

Press release

The INDEX Virtual Machine - The software solution for the future

Esslingen. INDEX-Werke GmbH & Co. KG was the first provider to present, at the EMO 2005, a "Virtual Machine", i.e., a machine simulated on the PC that works exactly as a real machine. It met with an overwhelming resonance, which is why the company will now present at the AMB 2006 a substantially extended software.

First, the INDEX virtual machine was realized for turn-mill centers and production automatics. Now, the first CNC multi-spindle automatics is available as virtual machine – the recently presented MS22C lean. Using this virtual machine, the complete setup process can be carried out on the PC exactly as with a real machine. It is even possible to carry out a continuous run in order to optimize the machining program in running operation. Hereby, the drum indexing is carried out as in reality. Of course, the proven INDEX user interface and the complete performance known from single-spindle Swiss type automatics are also available for the virtual machine of the MS22C lean.

With their innovative machine tools, INDEX has been setting standards for years in complete machining and also in series production productivity.

But, by far not all CNC users, given their existing manufacturing environment, are capable of operating machines equipped with such complexity effectively, safely and, in addition to that, with the required economy from order to order. The complexity of work sequences and machining tasks, the increasing cost pressure, reduction in throughput times and zero error production, introduced in the meantime in the manufacturing environment, force the companies to search for new solutions.

A remedy to this situation is provided by a Virtual Machine on the PC that works exactly as a real machine. The Virtual Machine allows you to "play through" forthcoming changes in order without any risk and time or production pressure on the PC and detect problems even before they arise on the machine. And what is more: The genuinely 1:1 copy of the real machine also allows you to "set up" new or changed programs beforehand on the PC. This makes it possible to convert the maximum number of actual machine hours into actual production hours.

The user software and the copy of the configuration of a real machine are used by the Virtual Machine as a model, so that the virtual copy is programmed, set up and used in exactly the same way as the real machine. In addition to that, the copy of the SIEMENS CNC kernel (VNCK) of the SINUMERIK 840D control contained in the Virtual Machine and the 3D machine modeling, identical to the real machine down to the last detail in the TECNOMATIX simulation system, make sure that unchanged CNC programs are used in the INDEX Virtual Machine and executed as in the real machine. This is the only way to guarantee that workpiece machining and program execution will proceed exactly as in the real machine – and to “edit” existing CNC programs in the virtual machine, without another adaptation being necessary. All of this takes place without any loss in production time and without any risk of collisions or damage to the machine.

Whether an order changes, modifications to the machining in progress or reprogramming or optimization have to be made, nothing is left to chance, when applying the new sequence to the real machine for the first time. You only have to know how to operate the machine, in order to be able to operate and use the Virtual Machine – no rethinking nor further training being required!

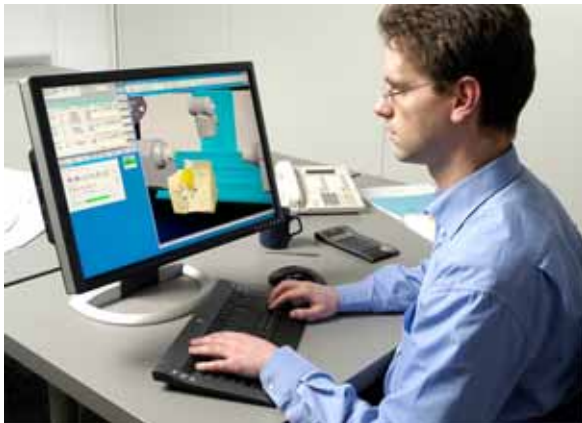
Thus, orders will only be passed on to production after thorough testing and already optimized to a large degree – and the sequence carried out at the machine is already known beforehand. This saves time and ensures safety and economy.

The Virtual Machine from INDEX gives the customer the best possible technical support, allowing him to protect his machines from potential damage and expensive repairs. And what is more - the Virtual Machine is also an economic tool that allows the customer to operate his complex machines at an optimum machine utilization.

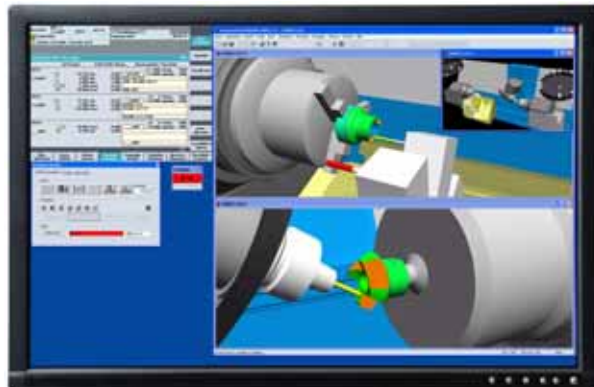
This is why INDEX are working on being able to offer in the near future for each machine also a suitable virtual machine. This gives the customer a technical as well as economic guarantee of his machine investment!

Presently the INDEX “Virtual Machine” is available for the machines MS22 lean, G160, G200, G250, G400, C65 and ABC for the C200-4D control (based on SINUMERIK 840D).

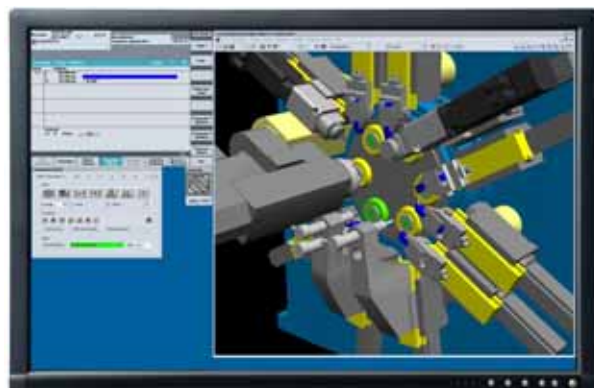
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Pic 1



Pic 2



Pic 3