1. Job Details

Job Title: MS-Windows Application Package Developer
Line Manager: School IT Services Manager

2. Job Purpose

To package MS-Windows applications for deployment in the School’s and University’s Open access laboratories which operate under the UoE "Managed Desktop" (EUCS DST). Ditto for staff use under the School’s own managed desktop and provide integrated access paths to the School core services for Windows users.

3. Main Responsibilities

1. MSI Packaging the MS-windows applications required in the teaching labs using the methodologies dictated by the DST to ensure they are also available in the 24/7 University Microlabs. 40%
2. Assist in the development and testing of a more flexible management system suitable for deployment on staff and postgraduate PCs and laptops ("Machination"). 20%
3. Integration work between Windows and Linux/Unix core services. 20%
4. Windows users’ technical support. 10%

4. Planning and Organising

Postholder required to be self organising wrt to job prioritisation, blending event driven and development work.

Much of the work is generated by events, e.g. fault finding, which may be urgent and require immediate attention and the postholder is expected to prioritise event driven work in consultation with senior members of the team. On development projects, the postholder would be expected to show initiative within the framework of the project.

5. Problem Solving

A good ability in analysis and support skills appropriate to computer systems problems, with technical leadership to other members of the team.

Examples: 1. MSI’s, e.g Matlab - trying different approaches to packaging, working to use the tools and formats provided but also often working around their limitations for difficult packages.
2. UnixMenu/Automatic Installer (two access utilities developed by the postholder for MS-Windows users): Working to find out appropriate methods and systems to implement these automatic tools.

6. Decision Making

The maintenance and development of new services requires decisions in respect of changes which will affect all users of these services. The postholder would be expected to be able to assess risks and provide advice to more senior colleagues in specific areas.

The majority of the day to day decisions, e.g. on how to fix faults, would not require upward reference, but anything out of the ordinary would require self initiated research or team discussion.

Examples: 1. VPN: evaluating different VPN systems wrt to security, cost, installation requirements etc.
2. Website redesign (for IT team pages): evaluating approaches to layout, underlying frameworks and programming languages to be used, version control as well as content.

7. Key Contacts/Relationships

Internally, customers range from students to head of school and externally included visiting academics and senior industrialists as well as number of affiliated organisations.

Technical support between other IT staff in the University and external. Key are the weekly informal Thursday lunchtime meetings between members of SciCOs and DST where many problems are thrashed out and ‘best practice’ developments initiated. Formal liaison with DST wrt MSI packaging and lab
distribution.

8. Knowledge, Skills and Experience Needed for the Job

The job is of a very technical nature normally requiring graduate level education, a significant level of hands on skill and a at least two years experience with a range of both hardware and operating system software. The ability to solve problems in a timely and effective manner is essential along with technical documentation skills.

Formal (external) training in Wise Studio for MSI production.

9. Dimensions

The School has 1200 undergraduate and taught MSc students, 400 research students and staff, altogether 2100 registered user accounts.

The School operates three managed and maintained platforms:

a. Solaris: 206 installations (incl 74 seat partitionable teaching lab, 42 servers),

b. Linux: 548* installations managed via LCFG; 15 turnkey 64-bit servers.

c. Windows XP: 400 installations (265* "SEE" managed, 145* "AD" managed in five labs with UG compatibility).

[*]390 are dual boot Linux/Windows (technology developed in SEE and now exported to DST for the Microlabs)

d. In addition we provide network services (filestore, printing etc) to a further 40 personally managed machines (mainly user laptops) and a similar number of lab-experiment turnkey systems throughout the School.

Filestore: 42 Solaris servers, 14 Linux NAS boxes (cross replicating) (>100TB total). 90 network printer queues (60 printers). Web sites for 33 registered domains (hosted on 3 servers), mail servers for 16 domains (3 servers).

The School has designed, manages and operates a fibre network linking 13 buildings spread over the KB site together with a cat5E distribution to 2800 circuits in offices and labs. The School "backbone" centres around two Cisco routers connected directly to Edlan and Informatics respectively, 32 network switches (up to 168 ports each) with hot-spare inter-links. 25 WAPs provide wireless coverage throughout for mobile users and visitors. In three buildings, the data network also carry phone circuits (130 in total) for which connections are also managed by the IT team.

Applications: c240 Solaris, c30 Linux, c40 MS-Windows (25 MSIs for teaching labs), 20 licence servers of various types. Only applications that run on all three platforms are eligible to be classed as core applications within the School. There are 9 of these including basic maths and officetools: Matlab, Maple and OpenOffice.

The user help-desk uses the EUCS CMS with calls filtered by the college support team, and runs at between 150 and 200 open calls for the School team to resolve. All members of the team take a half-day duty turn, assigning jobs to the appropriate team member. The School’s IT help web site contains 204 pages (and about 2500 links).

10. Job Context

The post requires a wide ranging knowledge across a number of core services. The job is technically complex and challenging, as the technology, and hence the service requirements of our researchers in particular, are constantly evolving before any support infrastructure is available from the University. Issues arise often that have not been encountered before and the IT team is always at the leading edge, frequently advising EUCS on such matters.

In order to ensure continuity of service, especially for taught laboratories for which rescheduling is virtually impossible, we have to develop back up for those central services that we normally rely on. Where practical, these are hot-swap, but inevitably many require on-the-fly manual reconfiguration.

11. Verification

I agree that this job description conveys an accurate description of the job.

Job Title  Name  signature  date