

SpyNot 1.0



Documentation

Preface

The use of mobile devices has become ubiquitous. There are roughly 6 billion active mobile phones in the world. Android smartphones constitute over half of all smartphone sales in the United States, and over 70% around the world. The Google Play store has over 1 million apps available for download. Systems with such a high user base become targets for malicious software.

SpyNot is an app for Android that attempts to warn you of potentially malicious software before they run it, thus improving the security of the device.

Starting and setting up SpyNot

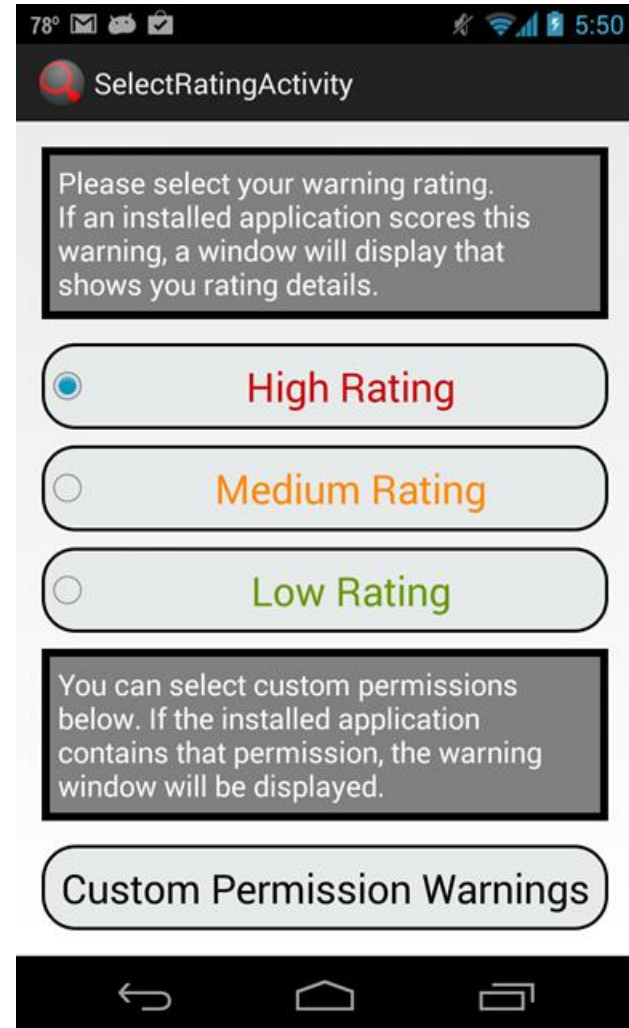
After installing SpyNot, click on the SpyNot icon.



You'll be brought to the SpyNot start screen.

If an installed app receives a score that is at least the rating that you choose, then you will be warned that the app is potentially malicious post-installation (but prior to running the app). If the app doesn't meet this score, then there will be no warning post-installation.

After clicking on the Custom Permission Warnings button, you are brought to the Custom Permission Warnings page. From here you can select which permissions you consider a security threat.



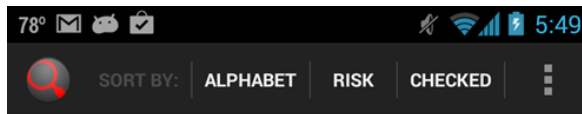
The different ratings and "Custom Permission Warnings" are clickable.

The permissions list can be sorted by:

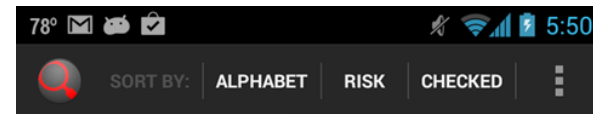
Alphabetical order
(by using the Alphabet button)




The permission's associated risk level
(by using the Risk button)




The permissions that you've chosen. And the ellipsis allows you to unselect all or select all.




ACCESS CHECKIN PROPERTIES 


Allows read/write access to the "properties" table in the checkin database, to change values

ACCESS COARSE LOCATION 


Allows an app to access approximate location derived from network location sources such as

ACCESS FINE LOCATION 

Allows an app to access precise location from location sources such as GPS, cell towers, and

ACCESS LOCATION EXTRA COMMANDS 

Allows an application to access extra location provider commands.

ACCESS MOCK LOCATION 


Allows an application to create mock location providers for testing.

HIGH RISK

ACCOUNT MANAGER 

Allows applications to call into AccountAuthenticators..

MEDIUM RISK


ACCESS CHECKIN PROPERTIES 

LOW RISK


ACCESS MOCK LOCATION 

Allows an application to create mock location providers for testing.


SCROLL

ACCESS CHECKIN PROPERTIES 


Allows read/write access to the "properties" table in the checkin database, to change values

ACCESS COARSE LOCATION 


Allows an app to access approximate location derived from network location sources such as

ACCESS NETWORK STATE 

Allows applications to access information about networks.

ACCESS SURFACE FLINGER 

Allows an application to use SurfaceFlinger's low level features..

ACCESS WIFI STATE 

Allows applications to access information about Wi-Fi networks.

Delete All Checks

Select All

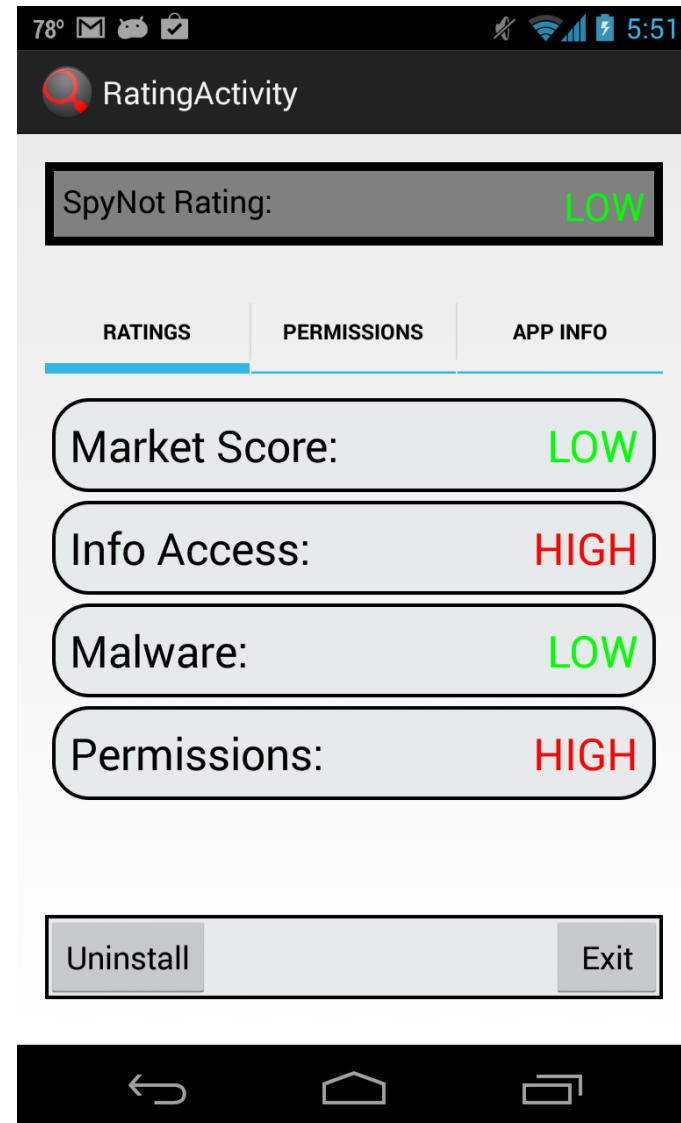
Alphabet, Risk, Checked, the vertical ellipsis, and the check boxes are clickable on the Custom Permission Warnings page.

From here you are done setting up the app! You can now download apps normally and have audited for malicious behavior by SpyNot.

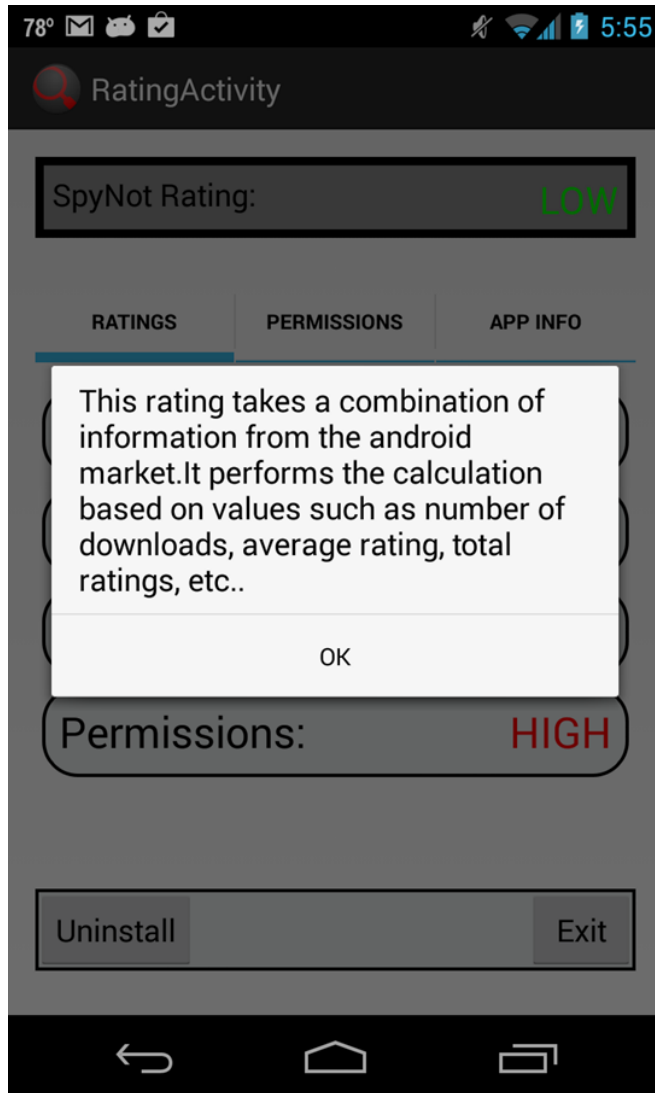
After installing an app from the Google Play Store

After installing an app that receives a score that is at least the rating that you've chosen on the start screen, you will be warned that the app is potentially malicious post-installation.

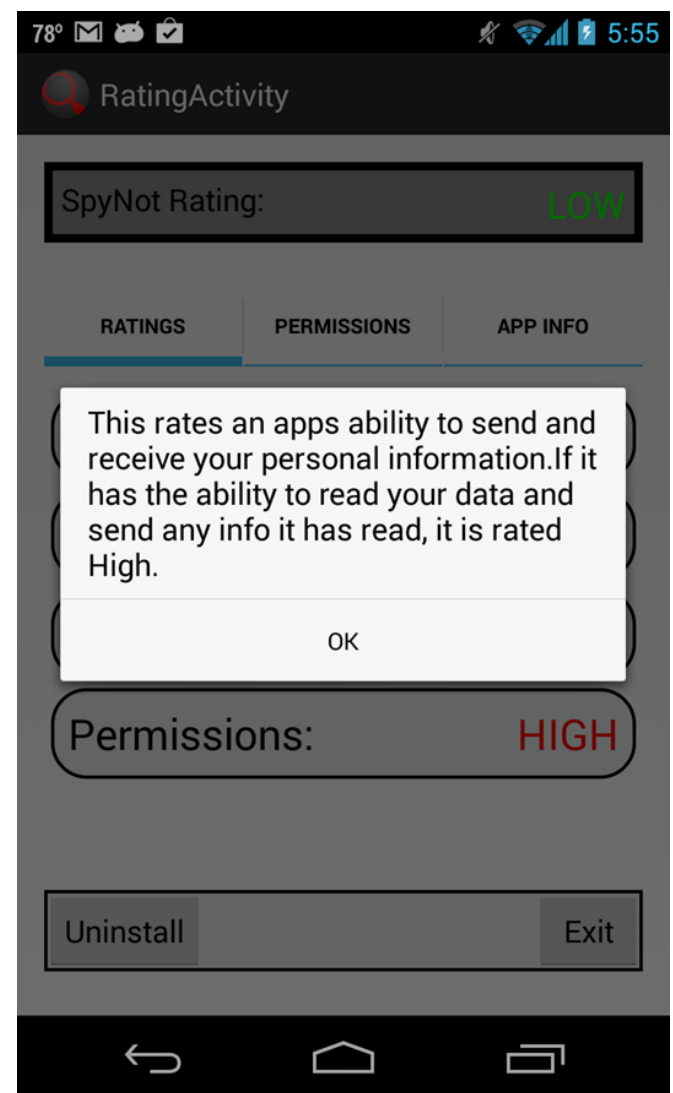
After installing the BlowTorch MUD Client, the app's SpyNot rating screen will pop up. From here you can see the total rating given to the app by SpyNot. The SpyNot rating is calculated by considering the market score of the app, the info access that the app has, how similar the app is to currently known malware apps, and how many permissions the app uses that you marked as potential security threats. These scores are elucidated by clicking on them in the app.



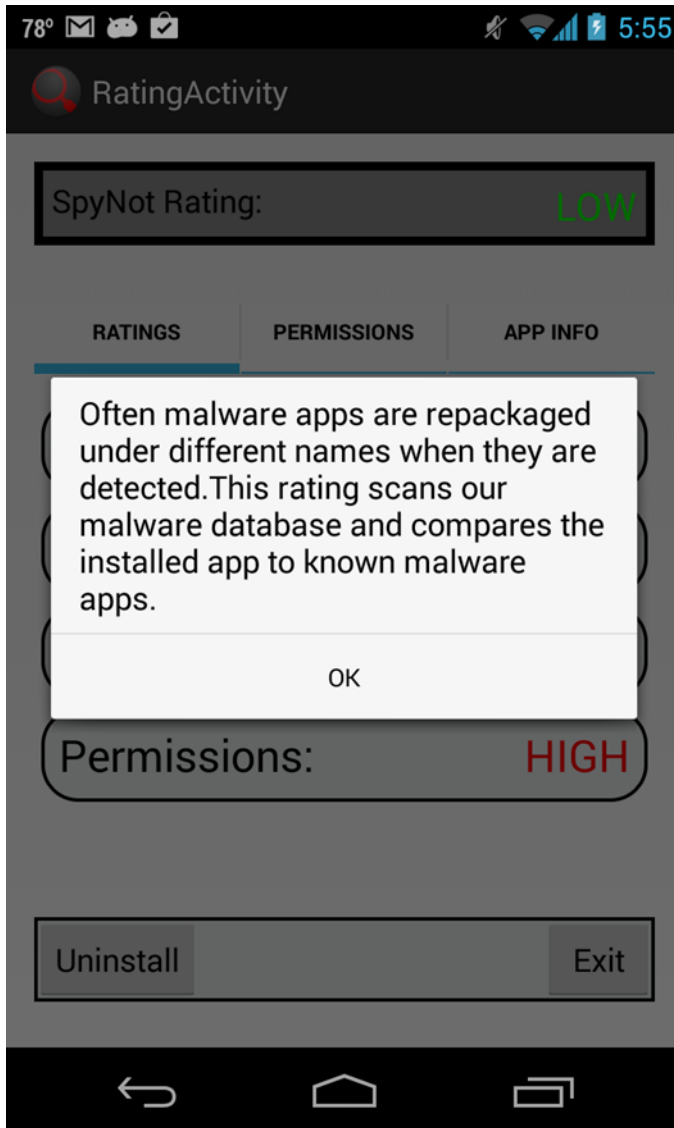
Market Score



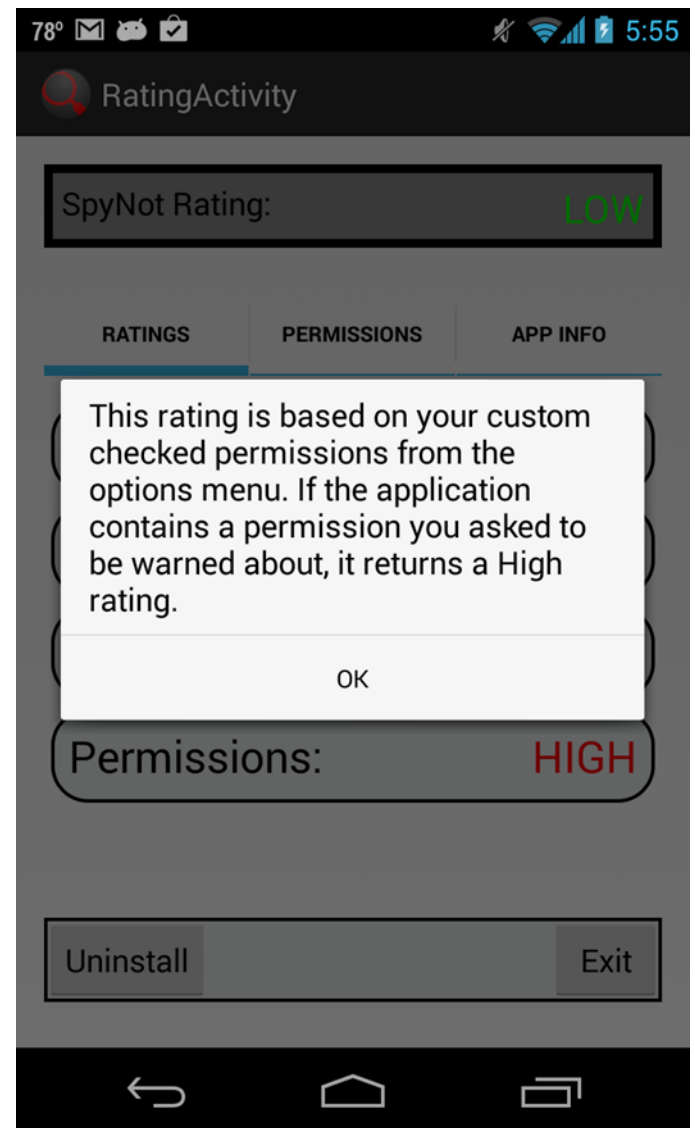
Info Access



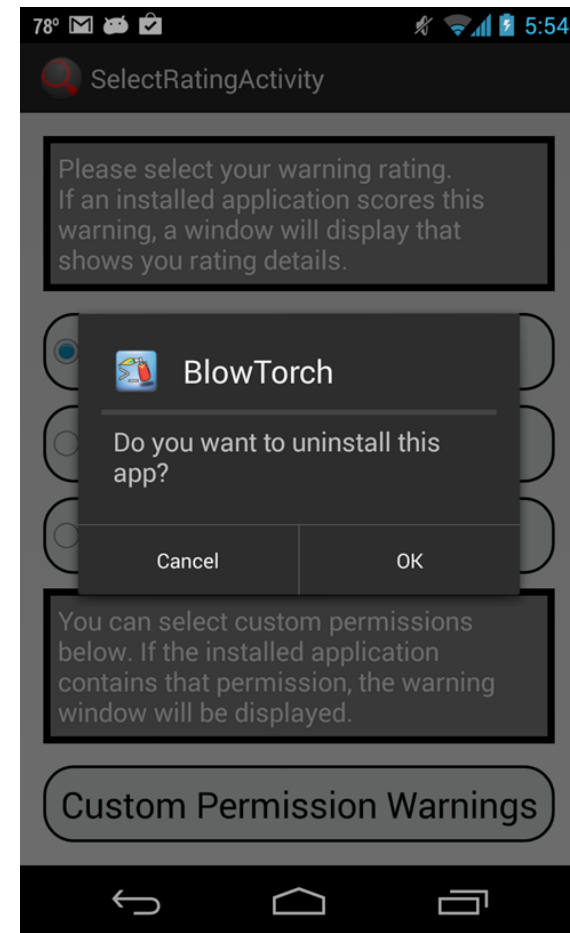
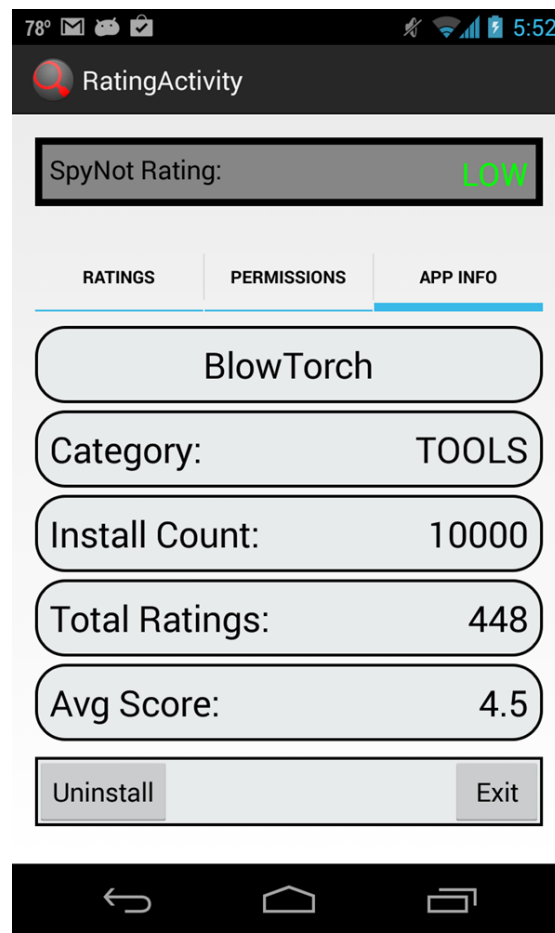
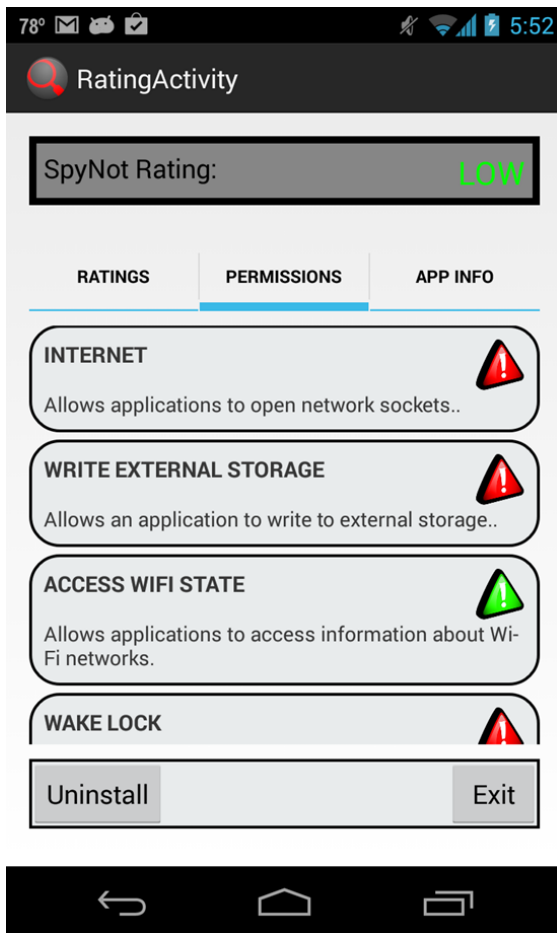
Malware



Permissions



Also clickable on this page is “permissions,” “app info,” “uninstall,” and “exit.”



The permissions page shows all permissions used by the app. Permissions that you marked as potentially malicious will receive a red warning sign, and permissions that you did not mark will receive a green warning sign.

The “APP INFO” button will lead you to the app info page. Here you can find information such as category, install count, total ratings, average score, and how many 5, 4, 3, 2, and 1 star ratings that the app has received. It can be assumed that an app of a high install count and with a high average score will be trustworthy, though this isn’t an assumption that is always true.

If in the end you consider this app unsafe, the uninstall button will proceed to uninstall the app.

Notes

SpyNot is an imperfect app. It is only a tool meant to aid in improving your device's security. You must use your own good judgment as well in order to improve your security. But no system is perfectly safe. Projections of SpyNot's future development include an improvement of the rating system and user interface updates.

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