Data Sheet
CamTrax64

Camnetics
I N C O R P O R A T E D

CamTrax64™ helps the designer create solid models of virtually every type of cam with the dynamic motion control parameters your system requires. During the design, CamTrax64™ generates charts when linked with Excel and adds a profile list to your drawing. Camnetics, Inc. is dedicated to providing the design engineer with accessible software for developing high speed machine cams!

CamTrax64™ standard cam types include cylindrical cams, plate (aka disk) cams and linear cams. Choose the follower type that the design requires; on center translating, off center translating and oscillating (swinging arm). Selecting different motion synthesis is a snap with CamTrax64. Choose between virtually any standard cam motion with a couple mouse clicks. With Excel the designer can analyze the cam motions and compare different motion synthesis. Don't have Excel? Output can also be to a text file! Charted are displacement, velocity, acceleration, pressure angle, cam shaft torque, radius of curvature, contact stress and normal force.
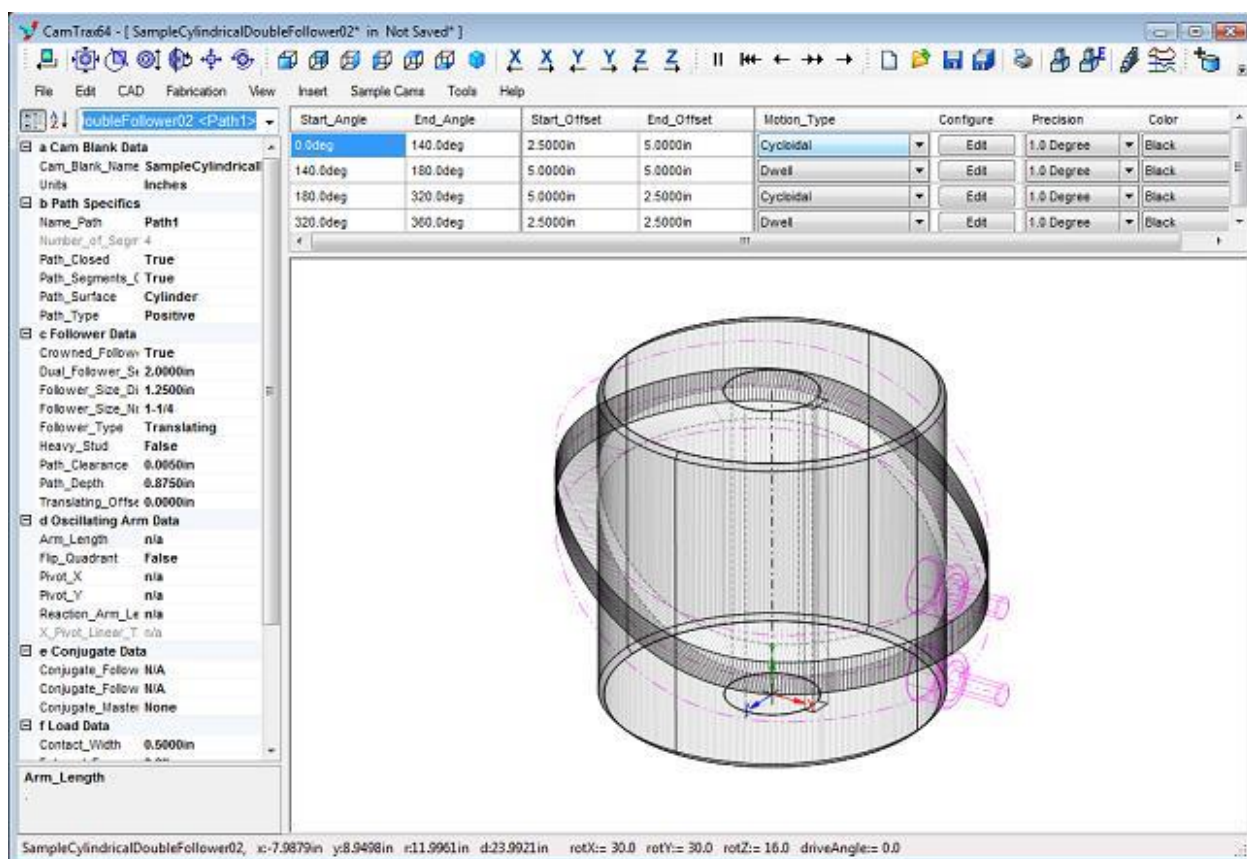
CAM TYPES:

- Cylindrical (Barrel)
- Segment Cams
- Disk
- Linear

FOLLOWER TYPES:

- On center translating
- Double cam followers
- Conjugate paths
- Off center translating
- Oscillating (swinging) arm

MOTIONS:

- Cycloidal*
- Harmonic*
- Modified Sine*
- Modified Trapezoid
- Cycloidal/Harmonic*
- Harmonic/Cycloidal*
- Constant Velocity
- Terminal Velocity
- 3-4-5 Polynomial
- 3-4-5-6 Polynomial
- 4-5-6-7 Polynomial
- 8th Power Polynomial
- Constant Acceleration
- Double Harmonic
- User points

*Symmetry (n) is configurable.

NUMERICAL TABLES & GRAPHS:

- Displacement
- Velocity
- Acceleration
- Pulse (jerk)
- Pressure Angle
- Cam Shaft Torque
- Contact Stress
- Normal Force
- Radius of Curvature

FABRICATION:

The fabrication module creates NC code for your 3 and 4 axis machine tools.

CamTrax64™ is an object oriented/property driven cam design program for win32 and win64 operating systems. It is not the intent of CamTrax64 to replace your CAD system but to augment the CAD system with a user interface that will allow the cam designer to accurately visualize the cam components before they are modeled in the CAD system.

A CamTrax64 base component is either a cylinder or a cube. A cylinder can have paths inserted on both ends and/or the cylindrical surface. A cube can have paths inserted on the upper or lower surface. Each path has a single cam follower. This follower can be translating or oscillating. A path may also be a dual follower (two cam followers of the same diameter) so a ridge is created along the centerline of the path. A path may also be conjugate to another path (master). The conjugate path may have a follower of a different diameter than the master path.

CamTrax64™ 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 CamTrax64™.

Free 10 day trials are available on our website.

CamTrax64™ is programmed in the USA using 100% renewable energy.

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" CamTrax64 has allowed us to reverse engineer a component for our drive train which is no longer manufactured (originally scavenged from a snowmobile). Not only has this allowed us to maintain our performance by reproducing worn, irreplaceable components, but even begin research and development of custom profiles so that we can further optimize it to our unique needs, while reducing our operating costs by producing difficult components in house." (Daniel - University of Maryland)