

Handbook for Rossware's Virtual CC Terminal

This feature was added December of '08. It allows you to directly process credit card transactions from within ServiceDesk, SD-Mobile and/or SD-RevenueBuilder. If you have the desire, we can also provide the Virtual Terminal interface as a stand-alone utility.

As you'll see upon trying it, our Virtual Terminal allows you either to *type-in* the applicable credit card data, or to *swipe* the customer's physical credit card through an appropriate MCR (magnetic card reader, aka "swiper") device. Where possible, the latter method is highly preferred, because the resulting merchant fees are substantially lower (of course, it also eliminates the labor of manual entry).

We have programmed the utility to work with just one credit card processing company, and for a very good reason. Every processing entity has significant differences in how a "terminal" must connect and communicate to carry off a transaction. If we were to make our terminal adaptive to all such variations, we'd be forced to manage enormous complexity in such regard.* Instead, we've kept it very simple—both for us (in terms of programming), and for you in terms of setup.

Chapter 1

Setting Up Your Merchant Gateway

The processing company we've selected is Merchant Warehouse. It's a *highly recommended* operation (the folks at Magtek, the preeminent maker of swiping hardware, seem to consider it among the best).

Under the arrangements we have with them, Merchant Warehouse is imposing zero setup cost, and no contract. That says a lot. It says, in short, the only way they're going to make money is by keeping you happy.

* As an illustration, *PC-Charge* is a dedicated, purpose-made program for running credit card transactions (that's all it does). It has an extremely complicated menu tree via which, as a user, you must pick exactly the right parameters, from a slew of options and in several different areas, for the system to successfully connect to and run charges with your particular processing company. It's so complex that technical assistance, from a person at PC-Charge, is often required before you're able to get the all variables correct. Plus, there are no doubt thousands of hours programming effort, at PC-Charge, behind it all. It simply did not seem practical for us to re-produce all that.

They also guarantee to meet or beat whatever effective rates you are paying with your present processor. Depending on your volume, they may also offer to waive any monthly service fee.

To setup your Merchant Warehouse account, please begin by contacting us, here at Rossware. Just let us know you're ready. We'll initiate the process, for you. We need to do this so that: (a) you receive the special terms available via our arrangement; and (b) your account is properly setup to work with our Virtual Terminal.

Within a short time, you'll be contacted by a Merchant Warehouse representative, who will shepherd you through the actual (and very easy) setup process.

Chapter 2

Entering Your Merchant Credentials in the Virtual Terminal

When Merchant Warehouse configures your merchant account, they'll provide you with three strings of text, consisting of a *Name*, *SiteID* and *Key*. When you first go to run a transaction from the Virtual Terminal, you'll see places to fill-in those three strings, as follows:

The screenshot shows the Rossware's Virtual CC Terminal interface. It is divided into several sections:

- Your Company's Merchant Account Info:** Contains input fields for DBA/Name, SiteID, and Key, along with a Save button.
- Your Customer's CC Info (use only if entering via keyboard instead of swiping):** Divided into Required (Card Number, Exp. Date) and Supplemental (lower processing fees) (Card Holder Name, Street Address Number, Zip Code, CV Code) fields. Includes an Enter Keyed Info button.
- Transaction Details:** Shows Amount (-950) and Ticket/Ref # (72930). Includes checkboxes for "This is intended as an added charge in same amount and for same customer as prior (aka 'FORCE DUPLICATE')", "Rather than a charge, this is a 'REFUND' (i.e., I'm giving money back to the customer)", and "I wish to 'VOID' the prior transaction".
- Status of Swipe Device/Transaction:** Displays "... scanning for device ...".
- Execute Transaction:** A large button to complete the transaction.

Simply type the strings into the provided spaces, then click on the 'Save' button.

Your terminal is now capable of running transactions (at least those that are manually keyed in). In fact, even for swiped transactions, no more setup (of the terminal itself) is required. That's it. It's really that simple.

Chapter 3

Acquiring an MCR ("Swipe") Device

In general, we recommend buying simple Magtek brand swipers. They are economical, and very reliable. Following is a list of three, in particular, together with commentary, and links to sources where (as of December '08) we managed to find particularly good buys.

Magtek 21040080

The cheapest solution we've found, it connects via serial port, which is a less common method than was once the case (USBs have kind of taken over, and are significantly more convenient). Before picking one, be sure it will work with your computer. Found it for **\$32.20** at: <http://www.aztekcomputers.com/~21040080-MAGTEK-D41303261>

Magtek 21040140

This is an excellent basic unit, and may be an optimum choice if you're significantly price conscious. It attaches to your computer via USB, allows swiping either left or right, and with card facing forward or backward (you can only miss by having the card upside down, which is why it's called the "Sure Swipe"). Found it for **\$46.89** at: <http://www.provantage.com/magtek-21040140~7MAGT057.htm>

Magtek 21073022

This unit lacks the forward/back-facing option, but adds encryption.* Encryption may be *required* at some future point, and if so non-encrypted units (such as the 21040140, described above) will become obsolete. If you choose to go encrypted now, you'll assure longevity in such regard, and enhance security for your customers. Found this model for **\$52.32** at: <http://www.aztekcomputers.com/~MAGTEK-21073022--2-track-USB-MSR-MAGNESAFE-BLACK,-SEE-NOTES!!!-D44851656>

*What this means is that the swiper itself encrypts the swiped data before sending it to the connected computer, and the computer in turn sends this encrypted data to the processor, and it's only there that the data is decrypted. As of 12/4/08, we've not yet configured our Virtual Terminal for encryption, but we'll do so at the earliest opportunity (right now, the encrypted devices are on backorder, and we can't do the underlying programming until having one in hand with which to test).

Magtek 21073021

The beauty of this unit is that, besides including encryption, it also manages to “talk” to your computer via Bluetooth.** This means no wires, which is great (some might even consider it indispensable) for a mobile tech. Instead of having to manage a wired connection between swiping device and mobile computer, the technician can instead just keep the device, say, in his jacket pocket. When it’s time to swipe a card, he just pulls it from his pocket (no wires to fumble with) and swipes. It’s a bit pricier, but still not bad. We found it for **\$95.07** at: http://www.shopblt.com/cgi-bin/shop/shop.cgi?action=enter&thispage=01100U01U0917_BR80247_P.shtml&order_id=!ORDERID!

Beyond the Magtek line, another hardware option to consider (particularly on the mobile side) is devices that combine both printing and swiping in a single device. A manufacturer called Printek makes an excellent line of these. The devices are “ruggedized” for a tough mobile environment, offer optional Bluetooth, and are battery powered—thereby giving you both swipe and printing capabilities with no wires. We have a Printek Model RT43 BT w/MCR, and it’s a superb machine. We’re not sure precisely what they go for at retail (we got a special developer’s price), and Printek does not publish prices on-line. However, it’s our impression a model like ours (which includes swiper and Bluetooth) goes for somewhere north of \$500. A significant investment, but you end up with a very cool setup. <http://www.printek.com/mt3/fieldpro.html>

Aside from such *suggested* models, our Virtual Terminal should work (at least, we *think* it will) with *any* swiping device that connects to your computer using either the Windows HID standard (Human Interface Device), Keyboard Emulation or Serial Port.

In short, though we’ve not provided multiple choices when it comes to the pick of a processing entity, we’ve given you *near total* flexibility in regard to picking a card reader.

** If considering a Bluetooth swiper, please bear in mind that the connecting computer will also need to be Bluetooth capable. If a computer does not have Bluetooth built-in, it may be added with simple Bluetooth adapter that plugs into a USB port. An excellent example is the Targus model ACB10US, available for \$29.99 at http://www.targus.com/us/product_Details.asp?SKU=ACB10US

Chapter 4

Installing and Using an MCR (“Swipe”) Device

It’s not too hard.

Assuming you’re using a swiper that connects to your computer via USB, just plug it in. Once that’s done, our Virtual Terminal will detect the device, and allow you to swipe. From that point, it’s just a matter of following the prompts. Couldn’t be simpler.

If you’re using a swiper that connects via a serial port,^{*} it’s a *tiny* bit more complicated. You’ll need to ascertain which “CommPort” your serial device is connecting on, and indicate the correct number in the provided box of the Virtual Terminal interface.

Chapter 5

Using Virtual Terminal in ServiceDesk – Preliminary Discussion

First, let us make a little clarification in regard to how, within in its FundsJournal system (Ctrl-F9), ServiceDesk handles credit card transactions.




Way back in the day, most offices did not have electronic terminals of any kind, and for credit card transactions you’d actually have a paper “charge slip” on which the transaction information was partially stamped (with a physical imprinter) and partially hand-written. You’d collect and assemble these much like checks, and deposit them at your bank in exactly the same fashion. Thus, the general FundsJournal process—wherein first an entry is made to the FundsJournal denoting that you’ve received the item of money (whether cash, physical check or physical charge slip), and later you assemble and make a deposit (using FundsJournal tools, which simultaneously check off each item as having been deposited) made just as much sense for bankcard transactions as for cash and check receipts.

^{*} In regard to serial connections, and if you happen to use BlueTooth to connect with your swiper, please note the experience we had using our Printek via Bluetooth. We found that, though Bluetooth is the method of communicating between the external device (in this case the Printek printer/swiper) and computer, communication from that point onward (i.e., within the computer itself) is via a *virtual serial-port*. This “serial port” required a little setup within the Bluetooth configuration window. So far as we know, other swipers that communicate via Bluetooth may use the same method. At least, it’s something to check if you choose BlueTooth.

But now, with electronic terminals prevailing (whether real or virtual), you likely don't collect any paper slip, and certainly don't go through the process of physically depositing a batch of such slips with the bank. Yet, the same basic collect-individual-items-and-then-deposit-as-a-batch structure has persisted, as an imperfect fit, within our system. Our suggestion, as the underlying substance has changed, has been that you continue entering bankcard "receipts" as per normal (regardless of whether you've already "ran" the transaction or not). Then, on likely a daily basis, go through each of the bankcard collection/transaction items that you've actually ran, and do a pseudo deposit process in their regard (i.e., even though you're not physically taking a batch of slips to the bank, you sort of pretend like it, which causes the items as so indicated to be checked off appropriately).

To be candid, we've felt increasingly guilty about the above arrangement, suspecting it is less than convenient at the end of each day to clarify which bankcard transactions, as still not checked off as "deposited" within the FundsJournal, actually have been run (and so should be included in a current pseudo-deposit process), versus ones that may still need be run.

As part of the current upgrade, we're providing a remedy for that very conundrum. As of ServiceDesk Ver. 4.3.112, you can now explicitly designate, within the FundsJournal, that any particular bankcard entry has actually been run (and, as an event/process separate from doing the pseudo-deposit).

To do so, simply right-click on any such entry (you'll need to be in the display mode: *View/Edit Items*  *Bankcard*  *Receipts*  *Undeposited/Unverified*). Now, you'll see some new options presented, including one that reads:

"Toggle 'ON' item as having been processed"

When you select that option, the system will ask you for the reference number from the actual credit card transaction. When you provide it, it will change the reference in the line that formerly read as simply:

"Bankcard"

to read instead as:

"Bankcard Ref # 123456"

(assuming that 123456 is the reference number you provide). This change in content then serves as an at-a-glance indication that the

charge process has actually run for the item in question. And, when at the end of the day (or other convenient time) you go ahead and run the pseudo-deposit process for the day's bankcard transactions (a process that we highly recommend you continue to pursue), it will provide an on-its-face indication of which items have (at least supposedly) actually been run.

To put this in a more real-world perspective, suppose you're not using our new Virtual Terminal. Your techs "collect money" from some percentage of jobs simply by getting the applicable credit card information, which is brought back with the ticket, with intent that you'll manually run the transactions at the office (by manually keying into a terminal, using PC-Charge, etc.). As you thus run each transaction, you can go to the FundsJournal and use the above-described process to sort of "log" there the fact, in regard to each such item, that it's physically been run.

We think this brings "up to snuff" the general structure of handling bankcard transactions in the ServiceDesk FundsJournal. Conveying an understanding of the improvement was also an important foundation to the next discussion.

Chapter 6

Using Virtual Terminal in ServiceDesk – Real Description

The primary context in ServiceDesk where the new Virtual Terminal is invoked is from the FundsJournal form (Ctrl-F9), when creating a new item entry of "Bankcard" type.

As always from that form, you can create a new entry by going directly there, clicking on the "Add New Item" button, and appropriately filling in the boxes.

However, that method is very seldom used.

Much more typically, you arrive at essentially the same place via other methods, such as:

1. In the FinishedForms POS context, you're collecting money from the customer and so click on the "Receive Funds" button, which takes you to the same context as just described, but with a couple of the boxes appropriately advance-filled-in for you.

2. In a PVR Type-II process, you've clicked in the "*Funds Collected*" box, with a result similar to what's described in #1.
3. From an actual JobRecord (F7), you click on the "*enter funds Rcvd*" button, again with a similar result.

In all such contexts, you find yourself at the top of the FundsJournal form with a simple row of editing boxes. The first is pre-filled with Invoice Number, and second with Customer Name. The third and fourth are blank, and ServiceDesk has you pre-positioned in the first of these latter two, where it expects an indication of money type.

This is all as per normal, and has been the structure for a long time.

So far, nothing has changed. Just as always, you'll type a simple letter to indicate money type (e.g., "c" for cash, "b" for bankcard, etc.), then ServiceDesk tabs you to the next (fourth) box, where you type in the amount. With all four boxes now filled in, you hit 'Enter' on your keyboard to save.

That is now the magic point where, with this new addition, it's time to be excited. At this point (i.e., of hitting "Enter" to save, and assuming you've indicated it's a "b" for bankcard transaction), the Virtual Terminal will appear.

At such point, you can simply swipe a card (assuming you've equipped your computer with a swiper), or manually fill-in card number and other data, *then* run the transaction. After you do so, Esc from (or otherwise close) the form. ServiceDesk will now appropriately "toggle" the underlying FundsJournal entry to show the transaction has run (i.e., will add the applicable reference number).

It's just that simple. And, please note you'll automatically find yourself in this appropriate context based on having easily transited there from any of the above-described operational contexts (i.e., POS, Type-II PVR or entering funds directly from a JobRecord).

What could be nicer than that?

There *is* one added context.

Suppose, for whatever reason, you end up with bankcard entries in the FundsJournal that have not yet been run.* In the preceding chapter

* This could happen, for example, if your techs are collecting charge info without actually running the transactions, and if they're doing Type-I PVRs. It might also be applicable during a transition period, where you have past "collected" and entered-to-the-FundsJournal items,

we mentioned how, if you right-click on any such entry (this is while in the *View/Edit Items* \approx *Bankcard* \approx *Receipts* \approx *Undeposited/Unverified* display mode), you'll get an option to "Toggle" the item, if not previously toggled, as having been run. We didn't mention the same options list now includes another choice, as follows:

"Run actual transaction"

So, if you happen to have any bankcard entries already in the FundsJournal on which the transaction needs to be run, just right-click, and make the appropriate choice. It's that easy.

Chapter 7

Using Virtual Terminal in SD-Mobile

This is very simple. The 'Print' page in SD-Mobile has a new button labeled "Run charge on CC." If the tech wants to run a charge, he clicks on the button, and sees the same Virtual Terminal you enjoy back in the office. Naturally, in this context too, it auto-fills appropriately. He can either type-in card data or swipe. And when he runs a charge, appropriate info regarding the same plugs automatically into SD-Mobile, and is in turn appropriately transmitted back to the office.

The feature is present in SD-Mobile Ver. 1.1.4 and later. You'll need SD-MobileLink Ver. 1.1.3 or later to successfully process back to the office, and you'll need ServiceDesk Ver. 4.3.112 or later to accurately display such facts there (in all likelihood, you'll be auto-updated to each of these versions, or later, regardless).

Not to be immodest (okay, maybe so), but it's in the SD-Mobile context where we believe the new Virtual Terminal is a totally "Killer App."

Chapter 8

Using Virtual Terminal in SD-RevenueBuilder

Actually, as of December 3, '08, we've not yet added Virtual Terminal capability to this program. We'll make it a priority to the extent users indicate a desire for it there.

but that were not yet processed during whatever portion of a day's operation preceded your first use of the built-in Terminal.

Chapter 9

Reviewing Your Transactions On-Line

As part of your setup, Merchant Warehouse will provide you with log-in credentials for an on-line interface where you can attend to many elements of managing your merchant account, including reviewing transactions, running reports, and things of that nature.

It's a powerful tool, and easy to use. There's not much more we need to say about. Just needed to make you aware it's there—and that you should use it.

In particular, as you do the pseudo-deposit process of bankcard transactions in ServiceDesk at the end of each day (or perhaps at the end of each week), a valuable cross-check is to do a tally of total transactions for the same period on-line, and confirm that the total there precisely equals the amount that, in ServiceDesk, you're entering the pseudo-deposit for. If the two do not match, obviously, you'll need to hunt down the reason for discrepancy.