Handbook for Rossware's Virtual CC Terminal

This utility was first created in December of '08. It allows you to process credit card transactions from within ServiceDesk, SD-Mobile or SD-RevenueBuilder. It may also be used as a stand-alone utility, without integration to any other Rossware products.

As you'll see upon trying it, our Virtual Terminal allows you to either *type-in* the applicable credit card data, or to *swipe* the customer's credit card through a computer-attached MCR (magnetic card reader, aka "swiper") device. Where possible, the latter method is preferred, because the resulting merchant fees are lower (of course, swiping 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. We chose this company, simply, because it's 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 very happy.

They also guarantee to meet or beat whatever rates you are paying with your present processor (unless you already have "stinking good" rates, you can pretty much count on the fact they'll be offering significantly better ones). Depending on your volume, they may also offer to waive any monthly service fee.

To setup your Merchant Warehouse account, please begin (assuming you've not yet done so) 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 easy setup process.

By the way, you're going to find the folks there want to review a couple months of prior statements from your existing processor (assuming, of course, you have one). Please don't let this bother you. Every merchant processor does this. It's actually beneficial to you, as it allows them to understand what your transaction patterns are, the better to tailor an optimum account setup on your behalf.

Also, please be assured that, so far as Merchant Warehouse is concerned, they are not looking at your prior statements for the purpose of finding how high they can quote while still staying under your prior processor's rates. It's our genuine experience Merchant Warehouse truly provides optimum rates in every instance, and regardless of what you were prior paying.

Chapter 2

Installing the Program

If you're using Virtual Terminal as an embedded feature within another Rossware product, there's nothing to install (it's already in the other product), and you may skip this section.

If you're using it is a stand-alone product, simply place the CD into your computer's CD drive. When the auto-menu appears, choose *Install Program*.

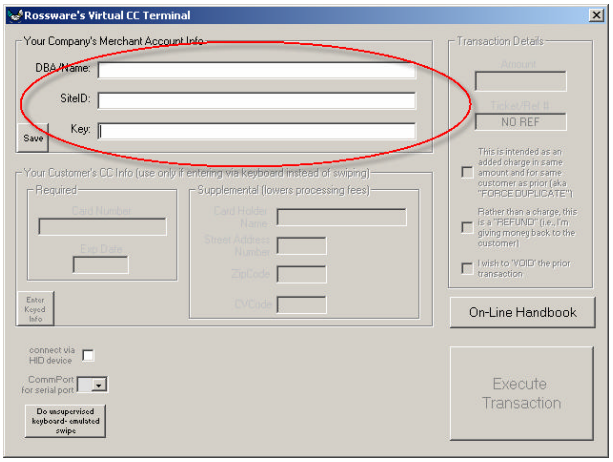
There will be a few prompts during the install. You *could* look for and carefully choose the appropriate button to click in each instance—but that would be an unnecessary effort (something we don't like). If, instead, you just *Enter* on your keyboard at each query, you'll be fine (it's what we recommend).

Once the install is complete, click on your Windows *Start* button, choose *Programs*, then *Rossware Computing*, and you'll find *Virtual Terminal* after that. Click to run, and you're on your way.

Chapter 3

Entering Your Merchant Credentials in the Virtual Terminal

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



Simply type the strings into the provided spaces (or, better yet, copy and paste from the email they send), 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 (fully optional), little more is required. [1]

Chapter 4

Acquiring an MCR ("Swipe") Device

In general, we recommend buying *Magtek* brand swipers. They are economical, and very reliable. Merchant Warehouse is an excellent source, having prices that, at least typically, you'll likely find are at least close to (if not better than) the best otherwise available. At any rate, following is a list of four swipers, in particular, that we've researched — together with commentary, and links to sources where (via a bit of Googling, and as of December '09) we managed to find particularly good buys.

<u>Magtek 21040080</u>
This is the cheapest solution we've found, and connects via serial port, which is one of the connections on the rear of your computer (if you're wanting to use a laptop, make sure a serial port is available). It certainly has no frills, but works

[1] In regard to merchant credentials, there is a potential complicating factor if you're running more than one business via the same Windows login, if you're using the Virtual Terminal for each such business, and if you want to have the transactions for each business run on different merchant accounts. There is a solution, at least in the integrated-with-ServiceDesk context. For details, please open this document: http://rossware.net/MiniManuals/VirtualTerminal_MakingCredentialsUniqueToBusiness.html.

great. We found it for $46.63 at:
http://www.consumerdepot.com/productstd.asp?id=10372000

Magtek 21040140
For a nice move up from the 21040080, this is an excellent unit. 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 $51.00 at:
http://www.compsource.com/pn/21040140/Magtek_1289/

Magtek 21073022
This unit lacks the forward/back-facing option, but adds encryption.[2] Encryption is likely the wave of the future, which means, if you go this way now, you'll be ahead of the curve. At the least, you'll enhance security for your customers. Found this model for $89.06 at: http://www.geminicomputersinc.com/mag-21073022.html

Magtek 21073021
The beauty of this unit is that, besides including encryption, it also manages to "talk" to your computer via Bluetooth.[3] This means no wires, which is great 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 $112.37 at: http://www.geminicomputersinc.com/mag-21073021.html

Beyond the Magtek line (and particularly on the mobile side) you may also want to consider 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 or WiFi, and are battery powered—thereby giving you both swipe and printing capabilities with no wires (in fact, they can also add barcode reading). We have a Printek Model RT43 BT w/MCR, and, though a significant investment (typical retail is about $750), it's a superb system. We recently became a Printek dealer, and can provide you with significant discounts from standard list (click on the following to open our price sheet: http://rossware.net/MiniManuals/Printek-PriceList.pdf. For details about Printek's various models and comparative features, please check their website at: http://www.printek.com/mt3/fieldpro.html.

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[2] 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 3/9/09, 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).

[3] 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 (protrudes from the USB port by such a tiny amount, it appears to be no more than a port cover), available for $29.99 at http://www.targus.com/us/product_Details.asp?SKU=ACB10US

Aside from such suggested models, our Virtual Terminal should work with any swiping device that connects to your computer using either the Windows HID standard (Human Interface Device), Keyboard Emulation or Serial Port (at least we believe it will; though, in fact, at this point testing is far from universal).

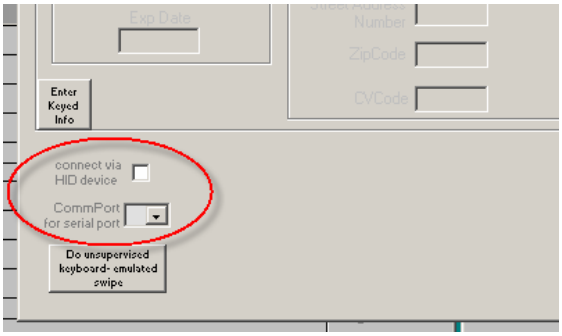
Chapter 5

Installing and Using an MCR ("Swipe") Device

In general, you need to do just two things, and the sequence does not matter:

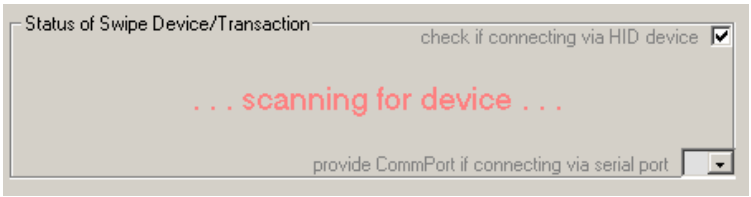
Connect the device to your computer, using whatever method is applicable (i.e., if it's a USB device, plug into a USB port, if it's a serial device, plug into a serial port).

In the bottom-left corner of the Virtual Terminal, provide appropriate indication for the kind of device/connection that's involved:



Specifically, if you're using a USB-connecting device, check the box so indicating. If you're using a device that connects via serial port,[4] provide the applicable CommPort number in the box provided.

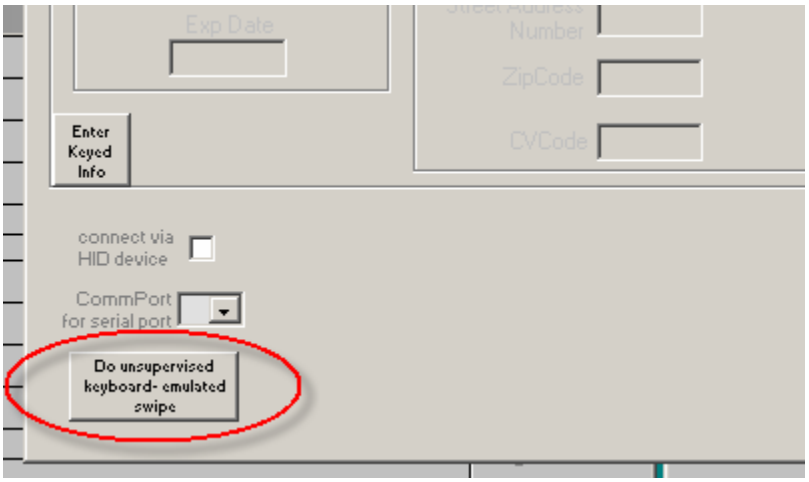
That's it. Once the Virtual Terminal knows the kind of device, it will search:



and upon locating the device, will alter its display to let you know.

[4] 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.

There is one potential exception. It will arise if you happen to have picked a swiper the Virtual Terminal fails to detect upon scanning (this will happen only with non-Magtek brands). If you encounter this situation, there is a fallback position—at least if your swiper is designed to emulate keyboard input (in other words, as you swipe, data from the card automatically goes into any text-capable environment that your Windows cursor is in). For that situation, we have one more button:



Quite simply, for the described situation, you can click on that button, then swipe your card. (Please note the button will not be visible if you've indicated the system should look for either a USB or CommPort-type device).

Chapter 6

Running Actual Transactions

This is quite self-explanatory. There's an obvious section in the interface for typing in credit card info. You'll use that section if not swiping, and otherwise leave it blank. If you are swiping, instructions on that are, essentially, embedded in the interface. Really, it's tough to go wrong, but if anything confuses you, feel free to give us a call (800-353-4101).

If you're using Virtual Terminal as a stand-alone application, you'll likely need no more instruction, in regard to actually running a transaction.

On the other hand, if you're using Virtual Terminal via its embedded integration in another Rossware product (e.g., ServiceDesk, SD-Mobile or SD-RevenueBuilder),

there are some significant details regarding embedded use. You should read about these. They are contained in this document:

http://rossware.net/MiniManuals/VirtualTerminalIntegratedUse.pdf

Chapter 7

Staying Up-To-Date

Rossware updates its products very frequently. There are always things that can be improved, and it's a constant effort at Rossware to do this, in every place we can.

If you are using Virtual Terminal within a larger Rossware application, there is no need to worry about separately updating Virtual Terminal. So long as you've kept the larger application up-to-date, you'll automatically have the latest version of Virtual Terminal embedded within—and there's no need to read further in this section.

If, however, you're using Virtual Terminal as a stand-alone product, we strongly suggest you check periodically to see if a new and improved version is available.

In fact, even if you just installed Virtual Terminal (i.e., from a mini-CD), it's a very good idea to check. CDs have a long shelf-life, after all, and it's possible you got one that was made some time back.

Regardless of the circumstance, to do updates, you'll first need a username and password from Rossware. Just call or email for the purpose (800-353-4101 or karie@rossware.net), and they'll set you up.

To check for an update, go to the Rossware website (www.rossware.net). Down in the bottom-left corner of the main page, click on *Updates*. When the next page displays, click on *Virtual Terminal*. This opens the Virtual Downloads page, and will show you the date and version of current update offered. If it's newer than what you're currently using, do the update (instructions are provided on the same page, but it's very simple).

Chapter 8

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 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 it. It's important, simply, for us to make you aware it's there—and that you should use it.

Chapter 9

Assuring You Have an Awesome Deal

We picked Merchant Warehouse because, on the basis of careful study, we became convinced it was the best possible processor to recommend. However, you should not (at least in the long-term) take our word for this. You should verify it for yourself.

A very important part of any merchant processor relationship is how much you're paying. This can be very confusing. The problem is that a processor might quote you a very low "discount rate," but make up for it with other fees that are thoroughly exorbitant, with result that your overall rate ends up being a rather lousy one.

There's a very simple way to end the confusion, at least when you're examining after the fact. What you want to do is calculate a simple figure we call the "*Net Effective Rate*." To get this figure, take any statement from any merchant processor, look to see what was the total amount processed during the month, and what were the total charges assessed by the processor. Take the total charges and divide by total amount processed. This will give you the Net Effective Rate.

For example, suppose that in a given month XYZ Corp ran $25,000 in total credit card charges. All of the charges on the company's statement totaled at $825. If you take the $825 and divide it by $25,000, you get .033 – which means XYZ Corp paid a Net Effective Rate of 3.3 percent (simply move the decimal two places to change the decimal fraction into a percent figure).

We explain this because we very much want you, after you've received your first couple of months' statements from Merchant Warehouse, to calculate your net effective rate. Then do the same for the last preceding couple of months from your prior processor. We're betting you'll be very pleased with the comparison, and we're anxious to hear your report.

Chapter 10

PCI Compliance

In response to a series of well-publicized security breaches that occurred in the late 90s (consumer credit card data was nefariously stolen as sales were conducted at some major department stores), the Visa and MasterCard

organizations created a consortium to create and enforce new and improved security standards.

The consortium is known as the "*Payment Card Industry Security Standards Council"*. As one of many consequences stemming from its efforts, every merchant that processes credit cards must now engage in a process that demonstrates its compliance with a set of minimal security standards.

This is called "*PCI Compliance*." Its difficulty and expense can range from significant (prox $600 or more) to quite minimal, depending on circumstances. Fortunately for those working with Merchant Warehouse, the latter has arranged for certifications at a cost of just $59. Typically, certification is something that must be dealt with "down-the-line and eventually" rather than immediately upon setting up your merchant account.

Regardless of when you are compelled to certify, you should be aware of the general concerns that compliance review and testing are designed to address. At core (and so that you know), the PCI Council wants to assure merchants are maintaining practices that minimize the possibility of cardholder data falling into nefarious hands.

In this regard, you will likely find the best and easiest practice is to assure you never store cardholder data (specifically, credit card number, security code, specific name as attached, etc.) in any context anywhere. In other words, assure you only use these data elements on-the-fly, during an actual transaction, and that you do not save them in any manner.

Please be assured, there is nothing in Rossware's Virtual Terminal that does any such saving. It is deliberately configured as only a pass-through device. It uses the data only momentarily, as it's provided, and after the transaction retains no trace of such data elements anywhere. So far as our Virtual Terminal is concerned, all sensitive data is thoroughly and totally discarded, every time. So, you are secure so far as it is concerned. You should further assure there is nothing *otherwise* in your software systems and/or practices that might, even potentially, retain such data elements.

You should further assure there are no elements or practices within your system that might create vulnerability to capturing of sensitive data as it's passed through to the Virtual Terminal.

If, for example, a key-logging program was installed on a computer that was operating the Virtual Terminal, that program would in itself capture the credit number as it was keyed in by a user, and would retain such data, making it potentially vulnerable to abuse. To guard against that, you should assure that any computer that's operating Virtual Terminal does not have anything resembling a key-logging program simultaneously running on it.

You should also assure operators do not engage in screen capture, while a keyed-in transaction is displayed, for that would also cause retention (within the screen-captured image) of the sensitive data.

If your operational imperatives are such that you *must* store cardholder data, there is nothing in the PCI standards that outright prohibit doing so. However, you should beware that the practice will make PCI certification into a much more complex and onerous process. If stored, such data must be subject to many protections (encrypting, careful isolation within secure servers, etc.) — designed to assure that persons with nefarious intent never gain access. You're likely to find that to structure your systems in a compliant manner, and to adequately demonstrate such compliance, are no easy tasks. For *most* operations, at least, it will be much easier to simply refrain from ever putting such data anywhere that it's retained.