A data flow diagram (DFD) is a tool for functional analysis that shows the general flow of information through a system or program. Most companies are creating e-commerce businesses as part of a long-term strategy of viability. E-commerce professionals can use Visio 2000 to draw process and data flow diagrams that clarify how customers will navigate an e-commerce site and how that site can make purchasing quick, easy, secure and profitable.

In this tutorial, you’ll view an existing top process data flow diagram, add a new data flow to the top-level process, import the new data flow to a detail page, and create a new detail page.

**Step 1:** Start Microsoft Visio 2000 Professional Edition. When the Welcome to Microsoft Visio dialog box appears, double-click the **Browse Existing Files** option.

**Step 2:** In the Open dialog box, navigate to \*\Program Files\Visio\Samples\Software. In the list of sample drawings, select NeuCom DFD.vsd. Under Open, click Copy, and then click the Open button to open a copy of the sample diagram. Notice that the data flow diagram (DFD) model-drawing file includes the **DFD Navigator**, which opens by default docked on the left side of the screen. In addition, the Status window opens docked on the bottom right of the screen by default.

**Step 3:** Take a moment to look at the **DFD Navigator**. The **DFD Navigator** helps you easily navigate between levels in a diagram. In addition, you can use the **DFD Navigator** to add, delete and rename data flow diagram elements. The data flow diagram solution offers semantic error checking to ensure that data flows are consistent between top-level and detail pages.

* Depends on where your Visio was installed (e.g., Drive C:)*
The Status window displays information on semantic errors. When a DFD element has a semantic error, a message about the error appears on the Errors tab. To locate a particular element in the tree view or in a diagram to fix an error, double-click its error message in this window.

The Status window


**Step 4:** If you are using Visio Professional Edition, turn on semantic error checking as follows:

- Choose DFD > Options.
- In the Options dialog box, check Check Semantic Errors On DFD Models.
- Click OK.

**Step 5:** Notice that this DFD model diagram has two pages. One page is named "Top Process," the other is named "Review Application." Processes can be decomposed into subprocesses. You can create a detail page for each subprocess in a DFD model diagram. Detail pages represent the different levels in your DFD diagram.

**Step 6:** Add a new element to the top-level process as follows:

From the Gane-Sarson stencil, drag a Data Store shape onto the drawing page. Notice that the shape is also added to the Data Stores folder in the DFD Navigator. Right-click the Data Store shape in the DFD Navigator, choose Rename, and then type Notification Log.

Drag a Data Flow shape onto the drawing page. Notice that it turns red when dropped onto the drawing page. Also notice that the Status window indicates an error. Data Flow shapes must be connected to other shapes. To rename the data flow shape, double-click the shape, highlight the existing text, and type Notification Info.

Drag the endpoint of the Data Flow shape without the arrow to the center of the Review Application process. When a red outline appears around the process, release the mouse button. The endpoint of the data flow shape turns red to indicate that it's glued to the process.

Drag the endpoint of the Data Flow shape with the arrow to the center for the Notification Log data store. When a red outline appears around the data store, release the mouse button. The endpoint of the data flow shape turns red to indicate that it's glued to the process.
The data flow remains red even after you connect one end to a process and the other end to a data store. The Status window indicates that the error exists because the new data flow is attached to a process that has a detail page. To maintain balance in the model, the new data flow must also be connected to a subprocess on the detail page.

Step 7: View the detail page for the Review Application process by clicking the Review Application tab in the bottom-left corner of the window.

Tip: You can also double-click the process in the DFD Navigator window or select the process on the drawing page and choose DFD > Go To Detail Page.

Step 8: To import the data flow to the detail page, do the following:

- Choose DFD > Import Data Flow.
- In the Import Data Flow dialog box, select the Notification Info data flow.
- Click OK. The new data store and data flow are added to the detail page.

Step 9: Drag the Notification Log data store to reposition it on the page. Drag the end of the data flow that is not connected to another shape to the center of the Create Status Notification process. When a red outline appears around the process, release the mouse button. The endpoint of the data flow shape turns red to indicate that it's glued to the process. The Status window indicates no errors in the model.

Step 10: Create a new detail page for the Create Status Notification process by right-clicking the Create Status Notification process and choosing New Detail Page. The new detail page appears. Notice that the name on the page tab is Create Notification Status. Also, the processes and interfaces that were connected to the Create Status Notification process now appear on the new detail page.

Step 11: Add new elements to the DFD model as follows:
In the **DFD Navigator**, right-click **Create Status Notification** and choose **New Sub-Process**. Then right-click the newly added subprocesses, choose **Rename**, and type **Create Notice**. Repeat these steps to create a subprocess called **Check Log for Previous Notice**.

In the **DFD Navigator**, right-click **Data Stores** and choose **New Data Store**. Then right-click the newly created data store, choose **Rename**, and type Applicant Info. Repeat these steps to create a data store called **Template Letter**.

**Step 12:** From the **DFD Navigator**, drag the new shapes to the drawing page. Connect the existing data flow shapes to the new elements. Then add new data flow shapes to the drawing to create the **Create Status Notification** detail page below.

Your data flow model diagram is now complete and ready to share with others.