IBH S7 for Windows Programming Software

Using the Siemens MPI-USB Cable

Software Toolbox
International Corporate
Headquarters, USA

148A East Charles Street
Matthews, NC 28105 USA
www.softwaretoolbox.com

TOLL FREE: 888-665-3678
GLOBAL: 704-849-2773
FAX: 704-849-6388

Table of Contents

Introduction

There are many ways to connect the IBH S7 PLCs for Windows Programming Software to S7-300/400 PLCs. The programming software supports the following connections to S7-300/400 PLCs:

Siemens TCP/IP
RS232 – MPI Serial
USB – MPI Serial
IBH NetLink (MPI to Ethernet)
SimaticNet
Sinec H1 (optional INAT driver)

The most common method that causes customer issues is connecting using the Siemens USB-MPI cable. It is not as straight forward as other methods.

This guide is designed as a simple how-to for connecting to your S7-300/400 via the Siemens USB-MPI cable. It is not a comprehensive guide to configuring your cable or using the software. Please refer to the respective user's manuals for more in-depth information.

In this guide, we make the following assumptions. First, you have a fully functional PLC that has previously been configured for MPI communications. Second, you have some familiarity with Siemens PLCs and programming. Finally, you have installed the software and familiarized yourself with the interface.

IBH S7 PLCs for Windows Programming software is developed by IBH Softec (http://www.ibhsoftec-sps.de) and brought to you by Software Toolbox, Inc. (http://www.softwaretoolbox.com/). If you have not downloaded and evaluated the software you can download the demo version of the software here: http://www.softwaretoolbox.com/quicklink.asp?partnumber=41278102.

Setting Up the Connection

To connect to an S7-300/400 PLC via a Siemens USB-MPI cable you must go through several steps to set the interface. Because of the Siemens drivers, this is different than if you were using the IBH USB-MPI cable which uses a virtual COM port for communications.

Opening the Software

If you have not added a shortcut to your desktop you will open the software by going to the following path as you see in **Figure 1** below:

Start | Programs | S5 – S7 For Windows | S5 – S7 For Windows.

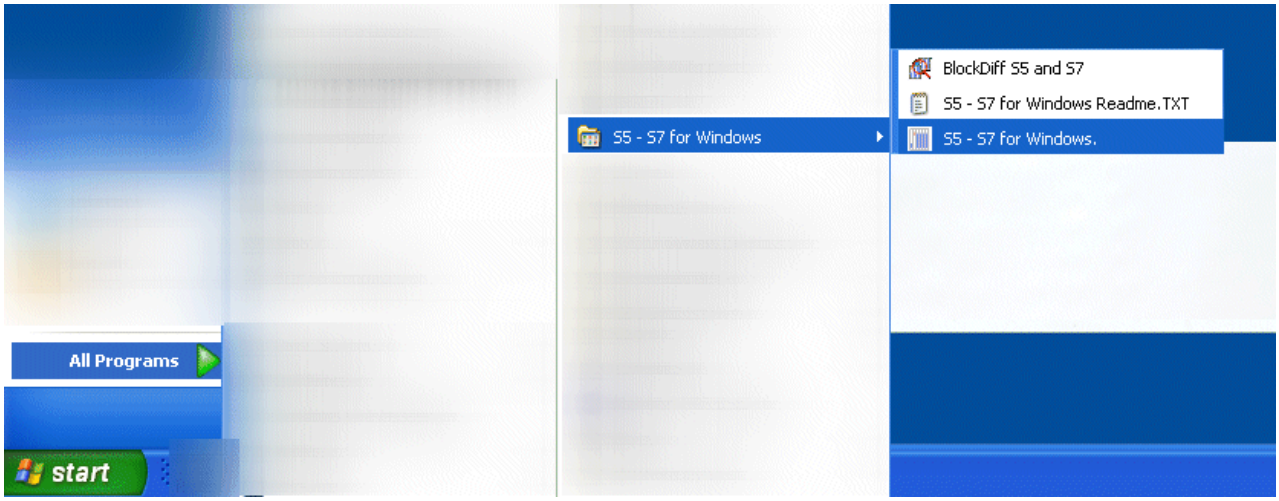

Figure 1: Start IBH S5 – S7 for Windows

This will open the interface as shown below in **Figure 2**

Configuring Preferences

To configure your communications preferences, click on the preferences button.

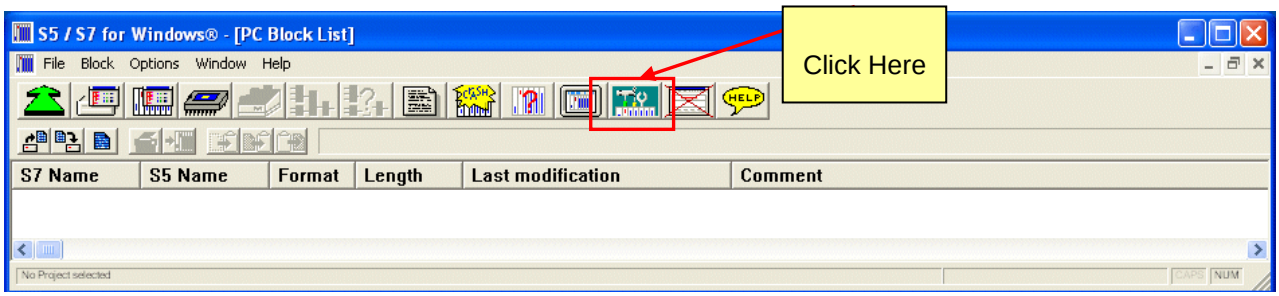

Figure 2: S5-S7 for Windows Interface

This opens the preferences dialogue. Here you see all of the options needed. Configure them as shown below and click on the "Select Connection" button in the SimaticNet section.

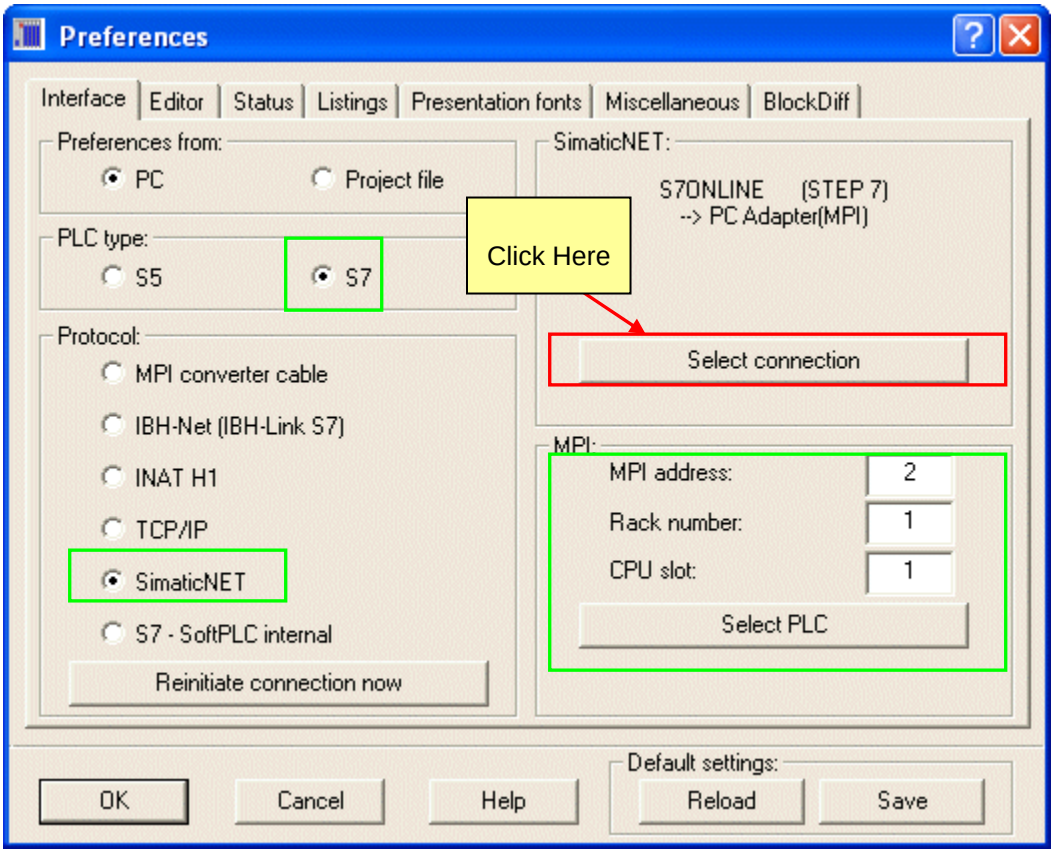

Figure 3: Preferences Dialogue

Configuring the PG/PC Interface

After clicking “Select Connection in the Preferences Dialogue, you will see the PG/PC Interface Dialogue. Here you will configure your adapter interface to use USB, rather than a standard COM Port.

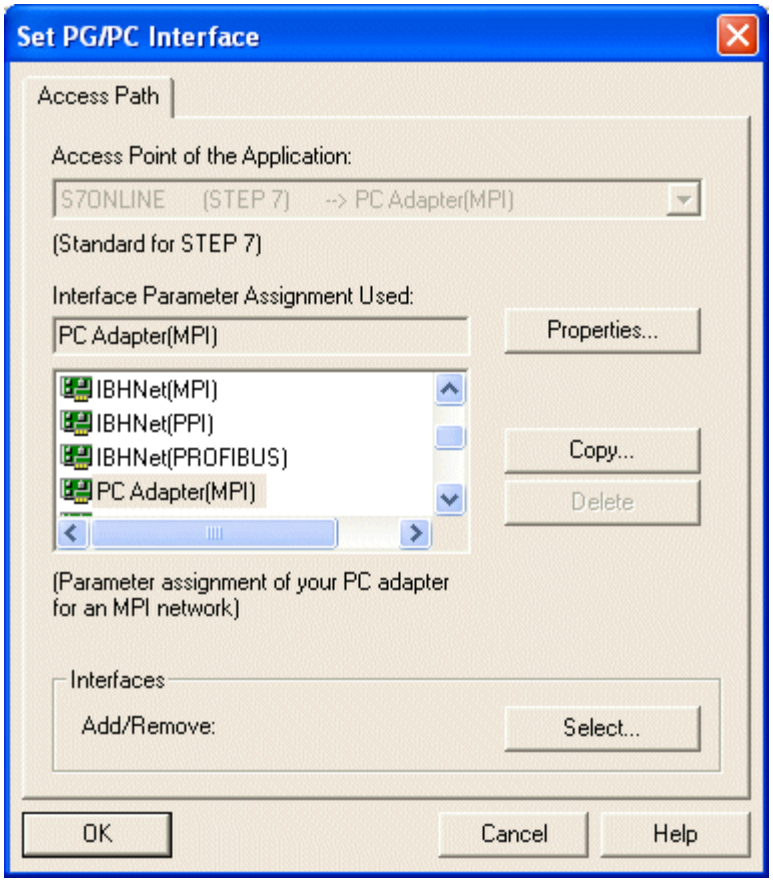

Figure 4: PG/PC Interface

You will highlight the PC Adapter(MPI) to configure the interface for use with the Siemens USB –MPI cable. Simply highlight the adapter and click the “Properties” button. This will expose the Adapter properties dialogue shown below in **Figure 5.**

On the MPI Adapter properties, you will set each of the settings to match the settings of your Siemens USB-MPI cable. Note that the Address field must be unique in the MPI network and refers to the local node address of the PC. Select the Local Connection Tab.

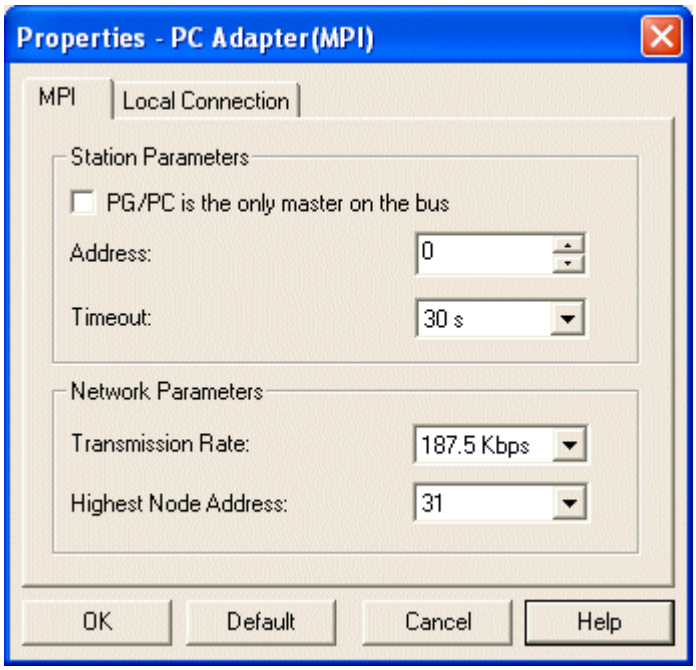

Figure 5: PC Adapter Properties – MPI Settings

The local connection settings allow you to specify that the Adapter is connected to a USB port rather than a standard serial COM Port.

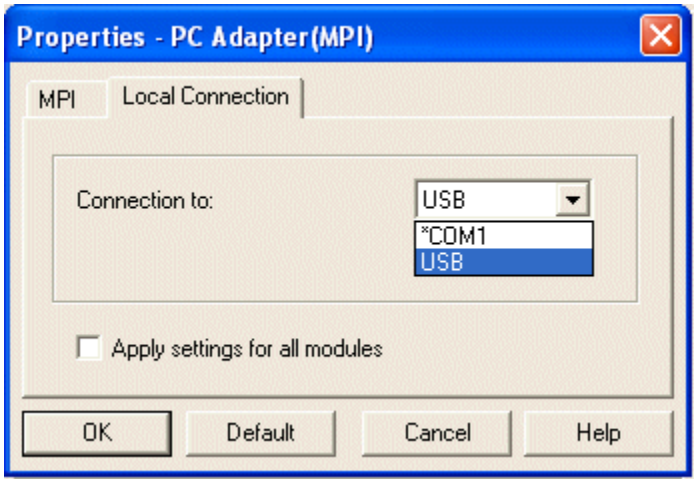

Figure 6: PC Adapter Properties – Local Connection

Verifying Connection Settings

After setting your connection, you should test by trying to connect to the device. To do this, click on the PLC Block list.

Figure 7: PLC Block List Connect

If the connection is successful, it will return the blocks in the PLC as below in **Figure 8**.

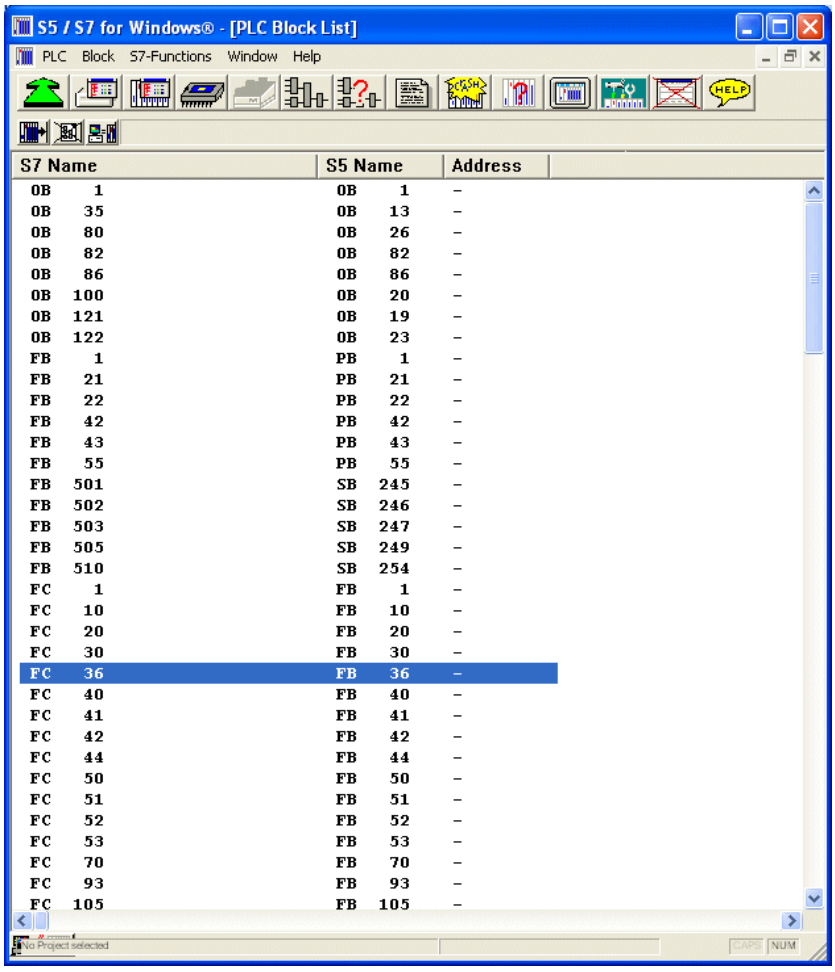

Figure 8: PLC Block List Returned from PLC

Summary

This document has been provided to assist the end-user in the basic configuration of a connection to an S7-300/400 PLC from the IBH S5/S7 PLCs for Windows Programming Software using a Siemens USB-MPI cable. From this guide, we hope that you have gained an understanding of how the IBH software interacts with the Siemens USB-MPI communication cable. While the document is not an exhaustive reference or User's Guide for the IBH Software or your Siemens cable , it has been designed to give a quick answer to a common issue. If you have further questions or need assistance our experienced staff is more than happy to help. We can be contacted in the methods outlined below.

Contact Us

If you have any questions, or seek further information and help:

Online Support http://support.softwaretoolbox.com/

Email Support Support@softwaretoolbox.com

Phone Support +1 (704) 849-2773

Fax +1 (704) 849-6388

Mailing Address

Software Toolbox, Inc. 148 A East Charles Street, Matthews, NC, 28105. USA.