Software For Data & Management

Software For Data, Numbers, & Management

AirTable	Super powerful spreadsheet adjacent tool that's great for managing all kinds of data. Kanban, Gantt, Automation, Calendars. Really great. I've heard it called "a better smarsheet" but I don't know what that is.
Apple Numbers	It's just like Excel or Google Sheets except you don't have to pay for it and your data isn't being tracked □□
Google Sheets	Probably the best spreadsheet purist tool out there. Excel feels like ancient technology in comparison (though in some cases, you still need to use it).

Software For Communications

Discord	Slack for board-game nerds
iMessage	Contemporary AIM
Slack	Discord for businesses and political action

Calculators, Unit Conversion, & Measurements

This section is a combination of apps and web apps that will help you do tons of different math things and save you some time.

Standalone Calculator Applications

Netmedia.dev's Timecode Calculator	Mac OS App Timecode Calculator. I've asked them to add in custom timecode... let's see!
Numi	A contextual calculator that will save custom functions, define variables, as well as formulas and you can use markdown within a calculator set (thanks to Sean Leo for this one). Highly recommended.

Units Master	Converting things like feet and meters, also a calculator for feet / inches / fractions. All about size things. You can do a lot of this in-line in Vectorworks, but this is a little faster. Their hotkeys are a little weird and can't find the doc right now but "F" will do feet (not ') and "I" will do inches (not ").
Or just use a spreadsheet ◫ - Google Sheets is free and good. Apple's Numbers is free and fine – the better feature is that Apple's Keynote and Pages have tables that allow you to use spreadsheet formulas. Microsoft's Excel is good, too, just bulky as hell and why pay for something if you can get it for free… oh yeah because nothing is free in this life.	

Here's an example **Numi** recipe for calculating file transfer times over x bandwidth:

```
// manual entry //
// enter target file size MBs in variable vFileSizeMB //
vFileSizeMB = 3370363.64 MB = 3,370,363.64 MB
vFileSizeBG = vFileSizeMB in GB = 3,370.36 GB
vFileSizeTB = vFileSizeMB in TB = 3.37 TB
// enter bandwidth in megabits per second //
vMbiPS = 700 Mb = 700 Mb
// auto calc //
vMByPS = vMbiPS in MB = 87.5 MB
vEstimateSeconds = vFileSizeMB/VMByPS  = 38,518.44
VEstimate = vEstimateSeconds*1seconds in hours  = 10 h 41 min 58 s
```

Web Application Calculators

FOV Calculator	for when you need to calculate the field of view for a camera based on sensor size / lens MM / etc. Very useful. The person who made this is a very smart psychopath.
Projector Central Throw Distance Calculator	Brand agnostic. Definitely the go-to calculator for quick things. Good for estimating brightness. Usually not as up to date as brand calculators – there's a lag for new projectors and lenses. **You should always verify with brand calculators and sometimes, you just need to get the projector on a bench and try it out.** There are some calculators that are off, but it's usually marginal and it's rare.
Projector Screen Rando Calculators	Collection of projector calculators - fL, viewing angle, throw distance etc. They've got most projector, models. If they don't check a manufacturer directly. Remember a .5:1 throw isn't 100% 1:1 between models. Chip sizes change this match just a little bit. Point being :5:1 on one model isn't the same as .5:1 on another, but they're close!
Proportional Calculator	For when you're feeling lazy about doing proportional algebra and you don't want to open a Google Sheet or use Numi or a calculator.
PPD Calculator	Viewing Angle and Screen Door Math

Custom Calculators

My buddy Avery built out a calculator to determine a max scale based on a series of values.

The goal with this tool was to be able to find what the largest scale possible is that results in whole numbers based on multiple numbers. You need whole numbers when you're working with pixels!

AverySoftware.png

Brand Specific Projector Calculators

- BARCO throw calculator
- Epson throw calculator
- NEC throw calculator
- Optoma throw calculator
- PANAsonic throw calculator

Measuring Documents Digitally

For when you don't want to open Vectorworks, or when you want to get information quick + dirty

MeasureDocuments.png

If you're given a ground plan or elevations and they are to-scale (eg ¼" = 1'0"), you can open up the Preview app (on a mac), press Command-I, go over to the crop options, and change the units to inches.

Then you make a selection box in preview, and get the approximate dimensions of that selection.

In this example, I've made a selection that is 1x1" (the width and height).

This is the equivalent of 4x4' in ¼" scale.

A good way to verify whether or not the drawing is to the scale that it is indicated to be using, is to measure it against something you "know"

> In ¼" scale:
> sheet goods are often 4x8' AKA 1x2"
> doors are often 2'6"-3' wide AKA 0.625-0.75"
> Any scale indicators on the page (annotated dimensions FTW)
> A spec for something that you can look up (like projector dimensions, for example)

Unfortunate Caveat: It is fairly typical to receive drawings with indicated scales that are wrong or are inconsistent from drawing to drawing on a single page. This is something I’ve dealt with from MEPs, GCs, Architects, Scenic Designers and Manufacturers!

The best thing to do is ask for something with a correctly indicated scale, but that isn’t always possible.

Or learn some 3D CAD and/or 3D visual fx software and ask for the CAD!

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