Mobile CAD Surveying Ltd   *Point – Shoot – Drawn = Instant Floor Plans*

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ROI example for SiteMaster

Responsible facility managers and businesses alike are always looking for ways to minimize their expenses and to hold onto their available resources. They are constantly reviewing and rethinking their operational strategies in order to remain competitive in today's business environment. In an attempt to accomplish this task many organizations are looking for solutions to increase productivity and reduce costs. SiteMaster Building provides a low cost means to meet that need.

In a recent article for Business Advantage's CAD Spaghetti, Rob Jones of Graebert UK talks about the benefits of using the SiteMaster system and how businesses can achieve a solid return on their investment. He states:

> "Once users realize how beneficial the system is to their work flow in achieving 90% of the drawing in the field, it certainly opens the mind to this investment and how quickly they can achieve a return on investment. Most surveyors use a laser measure, a total station, a laptop or some form of computing device; we are the platform that ties them all together to make their investments work a bit harder and certainly a lot smarter. Whatever the size of organization, the investment made in SiteMaster is a very sound business decision" (Jones, 2008).

In order to demonstrate the return on investment potential that can be realized utilizing the SiteMaster product line over the Tape measure and Paper methodology the following examples are provided. Cost estimates for both surveyors and draftsmen are based on arbitrary dollar amounts and are to be utilized for demonstration purposes only as wage rates will vary from organization to organization.   Graebert's projections for increased productivity are utilized to demonstrate the gains that can be realized by utilizing this system and methodology.

Staffing

Traditional Team

SiteMaster User   Data Collection   Report Generation in SiteMaster   Files to CAD Operator for final cleanup
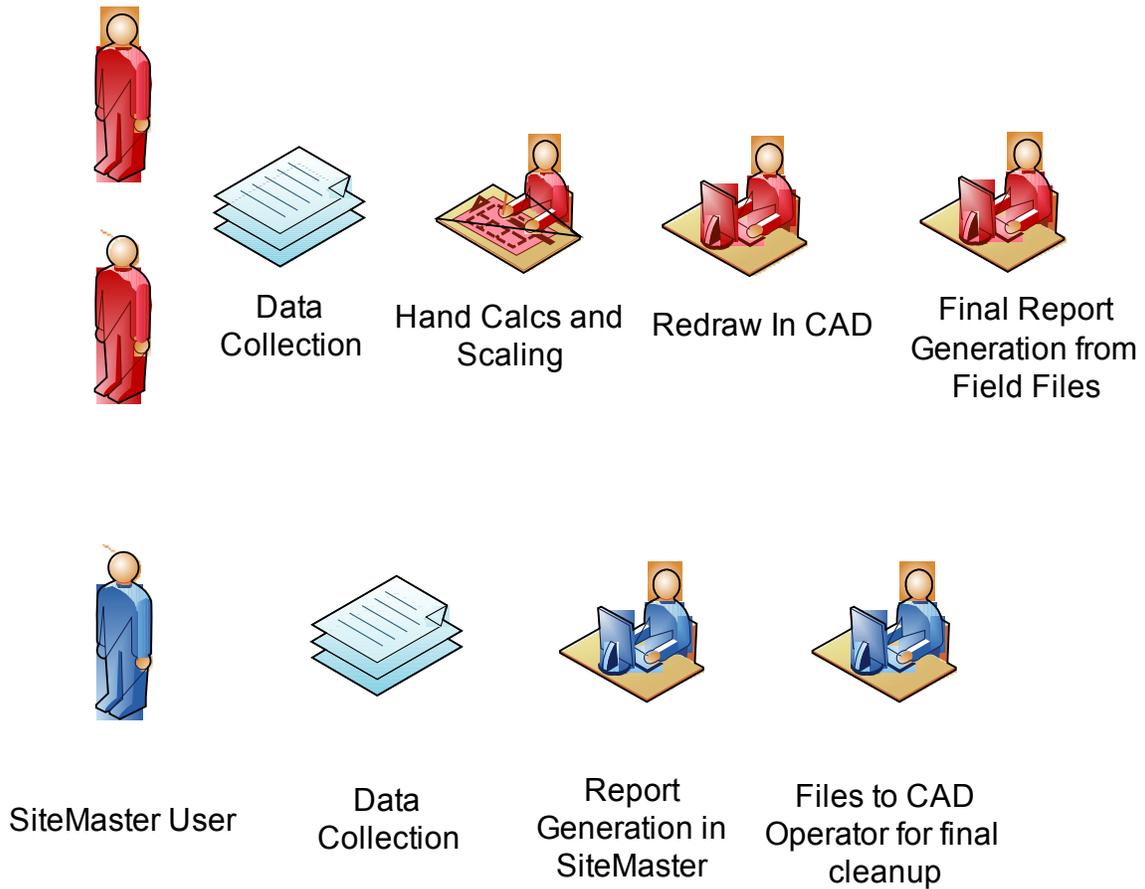
Figure 1 Staffing

As with any new system there will be a ramp up period for the training of personnel. Initially, a typical survey team will consist of two personnel. Once users become more familiar with the system however they can go to a single person team. Cost savings can be realized through this reduction in staffing requirement.

Survey Technician Example:

 Wage rate per day = Number of personnel *Wage rate per Hr

Traditional Method: 2 x $21.40 per hr = $42.80 per hr *8 = $342.40 per day
SiteMaster Method: 1 x $21.40 per hr = $21.40 per hr *8 = $171.20 per day

Sq Ft per day

Demonstrable gains in productivity can be realized in the amount of square footage covered in the typical workday by utilizing SiteMaster as well. Even if the team using the tape measure and paper method switches to using laser distance meters there still remains a disparity in the time required between the two methods because of the additional steps required by the traditional method.   Naturally, productivity increases will rise and fall based on the skill level of the surveyor and the size and complexity of the asset being measured however, productivity gains will be realized in the majority of instances when utilising SiteMaster Building.

What makes this system more attractive is that due to this increase in productivity organizations can recoup their initial cost expenditure of purchasing the requisite software, hardware and training which again serves to only strengthen the argument for utilising the system.

AutoCAD cleanup / Proprietary Symbols / Photos

Field teams utilizing the traditional methodology are collecting data and hand drawing floor plans only to return to the office to calculate the square footage. Once this task is completed, draftsmen must then decipher the drawings and redraw them using computer aided design software such as AutoCAD or Microstation. This is a time consuming redundant exercise that can result in imprecise drawings. If for any reason the accuracy of the drawing is questioned, surveyors must return to the site to re-verify the measurements costing the organization time and money. For SiteMaster users the drawing of the facilities, the backend cleanup of the drawings and calculation errors can be minimized because they are already drawn and calculated in the software as they are going through the facility. Additionally, every shot taken with the laser distance meter is recorded on a layer of the drawing. By turning this layer on in the layer manager, distances can be readily seen along with the location and direction from which the shot was taken. This is an invaluable attribute of the system as it serves to address

any questions that may arise about the validity of the survey as well as address the concerns of the client about the accuracy of the final deliverable product.
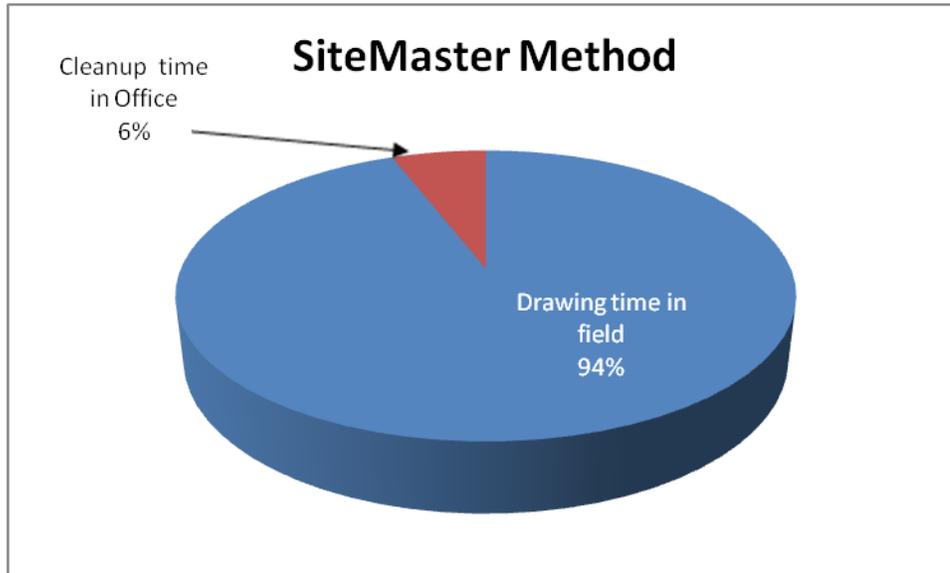

Figure 2 Cleanup Times

These are the big time and money saving factors:

Drawing in the field with pencil and paper then in redrawing the plans in AutoCAD takes about 6-8 hours. Draftsmen must create, figure out, draw, calculate square footages, insert title blocks, and add any additional details as might be outlined in the SOW. Then a spreadsheet has to be created that contains square footages, area use codes, room numbers, and cubic volumes if the data is available.

Utilizing SiteMaster the backend clean up in CAD is roughly 30 - 40 minutes per file and it includes the spreadsheet.

In order to demonstrate the costs savings that can be realized as a result of the reduced cleanup time required the following example is provided based on an 8 hr field drawing time utilizing both methods and a file load of 300.

Draftsman Example:

Cleanup costs = (Number of files*estimated time per drawing) * wage rate per hour

Traditional Method

(300*16)*$21.40 = $102,720.00

As stated previously utilizing SiteMaster we estimate that it takes roughly 30 minutes per file to do the cleanup.

SiteMaster Method

(300*8.50)*$21.40 = $54,570.00

The resulting delta would be a 2,250 hr reduction in the man hours required and a realized profit of $48,150.00 as a result of the reduced effort.
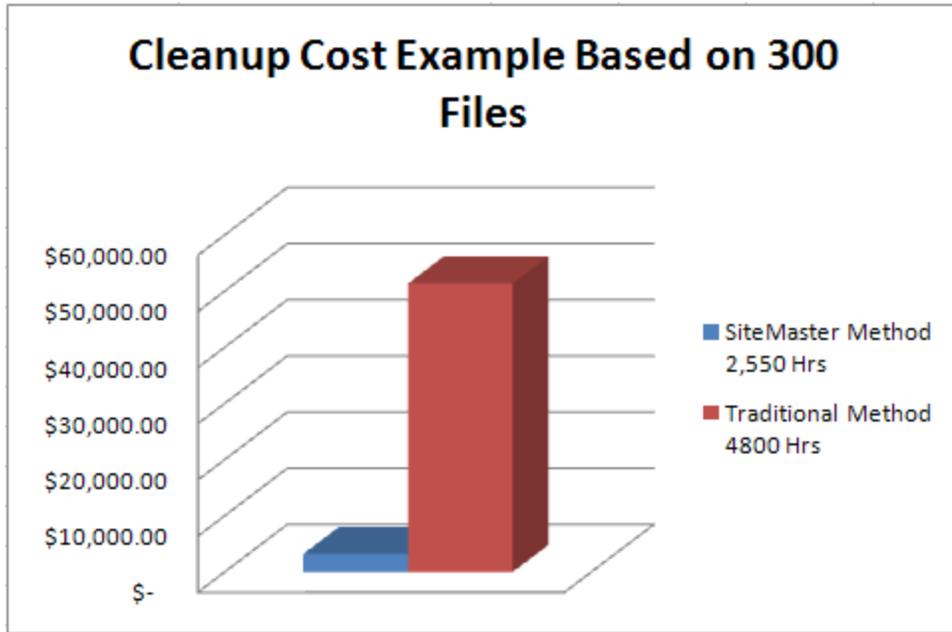
Figure 3 Cleanup Costs Example

Reports

As mentioned before, another great feature of SiteMaster is that the room and area data can be exported into a program like Excel for further analysis. This can be very beneficial to facility managers when doing space utilization studies to determine how to optimize existing space, calculate costs for leases, cleaning contracts and for maintenance and repair budget development.

If reducing your costs and increasing your productivity sounds good to you and you want to learn more about how SiteMaster can work for your organization, visit our SiteMaster page and click on the Product Information and Trials link for free downloads of trial versions of all of the SiteMaster line of products. If you have any questions please feel free to call us at +44 (0) 871 789 2609.

We look forward to working with you to help you meet your goals.

References

Table of Figures

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