

8-Apr-09

To potential Graficalc customers.

**Graficalc** is an invaluable contributor to my consulting practice. I provide solid modeling and FEA services to clients using Autodesk Inventor. My primary focus is machine design and product development.

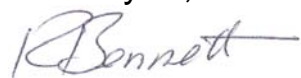
I am currently engaged in the development of a mechanical/hydraulic system. This system consists of many complex parts like pulleys, cables, cylinders etc. The parts move in both linear and non-linear paths. My standard procedure is to model the movements in Excel and then migrate that information to Inventor for development, simulation, animation and/or FEA. My current project, however, required math beyond the scope of Excel. Several geometric dimensional requirements could only be derived by setting up and solving simultaneous trigonometric equations.

**Graficalc** eliminated my need to scrape away the cobwebs that cover my recollection of how to set up simultaneous trigonometric equations and how to solve them. I was able to model all the parts and their respective movements in **Graficalc**. Even the most complex relationship and paths were well within reach of the program.

I simulated the system by developing 820 incremental movements by the driving force that moved 0.0811267" per increment. I then programmed **Graficalc** to match this system and was able to record and copy precise geometric data directly into Excel. The data consisted of dimensional and force data for each of the 820 increments. All total, I was able to load 17 columns of data into Excel, or just under 14,000 individual forces and locations of the many parts. It was a great time saver.

Anyone involved in tracking complex machine movement or forces or a myriad of other engineering tasks would find a great advantage in employing the power of **Graficalc**.

Thank you,



Ralph Bennett