

LSHTM Case Study 2nd February 2011

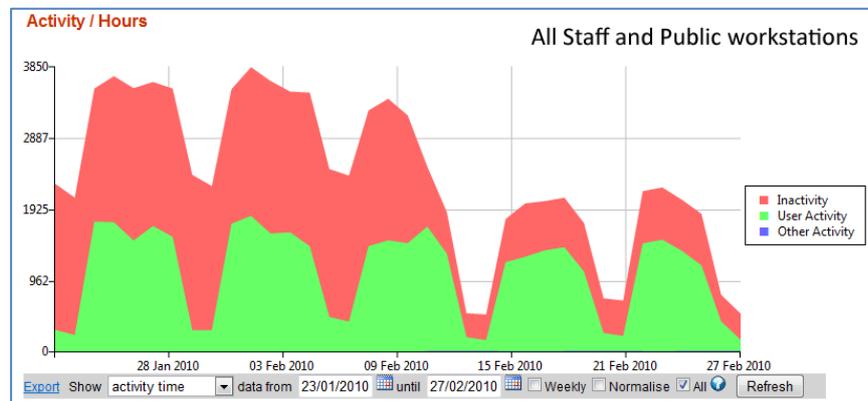
PC power management

LSHTM is committed to reducing its energy consumption and has set challenging targets to meet in this area, including a commitment to the 10:10 campaign.

While ICT accounts for around 2% of global carbon emissions, within HEIs it can account for between 20-30% through use by staff and students. In order to help minimise the consumption across departments within LSHTM, in July 2010 an energy saving solution to monitor PC activity and implement remote shutdown when PCs were not in use was installed.

The software creates detailed reports and graphs showing when individual machines or groups of computers are in active use, logged in but idle, on but not logged in, or powered off. Additionally, it provides the ability to implement actual power-saving measures such as shutting down PCs, putting machines into standby and turning off monitors when a computer is idle or not in use.

The implementation was conducted in two stages, for both staff and public workstations. For the first phase the software was left simply report on workstation use, monitoring the levels of inactivity and PCs left switched on when no users were logged in.



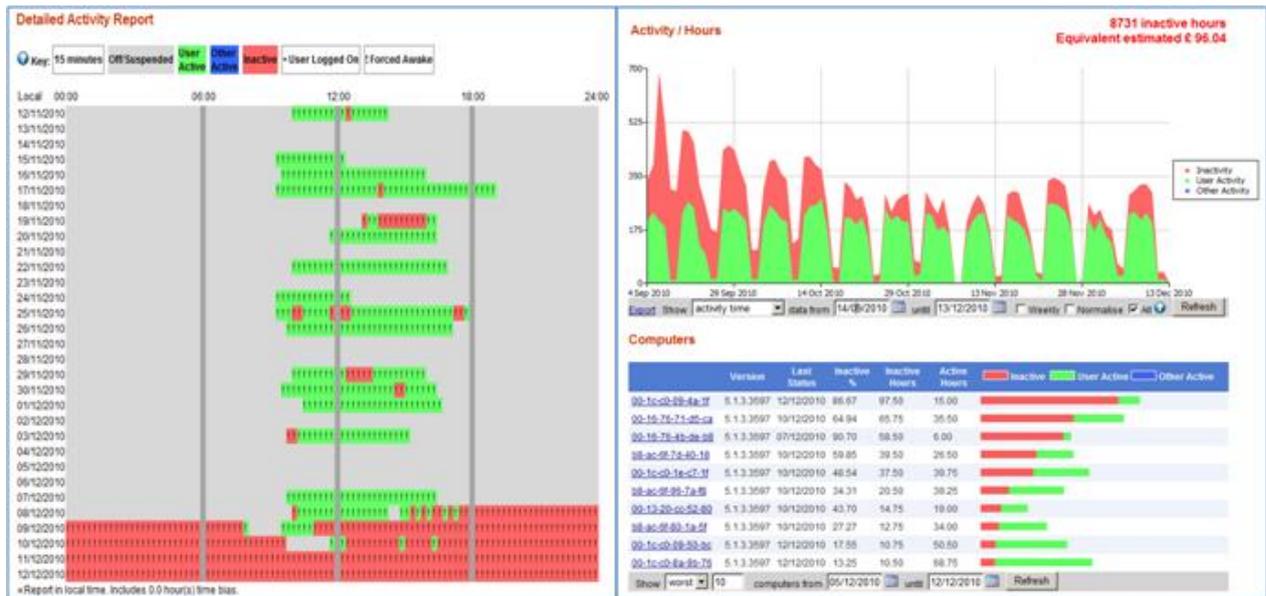
In phase 2, a modest set of measures was introduced to power off PCs not logged into after 15 minutes, and put monitors into standby after 15 minutes of inactivity.

The effect of even this modest activity was dramatic, particularly on public workstations which were commonly left on for the entire day irrespective of use.

In addition to the standard service offered by the software, IT services then introduced a further initiative that would give users a pop-up message if they'd been logged in overnight, and provide them with an opportunity to respond about their working

patterns. This also served to raise awareness about both the project and the need for users to switch off.

The reporting allowed IT services to drill down on activity, highlighting the worst offenders so that these users could be targeted for improvement.



Staff were concerned at the time of implementation about work being lost if the machine shuts down while you are logged in and away from your computer. This is the primary reason why PCs which are not logged in have been the primary focus for the automated shutdown and logged in PCs are being tackled by challenging user behaviour. The potential to introduce automatic shutdown without losing work is currently being investigated for future rollout, as well as giving users a range of power management options to choose from.

By drilling down on individual workstations, it becomes clear what the problems are i.e. if a user is consistently leaving items running or if there was an unusual spike in consumption due to an error. It is possible to identify from the data if the PC was logged in, idle, or processing information. One of the biggest problems identified was that many people are forgetting to log out when they leave a workstation.

This October, the school ran a competition for the department who achieved the greatest reduction in the time computers were idle.

The reporting data is available for anyone in the school to view online, so users could keep track of their progress throughout the competition. There is also a link for users to check the performance of their own computer.

Although there have been huge improvements in performance, IT services still feel that there is a long way to go. In 2011, IT services and the LSHTM Sustainability Group, will expand on this work and the communications to staff and students by making the reporting data visible within key areas such as computer rooms and combining this with the message for users to switch off when they are finished.



“People want to feel empowered to make a difference. Our role is to enable them to do this and show them the real value that their contribution makes”

Paul Wilkinson (Chair of LSHTM Sustainability Group)

The real time data gives the school a great way to monitor if these initiatives are having the desired effect.