



The Business Case For PC Remote Shutdown Software



The purchase of PC Shutdown is conventionally justified for a number of differing reasons some or all of them may be applicable for your establishment:

- Financial Benefits - To save money
- Environmental Reasons - Reduce your Carbon Footprint
- Increase IT Productivity - Become more efficient
- Benefit from Accurate Management Information
- Utilisation of the "Freeze" feature as a teaching aid.

This brief paper examines the potential return on investment, together with the benefits provided for a school or college if they implement power management software and move towards their sustainability goals.

Introduction

Education is using increasingly more IT equipment and the number of differing PC based units found in schools and colleges continues to rise each year. Government figures estimate that in the UK schools and colleges are responsible for 2% of the overall carbon emissions and 15% of Public Sector Emissions. The cost of electricity is rapidly escalating and is becoming a significant element in education budgets. It is against this background that most organisations seek to reduce consumption wherever possible, to enable them to stabilise their costs.

The DCSF estimate that schools and colleges can reduce energy use by 20%, whilst BECTA are recommending that PCs are turned off whilst not in use. PCs represent the major element of consumption for education and are hence a prime area for saving. The BECTA based on figures from Oxford University are currently recommending the implementation of power management across the PC fleet and suggest that a figure of **£36 per annum per PC** can be saved on even the most modern equipment if it is turned off at night.

PC Remote Shutdown from Aquarius represents a robust seamless and proven solution which was specifically designed for education and which is used to control hundreds of thousands of PCs at schools and colleges throughout the world. The software, which is distributed in the UK and Ireland by Team Logic, offers powerful power management together with sophisticated management information on consumption and savings.

From the installation of PC Shutdown a single console can control the PC Fleet. It can automatically close them down at the end of the day and start up the organisation's computers in the morning [Wake on LAN]. During the day, PCs which are idle and not in use can be automatically shutdown. If the PC usage falls below a determined operation threshold, they can also be shutdown automatically. At all times IT staff can retain full manual control if required and if needed can bring up all the PCs for software updates and fixes before closing them down on completion. The dispersed structure found at most school/college means that it is uneconomic and unrealistic to for IT staff to attempt to physically inspect and manually close down equipment at night.

The power consumption of PCs varies considerably by make and model and current Energy Star equipment will, with a TFT monitor, consume over 160 watt even when idle, whilst in sleep/standby the consumption can still exceed 130 watt. The issue is compounded by the fact that when asked to turn equipment off at the end of the day 40% of users will forget, whilst a percentage will turn off the monitor or the PC but not both the units.

There is thus a strong case for every school and college to recognise their corporate, social and environmental responsibilities and implement a solution to eliminate waste, whilst maintaining full control of power management across all the PC units on their network.

Financial Benefits

The majority of schools and colleges are faced with a need to stretch budgets and have minimal free financial resources. Implementing PC Shutdown offers a unique opportunity to reduce the electricity costs and free up finance which can be deployed to other vital projects. Based on BECTA's figures implementing power management across 300 PCs will save in excess of £10,800 per annum.

Based on 150 watt consumption [120 watt PC, 30 watt monitor] which is a conservative figure, a single PC will use a kilowatt of electricity every six and a half hours that it remains turned on. To determine the saving which can be made for a school or college a number of differing factors need determining for any specific installation.



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- The hours which can be saved by turning a PC off outside the school or college hours [e.g. 14 hours per day, 48 hours at weekends].
- The number of hours during the day that the unit is not in use and savings can be made by closing it down, this will vary each day [e.g. 8 hours per week]

Based on a 3 x 13 week term structure and an electricity price of 10p per KWh, it should be possible to save up to £60-£70 for each PC off the current electricity bill. This can work out as high as £18k per annum for every 300 PCs which you have in use, providing a further increase on the BECTA indication.

Environmental Benefits

The average CO² emissions produced by a UK electricity companies is 0.48 kg per KWh, though this varies by supplier and the area which they serve. A direct result of achieving a reduction in electric consumption is to reduce the level of CO² which is attributable to your power use.

PC Shutdown provides statistics at both Client and Server level on the volume of CO² which has been saved as a direct result of turning PCs off. This means that by turning 100 PCs off a saving of approximately 35 metric tonnes of CO² per annum is achieved, providing a useful quick environmental win. In summer further savings can often be made from savings in the use of air conditioning when the unnecessary heat from PCs left on has been eliminated.

Increased IT Productivity

The ability to turn all the PCs off and on at the click of a mouse on the console, simplifies the installation of patches and software upgrades. This eliminates the need for staff to tour the campus to turn PCs on and off providing significant savings in IT staff time.

PC Remote Shutdown can also be set to clean up PCs at the time when Login, Logout or Reboot, occurs. This helps to reduce support calls and provide further savings on staff time for the IT Department. Due to the intuitive feel of PC Remote Shutdown and the ease with which it fits into the existing infrastructure the installation can be completed quickly and easily without a significant demand for IT resources. The demand for IT staff time for training and system maintenance is small ensuring there is a minimal demand on staff resources.

Accurate Management Information

PC Remote Shutdown provides details of the financial savings at both Client and Server level showing the value of electricity saved. When a pilot installation is installed, it is possible to obtain an accurate forecast of the usage for the whole Enterprise, and to accurately calculate the potential saving of electricity which the organisation can achieve

In addition to the financial information, information is provided on the hours each PC has been on and off together with the time saved by "idle shutdown", together with the KWh of electricity saved the financial saving in addition to the CO² saved.

The "Freeze" Feature

This is designed to provide complete control for a teacher over all the PCs in the class, with the ability to freeze or free all the PCs from a single click. Thus a teacher can have complete control at all times.

The installation of PC Remote Shutdown provides a unique opportunity to for every establishment to achieve social and environmental objectives whilst reducing their existing level of expenditure and freeing up financial resources for real educational purposes. It provides the opportunity for a "Quick Environmental Win" and management information on the pattern of PC use. It offers a **Return On Investment** which is particularly attractive in the current financial climate.

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