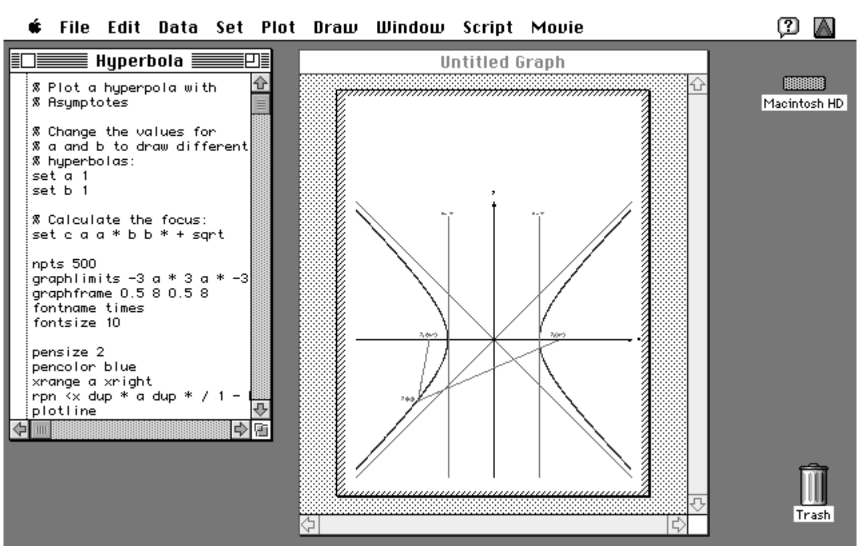
Brains™
SOFTWARE

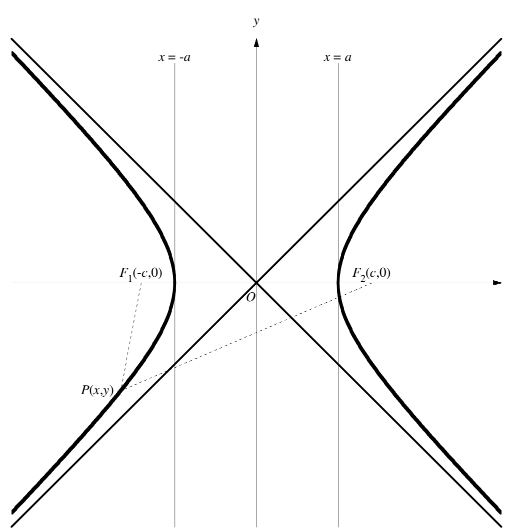
Asymptote™

The professional graph-processor™ for science and engineering

Fast • Flexible • Scriptable
Publication-Quality Graphs

From the screen... **...to the printed page.**





Visualize your data with Asymptote's publication-quality graphs.

Developed specifically for scientists and engineers, Asymptote lets you control every aspect of your graphs, from the width of tick marks to the patterns of dashed lines. Unlike other plotting programs that force you to use templates or galleries of graph types, Asymptote provides the tools you need to make graphs *your way*.

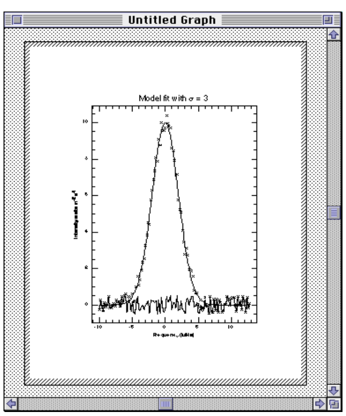
Save time and take the tedium out of repetitive plotting tasks.

Asymptote's powerful scripting language was designed to automate your graph-making. Simply double click the icon of a script to 1) launch Asymptote, 2) read data from a single file or several files, 3) manipulate the data with a powerful vector calculator, 4) plot the results in one graph or several graphs, 5) send the graphs to your printer and 6) quit Asymptote — all automatically. You can write scripts that run completely unattended in the background (while you work in other applications), or you can write interactive scripts that prompt you (or a lab technician) for input.

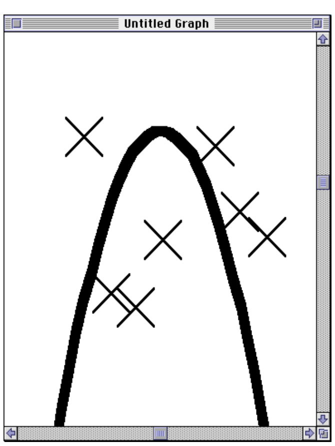
Get more out of your Macintosh.

Asymptote takes full advantage of the advanced features of your Macintosh. It is fully What-You-See-Is-What-You-Get (WYSIWYG) so you can view your graphs on screen (through multiple levels of zoom) exactly as they appear when printed. Asymptote is System 7 savvy and supports both *Publish and Subscribe* and *QuickTime*. With Publish and Subscribe, when you make changes to data in a Microsoft Excel worksheet, Asymptote automatically plots the new data for you in the background. You can also use Publish and Subscribe to control Asymptote from another application on your Macintosh or any Macintosh on your network. With QuickTime and Asymptote, you can create a slide show of your graphs for a presentation or animate a sequence of graphs to make a movie.

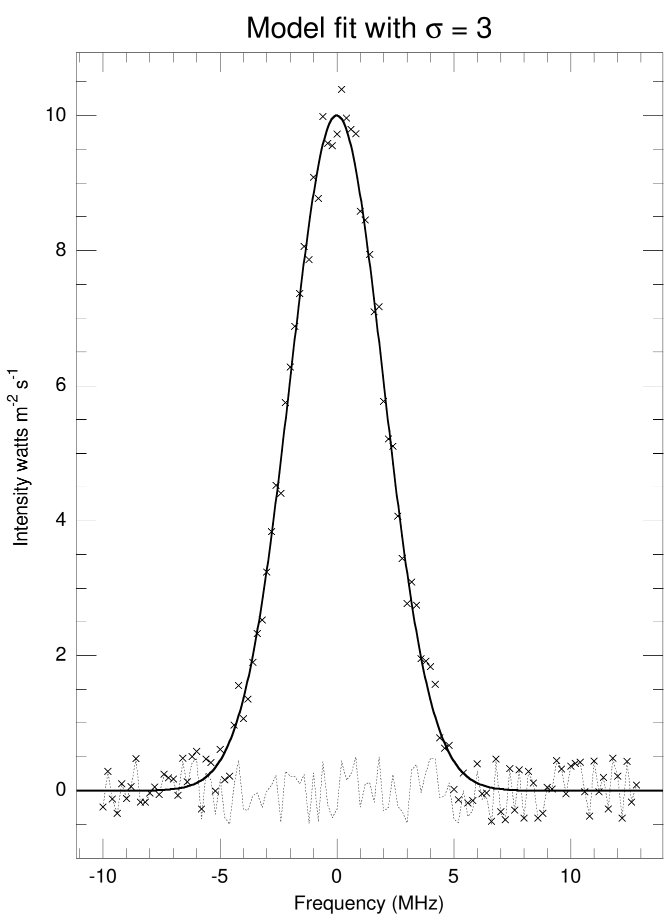
What-You-See-Is-What-You-Get



1. Create your graph



2. Zoom in for a closer look



3. Print it!

With Asymptote you can...

♦ **Read data from ordinary text files**
- Read 1-D data directly from ASCII text files or FITS Tables
- Skip header or footer lines
- Read from rows or columns
- Read the errors, symbols and labels for each point

♦ **Edit data and scripts with advanced editors**
- Full featured text editors with undo
- File size limited only by memory
- Up to 32 files open at one time
- Configure font, font size and tab width
- Auto indent, auto scroll
- Fast Search and Replace in multiple files
- GREP for sophisticated Search and Replace

♦ **Manipulate data or calculate functions to plot**
- Simultaneously operate on all the elements of 1-D arrays
- RPN (HP) style notation
- Highest possible precision (96 bits)
- Trigonometric functions: sin, cos, tan, asin, acos, atan
- Mathematical: y^x, 10^x, e^x, sqrt, log, ln, factorial
- Other : hms, frac, int, abs, rand and more
- Uses math co-processor (if your Macintosh has one)
- Specify stack depth, length of vectors and number of registers

♦ **Analyze your data**
- Select point symbols based on the results of a calculation
- Smooth with an FFT
- Interpolate with a spline
- Fit up to a 9th order polynomial with errors
- Bin data to make histograms (frequency distributions)
- Sort data before plotting
- Calculate basic statistics (max, min, mean, std.dev., sum)
- Display statistics on your graphs

♦ **Plot data your way**
- Log-log, log-linear, linear-log
- Plot points, lines, arrows, polygons, histograms or labels
- Plot as many points as you have memory in your Macintosh
- Plot error bars or upper/lower limit arrows at each point
- Error bars or arrows can be different in all four directions
- Plot log errors on log-log graphs
- Double *x* or double *y* axes
- Plot as many graphs as you can fit on a page
- Stack graphs in columns, rows or panes
- Read point symbols from a file or calculate them
- Draw grid lines
- Shade under curves or histograms
- Draw axes ticks and tick labels inside or outside graph
- Use decimal, scientific, hours-min-sec, or deg-min-sec notation
- Specify number of significant digits to display

♦ **Control fine details of graphs**
- Sensible defaults with everything under your control
- Adjust the sizes of point symbols, labels, and tick marks
- Fill points with patterns
- Rotate points and labels through any angle
- Specify dash patterns (up to 6 on-off segments)
- Draw true dashed lines that follow a curve
- Use color anywhere on your graph
- Control the line thickness (hair-line and larger) anywhere
- Add labels anywhere; draw arrows from labels to points
- Set tick mark spacing and tick mark notation
- Draw axes with or without tick marks or tick labels

♦ **Preview your graphs on screen**
- Graphs on screen look exactly as they do when printed
- Examine the finest details with multiple levels of zoom (x32)
- Full screen mode for presentations; set background color
- Read values from the graph with cross-hair cursor

♦ **Produce camera-ready hard copy**
- True publication-quality graphs on high-resolution printers
- Save your graphs in high-resolution PICT files
- Create PostScript, and EPS files with LaserWriter 8 driver

♦ **Automate your graph-making with scripts**
- Perform repetitive plotting tasks automatically
- Scripts can run completely unattended in the background
- Create interactive scripts that prompt users for input
- Automatically search for files to open
- Control execution with for, while, if-then-else commands
- Pass arguments to scripts or macros

♦ **Share data automatically with other applications**
- System 7 savvy, AppleEvent aware
- Subscribe to data published by other applications
- Graphs update automatically when you make changes
- Publish your graphs for use in other applications
- Control Asymptote from any Macintosh on your network

♦ **Create QuickTime movies**
- Make a movie of a sequence of graphs or create a presentation
- Control movie speed, image size and bit depth
- Color, gray scale or black & white
- Loop and play movies forwards and backwards

♦ **Get context-sensitive help**
- On-line help answers your questions quickly
- Lots of practical examples
- Personalize the on-line help with your own comments

♦ **Rely on an extensive User's Guide**
- Tutorial, reference section, helpful hints and examples
- Extensive index

System Requirements: Any Macintosh except PowerBook 100, 1 MB RAM, System 6 or later, hard disk.
Recommended: 4MB RAM, math co-processor, System 7, QuickTime, LaserWriter driver version 8 or later, color monitor.

Order Asymptote Today!

Brains™
SOFTWARE

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