SD-Mobile Handbook

SD-Mobile is a cutting-edge system for automating information linkage between the field-tech and office. Working entirely behind the scenes, it provides each field tech with comprehensive and real-time data concerning the dispatches assigned to him, including additions and cancellations throughout the day. It simultaneously provides the office with real-time data concerning each tech's progress, including all pertinent details concerning what transpired at each job.

In short, SD-Mobile is a 21st Century system for the truly modern service business. Congratulations on your choice.

This handbook assumes you've contacted Rossware to request setup of your Mobile account on their end, and have received your "Setup" email. It's designed to help you begin operation easily, quickly and with almost zero fuss. It's barely 23 pages (portions of which can be skipped if not applicable), and is easy reading.

Chapter 1

How the System Works

The SD-Mobile system involves two programs:

1. **SD-Mobile** is the program that runs on each tech's computer. It's what he uses as he works in the field. There two versions: one for Windows (this version is sometimes referenced as "*SDM-w*"; it requires full Windows, as opposed to a "pretend" Windows like Windows-RT), and one for iPads or iPhones (this version is sometimes referenced as "*SDM-i*"). Either device requires at least an occasional internet connection. At bare minimum, a connection must be provided at the beginning of each day. Far better is to be connected at least intermittently. The connection is typically achieved via a built-in-to-the-device "air card" (sometimes called "cellular") or via an external/mobile hotspot (such as is provided by newer smartphones or by a MyFi-type device). For "free" access, some people use WiFi as found at localized "hot spots."

2. **SD-MobileLink** is a program that installs and runs at the office, from any ServiceDesk-networked computer. It should run on one machine only, but should be *kept* running throughout the day. Its task is to provide the *office-end* of communication with the tech (it's the "messenger," in other words, that shuttles information back and forth, between your techs and ServiceDesk in your office).

The general scheme is as follows:

1. We maintain a remote server that provides a common information point, to facilitate communication between office and tech.

2.	SD-MobileLink (running in the office) uploads info to this server, as applicable to the techs your office has in the field (i.e., their names, log-in passwords, etc.) and their work for each day (i.e., jobs scheduled, details concerning those jobs, etc.).

3.	SD-Mobile (running on each tech's mobile device) logs into the remote server (using the tech's log-in credentials), and downloads dispatch/job data as applicable to his work.

4.	The tech proceeds to each job, as directed by his SD-Mobile interface. As he arrives, there's a button to check-off his arrival. As he finishes, there's a similar button. As he does each, info concerning the fact uploads to the remote server.

5.	Meanwhile, at the office, information regarding these arrivals and departures are downloaded by SD-MobileLink, and show graphically within the ServiceDesk DispatchMap. The events are also recorded in each job's narrative history.

6.	Upon completing each job, the tech should do his PostVisitReport (PVR), via the provided SD-Mobile interface. This information likewise uploads to the remote server, and downloads (via SD-MobileLink) to the office and ServiceDesk -- in real-time (or at least nearly so, depending on the tech's connection status to the internet).

7.	In addition to doing his PVR, the tech may also print (or email) a very nice retail ticket for the customer. This means there is no need for the tech to bring any paperwork with him, and fulfills the vision of a "paperless" office that many have yearned for.

8.	Offices *could* opt to do PVRs later (i.e., rather than in real-time by the tech using SD-Mobile), but we don't believe many will. The advantages of the tech doing so directly are too great. Plus, it's by doing the PVR that he assembles the info (at least in part) that goes into printing the customer's ticket.

9.	Programming in SD-Mobile is structured so, for any period during which the tech's mobile computer lacks an internet connection, it simply holds the info needing uploaded, and sends it in a burst the next time a connection is available.

10.	A further aspect of the real-time communication is, if the office makes changes in the tech's schedule throughout the day (additions, cancellations, etc.) they also show in real-time (or as soon as the next internet connection is established) within SD-Mobile.

For the most part (and with understanding of the general scheme, as explained above), use of the two programs will be self-explanatory.

Chapter 2

Some Details Regarding Setup

To begin your use of this system, you must first install the software. For SD-MobileLink and SD-Mobile-w, installer utilities are found on the SD-Mobile downloads page. To get there, you can use this link:

> http://rossware.net/downloads/SDM/index.html

You can also navigate there via menu options found on Rossware's main webpage, http://rossware.net (also available via hyperlink in the ServiceDesk *About* form). Simply choose *Updates*, then *SD-Mobile*.

To run either installer, first click on the applicable hyperlink, then (when prompted) choose "open" or "run." After several moments, the system will open a folder that contains three files. Click on the file called *Setup.exe*, and follow the prompts. Generally, it's best to accept default answers as the installer setup progresses.

If wanting to install SDM-i, it's the same as installing any other iPad or iPhone app. Just go to the App Store, and search on "Rossware".

When you received your setup email on SD-Mobile, it will include your *User Account Number* and *Password*. You'll find both Mobile itself (regardless of which version) and MobileLink have boxes in which these unique credentials must be filled in.

It's also necessary to do some work in *ServiceDesk*.

Specifically, you must go to the ServiceDesk *Settings* form, and there designate each tech that you wish to have running with SD-Mobile (if you do not, his name will not be uploaded by SD-MobileLink, as a tech who's authorized to use the system).

To designate applicable techs, locate the *List of Technicians* section in your ServiceDesk *Settings* form, and select an applicable tech. Then, in the grey *Technician Properties* box to the right, activate the checkbox which indicates he *'Is Using'* SD-Mobile. At the same time, be sure to create a password for his log-in.

With this done, SD-MobileLink will know to upload the applicable techs' names (and log-in passwords) to the remote server. This, in turn, allows those techs to log-in via SD-Mobile.

In this regard (and when you look at the SD-MobileLink program), you'll see it's structured to update several different kinds of data, including your TechRoster. It's set to do this at timed intervals. In regard to updating Dispatch info and PVRs, the system connects to the remote server with each timed event regardless of whether changes have been detected in ServiceDesk. In regard to uploading the TechRoster and several other matters, however, it only uploads when it detects changes have been made.

Regardless of the above, let's say that within ServiceDesk (and as per the above description) you just designated some techs as '*Is Using'* SD-Mobile, and you do not wish to wait for the timed update interval for SD-MobileLink to upload this fact to the remote server. Within the SD-MobileLink program, you'll see there's a button you can click to make it happen immediately.

There are similar buttons to force immediate uploading of your *StockList* (used by SD-Mobile for the tech to indicate parts used from stock), *UIS Lists* (provides your list of Types, Makes and Selling Dealers so the Mobile tech can have drop-downs for same), and so on.

BTW, accurate maintenance of the list of such technicians are use SD-Mobile is your responsibility. If a tech is no longer with you, be sure you either remove him from the roster of techs in your ServiceDesk Settings form, or at least de-activate the checkbox that indicates he "*Is Using*" SD-Mobile. So long as he's listed and with checkbox activated, he'll be tallied in the billing as a tech on your SD-Mobile roster, and you'll be charge at the applicable monthly rate.

Chapter 3

Hardware Considerations

For use in the office, no new hardware is needed. You already have one or more office computers, and presumably have a good internet connection there as well.

A.   The Mobile Computer

For the mobile end (and as previously mentioned), SD-Mobile may be used in either a full-Windows platform or in an iPad or iPhone.

If preferring a Windows platform, netbooks were a once popular solution (essentially they were very small laptops with limited computing power). More recently, netbooks have been superseded by Windows tablets, so, pretty much, your Windows-side options are between a laptop versus tablet. Regardless, bear in mind that tablets can indeed be easily configured in the traditional clamshell-with-keyboard mode, either via inherent design (e.g., the Asus Transformer or Microsoft Surface, etc.) or via the add-on of an accessory sleeve/keyboard. Historically, the availability of incorporated air-card/cellular capability has lagged, in the Windows-tablet world (i.e., as compared to Apple), but as of early 2015 this is rapidly changing.

If preferring the iPad/iPhone path, your options are obviously much more simple, because there is only one line of devices from which to choose. If choosing an iPad, most likely you will want to add an accessory sleeve/keyboard. Most techs find the iPad Mini is a very convenient size. Most companies are choosing the upper-end model that includes built-in air-card/cellular capability. Any iPad or iPhone that's running iOS 7 or above should be compatible.

Regardless of whether choosing the Windows or Apple route, for at least the purpose of running SD-Mobile, you do not need extra computing power and/or extra ram. The base-level devices will perfectly suffice.

To give you some idea on pricing, a bargain-basement Windows tablet plus add-on sleeve/keyboard can typically be obtained for less than $150. That's pretty cheap. Alternatively, you can get something like the Asus Transformer (a really nice device) for about $350. Once or twice we've seen an air card/cellular equipped HP tablet offered at just (from Walmart) at just $149, with an air card that may be configured to work with any of the major carriers. If purchasing a Windows device, please be sure it is *full and true Windows* (i.e., not *Windows-RT*, which is a much more limited operating system that only masquerades under the "Windows" name).

Apple devices generally cost more. On checking presently, the cheapest iPad is $249 (stand-alone, no sleeve/keyboard), and lacks built-in air-card/cellular capability. The cheapest with that capability is $429. Regardless, the feedback that we've received from those companies that have deployed both is that their techs significantly prefer an Apple-side solution.

As for internet connection (and as mentioned), you can do it internally within each device via built-in capability, or externally (and the choice is entirely up to you). Aside from the connecting hardware, you will also need a data plan. We suggest you internet shop to see what options are currently available to you, and decide what best fits your need. As for level of data usage you can anticipate, our reports from users indicate that most techs fit well and easily at under 2 GB per month.

B.   The Mobile Printer

The best advice in regard to printing mobile tickets is . . . don't do it!

Just do e-tickets. It's the modern way, and is usually best.

Also, we wish to tell you that every Rossware client that was first skeptical about eliminating normal paper tickets (but nevertheless did it) soon found . . . well, what do you know . . . it ended up being wonderful after all. [1]

If we cannot at this time sell you on that (i.e., you feel really determined to provide your customers with paper invoices in each and every instance), this section is for you. Otherwise (if, in other words, you are willing to rely at least primarily on e-tickets), please feel free to skip this section.

If, in fact, your techs are going to be using SDM-i, you might as well skip this section anyway. That version of SD-Mobile does not have any direct printing capability built into

---

[1] To be sure, there will be an occasional customer who demands a paper ticket. One option is, when the situation unusually arises, print and mail one from the office. Another is to keep each tech provided with some paper tickets, and for those exceptional situations he can simply by hand fill-in one of those otherwise pre-printed forms. As still another *potential* option, at Rossware we've considered developing a method where, from the Mobile interface, the tech can click a button and an outside service will then automatically print and mail the ticket. There would likely be a fee of $1.50 or so per instance of this, but, since the situation would be exceptional and would save hassle otherwise, it might be worth it. Please let us know if this is something you'd like us to develop

it. Thus, you should pay attention to this section only if you'll have one or more techs using SDM-w (which, in fact, *does* have robust direct-printing ability).

As for what printer setup your techs should use, it's entirely up to you. SDM-w will print to any Windows-compatible printer. Likewise, it will auto-adapt its output for whatever paper size your Windows-compatible device uses.

Some technicians have used small but still office-type inkjet printers. A virtue is they're cheap. A downside is the tech has to go out to the truck to get the customer's invoice, [2] and of course an inverter is needed to supply the printer with its needed 115v AC power input.

There are a number of more compact, "mobile" inkjets on the market, and if you check the pricing you'll see there's a significant premium for going tiny. For years, we've been happy with a Canon ip90. It's pretty small, yet prints to full, letter-size paper (we have a client who keeps his ip90, along with other supplies, in briefcase that he carries in with him). Figure around $250 to purchase.

Another option is the little micro thermal printers that store their paper on a roll. We acquired a designed-for-service (i.e., "ruggedized") Printek RT43 BT that connects via Blue Tooth and also includes a credit card reader (and may optionally be attached to a barcode reader). It's a very sweet machine (can be worn on a tech's belt), though some may consider pricey at around $750 typical retail. We are in fact Printek dealer, and with that status can provide you with significant discounts from list (price sheet at http://rossware.net/MiniManuals/Printek-PriceList.pdf).

For the purpose of our tradeshow demo-ing, we also purchased the very tiny *Brother MPrint 140BT*. It has the size and approximate appearance of an old-fashioned cigarette case. It prints individual 3" by 4" sheets, and also connects to the computer via BlueTooth. Ran us about $370.

C. The Credit Card Swiper

Just as there is nothing in SD-Mobile to mandate mobile printing, there is likewise nothing to mandate live and in-the-field processing of credit card transactions. Nor is there anything—even if you want your techs to run such transactions live—to mandate their use of a swiper (i.e., our Virtual Terminal happily permits *keying in* of credit card data).

However, given the fact that many merchant-account setups penalize non-swiped transactions, and of course it takes less time and effort to swipe, we think you'll likely want to make your techs swiper-equipped.

---

[2] We don't know of anyone doing this yet, but an idea we've had is you could put a wireless hub in your truck, power both it and a standard/cheap (but networkable) office printer via an inexpensive inverter, connect your printer to the hub, and use a WiFi enabled laptop (most are, these days). You remain in the house while tallying the ticket, click on Print, and the ticket begins printing in the truck before you even walk out there. You then go out to your truck with your tools, put them away, clean up, and go back into the house with a perfectly completed ticket.

We also think you'll almost certainly want to have them do that swiping in a manner that's fully and direct-integrated with SD-Mobile.   Any other mode is going to cost you more (in SD-Mobile, there is no fee aside from the standard Merchant discounts). Plus, any non-integrated system will involve separate entry of each transactional detail, thereby involving more tech time and greater possibility of error (as opposed to the perfect integration that's involved when running within a unified and coherent system).

In fact, with the SD-Mobile unified credit-card-charge system, all you need for swiping is a simple MCR (magnetic card reader) device that can be had for less than $50 each. On the Windows side, you can use any Magtek HID-type USB-connecting reader (we particularly recommend their model *21040140*).   On the iPad side, please use the IDTech Shuttle.

For other details on using our built-inVirtual Terminal system, please consult this document:

> http://rossware.net/MiniManuals/VirtualTerminalHandbook.pdf

D.   The BarCode Scanner

First, we don't think there is usually great benefit in equipping your techs with a barcode scanner. A likely exception will be if the day has finally arrived when most model and serial plates include barcodes of model and serial. When that day is reached, then there may indeed be a significant benefit.

If in fact you wish to equip your techs with barcode scanners, you may rely on the fact that SDM-w will work seamlessly with any Windows-compatible scanner, and SDM-i will work seamlessly within any iPad-compatible scanner.

Beyond this, if you'd find yourself wanting to equip your techs with one of the those fancy Printek setups, some (at least) of those may be equipped with attached scanners that are simultaneously compatible with SDM-w. [3]

To use scanners within either version of SD-Mobile, simply place the cursor in a textbox where you want to scanned data to appear, then scan. It's really that simple

E.   The Internet Connection Device

Many service companies are paying for, essentially, two cell-system accounts for each tech: one for his voice communication (aka cell phone) and another for his data communication (aka air card). This may be perfectly practical, but it also may be more pricey than is actually needed. There are a couple of strategies via both forms of communication may be accomplished on one and the same account

---

[3] For a simple page of instructions on setting this up, please click on this reference:
http://rossware.net/MiniManuals/UsingThePrintekBarCodeScanner.pdf.

One Cell-Account, Method 1:

Most smartphones today include an application that allows them to work as WiFi hotspots. It is incredibly easy to setup, and works great. With your phone acting as a WiFi hotspot, and your laptop or tablet connecting to the internet via that hotspot, there is no need for the latter to have their own and independent internet connection. They get it through the phone, and all is great.

One Cell-Account, Method 2:

Ever hear of a "Travel Router?" It is simply a dedicated WiFi hotspot that uses cell system as its internet connection source. With a travel router, you can essentially do the reverse of what's described in Method 1. There, you use a cell phone (in particular, a smartphone variety of cell phone) for cell phone purposes, and secondarily as the internet connection tool for other devices. Here, you use an air card equipped router as your internet connection tool, can secondarily it can provide you with *virtual* cell phone service.

Specifically, many of today's "cell phones" can optionally be set to use a wireless internet connection to talk (as opposed to their own direct connection to the cell system), and, of course, there are Skype phones as well (phones that are specifically made to talk via wireless internet connections, as opposed to via their own direct connection to the cell system). With either setup, your techs cell phone needs could be met via connection to the single Travel Router, which also (and simultaneously) provides internet connection to any tablet or similar devices the tech may be using.

An Added Benefit:

Whether its Method 1 or 2, another potential benefit from a single WiFi-hub setup (whether it's based in a smartphone or travel router) is it can facilitate network communication between and among other devices. Thus (and as an example), if you insisted on printing invoices, you could keep a network enabled printer in your truck, issue a printing command from inside the house, then go out to your truck and grab the already-printed invoice (a capability that would be more tenuous if using simply Bluetooth because of its shorter range).

Chapter 4

About the Software Environment

If you think of the hardware and communication environment as the *sea* with which SD-Mobile will live and propel itself as it's doing its work (and you must provide that sea, of course), please also consider other denizens within the sea. In particular, please consider such difficulty as may be involved if SD-Mobile finds itself attempting to swim in a sea infested with sharks.

Please pardon the metaphor, but in the Window world (yes, you in the Apple world may grin in smug satisfaction as this particular issue is discussed), there are two varieties of Great White Shark. They go by the names *Norton* (Symantec) and *McAfee*.

Those two anti-virus protection systems are infamous for wreaking havoc with programs like SD-Mobile. If you think about it, it's not surprising. After all, SD-Mobile is engaged in near constant communication with other systems via the internet. To a virus protection software, this kind of activity can (potentially) make it *look* much like a virus.

Of course, a really good anti-virus protection system nevertheless manages to distinguish between a good program (like SD-Mobile) versus a lousy virus. We have found the protection systems that are included in Windows and are also free (specifically, it's Microsoft Security Essentials if you're in Windows 7, or Microsoft Defender if you're in Windows 8 or above) generally do well in this regard. There may be others that likewise do well. Regardless, Norton and McAfee often fail. And, when they fail, they end up curtailing essential SD-Mobile operations.

For this reason, we *very strongly recommend* (in particular, if you're operating SDM-w as opposed to SDM-i) that you carefully assure your computers do not have either Norton or McAfee running on them. This is not always easy, because either Norton or McAfee are almost always pre-installed on new computers, and they can sometimes be as difficult to remove as is a virus itself. Please, whatever it takes, do it, and assure you instead have a less troublesome antivirus system protecting you.

If you defy this advice, it's likely you will find SD-Mobile succeeds for a while regardless. Just because there are sharks in the sea, it doesn't mean they'll always (or immediately) eat you. The longer you swim with them, however, the more likely it becomes. When it does finally happn, you'll find it causes you great frustration, because things will not work as per design. Wondering what's wrong, you'll contact us, and we'll likewise encounter frustration (along with wasted time and resources). Please don't allow those sharks to remain. We all have much better things to do with our time.

Chapter 5

A Few Notes on the Mobile End

As previously mentioned, actual operation of the two programs is *mostly* self-explanatory. But a few things on the mobile end may not be obvious. We'll endeavor to describe those here.

1. On the *Job List* page, there's a column labeled "**PVs**." It stands for *Prior Visits*. If any appointment is other than first, the quantity of prior visits will display in this box.

2. On the same *Job List* page, the very next column is labeled "**Prts?**" This stands for *Parts*. The purpose is to inform the tech if there are any parts (and quantity if so) he should be taking with him (i.e., either as prior-ordered for the

job or as speculatively transferred from office inventory). If there are such items and he clicks in the box, the system will display a list showing each item he should be taking (and location where he should acquire it).

3.   In connection with any job selected, the *PVR* and *Print* page are not enabled until the tech has clicked on the "*I've Arrived*" button in the *Job Details* page.

4.   Within moments of *first-time* connecting, SD-Mobile will solicit permission to download SmartParts data. **[4]** At this time, there is no charge for use of such data in the mobile environment. However, the download can be lengthy. Plan to consent only when you expect the mobile computer to be running and internet-connected for a significant period of time. After the download has successfully completed, the data will be stored on the local drive, and need not be downloaded again, at least pending future updates.

5.   The *PVR* and *Print* pages have list sections in which line-by-line items may be inserted by the tech (parts used from stock and parts to be ordered). We've equipped these boxes with the standard ServiceDesk convention for *deleting* an entire line item: *right-click* to delete.

6.   When the system detects that it's dealing with an OEM warranty job, it will require that the tech provide model, serial, purchase-date and selling-dealer. If the tech is doing an in-stock repair, he can satisfy the purchase-date field by typing "DEALER STOCK".

7.   The *List of Labor Items* (on the *Print* page) serves a dual purpose.   Besides being used as a mechanism to list labor items for inclusion as charges in the printed ticket (preferably via drop-down insertion as connected with your Flat-Rate list),**[5]** it may also be used as the basis of inserting text to the *PVR* page's *Description of Work Performed* box.

     To further explain, let's look at it from the opposite perspective. On the PVR page, the tech wants to describe what he did, but doesn't want to expend effort typing out all the words. Instead, he can go to the Print page, and (via its *List of Labor Items* box) simply pick items out of your Flat-Rate list.**

     When he picks such items via a mouse <u>*right*</u>-*click* (rather than standard *left)*, it signifies he wants the description-portion of the flat-rate entry inserted not only to his listing in the *Print* page, but also to his *Description of Work Performed* in the *PVR* page. Thus, by this means he can populate that latter page with a nice, verbal description—while never typing a single character.

     The system is also configured so that, if the tech has not deliberately inserted from the *List of Labor Items* box to the *Description of Work Performed* (per

---

[4] Our apologies to those of you in any non-appliance field. We hope to be getting similar data for other fields soon.
[5] See Chapter 7.

the above), and if he's otherwise left the latter empty, it will query him, when he goes to print, as to whether he'd like the insertion done for him.

Overall, you're going to find that with all systems properly implemented, the tech will be able to do virtually all his work with very close to zero typing (typing in model and serial numbers, when needed and if not previously provided, is one exception).

The vision of a paperless system, with each tech managed superbly and remotely much like the UPS man with his electronic clipboard, is here.

Chapter 6

Composing Mobile Tickets

As intimated when discussing hardware, SD-Mobile is endowed with all essential equipment for a technician to formulate a ticket in the field, collect a signature, and provide a copy to the customer (preferably as an e-ticket). All such work is done (as you might guess) via the 'Print' page.

The general concept on this page is that it has two list areas: one for parts items used, and one for labor items. The first will auto-fill based on parts that were indicated (as being used and/or ordered) back on the PVR page. It can then be edited to fit needed circumstances. The second can be filled in manually, or with semi-automation based on a flat-rate system and drop-downs (see applicable section following). It also has an area where charges are totaled, and tax added.

On the basis of this data, the system stands ready (when needed) to create an actual ticket image.

The first context in which such creation is likely to be wanted is for the purpose of collecting the customer's electronic signature. The simple concept is, the tech clicks on the button labeled '*Review and Sign*,' at which point the system creates the electronic ticket image, and presents it on-screen (in an interface which allows the customer to review and sign; please see Section C following).

The second context is for providing a copy to the customer, which may be done either by printing or emailing.

Regardless of context for which it is formulated, the electronic ticket image is "hard wired" (at least to a significant extent) into the design of Mobile (it's just not practical in this context to reproduce the great flexibility in ticket design that's otherwise enjoyed in ServiceDesk). But some flexibility is allowed (see Section B following).

A.   Using Flat-Rates

As mentioned, the Print page is configured to work most easily (in terms of allowing the tech to fill-in a description of what he did and what the charges are) on the basis of a

flat-rate system. It's not essential (SD-Mobile will work fine without it), and you should not delay implementation while waiting to get one in place.

However, there are two factors we think should make you serious about setting one up as soon as possible.

One is the difficulty of typing descriptions of work performed in the mobile environment, whether owing to the fact techs are lousy at typing or because of limited physical circumstances (e.g., tiny or no keyboard). Another is the need to quickly populate a ticket, to be produced in the field, with descriptions of work performed, including appropriate charges.

Given these needs, we've designed the system to make very effective use of such a list. But you must provide the particular list you want to use. Likely the best method is by using the famous BlueBook, with which SD-Mobile perfectly integrates. And, your list must be formatted to the particular structure the system is designed to accommodate. We have a separate document, designed to walk you through setting up your flat-rate list (in fact, we even provide a beginning list for you). Here is the link to that document:

> http://rossware.net/MiniManuals/FlatRateSetup.pdf

B.   About E-Tickets

We have already argued in favor of e-tickets over paper.

An emailed ticket will look exactly like a printed one (except it has a yellow background). It's done in the common .png format, so any customer with a computer should have no trouble opening it.   An added benefit in using this method is it gives you an excuse to collect the customer's email address. There are just two issues to keep in mind:

> (1)   The ability is configured so that, at his option, the tech may either email the ticket directly from his mobile computer, or he can click a button requesting that SD-MobileLink (back in the office) send the item from the computer in which it's running. I suspect you'll prefer the latter option. Disadvantages of the first include the fact that, if sent from the tech's mobile computer, the customer would get access to his direct email address. Plus, he'd need to have Outlook Express correctly configured in his computer (to do the actual sending). If all sending is done via the office computer, both worries are ameliorated.[6]

> (2)   At any machine that's going to email invoices, an underlying file is needed that was not part of installations prior to Ver. 1.0.36 (it's what allows the system to formulate an image in .jpg format). The file is called *FreeImage.DLL*, and it's available on the SD-Mobile downloads page.

Whether the ticket is emailed or paper-printed by the tech, the system will create an electronic image of it. MobileLink will save this image to the ServiceDesk *HLinks* folder,

---

[6] You'll find in the MobileLink program there is an option to *disallow* the tech from direct-sending tickets (thereby forcing him to do it via the office). I suspect most of you will want to choose this option.

and place a link thereto in the narrative history as added to the applicable JobRecord (i.e., as part of its PVR entry). At least, the above occurs *if* the system is equipped with that *FreeImage.DLL* file.

C.   Customizing Your Mobile Ticket

The standard mobile ticket contains a few items of text that will easily adapt to your circumstance, specifically in the header area at top. In particular, you can (and should) specify the telephone number and website url you wish to have appear on the mobile ticket. Just put these in applicable boxes of the SD-MobileLink interface, and the rest will take care of itself. Also, if you want to use a different ad-line than the standard/default one (*"-- next time, book your job on-line --"*), just type it into SD-MobileLink's applicable box.

If you'd like your tickets to look a little more stylized (the above-described header is all just plan text), you may replace the entire standardized header with an artistic/graphic one (i.e., containing your company's stylized logo, and/or other accouterments). To do this, simply create the graphic image you want, and save it to your server's *\sd\netdata* folder under the name *SdmLogo.jpg*.

A final element of potential customization[7] involves the signature line. Absent you doing anything otherwise, the text immediately under it will default to something like: "*I promise if I don't pay this bill you'll own my house, my cars and all my children*." (okay, a little less extreme).   If you'd like different language, open any text editing program (NotePad, WordPad, Word, etc.), and type the text you want. Then save. Make sure to save it as a "Plain" or "Text Only" document. Save it to the *\sd\netdata* folder on your server, as filename *SdMobileInvoiceText.TXT*. Once you've done so, SD-MobileLink will see the file, upload its text, and each of your Tech's instances of SD-Mobile will download the same, and use it in lieu of the written-by-us canned text.

---

[7] We are occasionally asked for more extensive customizability of the Mobile ticket, such as is offered within ServiceDesk itself. Presently, this is not offered. Nor is Mobile equipped to create the same kind of tickets as offered within SD. There are reasons.

It requires a large programming infrastructure to accommodate layout-customizability in a ticket format that is simultaneously auto-fillable (with particular job-data in each and every instance), user-editable (with edits saved, potentially even in multiples), and printable, via a customized-layout-adapting on-screen interface. To provide some indication of how difficult this is, we don't believe any of our competitors has ever done it. We've done it within SD, but with huge investment, and in a context where — given the relatively large in-office platforms involved significant screen space and direct, in-office management as needed for setup and maintenance — accommodating such infrastructure is relatively feasible.

All such factors are lacking in the Mobile environment, and there's the added factor that (for technicians and in platforms that are field-deployed) there's a critical need to keep setup and deployment simple and trouble-free. Given such factors, we judged it best in this context to use a universal ticket format, maximally adaptable to every context and need (even to printing on tape-type printers, if that is the type employed by a given user).

There is, of course, a downside.

For every gain in design, there's a cost. In gaining simplicity and robust freedom from complication, we lose the customizability you might otherwise prefer. There is reason for the expression: You can't have your cake and eat it too. The world is full of compromises. We have aimed for the optimum compromise in this context. Your opinion may vary.

None of this means we'll not add to user-selectable options, much as has been the pattern to date. It's further possible (to the extent demand is apparent) we'll offer dramatic variations. Your input in such regard is welcome, but as you provide it we urge you to be mindful of the dynamic above-described, which urges so strongly for simplicity. That dynamic will not go away.

D.   Other Textual Customizations

We have discussed a lot of customizations you may do, including language and graphics on the Mobile ticket, flat-rate setups, disclaimers and their contents, etc. Besides these, there is a whole *other* category of customization in regard to such language as may be presented to your customer. This category involves elements of automated or semi-automated communication.

For example, on a routine basis SD-MobileLink will (at least unless you determine otherwise) be emailing e-tickets to each customer. There is "canned" language that it uses when this sending email. Optionally, it may likewise email an apology if the job was not completed during the current visit, along with an invitation for the customer to monitor job status via an online interface. Again, there is "canned" language that's used. Finally, after job completion SD-MobileLink may optionally email the consumer an invitation to complete a very quick survey, and, again, there is "canned" language it uses for this.

Within SD-Mobile itself is a "call-ahead" function whereby the tech may elect to have underlying mechanisms either RoboCall or SMS-text notice to the customer that he is on his way (or, optionally, that expects to be there within a specified quantity of minutes). Again, this mechanism normally uses "canned" language.

In particular, each of these contexts use language that was composed by us, using great care in trying to formulate structure that we think is generally most optimum for the circumstances involved. It's possible you'd prefer different language regardless. If so, we've provided for customization in these contexts too. Details are contained in this document.

Chapter 7

Electronic Signature Capture

Beginning with SD-Mobile Version 1.1.0, we added the ability to electronically capture a customer's signature.

The simple idea (as reviewed in the prior chapter) is SD-Mobile displays an image of the ticket as it's about to be printed or emailed (there's a *'Capture Signature'* button on the Print page for this purpose).

He'll likely say something to the customer like "Would you please review this ticket and sign it."

When the customer is ready to sign, she clicks the "*Sign*" button (or the tech can just hit 'Enter' on his keyboard). This visibly enlarges the ticket image until its signing space occupies most of the screen. At this point, *any pointing device* may be used to scribble a signature.

Here's a list of some possible pointing devices:

1. The mobile computer's touchpad. Assuming you've not invested in a tablet-type computer (where a stylus or finger may be used directly on-screen), this is the most simple and direct method. It can be done via direct finger method, though signing via finger is a little awkward (perfectly possible and doable, but awkward).[8] Far better is to use a capacitive-type stylus. These have been available in the last few years as specifically developed for IPads, but work on laptop/netbook touchpads as well. Just Google "*ipad stylus*", and you'll find hundreds of options, and at near-token prices.[9]

2. An ordinary computer mouse.

3. A stylus on the computer screen itself (if your tech is using a tablet-type device).

4. A pen device. This is a small accessory that contains a little pad area for working with a stylus. There are a wide range of such devices, ranging from those designed for serious computer art, to those more targeted to kids (yes, so that a child can scribble on a pad and see the result on-screen). For development here, we acquired a Genius G-Pen 340 for about $35. It's quite small, cheap, and works superbly.[10]

Regardless of pointing device used, once the signature has been scribbled, the customer clicks the "*Accept*" button (or, again, the tech can just hit 'Enter'). This saves the signature image with the ticket. Thus saved, it will print with the ticket (if printing is done), or be included as an emailed ticket image (if that's the method), and of course will be saved within ServiceDesk data back at the office.

Chapter 8

Using Special Disclaimers

We just discussed electronic signature capture as connected with tickets (aka "invoices"). There is also ability to similarly capture electronic signatures, but in connection with *special disclaimers* (e.g., the customer agrees to hold you free from liability if the tech damages her floor while moving machinery).

Usage is very simple.

---

[8] When first contemplating this method, it was our estimation that to ask a customer to sign with her finger would be somewhat tacky. However, upon doing pretend scenarios here in our office (and with real equipment), we've come to feel it's a rather viable option. A clever technician could make it interesting, novel, even fun: "Hey, I bet you've never signed with your finger before . . . this is new technology," or "How long since you finger painted?" The point is, a little cleverness or levity could make it just fine.

[9] With touchpad of mouse, it's necessary to hold down the mouse button (or its equivalent) while signing (essentially, ink does not flow from the pretend pen unless the button is down). If your tech wanted to make it easier for a tech-challenged customer (we're thinking 96-year-old Mrs. Ambercrombie), a good trick would be to keep a small wireless mouse in his pocket. He could simply reach into his pocket while she's signing, and hold down its button. Thus, she'd be using stylus on the touchpad, and have no need to simultaneously do anything else.

[10] Purpose-made signature capture devices tend to be much more expensive (a few hundred dollars), and in our experience are not generally configured to mimic mouse input. Unless one can mimic mouse-input, it will not work with Mobile. In general, we are not recommending purpose-made signature capture devices.

First, you must provide one or more disclaimers. By present design, the system allows you up to six (if more are needed, let us know).

If you wish to "from-scratch" create a disclaimer, open any text editor (e.g., Word, WordPad, NotePad, etc.). Type the desired *Header* (i.e., the "Title Bar" you want to have appear at the top of your disclaimer), then a vertical bar symbol ("|"), then the text *Body* you want to use.[11] Once all is typed and perfected, save it as a *plain text* file. It must be saved to the *\sd\netdata* folder on your server. If it's your first and/or only disclaimer, name it *SdMobileDisclaimer1.TXT.* If it's the second, name it *SdMobileDisclaimer2.TXT.* And so on. (The naming must be precise, because it's only for those particular file names, and in the folder location described, that *SD-MobileLink* will look for the applicable purpose.)

Much as in the case of your customized ticket/signature language, once you've done the above, *SD-MobileLink* will see the file (or files), upload each, and each of your Tech's instances of *SD-Mobile* will download the same, and offer it (or them) for use in collecting signed disclaimers from customers in each applicable instance.

If, incidentally, you want to assure your creation/editing work at the office is immediately uploaded to the remote server (i.e. rather than waiting for the next timed event), you can click on this button in *MobileLink*:
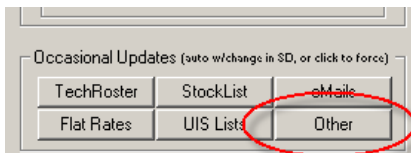
To find, from the *Mobile* side, where to invoke the disclaimer option, just go to any job's "*Job Details*" page. You'll see a button as follows:

---
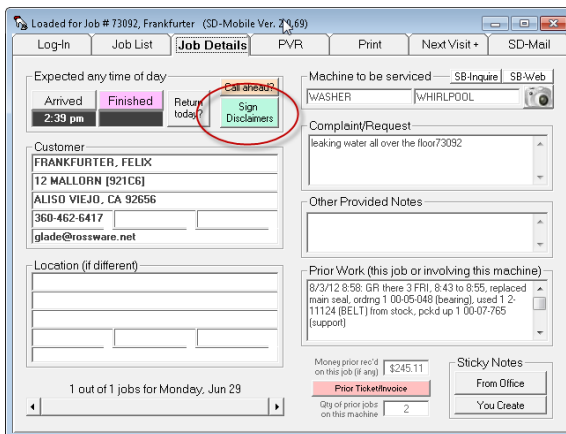
[11] You may elaborate further on this if desired. In particular, if you want any particular disclaimer to be mandatory (i.e., your techs are required to have the customer sign this disclaimer), you may add text after a second bar symbol (i.e., in a third section of text, where each section is separated by a bar symbol). This section of text may contain the word "ALL" if you wish for the disclaimer to be required on all jobs, or — if you want it only to be required when particular kinds of machines are being serviced — you may list those machine descriptions, separating each by a comma (or, if only one machine type is involved, simply list it alone with no commas). If listing machine types, be certain the spelling is exactly the same as you created in the SeviceDesk machine-types dropdown.

If, rather than composing your own disclaimers from scratch, you'd prefer to at least *start* with a very nice disclaimer set that has already been created, we have in fact provided a very nice set for you. You can open and/or download this set at:

http://rossware.net/MiniManuals/Disclaimers.zip.

In the alternative, you can just go to the *SD-Mobile Downloads* page on our website, and find a link there.

If you are sufficiently fond of our example provisions, you can use them precisely as provided—with one exception. You must *change the company name* (as embodied within the text of each) to match your own.

At the least, our set of examples should provide you with ideas to use in creation of your own. In actual fact, however (and assuming you are in any service business that makes their particular subject matters applicable), we recommend that you use them with very minimal editing, aside from company name. They've been carefully composed with a good understanding (based on solid legal credentials and experience) of what most persuades most judges to take a disclaimer seriously. To be candid, that is a tall order. As a rule, most judges will mostly ignore most disclaimers. To have any chance of being taken with seriousness at all, a disclaimer generally needs the very qualities that have been built into these examples. If you change significantly from what is provided (and aside from incidentals), there is a very good chance you will be creating a weaker (rather than a stronger) result.

BTW, in any instance where a disclaimer is signed, the *Mobile/MobileLink* system will transmit it back to the office as part of the underlying PVR information. In result, you'll see a reference to each signed disclaimer in any applicable JobHistory. That reference will include a hyperlink. To actually view a signed disclaimer, just double-click on the hyperlink.
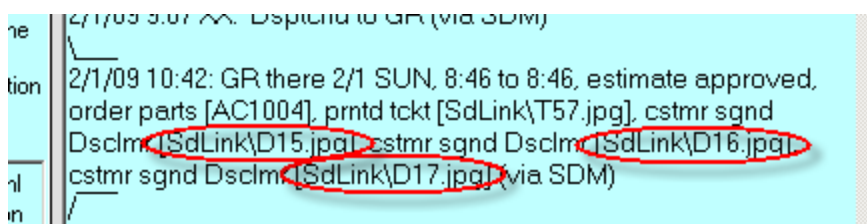
In the above example, we signed three different disclaimers in *SD-Mobile*, and uploaded the PVR. Hence, there are three resulting disclaimer hyperlinks in the resulting JobHistory (there's also a hyperlink for the underling ticket, which is not circled above).

Chapter 9

Remote Booking of Return Appointments

One of our very first enhancements to the system, above base-level operation, was to add (on the mobile-end) a "Scheduling" page. This is a locus where the technician,

supposing he's ordering parts and is expecting to return, can pre-book his return appointment.

Those companies that have been using this practice (i.e, not within SD-Mobile, but via other means) swear by it. They say it makes the customer happier, and saves the office significant resources that are otherwise needed for *it* to re-schedule. The practice presupposes that parts will arrive within some normally expected period, but evidently that factor has become sufficiently reliable that the occasional need to cancel, because expected parts did not arrive, becomes the exception rather than rule.

SD-Mobile's *Scheduling* page presents the tech with a calendar. The intent is to allow the tech to schedule *intelligently*, by informing him (via the calendar) of the particular days in which there are still openings available for the return visit (taking into account the customer's zipcode and the JobCount value that's expected for the return visit). Specifically, the calendar will show in **bold** those dates that are so available.

At least this will happen *if* SD-Mobile has access to appropriate availability data. This, naturally, raises the question: where does it seek such data? The simple answer is it looks on-line for *SD-CyberOffice* data as applicable to your company.

If you do not know, SD-CyberOffice is the system that, among other things, allows your customers to book their jobs on-line. To make *that* system work, *it* had to have a means of keeping your on-line interface informed of availability. Thus, we already created such machinery for SD-CyberOffice, and could see no sense in re-inventing it for SD-Mobile. Instead, we've designed SD-Mobile's re-booking apparatus to "piggy-back" on the same machinery.

For this reason, you need to implement at least the basic tools of SD-CyberOffice, if your tech is to re-schedule *intelligently* via SD-Mobile (otherwise, he can still use the scheduling function, though it will be without knowledge of availability).

If you're already using SD-CyberOffice, use of its data by SD-Mobile is absolutely automatic. Otherwise (and assuming you want your tech to be able to schedule *intelligently*), give us a call.

Chapter 10

Using the TimeCard Feature

Almost as soon as we rolled out the first version of SD-Mobile, some folks wanted provision for their tech's to "punch the TimeCard," via it's interface. So, we added the functionality.

Basically, the SD-Mobile interface has a button via which the tech can punch in, and another via which he can punch out. Based on such actions, the MobileLink program creates a file, for each such tech (i.e., any that uses the feature), that tracks such punch-in and punch-out events. Look for such files in the *\sd\netdata* folder on your

server. For any tech, look for a file called *TimeClock.XX.TXT* (where *XX* is the two-letter abbreviation for the tech wanted).

If you wish to direct review the data that's in any file, open it in Excel, as that will nicely separate the columns.**12**

Besides providing facility to simply "punch-in" and "punch-out," the SD-Mobile interface provides an interface in which, at the end of each workday, the technician is expect to review his timecard, revise if appropriate, and sign-off on its accuracy.

In particular, it is a very nice graphic interface that shows a colored timeline representing the portions of the day he was "on-the-clock" and portions he was off. Simultaneously, it shows the corresponding portions of time that he was clocked in for doing work at particular locations. An element of our thinking in this interface is the tech may notice a large band of time in which he was "on-the-clock," yet was not clocked in for doing work at any particular location (how is that explained?). He may then have a dawning realization, such as: "Oh my gosh; I forgot to punch out for lunch." The system provides a mechanism via which he can belatedly insert that "punch-out" time.

Correspondingly, within ServiceDesk back at the office, you are given opportunity by which to readily review these timecard graphics, as applicable to each technician and each day. Thus, you can readily see a visual comparison between times "on-the-clock" for each and such times as actually clocked-in for doing work at particular locations. It's called the "DTR Viewer" facility. To employ it, simply go into your DispatchMap and page back to a particular day of interest. Then hit Alt-T on your keyboard (this is in the contextual cheat-sheet there, for when you need a reminder).

BTW, this within-ServiceDesk interface even indicates if the tech "certified" his timecard, as in fact he was urged to do by the SD-Mobile interface.

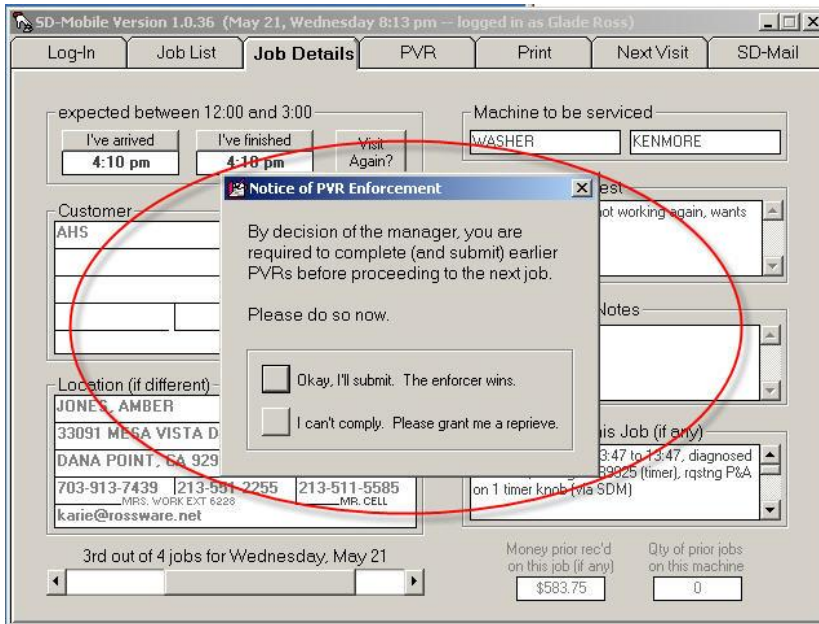# *Chapter 11*

Enforcing PVRs

Sad to say, there are some techs for whom the word "scofflaw" might be deemed a compliment. These are techs that don't always do precisely what they should, including the completion of PostVisitReports in real-time, as they complete each job and before proceeding to the next. We've added a system to help discipline this variety of tech.

Specifically, in the SD-MobileLink program you'll see an option labeled "*Disallow next job access until prior PVR is completed*." The general idea is, if the tech can't see info for his next job, he's forced to do the PVR on the one he's presently finishing. Sensibly, this enforcement does not begin (for any given day) until after the tech has clocked in


12You'll notice two columns that may provide a bit of curiosity: they're labeled "InFudged?" and "OutFudged?". This indicates, simply, if the technician entered an In or Out time manually. The system allows him to do this, based on the fact he may have forgotten to log in, then find he needs to log out, or vice versa. However (and as you'll see) it flags any item so entered.

arrival at his first job. Thus, prior to that initial clock-in, he's permitted to review all details of all jobs.

Of course, the system is built to recognize the fact that any number of extenuating circumstances may arise, for which exceptions are required. Thus, if the tech wants to proceed to the next job and has not completed a prior PVR, he's presented with the following dialog:

If he chooses the second option, the next message is as follows
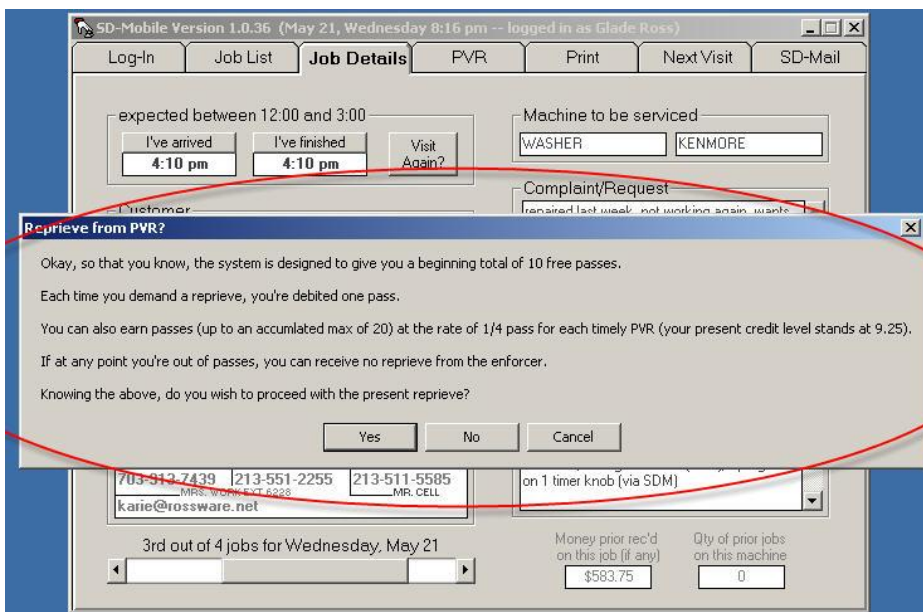
As you can see, the system provides needed flexibility, while nevertheless giving the tech heavy motivation (and, ultimately, compulsion) to do the PVRs in a timely manner.

Chapter 12

Warranty-Entitlement and Product-History Inquiries

In September of '09 we worked with Whirlpool and ServiceBench to bring Whirlpool warranty servicers the ability to do a single-click inquiry to determine warranty-entitlement and product history on any particular model/serial combination. In works in ServiceDesk (from the UnitInfo form), and in Mobile via buttons provided on both the *JobDetails* and *PVR* pages:

As found on the JobDetails page	As found on the PVR page
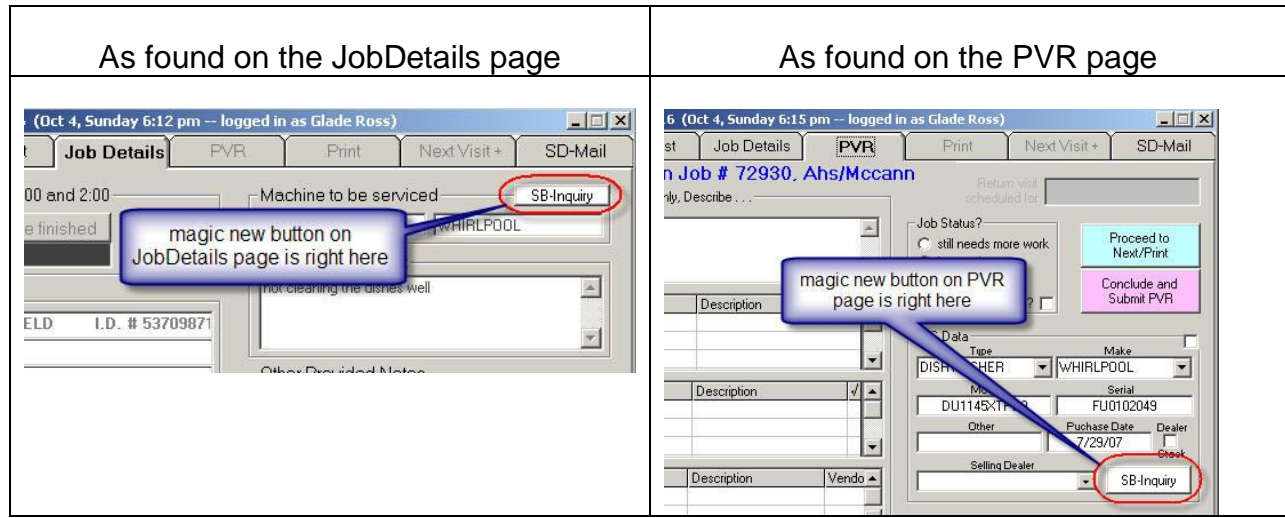
Assuming both model and serial are present, you should find both buttons have been activated. A simple click sends a query to ServiceBench, and within less than a second you should see a result, similar to the following:
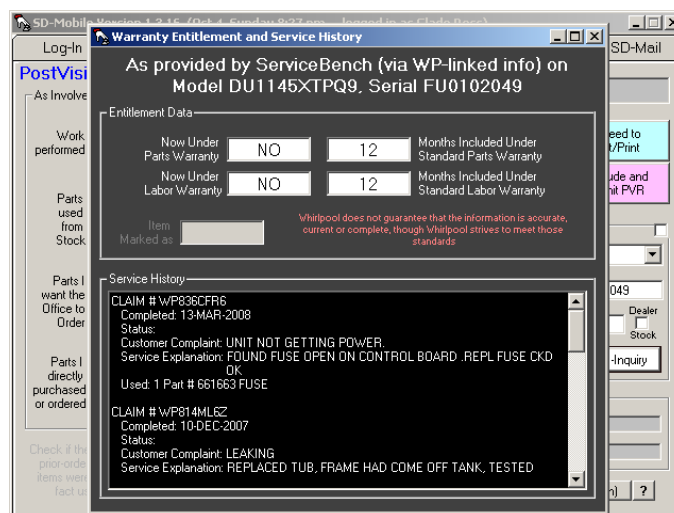
One caveat is you must be a Whirlpool warranty servicer to make this work, and each Mobile unit must be equipped with appropriate ServiceBench LogIn credentials. This *should* happen automatically, and without any tech ever seeing those credentials. At

least, assuming that the office computer that's running MobilLink is, itself, equipped with the credentials.

To assure this is so, simply test the Warranty-Entitlement feature, within ServiceDesk, from that station (go to the UnitInfo form, Shift-F12, and click on the *ServiceBench Inquiry* button). If credentials are not already properly setup at that station, it will prompt you to do so.

Chapter 13

Keeping Up-To-Date

There are two aspects in staying up-to-date with these systems. One is assuring you are using the latest version of the two programs (Mobile and MobileLink). The other is assuring you (and your personnel) stay abreast of the latest features and how to benefit from them. We've done our best to help you with both tasks.

In regard to updating, both programs have a simple button you can click on to check for updates. Behind the scenes, here at Rossware, we have the ability to set an update as "Recommended" or not. Typically, if we've just done an update that has several major changes (which means higher risk we might have broken something), we'll leave the recommended switch turned off—until the update has proven itself over the course of a few days (there are always intrepid users who are to try a new release regardless). After such proof, we'll turn the switch to on, at which point the program will prompt the user to allow an update. We highly recommend, if you or your techs are prompted to allow an update, by all means DO IT!

In regard to staying abreast, this handbook will be occasionally be updated, so it's not a bad idea to review it at least occasionally. More specifically, though, we have an on-line blog that describes new features and improvements as we ad them. It's called the *SDM-WorkDiary* (cousin to the SD-WorkDiary).   It's easy to bring up whenever you wish. There's a link to it in the SD-Mobile page on our website, and here's a link for you presently: http://rossware.net/SdmWorkDiary.htm. Even better, both Mobile and MobileLink have a simple button on which you may click to quickly display this important, news-bringing document. We suggest doing a quick perusal as each update is performed—to see what improvements you should be poised to enjoy.

There is also some degree of importance, as we've often found clients who were failing, over a significant period, to enjoy something they really would have loved—simply because they did not know it was there.

Chapter 14

Usage Fees

The rate structure for use of SD-Mobile is very simple: $10/mo for each tech whose credentials are present in your on-line TechRoster (or $5 more if you're using the Apple version).

There's a minimum of $20/mo, so if you have only one tech using, you'll pay at the two-tech rate regardless.

On a monthly basis), we'll email you a statement listing the techs we show as having been on your roster during that month, and indicating total charges (which we'll auto-charge using the same method as used for your monthly support).[13]

Given the above, please be sure to refrain, in the ServiceDesk *Settings* form, from designating any techs as "*Using SD-Mobile*" unless they are truly doing so. Likewise, please be sure to remove any techs from such listing if they are no longer using Mobile. If they're in your Settings form roster and you have them designated, SD-MobileLink will upload their credentials, our automated system will see them, and you'll be charged.

---

[13] We do allow a little leniency on this. If, as an example, you initially setup some fake techs for testing purposes (and that's all their uploads were created for), you can respond to the statement by informing us of same, and we'll happily to remove any connected charges for that period. The one thing we ask is that you not do this to us repeatedly. Once or twice is fine, but since any such fixes require manual entry by us, we do not want them to be part of a continued and regular pattern.