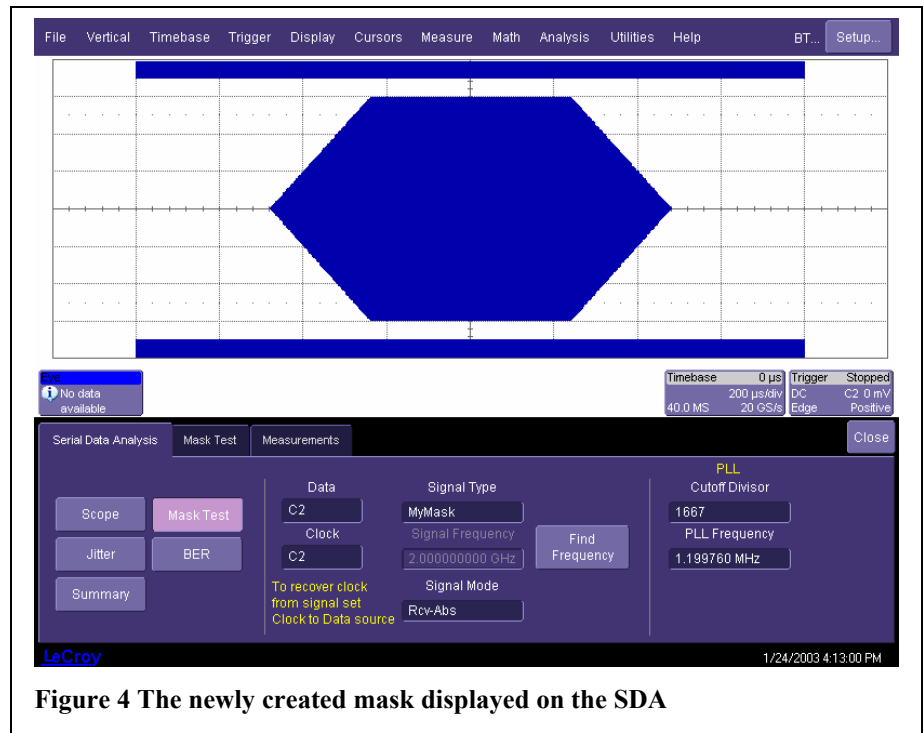


Figure 4 The newly created mask displayed on the SDA