

## Automatic image creation and management for large industrial application

*PCs are at the heart of industrial environments. Often there are thousands in use in large production facilities. When it comes to ensuring reliability at a production facility, some PCs are more critical than others. After the requisite risk assessment has been carried out, data should be backed up at regular intervals. In other words, images of the PCs should be created. Managing these PCs and managing the image creation of these PCs is extremely complicated and costs a great deal of time. There is a high demand for automatic solutions, which reduce the work involved when creating jobs and that provide an overview of the current stance of the data.*

Though a common feature in the office, more time for correct implementation is required when creating images for production facilities. AUVESY GmbH recognised this many years ago and developed a data management solution in order to support users in the automated production sector with automatic backups and version control as well as documenting the status of their software data that is running on the devices. With the tools provided by AUVESY, it is easy to see who changed what, where, when, and why. Overall the use of these tools leads to improved quality of production and fewer stoppages. It also provides complete traceability when it comes to manufacturer processes.

### Automatic image creation as a cornerstone of a complete solution

As the automated production sector continues to grow, developments such as the need for a complete solution from a single source have not gone unnoticed by the Landau-based software company. Dr. Tim Weckerle (Img. 1), CEO AUVESY GmbH explains, “In the past, we were focussed solely on developing our version management system, versiondog, and various add-ons that we could provide users. We want to move away from single tools and move towards complete solutions. In addition, we want to cement our dominance as the data management specialists for automated production and through this continue to offer services which are of immediate benefit to our customers. In addition, we will integrate even more services in the future. This can already be seen in our upcoming software release versiondog 7.0. The image creation possibilities offered by the AUVESY Image Service and/or Acronis are two good examples of this.” Theoretically, automatic image creation has been available for the last two years; however, for users this necessitated additional bureaucratic procurement costs. From versiondog 7.0, Drive Snapshot technology is completely integrated in versiondog and is available via the AUVESY Image Service. Alternatively, users can also opt to use Acronis, which is also supported.



Img. 1: Dr. Tim Weckerle, CEO AUVESY: “We want to move away from single tools and move towards complete solutions.”

### AUVESY Image Service or Acronis?

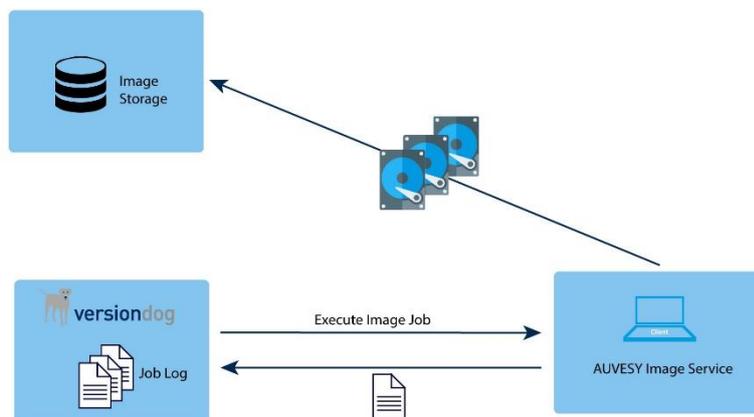
At first glance, it may be somewhat confusing as to why the software would support two different interfaces, both of which are involved in automatic image creation. From the user’s point of view, it is a logical step (Img. 2). Drive Snapshot is a widely-used data recovery software. At the click of a button, the software creates images that

		
Available from versiondog	7.0	7.0
Technology	Acronis	Drive Snapshot
Partnership with manufacturer	Acronis Authorized Partner	Cooperation partner
Custom component type	Yes	Yes
versiondog Job	Yes	Yes
Required storage space	> 850 MB	< 20 MB
Complete solution included in the setup	No	Yes
Does not require the procurement of third-party software	No	Yes
Windows compatibility	From Windows XP Pro SP3	From Windows XP Pro SP3

Img.2: Image creation with AUVESY Image Service or Acronis in versiondog

## Technical article: automatic image creation

helps secure the installed operating system including all programs and settings. This technology has been fully integrated into versiondog via the AUVESY Image Service. An additional client installation is therefore no longer necessary. In comparison to Acronis, the solution is a very compact tool. That, in itself, is a huge advantage as many industrial applications running on old PCs take up so much storage space that they can crash the PCs. Drive Snapshot was originally developed for the private sector; however, it offers next to every function required by users working in the industrial sector. However, in the private sector, the management of multiple images is neither deemed relevant nor necessary. Here is where the solution provided by versiondog comes to assistance as it is able to take over managing this role (Img. 3).

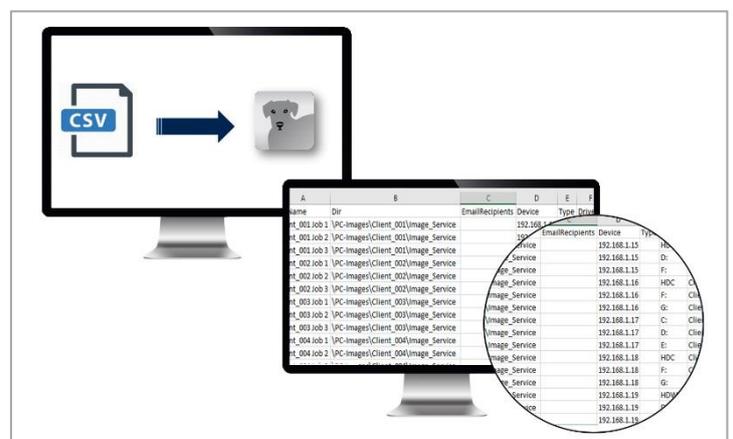


Img. 3: Image jobs are enacted via versiondog. The image is then saved to a specified location and the job result is then reported back to versiondog as a job log.

Acronis, the data management and recovery software for physical as well as virtual servers, is already used as standard at many companies. This is confirmed by the fact that the solution has been state approved for use in official audits. It was therefore obvious versiondog needed to provide an interface to provide users with further advantages in the field of data management solutions. The downside to using Acronis: users are required to have a gigabyte in memory at their disposal on the computer they wish to use as well as to obtain and install the necessary licence themselves.

### Yes, to image creation but only if automated

Image jobs, no matter if done with Image Service or Acronis, can be configured and tested straight away in versiondog. If you were to enter all jobs by hand, not only would this be a massive waste of time but also an extremely laborious task. You would end up needing an employee solely dedicated to this task. If he or she were to need three minutes per job, he or she would end up needing three whole days to sort out the 500



Img. 4: Jobs created for images can be automated using the CSV import and saves a large amount of time.

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that you have lined up. An automated solution is therefore indispensable, especially for larger production facilities. For this purpose, AUVESY has developed an automated component and job creation system. Using this system, the list of client IP addresses that you wish to backup can be done so with further parameters and can then be easily imported on the basis of a CSV file (Img. 4). For example, image creation for a PC can firstly be optimised and these parameters can then be copied to all other computers. This task can be easily done and entered clearly or copied into the CSV list and requires very little effort. An average processing time of ten minutes per 100 jobs becomes a realistic possibility and the original time for creating 500 jobs is reduced from full three days down to just under an hour. Jochen Lang (Img. 5), Project Manager at AUVESY says, "We work with companies that have thousands of computers in use. The time saved is a decisive factor as to whether an image solution can be used realistically or not."



*Img. 5: Jochen Lang, Projekt Manager at AUVESY: "We work with companies that have thousands of computers in use. The time saved is a decisive factor as to whether an image solution can be used realistically or not."*

### **From image creation to preventive maintenance**

Once the image jobs have been created, automated monitoring during operation becomes a necessity. In order for images to really be available in a major crisis, questions with regards to day to day production need to be clarified beforehand. Are all the backups running as planned? Do we have any problems such as problems related to authorisation? Do we have any issues with storage space for the images, and if so where? Could a hard disk be even be defective? Are we able to access all clients? This enables the user to intervene at an early stage and help to ensure that all necessary images have been created.

Lang goes on to say, "The AUVESY Image Service does not only create images. It also provides large quantities of intelligent data about the status of the PC in question. Our Image Service for example can determine the hard disk capacity and detect any defective sectors. If this can also be systemically evaluated, it has the potential to provide excellent preventive maintenance. Using versiondog, we can then warn the user when necessary. After all, there is really nothing worse than having the necessary image to hand, only to discover that the hard disk, that the image is meant to be automatically stored on, is defective."

There are therefore, without a doubt, image solutions that can be deemed suitable for the automation industry. AUVESY can now work together with image system providers to create tailored solutions for individual applications. Dr. Weckerle sums up, "Ultimately, image creation is a topic that people do not want to be dealing with forever. It simply has to work. Plug-and-play solutions are in demand. We therefore want to integrate further services of other providers into versiondog in the future so that we are able to be able to offer users comprehensive solutions for their data management."

**[www.auvesy.com](http://www.auvesy.com)**

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