

8 Designing and Editing Cables

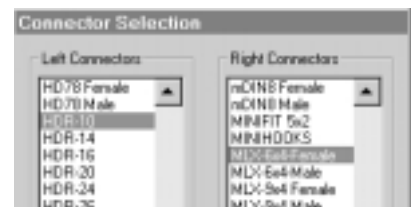
8.1 Creating New Cable Data

You may design a completely new cable while at the same time creating test data against which the first prototype can be measured. You will use the same netlist editor for wire entry as was used to add or delete wires from an existing cable.

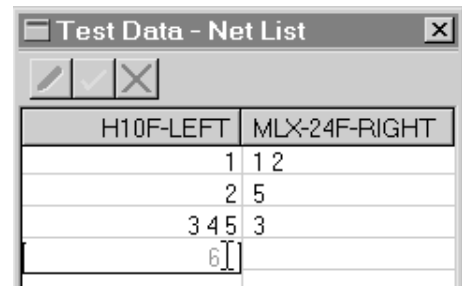
1 – Click the "Alt" tab in the Test Data summary box, and then click the "New" button to open a new design.



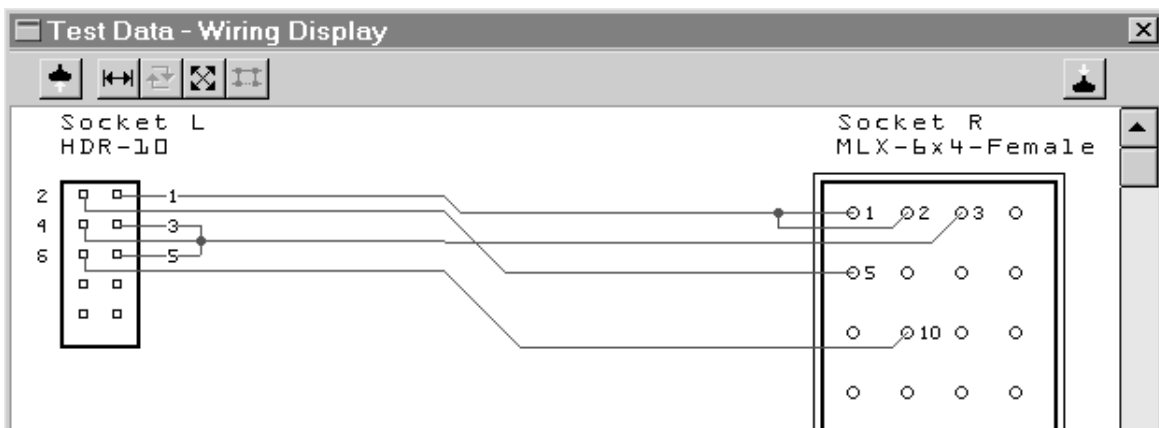
2 – Choose the connectors you need and click "OK" (not shown) at the bottom of the window.



3 – Enter the wire list in the same way you edited connections previously. Click the green Checkmark button when all connections have been entered.



4 – Review the cable's wiring to confirm the design (see below). You may add or remove wires at any time or, if necessary, change the gender or type of the connectors. Annotate the final result with descriptive notes, and save it in the database before finishing.



Information about NEW Function

Quick Key N

Execute Time (not applicable)

Test Fixture Not active

Special Screens NETLIST ENTRY, shown when you create a new netlist. It contains a scrollable window into which you make entries.

LED Lamps Off

Usable in Macro No

Related Disk File (none)

Possible Messages ... (none)

Effect: First, the Test Data Buffer is cleared and a *Connector Selection Window* appears from which you select a left and right connector. Scroll as necessary to locate the connectors you need. When you have highlighted a connector for each side, click *OK*.

After you choose connector types, the *Netlist Entry* window appears. Type in the desired connections. When you finish editing and click the green checkmark, several automatic operations occur including redundancy checking and pin number checking. The final wire list is sorted and placed in a standard form.

IMPORTANT: For any connector, the specified gender is that of the *cable-under-test*, not that of the mating cable on the test fixture. Similarly, the wiring image shown on the screen represents the cable under test, not the fixture connectors.

8.2 Applications for Create Netlist

You may obtain Match data representing a good cable in one of three ways:

- 1 – Measure a cable known to be good using *Learn Cable*.
- 2 – Load previously saved cable data from the database using *Load Cable*.
- 3 – Manually enter the wire list of the desired cable using *New*.

Only in the first case do you need to have a physical cable present for measurement. "New" is important because it lets you define *arbitrary cable data*. Some possible applications include:

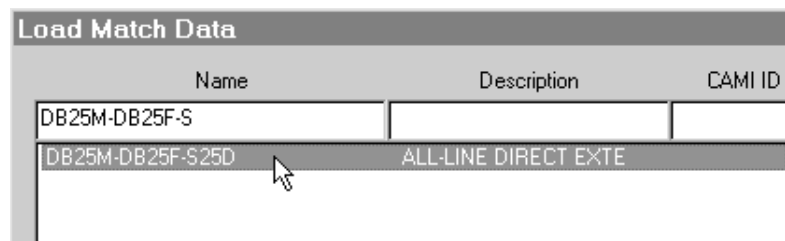
- ...translating a wire list presented by your customer into a graphic wiring diagram. The resulting diagram can be used for final approval by the customer and included with the finished product.
- ...defining new Match Data. When you specify a new cable with *New* and then save it in the database, you simultaneously are defining Match Data against which manufactured cables can be tested. Thus, you need not rekey the cable data after a submitted cable drawing has been approved. This guarantees that the data against which you measure manufactured cables exactly matches the customer-approved specification.
- ...defining a first-article cable and printing it with exactly the connector view that would be seen by the technician as the unit is wired on the workbench. Since the visual pin relationships between the printed drawing and the actual cable are identical, wiring errors are less likely.
- ...creating new Match Data that can be electronically transmitted to a remote location. Send your CUSTOM.DAT file by e-mail or diskette to a remote manufacturing location.

8.3 Editing Existing Cable Files

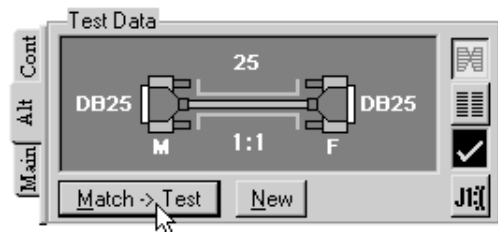
You may encounter a new cable that is very similar to an existing cable. Instead of using "New" to reenter the cable data, just duplicate the data from a similar cable, and add or delete connections from that data, or change connectors, until it becomes the cable you need. This often saves time compared to entering the complete cable data anew, especially for large cables.

Example: Assume that we need a DB25 Male to DB25 Male direct-extension cable, with no shield, and pin 7 connected to the shell on the left side only. We can start with a DB25 Male to DB25 Female direct extension, copy it, and edit it into the cable we need.

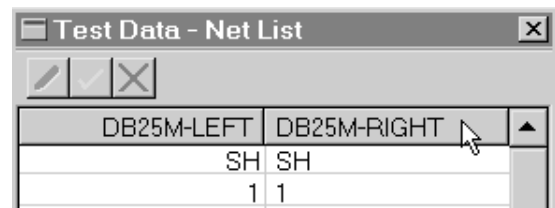
1 – Load the existing cable from the database into the Match Data buffer.



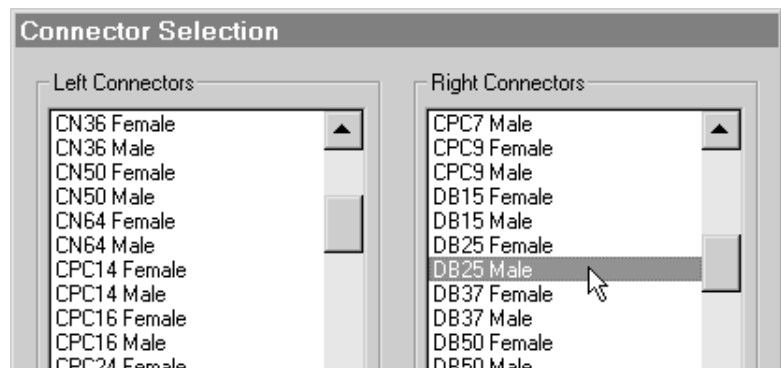
2 – Copy it to the Test Data buffer using the function "Match -> Test".



3 – View the wire list and click the right connector button to open the Connector Selection window.



4 – Change the right connector from a DB25 female to a DB25 male.



5 – Then add a connection between Pin 7 on the left and the shield, . . .

DB25M-LEFT	DB25M-RIGHT
	SH SH
1	1
2	2
3	3
4	4
5	5
6	6
7 SH	7

6 – and remove the shield connection from left to right. Click the green checkmark to save your changes.

DB25M-LEFT	DB25M-RIGHT
1	1
2	2
3	3
4	4
5	5
6	6
7, SH	7

7 – Finally, view the wiring diagram to confirm the new connections (below).

