

FrustusCAM[®]

Simply Powerful. Powerfully Simple.



2 through 5-axis milling

2.5D basic productionmilling

Contains a complete CAD for import/creation/editing of geomtry. Import CAD-drawings via DXF, DWG and IGES or from a CMM. The milling module contains strategies for pocketing, contouring, facemilling, drilling, tapping, threadmilling, trochoidal milling, HSM Z-ramp milling aswell as 2.5D Swept-Shape milling. Enjoy our parametric geometry and associative toolpaths, change the drawing and toolpath associated will be updated with just one click. All Windows Truetype fonts can be engraved as contours or pockets. Create and store your own favourite processes, and next time enjoy superfast programming by re-using your stored processes. Finish your program with 3D OpenGL simulation to catch any errors, and create cnc-programs with the best postprocessors on the market. Easy-to-use, 2-day training and you are up and running!

Advanced CS module

Adds coordinatesystems and support for machining with positioning 4th and 5th axis. Create drawings based on 3D coordinatesystems, and retrieve the angle for 4th/5th axis positioning with one click from a solid model*. This module also supports machining with multiple WorkFixtureOffsets. In a lathe this module is typically used to control the tilt of the B-axis, for example in machines like Mazak Integrex, Puma MX, Okuma Multus, Mori Seiki NT and others....

* machining based on solids, see "Solids import & 2.5D solids machining" below

Solids import & 2.5D solids machining

These modules can be added to both milling and turning in GibbsCAM. The importformats are vast: IGES, PARASOLID, ACIS, CATIA, VDA, INVENTOR, ProENGINEER, SOLIDWORKS, SOLID EDGE, STEP, UGS/NX, STL and more. You can import models from all major CAD-systems and machine directly on solid or surfacemodel with smart recognition of holes, pockets and depths. Machining based on a solidmodel gives you all the dimensions directly from the model, and thereby ensures fast and accurate programming. With the built-in PartSetup functionality you can rapidly orient and align Part-, Fixture- and Stock solids to match the setup in your machine. In the 3D-simulation our colour-coding will make you aware of remaining material, and possible gauges, which allows you to catch any errors before they hit the shopfloor.

3D milling / SolidSurfacer module

SolidSurfacer adds hybrid freeform modeling (geometry/surfaces/solids), and freeform machining strategies including strategies for HighSpeedMachining. For mould and die it offers automatic creation of cavity/core, parting lines and Boolean operations such as add/subtract/cut. The surfacemodeller offers unique repair tools, so you can mend a bad IGES or Surfacemodel. The machining environment supports any shape of Stock, Fixture and Part model with built in collision avoidance.

TMS module / Tombstone Machining

The TMS-module helps you program multiple part setup's much faster compared to conventional CAM-programming. In fact, it offers upto 80% reduction of programming time. Program one part, and let TMS do the rest. It will position your parts, fixtures and stockmodels on the tombstone, and produce a CNC-program with optimized operationorder. It also creates a list of all your WorkFixtureOffsets (G10 etc) in the beginning of the CNC-program, so you wont have to key in the WFO's manually in your machine.

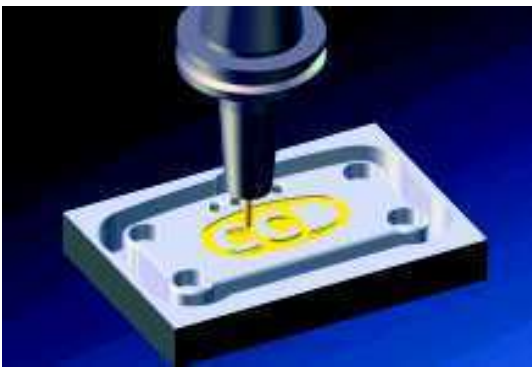


Simultaneous 4-axis milling

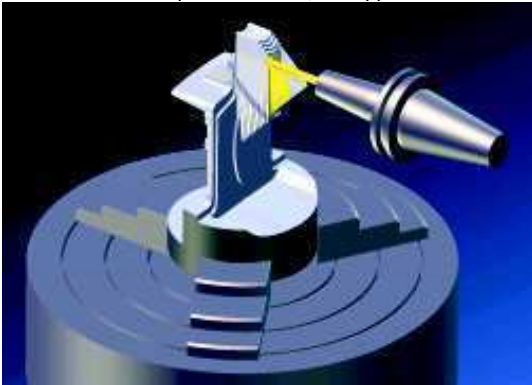
Simultaneous 4-axis milling can be added to both milling and turning modules. Machine grooves, feedscrews and pockets on the outer diameter of a part, engrave text on a surface, do off-center Y-axis milling in a mill or lathe etc. This and more can be done quickly and easily with or 4-axis solutions.

Simultaneous 5-axis milling

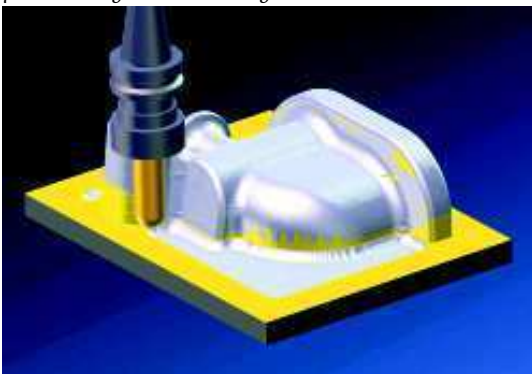
This module offers HighEnd functionality such as 5-axis multisurface-machining directly on solids, lead-/lag control, collision avoidance for tool and holder and specific strategies for tubines/impellers, cylinder heads etc. Our 5-axis functionality can also be integrated in Millturn and MTM applications for multiaxis lathes.



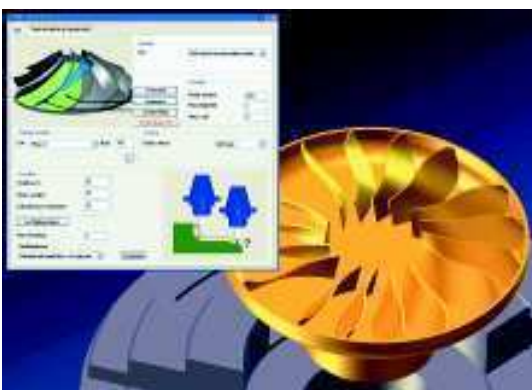
2.5D basic productionmill:
Handlebar clamp for a Harley Chopper



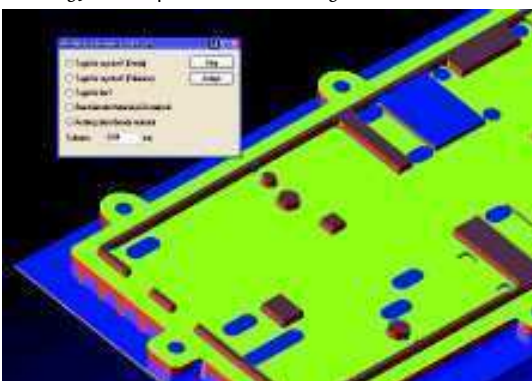
2.5D solids machining
positioning 5axis milling in a Hermle



3D milling module:
3axis freeform machining



5-axis milling module
Strategy for impeller machining



Machining analysis
Colourcoded display, shows remaining material

Turning - from 2axis to MTM

2-axis basic turning

Offers complete CAD for creation and editing of drawings. Import drawings via DXF, DWG and IGES or import solids models with our Solids import module. Fully automatic roughing and finishing cycles, drilling and tapping cycles, with full support for casted or premachined stock. GibbsCAM's Associative Toolpaths and parametric geometry allows you to program family of parts extremely fast. AutoClearance and full Restmaterial control guarantees optimized toolpath with no air cutting and short cycle times.

Millturn - lathes with C/Y/B axis

The MillTurn package is a combination of milling and 2-axis turning. Depending on which milling solution you link to turning, it will support 2.5D machining, solids machining or 4- and 5-axis machining with positioning or simultaneous 4th/5th axis. The possibilities are endless. Since the Millturn-package can be combined with any milling module it will in essence support live tools, C-axis and if applicable also Y- and B-axis.

Intelligent! With our RotaryMill module you'll have full support for rotary C-axis milling and the option to shift between C- and Y-axis with one click. Gibbs supports polar / cylindrical / segmented interpolation and uses subroutines to repeat operations on C-axis = short and smart CNC-programs.

MTM - advanced turning with multiple spindles / toolgroups

MTM (Multi-Task-Machining) was specifically developed to support MultiTasking machines, i.e. machine that can perform multiple operations at the same time. These machines come in a variety of configurations, with multiple spindles, multiple toolgroups or a combination of both. Gibbs MTM supports all these variations including utility operations such as Tailstock in/out, Parts catcher, Loader Robot, Steady rest etc.

GibbsCAM is not limited to one or two program-channels, it can support machines with 3+ flows like the Index ABC, Miyano ABX and Nakamura NTY. The built-in syncmanager allows you to not only sync operations in different flows, it also gives you the insight whether your program is optimized or if a toolgroup sits still and is wasting time. Gibbs MTM thereby allows you quickly test different setups so you can determine the fastest way to machine the part.

More than just Mill and Turn...

Machinesimulation

This module can be added to both milling and turning applications. It supports all types of machines from simple 3-axis machines upto advanced lathes with multiple spindles and toolgroups. The MachineSimulator is fully integrated in the GibbsCAM interface which allows the machine to be "setup" automatically with the tools, holders, fixtures, stocks and parts that you have defined during your programming. It will verify your programming by simulating the true movement of your machine and give a warning if a collision is detected. Specially useful for 5-axis machining, Tombstone Machining and Multi-Axis lathes, but also for schools that teach students in CAM / CNC technology.

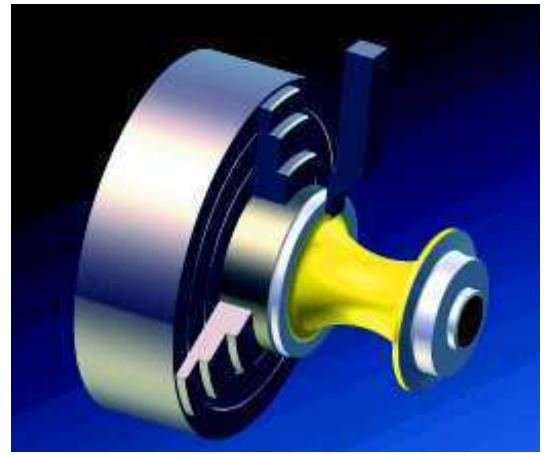
WireEDM

The WireEDM package has a complete built in CAD for easy creation and editing of drawings. It visually displays any geometrical errors before machining. You can import CAD files via DXF, DWG and IGES or from CMM. By adding the Solids modules you can also import, create and machine directly from solids. The WireEDM module includes strategies for 2-axis, 2-axis with taper, 4-axis, Coreless and also userdefineable Technology Tables. It comes complete with proven postprocessors for popular machines like Agie, Charmilles, Mitsubishi, Fanuc, Sodick and others.

Renishaw P+

This probing solution has been developed specifically for GibbsCAM by Renishaw, UK. It offers a user-friendly environment for controlling a probe inside a CNC-machine, so called "In-Production-Probing". The probing module supports both optical and radioprobes (OMP and RMP), and offers a variety of probing cycles including:

Probing of WFO (G54, 55...), measuring cycles for XYZ, corners, diameters, correction of tool diameter/length offset, if/else conditions and much more. With Renishaw P+ you can combine machining operations with probing operations, and simulate all of this inside GibbsCAM.



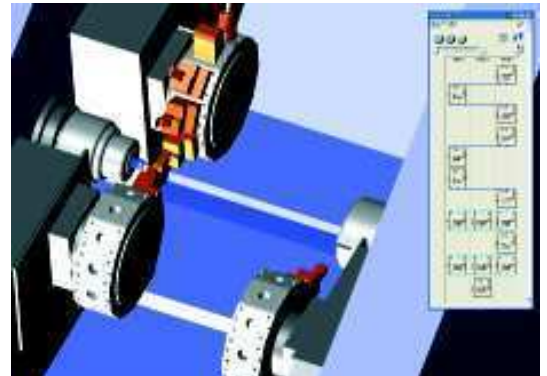
Basic package for 2-axis turning:
Back & Forth machining with a groove tool



Millturn:
Machining in a lathe with C-, Y- and B-axis



Machinesimulation 5axis Milling:
Mazak Variaxis 730



Machinesimulation in a MTM machine:
Gildemeister Sprint 65



Leading CAM-solutions

from a supplier with the right Know-How.

Know-how

You would not buy fish in a hardware store, would you? Choose a CAM-supplier who understands what your company does, that's wise. Our staff has vast experience in both manufacturing, CNC-programming/CAM and IT. All our trainers also have years of practical experience from real-life, working in shops and programming CNC machinetools. We understand what manufacturing is all about.

Training

There is no such thing as a fixed definition of a .good. CAM education. What is best for each individual/company must be judged in every case. To participate in a standard trainingclass together with 20 other individuals may be a cheap solution, but is most likely not the most efficient way to do it. Our training-classes usually host up to 4 people, with a content adjusted with regards to the individuals and the specific machinetools. This ensures high quality training, with minimum downtime.

Support

We know what it means if your production is stopped, and we understand what your costs are. Our supportstaff is aware of this and offers, in our humble opinion, the best support available on the market. You have access to our support via both email, phone, web and internetbased Remote-Support. Our postprocessordevelopers are amongst the best in the world, often times postchanges are done within a few hours after we receive your problemreport. We work closely together with most major machinetoolsuppliers to ensure the best possible functionality for you.

Services

There are times when a manufacturer needs help with programming. Since we know production/machinetools, and are pretty fluent on our CAM-system, we can help you in these situations. A very powerful resource that you as a GibbsCAM customer have the opportunity to take advantage of. Let us be your partner.

Distributor in Scandinavia:
fructus

CAD/CAM to the industry since 1988

Fructus Data AB
Domnarvsgatan 14
16353 Spånga, Sweden
tel: 08-59411630 - fax: 08-7042444
www.fructus.se - info@fructus.se

Reseller in Finland:

CeNiC Finland Oy

Villilänkatu 6 C 13
33300 Tampere, Finland
Internet: www.cenic.fi
E-mail: info@cenic.fi
Tel. +358 40 5913395

