

RMR

Active Directory Edition - Getting Started



Table of Contents

- General Information3
 - What is RMR?.....3
 - Minimum System Requirements.....4
- Installing RMR.....5
 - Applying your license.....5
- Using RMR.....6
 - Running your first scan.....6
 - Viewing scan results.....7
 - Changing the rules.....9
 - Scheduled scans..... 11
 - Reviewing old scans..... 13
- Updating RMR 14
 - Configuring automatic updates..... 14

General Information

Equifax, Target, Yahoo, Home Depot, and JP Morgan Chase all have one thing in common – they’ve all suffered debilitating data breaches in the past few years. Affecting billions of people and costing hundreds of millions of dollars in damages, these breaches are actually just the most well-known and publicized breaches that we know of. Verizon’s 2018 annual Data Breach Investigations report lists tens of thousands of documented breaches and incidents over the past year alone and those breaches are not just targeting the billion dollar businesses. In fact, Verizon states, “most attacks are opportunistic and target not the wealthy or famous, but the unprepared.” So, are you prepared for an attack on your Active Directory network?

What is RMR?

RMR (pronounced “armor”) is a desktop application that secures your Active Directory network by exposing and closing dangerous security holes. RMR’s sophisticated scanning engine combs your network for dozens of issues that have been used to attack Active Directory networks like yours, such as: non-administrators that can grant themselves admin rights, computers with insecure settings, and users with blank passwords. Allow RMR to analyze your domain to locate these issues, then after the scan completes, review your results and fix the issues detected with a single click. With a tool this simple, there’s no excuse to leave your network vulnerable.



Proactive Protection

Don’t wait until after an attacker takes advantage of your network’s lax security to address your problems. RMR analyzes every user, group, computer and group policy object in your directory to proactively identify and shut down known loopholes **before** the attacks happen.



Real-time Remediation

New security threats appear constantly as policies change, new programs and files are installed, and new users and computers are added to your network. Run scheduled scans every day to ensure that you detect these new issues as soon as they appear. Address the issues yourself with a single click, or let RMR take care of the problems automatically and find out what happened with a report delivered straight to your email.



Easy Undo

Even the most careful administrators misclick once in a while. That’s why RMR comes with a built-in undo feature to easily revert any changes made to your Active Directory objects. Take comfort in the fact that RMR can undo fixes with a single click, perfectly restoring the affected objects to their prior state.

Minimum System Requirements

The following requirements must be met in order to install and run RMR for Active Directory.

- A PC running MS Server 2012/2016/2019, Windows 8, or Windows 10.
- Connection to a 2008, 2012, or 2016 Active Directory network.
- 100MB of disk storage for the software and additional space for scan history files.
- Network user account with domain administrative rights and administrator privileges on the local machine

Installing RMR

Before running your first scan with RMR for Active Directory, it needs to be installed. The RMR installation file is called `adrmrXY.exe`, where X and Y represent the current major and minor version numbers. Install this program to the computer you want to use to scan Active Directory. The machine you choose must be running in order to run scheduled scans, so we recommend installing to a server or another machine that is rarely turned off.



Figure 1: RMR Installer

After reading and agreeing to the End User License Agreement as shown above, continue through the install wizard using the default options for the remaining pages.

Applying your license

RMR is installed with a demonstration license that will allow you to use the software for a short period of time. In order to ensure that your protection does not elapse, the first thing you'll want to do after installing RMR is to apply your license key.

Open the program and click the **Register** button at the bottom of the Status panel on the Home View. Enter your license info exactly as it appears in the email you received, and click OK to save your changes. Assuming you entered the information correctly, you'll notice the **Days Remaining** field in the Status panel has been updated to reflect the new settings.

Using RMR

The following sections of this document will explain the basic things you need to know so that you can start using RMR to protect your Active Directory network. After finishing this document, you should have a solid understanding of the program and be able to navigate it to perform standard scans and repair issues.

Running your first scan

After installing RMR, you'll want to get a feel for the initial state of your network. So, let's run a scan and see exactly how your network security can be improved. From the **Scan** view, choose the **Full Scan** option (pictured below) to start the scan.

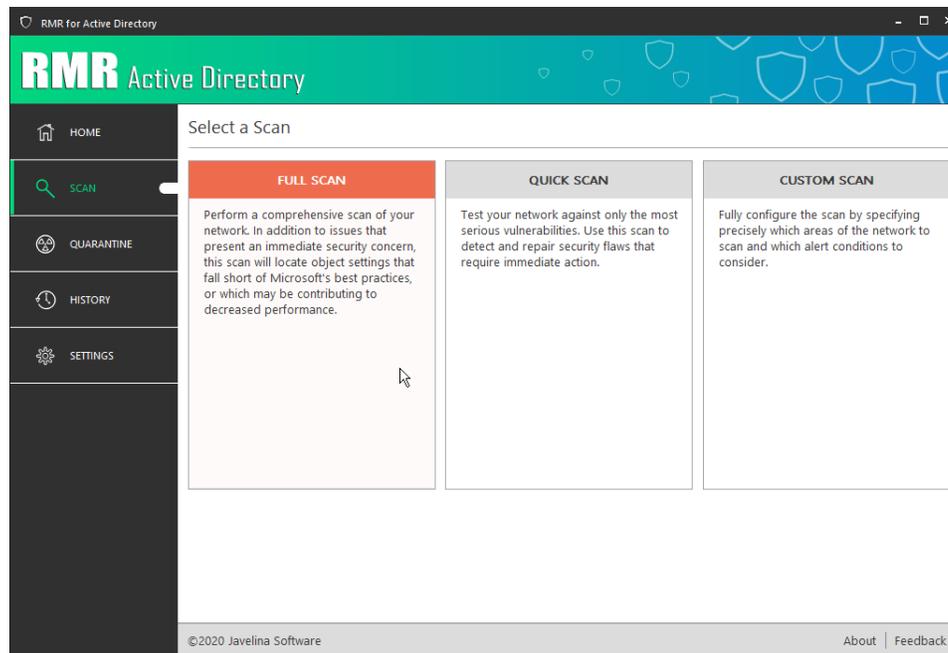


Figure 2: Selecting a Scan

While your scan is running, let's talk about the different types of scans:

Full Scan

Full Scans provide you with a thorough view of the security flaws in your Active Directory network. In addition to issues that require immediate attention, a Full Scan will notify you of situations that could lead to issues long-term including "Users with Old Passwords" and "Computers with Updates Disabled". Such issues, if not resolved, provide avenues of access for uninvited network guests.

Quick Scan

Quick Scans are used to identify the most serious security flaws in your network. These issues provide opportunities for attackers and should be considered as immediate security concerns. As the name implies, the Quick Scan can be used to quickly determine whether you've addressed your network's most critical security holes.

Custom Scan

Custom Scans allow the user to fully configure the scan. Select a specific scan area to quickly identify security issues within a troublesome segment of your directory. Or, toggle individual rules on or off to control which kinds of issues the scan will detect.

Viewing scan results

When your scan completes, you'll be taken to the Scan Summary View where you can see how many issues the scan revealed. Click the **View Details** button to launch the Scan Results dialog, where you can review the issues detected by the scan, and fix them.

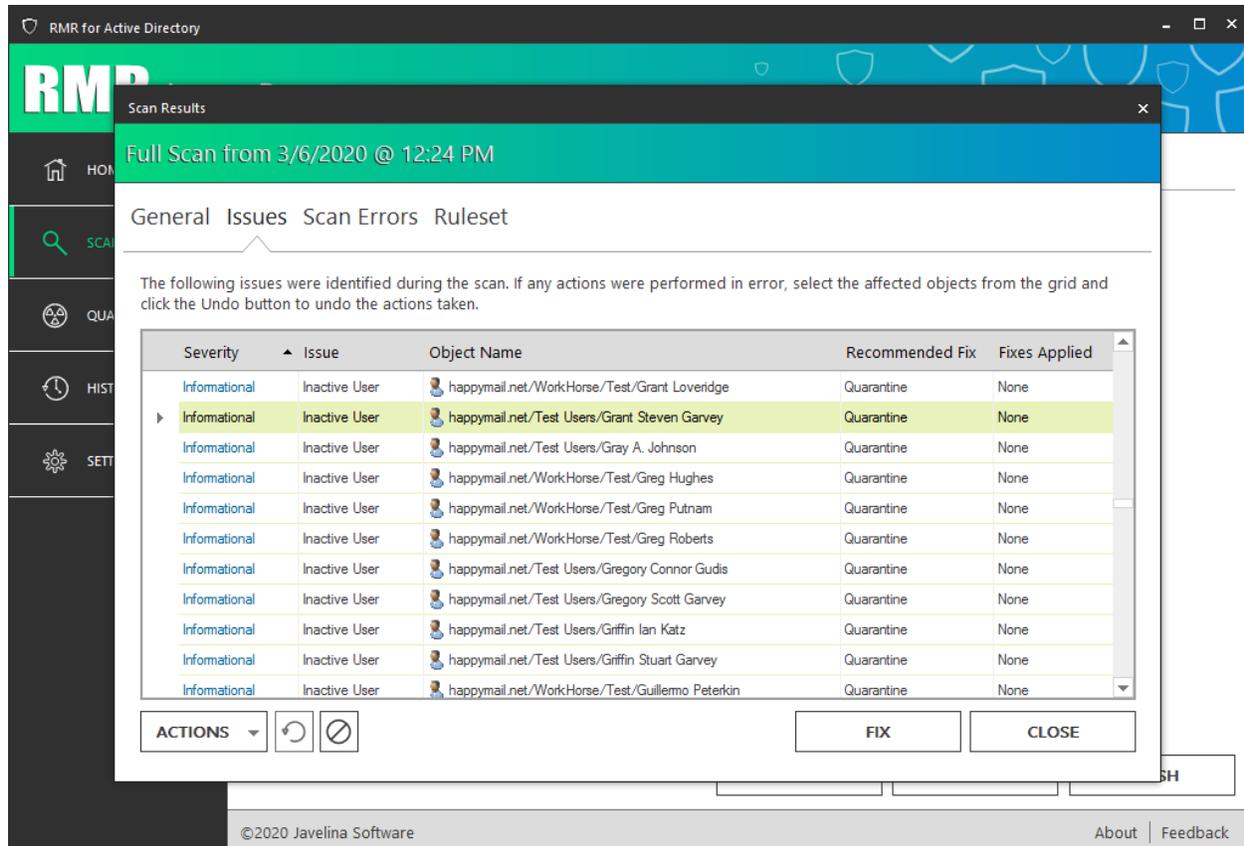


Figure 3: Scan Results dialog

The Scan Results dialog contains the following tab pages:

General

Get a quick summary of the scan, including which type of scan was run and which areas of your network were analyzed. The Scan Score on this tab represents how your network graded out on a scale of 0 to 100. Though a higher score is better, do not assume that a perfect score indicates a network free of security holes. After all, RMR only checks your network against the rules specified, and new vulnerabilities are discovered every day.

Issues

The most important tab of the Scan Results dialog, this is where you'll go to see exactly what issues were discovered, and fix them. This tab contains a table with a row for each issue detected during your scan. Each row contains the Issue Name and Severity, the name of the affected Object, a Recommended Fix, and a list of Actions that have been performed so far. Select one or more rows and click the **Fix** button to perform the Recommended Fix.

Quarantine

A common recommended fix is the Quarantine action. When objects are quarantined, they are disabled and moved to a special OU in Active Directory. From the **Quarantine** view, quarantined objects can be permanently deleted, or restored back to their original location and state.

The following table contains short descriptions for the controls on the Issues tab:

Actions	Perform a different action on the selected objects. The actions menu contains many actions that you can perform in lieu of (or in addition to) the Recommend Fix. These actions include Disable Object, Add to Group, Set Password, Move, Send Email, and many more.
Undo	Undo the action(s) that have been performed on the currently selected objects, restoring the objects to their previous state.
Add Exception	Add the currently selected objects to a list of exceptions, so that they will not be detected in future scans. The Exceptions list can be managed from the Exceptions tab of the Settings view.
Fix	Perform the recommended fix for each object selected.

Scan Errors

Sometimes, RMR has trouble evaluating rules against objects in your network. This could be because a computer is turned off, restricted access rights, or any number of other situations. When this occurs, these incomplete tests are recorded here, so that administrators can investigate the cause of the error, and manually inspect the objects listed.

Ruleset

The Ruleset tab contains a list of the rules that were used to evaluate your network during this scan. Select a rule and click the **Details** button to read about the purpose of the rule, confirm exactly which settings the rule is checking, and find out how the issue can be manually checked for, or repaired if detected.

Changing the rules

When reviewing the results of your first scan, you may notice that RMR has stricter requirements for several rules than you would prefer (rules like “Inactive User” and “Insecure Password Policy”). Although we would suggest adopting the stricter standards rather than changing the rules, we understand that this is not always possible, at least in a timely fashion.

To that end, RMR’s scan rules can be viewed and modified from the **Rules** tab of the **Settings** view.

The screenshot shows the RMR Active Directory interface. The left sidebar contains navigation options: HOME, SCAN, QUARANTINE, HISTORY, and SETTINGS (which is currently selected). The main content area is titled 'General Rules' and contains a table of rules. Below the table are buttons for 'Add', 'Remove', 'Copy', 'Up', 'Down', 'Edit', and 'Test', along with a 'DETAILS' button. The footer shows '©2020 Javelina Software' and 'About | Feedback'.

ID	Rule Name	Fix	Severity
DOM.0031	Remote Desktop Logon Monitoring	Set Audit Logon Policy	Medium
DOM.0034	Smart Card NT Hash Age	Reset Smart Card NT Hash	Medium
DOM.0035	Protected Users Group Membership	Add to Protected Users Group	Medium
DOM.0036	Delegation for Domain Systems	Disable Trusted For Delegation	Medium
FOR.0002	Anonymous AD Access	Disable Anonymous Access	Medium
FOR.0003	Time Synchronization-Authoritative Source	Set Windows Time Server	Medium
FOR.0005	Schema Admins Group Membership	Add Group Members	Medium
RMR.0001	Empty OU	Delete Object	Informational
RMR.0002	Empty Group	Delete Object	Informational
RMR.0003	Firewall Disabled	Enable Domain Firewall	High
RMR.0004	Updates Disabled	Enable Automatic Updates	Medium
RMR.0005	Domain Controller Updates Disabled	Enable Automatic Updates	High
RMR.0006	SID History Admin	Quarantine	High

Figure 4: Changing the Rules

Select a rule from the grid, and then click **Details** to launch the Rule Settings dialog. The Rule Settings contains the following tabs:

Rule Info

View the name, severity, and a description of the rule, which includes notes about why it is important to detect this vulnerability.

Check

A description of how this vulnerability can be detected manually. This set of instructions can be followed to test objects that were unable to be checked during a scan due to a Scan Error.

Auto Check

Customize the rule by modifying any configurable parameters (e.g. changing the Inactive User rule to detect users that haven’t logged in for 60 days, instead of the default period of 90 days).

Fix

A description of how this vulnerability can be repaired manually. This set of instructions can be followed to repair issues that can't be repaired within RMR.

Auto Fix

Modify the recommended fix action for this rule. This is the action that will take place when clicking the **Fix** button on the Issues tab of the Scan Results dialog.

Scheduled scans

RMR is most effective when scans are run on a regular basis. This type of scheduled scan can be set up on the **Schedule** tab of the **Settings** view.

RMR for Active Directory

RMR Active Directory

HOME SCAN QUARANTINE HISTORY SETTINGS

General Rules **Schedule** Exceptions Logs Email Updates License

Run scheduled scans to provide constant protection for my Active Directory

Scan Schedule:

Scope:

Email output to:

Choose the rules to apply for this scan: Perform recommended fixes

<input checked="" type="checkbox"/> ID	Rule Name	Fix	Severity
<input checked="" type="checkbox"/> FOR.0002	Anonymous AD Access	Disable Anonymous Access	Medium
<input checked="" type="checkbox"/> FOR.0003	Time Synchronization-Authoritative Source	Set Windows Time Server	Medium
<input checked="" type="checkbox"/> FOR.0005	Schema Admins Group Membership	Add Group Members	Medium
<input checked="" type="checkbox"/> RMR.0001	Empty OU	Delete Object	Informational
<input checked="" type="checkbox"/> RMR.0002	Empty Group	Delete Object	Informational
<input checked="" type="checkbox"/> RMR.0003	Firewall Disabled	Enable Domain Firewall	High
<input checked="" type="checkbox"/> RMR.0004	Updates Disabled	Enable Automatic Updates	Medium
<input checked="" type="checkbox"/> RMR.0005	Domain Controller Updates Disabled	Enable Automatic Updates	High
<input checked="" type="checkbox"/> RMR.0006	SID History Admin	Quarantine	High
<input checked="" type="checkbox"/> RMR.0007	SID History Admin Group		High

©2020 Javelina Software About | Feedback

Figure 5: Scheduled Scans

On this page, check the **Run scheduled scans to provide constant protection for my Active Directory** box to enable scheduled scans. Once enabled, RMR will run scheduled scans at noon every day using the full rule set on the entire domain of the logged-in user. If these settings are good for you, there's no reason to make any changes. Otherwise, continue reading to learn how to customize scheduled scans.

Scan Schedule

Click the **Modify** button to adjust the schedule for automated scans. In addition to the default value of every day, scans can be run on a particular day of the week at the specified time.

Picking a scan time

In order to scan for computer issues like disabled firewalls, disabled updates, or old passwords on local administrator accounts, RMR must be able to connect to the individual machines on your network. To get the most out of RMR, be sure to pick a scan time when the computers in your network are turned on.

Scope

The scope is the collection of objects scanned by the tool. If you'd like to limit the scan to look for issues in only particularly troublesome segments of your domain, click the **Modify** button to manually specify these areas.

Email output to

Send a detailed scan report via email to one or more recipients by clicking the **Modify** button and entering the recipient email addresses (separated by semicolons). The Subject line of the email can also be changed here.

Email Settings

In order to send scan results via email, RMR uses an SMTP email server. The login, port and other settings for this server are configured on the **Email** tab of the **Settings** view. Attempting to send scan reports without first specifying a mail server will fail.

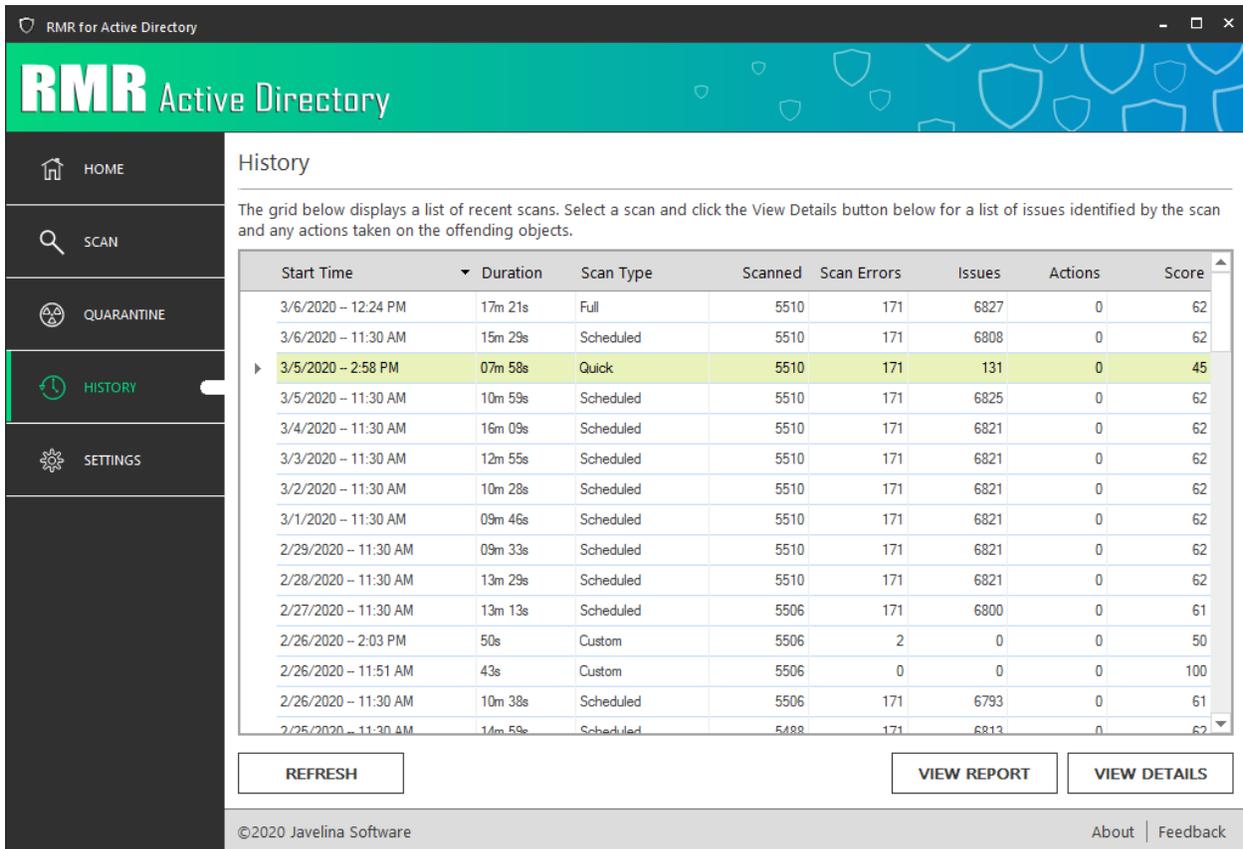
Scan rules

The main grid on the Schedule view contains a list of RMR's scan rules. Uncheck a rule if you'd like to prevent RMR from considering this rule when analyzing objects for issues.

By default, RMR will detect issues during scheduled scans, but will not attempt to fix them. To change this, check the **Perform recommended actions** checkbox immediately above the rule grid. After checking the box, you'll see the Fix column in the grid update to reflect the actions RMR will take upon detecting the issue in your directory.

Reviewing old scans

After running a scheduled scan, you'll want to see the results and take care of any issues it detected. The results from all previous scans, including scheduled scans, can be analyzed from the **History** view.



The screenshot shows the RMR Active Directory interface. The left sidebar contains navigation options: HOME, SCAN, QUARANTINE, HISTORY (selected), and SETTINGS. The main content area is titled "History" and includes a descriptive text: "The grid below displays a list of recent scans. Select a scan and click the View Details button below for a list of issues identified by the scan and any actions taken on the offending objects." Below this text is a table with the following columns: Start Time, Duration, Scan Type, Scanned, Scan Errors, Issues, Actions, and Score. The table lists various scans from 2/25/2020 to 3/6/2020. The scan on 3/5/2020 at 2:58 PM is highlighted in green. Below the table are buttons for REFRESH, VIEW REPORT, and VIEW DETAILS. The footer shows "©2020 Javelina Software" and "About | Feedback".

Start Time	Duration	Scan Type	Scanned	Scan Errors	Issues	Actions	Score
3/6/2020 -- 12:24 PM	17m 21s	Full	5510	171	6827	0	62
3/6/2020 -- 11:30 AM	15m 29s	Scheduled	5510	171	6808	0	62
3/5/2020 -- 2:58 PM	07m 58s	Quick	5510	171	131	0	45
3/5/2020 -- 11:30 AM	10m 59s	Scheduled	5510	171	6825	0	62
3/4/2020 -- 11:30 AM	16m 09s	Scheduled	5510	171	6821	0	62
3/3/2020 -- 11:30 AM	12m 55s	Scheduled	5510	171	6821	0	62
3/2/2020 -- 11:30 AM	10m 28s	Scheduled	5510	171	6821	0	62
3/1/2020 -- 11:30 AM	09m 46s	Scheduled	5510	171	6821	0	62
2/29/2020 -- 11:30 AM	09m 33s	Scheduled	5510	171	6821	0	62
2/28/2020 -- 11:30 AM	13m 29s	Scheduled	5510	171	6821	0	62
2/27/2020 -- 11:30 AM	13m 13s	Scheduled	5506	171	6800	0	61
2/26/2020 -- 2:03 PM	50s	Custom	5506	2	0	0	50
2/26/2020 -- 11:51 AM	43s	Custom	5506	0	0	0	100
2/26/2020 -- 11:30 AM	10m 38s	Scheduled	5506	171	6793	0	61
2/25/2020 -- 11:30 AM	14m 59s	Scheduled	5488	171	6813	0	62

Figure 6: History View

Select a previous scan from the list, and then click **View Details** to see the results from the scan. This will launch the Scan Results dialog for the selected scan, where you can fix the issues detected, as well as undo previous actions and add exceptions for future scans.

For more information about how to use the Scan Results dialog, see [Viewing scan results](#).

Updating RMR

Updates to RMR can be detected and installed directly from the program. Users with a non-expired license are eligible to receive updates to the software free of charge.

Configuring automatic updates

By default, RMR will check for updates daily at midnight. After finding and downloading an update, it will be installed the next time the program is launched. If these settings are acceptable to you, no changes need to be made. Otherwise, you can configure the update schedule and related settings by navigating to the **Updates** tab of the **Settings** view.

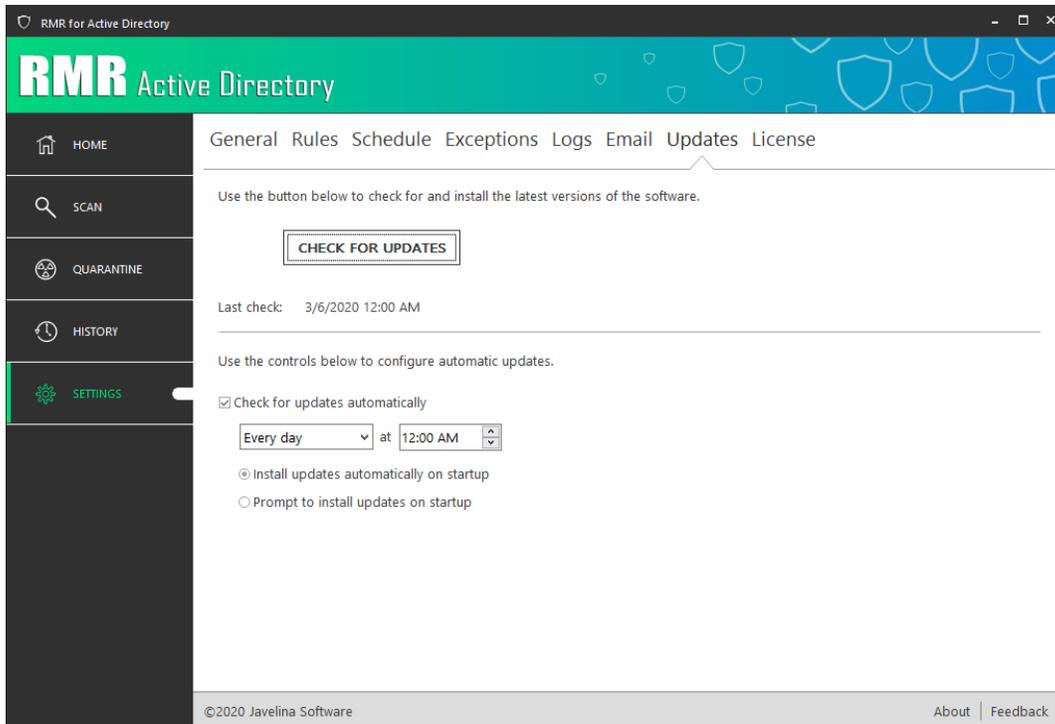


Figure 7: RMR Update Settings

Use the **Check for Updates** button to have RMR check for any available updates. If an update is detected, you will be prompted to install the update. The bottom half of the screen is used to configure automatic updates. The following table has a description of the controls and how they will affect RMR:

Check for updates automatically	Check this box to have the program automatically detect and download updates on a schedule. By default, RMR checks for updates every day at midnight. Clear this box if you want to manually install updates to RMR. Note: We recommend keeping this box checked to ensure that you have the latest scan rules and other new features as soon as they are released.
Install updates automatically on startup	Select this option to have RMR automatically install previously downloaded updates when the program is launched.
Prompt to install updates on startup	Select this option if you want the option to delay installing previously downloaded updates. On startup, you will be notified of a pending update, but will be given the option to postpone it until a later time.