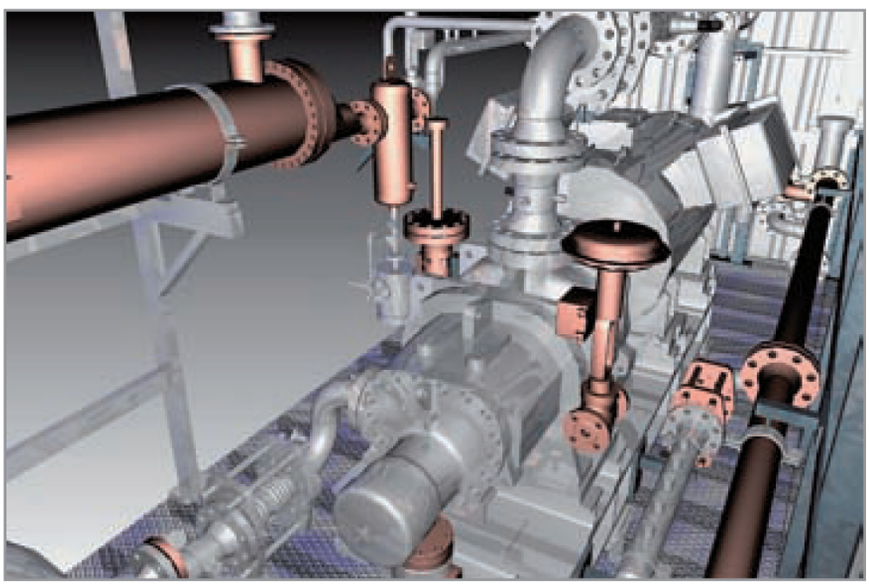
Secures Performance

for external access of 3D Designers at VPT Kompressoren GmbH



Compressor plant design with CADISON® in 3D

CADISON® as the object-oriented and integrated engineering solution for plant construction combines the complete engineering workflow so that time and money are saved and productivity of planning engineer is improved. But what happens in case the planning engineer works outside the company? The company VPT Kompressoren GmbH uses the virtualization technology Citrix to secure the performance of CADISON® in case of external access to 3D models.

Since more than 30 years the company VPT has been the supplier of industrial customers requesting air and gas compressors, for instance as booster compressors for gas turbines in power stations, as flare-gas compressors on offshore platforms and for use in chemical and petrochemical industry. In the meantime the company extended its activities even to the sector of regenerative power generation (biogas). VPT is a specialized supplier of plants on a turn-key basis together with all required ancillary equipment, such as filters, dryers, coolers, pipelines, draining systems, valves and fittings etc. The company offers user-specific overall concepts covering not only project planning, design, production, erection and commissioning but also staff training and maintenance.

The manpower includes 39 employees and almost the same number of freelancers so that the company may ease the situation in case many orders are to be handled at the same time.

VPT has been using CADISON® as planning tool for many years already since this object-oriented and integrated engineering solution for plant construction unites the complete engineering workflow from tender planning and process technology, erection planning, pipeline planning and electrical engineering up to instrumentation etc. Another important feature: The tool supports project management in networked teams. Until now the ‚multi-user ability' has been understood merely as the possibility for joint use of project data but CADISON® offers a new dimension for this. Now it is possible for the first time to have an optional number of staff members working at the same time on the same project (e.g. process engineers and I&C technicians). This becomes possible by means of the intelligent Check-IN / Check-OUT technology.

But what about the performance of CADISON® 3D planning in case of external access per VPN tools (Virtual Private Network) and Remote Desktop? When working a longer time on a complex 3D model with a low-efficiency laptop, performance might dramatically decline. VPT found a solution through use of the virtualization technology of Citrix. The Citrix technology does not require any obligatory local graphics workplaces for work with computationally intensive graphics. The planning engineer can location-independently get access to efficient workstations even with a laptop.

From the viewpoint of the plant design engineer or operator the central provision of virtual desktops offers the specific advantage of faster knowhow transfer: Citrix makes it possible for national and international participants working on the same project to cooperate much closer and more efficiently.

Citrix: Performance for the external 3D planning engineer

In case of desktop virtualization the user interface gets de-coupled from the terminal unit. Thus the laborious and expensive provision of individual user clients is no longer necessary. Instead of that they can be centrally provided from the computer centre as virtual

desktops for individual users in the company. The result: The rigorous se–paration of operating system, applications and user profiles considerably facilitates lifecycle management of virtual desktops along with remarkable reductions in storage requirement.

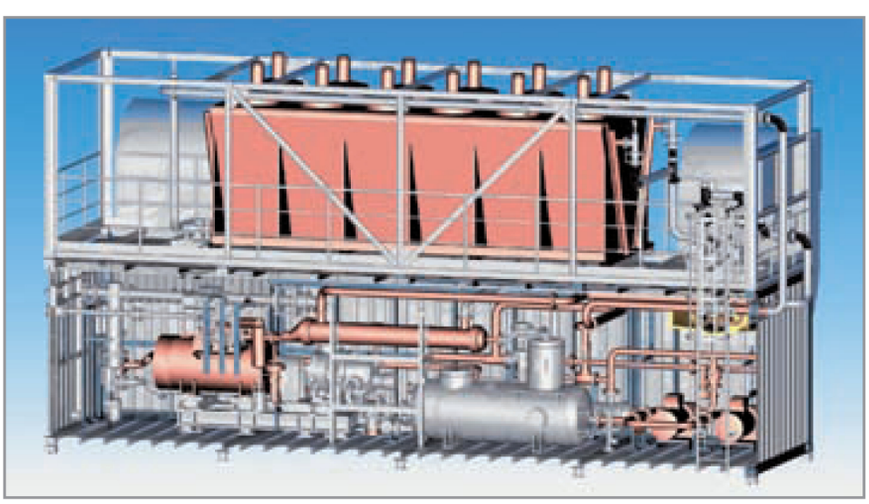
The initial point for the first Citrix installation with VPT Kompressoren GmbH was the desire of the Design Engineer Mr. Bastian Lenz to work from his home office. Mr. Matthias Retterath as the competent project manager defines the problem as follows: "Our workmate Lenz performs planning work with AutoCAD and CADISON® primarily in the 3D range – and in this case the usual standard solution via VPN tools and Remote Desktop is not fast enough so that "judder-free" and smooth workflow is not possible in the high-end graphics range." One essential aspect is that CADISON® has been based on a central database so that all staff members working on a joint project have access to this central database.

In general, VPT with two locations in Germany, a number of internal sales and erection employees and external freelancers is faced by the problem that data inventory must be kept consistent for all project participants. In principle, this works properly with the conventional procedure (remote desktop) but in case of multi-hour work in the 3D range the performance limit is reached rather quickly. Mr Lenz stated: "People needing access to the 3D model and the central database only a few minutes per day via the remote desktop from their laptop to get informed about the current status of planning work might find the comparatively slow access as acceptable. However, this is no longer efficient in case I have to work many hours per day with this low performance rate. By use of Citrix I can do my planning work now from my home office with the same speed as if I would be on my workplace at VPT in Remscheid. Using Citrix, I can work from my home office the same as local!"

In addition to that, Mr. Lenz praises practical details like this: "Depending on the respective application, you may for instance adapt the image quality to the graphics. In my day-to-day business I am working with loss-free image quality. In case of design review with complex graphic presentation I can adapt the image quality so that I can fluidly continue work."

Step-by-step VPT is now going to equip its marketing and after-sales divisions with Citrix. Moreover, the company anticipates the chance to supply itself with free engineering capacity both on the national and the international level. Mr. Retterath: "Under the aspect of increasing shortage of qualified staff, excellent perspectives can be anticipated. We established initial contacts to some external engineering offices already."

The conclusion: Citrix helped VPT to acquire a company-owned and safe Cloud Technology, After release, staff members and external planning engineers may get access to the centrally managed CADISON® database from any workplace with a laptop so that complex 3D models can be handled. Even under the aspect of missing human resources which we deplore today already, VPT now has available an important strategic tool for the safe standing of the company: "Citrix virtually opens for us the perspective to integrate external planning staff from home and abroad efficiently into our planning team – so to speak in real time and not with a more or less large time loss caused in former times through shipping and updating of drawings", stated Mr. Matthias Retterath. Using Citrix and CADISON® means that real collaborative work around the world is definitely no longer a problem.



Advantages of VPT's container concept are plausible. The machine can be pre-assembled and tested in the workshop under defined and clean conditions – this raises quality and reliability of equipment to a higher level.

Brief information regarding Citrix

Citrix was founded in 1989 and combines virtualisation, network and Cloud-computing technologies in one complete product portfolio and permits virtualised working environments for users and virtualised computer centres for IT divisions. More than 230,000 companies worldwide are using Citrix technologies so that they can deploy their IT environment rapidly, easy and cost-efficiently. The company with a turnover of 1.6 billion US-Dollars (2009) has 10,000 trading and alliance partners in more than 100 countries.

"Our design engineers perform their planning work primarily in the 3D range – and in this case the conventional standard solution via VPN tools and remote desktop is not fast enough for "judder-free" and smooth workflow" (VPT Project Manager Matthias Retterath).

Matthias Retterath

Bastian Lenz