



# THE IMPORTANCE OF REGULARISED SOFTWARE MAINTENANCE

**FOR A COORDINATE MEASURING MACHINE TO DRIVE  
PRODUCTIVITY, UP-TO-DATE SOFTWARE IS ESSENTIAL.**

In our daily lives, how often do we encounter software updates, the little badge on the home screen of our smartphone or the requests to restart our PC because some new program update is ready for installation? Software updates are such a common occurrence now that most of us don't stop to ask why they are needed – we just accept them.

But when it comes to ensuring efficiency and even optimising metrology and manufacturing operations, it's important to take a more proactive approach to software updates. So let's examine why software updates are so crucial and what manufacturers stand to gain from regular software maintenance.



## MATCHING THE PACE OF PROGRESSION

In the world of metrology, customers tend to be more aware of physical wear on their equipment than of aging software. A well-maintained coordinate measuring machine (CMM) frame can function effectively for well over a decade or longer. Although the steady evolution of mechanics and electronics makes newer products in the marketplace more sophisticated than their predecessors, it isn't necessarily a reason to upgrade your CMM hardware. So, if you can keep your machine functioning for another few years, why not just keep the version of the metrology software that came with it?

But the truth is that the rate of technological progress has now reached the point where several changes can take place within a generation. Critically for manufacturers, updates to software enable developers to include the latest versions of standards, such as the most up-to-date support for GD&T, ISO, ASME, etc. By keeping software up to date with regularised maintenance, customers can ensure compliance.

Likewise updates also ensure users receive continued support on a modern operating system. For instance, Microsoft will soon no longer provide security updates or technical support for the Windows XP and Windows 7 operating systems. A proactive approach to software maintenance means users will be prepared to migrate to a modern operating system, in this case Windows 10.

Major updates of software packages may also add new features, as is typically the case for example in the regular updates to Hexagon Manufacturing Intelligence's metrology software PC-DMIS. Such upgrades help to improve performance, give greater stability and offer a better user experience overall. For newer metrology equipment, updated releases may ensure that operators can access the complete functionality of their technology.

## KEEPING UP WITH THE HARDWARE

Computer hardware improves quickly, and operating systems need to evolve with it as they are designed to optimise the performance of the latest technologies. New software versions may have critical changes within the base code of the program to ensure compatibility with newer PCs.

Any software that stands still will quickly become obsolete. For example, when more powerful graphics cards entered the marketplace, metrology software began the transition from text-based display to the graphics-heavy CAD-based packages of today.

One of the reasons why a CMM with fifteen years of service behind it probably doesn't run the software that it came with is that computer hardware and operating systems don't typically last this long. Running outdated metrology software on an older PC is a risk. If that PC fails and needs replacing or the company moves to a

newer operating system, the gap in system compatibility may cause the quality department to be without its software and, in the worst cases, needing to start all its part-programming again from scratch.

Regular maintenance can help prevent this from happening, and a yearly software maintenance contract (SMA) ensures the latest software features are supported.

## SMALL STEPS MINIMISE RISK

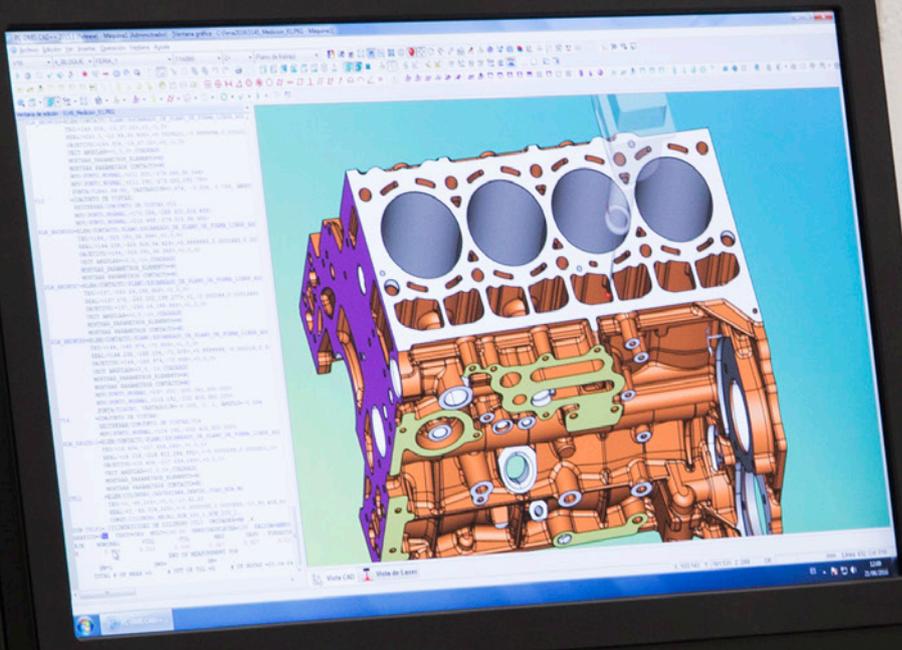
One of the best ways to minimise risk is to make small changes in software updates. When developers make changes in a program, they generally want to make the alterations as simple as possible from one version to the next. When you try to make bigger steps or miss out versions of the software between upgrades, it introduces a much greater element of uncertainty. Crucial conversion algorithms may be missed, the potential results ranging from minor glitches to unsuccessful or incomplete upgrades – even a costly repair job if you need support from metrology software technicians.

Businesses looking to sign an SMA should ensure that the offering includes all regular updates throughout the duration of the contract and access to the latest information about their software, enabling a 'continuous learning' approach to employee training. Telephone or remote support should ideally be included so that any problems can be solved professionally by experienced software developers.

## PEACE OF MIND

In one sense, SMAs are about knowing that you have the support you need for your software whatever the circumstance. But they can also help to safeguard businesses and futureproof them against potential changes and challenges. For example, if a PC-DMIS user wants to configure their software for a new sensor or CAD format, or add a new module such as PC-DMIS Gear, they need to be on the latest version of the software. The same applies if an update is required to the controller firmware or hardware, or if an operating system update causes a compatibility issue. SMAs take the hassle out of staying on the latest version, and mitigate a lot of potential problems in the process.

The moral of the story is that software is never set in stone. It's a living thing; it evolves and should continue to change for the better. But living things need support to flourish and will always benefit from the help of specialists. To maximise the effectiveness of software, machine performance and, in turn, manufacturing productivity, a provider who works closely with customers to understand their software needs and provide regular support can make all the difference.



HEXAGON  
HH-C-V2.0



**HEXAGON**  
MANUFACTURING INTELLIGENCE

Hexagon Manufacturing Intelligence helps industrial manufacturers develop the disruptive technologies of today and the life-changing products of tomorrow. As a leading metrology and manufacturing solution specialist, our expertise in sensing, thinking and acting – the collection, analysis and active use of measurement data – gives our customers the confidence to increase production speed and accelerate productivity while enhancing product quality.

Through a network of local service centres, production facilities and commercial operations across five continents, we are shaping smart change in manufacturing to build a world where quality drives productivity. For more information, visit [HexagonMI.com](http://HexagonMI.com).

Hexagon Manufacturing Intelligence is part of Hexagon (Nasdaq Stockholm: HEXA B; [hexagon.com](http://hexagon.com)), a leading global provider of information technologies that drive quality and productivity across geospatial and industrial enterprise applications.



COORDINATE MEASURING MACHINES



3D LASER SCANNING



SENSORS



PORTABLE MEASURING ARMS



SERVICES



LASER TRACKERS & STATIONS



MULTISENSOR & OPTICAL SYSTEMS



WHITE LIGHT SCANNERS



METROLOGY SOFTWARE SOLUTIONS



CAD / CAM



STATISTICAL PROCESS CONTROL



AUTOMATED APPLICATIONS



MICROMETERS, CALIPERS AND GAUGES



DESIGN AND COSTING SOFTWARE