Security Guard

by

Resource Development Associates

© Copyright 1999 - 2001 by Dennis Santoro and Resource Development Associates. All rights reserved.

Security Guard is a system for Paradox developers who wish to manage table and field level security without giving users actual table and field level passwords. Security Guard works on local tables, Local Area Networks (LANS) and the Internet. Both the desktop management console and the web browser based management console allows developers and administrators to create users and systems and have user passwords issue the actual table and field passwords. In this way no one except developers and administrators ever need the actual passwords. This improves security and eliminates the need to restructure tables to modify system security. This document covers the LAN based version of Security Guard. There is a separate document that covers the Internet based version. Both versions can be integrated to allow mixed LAN and Internet access to Paradox tables protected with passwords. The full Security Guard can also be purchased in an Internet only version for users who only or mostly plan to use their password



protected tables through the Paradox OCX based web server. The Internet version can also be mixed with the LAN based password dialogs to provide a mixed LAN and Internet solution with an Internet only Management Console for Security Guard. Details and pricing is available on our web site.

When the Security Guard system is opened on the desktop the main menu above is displayed. This menu includes the Welcome screen shown here. This contains contact information, a toggle button to turn the extended balloon help on or off (short balloon help is on by default as displayed above) an about and close buttons and notebook tabs for data entry and report functions.

≪Security Guard by RDA ⊡ <u>File</u> <u>E</u> dit <u>V</u> iew Form	- <mark>[Security Guard Main Menu]</mark> <u>R</u> ecord <u>T</u> ools <u>W</u> indow <u>H</u> elp	×
8 × ° 6 7 🖌	<u>Р. к к к т т т т М 🗟 🎟 🖼</u>	<u>R</u> 🔁
Main Me	nu for Security Guard	About Help Off Close
Welcome	Data Entry	Reports
Open Data Entry Operations	Pressing the Main Data Entry button will open the form which allows the	
	creation or modification of Users, Systems, Rights and Passwords.	
Pressing the Main Data Entry bu	tton will open the form whick	

When the main menu is opened the Password Dialog is presented. Only users with sufficient access can go beyond this Main Menu screen. The Password Dialog is also used for protection and password submission to systems you develop and is described later in this document.

The data entry tab allows you to open the administration console if you have sufficient rights. Attempting to open the console without sufficient rights temporarily disables the system The data entry tab is displayed above with the extended balloon help on. (Note: the cursor must be on a button for the help balloon to display but cursors are not captured in the screen shots. Also this balloon help technology is available for your applications in RDA's BubbleHelp which is also available from our online store.)

The Reports tab (not displayed) has a Print Reports and View Reports Tab each of which has a button for printing an Access Level by User report.

Security Guard by RDA - [Securit Exit	y Guard Management Conso	le]		_ D × _ 8 ×
	I4 44 4 b bb		?	×
Begin Edit Close Form P	ost Record			About
User Security	System Securit	y)	Rights List	
Create users before assigning them	rights. You must also create	systems and assign tem. Then for each	rights and define t user, assign the ri	table level
you wish to grant them for any system	n. If the password never expire	es leave that field bl:	ink. Otherwise en	ter in days.
User Name: Amcinnis	Password: password	Record:	1 of: 11	
Last McInnis		System	Rights	
First Name:	FNEEn	counter	Insert & Delete	÷
Andrea	FNEPa	tients	Insert & Delete	
Modified: 1/1/99 Expires:		rgonal	insert & Delete	
User Name: Bhayes	Password: password	Record:	2 of: 11	
Last Hayes		System	Rights	
Name:	FNEEn	counter	Read Only	Ä
First Name: Roberta	Mi: FNEPa	tients	Update	
Modified: 1/1/99 Expires:	90 FNEPe	rgonal	Insert & Delete	
				<u> </u>

After opening the Management Console you can create and manage systems, system passwords, users, user passwords and user rights. When you first open the console you are presented with the User Security Tab as displayed below. This is where Users are created and granted system access rights. Users may be granted any level of rights to any system managed by Security Guard. There are no effective limits on how many systems or rights levels can be managed. Users passwords can also be managed here. Users must have their initial password set when the user is created. After that the user can update or change their password from the Password Dialog or the administrator can do so from the console.

The management console also has a custom tool bar and a button bar which provide editing and

posting functions, cut, copy and paste functions, undo functions etc. Keyboard shortcuts are also displayed in the balloon help for the toolbar.

Systems must be created and given passwords on the Systems Security tab prior to being able to grant a user rights to the system. The System Security tab allows you to assign various system names rights levels and the Paradox password that confers that level of rights. These are the passwords that are actually issued to a Paradox session when the User submits their password. All tables which share the same passwords for the same rights level make up a single named system. The system security tab is displayed below (passwords have been blocked out here but display in the actual system).

Security Guard by RDA - [Secu	rity Guard Managem	ent Console]		_ 🗆 ×
🔄 <u>E</u> xit				_ 8 ×
<u>x Ba D</u> <u>A</u> r		» »	E	×
Begin Edit Close Form	Post Record			About
User Security	System	n Security	Rights List	
System	Rights	Password	Create names for sys	stems and fine table
Ancillary Contracts Ancillary Contracts Ancillary Contracts Ancillary Contracts Ancillary Contracts Contract Book Contract Book Contract Book FNEEncounter FNEEncounter FNEEncounter	All Data Entry Insert & Delete Read Only Update Insert & Delete All Data Entry Insert & Delete		 assign rights and de level passwords for the assigning a user any that system. If different pather each set of table share a password righted as a seperate You can define my passwords for any system of which grants what of rights you have assist that systems tables. For that Paradox table para are case sensities 	nne table tem before r rights to ent tables asswords es which nust be e system. ultiple stem each tever level signed on Remember asswords tive.
1 of 35 [:SECURITYDATA:PWORDS.DE	3]			

Security Guard comes with an administrator account built in and the Insert and Delete password for the system already assigned to that account. Administrators should modify the administrator account and assign the Security Guard system to any administrator accounts on initial installation of the system.

The final tab in the console is the rights list. This is the lookup table for the System Security rights and comes with the standard Paradox table right types already built in. Administrators can modify

Deginitian Posive conting Posive conting Rights Rights Description Memo Edit The rights list All Gives a user all rights to any function of the table, including the ability to restructure or delete it, and to change or delete passwords. The rights list The rights list Data Entry Gives a user th Gives a user th Gives a user th The field level. Any rights name may only exist once.	Security Guard by RDA - [Sec Exit Regin Edit Close Form	Surity Guard Management Console] Id Id		× × ? X
RightsDescriptionMemo EditAllGives a user all rights to any function of the table, including the ability to restructure or delete it, and to change or delete passwords.The rights list includes the standard Paradox password right levels. You can create special rights level categories for any specialized password rights you create on a table such as assigning rights at the field level. Any rights name may only exist once.	User Security	System Security	Rigi	hts List
	Rights All Data Entry	Description Memo Edit Gives a user all rights to any function table, including the ability to restruct delete it, and to change or delete passwords. Gives a user th Gives a user th Gives a user th Gives a user th	t The on of the cture or The include Parad right le create level o any passw create as assi the fie rights r	e rights list es the standard lox password evels. You can special rights categories for specialized ord rights you on a table such igning rights at eld level. Any name may only xist once.

this rights list to add custom rights. This tab is displayed below.

The Administration Console is currently available for Paradox 7 (32 bit only) and Paradox 8, 9 &10. The Password Dialog box is available for Paradox 5, 7 (16 and 32 bit), 8, 9 and 10.

The Security Guard Password Dialog box is run by a script which launches the dialog box. The script can be run from the startup screen of your application or directly from the command line of an icon which launches Paradox for interactive sessions. This allows developers and administrators to build security into custom applications or interactive Paradox use. When the Dialog is launched it accesses the user name from the network and compares it to the list of user names in the system. If the user is in the system the dialog box displays the user's current system status and requests a password as shown below. This includes a display of the user name currently accessing the system, days left to expiration of the password, when the password was last modified and the user name. The user can use the change button to change to a user name with different credentials if they wish. This allows administrators to provide varying levels of rights to users for use under different circumstances as well as allowing one user to log on from a station currently logged into the network by a different user.

If the current network credentials do not match an existing user in the Security Guard database the user is informed of this and given an opportunity to change to a different user name before the

📰 RDA's Security Guard: Password Dialog	Password
Please Enter Your Password Today: 9/23/99	displays. The user
Change Name	must present both valid
Your password expires in 30.00 days	Guard
User Name: DennDemo Name: Santoro, Dennis Last Modified: 9/23/99	credentials and password to
Password: ******	be granted
Type your password. If you make a mistake use Backspace to delete backwards or Delete to delete the whole password and start again.	any systems protected by Security
OK Change Password Cancel	Guard. If the user's password is near
	expiration or

has expired the user will be given the opportunity to change or update the password. Passwords can not be changed or updated without issuing the proper current or expired password. Expired passwords will allow the user to change or update their password but will not allow access to any system protected by Security Guard. Passwords on the Password Dialog are always displayed as asterixes. The password expired warning and password change process are displayed below.

After entering a password, pressing enter or the OK button submit the users credentials from the Security Guard database to the Paradox session granting the user rights in the session to all systems to which the user has been previously granted rights by the administrator. And since the passwords are placed in memory only they are not written to disk and therefore not exposed.



The Password Expired Warning

🖩 RDA's Security Guard: Passwo	rd Dialog	2
Enter Your Pass	word Please	Today: 9/23/99
		Change Name
Your pas	sword expires in 4.00 days	
User Name: DennDemo Last Modified: 8/20/99	Name: Santoro, Dennis	
Type your password. If you ma Delete to delete Old Password:	ke a mistake use Backspace the whole password and star	to delete backwards or t again. Continue
old I dobliold.		Containad

Step 1 for changing passwords.

🖩 RDA's Security Guar	d: Password Dialog	
Please Ente	r Your Password	Today: 9/23/99
		Change Name
	Your password expires in 4.00 days	
User Name: DennE Last Modified: 8/20	lemo Name: Santoro, Dennis)/99	
Type your NEV delete backwards Then rety	/ password. If you make a mistake us or Delete to delete the whole passwo pe it in the Confirm field. Then press	se Backspace to rd and start again. continue.
Type Password:	****	
Confirm:		Continue

Step 2 for changing passwords.