MIR spectrometer connection

To connect Bruker Alpha MIR spectrometer to computer

# Connecting the MIR to a computer

Use a CAT5e Crossover cable to attach computer to MIR.

# Windows 7

* <Control Panel>
* <Network and Sharing Center>
* <Change adapter settings>
	+ Select Ethernet connection
	+ Right click and click <Properties>
		- Select Internet Protocol Version 4 (TCP/IPv4)
		- <Properties>
			* Select “Use the following IP address”
			* IP address: 10.10.0.100
			* Subnet mask: 255.0.0.0
			* <OK>
		- <Close>
* Open internet browser
	+ Enter 10.10.0.1 in address panel

*To restore settings:*

* *<Control Panel>*
* *<Network and Sharing Center>*
* *<Change adapter settings>*
	+ *Select Ethernet connection*
	+ *Right click and click <Properties>*
		- *Select Internet Protocol Version 4 (TCP/IPv4)*
		- *<Properties>*
			* *Select “Obtain an IP address automatically”*
			* *Select “Obtain DNS server address automatically”*
			* *<OK>*
		- *<Close>*

# Windows 10

* <Control Panel>
* <Network and Internet>
* <View network status and tasks>
* <Change adapter settings>
	+ Select Ethernet connection
	+ <Enable> if necessaary
	+ Right click and click <Properties>
		- Select Internet Protocol Version 4 (TCP/IPv4)
		- <Properties>
			* Select “Use the following IP address”
			* IP address: 10.10.0.100
			* Subnet mask: 255.0.0.0
			* <OK>
		- <Close>
* Open internet browser
	+ Enter 10.10.0.1 in address panel

*To restore settings:*

* *<Control Panel>*
* *<Network and Internet>*
* *<View network status and tasks>*
* *<Change adapter settings>*
	+ *Select Ethernet connection*
	+ *Right click and click <Properties>*
		- *Select Internet Protocol Version 4 (TCP/IPv4)*
		- *<Properties>*
			* *Select “Obtain an IP address automatically”*
			* *Select “Obtain DNS server address automatically”*
			* *<OK>*
		- *<Close>*

# Installing and setting up OPUS

## Software installation

* Insert USB memory stock
* If Setup.exe runs automatically <Cancel>
* In Windows explorer find Setup.exe
	+ Right click Setup.exe
	+ Click <Run as administrator>
* Follow default instruction
	+ User name: ALPHA SYSTEM
	+ Company name: CSIRO

## Registering OPUS

* Start OPUS
* User ID: Administrator
* Password: OPUS
* Assigned workspaces: Alpha.ows
* <Setup>
	+ <Register OPUS>
	+ Use information from box to fill in Registration Dialog
	+ Click <Check Registration Data>
	+ Click <OK>
* <File><Exit> to close OPUS

## Setting up OPUS

Restart OPUS

* <Setup>
	+ <Customize toolbars>
	Drag icons for the following commands to the toolbar at the top
		- File
			* Unload All
			* Save
		- Manipulate
			* Convert spectra
		- Evaluate
			* Quant 2 Analysis/File List
			* Quantitative 2 Analysis
			* Setup Quant 2 Method
	+ <User Settings>
		- <New File> tab
			* Select <Add new spectrum to window>
			* Check <Autoscale all spectra on new and changed data>
* <Validation>
	+ <Optic Setup and Service>
		- Configuration: Alpha
		- <Save Setting>
	+ Place reference in instrument
	Click OK to run performance test
* <Measure>
	+ Setup Measurement Parameters
		- On Advanced tab change:
			* Sample scan time: 64
			* Background scan time: 64
			* Experiment: <Save> (probably as DRIFT.XPM)
			* <Accept and Exit>