

Palm device applications using Infrared and EthIR LAN/WAN (Avantgo)

A sample scenario for the “Palm Connected Organizer utilizing its Infrared port for connecting to the EthIR LAN/WAN to access a LAN”. The EthIR LAN® and EthIR WAN™ are products from Clarinet Systems, Inc.® (see Appendix D for a brief introduction).

This application is by no means inclusive. Also, only a few features of this application are presented and not all the features of this application are explored. For the full potential of this sample application, please consult the manufacturer.

For demonstration purposes we must assume there is a LAN connection setup already and one EthIR LAN Switch is connected to the LAN. Also, a DHCP server is available for IP addressing assignments required for the EthIR LAN Switch. A DNS (domain name server) is optional. Without a DNS, you will need to know the IP address of the server/computer your Palm device is going to talk to. Please refer to Appendix B and C for typical network setups.

A Palm IIIx or V with OS 3.3 is required for this sample demo application. We assume you have basic knowledge of using a Palm Connected Organizer. This sample application requires proper configuration in the “connection” and “network” sections of the “Prefs”. You should know how to install applications onto the Palm device. Consult your Palm user’s manual or the installation guide that comes with your application.

For Palm IIIx/V with older OS versions, it is required to upgrade the Palm’s flash memory in order to upgrade to OS 3.3. An upgrade utility and OS 3.3 is available on Palm’s web site, <http://www.palm.com>.

Getting web pages using AvantGo

Brief description

AvantGo provides solutions that ensure mobile users to have the most current and essential information they need which can be downloaded into their Palm and WinCE devices. AvantGo automatically optimizes, consolidates, compresses, transfers and renders corporate data and intranet applications onto handheld computers, replicating important information for off-line access, as well as optimizing information for on-line access. The disconnected support enables mobile users to review and update important corporate data without requiring an active network connection.

[AvantGo.com](http://www.avantgo.com) is a free interactive service that is designed to give mobile users and business professionals connectivity to personalized content and rich interactive applications with easy access to thousands of popular Web sites via their handheld computers. AvantGo is available for access by both users of Palm and WinCE compatible handhelds devices.

Please visit AvantGo's web site (<http://www.avantgo.com>) for detail information about its products and services.

In our sample application, we use AvantGo's "Mobile Link" with our Palm V to retrieve the latest web information on AvantGo.com using EthIR LAN.

Hardware and software requirements

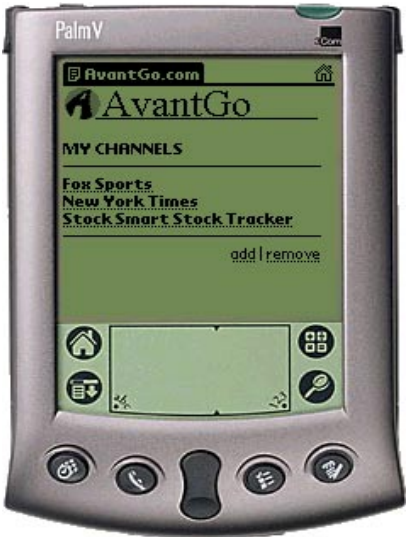
1. A Palm IIIx/V compatible device with OS 3.3 or higher.
2. One EthIR Switch with one EthIR Beam connected and pointing to the Palm. The EthIR Switch should be connected to a LAN and the Internet is accessible via the LAN.
3. Access to the Internet via a LAN. Please refer to Appendix B and C for a typical network setup.

Setting it up

1. Please refer to Appendix A to setup the Palm device to use Infrared for its network connection.
2. Setup the LAN connection as in Appendix C.

NOTE: "Mobile Line" does not work inside of a firewall or a proxy. In order for our application to work, the EthIR LAN switch has to be outside of the firewall. Please refer to your local system administrator for information about your network setup.

3. Go to <http://www.avantgo.com> and download the free software "AvantGo Client" for Palm devices. Sign on for a new account. Remember your user name and password because you need them on your Palm device when you sign on later. Select the channels you are interested in. After downloading the client software, follow their instruction to install it on your Palm device. There will be two applications installed on your Palm, one is "AvantGo" which is for Web content browsing, and the other one is "Mobile Link" which is for connecting to the Web server "AvantGo.com." Launch "AvantGo" on your Palm device, make sure all your channels are shown. Following are sample channels:



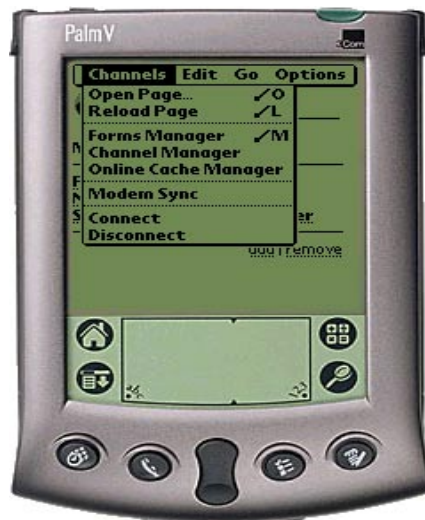
4. Run "Mobile Link" on you Palm device.
Make sure all the information is entered correctly as shown. User Name and Password should be the ones you chose in step 3 above.



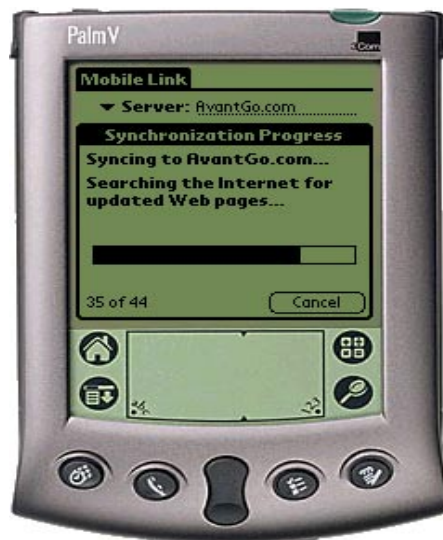
Using AvantGo

Tap the web links on AvantGo to go to your favorite web sites. You can use:

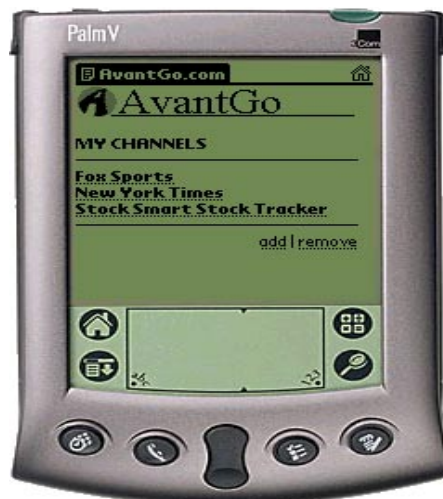
- HotSync, which uses serial cradle, to get the latest web pages.
- "Modem Sync", which uses Infrared, to get the latest web pages in real time.
 - Tap "Modem Sync" under Channels.



- Your Palm will connect to AvantGo.com to access the latest web pages.



- Browse your favorite web pages.

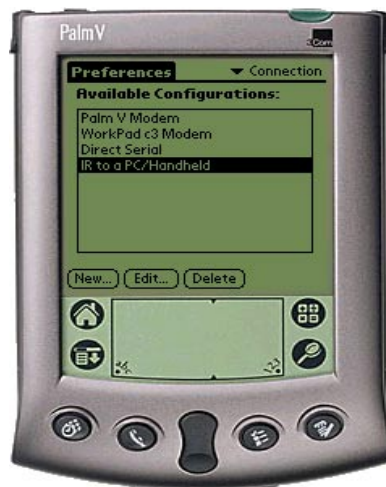


Appendix A: Setup Palm to use its Infrared for network connection

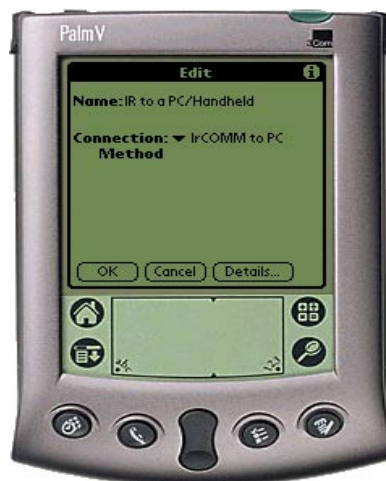
Run “Prefs” setup.



Setup “connection”: select “IR to a PC/Handheld”

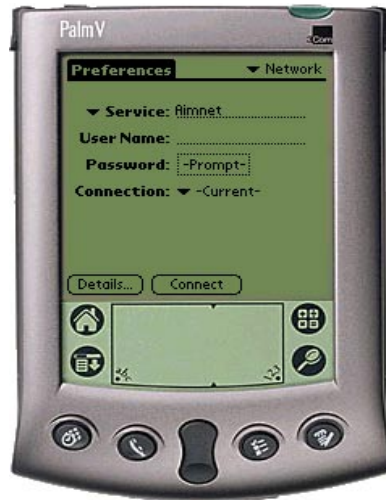


Tap “Edit” then select “connection method” to be “IrCOMM to PC”



Setup “Network”:

- “Service”: select “Aimnet”
- “User Name”: this field is ignored. You can input anything or leave it blank.
- “Password”: this field is ignored. You can input anything or leave it blank.
- “Connection”: select “IR to a PC/Handheld”

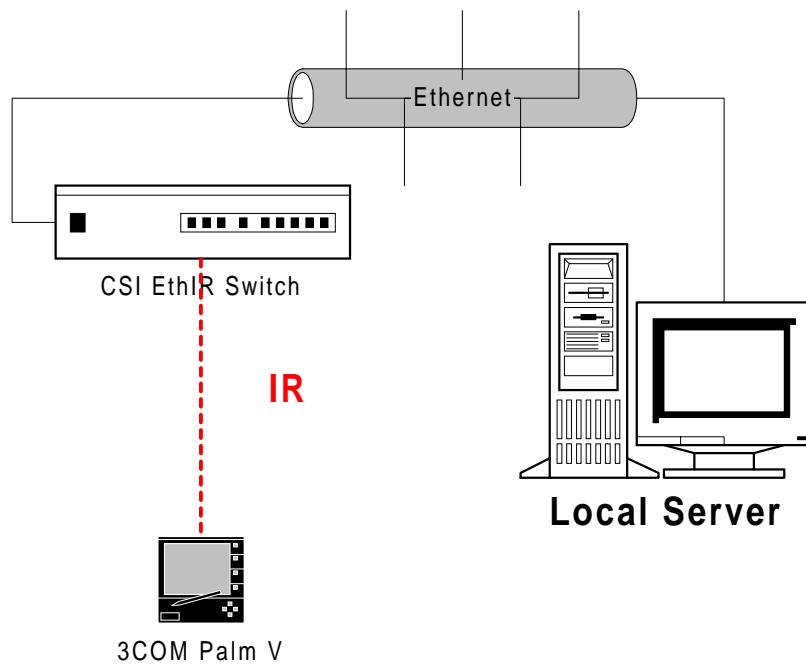


- “Details...”
 - “Connection type”: select “PPP”
 - “Idle timeout”: select “Power Off”
 - “Query DNS”: select this if you have a DNS on your LAN
 - “IP Address”: select automatic



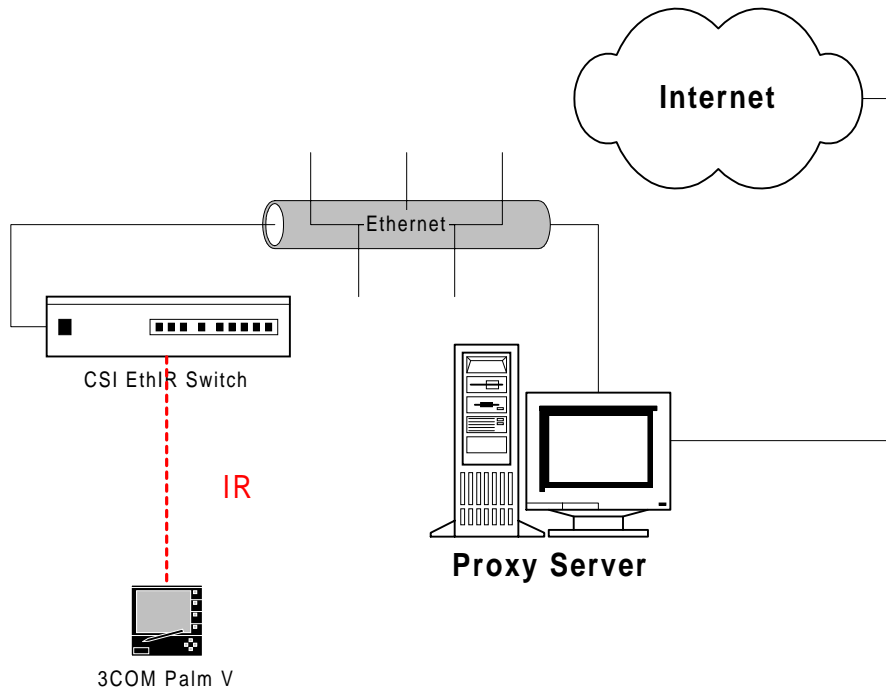
Appendix B: Accessing Server on Local Area Network (LAN)

This appendix shows a typical connection setup for Palm using its Infrared accessing a LAN server through EthIR LAN. The LAN server can be an e-mail server or a synchronization server. The server contains DHCP, DNS, POP3 and SMTP services.



Appendix C: Accessing the Internet using Local Area Network (LAN)

This appendix shows a typical connection setup for Palm using its Infrared accessing the Internet through EthIR LAN. This is a typical corporate LAN setup with all the computers using LAN to access the Internet through a proxy server.



Appendix D: Clarinet Systems and Its Product Line

Our main product, EthIR LAN includes EthIR Switch, a multiple port Infrared to LAN switch, and the EthIR Beam, an infrared network access point. Eight and sixteen port model systems are available. For detailed information, please visit our web site <http://www.clarinetsys.com>. Here is a brief description.

EthIR LAN has two major parts:

- EthIR Switch, usually sits in the network equipment closet.
- EthIR Beam, the Infrared network access point which the user interacts with.

The EthIR Beam connects to EthIR Switch using CAT-3 or CAT-5 cable with length up to 100 meters. No external power supply is required for the EthIR Beam. We support IrDA 1.0 SIR, up to 115Kbps and 1.1 FIR 4 Mbps specifications. We support most of the popular operating systems, Palm OS (version 3.3), WinCE, Win 95/98/2000, MacOS and Linux.