

Getting Started Tutorial - Visual Studio Edition Sybase Unwired Platform 1.2 DOCUMENT ID: DC01016-01-0120-01

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Workflow

Sybase Unwired WorkSpace Visual Studio Edition tutorials explain how to develop, deploy, and run a mobile application.

Task	Goals	Tutorials required to achieve the goals
Getting Started	Install Sybase Unwired Platform, start the server and Unwired WorkSpace, and create a project.	 Installing Sybase Unwired Platform on page 7 Starting Unwired Server on page 7 Connecting to Sybase Control Center on page 7 Starting Sybase Unwired WorkSpace on page 9 (Optional) Learning the Basics on page 10 Creating a Mobile Application Project on page 11 Note: These tutorials are prerequisites for all the other tutorials. You need to perform them only once.
Developing Database Mo- bile Business Objects	Create two mobile business objects, and deploy them to Unwired Server.	 Creating a Database Connection on page 15 Creating a Server Connection on page 18 Creating Database Mobile Business Objects on page 19 Creating a Relationship Between Mobile Business Objects on page 23 Deploying the Database Mobile Business Objects on page 25
Developing a Device Application	Create a Windows device application and run it in a device emulator.	 Generating Code for a Device Application on page 29 Installing Synchronization Software on page 32 Deploying and Running the Device Application on page 33

Workflow

Goal: Install and learn about Sybase Unwired Platform and its associated components.

The following tasks are required, unless otherwise noted, for all tutorials, but you need to perform them only once.

- 1. Installing Sybase Unwired Platform on page 7
- 2. Starting Unwired Server on page 7
- 3. Connecting to Sybase Control Center on page 7.
- 4. *Starting Sybase Unwired WorkSpace* on page 9
- 5. (Optional) *Learning the Basics* on page 10
- 6. Creating a Mobile Application Project on page 11

Installing Sybase Unwired Platform

Goal: Install Sybase Unwired Platform.

Install these Sybase Unwired Platform components:

- Unwired Server
- Sybase Unwired WorkSpace (Visual Studio Edition)
- Afaria

If Unwired Platform is already installed and any of these components are missing:

- 1. Start the Sybase Unwired Platform installer.
- 2. Follow the instructions in the installation wizard. When prompted, select Custom Install.
- 3. Select the required components, and complete the installation.

For complete installation instructions, see the Sybase Unwired Platform *Installation Guide* and *Release Bulletin* at *SyBooks Online*.

Starting Unwired Server

Goal: Start the server.

In Windows, select Start > Programs > Sybase > Sybase Unwired Platform > Unwired Server > Start Unwired Server .

The server starts. Icons for the MobiLink server and a consolidated SQL Anywhere database server appear in the taskbar.

Connecting to Sybase Control Center

Goal: Open the Web-based Sybase Control Center administration console to manage Unwired Server and its components.

From Sybase Control Center, you can:

• View servers and their status

- Start and stop a server
- View server logs
- Deploy a mobile application package
- Set role mappings
- 1. Select Start > Programs > Sybase > Sybase Control Center.
- 2. Click Unwired Platform.

Available servers display under Unwired Servers.

- 3. Select the server to which you want to connect, and log in using the default login:
 - User Name supAdmin
 - Password s3pAdmin
- 4. To perform any of these server-administration tasks, select the General tab:
 - Start
 - Stop
 - Restart
 - Ping
 - Clean

one Device Hanagement	Unwired Platform
elcome: supAdmin	🕖 Logout from LDICKENS-VS
nwired Servers	General Properties Pending Changes
SUP Server_1@ldickens-v	Manage an Unwired Server by checking the status of a server or changing its runtime state.
▶ 🧀 Packages	🕨 Stort 🛛 📕 Stop 🕜 Restart 🖉 Ping 🖉 Clean
Personalization	Server Console
Subscriptions	
🛞 Users	
🕨 🗁 Security	
📲 Server Configuration	
tion of the second second	

- 5. To view any of these server configuration properties, select the **Properties** tab:
 - Host
 - Port
 - Secure Port
 - Synchronization Port
 - Version
 - Unwired Server Home
 - Synchronization Protocol

Home Device Management	Unwired	Platform			
Welcome: supAdmin				🛞 Logout from LD	ICKENS-VSVM
Unwired Servers	General	Properties	Pending Change	IS	
▼⊜SUP Server_1@ldicken じLog	Review c	onfigured Unwi	red Server properti	es.	
Consections Consections Consections Consections Consections Consections Consections Consections Consections	Propertie	es	v	alue	
	Host		Id	lickens-vsvm	<u>^</u>
	Port		4(040	
	Secure Po	ort	4.	443	
	Synchron	ization Port	2	439	
	Version		1.	.2.20090217	
	Unwired 9	Server Home	C	:\Sybase\UnwiredPlatform-1_	2\Servers

Starting Sybase Unwired WorkSpace

Goal: Start Unwired WorkSpace.

1. In Windows, select Start > Programs > Sybase > Sybase Unwired Platform > Sybase Unwired WorkSpace (Visual Studio Edition).

Sybase Unwired WorkSpace opens, and displays the tasks required to develop a mobile application.



2. To read more about Sybase Unwired WorkSpace concepts and tasks, from the main menu bar, select Help > Contents, and expand Sybase Unwired WorkSpace.

Learning the Basics

Goal: Learn about Sybase Unwired WorkSpace and how to access help.

1. Start Sybase Unwired WorkSpace on page 9.

The Getting Started page displays a brief description of the tasks you must perform to develop a mobile application.

2. To close this page, click the X.

You can reopen this page by selecting Help > Getting Started with Sybase Unwired WorkSpace.

3. Look at the windows that you will be working in to access, create, define, and update mobile business objects. The following table provides a description of the windows.

Window	Description
Solution Explorer	This window displays open Visual Studio solutions, including their projects. and project resources. In Sybase Unwired WorkSpace, a project contains mobile business object definitions model files and other application items.
	You can select a project file, or item, in the Solution Explorer and then perform item-management tasks. You can use an editor to change or manage the item outside the context of a project.
Mobile Application Explorer	This window displays mobile business objects, roles, personalization keys, relationships and connection references.
	Use this window to review and modify mobile business object properties.
Server Explorer	A window that provides functionality to connect to various enterprise back-end systems; for example, database servers, SAP servers, and Sybase Unwired Server.
Toolbox	The Toolbox provides controls, such as a mobile business object, attribute, operation, and relationship, that you can drag and drop onto the mobile application diagram to create and define a mobile business object.
Mobile Application Diagram	The mobile application diagram is a graphical editor where you create and define mobile business objects.
	Use the mobile application diagram to create a mobile business object, then create and define its operations, attributes, and relationships between other mobile business objects. You can create mobile business objects in the mobile application diagram using its menus, or you can drag items from the Toolbox and Server Explorer and drop them onto the mobile application diagram to develop the mobile business object.
	Each new mobile application project generates an associated mobile application diagram.
Properties	The Properties window displays the properties of the selected object.
	Select an object in either the mobile application diagram or the Mobile Application Explorer to display and edit its properties in the Proper- ties window.

4. To access the online help, select **Help** > **Contents** from the main menu bar.

The Contents window opens.

5. Expand Sybase Unwired WorkSpace.

The online help provides tasks, concepts, and reference material to guide you through the development process.

Creating a Mobile Application Project

Goal: Create a Visual Studio solution and a mobile application project, understand the project metadata that is created, and where it resides.

1. Select **File** > New > Project from the main menu bar.



The New Project wizard opens.

2. In the Project types pane, select Sybase Unwired WorkSpace.

By default, Mobile Application Project is selected in the Templates pane.

- 3. Set Name to SUPTutorialProject.
- 4. Check Create directory for solution, then set Solution Name to SUP101.
- 5. Click OK.

The new solution and project display in the Solution Explorer. The project contains a *SUPTutorialProject.mbo* file that stores mobile business object design-time metadata.



6. Expand *SUPTutorialProject* in the Mobile Application Explorer.

The Mobile Application Explorer displays the logical organization of the metadata defined in the .mbo file. By default, two personalization keys, password and username, display. Personalization keys are described in the Implementing Personalization Keys tutorial.



7. Look at the Properties window.

By default, each project is assigned a package version. You can change the version in the Properties window. For this tutorial, use the default version. Versions are used to deploy multiple versions of the same application (mostly in production or test environments) and can be changed at deployment time as well.

Properties	- ₽×
SUPTutorialProject F	Project Properties 🔹
8≣ 🛃 📼	
Package Name	SUPTutorialProject
Package Version	1.0
Project File	SUPTutorialProject.suwpro
Project Folder	C:\Documents and Settings\sr
Package Version The version number for project	r all deployments made from this
Mobile Application E	xplorer Properties

Developing Database Mobile Business Objects

Goal: Create two mobile business objects, each using a database object as its data source; create a relationship between the two, and deploy them to Unwired Server.

Prerequisites

Complete Getting Started on page 7

Develop the database mobile business objects by:

- 1. Creating a Database Connection on page 15
- 2. Creating a Server Connection on page 18
- 3. Creating Database Mobile Business Objects on page 19
- 4. Creating a Relationship Between Mobile Business Objects on page 23
- 5. Deploying the Database Mobile Business Objects on page 25

Creating a Database Connection

Goal: Create a connection to a database to provide a data source for one or more mobile business objects.

Prerequisites

Complete Getting Started on page 7

1. In the Server Explorer, right-click Data Connections, and select Add Connection.



2. In the Add Connection dialog, select Use Connection String, then click Build.

Add Connec	tion	? 🔀
Enter informatio "Change" to cho	n to connect to the selected data so ose a different data source and/or	ource or click provider.
Data source:		
.NET Framewor	k Data Provider for ODBC	Change
- Data source sp	ecification	
O Use user of	system data source name:	
	×	Refresh
 Use connect 	tion string:	
		Build
Login informati	on	
User name:		
Password:		
L		
		Advanced
Test Connection	OK	Cancel

3. To the right of DSN Name, click New.

ile Data Source Machin	e Data Source	
Look in: Data Sources		¥ 1
DSN Name:		New

- 4. In the list of database drivers, select SQL Anywhere 11, then click Next.
- 5. Enter sampledb as the data source name, then click Next.
- 6. Click Finish.
- 7. In the Connect to SQL Anywhere dialog, enter:

- User ID dba.
- Password-sql .

Connect to SQL Anywhere 🛛 🔶 🔀
Login ODBC Database Network Advanced
O Use integrated login
 Supply user ID and password
User ID:
Password:
Encrypt password
OK Cancel Help

- 8. Click OK twice to return to the Add Connection dialog.
- 9. Click Test Connection. Click OK to close the message box that displays the test results.

Add Connection	2 🔀
Enter information to connect to "Change" to choose a different	to the selected data source or click It data source and/or provider.
.NET Framework Data Provide	er for ODBC Change
Data source specification	
○ Use user or system data :	source name:
	✓ Refresh
⊙ Use connection string:	
Driver={SQL Anywhere	, Microsoft Visual Studio 🔀
Login information	Test connection succeeded.
User name: dba	ОК
Password:	
	Advanced
Test Connection	OK Cancel

10. Click OK to close the Add Connection dialog.

In the Server Explorer, the database connection displays beneath the Data Connections node.

Creating a Server Connection

Goal: Create a connection to Unwired Server, so you can deploy mobile business objects and device applications to the server.

Prerequisites

Complete *Getting Started* on page 7

- 1. In the Server Explorer, right-click Unwired Server Connections, and select Add Connection.
- 2. Enter the connection details for the local server, then click OK.

Field	Enter these values
Name	My Unwired Server
Host name	<your host="" name="">.<domain></domain></your>
Port Number	4040
User name	supAdmin
Password	s3pAdmin

🖯 Add Sy	/base Unwired Server Connec 💷 🖂
Enter informati	on to connect to the Sybase Unwired Server.
Name:	My Unwired Server
Description:	
Host name:	snigamxp.sybase.com
Port number:	4040
	ation
User name:	supAdmin
Password:	
Test Connec	tion OK Cancel

3. Click Test Connection to verify that the server is running.

A dialog displays the connection status. If successful, click OK; otherwise, verify that the server is running.

4. Click **OK** to finish adding the connection.

Creating Database Mobile Business Objects

Goal: Create two mobile business objects, each from a database object.

Prerequisites

Complete Creating a Database Connection on page 15 and Creating a Server Connection on page 18

- **1.** Open the SUP101 solution if it is not already open:
 - a) In the Visual Studio main menu, select File > Open > Project/Solution .
 - b) Select the SUP101 folder, and click **Open**.
 - c) Select ${\tt SUP101.sln},$ and click ${\bf Open}.$
- 2. In the Server Explorer, expand the database connection that you created, then expand the Tables folder.
- 3. Select the *customer* table, and drag it onto the Mobile Application Diagram.

Server Explorer 🔹 👎	×
2 2 3, 2	
Data Connections ODBC.UADB_SNIGAMXP Dr Cables One Connections ODBC.UADB_SNIGAMXP ODCBC.UADB_SNIGAMXP ODCBC.UADB_SNIGAMXP ODCBC.UADB_SNIGAMXP ODCBC.UADB_SNIGAMXP ODCBC.UADB_SNIGAMXP ODCBC.UADB_SNIGAMXP ODCBC.UADB_SNIGAMXP ODCBC.UADB_SNIGAMXP ODCBCC.UADB_SNIGAMXP ODCBCC.UADB_SNIGAMXP ODCBCC.UADB_SNIGAMXP ODCBCC.UADB_SNIGAMXP ODCBCCC.UADB_SNIGAMXP ODCBCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	*
	~
<	

The Mobile Business Object Creation wizard launches.

- 4. In the introductory page, click Next.
- 5. By default, the MBO is named the same as the database table; in this case, *customer*. Click Next.

The connection information matches the database connection that you created.

Mobile Business C	peration Creation Wizard	
Specify Co Enter	nnection Information connection information	
 Define connection no Connection type: 	w Database	~
Connection name:	ODBC.UADB_SNIGAMXP New	Properties
O Define connection lat	er	

- 6. Click Next.
- 7. On the Authentication Information page, select Use Default Authentication, and click Next.
- 8. On the Specify SQL Query page, click Next.

Mobile Business Object Creation Wizard	_ 🗆 🔀
Specify SQL Query	
Specify the SQL query. You can choose to automatically ger Visual SQL Designer. If you manually define the query and s lose the contents of your manually-defined query.	erate the SQL query or to define it using the witch to defining it automatically, you will
O Generate SQL query from the selection	
Table and columns: Columns used Image: Columns used Image: Columns used <	as parameters:
SELECT id, fname, Iname, address, city, state, zip, phone, company_name	
Validate Syntax Visual SQL Preview Data Preview Data	Next > Finish Cancel

- 9. On the Column Filters page, click Next.
- **10.** On the attribute mapping page, the MBO attributes display on the left, and the database table columns display on the right. The lines illustrate how the database columns map to the MBO attributes, as does the tabular view in the lower half of the page. Click **Next**.

	Specify Attributes	and Map the Attr	ibutes to Colu	mns				
Objec	t:		55 45		Tabular Viev	w:		
	Attributes id [Int] fname [String] iname [String] address [String] city [String] city [String] state [String] orig [String] phone [String] company_name company_name	(String) •			Columnation Columnati	Ints [Int] ame [S dress [dress [strin ate [Strin tone [St mpany]	tring] String] g] ing] g] tring] _name [String]	
	Name	Data	туре	1	Map To		Data Type	^
		(and a second s		Berne			le a	
•	id	Int	~	id		~	Int	
•	id fname	Int String	~	id fna	me	~	Int String	-
•	id fname Iname	Int String String	~	id fna Inai	me ne	> > > >	Int String String	=
•	id fname Iname address	Int String String String	* * *	id fna Inai ado	me ne ress	> > >	Int String String String	=
•	id fname Iname address city	Int String String String String	> > > > > > > > > > > > > > > > > > >	id fna Inai ado city	me ne ress	> > > > >	Int String String String String	

- 11. On the parameter mapping page, click Next.
- 12. On the Operations page, click Finish.

Basic MBO operations are created automatically: Create, Delete, and Update, and the *customer* MBO appears in the Mobile Application Diagram.



13. Create another MBO from the *sales_order* table:

- a) Drag the sales_order table from the Server Explorer, and drop it onto the Mobile Application Diagram.
- b) Step through the wizard by clicking **Next** on each page.
- c) On the SQL query page, click **Preview Data** to verify the results, then close the results dialog, and click **Next** in the wizard.

d) On the attributes mapping page, review the mapping, then click Finish.



Next

Creating a Relationship Between Mobile Business Objects on page 23

Creating a Relationship Between Mobile Business Objects

Goal: Create a relationship between mobile business objects to associate related data and maintain data synchronization on the device.

Prerequisites

Complete Creating Database Mobile Business Objects on page 19

In this tutorial, you create a relationship between the customer and sales_order mobile business objects (MBO).

- 1. Click **Relationship** in the Toolbox.
- 2. Select the *customer* MBO and keeping the mouse button pressed, drag the link to the *sales_order* MBO to establish the relationship link.

The Relationship Creation wizard opens.

3. Select the id attribute in the Source object pane and cust_id in the Target object pane.

ationship	Creation Wizard			_ 0
	Create a new Relationship To create a new relationship,	enter the required relat	ionship information.	
Name:	Relationship1			
Source:	customer			
Target:	sales_order			
Multiplicity One to Source of	y Cone to	o one	Transt objects	
	stomer Attributes / Id [Int] / fname [String] / name [String] / address [String] / city [String] / state11 [String] / zip [String] / phone [String] / company_name [String]		siger object: Sales_order Gamma String fin_code_id [String] sales_rep [Int] Parameters	
			< Previous Next > Finish	Cancel

4.



A line connects the two attributes.

5. Enter customer_sales_order in the Name field for the name of this relationship.

	Create a new Relationship To create a new relationship, enter the required relationship information.	
Name:	customer_sales_order	
Source:	customer	~
Target:	sales_order	~
Multiplicit	Y O One to one	
	Attributes Image copiect: Attributes Image copiect: Image [String] Image [String] address [String] Image [String] icity [String] Image [String]	1

6. Click Finish.

\$ 2 customer sales_order Attributes Attributes 🥥 id : Int 🧳 id : Int fname : String 🧳 cust_id : Int Iname : String order_date : Date fin_code_id : String 🧳 address : String **b**,‡ 👂 city : String region : String 👂 state : String 🧳 sales_rep : Int 🧳 zip : String Operations phone : String 🚕 Create company_name : String 🔊 Update 📌 Delete Operations 👴 Create Parameters 🎤 Update Roles 🖌 Delete Parameters 🖃 Roles

The mobile application diagram now shows the link from the customer MBO to the sales_order MBO.

7. Select File > Save .

Next

Deploying the Database Mobile Business Objects on page 25

Deploying the Database Mobile Business Objects

Goal: Deploy the project that contains the database mobile business objects to the server.

Prerequisites

Complete Creating Database Mobile Business Objects on page 19 and Creating a Server Connection on page 18

1. In the Solution Explorer, right-click SUPTutorialProject, and select Deploy to Unwired Server.



- 2. On the Introduction page, click **Next**. By default, the Introduction page displays only once. Unselect this option to show the page again the next time you deploy.
- **3.** Select *My Unwired Server*, then click **Test Connection**. If the connection is successful, click **Next**; otherwise, verify the connection parameters—see *Creating a Server Connection* on page 18.
- 4. On the Mobile Business Object Selection page, verify that both the *customer* and the *sales_order* MBOs are selected, then click **Next**.
- **5.** On the Confirm Package and Version page, accept the default values, and click **Next**. The package name (SUPTutorialProject) and the version number (1.0) correspond to the name of the Unwired Server package, into which you deploy the MBOs.
- 6. On the Deployment Mode Selection page, accept the default value (Update), and click Next.
- 7. On the Logical to Physical Role Mapping page, click Next.
- 8. On the Server Connection Mapping page:
 - a) Expand **My Unwired Server** > **Mappable Connection Profiles** > **Database**, then select the active database connection.
 - b) Map the design-time database connection to the server-side database connection by selecting *sampledb* as the **Server Connection Name**.
 - c) Click Next.

Sybase	Unwired Server Deployment	Wizard 🛛 🔀
	Server Connection Mapping	
8	The connection information that a r point to a server connection. A cus authentication information was over	nobile business object uses can be changed to tom mapping means that the default rriden in the mobile business object.
Select a	design time connection profile to map	
	Mappable Connection Profiles Database ODBC.UADB_SNIGAMXP SAP Custom Non Mappable Connection Profiles	
	Design Time Connection Name	Server Connection Name
) (DDBC.UADB_SNIGAMXP	✓
Connect	tion profile ODBC.UADB_SNIGAMXP is not map	<new> FieldServiceDB.ffa portaldb sampledb sampledb.sampledb uaml</new>
	< Previous	Next > Finish Cancel

9. On the Summary page, click Finish.

Deployment proceeds, and its progress displays.

Sybase U	nwired Server Deployment Wizard 🛛 🛛 🔀
	Deployment Progress The results of the current deployment are shown below.
Status:	Deployment succeeded. Please click the Close button to close this window.
Deploym Deployi Startii Create 2008\Pro ialProjec Deplo mode De Deplo Finished Deploym	ent started on Tuesday, September 23, 2008 at 3:50:08 PM ng to server My Unwired Server ng to build deployment unit for package SUPTutorialProject ed C:\Documents and Settings\snigam\My Documents\Visual Studio ojects\SUP101\SUPTutorialProject\Temp_Deployment_XML\Package_XML\SUPTutor t_My Unwired Server.xml ying to package SUPTutorialProject on server My Unwired Server using deployment eploymentModeUpdate yment: SUCCEEDED deploying to server My Unwired Server ent took 0 minutes and 2 seconds
	< Previous Next > Finish Close

- 10. After deployment completes, click Close.
- 11. In the Server Explorer, expand Unwired Server Connections, right-click My Unwired Server, and select Refresh.

The server package *SUPTutorialProjectv1.0* into which you deployed the MBOs appears in the Packages folder. The two MBOs appear in the package's Mobile Business Objects folder.



The deployment unit (metadata) is saved in a temporary directory on Unwired Server, in the *SUPTutorialProjectv1.0* project. Using Sybase Control Center, administrators can deploy the MBOs in the deployment unit to other servers.

Developing a Device Application

Goal: Develop a Windows device application, and test its functionality.

Prerequisites

Complete Deploying the Database Mobile Business Objects on page 25

The device application communicates with the database mobile business objects that are deployed to Unwired Server. Develop the device application by:

- 1. Opening the SUP101 solution if it is not already open:
 - a) In the Visual Studio main menu, select File > Open > Project/Solution .
 - b) Select the SUP101 folder, and click **Open**.
 - c) Select SUP101.sln, and click Open.
- 2. Generating Code for a Device Application on page 29
- 3. Installing Synchronization Software on page 32
- 4. Deploying and Running the Device Application on page 33

Generating Code for a Device Application

Goal: Generate client code for a mobile application project, so you can develop the device application to run on a mobile device.

Prerequisites

Complete Developing Database Mobile Business Objects on page 15

1. In the Solution Explorer, right-click SUPTutorialProject, and select Generate Client Code.

Solution	n Expl	orer - SUP101	
	à		
S 😡	olution	n 'SUP101' (1 project)	
		Add	•
		Add Reference	
		Set as StartUp Project	
		Debug	•
		View Mobile Application Explorer	
		View Mobile Application Diagram	
		Generate Client Code	
		Deploy to Unwired Server	
	¥	Cut	
	×	Remove	
Sol		Rename	
Proper		Unload Project	
SUP1		Properties	

- 2. On the Introduction page, click Next.
- 3. On the Specify Target Platform page:

a) Select Windows Mobile 6.0 Classic or Professional as the Target Platform.

Note: Both the Windows Mobile 6 Standard SDK and the Windows Mobile 6 Professional SDK must be installed. You can download them from the *Microsoft Download Center*.

- b) Select Generate GUI Frontend from Template
- c) For **Configuration**, enter dotnetcode, then click the save (disk) icon.
- d) Click Next.

ent Code Gene	ration Wizard 🔹
Specify Spe	v Target Platform cify the target platform and its parameters
Code generation p	arameters
Target platform:	Windows Mobile 6.0 Classic or Professional
Language:	C#
Library version:	.NET Compact Framework 3.5
Namespace:	Sybase.Mobile.App
	Generate GUI frontend from template
Configuration:	dotnetcode
	< Previous Next > Finish Cancel

- 4. On the Select Mobile Business Objects page:
 - a) Verify that both the *customer* and the *sales_order* MBOs are selected.
 - b) Verify that My Unwired Server is selected for Unwired Server.
 - c) Click Next.

5. On the Specify Destination page, enter DeviceApplicationProject1 as the Project Name, then click

Specify	Destination
Sp Sp	ecify where the code needs to be generated
Specify the destir	nation directory and the Visual Studio solution
 Generate in the 	e same solution O Create a new solution
Directory:	C:\Documents and Settings\snigam\My Documents\Visual Studio 2008\Prc
Solution name:	SUP101 Create directory for solution
Coosify the Minut	I Chudia project
Specify the visua	I Studio project
Project name:	DeviceApplicationProject1
Project name:	DeviceApplicationProject1
Project name:	DeviceApplicationProject1
Project name: Clean destina Configuration:	DeviceApplicationProject1
Project name:	DeviceApplicationProject1
Project name:	DeviceApplicationProject1

6. When the code-generation process is complete, click **Close**.

ent Co	de Generation Wizard	?
	Code Generation Progress The results of the current code generation are shown below.	
Status	Code generation succeeded. Click the Close button to close this window.	
Details		
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DeviceApplicationProject1 appears in the Solution Explorer.



The key client-artifacts are the MBO object code files Customer.cs and Sales_order.cs.



Next

Deploying and Running the Device Application on page 33

Installing Synchronization Software

Goal: Install and configure Microsoft ActiveSync so you can deploy and run the device application on an emulator.

- 1. Download Microsoft ActiveSync from the *Windows Mobile Web site*. Save it to your local machine. Windows XP requires version 4.5.
- 2. In Windows Explorer, double-click setup.msi to run the ActiveSync installer.
- 3. Restart your machine.

ActiveSync starts automatically, and its icon displays in the Windows toolbar.

- 4. Double-click the ActiveSync icon.
- 5. Select File > Connection Settings .
- 6. In the Connection Settings dialog, select all the check boxes.
- 7. Under Allow Connections to One of the Following, select DMA.
- 8. Under This Computer is Connected to, select Work Network.

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9. Click OK.

Deploying and Running the Device Application

Goal: Deploy the device application to a Windows Mobile 6 device emulator, and test its functionality.

Prerequisites

Complete Installing Synchronization Software on page 32

- 1. From the main Visual Studio menu, select Tools > Device Emulator Manager .
- 2. Select Windows Mobile 6.0 Classic Emulator, right-click, and choose Connect.
- 3. Right-click the same emulator, and choose Cradle.

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ActiveSync connects to the device emulator.

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- 4. In the ActiveSync Synchronization wizard, click Cancel.
- 5. Configure the way the device emulator connects to the Internet:
 - a) In the device emulator, select **Start > Settings**.
 - b) Select the **Connections** tab, then click **Connections**.
 - c) Select the Advanced tab, then click Select Networks.
 - d) Under **Programs that Automatically Connect to the Internet Should Connect Using**, select "My Work Network," then click **OK**.
 - e) Click **OK**, then click **X**.
- 6. In the Visual Studio Solution Explorer, select DeviceApplicationProject1, right-click, and select Build.
- 7. In the Visual Studio toolbar, click the green arrow to the left of Debug.



The device application is deployed to the emulator, and runs in debug mode.

8. In the emulator, enter these credentials, then click Login:

- Login supAdmin
- Password s3pAdmin

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- 1.	Enter user nan	ne and password	
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- 12	Login:	supAdmin	
- 18	Password:	******	
- 8			
- 8	Powered by Sybas	e Unwired Enterprise	
- 8	Cancel	E Login	
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9. Click sales_order to see the table data.

Congratulations! You have successfully developed and run a mobile application.

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