

# Instrument computer support for Research groups in Chemistry

Instruments used in Chemistry often have computers attached to them. Often those computers require special support considerations.

## Questions to ask an instrument vendor

Chemistry IT staff can help you avoid deployment and on-going support problems with any instrument you are considering. We have greater success when we are brought into the process early into the evaluation process. If you are considering getting a new instrument, we would be pleased to assist you- just let us know at <ChemIT>. Some ways our services can help your group:

- Often we can help buy and deploy a computer which is cheaper, works more reliably, and is more replaceable in future years than a vendor-provided system.
- We can assist with networking, IT security, and backups.
- We can often help automate and optimize the use of a computer.

If you must buy a computer from the vendor, for whatever reasons, here are questions from an IT perspective. Their answers will help Chemistry IT support any new instrument. Feel free to ask any of the questions below which you feel appropriate to the instrument company.

1. Hardware – can you provide the hardware specifications of the actual computer provided to run the instrument? Brand of computer, memory, processor, hard drive(s)? Warranty?
2. What operating system is the computer running? 64-bit or 32-bit? Enterprise?
3. How does the computer communicate with the instrument? Ethernet, USB, something else?
4. If ethernet, does the computer ship with two Ethernet ports? (The second one so one can be used for general networking.) If just one for instrument communication, Chemistry IT will usually have to add one.
5. To run the instrument, does the user have to have administrative rights on the computer or is a basic user account sufficient?
6. Can the name of the computer be changed to AS-CHM-XRAY-02 from whatever it is sent as without causing problems with instrument control?
7. Can we turn on and look at the computer before the install, assuming the computer arrives before the install date?

## Some ways an instrument computer may differ from an end-user computer

These are generalities, and there is variability between systems, naturally.

Their on-going, day-to-day functioning is very critical to the Research group.

- Downtime must be kept to a minimum.

Interruption due to automated backups, updates, or rebooting may interfere with instrument-gathering functions.

The data being collected does not need to be backed up since it is process and moved to trusted data storage locations such as group file shares.

The OS, applications, and device drivers are often unique.

- Being able to restore them from an image may be easier than restoring "from scratch", which may not even be a realistic option.