

Presentation of the



Version 2 of SylvieXpert, which will be available in September 2005 will allow users to control your TORNOS DECO machines (starting with the single-spindle machines) and provide the following benefits: simplicity of use, automatic retrieving of 3D geometries, rationalisation of the production of complex and similar parts, real 3D simulation and control of a company's entire machine fleet using the same software.

SylvieXpert, CAM software for the new generation of NC machine tools

SylvieXpert software, published by Jurasoft SA and marketed in Switzerland by Jinfo SA, has been designed to control the new generation of NC machine tools, such as machining centres executing milling and turning and for the small parts turning machines. Jurasoft SA employs 10 staff and together with the support of Jinfo employees, the current product represents 20 man years of development.



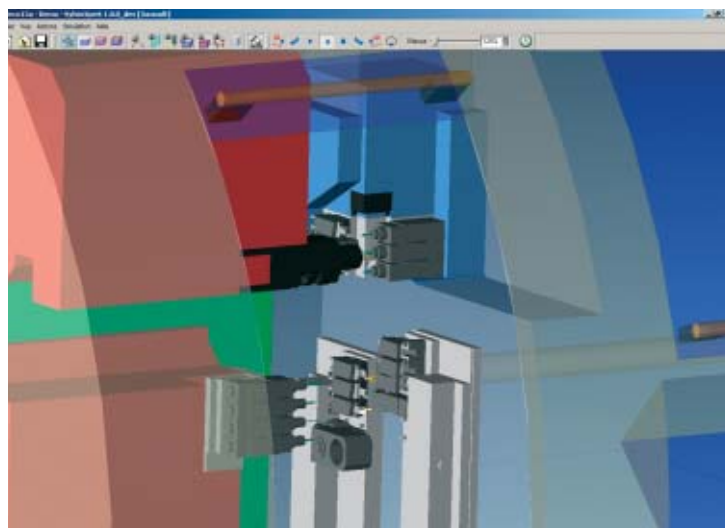
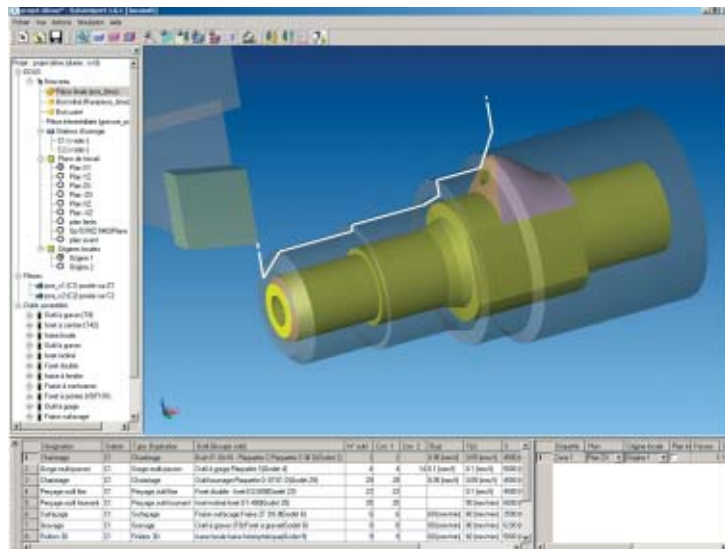
Entirely based on 3D models

In order to have optimum control of the machine tools indicated, the software has to take account of the complete kinematics of the machine, the tools, the materials and component being machined. The benefit of working in 3D, apart from managing the machine kinematics, is that the operator benefits from automatic machining data

on the depth, clearances and management of the raw material. The description of the geometries being machined is drastically simplified, thereby resulting in considerable time-savings.

Geared to turning / milling and small parts turning with an unlimited number of axes

SylvieXpert was designed to control the latest machine tools, such as 5-axis machining centres, single



spindle lathes (with tailstocks or headstocks) executing milling and turning operations and multi-spindle lathes. The application was developed right from the start, taking into account those machines that have an unlimited number of channels and linear and rotary axes.

Automation of production of similar parts

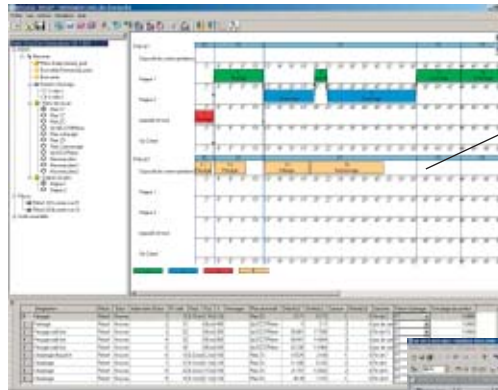
Each company often uses the same tools and same machining parameters. In order to automate the production of similar parts, SylvieXpert provides the user with a unique way of working and allows the user to capitalise on know-how, by creating their own tool libraries and operating sequences. A standard library of more than 500 tool elements is included.

How does SylvieXpert work with TB-DECO?

The machining sequence is defined in SylvieXpert together with the 3D geometry of the part undergoing machining, such as for a small parts turning machine operating to the ISO code. The tools are assigned to each tool group as if the user were standing in front of the machine. This means that he can finely tune the program with great precision. A "project" range makes it possible to define those operations being executed simultaneously on the main or counter spindle with the help of synchronisations. The system automatically proposes the "synchronisations" or the relevant "constraints".

Actual 3D simulation allows the user to see the machining operations according to the precise machine kinematics. Automatic collision detection indicates problems before setting up the machine.

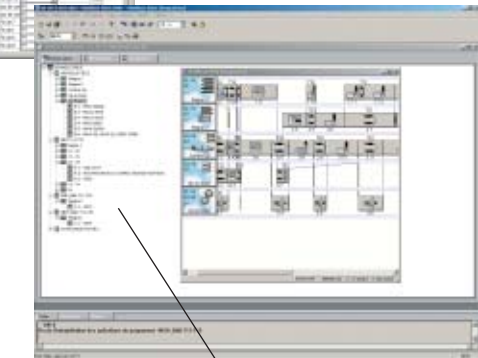
When the project is ready, SylvieXpert generates the «TTFt» (TORNOS Text Format) text file, which is transferred to the TB-DECO. It then works out the PNC file that is intended for use on the DECO machine.



Glove diagram with synchronisation of operations in SylvieXpert

Database of cutting parameters

Version 2 of the software also includes the incorporation of a database, which automatically determines the cutting parameters. This development is being jointly financed by the Committee for Technology and Innovation through a partnership of engineering establishments in the Jura region of Switzerland. The system proposes values for cutting speeds, feeds and machining strategies (e.g. drilling with or without chip removal) in relation to the material being machined, the required



Find SylvieXpert draft machining in your TB-DECO program

surface state, tool, etc. What is more, the system is enhanced by values that are actually used, thereby making it possible to refine the cutting parameters in relation to experience for a given machine.

Simple to learn

The description of the machining operations on 3D models, with management and display of material discharge, is, in itself, a natural and simple way of working. What is more, every type of operation including machining and tool parameter is displayed in an identical dialogue box. This is accompanied by an image, thereby making learning very easy.



For further information, please contact: www.sylvieexpert.ch