**M2 GIT STATUS: SECURITY REPORT**

**User Guide**

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## Introduction

Do you know if critical files on your site are being changed without your knowledge?

**Customer Paradigm's Magento 2 Git Status: Security Report is a new extension that allows you to find out if any files on your site have been updated or changed.**

This extension uses the Git version control system to keep track of changes to files and will send you an email if anything was changed but not checked in. We've used this system to quickly detect intrusions on sites that have been hacked. It also shows if developers are working on your site and not committing their changes properly in your version control system. End users on your Magento 2 site will not see any part of this extension.

This is a great system to keep you proactive instead of relying on your customers to let you know that your site has been attacked and is stealing credit card data. The end user of your Magento 2 site will not see any part of this extension. If the Git Status extension does its job, your Magento 2 site will continue to run, without unauthorized changes to the site.

The director of the FBI famously said, "There are two types of companies: those that have been hacked, and those that don't know that they've been hacked."

**More about the Git Status: Security Report extension:**

- Uses your Git version control system to keep track of changed files on your site.
- You can set how often you want the system to scan your site for changes - every 15 minutes, each hour, each day, etc.
- The system will email you if any new files are detected or if any files have been changed but not committed to Git.
- This extension has been designed to not conflict with other extensions on your site

You must have Git installed on your server, and your server must allow the script to run a Git Status command as a shell exec script.

**Price:** Free Until May 1, 2017

**Magento Versions Supported:**

**Magento Community Edition (CE):** 2.0 – 2.1.4

**Magento Enterprise Edition (EE):** 2.0 – 2.1.4

**Installation / Setup / Training/ Configuration Available.** If you would like us to help you install and configure the extension, we are happy to do this on an hourly basis for you. Please submit a support ticket at: https://labs.customerparadigm.com

**Customization Available.** If you have special requirements for how you would like the Magento 2 Git Status Extension to work with your site, please let us know. Please submit a support ticket at: https://labs.customerparadigm.com

# Admin Configuration for Magento 2 Git Status Extension

From the admin menu, you'll see the **Git Status Security Report** extension listed under the **System** tab under **Tools:**
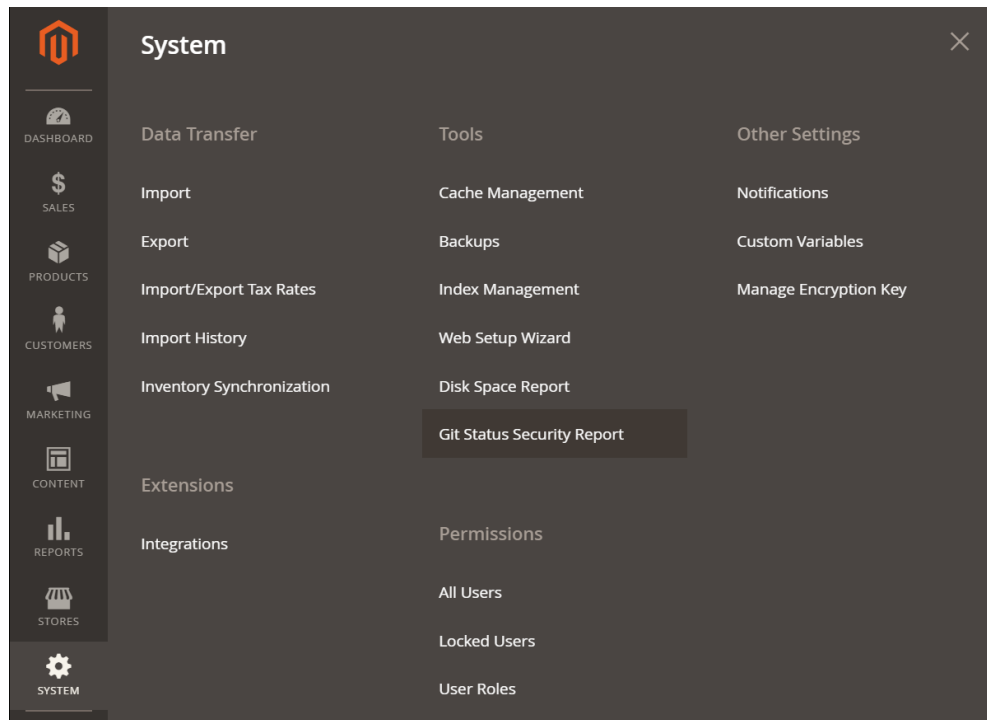


## Step 1. Git Status Settings – Select CRON settings

On this page, you'll select when the Git Status Magento 2 extension will run.

First, you can select the status of the extension:

Status * | Disabled
| ✓ Enabled

If you select "Enabled" then the system will run. If it's disabled, it won't run.

Second, you have numerous options to configure when the script will run. We've made it as easy as possible to allow you to be able to set it to run for maximum flexibility.

**Note: The Git Status report time settings will use the time zone that you set for your main Magento 2 store.**

Minute: You can have the Git Status system run every 15 minutes, at the start of each hour, 15 minutes after the hour, 30 minutes after the hour, or 45 minutes after each hour:

Minute | Not Selected
| ✓ Every 15 Minutes
| Start of Each Hour
| 15 Minutes After Each Hour
| 30 Minutes After Each Hour
Hour | 45 Minutes After Each Hour
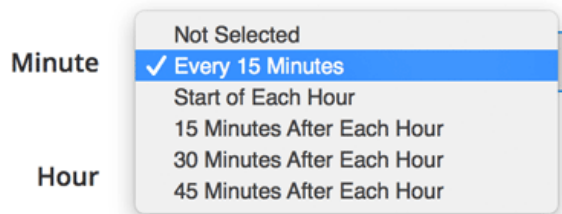
**Hour:** You can have the system run every hour or at a specific time of the day (i.e. 6:00 am)

Minute | Not Selected
| ✓ Every Hour
| Midnight
| 1AM
| 2AM
Hour | 3AM
| 4AM
| 5AM
| 6AM
Day Of | 7AM
Month | 8AM
| 9AM
| 10AM
Month | 11AM
| Noon
| 1PM
| 2PM
Day of Week | 3PM
| 4PM
| 5PM
| 6PM    abled, you must make a selection for
| 7PM    ime settings.
| 8PM
| 9PM
| 10PM
| 11PM
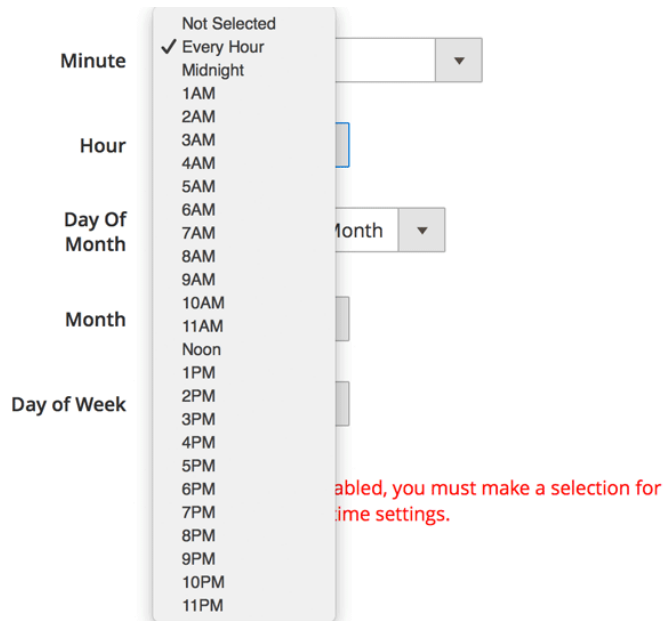
**Day of the Month:** You can have the Git Status report run every day of the month, or just on a specific day of the month (such as the 2nd day of each month).

Day Of Month

| Not Selected |
| ✓ Every Day of the Month |
| 1 |
| 2 |
| 3 |

Month

| 4 |
| 5 |
| 6 |

Day of Week

| 7 |
| 8 |
| 9 |
| 10 |
| 11 |
| 12 |
| 13 |
| 14 |
| 15 |
| ▼ |

must make a selection for
gs.

**Month**: You can have the system run every month, or just on a selected month, such as the month of June.

Month

| Not Selected |
| ✓ Every Month |
| January |
| February |
| March |
| April |
| May |
| June |
| July |
| Augest |
| September |
| October |
| November |
| December |

Day of Week

abled, you must make a selection for
time settings.

**Day of the Week**: You can run the Git Status Report every day, or just on specific days.

Day of Week

| Not Selected |
| ✓ Every Day |
| Monday |
| Tuesday |
| Wednesday |
| Thursday |
| Friday |
| Saturday |
| Sunday |

abled, you must make a selection for
time settings.

## How often should you run the Git Status report?

It depends on how paranoid you are.

**If you regularly wear a tin foil hat and are super paranoid, you can run the script every 15 minutes.** You'll get a lot of emails with this method, too. For example, let's say your developer makes a change to the site at 5:00 pm on Friday, and then leaves for the weekend. But he doesn't commit the changes. By Monday morning at 9:00 am, the system will have sent you 255 emails (One email every 15 minutes for 64 hours). This may impact your system performance – the Git status can take up memory resources to run. It might also be an annoying way to fill up your email inbox.

**If you're as paranoid as I am, run the script every hour, but only have it send you emails if there are changes.**

**If you're just worried about unwanted changes on your site, run the script once a day at 6:00 am.**

Why in the morning? Then you have all day to track down a developer and have them fix the site. If you run it at 6:00 pm, then you'll just worry all night.

## How do you set up the CRON settings in the Git Status Magento 2 Extension?

Here are several examples:

**Example 1: Run Every Hour**

To run the system every hour, at the top of the hour, use these settings:

| Status | * | Enabled |
| --- | --- | --- |
| Minute | | Start of Each Hour |
| Hour | | Every Hour |
| Day Of Month | | Every Day of the Month |
| Month | | Every Month |
| Day of Week | | Every Day |

### Example 2: Run Git Status Every 15 Minutes

Use these settings to run the script every 15 minutes.

NOTE: This will send you a LOT of emails if you have uncommitted changes.

| | |
|---|---|
| Status * | Enabled |
| Minute | Every 15 Minutes |
| Hour | Every Hour |
| Day Of Month | Every Day of the Month |
| Month | Every Month |
| Day of Week | Every Day |

### Example 3: Run Git Status Every Day at 6 am (Recommended Setting)

If you'd like to run the system every day at 6:00 am, select these settings.

| | |
|---|---|
| Status * | Enabled |
| Minute | Start of Each Hour |
| Hour | 6AM |
| Day Of Month | Every Day of the Month |
| Month | Every Month |
| Day of Week | Every Day |

### Example 4: Run Git Status Every Monday Morning at 9:45 AM

Once a week might be more than enough – especially if this is something you want to run on a development server and keep track of uncommitted Git changes.

Here's how to run the Git Status extension every Monday morning at 9:45 am:

Status   *   Enabled ▼

Minute   45 Minutes After Each Hour ▼

Hour   9AM ▼

Day Of Month   Every Day of the Month ▼

Month   Every Month ▼

Day of Week   Monday ▼

### Example 5: Run Git Status Report at 5:30 pm on the 1st Day of Every Month

If you only want the report to run once a month, on the first day of the month at 5:30 pm, here's how to do this:

Status   *   Enabled ▼

Minute   30 Minutes After Each Hour ▼

Hour   5PM ▼

Day Of Month   1 ▼

Month   Every Month ▼

Day of Week   Every Day ▼

### Example 6: Run Git Status Every Thursday at 6:00 AM

To run the Magento 2 Git Status Security Report script every Thursday at 6:00 am, use these settings:

| | |
|---|---|
| Status * | Enabled ▼ |
| Minute | Start of Each Hour ▼ |
| Hour | 6AM ▼ |
| Day Of Month | Every Day of the Month ▼ |
| Month | Every Month ▼ |
| Day of Week | Thursday ▼ |

**Example 7: Run Every 15 Minutes During the Month of November:**

We've made it possible for you to run the Git Status Report every 15 minutes, but only during a specific month. In this example, the month of November:

| | |
|---|---|
| Status * | Enabled ▼ |
| Minute | Every 15 Minutes ▼ |
| Hour | Every Hour ▼ |
| Day Of Month | Every Day of the Month ▼ |
| Month | November ▼ |
| Day of Week | Every Day ▼ |

## Step 2: Email Settings for Magento 2 – Git Status Security Report



**Send From Email Address:** In this form field, you can set the FROM email address of your Git Status Report.



**Important Notes:**

- This should be a SINGLE email address.
- The email address you are sending from should match the domain name of your Magento site.
- You may wish to include the Magento site in your safe senders list / white list, and/or add this email address to your address book.
- If you use a Gmail or yahoo email address, your server probably doesn't have authority to send on behalf of another domain.

**Email Addresses for Report:**

In this field, enter in the email address or email addresses that you want to receive the report.
For multiple emails, separate them with a comma.

**Subject Line:**

Use this field to set a custom subject line for the email reports. You might want to include the site's name (if you have multiple websites).



**Email Status Selection:**

Use this selection to determine if you want an email sent every time the Git Status script runs (i.e. every hour) or only if there are uncommitted changes to the system.

## Git Status Emails

Here's an example of the Git Status Security Check emails. This one shows uncommitted changes (in this case, to the Git Status extension itself):

```
→  You forwarded this message on 3/18/16, 2:55 PM.                          Show Forward

**********************************************
GIT STATUS SECURITY REPORT
a free Magento 2 extension
  by Customer Paradigm
**********************************************
On branch master
Your branch is up-to-date with
'origin/master'.

Changes not staged for commit:
  (use "git add
<file>..." to update what will be committed)
  (use "git checkout --
<file>..." to discard changes in working directory)

        modified:
../app/code/CustomerParadigm/Gitstatus/Block/Adminhtml/Gitstatus/Edit/Tab/Email.php
        modified:
../app/code/CustomerParadigm/Gitstatus/Block/Adminhtml/Gitstatus/Edit/Tab/Settings.php
        modified:
../app/code/CustomerParadigm/Gitstatus/Controller/Adminhtml/Gitstatus/Save.php
        modified:
../app/code/CustomerParadigm/Gitstatus/Cron/Gitcronjob.php
        modified:
../app/code/CustomerParadigm/Gitstatus/Setup/InstallSchema.php
        modified:
../app/code/CustomerParadigm/Gitstatus/etc/adminhtml/menu.xml
        modified:
 ../app/code/CustomerParadigm/Gitstatus/etc/module.xml

no changes
added to commit (use "git add" and/or "git commit -a")
```

This email shows a clean Git status, with nothing to report:

```
**********************************************
GIT STATUS SECURITY REPORT
a free Magento 2 extension
  by Customer Paradigm
**********************************************
On branch master
Your branch is up-to-date with
'origin/master'.

nothing to commit, working directory clean

**********************************************
Git status is designed to keep track of
files that have changed on your site,
using the Git version control system.

If you have questions about the content
of this report, please ask the Magento
developer who built your site.
**********************************************
If you need assistance with your Magento 2
site, or help in understanding what this
report means, please contact Customer
Paradigm at 303.473.4400 or visit
http://www.customerparadigm.com
```

# FAQ

**Q: Will this work if I don't use GIT?**

A: No. For this system to work, your site needs to use the Git version control system. Also, your developers must be checking in their work on a frequent basis.

**Q: I keep getting the same email saying that there are uncommitted changes to my site. Should I worry?**

A: What this means is that there have been changes to your file system since the last time someone committed their changes to Git. If you know that nobody should be working on your site, then yes – changed files may be a sign that there have been updates to your site without your permission. If any of the files are in the core directory, this could be a sign that something is off with your site.

**Q: Can I run this on my staging and development sites, too?**

A: Yes. However, you may not want to run the system as frequently on a development site.

**Q: I'm not receiving the Git status emails. Why not?**

There are a few reasons why you might not be receiving emails from the Git Status system:

- First – Cron **must** be enabled and running for this system to work properly. If cron is not enabled, the system will not be able to be triggered.
- Second, make sure that the email address you are sending FROM (i.e. in the FROM line) has permission to send from your server. For example, if your server is XYZ-Corp.com, you should be able to send FROM info@XYZ-Corp.com.
- You may need to check with your email provider to make sure that this server is whitelisted.
- We recommend making sure that the email address you are sending FROM is in your address book in your email program.
- We also recommend having an SPF record that gives permission via DNS to send email on behalf of the domain. Beyond this, if your transactional emails are sending from the server (i.e. the order confirmation emails), then Git Status should be able to send properly as well.
- Make sure that sendmail or another outbound email sending program is enabled.

**Q: If I see changed files, does this mean my site was hacked?**

A: Maybe. Or, perhaps someone on your team uploaded or changed files on the site. Or your server company did a security update. All this report will tell you is that files were changed on your site.

**Q: I uploaded a file to my images directory, but it doesn't show up on the report?**

A: Most of the time, your image directory is not tracked by the Git Status system. Specific file types or directories are set up in your gitignore file. This is done to help prevent the Git system from growing too large with video or image files. Git normally tracks just your system files. If someone adds bad files into a directory that is ignored by your Git ignore file, the system will not be able to track the changes.

**Q: Can my site still be hacked with this script running?**

A: Yes, your site can still be vulnerable. What the Git Status script will do is alert you if any of the files in the system change. Unless your attacker is also committing files into your Git system then this will alert you, depending on when the script runs.

**Q: Will Git Status show folder or file permission changes?**

A: No. Git does not currently track if folders or files have permissions changed as part of their version control system. Git only keeps track of changes to the files.

We always welcome any feedback you have on how to improve this module, or how it did not work as expected. Please visit: https://labs.customerparadigm.com and submit a support ticket.