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>