

## Cost Calculators 101.

Cost calculators are spreadsheets often produced by digital x-ray companies (or any capital equipment company for that matter) to aid in decision making when purchasing digital x-ray equipment. To really know how to use them requires you to really understand them.

The aim of this article is to the business manager / owner who is not business oriented. One of the quandries that we have in veterinary medicine is that veterinarians don't go into business to be wealthy, or because they like business. While some do, nearly all of the rest become Veterinarians to care for animals because they truly love caring for their patients and their clients. Because of the nature of the beast (pun intended), many veterinarians find a more successful path to freedom and happiness by starting their own business. And like me, you want to only produce the very best product (your care) that money can buy – within reason. And like me, you probably like caring for your patients (my customers) much better than running your business. And also like me, running your business can be exhilarating, frustrating, and sometimes distracting from what you really love.

The smartest thing you can do in business is smart and thorough evaluation prior to committing to any large purchase. One of the more common tools regardless of the equipment under evaluation is the cost calculator. These tools are designed to help you see what new equipment will cost over time: whether it will make you money or cost you money. In business, any investment in your business must make financial sense either in the short term or the long term. I always encourage long-term thinking with short-term payout.

One of my companies -I own several- is an x-ray chemical manufacturing company (H.R. Simon and Company). The lifespan of the x-ray chemical industry is coming to a close in the next fifteen years, so I absolutely have to think about purchases in terms of how much it can save. I have been using cost calculators to run my business more efficiently for many years. For instance, I upgraded one of our manufacturing lines to include robotic packing sealing because after very careful evaluation I found that the \$250,000 purchase would pay me back in real savings of approximately \$70,000 per year. This was a no-brainer. We are now more efficient and better able to cope with the long-term plan. The fact that quality control improved in the process was a great benefit.

A cost calculator is really a pretty simple tool and if designed correctly will aid you in seeing the real costs of your equipment. Cost calculators should be simple and should be overly conservative and show you worst-case scenario. In other words, if you buy digital x-ray, and your plans don't work out exactly as you would like, how long will it take me to pay for it, or what will I need to do in order to pay for it?

Cost calculators are as old as business. They can be just as convoluted. When human hospitals started down the road to digital x-ray, their pay-out when they went digital was almost always savings in time and efficiency. We even looked at the cost per square foot of hospital space. So, when you look at those "soft" costs, you would always find that digital x-ray pays for itself in a matter of days. The problem with looking at life through "efficiency glasses" is that, unless your hospital is x-raying hundreds of x-rays per day, efficiency gains don't translate into dollars in your pocket.

Cost per square foot savings really doesn't pay for you unless you are building new. You will simply not need your darkroom, which if you are like most people, you will fill with old x-rays and other files. If you are building new, then here is a fact: if you multiply the square footage of your darkroom needs (about 24 square feet – on the small side) by the cost per square foot of building (could be well in excess of \$100 per square foot) then you will end up with saving if you do not put in a darkroom of about \$2400. There's a payout, but it's really small, so we never look at cost per square foot savings.

Depreciation can be considered a benefit, or an expense. Think about this: if your company is an s-corp, sole proprietorship, or LLC, chances are that the company's income is attached to your personal income when you file your taxes which means that you get to write off depreciation from your taxes and not pay tax on that portion which you depreciated. It's like tax free income. Another depreciation method is referred to as "section 179" which allows you to make a big purchase and immediately write the entire thing off as an expense, reducing your income, saving you on your taxes. Basically, you get the benefit of your new equipment, and instead of paying income tax on the money it took to buy it, you get to earn that money tax-free, possibly saving you many tens of thousands of dollars depending on your tax bracket. If your W2 shows \$70,000 per year and you buy a \$70,000 machine with your business money, you will be able to "section 179" the entire purchase, effectively reducing your personal income to \$0. Think of the income tax refund that you translate into.... Think of that as your personal stimulus plan." Borrow the money and you get to pay over time for a machine that benefited you today in tax dollars.

So, based on the above, depreciation seems like a benefit right? Well, it is. If none of the above makes too much sense, then here is what you do: go to your accountant and run this by him / her. Your accountant will agree whole-heartedly with this thinking.

This tax policy by the government is a huge benefit and automatically makes digital x-ray 1/3 less expensive than the price-tag. That helps a lot to pay for a digital x-ray system, but it still is a large expense. Knowing this, put it aside and do not use it in your cost calculations. If you do not use depreciation as a benefit, you will have the most conservative model for calculating cost. Conservative usually means either being right and making what you thought you should have made or

being pleasantly surprised by more income than what you had anticipated. You never want to be surprised the wrong way.

That being said, cost calculators should take into consideration many factors including savings on film, chemicals, processor maintenance, processor parts and repairs, and film filing jackets. You should also consider how many more x-rays you will be taking after you go digital. Average veterinary centers, after going digital take 20% more x-rays, because digital is so much easier than analog. Think about it: 20% more radiology income with no cost associated.

If you are an emergency center or you think that you will not take more x-rays, and you a very low volume, then consider raising your prices to compensate for the new technology. Most of the time, raising pricing by 10% will really not affect the end-user, and is easily justifiable should anyone ask about the price increase by the benefit of the new technology. The patient benefits of digital x-ray over analog x-ray is another article. That 10% increase will help pay for digital in a big-way.

Now, consider all of the long term costs (which there surely will be). Consider the cost of service contracts. I've heard of my competitors charging more than \$7,000 per year for service. That's in excess of \$500 per month (or a car payment)! How many x-rays would you have to take to pay for the service?

Consider the other hidden costs. You didn't need to back up your analog x-rays. Digital x-rays can be wiped out in the blink-of-an-eye, so the need to backup is paramount to long term success. Online backup is currently the best method to backup and depending which service you use, can be very costly.

Another hidden cost is computer crashes. All computers crash at some point or another. The cost is not in the hardware, service costs, or technical support. The real cost to a computer crash (assuming you have everything backed up) is in lost revenue and degraded healthcare for your client's animals. Computer's can be replaced, but lost pets, or lost clients can't.

Cost calculators are written by digital x-ray manufacturers who want you to be able to justify the cost of your system. Some calculators are very pointed and others are very fair. SimonDR has a cost calculator on their website that is free and anonymous ([www.simondr.com](http://www.simondr.com)). We can show you how to use it and it can be used for anyone's system, not just SimonDR's DR systems. The most important thing that you can do after you fill in all of the numbers required is give the spreadsheet to your accountant or bank, and get them to shoot holes in it. If you fill out everything correctly, and digital will pay for you, and your accountant can't tell you that it won't, then buy and buy immediately.

Finding a piece of equipment, or technology, that enables you to improve patient care while making you more money is a no-brainer of a purchase. Digital x-ray is still a big purchase, but if all of the numbers make sense and you know exactly

what you are getting yourself into because you have used a cost calculator conservatively and have come out on top, then making that large purchase is no longer a scary prospect and is just a matter progress.

About SimonDR: SimonDR, Inc. is a Bel Air, Maryland based digital x-ray capture device manufacturer. SimonDR makes and sells, CCD based digital x-ray systems, flat panel digital x-ray systems, digital dental x-ray systems, medical imaging viewing stations, and data backup services. SimonDR, Inc. is ISO9001 and ISO13485 registered. SimonDR, Inc. can be reached at the [www.simon-dr.com](http://www.simon-dr.com) , 800-835-3852, or email [sales@simon-dr.com](mailto:sales@simon-dr.com).