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Making Silk Purses Out of a SOWS EAR

There are a lot of strange sayings that have been around for hundreds of years and the one involving the intertwining of Porcine Animal Husbandry with Handbag Design is one of the strangest: “You can’t make a silk purse from a sow’s ear.” Of course, leave it to the brainiacs at MIT to prove this idiom false (<https://libraries.mit.edu/archives/exhibits/purse/>). I ran across this phrase recently and immediately saw the acronym: **Scope of Work Statement & Equipment, Accessories, and Resources**. Obviously, I have a very disturbed and demented mind, but I was also aided by the nightmares of a recent system I was asked to integrate. It dragged on and on and every visit diminished the profit margin.

On the install I had the frustrating experience of receiving the extremely helpful instruction of “make this stuff work.” I did have a one-line drawing, but when reviewing it with the PM he kept dismissing huge sections of it saying that “there was a change.” To make matters worse, I didn’t have all of the supplies I needed, nor was all the equipment on site (some of it hadn’t even been ordered). It took multiple visits by myself and others before the project was completed and several of those visits yielded even more “undocumented requirements” for the project. This project could have easily been more efficient and economical if there had been a **clear, concise, and approved** Scope of Work document created at the beginning of the job.

SCOPE OF WORK

When a salesperson sits down with a prospective client, their conversation, after sports, fast cars, and current events, eventually concludes with what the client wants and what the salesperson can provide. When the two are in agreement, the salesperson can fulfill the client’s needs, they shake hands, light cigars, and go

out for drinks. Hopefully, the essence of their agreement has been captured on a beverage napkin or the back of an envelope, because that summation of the sale is the basic foundation from which the Scope of Work Statement is birthed.

A Scope of Work is more than a list of equipment and materials. It is a short 3-5 sentence paragraph that describes the work to be done and the expected result. It describes what equipment will be provided (It isn't necessarily manufacturer, make, and model specific, but it can be if warranted.), where it will be installed, and how it will be connected. It should address the three elements of an integrated system: Audio, Video, and Control. Imagine the following two scenarios:

- 1) You arrive at the jobsite and are escorted to a conference room that will be your work space for the day. You have a collection of boxes sitting on the conference table and a box containing a large display against the wall. A hand-written note tells you, "install the TV at the front of the room at normal height. Connect the Cable Cubby to the TV." A few minutes later the escort returns with an AppleTV unit and asks about the ceiling speakers she was promised.
- 2) You arrive at the jobsite and are escorted to a conference room that will be your work space for the day. You have a collection of boxes sitting on the conference table and a box containing a large display against the wall. With the equipment on the table is the following document:

"We will install a DM-TX-401-C under the conference table and pull a CAT6 and power cable through a floor box to a stub-out above the ceiling and down a conduit behind the display location to a DM-RMC-Scaler-C that will be mounted to the wall. The 70" display will be mounted so that the center of the display is 72" AFF. A hole cut by others in the conference table will be where we place a Cable Cubby. The cubby will have VGA/A, DisplayPort, and HDMI inputs plates installed in it along with power. 18" jumpers will connect the plates to the DM-TX under the table and 10' cables will connect to the plates on top of the table. A single 3' HDMI will connect the DM-RMC to the display on HDMI 1. This will be the only input. The display's speakers will provide the audio and the display's provided handheld remote will be used for power on/off and volume."

A few minutes later the escort returns with an AppleTV unit and asks about the ceiling speakers she was promised.

In scenario 1, with no real direction or guidance, you have no idea about what to do with the AppleTV and whether or not to go looking for speakers and an amplifier. In scenario 2, you have a clear definition of the work expected of you, and it doesn't include speakers or an AppleTV. If these pieces equipment are to be added, it will be on a Change Order at additional cost, and after the primary Scope of Work is complete.

If you are asking installers to follow detailed instructions, there is a good chance that they will be able to complete the assignment in the time allotted, even without a one-line drawing. Additionally, when the Scope of work is completed, so is this phase of the installation. Staying on schedule means staying on budget.

EQUIPMENT

This brings us to the Equipment list. You have described what you want installed, and how it should interconnect in a general form, but have you actually procured the equipment and is it at the job site ready to be installed? You wouldn't send a baseball player up to the plate without a bat, why send an installer to a jobsite without all of the equipment? This means that there must be sufficient time allowed after the sale is made for the processing of all the paperwork and ordering of all the materials, then of course shipping and receiving. Depending on the size of your organization, this could take several weeks – longer if the suppliers have inventory issues, or if there are holidays or inclement weather conditions that delay transport of the gear.

If you have a taken the time to draw out a one-line diagram showing all of the devices and their interconnections, you should have a grasp of the Bill of Materials. Verify that the model numbers that you ordered are the model numbers you received. If they are different because of model year changes or discontinuation, verify that the features and connectors on the received model are the same as on the model specified. Manufacturers are notorious for making "improvements" by elimination features or the removing of serial ports, analog audio and video ports, and changing connector types with model changes. A call from the installer in the field is not the time to find out that the device won't

perform as expected or additional parts are required, due to a product change that eliminated a desired feature or connection point.

The other troublesome area that will affect a project's bottom line is not having the right cables, connectors, adapters, and other accessories to complete the task. Be certain that the installers dispatched have the correct installation aids to complete the job on the first visit.

- Do they have sufficient DB9 connectors of the correct gender?
- Do they have RJ45 connectors that are correct for the type of category cable being used?
- Will the installers need special audio connectors for the job?
- If the customer's PCs have DisplayPort video outputs, do you have DisplayPort cables accounted for in your system design?
- Are the pre-made cables of sufficient length?

Taking time to assemble all of these little, but important details will help to eliminate hemorrhaging the profit margin.

RESOURCES

Finally, making sure that provision has been made for the correct and sufficient resources is essential to a timely and efficient integration project. Manpower is the main resource component, but vehicles to deliver the equipment to the job site, specialty equipment like lifts and ladders, and other devices unique to the installation requirements need consideration as well. Again, having staff on site unable to work because of missing resources only hurts the job's bottom line.

So in summary, by giving attention to a Scope of Work Statement, Equipment, Accessories, and Resources, you really can create a "silk purse" with a SOWS EAR.