INTERNSHIP

PAVIATH INTEGRATED SOLUTION

MATHEMATIS

CAM & FOLLOWER

INTERNSHIP MATHEMATICAL TECHNOLOGY

Paviath ONLINE

▪ ENGINEERING ▪ POLYTECH ▪ SCIENCE STUDENTS

Analytix Cams enables mechanical engineers to quickly synthesize a cam profile given their follower motion requirements. Or...from an existing cam profile, the follo``wer's geometry and kinematics can be quickly designed, fine-tuned and analyzed. With Analytix simulation software, you can optimize the cam/follower interaction with your mechanical system. Then export DXF to CAD or coordinate data to NC/CAM software.

Here's how Analytix Cams is used to synthesize a cam profile. First, you choose the cam/follower type and such things as direction of rotation and follower offset. Then select a range of cam rotation, specify the starting and ending requirements for follower displacement, and the desired curve type (such as cycloidal, dwell, or constant acceleration). Analytix/Cams then automatically synthesizes the precise points in between, taking into account all the geometry involved in that particular cam/follower configuration.

For example, you can specify that the follower angle should have a modified trapezoidal rise of 35 degrees between 0 and 90 degrees of cam rotation and so on. The advanced user always has the option of fine-tuning the data points manually (or inserting them from another source).

Kinematic and other data is automatically calculated and displayed in both tabular form and graphical form: displacement, velocity, acceleration, jerk, radius of curvature

SALTIRE SOFTWARE

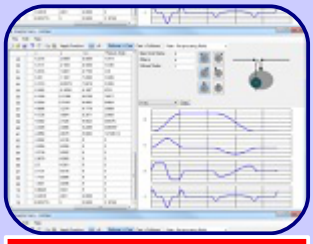
- ANALYTIX CAM
- IMPORT ▪ FIGURE GALLERY ▪ GX FILE ATLAS
- YOUTUBE TUTORIAL
- QUICK START GUIDE
- DRAW/ANNOTATE/CONSTRAIN (INPUT)
- CONSTRUCT/CALCULATE OUTPUT
- INPORT/EXPORT

Any cam profile developed in Analytix Cams can also be used inside Analytix mechanical simulation software to analyze the cam motion in combination with actuators, linkages, or other parts of a larger mechanical system.

Cam design and mechanism analysis can be done quickly in an affordable, integrated solution, letting you work back from required end-effector motion to cam/follower design or vice versa.

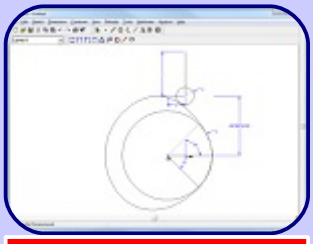
CAM AND FOLLOWER

Specifications
Cam Types
Plate -- oscillating roller follower
Plate -- oscillating flat-face follower
Plate -- reciprocating roller follower
Plate -- reciprocating flat-face follower
Linear -- oscillating roller follower
Linear -- reciprocating roller follower
Barrel -- oscillating roller follower
Barrel -- reciprocating roller follower



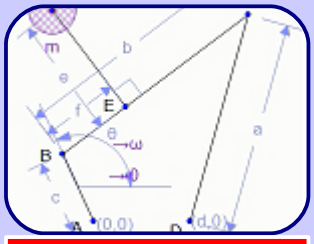
CAM AND FOLLOWER

Usage
Follower-to-cam method? YES
Cam-to-follower method? YES
Simulate inside larger mechanism (YES, with Analytix)
Motion Synthesis Functions
Dwell
Constant velocity/acceleration



CAM AND FOLLOWER

Cycloidal
Modified Harmonic
Modified Trapezoid
Modified Sine
345-Polynomial
4567-Polynomial
Numeric tables and graphs



INVERSE DYNAMICS

Cam profile (x-y or r-theta)
Displacement
Velocity
Acceleration
Jerk
S-V-A-J
Pressure angle
Radius of curvature

Analytix Cams 21

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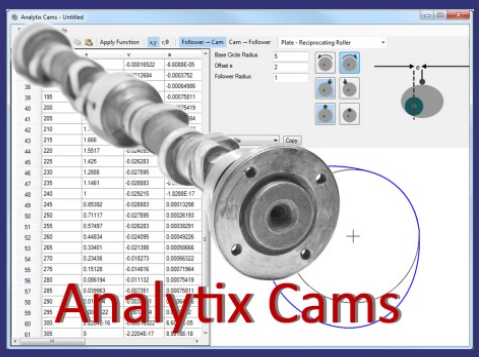
Saltire Software



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