

SilverMark's Test Mentor
for VisualWorks
Sales Lead Example

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What is the Sales Lead Example?

The Sales Lead Example is a simple contact database application. Using this example application, users are able to:

- Enter new contacts and store them into a database
- Search for contacts in the database
- Remove contacts from the database

A robust set of automated test cases have been built for this application to demonstrate:

- Creating reusable test cases
- Reading test data from a file (File Iteration Step) to drive reusable test scenarios
- Building end-to-end use case scenarios by assembling existing reusable test components (scenarios)

This document is a supplement to the printed Test Mentor user's manual – please refer to it for detailed explanations of how to use the product. It will take you through:

- Running your first Test Mentor test cases
- Viewing the test results
- Various types of steps
- Basic test case reuse

Installation

File installation

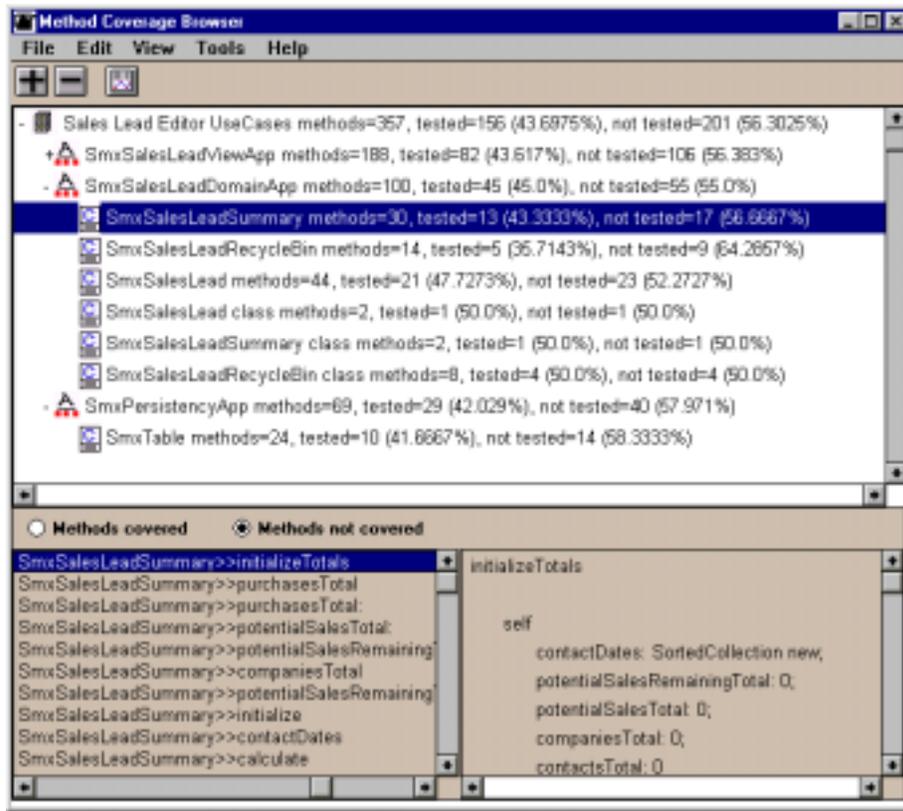
- All necessary parcels should have been copied into the correct directory when you installed Test Mentor for VisualWorks.
- Copy **SMISalesLeadData.Stm** to \$(VisualWorks)\image. You can move this elsewhere later if you change the step that refers to it to point to the new location.

Loading the Sales Lead Example

1. You will need to have loaded SilverMark's Test Mentor before proceeding with the *Sales Lead Example* (see the documentation file **readme.pdf** for instructions on loading this product).
2. Load **STM-Examples.pcl** parcel

Running the Automated Test Cases

1. Start SilverMark's Test Mentor by going to the Transcript and selecting:
 - Tools → SilverMark's Test Mentor Editor...
2. Go to the 'Test Editor' window and select the **Sales Lead Editor Use Cases** suite.
3. Click on the 'Quick Run'  icon to run this suite of automated test cases.
4. You will see the execution of test cases and how the Sales Lead application works. These test cases will create a new set of contacts from the data provided in the file **SMISalesLeadData.Stm**. Each of these contacts will be stored into the database and later removed.
5. Upon completion of the test cases, you will see the **Test Results** window. From the Test Results window, you will be able to view:
 - The test cases that passed and failed
 - The execution time for each test case
 - Coverage metrics. Select Tools → Coverage Analysis... to view the details of each application, class & method that were exercised during the test case execution.



6. Close the results window and return to the Test Editor

Overview of the Sales Lead Automated Test Cases

Two primary types of automated test cases have been built for the Sales Lead Example:

- “Reusable”
- “Use Cases”

Sales Lead – Reusable Test Cases

Reusable test cases serve as the building blocks for assembling use case scenarios. This type of test case is characterized as being a specific use of a particular user-interface or model element. In many cases, scenarios have been made generic to the extent that certain values are parameterized. This enables the same scenarios to be executed with different input data. For the Sales Lead Example, we will only be dealing with user-interface based testing such that the reusable test cases are built for each individual window.

The reusable test cases included for the Sales Lead Example have been denoted by a “(-common-)” postfix. Following is a brief description of the reusable test cases:

Sale Lead Manager (-common-)

- Window covered:



- Scenarios provided:

- **Open** (Open the sales lead manager application, if it is not already open)
- **Open search view** (Select the Search option)
- **Open lead editor** (Select the Lead Editor option)
- **Open recycle bin** (Select the Recycle Bin option)
- **Close lead manager** (Close the lead manager window)

Sales Lead Search View (-common-)

- Window covered:

Contact	Sales Person	Potential Sale	Sales-to-date	Remaining	Product
Herman Muns		999999	123456	876543	Munster
Barney Gumb Moe		3500	1000000	-998500	Beer
Homer Simps/Monty Burns		2000000	1000000	1000000	Uranium
Bart Simpson/Lisa Simpson		100	100	0	Itchy & S

- Scenarios provided:
 - **Search for contacts** (Select the search toolbar option)
 - **Remove first contact** (Select the first contact and delete)
 - **Remove all contacts** (Select each contact and delete)
 - **Close view** (Close the Sales Lead Search Window)

Sale Lead Editor (-common-)

- Window covered:

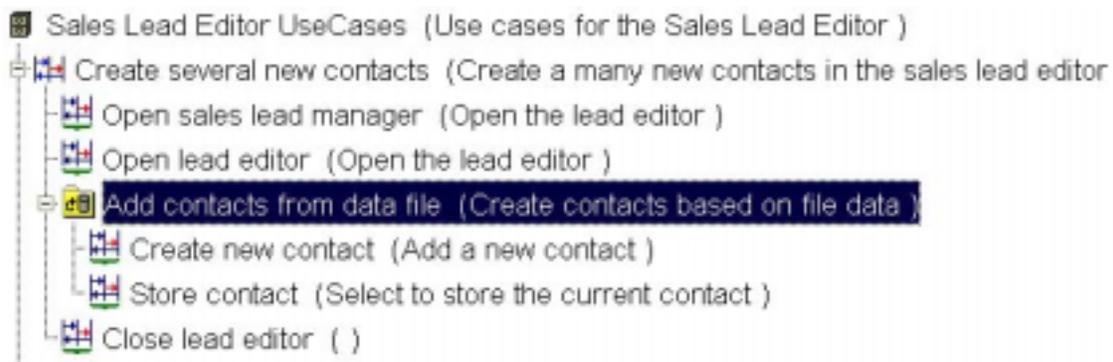
- Scenarios provided:
 - **Add a contact** (Fill-in each of the fields using the variables specified)
 - Variables required:
 - contactName
 - salesPerson
 - pointOfContact
 - productOfInterest
 - potentialSales
 - address
 - sales
 - contactDate
 - **Store a contact** (Select 'Store')
 - **Close lead editor** (Select 'Close')

Sales Lead – Use Cases

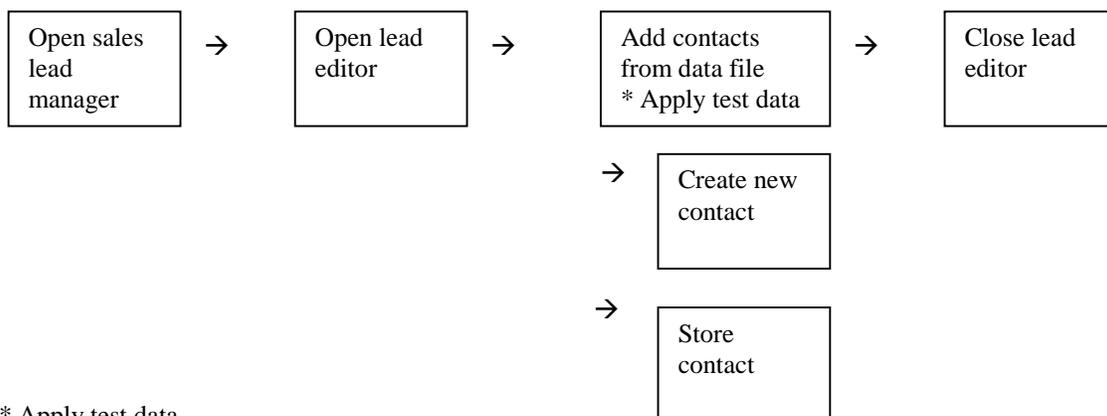
Each use case scenario is a specific path or collection of paths through the sales lead application. For our **Sales Lead Editor Use Cases** suite, we have defined three example paths (scenarios) through the application:

- Create several new contacts
- Create one new contact
- Search and delete the contacts

These use cases are composed from the reusable test case building blocks described above to satisfy broader scenarios. For example, the scenario “*Create several new contacts*” appears in the Test Editor with the following structure:



Each of these scenario steps corresponds to one of the reusable scenarios shown above. In this scenario, these reusable test scenarios are chained together to form a broader scenario. The execution flow for the scenario “*Create several new contacts*” is described by the diagram below:



* Apply test data

Test data is applied using a file iteration step. (see page 28-29 of the Test Mentor manual). A file iteration step executes the steps that it contains once for each row of data specified by its input file. In this scenario, the file iteration step is configured to read data out of the file *SMISalesLeadData.Stm*. It sets the specified variables for each row in the file and executes the “Create new contact” and “Store contact” scenarios.

Test data in the file *SMISalesLeadData.Stm*

ContactName	SalesPerson	PointOfContact	ProductOfInterest	PotentialSales	Address	sales	contactDate	monthsToNextPurchase
Homer Simpson	Monty Burns	Monty's Office	Uranium	2000000	Springfield Nuclear Plant	1000000	6/30/88	10
Ned Flanders	Apu	Kwik-E-Mart	Squishee	12.95	Springfield	4.5	12/31/90	2
Barney Gumbel	Moe	Moe's	Beer	3500	Springfield	3195	1/1/91	0.1

SMISalesLeadData.Stm (Test Data File)

```

contactName=Homer Simpson@salesPerson=Monty Burns@pointOfContact=Monty's
Office@potentialSales=2000000@address=Springfield Nuclear
Plant@productOfInterest=Uranium@sales=1000000@contactDate=06/30/88@monthsToNextPurchase=10

contactName=Ned Flanders@salesPerson=Apu@pointOfContact=Kwik-E-
Mart@potentialSales=12.95@address=Springfield
@productOfInterest=Squishee@sales=4.50@contactDate=12/31/90@monthsToNextPurchase=2

contactName=Barney Gumbel@salesPerson=Moe@pointOfContact=Moe's@potentialSales=3500@address=Springfield
@productOfInterest=Beer@sales=3195@contactDate=01/01/91@monthsToNextPurchase=.1

```

Conclusion

You have now run a set of automated test cases, viewed the results and associated method coverage. You have also seen how powerful test case reuse can be in constructing use cases. You can go back and create new Sales Lead scenarios using the existing set of reusable test case or you start to build your own test cases for your project.