PAGE 1

PAVIATH INTEGRATED SOLUTION

MATHEMATIS

ME EXPRESSIONS

MECHANICAM EXPRESSIONS

Paviath ONLINE

POLYTECHNIC • SCIENCE COLLEGE STUDENTS

The Next Generation of Mechanical Engineering Software
Mechanical Expressions is a symbolic mechanics program. Create a model, specify the geometry using symbolic constraints, add velocities, masses and force elements, and then extract mathematical expressions for output velocities, accelerations and forces. Copy expressions for input into a mathematics system like Mathematica, or copy them as Tex, MathML, or computer source code (in 9 languages). Or, create an HTML5/Javascript app, allowing you to communicate your design intent as an interactive, single-file web page that you can email to your colleagues or post on your web site. You'll quickly discover that Mechanical Expressions is truly a new breed of software.

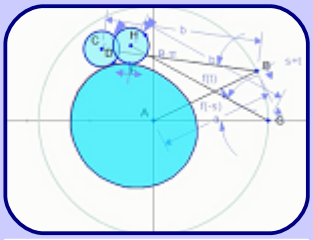
Explore Mechanical Expressions
Mechanical Expressions can model a broad array of situations pertinent to physicists and engineers. In this section, we've compiled fifteen examples that showcase Mechanical Expressions' capabilities.

GEOMETRIC MODELING EXAMPLES
• APPROXIMATING CIRCULAR ARCS WITH CUBIC SPLINES • PARAMETRIC DESIGN • CAM DESIGN
STATICS EXAMPLES
• FORCE AND SPRING EQUILIBRIUM • CRANK SLIDER TORQUE • FORCES IN A SIMPLE STRUCTURE
DYNAMICS EXAMPLES
• TREBUCHET • WHEELED TREBUCHET
• MODELING PLANETARY MOTION

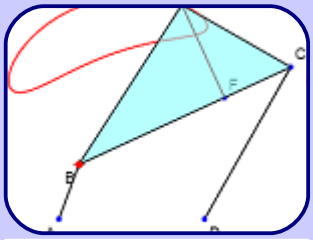
SALTIRE SOFTWARE

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

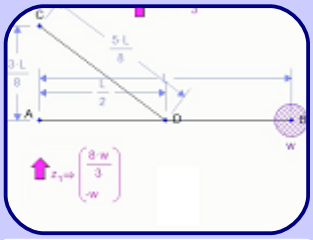
KINEMATICS EXAMPLES
• PENDULUM, ANGULAR VELOCITY, AND RELATIVE VELOCITY • 4 BAR LINKAGE KINEMATICS • KINEMATICS OF AN OFF-CENTERED CIRCULAR CAM
INVERSE DYNAMICS EXAMPLES
• GENEVA MECHANISM • QUICK RETURN MECHANISM • TORQUE IN A FOUR-BAR LINKAGE



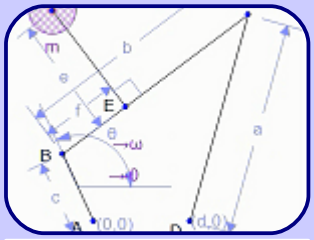
GEOMETRIC MODEL



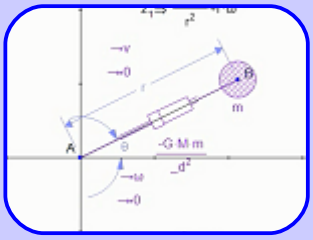
KINEMATICS



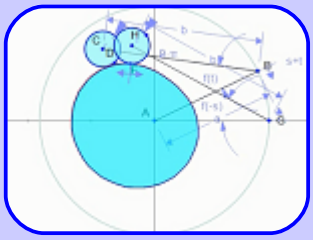
STATICS



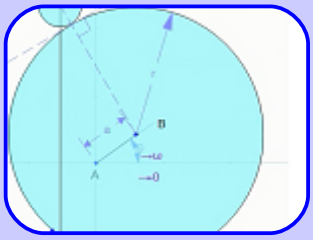
INVERSE DYNAMICS



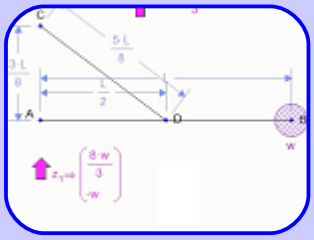
DYNAMICS



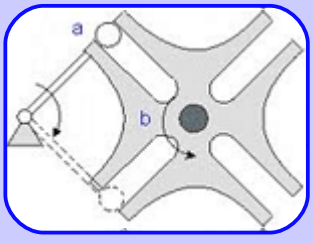
GEOMETRIC MODELING



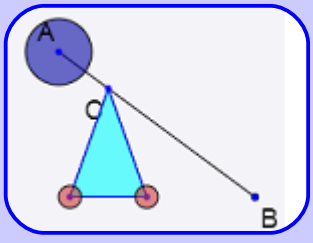
KINEMATICS



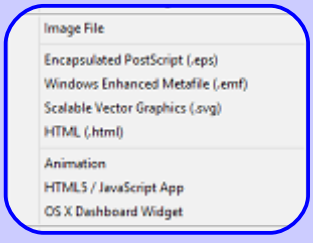
STATICS



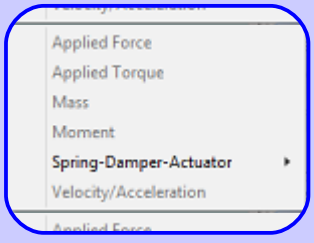
INVERSE DYNAMICS



DYNAMICS



ME EXPORT



ME INPUT

info@paviathintegratedsolution.com -www.paviathintegratedsolution.com www.paviathjobportal.com