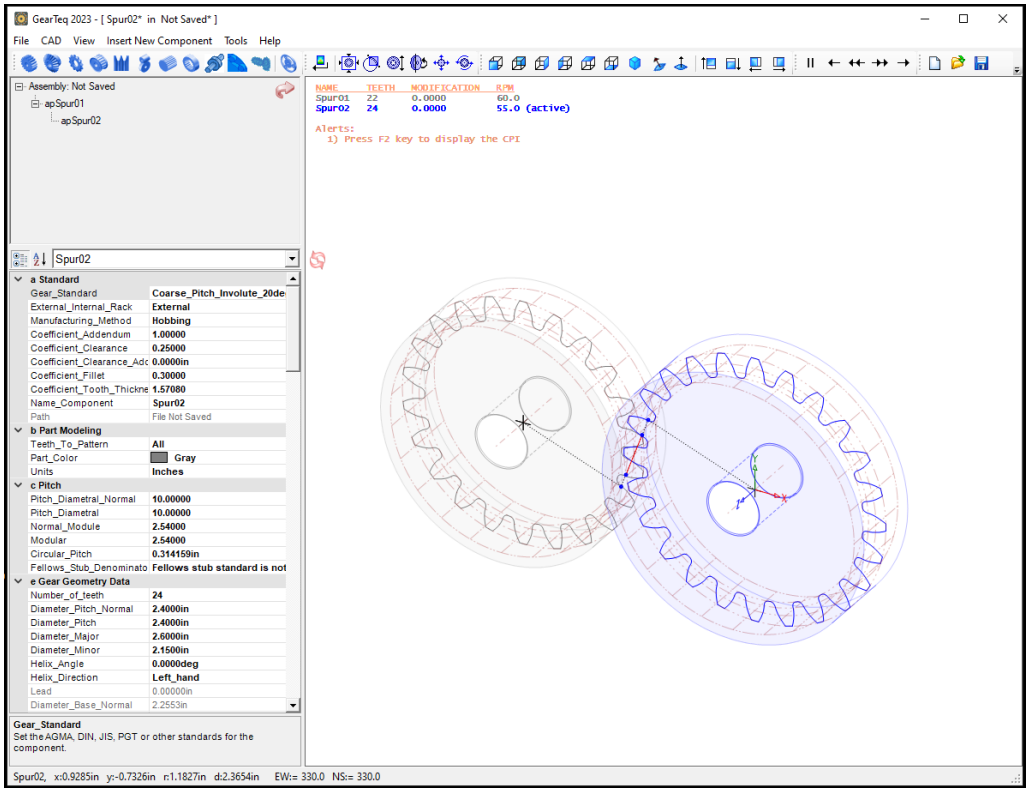
Data Sheet
GearTeq

GearTeq™ provides the designer with advanced tools for creating solid models of drive components and assemblies. More than a library program, GearTeq™ creates each part model with its specific requirements, just as a designer would, but takes seconds rather than hours or days. Work with multiple parts and assemblies and more.



"GearTeq has been fundamental in improving our drive-train efficiency year over year, from 81% before you began supporting out team to a current efficiency of over 94%; a significant improvement for us, and critical in a stock engine racing series."

"Most of our refurbished gear products, spurs and helicals are re-engineered using GearTeq and it has been very accurate and productive."

"Thank you for a fantastic program [GearTeq], I fell over backwards when it did a complete planet gear assy in SolidWorks in half a minute."

GearTeq™ is a property driven gear design program. It is not the intent of GearTeq to replace your CAD system but to augment the CAD system with a user interface that will allow the gear designer to accurately visualize the components before they are modeled in the CAD system. With CAD like features, you can view components with drag, rotate and multiple zooms options. You can also drive the components for immediate animation!

A **GearTeq™** component can be a CAD part by itself. The component can be part of a set of components that make up a single CAD part. For example, a spur gear is a single component, but this spur gear may have an internal spline as a child mate that is defined as a bore. When created in CAD, the spur gear will be created, and the internal spine will be added features of the spur gear. This is also true for mating parts that are defined as joined.

GearTeq™ is available as an add-on for SOLIDWORKS, Autodesk Inventor and Solid Edge and can also be used standalone. Several different network license options are available for GearTeq™.

GearTeq™ is programmed in the USA using 100% renewable energy.

Free 10-day trials are available on our website.

GearTeq™ Features

- Work on multiple types of components in the same assembly
- See any changes to the geometry instantly on the display window
- Multiple gears created as a single CAD part
- Internal splines can be used as a bore on all components
- Modifying CAD parts created by GearTeq is very easy
- Automatically create assemblies in SolidWorks with proper mating
- Ten standard planetary gear systems are available with a few clicks
- High ratio cycloid set (a single eccentrically mounted planet and a fixed internal gear)
- On screen animations to help you visualize the working gears
- Alerts when GearTeq detects something in your design that may not be proper
- 3D wire frame with some surface shading
- Create XY outputs of the involute points in Excel and text files
- Create data sheets using Excel or text files
- A description of each parameter is in the lower section of the property grid
- Involute profile modification using linear or parabolic deviation for spur and helical gears
- Automatic balance of addendum modification for spur and helical gears
- Create additional tooth profiles that take into consideration the shrinkage of molded plastic gear teeth
- And much more!

ABOUT US

Camnetics, Inc. is dedicated to improving the way automation components are designed.

CERTIFIED Solution Partner SOLIDWORKS

autodesk authorized developer

Solution Partner PLM SIEMENS

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Gear Design Software

Software Feature	GearTrax	GearTraxPRO	GearTeq
Add-on for SolidWorks	Yes	Yes	Yes
Add-on for AutoDesk Inventor	Yes	Yes	Yes
Add-on for Solid Edge	Yes	Yes	Yes
User customizable interface		Yes, label text	Yes
Custumizable font and color styles	Yes	Yes	
Multiple components	Limit 2	Limit 2	Unlimited
Multiple components on a single CAD part			Yes
Modifying CAD parts		Yes	Yes
Internal Spline as a bore on CAD part		Yes	Yes
Create CAD assemblies	Yes	Yes	Yes
Planetary wizard			Yes
High ratio cycloid gear set (involute teeth)			Yes
On screen animations	Yes	Yes	Yes
Design alerts	Yes	Yes	Yes
3D wireframe	Yes	Yes	Yes
Create XY outputs of involute points (text, Excel, CSV & DXF)		Yes	Yes
Create XYZ outputs of surfaces for spur, bevel and worm gear tooth cuts		Yes	Yes
Create data sheets, Excel, Text and CSV (Common Separated Values)	Yes	Yes	Yes
Convert GearTrax legacy files	Yes	Yes	Yes
Simple math calculations when entering values	Yes	Yes	Yes
Sizable window		Yes	Yes
Graphics window detachable from data window		Yes	
Undo and Redo buttons	Yes	Yes	
Spur and helical gears:	Yes	Yes	Yes
ANSI-AGMA 2008-A88	Yes	Yes	Yes
ANSI-AGMA 2015-1-A01	Yes	Yes	Yes
DIN 867	Yes	Yes	Yes
PGT (1-4)	Yes	Yes	Yes
British standards	Yes	Yes	Yes
JIS B 1701	Yes	Yes	Yes
Fellow Stub	Yes	Yes	Yes
Cycloidal tooth profile (for clocks)		Yes	
Company standards	Yes	Yes	Yes
Measurements over/under pins	Yes	Yes	Yes
Span measurements (over x number of teeth)	Yes	Yes	Yes
Chordal measurements	Yes	Yes	Yes
Test radius	Yes	Yes	Yes
CAD model suitable for manufacturing *	Yes	Yes	Yes
Plastic mold shrinkage		Yes	Yes
Automatic balance addendum modifications	Yes	Yes	Yes
Racks	Yes	Yes	Yes
Tooth tip radius		Yes	Yes
Hunting mesh information		Yes	Yes
Hob protuberance		Yes	Yes
Face gears (aka crown gears)		Yes	Yes
Parabolic and linear profile modifications		Yes	Yes
Radial and tapered longitudinal crowned teeth, full and half		Yes	Yes
Ability to edit CAD models		SW only	SW only
Aditional center distance controls		Yes	Yes
Operating diameters, start of active profile, HPSTC, LPSTC	Yes	Yes	Yes
Roll angles at different diameters including custom	Yes	Yes	Yes
Contact ratio	Yes	Yes	Yes
Topping adjustment	Yes	Yes	Yes
On screen diplay of minimum tooth thickness		Yes	
Create a XY data sheet of the involute using Excel, text or CSV file		Yes	Yes
Create a DXF file	Yes	Yes	Yes

Software Feature	GearTrax	GearTraxPRO	GearTeq
Bevel gears, spiral:	Yes	Yes	Yes
Gleason, Spiral and Zerol	Yes	Yes	Yes
Camnetics TruSpiral (accurate involute and true spiral)	Yes	Yes	Yes
Non-standard	Yes	Yes	Yes
Lead crowning, half and full radial		Yes	Yes
User control of the number of lofts sketches		Yes	Yes
CAD model suitable for prototyping *	Yes	Yes	Yes
CAD models of straight bevel gears suitable for manufacturing *	Yes	Yes	Yes
Create a basic DXF file		Yes	Yes
Create an XYZ surface text file		Yes	Yes
Bevel gears, straight:	Yes	Yes	Yes
Gleason	Yes	Yes	Yes
DIN 3971	Yes	Yes	Yes
Non-standard and free-Form	Yes	Yes	Yes
CAD model suitable for manufacturing *	Yes	Yes	Yes
Hunting mesh information		Yes	Yes
Lead crowning, half and full radial		Yes	Yes
Bevel tooth cuts can be added to a part file		Yes	Yes
Ability to edit CAD models		SW only	SW only
Worm gears:	Yes	Yes	Yes
Models suitable for manufacturing *	Maybe**	Yes	Yes
Worm wheel tooth crowning		Yes	Yes
Worm measurement over 3 pins	Yes	Yes	Yes
Additional worm wheel cut method (cavity method, SOLIDWORKS only)		Yes	Yes
User control of the number of lofts sketches		Yes	Yes
Splines:	Yes	Yes	Yes
ANSI	Yes	Yes	Yes
DIN 5480 and 5482	Yes	Yes	Yes
JIS	Yes	Yes	Yes
CAD models suitable for manufacturing *	Yes	Yes	Yes
Deviation chart for DIN and ANSI module splines	Yes	Yes	Yes
An internal spline can be added to a spur gear or pinion.		Yes	Yes
Ability to edit CAD models		SW only	SW only
Create a DXF file starting with version 2016		Yes	Yes
Create an XY data sheet of the involute using an Excel, text or CSV file		Yes	Yes
Chain sprockets:	Yes	Yes	Yes
ANSI	Yes	Yes	Yes
DIN	Yes	Yes	Yes
Special ASA	Yes	Yes	Yes
Silent chain ASME_B29_2M_2007	Yes	Yes	Yes
Create a DXF file		Yes	Yes
Timing belt pulleys:	Yes	Yes	Yes
MXL, XXL, XL, L, H, XH	Yes	Yes	Yes
HTS 5, 8, 14, 20mm (2018+ suitable for manufacturing *)	Yes	Yes	Yes
HTD 3, 5, 8, 14mm (2018+ suitable for manufacturing *)	Yes	Yes	Yes
DIN 7721 (2018+ suitable for manufacturing *)	Yes	Yes	Yes
PowerGrip GT 2, 3, 5, 8, 14 (2018+ suitable for manufacturing *)	Yes	Yes	Yes
PolyChain GT 8, 14mm (NOT suitable for manufacturing)	Yes	Yes	Yes
MXL, XXL, XL, L, H, XH models suitable for manufacturing *	Yes	Yes	Yes
Create a DXF file		Yes	Yes
Belt pulleys:	Yes	Yes	Yes
A, B, AB, C, D, E	Yes	Yes	Yes
V3, V5, V8	Yes	Yes	Yes
PolyV J, L, M	Yes	Yes	Yes
PolyV H, K	Yes	Yes	Yes
A, B, AB, C, D, E, V3, V5, V8 CAD models suitable for manufacturing *	Yes	Yes	Yes
Create a basic DXF file		Yes	Yes

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Software Feature	GearTrax	GearTraxPRO	GearTeq
ACME screw and nut:			Yes
ACME_Threads_B1_5_1977			Yes
Stub_ACME_Threads_B1_5_1977			Yes
Cycloidal drive mechanisms:		Yes	Yes
External and internal tangency		Yes	Yes
2 to 200 lobes		Yes	Yes
Elliptical gear sets:		Yes	Yes
Limited to 1 or 2 lobes, both gears identical		Yes	Yes

If you answer yes to any of the following questions then you should consider GearTraxPRO or GearTeq:	
Do you consider your company gear professionals?	GearTraxPRO or GearTeq
Will you be needing profile modification?	GearTraxPRO or GearTeq
Will you be creating planetary gear sets?	GearTeq
Will you be creating high ratio gears sets?	GearTeq
Will you be needing any tooth crowning?	GearTraxPRO or GearTeq
* Thoroughly inspect all models before using them for manufacturing.	
** SOLIDWORKS models created with the cavity method may be suitable for manufacturing in some circumstances	Last updated: 2021-11-20