

History of this document

2004-01-19 First published

2004-01-22 Changed to new Ipaq compatible WEP-key and added some other information.

2004-01-26 Yet another change of key due to incompatible with Ipaq, hopefully the last...

2004-01-29 Added OS extensive X-info. Remove an old WEP-key from your Keychain.

Background

The computer group at Designhögskolan has decided to increase the security in our wireless lan. If you don't use the wireless lan you don't have to read this technical mumbo jumbo.

From today 2004-01-19 we have implemented 128-bit WEP Encryption. This means that you no longer can access the wireless lan without entering a WEP-key into your computer. This should be a onetime experience until the key is changed next time.

I have taken some screenshots on both Windows XP and OsX to give you a hint where you shall enter the key.

The key can be expressed and entered in either ASCII or HEX and is as follows:

ASCII: "awepdesignkey"

HEX: "6177657064657369676e6b6579"

In most cases you will have the choice to enter the WEP-key in either ASCII or HEX. If you decide to enter the key in ASCII you should be aware that it is case sensitive in contrary to HEX.

This key is only intended for staff and students at Designhögskolan and should not be shared with others.

If you want to know more about WEP encryption this is a good link:

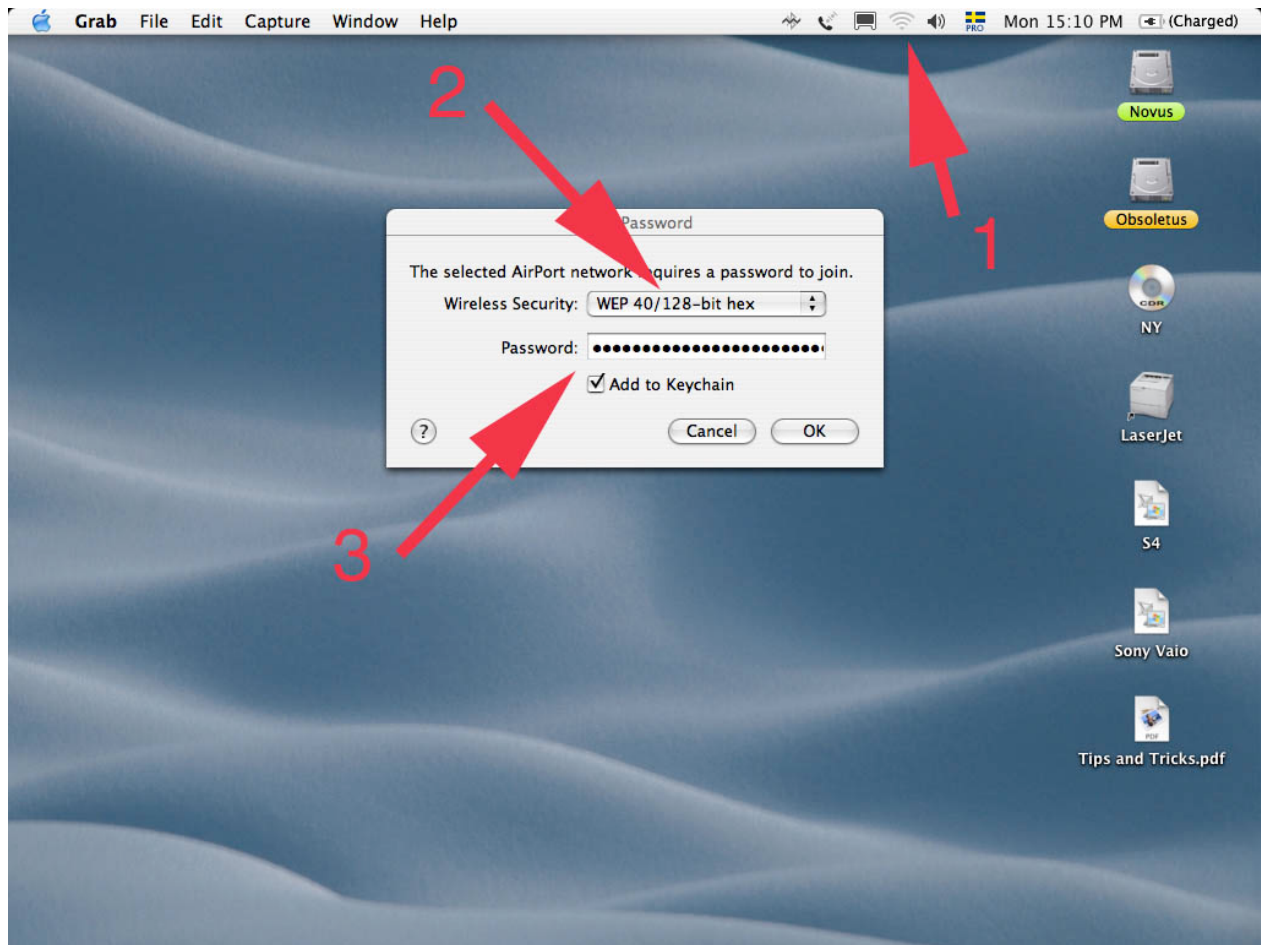
<http://www.proxim.com/support/all/harmony/technotes/tn2001-08-10c.html>

When I created the new WEP-key I used this link:

<http://www.kiddspc.com/wep.html>

A major disadvantage with WEP-encryption is that it slows down the Wireless LAN-speed. I made a simple test at home and noted a drop from 10Mbit/s to 6Mbit/s with a 128 bit WEP-key. One almost must sacrifice speed for security. Compare with the time it takes to walk trough an opening in a wall without a door and a opening with a door protected by a code lock.

OS X screenshots



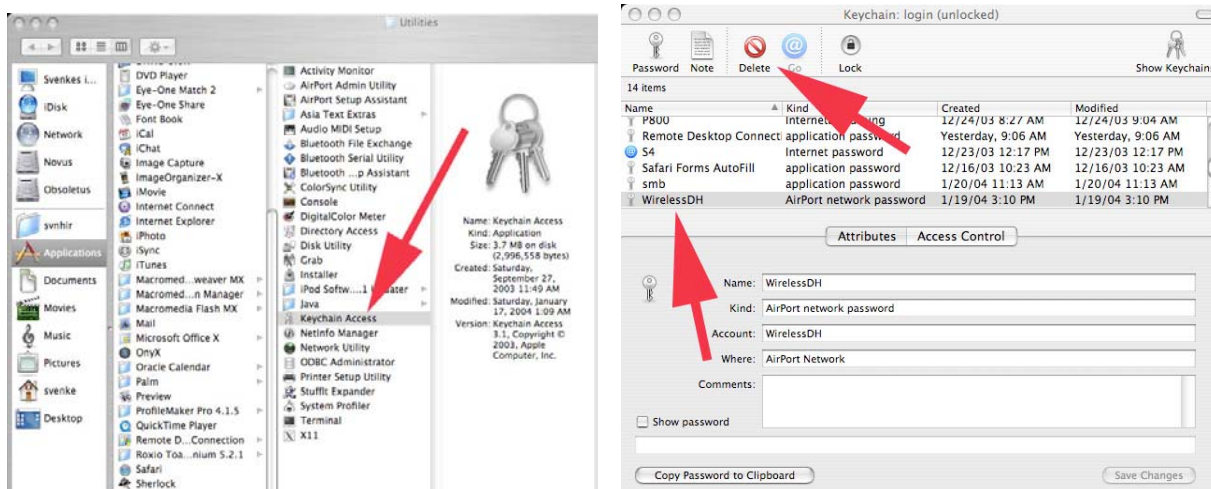
1. Click on the airport symbol and select WirelessDH if it is present. If it is present and you enter the key with an error you have to remove any old key from your Keychain see below "Removing an old WEP-key from your Keychain"
2. Select WEP 40/128-bit hex at Wireless Security if you want to enter the key in HEX-code (not recommended). Select WEP 40/128-bit ASCII if you want to enter the key in ASCII (recommended).
3. Type in the WEP-key above and make sure you check Add to Keychain so you don't have to enter the key every time you want to connect to WirelessDH



If you don't have the option to select WirelessDH directly as above you have to select "Other" when you click the airport symbol. The procedure to fill in that dialog is the same as above. Please note that if you have to type in "WirelessDH" it is case sensitive. Also please note that after correctly selecting WEP 40/128-bit hex or WEP 40/128-bit ASCII and then WirelessDH. When you start typing in the key/password OS X changes Wireless Security to WEP Password which is wrong. So before you start entering the key make sure you reselect WEP 40/128-bit hex or WEP 40/128-bit ASCII. (Thanks Steve!)

Removing an old WEP-key from your Keychain

When the WEP-key changes you must manually delete it from your Key-chain (Thanks Steve!). See screenshots below.

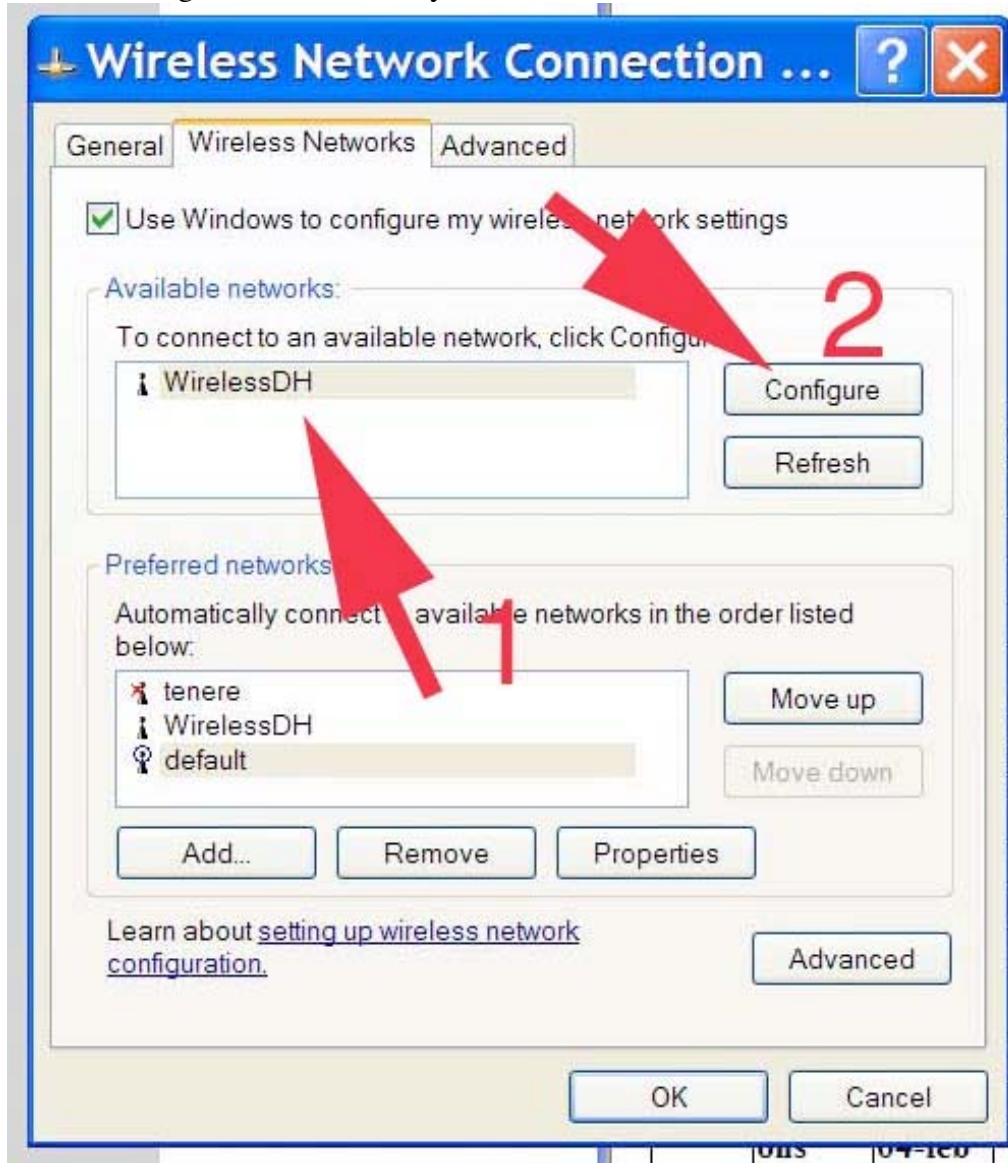


Open the Keychain Access and delete the WirelessDH-key, proceed to OS X screenshots above.

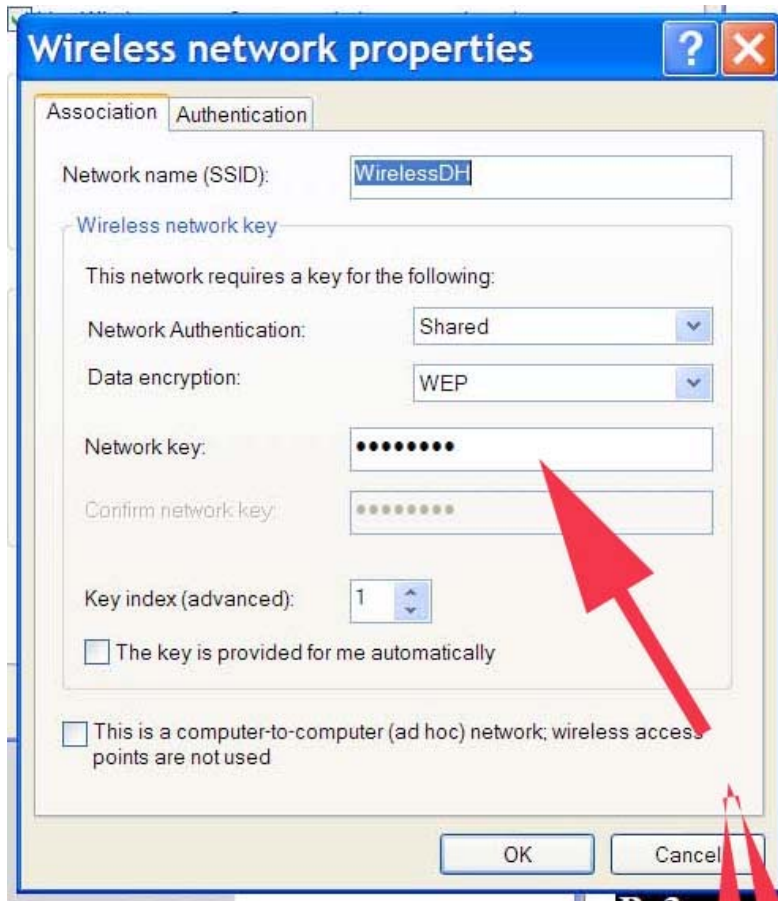
Windows XP screenshots



Double-click on the little icon above located down in the right corner. Depending on what drivers you have for your wireless network card you might not have this icon. In that case either try to find the dialog below another way or consult Sven-Erik.



1. If you have been connected to WirelessDH previously select it
2. and click Configure. Otherwise just click Configure to get next dialog.



Fill in the dialog as above and enter the WEP-key under Network key, press OK and it should work.

IPAQ's and other toys

Ipaq's work fine with the encrypted WLAN but there are currently no screenshots available, please consult Sven-Erik if you want them online.

Access points complete configuration

SSID:	WirelessDH
Channel:	8
WEP Encryption:	128Bit
WEP-key ASCII:	awepdesignkey
WEP-key HEX:	6177657064657369676e6b6579
Authentication:	Auto
DHCP Server:	Enabled, 130.239.61.13 – 130.239.61.109, Lease Time 1 Day

Other

If you don't manage to enter the key by yourself or have any other questions regarding the wireless lan don't be afraid to contact Sven-Erik to help you out!

This document only describes (very outlined) how to connect to our 10 access points. Compare with plugging the network cable from your computer to the wall. You will still have to set up correct IP-numbers to get it working. Actually it is quite easy to set up your computer. Set the TCP/IP settings of your wireless network card to "Get an IP-address from a DHCP-server" and the same for DNS.

All wireless traffic is directed to a proxy unless you have a VIP IP-number. So you also have to configure your proxy-settings. The proxy is **proxy.umu.se** port **80** and the login is the same as to your University email.

Wireless printing from OsX is still not working due to Apple. A workaround for this trouble until Apple solves this rather annoying problem is to start the day at Designhögskolan by printing a document connected with a network cable. After this procedure strangely you can print wireless the rest of the day.

Good Luck
Sven-Erik