

# **Software through Pictures<sup>®</sup> Structured Environment**

**Millennium Edition**

**A Quick Tour of StP/SE**

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**Aonix**

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## Software through Pictures Structured Environment A Quick Tour of StP/SE Millennium Edition

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## Welcome to Software through Pictures

Welcome to the Software through Pictures/Structured Environment (StP/SE) guided tour. This brief tour takes you through an example StP system created in StP/SE, illustrating some of StP's most powerful features and comprehensive support of structured analysis and design.

For additional information, please consult the online documentation, visit our web site located at <http://www.aonix.com>, or call 1-800-97AONIX.

## About StP/SE, Millennium Edition

Software through Pictures/Structured Environment, Millennium Edition (StP/SE ME) provides system architects, analysts, designers, and developers with a powerful visual modeling and deployment environment, including tools to model, design, implement, and maintain your next-generation systems and applications.

It comprises product-specific modeling, reporting, and implementation applications that share a common architecture ("StP Core") built around a central repository.

StP/SE supports the following SE diagram types

- Data flow
- Structure chart
- Flow chart
- Data structure
- State transition

as well as Cspec tables and table components.

### Software through Pictures Core

The common architecture, “StP Core,” provides a basic set of features and services that form the foundation for all product user-interface elements, including the StP desktop, product-specific diagram and table editors, and the StP core editors:

- Object annotation editor (OAE)—Allows you to add information to a model in the form of annotations containing specific values or textual descriptions
- Requirements table editor—Allows you to specify requirements for your project and allocate them to elements in your model

StP is built upon a customizable and extensible set of product templates and files that define and control the user interface and the behavior of StP.

### StP Applications

StP applications include method-specific modeling and implementation tools based upon the common StP architecture.

StP/SE, the focus of this tour, is an StP application comprising SE-specific editors that allow you to create software models using structured analysis and design concepts, notation, and methodology.

## What's New in StP/SE ME?

StP/SE ME introduces major enhancements for UNIX users and new features that build upon and expand StP capabilities and ease of use.

StP/SE ME features include:

- Remodeled UNIX user interface, including a redesigned desktop, improved menus, editor tool bars, and other usability enhancements
- OAE enhancements, including the ability to link objects to information in external text files
- Model baselining and a new version control interface to popular configuration management products

- New options for reverse engineering StP models from Visual Studio project files or from source files matching user-specified criteria in an entire directory tree

This tour covers some, but not all of, the StP/SE Millennium Edition new features. For more information, see the *Features Supplement*.

## Starting Software through Pictures

You are ready to start StP and begin exploring the example system, *atm*, which models an electronic automatic teller machine application.

### Starting StP from UNIX

Before starting StP, you must source the appropriate *setup-stp.<shell\_type>* shell script in the StP installation directory. For example, in a C-shell, source the *setup-stp.csh* file. Alternatively, enter the source command in your *.login* or *.cshrc* file so that it executes automatically, or create an alias containing the source command and execute the alias before starting StP. For more information about the UNIX *setup-stp* file, see *StP Administration*.

To start StP from the UNIX command line:

1. Source the *setup-stp* script, as needed.
2. Type either:

```
stp &  
stp -product se &
```

The `-product se` argument is optional. It tells StP which modeling product to start up (in this case, StP/SE). If it is not specified, StP determines which product to start up based on the value of the `IDE_PRODUCT` environment variable, if set, or on the *product* ToolInfo variable setting in the default ToolInfo file.

3. When the **Open System** dialog appears, double-click *atm* or select it and click **Open**.

The StP desktop appears, with the name of the opened system in the desktop title bar.

### Starting StP from Windows

To start StP from Windows:

1. From the Windows **Start** menu, choose **Programs > Aonix Software through Pictures <version> > StP/SE**.
2. When the **Open System** dialog appears, double click *atm* or select it and click **Open**.

The StP desktop appears, with the name of the opened system in the desktop title bar.

### Opening a Diagram

To open a diagram from the example system:

1. In the model pane on the StP desktop, open the **Diagrams** category to see the StP/SE diagram types.
2. Select the diagram type **DeMarco/Yourdon Data Flow**.  
A list of use case diagrams for the *atm* example system appears in the objects pane to the right of the model pane.
3. In the objects pane, select the diagram *Top* and click the **Open** button.  
StP starts the data flow editor and opens the selected diagram.

### Standard Editing Operations

As you edit the diagrams in the example system, you may make mistakes or encounter instructions that require you to undo an operation or cut, copy, paste, or delete elements in the diagram.

### Undoing and Redoing an Operation

Using the following commands on the editor's **Edit** menu, or their keyboard shortcuts, you can:



- **Undo** (Control + Z) up to five previous operations
- **Redo** (Control + Y) up to five “undo” operations

## Cutting, Copying, Pasting, and Deleting

You can also **Cut**, **Copy**, **Paste**, and **Delete** elements in the diagram, using the appropriate commands on the **Edit** menu. Cutting or deleting an element that has links to other elements also removes the links.

## Viewing and Aligning Parts of a Diagram

StP provides several helpful tools and commands for viewing and aligning parts of a diagram.

### Using the Zoom Toolbar Buttons

With the zoom buttons on the toolbar, you can enlarge, shrink, and center a diagram or a portion of a diagram in the drawing area.



Try it:

1. Select the *Customer Interface* symbol in the data flow diagram and click **Zoom To Fit**.  
StP enlarges and/or centers the selected part of the diagram.
2. To re-center and fit the entire diagram in the drawing area, click anywhere on the blank “canvas” of the drawing area (not on any symbol) and click **Zoom To Fit** again.

You can also resize the diagram by zooming in or out, using the **Zoom In** and **Zoom Out** toolbar buttons.

### Using the Diagram Panner

StP provides the diagram panner for viewing very large diagrams and for viewing different areas of a zoom-enlarged diagram:

1. Once again, select the Customer Interface symbol in the diagram and click **Zoom To Fit** to enlarge a small area of the diagram.
2. From the **View** menu, choose **Show Panner**.

A small window (the panner) appears, displaying a miniaturized representation of the current diagram, with a rectangular outline called the “bounding box” positioned over the selected symbol.

3. Use the mouse to drag the bounding box around the miniaturized diagram in the panner.  
StP repositions the diagram in the editor’s drawing area accordingly.
4. Close the panner (click the **x** in the upper-right corner).

### Aligning Objects

StP makes organizing your diagram easy by providing numerous ways to align objects and links automatically:

1. In the data flow diagram, select the Customer Interface symbol and drag it a little to the lower left, so it is out of alignment with the Vendor symbol.
2. With the Customer Interface symbol still selected, hold down the Shift key and select the Vendor symbol.
3. Click the **Align** toolbar button (or choose **Align** from the **Tools** menu).



4. In the **Align** dialog box, make the following selections:
  - In the **Symbol Spacing** group, select **As is**.
  - In the **Symbol Alignment** group, select **Vert. Center**.

5. Click **OK**.

StP realigns the selected symbols in the diagram.

**Note:** To undo any results you do not like, press Ctrl + Z as needed to restore the diagram to its previous state. Press Ctrl + Y to re-do the alignment.

## Using the Data Flow Editor

Data flow diagrams represent data and control flow within the system you are modeling.

StP/SE offers two data flow editors—DeMarco/Yourdon and Gane/Sarson—each using a different notation system. In this tour, you will use the DeMarco/Yourdon data flow editor. This is the editor in which you just opened the top level data flow diagram.

### Examining the Top Data Flow Diagram

The context (top level) data flow diagram (*Top*) shows the major capabilities of the system, as seen by the outside world. It contains only the initial process (in this case, *Perform ATM Transaction*) and models the system's interactions with constructs external to the system. In the example system, these external constructs are represented by the *Bank*, *Customer Interface*, and *Vendor* objects.

### Looking at a Process Decomposition

Let's look at a lower-level data flow diagram to see the functional components of the initial process:

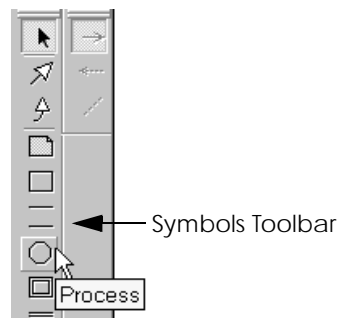
1. In the *Top* data flow diagram, select the initial process, Perform ATM Transaction.
2. From the **GoTo** menu, select **Decomposition**.  
The level 0 diagram appears.

3. If necessary, center and resize the diagram to fit the drawing area, by clicking the **Zoom To Fit** toolbar button (with no diagram objects selected).

## Adding a Process

To add another process to this diagram:

1. With the left mouse button, select the Process symbol on the vertical Symbols toolbar to the left of the drawing area.



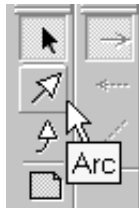
2. Click the left mouse button where you want the new process to appear in the diagram.  
A new process symbol appears in the diagram, with an input text box for label entry.
3. In the text box, type a label for the process, such as *Transfer Funds*, and press Enter.

**Note:** To create a multi-line label, press Control + Enter to insert a line break within the label.

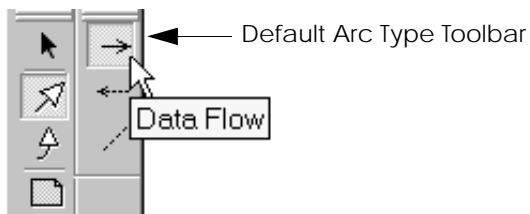
## Representing Data Flows

To represent the flow of data to and from the process, create data flows, as follows:

1. Select the Arc symbol on the Symbols toolbar.

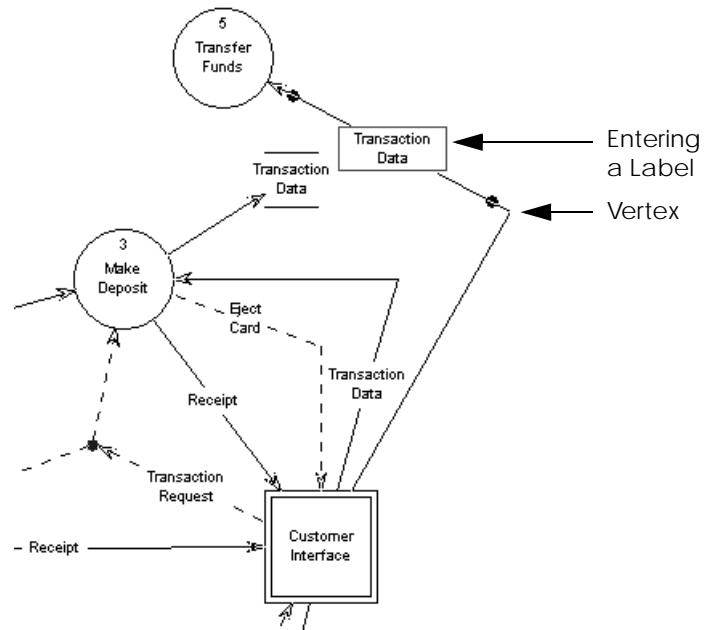


2. Select the Data Flow arc type on the Default Arc Type toolbar:



3. To attach one end of the arc, click the Customer Interface offpage external symbol located nearest the new process you just created.
4. To create a vertex in the arc, click on a blank part of the drawing area.
5. Move the pointer to the new process symbol and click again to attach the other end of the arc.

6. To label the data flow, select it and press F2 (or double-click it), type a label (such as *Transaction Data*) in the input text box that appears, and press Enter.



## Drawing Multiple Data Flows

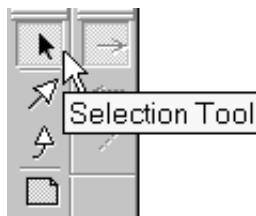
To draw multiple data flows to and from the new process:

1. Double-click the Arc symbol on the Symbols toolbar to enter multiple insert mode.
2. Click the new process symbol in the diagram to connect one end of the arc; then click the nearest store labeled *Transaction Data* to attach the other end of the arc.
3. Draw another arc: Click the *Account Information* store, click on the drawing area "canvas" to insert a vertex, if needed; then click the new process symbol to complete the arc. StP uses either the

previously set arc type or a default arc type for the particular link you are drawing. To change the arc type while drawing multiple arcs, select a different arc type on the Default Arc Type toolbar.

Continue drawing data flows to and from the process, as desired.

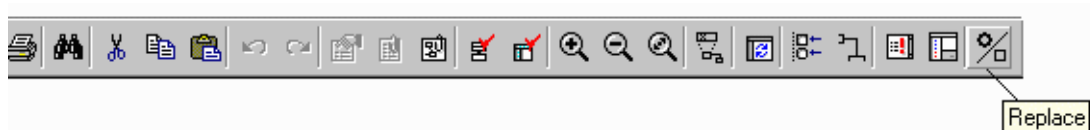
4. Click the Selection Tool or any other symbol on the Symbols toolbar to terminate multiple insert mode.



## Changing an Existing Link's Arc Type

To change the arc type of an existing line:

1. Select one of the links you just drew in the diagram.
2. Click the **Replace** toolbar button (or choose **Edit > Replace**).



In the data flow editor, **Replace** toggles the arc between a data flow and a control flow.

**Note:** In other editors, the **Replace** operation for an arc or symbol may offer you a list of different arc or symbol types to choose from.

# Allocating a Requirement

StP's capabilities allow you to allocate requirements to objects in the model and to track requirements that have been allocated in the system.

Allocate the requirement for the *Get Cash* process:

1. In the level 0 data flow diagram, select the *Get Cash* process.
2. From the **GoTo** menu, choose **Allocate Requirements**.  
Since no requirements have been allocated to this object yet, the **Object Selector** dialog appears, displaying a list of requirements table choices.
3. In the **Object Selector** dialog, select *REQTable 'ATMsystem'*.  
The previously created *ATMsystem* requirements table appears.
4. In the requirements table, select the requirement *1.1 Get Cash*.
5. From the requirements table editor **Tools** menu, choose **Allocate > Allocate**.

A message in the table's status area reports the completed allocation.

To check the allocated requirement:

1. In the requirements table, select *1.1 Get Cash* again.
2. From the **Tools** menu, choose **Query > Objects That Satisfy Selected Requirements**.
3. In the **Object Selector** dialog, select *Process 'Get Cash'* and click **OK**.  
The process to which the requirement has been allocated, in this case *Get Cash*, appears selected in the data flow diagram.

To exit the requirements table editor (and optionally, save the modified table), choose **Exit** from the requirements table editor's **File** menu. A confirmation dialog asks if you want to save the table before exiting.



## Defining Data in a Data Structure Diagram

StP provides the data structure editor for drawing hierarchical data structures that define:

- Data objects used in data flow diagrams
- Data types of objects used in structure chart diagrams

### Examining an Existing Data Structure Diagram

Let's examine a data structure diagram for the *Receipt* data flow:

1. In the level 0 data flow diagram, select one of the *Receipt* data flows.
2. From the **GoTo** menu, choose **DSE Data Definition**.

StP displays the previously created data structure diagram, *Receipt*.

You can add more information to the objects in the diagram, using the **Properties** dialog box.

3. Select the sequence symbol labeled *Current Balance*, and click the **Properties** toolbar button.



4. On the **Properties** dialog, type `float` in the **Type** field and click **OK**.  
StP assigns the float data type to the *Current Balance* object.
5. From the **File** menu, choose **Save**.

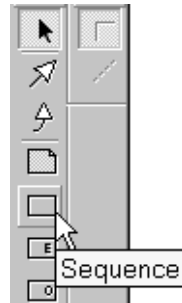
### Creating a Data Structure Diagram

To create and experiment with your own data structure diagram:

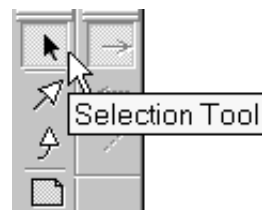
1. On the level 0 data flow diagram, select the *Account Information* store.
2. From the **GoTo** menu, choose **DSE Data Definition**, and when the **Confirmation** dialog appears, select **Yes**.

A diagram containing a single sequence object labeled *Account Information* appears in the data structure editor.

3. Double-click the Sequence symbol on the Symbols toolbar to enter multiple insert mode.



4. Insert the following sequence objects into the drawing area below the *Account Information* object by positioning the pointer, clicking the left mouse button, and typing a label in the text box that appears as each object is created:
  - Account Number
  - Customer Information
  - Account Balance
5. Double-click the Arc symbol on the Symbols toolbar and draw arcs from *Account Information* to the objects you created; then click the Selection Tool on the Symbols toolbar to end multiple insert mode.



6. Optionally, add substructure to *Customer Information*, by entering, labeling, and connecting objects, as desired.
7. To add data types or other properties to these objects, select an object, click the **Properties** toolbar button, edit the properties and click **OK**.
8. From the **File** menu, choose **Exit** (and optionally save the diagram when prompted to do so).

## Modeling Real-Time Events

Let's examine some real-time aspects of the *atm* example system, as modeled by:

- Control flows and a control specification (Cspec) bar in a data flow diagram
- A state transition diagram
- Control specification tables

## Creating Control Flows

Control flows model the signals that trigger the flow of data or alter the state of the system.

By changing the default arc type, you can use the Arc symbol to draw both data flows (solid lines) and control flows (broken lines) on a data flow diagram.

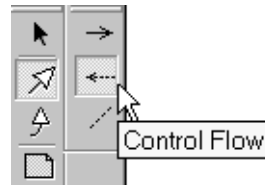
To draw control flows on a data flow diagram in this example system:

1. Return to the level 0 diagram in the data flow editor.
2. Double-click the Arc symbol on the Symbols toolbar to enter multiple insert mode.

## Modeling Real-Time Events

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3. Select the Control Flow arc type on the Default Arc Type toolbar.

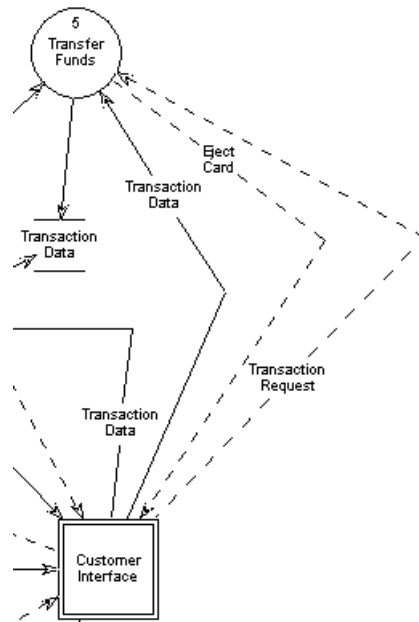


4. Draw the following control flows.

To label each one, select it and press F2 (or double-click it) to display its label input text box, press Control + Tab to display the **Choose Names** dialog with a list of existing names from the repository, select a name and click **OK**.

- *Transaction Request* (from the *Customer Interface* offpage external to the *Transfer Funds* process)
- *Eject Card* (from the *Transfer Funds* process to the *Customer Interface* offpage external)

This part of your diagram should look something like this:



## Using a Cspec Bar

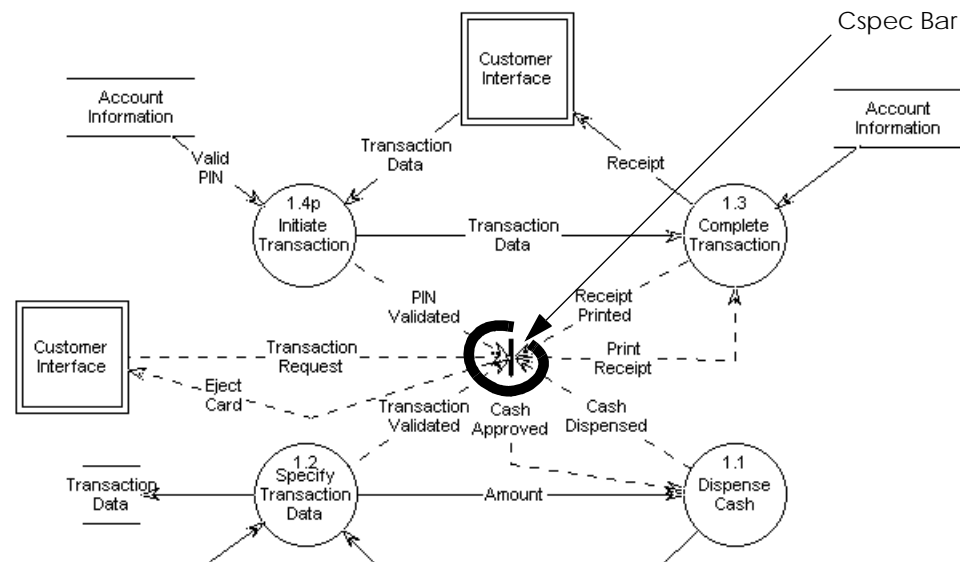
A control specification (Cspec) describes events that occur at the system level represented by a particular data flow diagram. In StP, a control specification is represented by a Cspec bar in the data flow diagram, to which all of the control flows in that diagram are connected.

Typically, you add the Cspec bar to a lower-level data flow diagram. Let's examine the Cspec bar in the level 1 decomposition data flow diagram for the *Get Cash* process:

1. In the level 0 data flow diagram, select the *Get Cash* process.
2. From the **GoTo** menu, choose **Decomposition**.

A previously created data flow diagram (level 1) appears.

Notice that all of the control flows are connected to a Cspec bar in the center of the diagram.



The Cspec bar in the data flow diagram decomposes into a state transition diagram and/or control specification tables. Let's look at the related state transition diagram.

### Modeling State Transitions

The state transition diagram shows the potential states of the system and the events that transform the system from one state to another.

To examine the contents of a state transition diagram, we'll navigate from the Cspec bar in the data flow diagram to the state transition diagram:

1. In the level 1 data flow diagram, select the Cspec bar.
2. From the **GoTo** menu, choose **State Transition Diagram**.  
In this case, a previously created state transition diagram appears.
3. With no objects selected, click the **Zoom To Fit** toolbar button to center and display the entire diagram in the drawing pane, if needed.
4. Optionally, browse the diagram by positioning the pointer on various objects. The status area (lower-left corner of the editor window) reports the type of object the pointer is on.

### Working with Control Specification Tables

Control specification (Cspec) tables define values associated with the control flows in data flow diagrams and the states and events in state transition diagrams. StP/SE supports the creation of several different types of Cspec tables.

#### Creating a Cspec Table

You can create and automatically populate control specification tables by navigating to the control specification editor from:

- The Cspec bar in a data flow diagram
- An appropriate object in a state transition diagram

In this exercise, we'll create a state transition Cspec table:

1. In the state transition editor, select any object.
2. From the **GoTo** menu, choose **State Transition Table**.

3. When the **Create Table** confirmation dialog appears, click **Yes**.  
StP creates and displays a state transition table in the control specification editor, populating it with information from the state transition diagram.
4. To widen a column to display entire cell labels, select a column header in Row 1 (the *Current State* column is already selected), and click the **Fit Cell to Label** toolbar button.



5. From the **File** menu, choose **Save**.

## Viewing Other Related Cspec Tables

Let's take a look at other tables belonging to this Cspec:

1. From the Cspec editor's **Edit** menu, choose **Table Type**.
2. In the **Table Type Options** dialog, scroll to and select **Action Logic Table**; then click **OK**.

A previously created action logic table for this Cspec appears. The table shows which processes on the data flow diagram are activated by the actions in the state transition diagram. User-specified process activation values in the table cells indicate whether, and in what order, the processes are activated.

In large tables, some sections or columns may not be visible initially.

3. To view the *Control Out* section, drag the editor's lower-right corner to the right to enlarge the window.

The *Control Out* section now displays one visible column.

4. To examine other columns in the *Control Out* section, do one of the following:
  - Scroll through the section's columns, one at a time, using the scroll bar at the bottom of the section.
  - Position the pointer at the right edge of the section's scroll bar (pointer changes to a double vertical bar with arrows) and drag the section divider to the right until it "snaps" to a new column.

## Modeling Real-Time Events

	1	2	3	4	5	6	7
1	Action	Activate Processes				Control Out	
2		Complete Transaction	Dispense Cash	Initiate Transaction	Verify Transaction	Print Receipt	Cash Approved
5	Eject Card						
6	Start Transaction				1		On

Select section divider here and drag it to the right until another column appears.

5. To widen individual table columns, do one of the following:
  - Select a column label and click the **Fit Cell to Label** toolbar button, as you did in the previous exercise.
  - Select a column divider in Row 0 and drag it to the right.

	1	2	3	4	5	7
1	Action	Activate Processes				Control Out
2		Complete Transaction	Dispense Cash	Initiate Transaction	Verify Transaction	Cash Approved
3	Activate PIN Valid			1		
4	Activate Print Receipt	1				

Select column divider here and drag it to the right.

6. When done examining the table, choose **Exit** from the **File** menu.



## Using the Structure Chart Editor

Structure charts show the organization of the program modules that make up the system. They also show the data and control information that is passed between program modules.

Let's look at a structure chart that shows the main program modules for the *atm* example system.

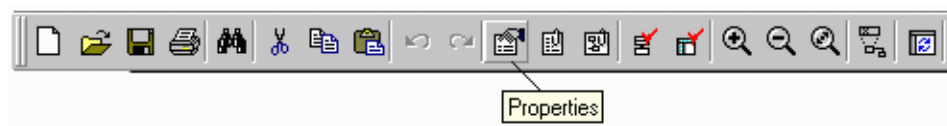
1. Navigate to the StP desktop from any diagram by choosing **Show Desktop** from the **View** menu.
2. From the desktop's **Diagrams** category, select **Structure Chart**; in the objects pane double-click the diagram titled *Main*, or select it and click **Open**.

The selected structure chart appears in the structure chart editor.

3. Click the **Zoom To Fit** toolbar button to center and fit the entire diagram in the drawing pane, as needed.

You can add information to objects in the diagram using the **Properties** dialog.

4. Select the *User PIN* global.
5. Click the **Properties** toolbar button.



6. In the **Global** group on the **Properties** dialog, display the options list in the **Access** field, select **Read**, and click **OK**.
7. With the *User PIN* global still selected, click the **Zoom To Fit** toolbar button to enlarge this part of the diagram.

A Read Access display mark (a hollow circle) appears at the end of the arc connected to the global.

**Note:** If the display mark is not visible, click the **Refresh Display Marks** toolbar button (third button from the right). Some display marks may be turned off. To set the visibility of display marks, choose **Tools > Options** and select the **Display Marks** option or tab at the top of the dialog box that appears. In the dialog, set the display marks as desired and click **OK**.

# Linking External Files to StP Objects

With StP ME, you can link external files to an StP element. To try this, first create some text in an StP-supported external file editor or word processor.

To link the external file to an object:

1. Select an object in any diagram.
2. Click the **Object Annotation** toolbar button.
3. In the object annotation editor (OAE), open the annotation folder and select the *Object* note.
4. From the **Edit** menu, choose **Add Item > External File**.  
An *External File* item appears beneath the *Object* note.
5. Right-click the mouse on the *External File* item and choose **Browse** from the shortcut menu that appears.
6. In the **Browse** dialog, locate the external file and click **Open**.
7. From the OAE **File** menu, choose **Save**.

To view the contents of the external file:

1. With the object selected in the diagram, click the **Object Annotation** toolbar button.
2. In the OAE, open the annotation folder and the *Object* note.
3. Right-click the *External File* item and choose **Open** from the shortcut menu that appears.
4. Whenever possible, StP automatically opens the file in the correct application, based on the file extension.

## Checking Syntax and Semantics

You can apply the following types of checks to your entire model or to individual diagrams:

- Syntax check—Verifies that all diagrams are syntactically complete and correctly drawn; that is, all objects are properly labeled and all connection rules have been followed
- Semantic check—Verifies that all objects are properly defined in the repository according to methodological constraints, and all elements are properly balanced

In this tour, you will apply syntax and semantic checks to a structure chart from within the structure chart editor:

1. From the structure chart editor's **Tools** menu, choose **Check Syntax**. Or, click the Check Syntax toolbar icon.



A message in the editor window's status area (lower left) verifies that there are no syntax errors in the diagram.

2. From the class editor's **Tools** menu, choose **Check Semantics**. Or, click the Check Semantics toolbar icon.



A semantic check ensures consistency across the entire model of the modeling constructs present in the diagram being checked. This check will report some errors, visible in the message log.

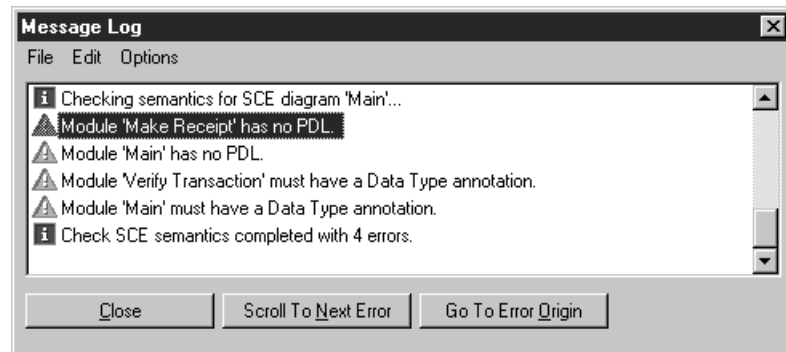
3. In the Message Log, scroll to and select the error message:

*Module 'Make Receipt' has no PDL.*

We'll correct this error by creating a program description language (PDL) annotation for this module.

## Printing Diagrams and Reports

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4. In the message log, click the **Go To Error Origin** button.  
The *Make Receipt* module appears selected in the structure chart.
5. From the **SCE** menu, choose **Edit PDL Note**.
6. In the **Description** dialog box that appears, type a description of the module's purpose, then click **OK**.  
A small "p" appears in the lower-left corner of the module, indicating that the module now has a PDL annotation.
7. From the editor **Tools** menu, choose **Check Semantics** again.  
This time the message log should report one less error.
8. Optionally, save the diagram by choosing **Save** from the **File** menu.

## Printing Diagrams and Reports

StP provides various printing and reporting capabilities, including:

- Printing any single diagram or table directly to a default printer
- Printing a diagram or table to a file that is formatted for viewing or printing in a supported publishing product
- Generating reports about your model

## Printing a Diagram to a Default Printer

You can print a diagram to your printer using default or user-specified values for the following:

- Page orientation
- Alignment
- Diagram scale and pagination grid specifications
- Paper size
- Margins

Try editing some page setup values before printing a diagram:

1. Navigate to the StP desktop from any editor by choosing **Show Desktop** from the editor's **View** menu.
2. On the desktop, open the **Diagrams** category and select **State Transition**.
3. In the objects pane, double-click the diagram named *1*, or select it and click **Open**.

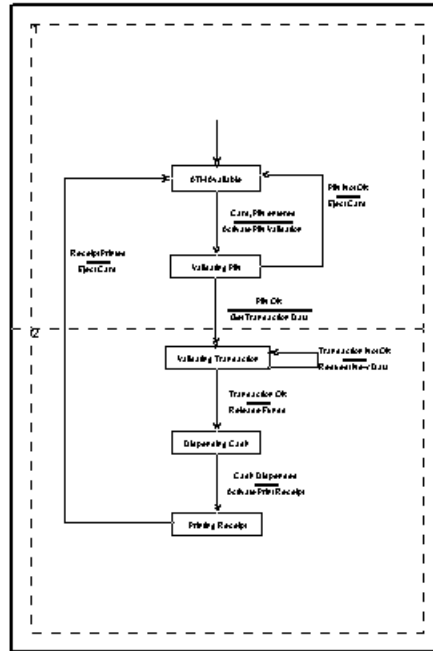
The diagram appears in the state transition editor.

4. From the **File** menu, choose **Page Setup**.
5. On the **Page Setup** dialog, select the **Appearance** option or tab at the top of the dialog box; then select the **Landscape** orientation and click **OK**.
6. From the **View** menu, choose **Page Layout** to see how the diagram will print across multiple pages and where the page breaks will occur.

**Note:** Initially, page layout view may not display entire pages. With no diagram elements selected, click the **Zoom To Fit** toolbar button to display a complete view of the page layout for this diagram.

## Printing Diagrams and Reports

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**Note:** You can reposition any elements that straddle or are too close to a page break. Use the Selection Tool on the Symbols toolbar to “rubber band” (draw a selection box around) several elements, or hold down the Shift key and select multiple elements; then drag them as a unit to reposition them.

7. When satisfied with the layout, click the **Print** toolbar button.
8. In the **Print** dialog box do the following:
  - In the **Print range** group, specify which pages of the layout to print
  - In the **Print What** group, make sure **Entire diagram** is selected for this exercise. (The **Selected elements** option prints only elements you have selected in the diagram.)
9. Click **Print** to print the diagram to your default printer.
10. From the **File** menu, choose **Exit**.

### Generating a Report

StP/SE includes several reports, which can be tailored to your specific needs. To explore StP's reporting capabilities, generate the Analysis Review Report and format it in HTML:

1. From the StP desktop's **Report** menu, choose **Generate > Generate Analysis Review Report for Entire Model**.
2. In the dialog box that appears, do the following:
  - In the **Use Target Format** group, select **HTML**.
  - In the **Use Symbol Set** group, select either **DeMarco/Yourdon** or **Gane/Sarson**.
  - Make sure that the **Include Cspec Tables** and **Include Annotations** options are selected.
3. Click **OK** to generate the report.
4. To display the report, choose **Open Report** from the StP desktop's **Report** menu; in the dialog box, double-click the *AnalysisReport.html* file icon, or select it and click **Open**.

The report appears in HTML format in your web browser.

**Note:** The HTML output contains embedded links to the model's diagrams. However, diagrams viewable in an HTML browser will not be generated unless you are set up to use a PostScript converter. Refer to "Publishing and Printing Enhancements" in Chapter 5 of the *Features Supplement* for information on obtaining a PostScript converter and on setting up your environment for printing.

### Generating Code for Your Model

Once you finish the previous exercises, you might want to generate code for your model. Normally you would not attempt to generate code until late in project development, when you've worked out all the problems in your model. Nevertheless, StP allows you to generate code for your model at any time, even though the code may be incomplete. The code generated could theoretically be used as a starting point to create a full application.

## Now It's Your Turn

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**Note:** The example systems provided with the StP installation, including *atm*, are incomplete and purposely contain errors for users to correct.

To generate C code for your model is simple - just choose **Code > C > Generate C for Entire Model** from the StP desktop. The generated code is placed in *<specified\_output\_directory>/src\_files*.

## Now It's Your Turn

This completes your introductory tour of StP/SE, Millennium Edition. You may exit all editors and the StP desktop, or continue exploring StP's capabilities on your own.

For more information about Aonix, please visit our web site at <http://www.aonix.com>.