



USB Synchronizer Plug-in

Version 4.2 (beta)

Installation and Configuration via Xcalibur Global

Document Version 1.0



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Chapter 1 Preface

The USB Synchronizer plug-in enables users to synchronize a Windows based PDA device connected to the thin client device with an application running within a Terminal Server (TS) session.

Presently, applications running within a TS session can only synchronize with a PDA that is connected to a COM port on a Windows CE based thin client device; they cannot directly synchronize with a PDA that is connected to a USB port. The USB Synchronizer plug-in enables the USB port to appear as a COM port that can be accessed from the TS session.

Intended Audience

This document is targeted at IT professionals with basic experience in the management of Xcalibur Global.

Scope

This document applies to the following products:

- Xcalibur Global, Version 1.1, Revision 2 + Service Pack 2
- USB Synchronizer plug-in, Version 4.2 (beta)
- Citrix ICA plug-in, Version 9.18

Note Although the scope of this document is limited to the Citrix ICA protocol, the USB Synchronizer plug-in can also be used with the Microsoft RDP protocol.

Objectives

This document describes the correct procedures for installing and configuring the USB Synchronizer plug-in via Xcalibur Global. The document further details additional procedures required when using the plug-in with an ICA session.

Prerequisites

The procedures described in this document assume that the following prerequisites have been met:

1. USB Synchronizer plug-in is installed into the Xcalibur Global Software Repository.
2. Citrix ICA plug-in is installed into the Xcalibur Global Software Repository.
3. Citrix ICA plug-in is installed on the client device.

Refer to the relevant document detailed in Reference Materials about completing these prerequisites.

Reference Materials

- How to Install a Software Package into the Xcalibur Global Software Repository (Ref: DG040H)
- How to Install the ICA Plug-in via Xcalibur Global (Ref: DG025H)



Document Features

Conventions

Bold formatting is used to indicate a product name, required selection or screen text entries.

Notes

Caution Text marked **Caution** contains warnings about possible loss of data.

Important Text marked **Important** contains information that is essential to completing a task.

Note Text marked **Note** contains supplemental information.

Chapter Overview

This document is divided into the following chapters:

- Chapter 1, “Preface”, provides general information about the document.
- Chapter 2, “Plug-in Installation”, describes the procedure for installing the USB Synchronizer plug-in onto a thin client device via an Xcalibur Policy.
- Chapter 3, “Plug-in Configuration”, describes the procedures for installing and configuring the USB Synchronizer plug-in via an Xcalibur Policy.
- Chapter 4, “Post Configuration”, describes the post configuration tasks that must be completed in order to successfully use the USB Synchronizer plug-in.
- Appendix A, “How to Customize the USB Synchronizer Device Table”, describes how to enable/disable PDA models that exist in the table, and how to add/remove PDA models from the list.
- Appendix B, “How to Determine the VendorID and ProductID of a Device”, describes how to determine the values for the VendorID and ProductID of a particular PDA.



Chapter 2 Plug-in Installation

This chapter describes the procedure for installing the USB Synchronizer plug-in onto a thin client device via an Xcalibur Policy.

The procedure is composed of the following steps:

1. Select the OU containing the target device.
2. Create an Xcalibur Policy that is linked to the selected OU.
3. Configure the Policy to install the USB Synchronizer plug-in on a client device.

The screen captures used to illustrate these procedures depict an Xcalibur Global environment in which the procedures were performed using the following specifications:

- The environment's domain is **net8.qa8**
- The OU containing the target device is **US**
(path: net8.qa8\Xcalibur Global\Thin Clients\US)
- The installation policy name is **Device – USB Synchronizer Install**



Step 1 - Select the OU containing the target device

1. Launch the Xcalibur Global Management Console:

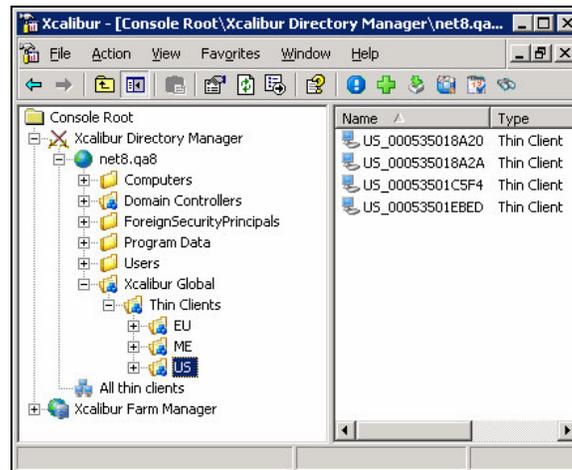
From the Task Bar select:

Start\Programs\Xcalibur Global 1.1\Management Console

2. Locate the OU **US**:

Expand the path:

Xcalibur Directory Manager\net8.qa8\Xcalibur Global\Thin Clients

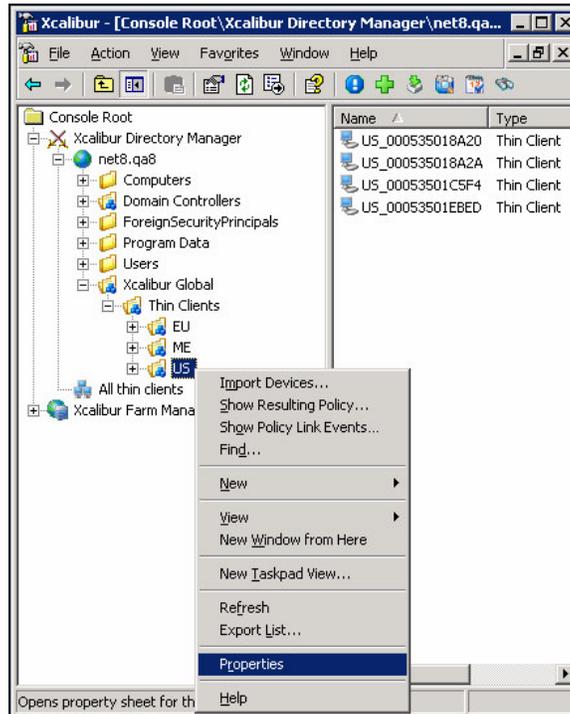


3. Select the OU **US**.



Step 2 - Create an Xcalibur Policy that is linked to the selected OU

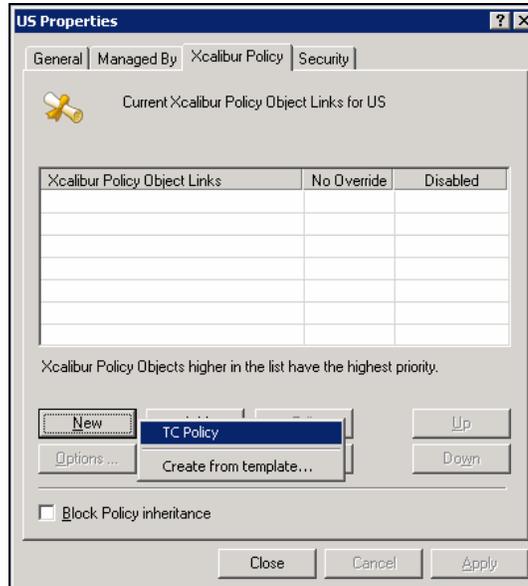
1. Right-click on the OU **US** to display the following dropdown menu:



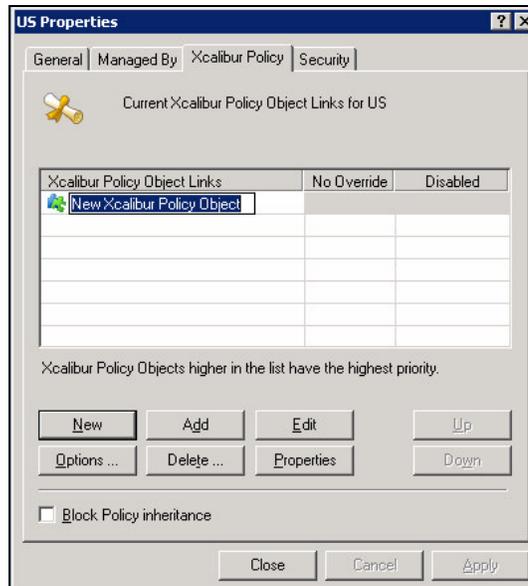
2. Select **Properties** from the dropdown menu to display the **<OU name> Properties** screen.



3. Select the **Xcalibur Policy** tab.
4. Click the **New** button and select **TC Policy** from the dropdown menu.



5. A new policy entitled **New Xcalibur Policy Object** appears in the **Xcalibur Policy Object Links** column.

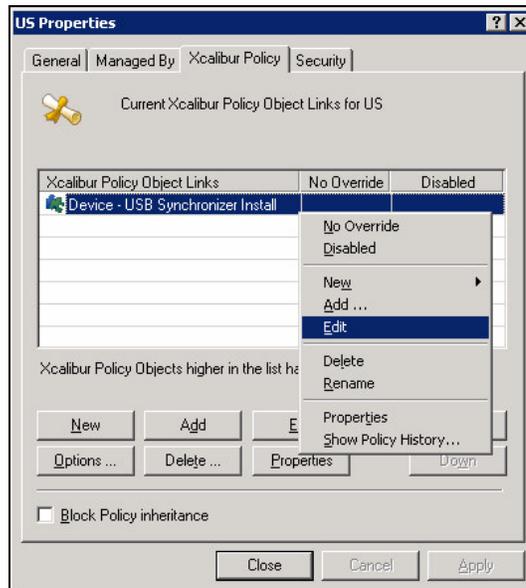


6. Enter a new name for the policy. (The name **Device – USB Synchronizer Install** is used in the illustrations.)



Step 3 - Configure the policy to install the USB Synchronizer plug-in on a client device

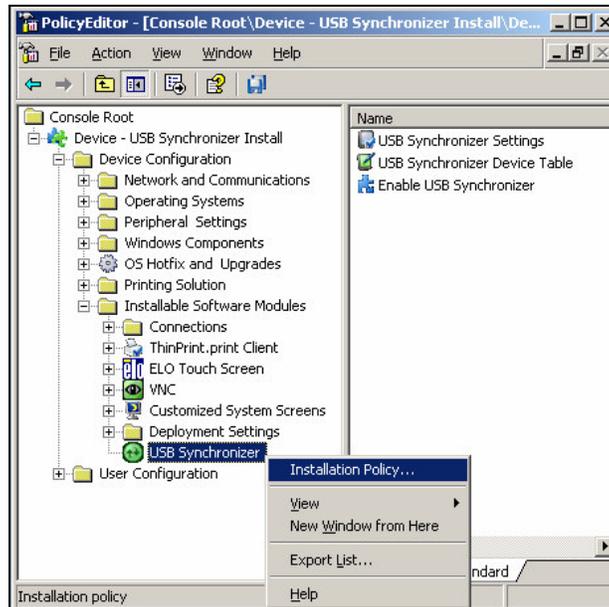
1. Select the policy created in the previous step.
2. Right click on the policy to display the dropdown menu, as illustrated below.



3. Select **Edit** to open the **PolicyEditor** window.

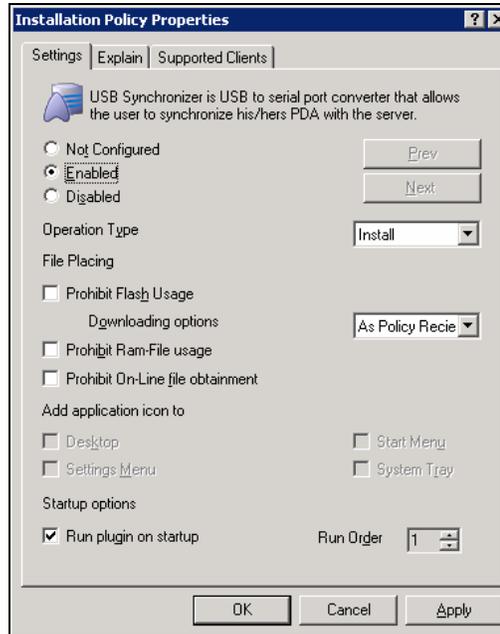


4. Expand the following branch in the PolicyEditor:
<policy name> \ Device Configuration \ Installable Software Modules
5. Right click on **USB Synchronizer** and select **Installation Policy...** from the dropdown menu.





6. The Installation Policy Properties window appears.
7. Select **Enabled**.



8. Verify that the option **Run plug-in on startup** is selected. If this option is not selected the plug-in will not function properly.
9. Click **OK** to close the window and return to the **PolicyEditor**.



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Chapter 3 Plug-in Configuration

This chapter describes the procedure for configuring the USB Synchronizer plug-in via an Xcalibur Policy.

The procedure is composed of the following steps:

1. Select the OU containing the target device.
2. Create an Xcalibur Policy that is linked to the selected OU.
3. Configure the policy to enable the USB Synchronizer.
The USB Synchronizer must be enabled before it can be used.
4. Configure the policy to select the COM port.
This determines the COM port that is emulated by the plug-in.
5. Configure the policy to select the Device Identification method.
This determines the method used to identify the model of the PDA device.

Note Step 6 is required only if in step 5 the selected method was **Use the USB Synchronizer Device Table**.

6. Configure the policy to enable the USB Synchronizer Device Table.

The screen captures used to illustrate these procedures depict an Xcalibur Global environment in which the procedures were performed using the following specifications:

- The environment's domain is **net8.qa8**
- The OU containing the target device is **US**
(path: net8.qa8\Xcalibur Global\Thin Clients\US)
- The installation policy name is **Device – USB Synchronizer Config**



Step 1 - Select the OU containing the target device

Repeat step 1 from the Plug-in Installation chapter.

Step 2 - Create an Xcalibur Policy that is linked to the selected OU

Repeat step 2 from the Plug-in Installation chapter.

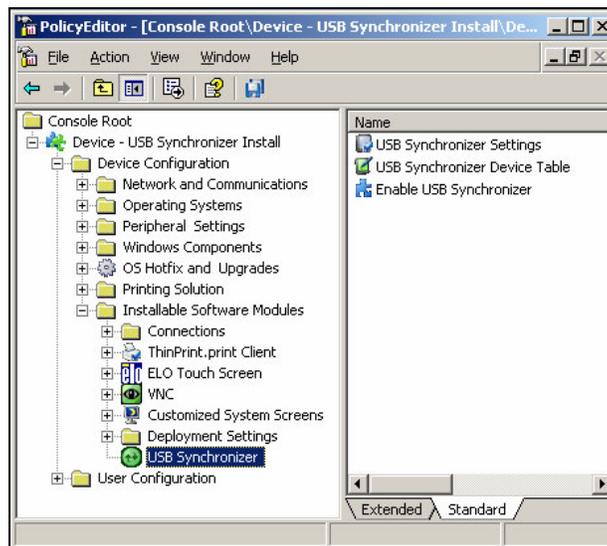
Note Name the new policy: **Device – USB Synchronizer Config.**



Step 3 - Configure the policy to enable the USB Synchronizer

The USB Synchronizer functionality is disabled by default. Perform the following steps to enable the functionality.

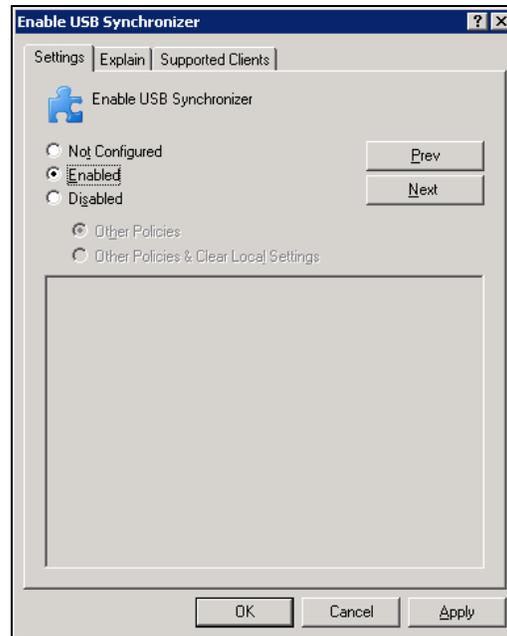
1. Select the policy created in the previous step.
2. Right click on the policy to display a dropdown menu.
3. From the dropdown menu select **Edit** to open the **PolicyEditor**.
4. Expand the following branch in the PolicyEditor:
<policy name> \ Device Configuration \ Installable Software Modules
5. Select the **USB Synchronizer**.



6. In the right pane, double-click on the option **Enable USB Synchronizer**.



7. The **Enable USB Synchronizer** window appears.
8. Select **Enabled**.



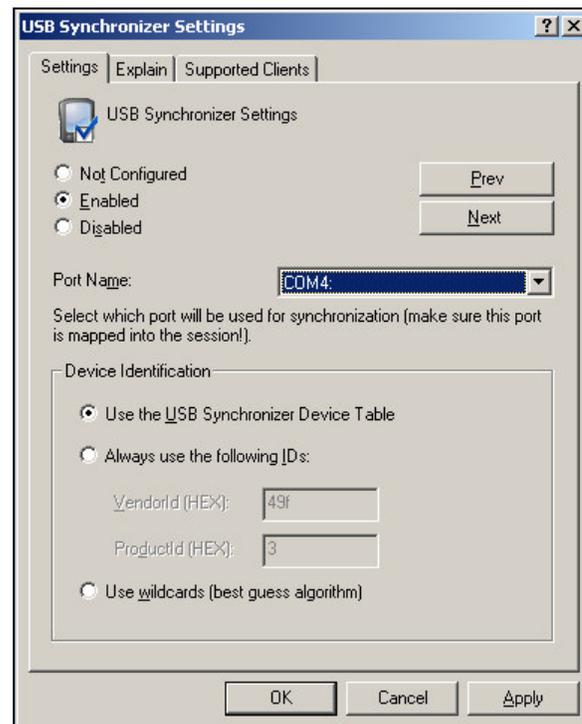
9. Click the **OK** button to close the **Enable USB Synchronizer** window and return to the **PolicyEditor**.



Step 4 - Configure the policy to select the COM port

The USB Synchronizer plug-in creates an emulated COM port that acts as a proxy between the USB port and the TS session. Perform the following steps to determine which COM port is emulated.

1. From the **PolicyEditor** select the **USB Synchronizer**.
2. In the right pane, double-click on the **USB Synchronizer Settings** option.
3. The **USB Synchronizer Settings** window appears.
4. Select **Enabled**.

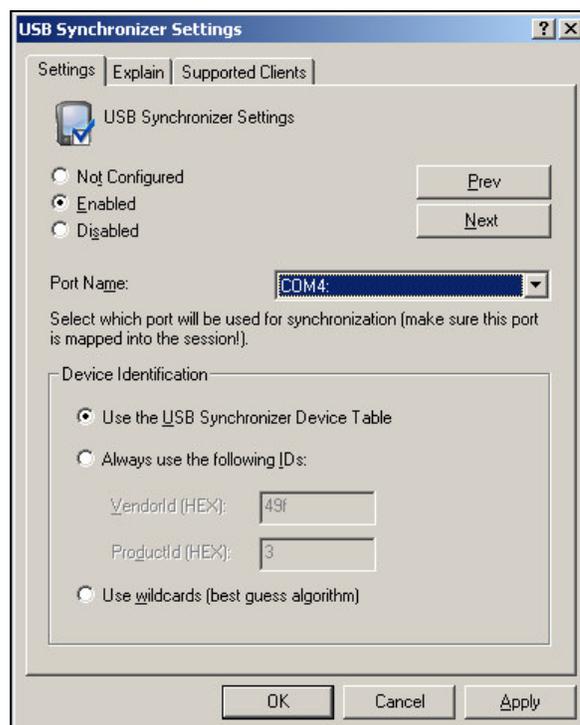


5. In the **Port Name** field select the COM port that is emulated.
6. Make a note of the selected COM port for future reference. This information is required when configuring the server to work with the plug-in (as detailed in the Post Configuration chapter).



Step 5 - Configure the Policy to select the Device Identification method

Each PDA device is uniquely identified by a VendorID and ProductID. Perform the following steps to select the method that should be used by the plug-in to identify these parameters for the PDA device in use.



1. In the **Device Identification** section, select one of the following identification methods.
 - The default method is **Use the USB Synchronizer Device Table**. This option retrieves the VendorID and Product ID from a built-in list. To view and manage this list, refer to Step 6.
 - When a single PDA model is constantly used, you can select the option **Always use the following IDs**:. Manually enter the **VendorID** and the **ProductID**. For further details, refer to **Appendix B How to Determine the VendorID and ProductID of a Device**.
 - Select the option **Use wildcards (best guess algorithm)** only if you cannot successfully use the other two options. This option attempts to deduce the most suitable VendorID and ProductID to use for the PDA device.
2. Click **OK** to close the **USB Synchronizer Settings** window and return to the **PolicyEditor**.

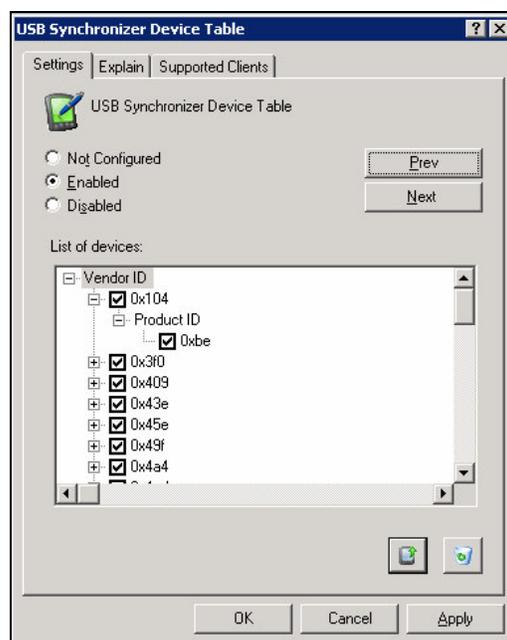


Step 6 - Configure the policy to enable the USB Synchronizer Device Table

Note Performing Step 6 is required only if the option **Use the USB Synchronizer Device Table** was selected in Step 5.

The **USB Synchronizer Device Table** lists the VendorID (manufacturer) and ProductID (specific PDA model) of all the PDA models that can be recognized by the client device. The list is organized by VendorID and each VendorID has one or more ProductID's. The table must be enabled if the option **Use the USB Synchronizer Device Table** was selected in Step 5.

1. From the PolicyEditor select the USB Synchronizer.
2. In the right pane, double-click on the **USB Synchronizer Device Table** option. The **USB Synchronizer Device Table** window appears.
3. Select **Enabled** to activate the **List of devices**.



4. Click **OK** to close the **USB Synchronizer Device Table** window and return to the **PolicyEditor**.
5. Close the **PolicyEditor** to return to the **<OU name> Properties** window.
6. Click **OK** to close the **<OU name> Properties** window and return to the Xcalibur Global Management Console.

Note Although it is possible to customize the table, recommended practice is to initially only enable the table and use the default contents. If this default configuration does not work or if you wish to restrict the PDA models allowed to connect, only then should you attempt to customize the table (see Appendix A).



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Chapter 4 Post Configuration

This chapter describes the post configuration tasks that must be completed in order to successfully use the USB Synchronizer plug-in.

These include:

- Configure the device settings
- Configure the ICA plug-in settings
- Configure Server settings
- Configure ActiveSync

Configure the Device Settings

1. Create a new Xcalibur Policy to configure the device settings.
 - 1.1 Follow the procedures for creating a new policy as detailed in Chapter 2, Step 1 and Step 2.
 - 1.2 The policy should be linked to the same OU as the policy configuring the USB Synchronizer plug-in.
 - 1.3 The new policy created should be named: **Device – USB Config**.
2. Right click on the policy to display a dropdown menu.
3. From the dropdown menu select **Edit** to open the **PolicyEditor**.
4. Open the following branch in the Xcalibur Policy:
<policy name> \ Device Configuration \ Peripheral Settings \ Peripheral Port Settings



- From **Peripheral Port Settings** open the **USB Controller Properties**.

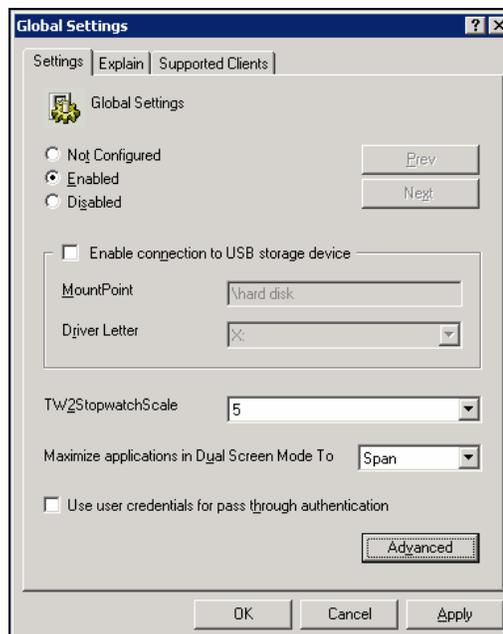


- Select **Enabled**.
- Select **Serial device** and set the **Port power limit(mA)**: to 500.
- Click **OK** to close the **USB Controller Properties** window and return to the **PolicyEditor**.
- Close the **PolicyEditor** to return to the **<OU name> Properties** window.
- Click **OK** to close the **<OU name> Properties** window and return to the Xcalibur Global Management Console.



Configure the ICA Plug-In Settings

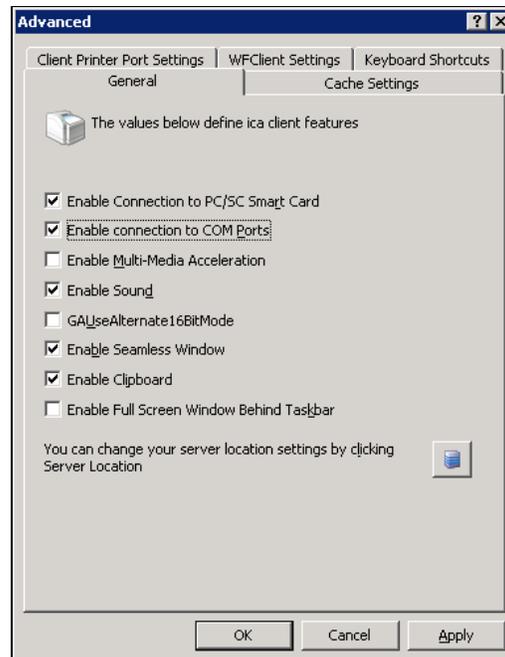
1. Create a new Xcalibur Policy to configure the ICA plug-in settings.
 - 1.1 Follow the procedures for creating a new policy that are detailed in Chapter 2, Step 1 and Step 2.
 - 1.2 The policy should be linked to the same OU as the policy configuring the USB Synchronizer plug-in.
 - 1.3 The new policy created should be named: **Device – ICA Config**.
2. Right click on the policy to display a dropdown menu.
3. From the drop-down menu select **Edit** to open the **PolicyEditor**.
4. Open the following branch in the Xcalibur Policy:
<policy name> \ Device Configuration \ Installable Software Modules \ Connections
5. Right click **Custom ICA Connection** and select **Properties** from the dropdown menu.
6. The **Global Settings** window appears.



7. Select **Enabled**.
8. Click on the **Advanced** button.



9. The **Advanced** window appears.
10. Select **Enable connection to COM Ports**.



11. Click **OK** to close the **Advanced** window and return to the **PolicyEditor**.
12. Close the **PolicyEditor** to return to the **<OU name> Properties** window.
13. Click **OK** to close the **<OU name> Properties** window and return to the Xcalibur Global Management Console.



Configure Server Settings

The following server-side settings need to be configured:

- COM port redirection
- ICA & RDP protocol settings
- Citrix policies

COM Port Redirection

1. The server needs to be configured to allow COM port redirection from the server to the client device.
2. The server port must be redirected to the same client device port selected in the USB Synchronizer plug-in configuration (Chapter 3, Step 4).
3. One possible method of performing this task is by creating a login script for the user's session that maps the port using the command:
net use com4: \\client\com4:

ICA & RDP Protocol Settings

Refer to the relevant Citrix and Microsoft documentation.

Citrix Policies

Refer to the relevant Citrix documentation.

Configure ActiveSync

1. The USB Synchronizer Plug-in supports ActiveSync version 3.8 and earlier.
2. For extra information on how to configure ActiveSync for PDA synchronization on a Citrix server, refer to the following Citrix document:
CTX821115 - How to Configure ActiveSync for PDA Synchronization



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Appendix A How to Customize the USB Synchronizer Device Table

The **USB Synchronizer Device Table** lists the Vendor ID and Product ID of all the PDA models that can be recognized by the client device.

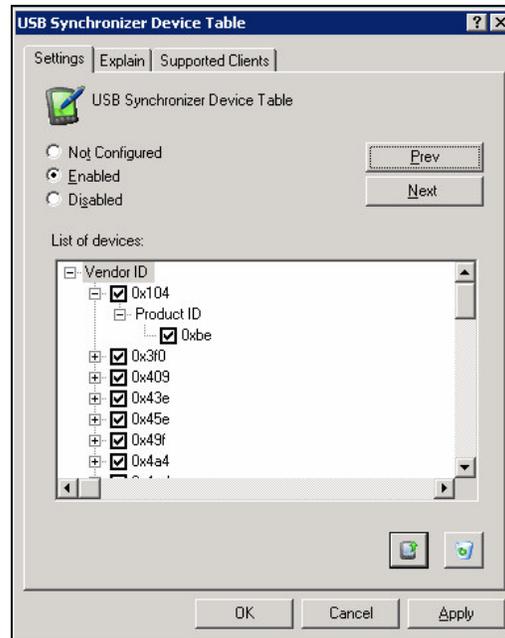
This appendix covers the topic of customizing the **USB Synchronizer Device Table**. Two tools are available to customize the table:

- Select/Unselect specific models – by selecting or unselecting specific VendorIDs and ProductIDs it is possible to control which PDA models are allowed to connect through the plug-in.
- Add/Remove specific models – this allows you to modify the list of PDA models that can be recognized by the client device. New models can be added and obsolete models can be removed.



Access the USB Synchronizer Device Table

1. From the PolicyEditor select the USB Synchronizer.
2. In the right pane, double-click on the **USB Synchronizer Device Table** option.
3. The **USB Synchronizer Device Table** window appears.
4. Verify that the **Enabled** option is selected (see Plug-in Configuration chapter).



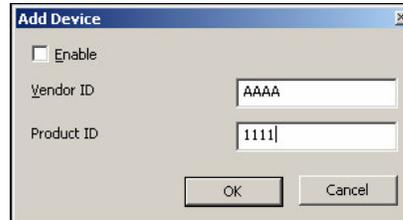
Controlling Plug-in Connection for Specific PDA Models

1. The **List of devices** has a tree structure. The top level contains the VendorIDs (manufacturers of PDA devices) and each VendorID contains one or more ProductIDs (specific PDA models).
2. Both VendorIDs and ProductIDs have check boxes that can be used to select/unselect a specific PDA model (ProductID) or an entire manufacturer (VendorID). Selected products can connect through the USB Synchronizer Plug-in; unselected products cannot connect through the plug-in.
3. The select/unselect tool offers additional control over which PDA devices can be used on the client devices in the network.

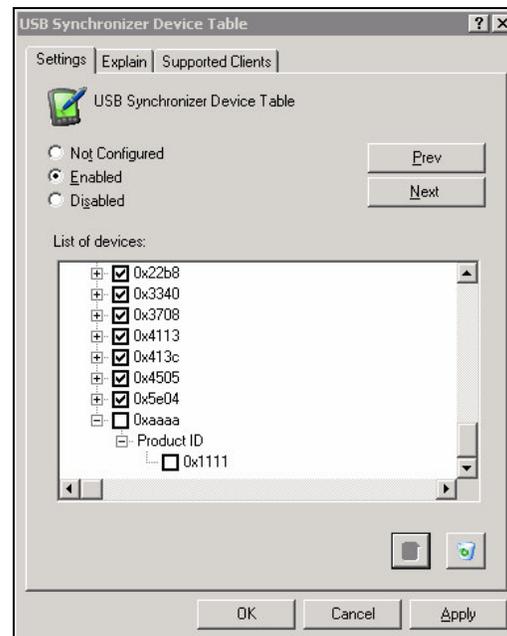


Add a New PDA Model to the List of Devices

1. Refer to Appendix B for details on how to obtain the VendorID and ProductID of a new PDA device.
2. Press the **Add Device**  button to add a new PDA device to the list.
3. The **Add Device** window appears.



4. Enter values in the Vendor ID and Product ID fields.
5. Press OK to add the new device to the list.





Remove a PDA Model to the List of Devices

1. Refer to Appendix B for details on how to obtain the VendorID and ProductID of a new PDA device.
2. Select a Product ID then click the **Remove Device**  button to remove the PDA model from the list. When all Product IDs of a particular Vendor ID have been removed, the Vendor ID is automatically removed from the list.

Close the USB Synchronizer Device Table

1. Click **OK** to close the **USB Synchronizer Device Table** window and return to the **PolicyEditor**.
2. Close the **PolicyEditor** to return to the **<OU name> Properties** window.
3. Click **OK** to close the **<OU name> Properties** window and return to the Xcalibur Global Management Console.

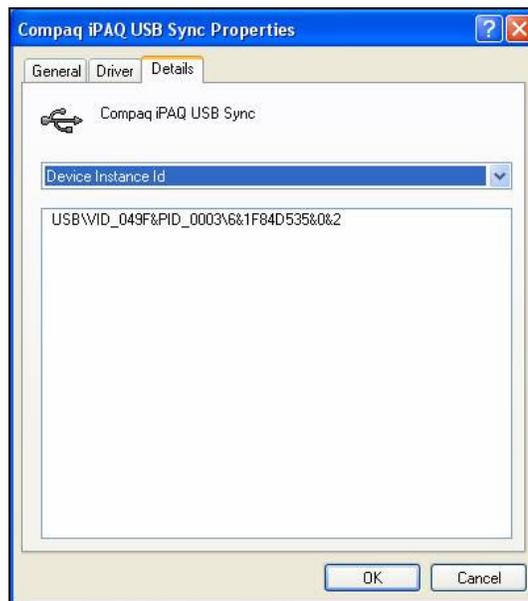


Appendix B How to Determine the VendorID and ProductID of a Device

This appendix describes how to determine the values for the VendorID and ProductID of a new PDA device that does not exist in the **USB Synchronizer Device** Table.

Perform the following procedure:

1. Connect the PDA to a PC running Microsoft Windows XP.
2. After the device is recognized by Windows XP open the **Device Manager**.
3. In the **Device Manager** locate the PDA device and double-click to display **<device name> Properties** window.
4. In the **<device name> Properties** window select the **Details** tab, as illustrated below.



5. From the dropdown list select **Device Instance Id**.
6. The VendorID and ProductID appear as part of the string displayed in the window below the dropdown list.
7. The VendorID is the four characters following the string **VID_** and the ProductID is the four characters following the string **PID_**.
8. In the example illustrated above:
 - 8.1 VendorID=049f
 - 8.2 ProductID=0003

Note Refer to Appendix A to learn how to add a new device to the list.



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