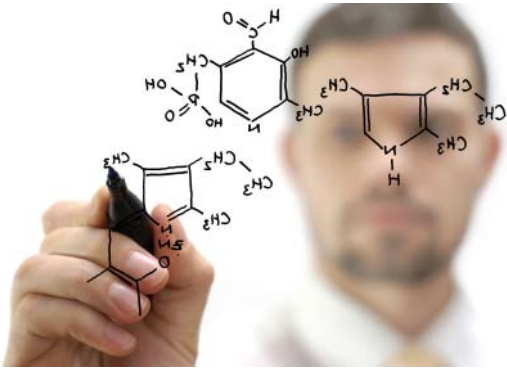


## Enhancement to a validated legacy system: a smart application of an IT technology to the Automation Industry. Centocor (Holland).



Managing the life cycle of legacy control system assets in the Pharmaceutical industry can become problematic over time, especially in finding the skills, spare components and support required. Modifying these systems within a validated

environment is a real challenge. We offered a different approach at Centocor by producing a “replica” system using Virtual Machine Technology. The VMWare technology allowed us to run the legacy applications on a standard modern platform. We were then able to execute a Factory Acceptance Test prior to the implementation on site, where previously changes had to be executed on the validated target system. The risks elements were reduced to a minimum, and a validated offline platform now exists for the development and testing of further changes and improvements. Centocor welcomed the novel approach, allowing them to prolong the life of the control system assets.

“The site validation team welcomed our novel approach. We were able to execute a Factory Acceptance Test using a replica legacy system, allowing us to manage the risk better.”

*Michael Thomas  
Director  
Peak42 Limited*

### BUSINESS SITUATION

A legacy validated SCADA system needs to be enhanced to accommodate new process changes. The hardware/software components required for the legacy system are difficult to source and the customer wants to test the modifications on an “off Site” system.

### SOLUTION

- Virtual Machine Technology allows the replication of the legacy system on standard modern PC Platform.

### BENEFITS

- All modifications to the legacy system can be implemented and tested off site.
- A “replica” system running on VMWare is available. (for backup/replacement or used in this project to support I/O testing and commissioning)
- The project was rolled out on time and budget and has been successfully validated by the customer.
- The Asset Life is prolonged as support and potential enhancements can be confidently provided.

# Solution

When Peak42 responded to Centocor's enquiry, it was apparent that the key to the project success would be the ability to deal with legacy systems.

In conjunction with the Planning phase of the project where the Design Specifications were developed to GAMP, Peak42 created a Virtual Machine Prototype of the legacy system on site.

VMWare Workstation package was selected and installed on a modern Dell PC Platform to host the virtual environment.

Post approval of the documentation, Peak42 used the "replica" system to build and test the new functionalities of the legacy SCADA system.

The development and test phase were executed successfully. Prior to integrating the new functionalities with the existing legacy system on site, Centocor took the opportunity to use the "replica" as a standalone SCADA Server to support the I/O testing and commissioning of the new process plant.

The innovative application of proven technology available to the IT industry contributed to the success of this automation project.

## Software and Services

- GAMP4 and 21CFR Part 11 compliant Project.
- Virtual Machine Technology (VMWare) replicating a Legacy System.
- Legacy Windows NT 4.0, Intouch 7.1 and Siemens PLCs.



## For more information about Peak42

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