Broadening your horizons: Haas grinding software
Why new grinding software?
In the past, grinding machine manufacturers’ number one priority was improving the operation of their machines. Grinding software was regarded as something of a by-product. We were no different. As this was an unsatisfactory state of affairs for users, Haas changed their approach to software development some time ago. We sat down and invested a considerable amount of time and effort into the development of an entirely new grinding software. At Haas, our software is just as important to us as our Multigrind® grinding machines.

New horizons: Multigrind® Horizon
Our goal was to develop intuitive, geometry-based grinding software using entirely new software architecture. The result is a grinding software that opens up new horizons in terms of user-friendliness, transparency and performance. The name says it all: Multigrind® Horizon. This software enables users – from design engineers to machine operators – to concentrate fully on the tools and components they’re manufacturing.

* For everything else, there’s Multigrind® Horizon, our new grinding software.
Hermle inside

Advanced software architecture, simple navigation
When you open Multigrind® Horizon for the first time, you'll be presented with a clearly arranged chess board – rather than a confusing input screen. The software's simple navigation hierarchy and standardized controls mean you can confidently move through the program one step at a time. All the most important parameters can be checked at a glance: blank, clamping system, contour, geometry, grinding operations, grinding wheels and the grinding machine. And you can directly access all relevant information.

Links and references between the parameters are visible at all times, which represents a real step forward. The analytical software and the user interface are separate, so you'll receive graphic feedback to your parameters – in real time! We've also separated the database from the back-end software; open interfaces and a modular system enable you to individually adjust your manufacturing environment.

The modular architecture also means the user can alter the look and feel of the program, as well as the functions, to suit their requirements. Instead of having to program every new workpiece, they can simply call up the parameters of saved workpiece types.

Not only does this save time, it also ensures greater process reliability – today's grinding technology is simply too complex for the manual programming of individual workpieces. Whereas previously users just about had to have an IT degree under their belt to enjoy any success with their grinding software, the new Multigrind® Horizon enables them to focus on their workpiece. This level of user-friendliness ensures fast, transparent processes and greater cost-efficiency. Both in the design phase and on the grinding machine.

Wolfram Hermle, Head of Software Development at Haas

An elegant rollover function enables you to quickly enlarge and minimize every mask on the chess board. All input parameters can be reviewed visually and if necessary modified and corrected.
Example of the clearly subdivided user interface (profile insert module shown here). All necessary parameters can be accessed quickly via the input screens.

- **Selection of work station settings**: such as blank, clamping device, grinding device.
- **Specific instructions for the user** can be entered here.
- **The necessary workpiece contours** are defined based on CAD data (for example).
- **The geometry data** form the basis for the parallel calculation of the 3D models.
- **The desired workpiece properties** determine the grinding process.
- **The grinding wheels and dressing profiles are clearly visible.**
Grinding simulation and process visualization
In addition to the constant graphic display of all links and input parameters, Multigrind® Horizon can also produce four different simulations:
1. Grinding simulation in real time on the calculated object – visible after the entry of every parameter
2. Status simulation on the position of the workpiece in the machine
3. Material removal simulation
4. Process visualization, which shows a 3D display of data from the machine’s control unit

Future-proof software concept
Innovations such as multiprocessors and multi-reading technology (multiple calculations during a single process) were taken into account during the development of the new software, as were open interfaces and customizing options. Automated logging and bug tracking were included as matter of course and we also offer country-specific versions.

We look forward to showing you what Multigrind® Horizon, is capable of and above all, how it can benefit you. If you'd like to find out more, please write to us at:
software@multigrind.com

Open your horizon!

Workpiece simulations can be easily exported in a variety of CAD formats.

The speed, feed, wheel position, infeeds and coolant input can be determined by clicking on a grinding operation.