

KEEPING DRUPAL UP-TO-DATE

Updating Drupal's Minor or Patch Version

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IN THIS SESSION

- ▶ **Terms and assumptions**
- ▶ **Standard update procedure**
- ▶ **Tips for using Drush and Composer**
- ▶ **Related issues and resources**

TERMiNOLOGY

UPDATE

► *Update*

- **To *update* Drupal core's minor or patch version, e.g. 8.4.0 to 8.5.4 or 8.5.2 to 8.5.4**

UPGRADE

- ▶ *Upgrade* (see also “*Migrate*”)
- ▶ To *upgrade* Drupal core from one major version to a higher one,
e.g. **7.59** to **8.5.4** or **6.38** to **8.5.4**

**TODAY WE'RE
TALKING ABOUT
UPDATING
(NOT UPGRADING)**

SEMANTIC VERSIONING

- ▶ **Drupal 8 uses semantic versioning**
- ▶ **Alias “semver”**
- ▶ **Composer uses it, too!**

SEMANTIC VERSIONING

▶ **x.y.z**

▶ **x = Major version**

▶ **y = Minor version**

▶ **z = Patch version**

SEMANTIC VERSIONING

▶ **x.y.z**

▶ **x = Major: Breaking change. Not backwards compatible.**

▶ **y = Minor: New feature(s), no breaking changes**

▶ **z = Patch: bug fix, security patch, no breaking change**

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SEMANTIC VERSIONING

▶ **x.y.z**

▶ **x = Major: Breaking change. Not backwards compatible.**

▶ **y = Minor: New feature(s), no breaking changes**

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RELEASE SCHEDULE

- ▶ **Drupal releases a *minor* update every 6 months**
- ▶ **Patch releases occur as needed and may contain bug or security fixes**

**EVALUATE THE
RELEASE**

RELEASE NOTES

- ▶ **Minor release? x.y.z**
- ▶ **What new features does it have?**
- ▶ **Patch release? x.y.z**
- ▶ **Security release? Critical? Time-sensitive?**
- ▶ **Bug fix?**

ASSUMPTIONS & PREREQUISITES

ASSUMPTIONS

▶ **Drupal 8**

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PREREQS

▶ You have:

▶ ***Administer software updates***

permission, admin access, and

file access

ASSUMPTIONS

▶ You know:

▶ **Command line basics and/or the ability to look up commands**

▶ **(But these are mostly shortcuts.)**

ASSUMPTIONS

- ▶ You know how to use:
 - ▶ Version control with Git
 - ▶ And you have a process for getting files to the 'live' site

ASSUMPTIONS

- ▶ **Composer commands:**
- ▶ **Replace command `composer` with `PATH/TO/composer`**
- ▶ **See getcomposer.org/download**

ASSUMPTIONS

- ▶ **Your process may be different if:**
- ▶ **Your hosting provider has proprietary tools for updating Drupal core**
- ▶ **But it still helps to understand various processes and their pros and cons**

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THE PROBLEM

- ▶ You may have used Composer to install a new module with a dependency but you didn't install Drupal with Composer and you're wondering why this is so hard.

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**THERE ARE 3 PARTS
TO A DRUPAL SITE**

3 PARTS OF DRUPAL

▶ **Code**

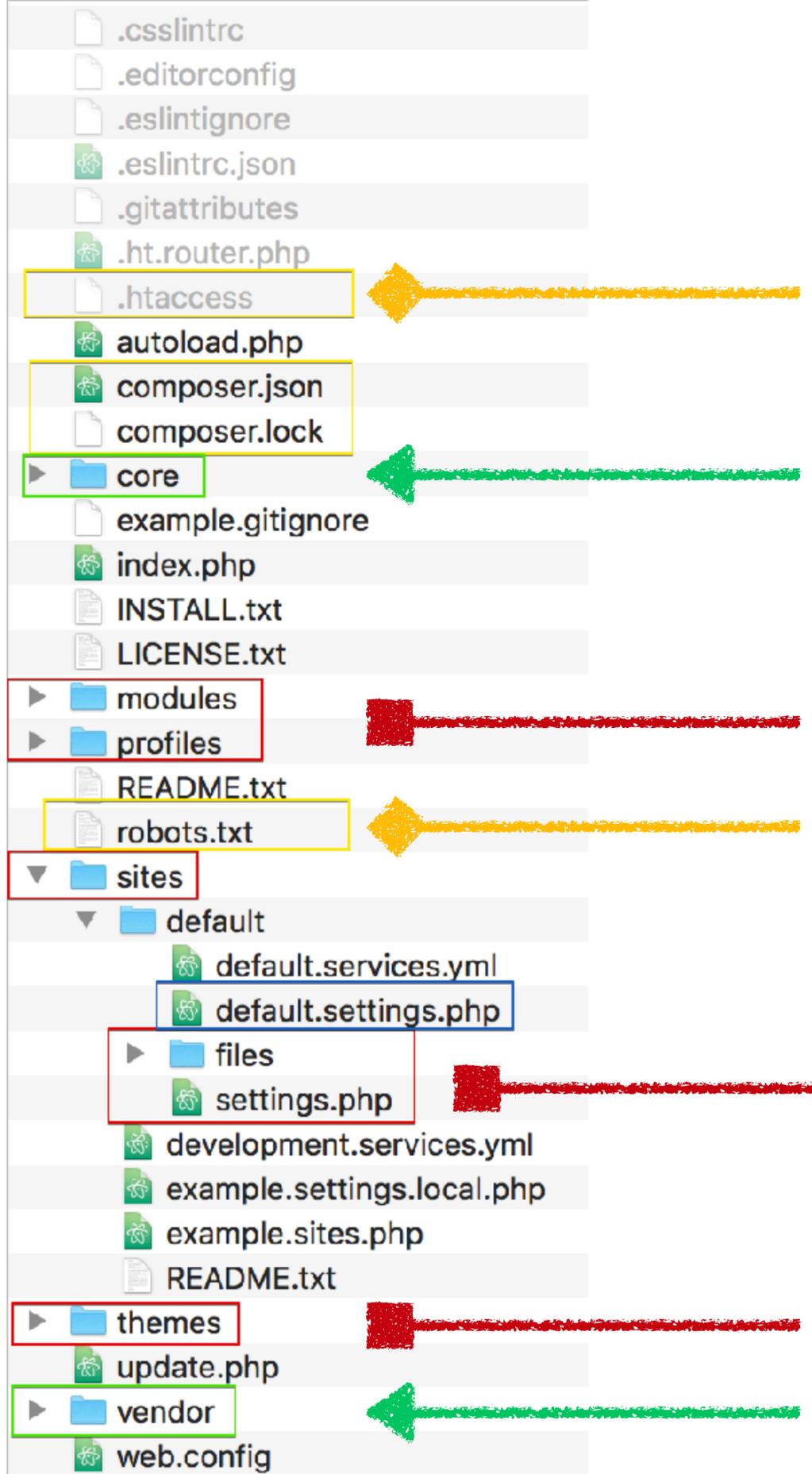
▶ **Database**

▶ **Files**

CODE

- ▶ **core** and **vendor** directories
- ▶ **Scaffolding files** (individual files one level above **core** directory or in **sites**)
- ▶ **Example files**

DRUPAL CODE



Possibly customized

Core

Custom! Do not overwrite.

Possibly customized

Custom! Do not overwrite.

Custom! Do not overwrite.
Core Dependencies (Composer)

DATABASE

- ▶ **The database used to store a Drupal site's content, configuration, state, and logging information.**

FILES

- ▶ **public** and **private** files directories
- ▶ **Uploaded files, config, image derivatives, various caches, translations, etc.**
- ▶ ***Not* under version control, but needs to be backed-up**

PROJECT FILES

- ▶ **Your project may have other special files and directories**
- ▶ **Build scripts, backups, etc.**

BACKUP

3 AREAS TO BACKUP

▶ **Code**

▶ **Database**

▶ **Files**

BACKUP CODE

▶ Code

- ▶ Should be version controlled. If it's not, do it!
- ▶ Check the site's *.gitignore* to see what's *not* backed up by version control
- ▶ Backup custom *.htaccess*, *robots.txt*, etc.

DRUSH SQL-DUMP

▶ Database backup with Drush

▶ `drush sql-dump > ./backups/
YYYY-MM-DD-filename.sql`

DRUSH SQL-DUMP

- ▶ Database backup with Drush
- ▶ See options for `sql-dump` at drushcommands.com

DRUSH SQL-DUMP

- ▶ **Configure *sql-dump* with *drush.yml***
- ▶ **See <https://github.com/drush-ops/drush/blob/master/examples/example.drush.yml>**

MYSQLDUMP

▶ Database backup with **mysqldump**

```
▶ mysqldump -u [username] -p  
[dbname] | gzip -9 > ../  
backups/YYYY-MM-DD-  
filename.sql.gz
```

PHPMYADMIN

▶ Database

▶ PHPMyAdmin

▶ Select database > Export

TOOLS FROM HOST

- ▶ See hosting provider's dashboard for database backup buttons or tools
- ▶ See also <https://www.lullabot.com/articles/importexport-large-mysql-databases>

BACKUP FILES

- ▶ **Files (public and private files)**
- ▶ ***sites* directory <== do not overwrite!**
- ▶ **settings.php!**
- ▶ **sites/*/files**

BACKUP FILES

▶ Files

- ▶ **Drupal-friendly hosts will have dashboard tools for backing up “Files”**

TAR W/ GZIP

▶ **tar**

▶ *With **gzip** compression*

▶ **tar -czvf ../backups/YYYY-MM-DD-files.tar.gz sites/**

TAR W/ BZIP2

▶ **tar**

▶ *With **bzip2** compression*

▶ **tar -cjvf ../backups/YYYY-MM-DD-sitename.tar**bz2** sites/**

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BACKUP AND MIGRATE

▶ Recommended module:

▶ Backup and Migrate

▶ <https://www.drupal.org/project/>

[backup_migrate](https://www.drupal.org/project/backup_migrate)

**STANDARD UPDATE
PROCEDURE**

STANDARD UPDATE

- ▶ **Step 1. Log in as user with**
‘Administer software updates’
permission.

STANDARD UPDATE

- ▶ **Step 2: Put your site in **maintenance mode**.**
- ▶ **Administration > Configuration > Development > Maintenance mode**
- ▶ ***admin/config/development/maintenance***

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STANDARD UPDATE

Maintenance mode ☆

[Home](#) » [Administration](#) » [Configuration](#) » [Development](#)

Use maintenance mode when making major updates, particularly if the updates could disrupt visitors or the update process. Examples include upgrading, importing/exporting content, switching a theme, modifying content types, and making backups.

Put site into maintenance mode

When enabled, visitors will only see the maintenance message. Only users with the "Access site in maintenance mode" [permission](#) will be able to access the site. Authorized users can log in directly via the [user login](#) page.

Message to display when in maintenance mode

@site is currently under maintenance. We should be back shortly. Thank you for your patience.

Save configuration

Enable this checkbox!

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**DO YOURSELF A
FAVOR AND KEEP THE
MAINTENANCE MODE
PAGE OPEN IN A TAB**

STEP 3.

**DETERMINE IF YOUR
SITE WAS INSTALLED
WITH COMPOSER**

MANAGED W/ COMPOSER?

▶ **Run**

```
composer info drupal/core
```

▶ **Success? Your project is managed with Composer. Failure? It's not.**

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MANAGED W/ COMPOSER?

- ▶ Look at **composer.json** in root directory.
- ▶ Is **drupal/core** listed under 'require'?

▶ **YES.** Managed w/ Composer

▶ **NO.** Not. (*Even if listed under 'replace'.*)

**IF PROJECT *is* NOT
MANAGED *With*
COMPOSER**

NOT COMPOSER-MANAGED

- ▶ **Step 4: Remove old code**
- ▶ **Should be done on local development or staging site and deployed to live site as usual.**

NOT COMPOSER-MANAGED

▶ **Step 4: Remove old code**

▶ **Remove core and vendor directories**

▶ **`rm -rf core vendor`**

▶ **`rm -f *.* .*`**

NOT COMPOSER-MANAGED

► **Step 5a: Download the update from**
drupal.org/project/drupal

```
wget https://www.drupal.org/files/  
projects/drupal-x.y.z.tar.gz
```

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NOT COMPOSER-MANAGED

▶ **Step 5b. Extract the archive file.**

```
tar -zxvf drupal-x.y.z.tar.gz
```

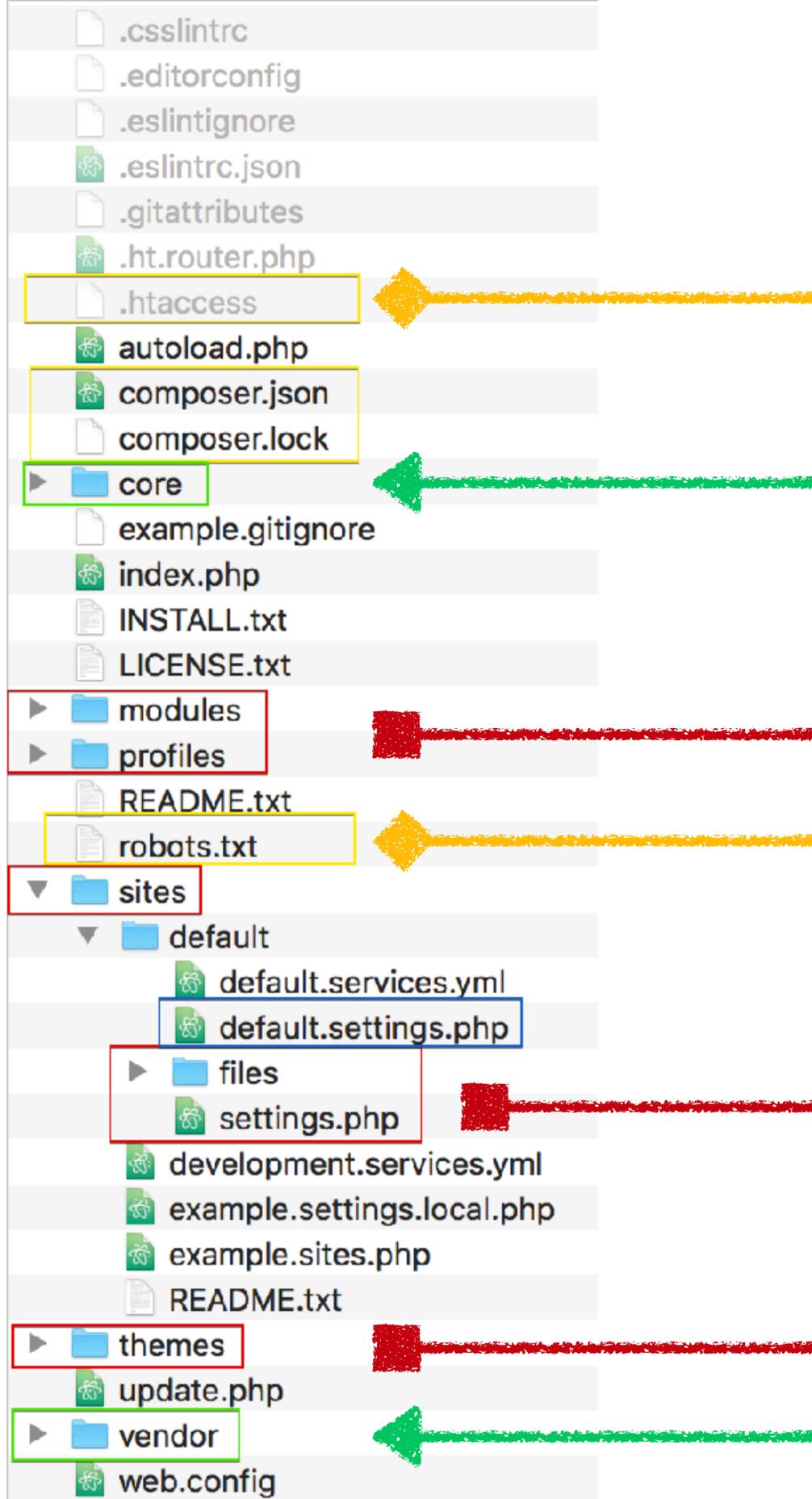
WARNING!

**DO NOT OVERWRITE
YOUR MODULES,
THEMES, PROFILES, OR
SITES DIRECTORIES.**

NOT COMPOSER-MANAGED

- ▶ **Step 6. Apply new code.**
- ▶ **Copy all files and directories except *modules, themes, profiles, and sites* from the update to your site.**

DRUPAL CODE



Possibly customized

Core

Custom! Do not overwrite.

Possibly customized

Custom! Do not overwrite.

Custom! Do not overwrite.
Core Dependencies (Composer)

**IF SITE is MANAGED
WITH COMPOSER**

MANAGED W/ COMPOSER

▶ Run

replaces steps 4-6!

```
composer update drupal/core  
--with-dependencies
```

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STANDARD UPDATE

▶ **Step 7. Check release notes for changes to *default.settings.php***

STANDARD UPDATE

► If `default.settings.php` was changed:

1. Locate `default.settings.php`
2. Duplicate your `settings.php` with new name
3. Copy new `default.settings.php` to `settings.php`
4. Re-apply customizations from previous one

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STANDARD UPDATE

▶ **Step 8. Reapply customizations to .htaccess and robots.txt**

▶ *(Because you backed up your original ones already, right?)*

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STANDARD UPDATE

- ▶ **Step 9. Upload new code (including *vendor* directory) to “live” environment using your regular deployment method.**

STANDARD UPDATE

- ▶ **Step 10a: Open 'live' settings.php in text editor.**
- ▶ **By default, access to update.php is blocked. In *settings.php*, find `update_free_access` and set to **TRUE****

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STANDARD UPDATE

- ▶ **Step 10b: Run database update(s)**
- ▶ **Access *example.com/update.php***
in a browser
- ▶ **Follow instructions**

STANDARD UPDATE

Site-Install

Verify requirements

Overview

Review updates

Run updates

Review log

Drupal database update

The version of Drupal you are updating from has been automatically detected.

▶ **1 PENDING UPDATE**

Apply pending updates

STANDARD UPDATE

Site-Install

Verify requirements

Overview

Review updates

Run updates

Review log

Drupal database update

Updates were attempted. If you see no failures below, you may proceed happily back to your [site](#). Otherwise, you may need to update your database manually. All errors have been [logged](#).

- [Front page](#)
- [Administration pages](#)

STANDARD UPDATE

- ▶ **Step 10c: Edit 'live' settings.php again.**
- ▶ **Lock down *update.php*. Find *update_free_access* and set to **FALSE****

STANDARD UPDATE

- ▶ **Step 11. Verify site is working as expected.**
- ▶ **Go to *admin/reports/status***

STANDARD UPDATE

- ▶ **Step 12: Turn off maintenance mode**
- ▶ **Go to *admin/config/development/maintenance***
- ▶ **Disable checkbox**

Ice cream time!

No tears!

Take a walk!

TA-DA!

**YOU'VE UPDATED
YOUR DRUPAL SITE!**

TIPS FOR USING DRUSH TO UPDATE

DRUSH

▶ NOTE:

- ▶ For updating sites ≤ 8.4 use Drush 8
- ▶ Drush 9 ($> D8.4$) assumes Composer-based methods to update core and contrib

DRUSH 8 (ONLY)

▶ **Backup codebase, database, and files**

`drush archive-dump`

▶ *<https://drushcommands.com/drush-8x/core/archive-dump/>*

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DRUSH

► To put your site in maintenance mode:

```
drush sset system.maintenance_mode 1
```

```
drush cache-rebuild
```

WHY?

**DRUPAL CORE AND ITS
DEPENDENCIES (VENDOR)
BOTH NEED UPDATING**

WARNING!
DO NOT USE

No! **drush up** *Bad!*

OR drush pm-update!

Don't do it!

DRUSH

► **To update the database**

```
drush updatedb
```

DRUSH

▶ To take site off maintenance mode

```
drush sset system.maintenance_mode 0
```

```
drush cache-rebuild
```

**TIPS: UPDATING A
SITE INSTALLED W/
DRUPAL COMPOSER
TEMPLATE**

DIDN'T I JUST SAY THIS?

▶ NOTE:

▶ Do not attempt to use **drush**

pm-update to update a site that
was created with **Composer**.

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COMPOSER TEMPLATE

▶ **Drupal Composer Template**

▶ <https://github.com/drupal-composer/drupal-project>

COMPOSER TEMPLATE

► **Step 0: Put your site in maintenance mode.**

```
cd web
```

```
drush sset system.maintenance_mode 1
```

```
drush cache-rebuild
```

```
cd ../
```

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COMPOSER TEMPLATE

- ▶ **Step 0: Check your `composer.json` for version constraints and update if needed.**

```
“require”: { ...
```

```
    “drupal/core”: “^8.5.3”,
```

```
...}
```

COMPOSER TEMPLATE

- ▶ **Step 1: Update core and its dependencies**

```
composer update drupal/core  
webflo/drupal-core-require-dev  
symfony/* --with-dependencies
```

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COMPOSER TEMPLATE

▶ **Step 2: Determine if any scaffolding files have changed**

▶ `git diff`

COMPOSER TEMPLATE

- ▶ **Step 3: Restore any customizations to .htaccess or robots.txt**

COMPOSER TEMPLATE

- ▶ **Consult the README of the project to verify instructions or troubleshoot.**
- ▶ **But, understand that Composer docs might be a better place for some questions.**

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COMPOSER TEMPLATE

▶ **Gotcha!**

▶ **Version constraints** in **composer.json** only allow updates within a minor version. i.e. 8.3.7 -> 8.3.9 (not to 8.5.3).

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COMPOSER TEMPLATE

▶ **Gotcha!**

▶ **Incompatible dependencies in
your composer.json**

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COMPOSER TEMPLATE

- ▶ Important! Do **not** deploy *development dependencies* to your live site.
- ▶ Run `composer install --no-dev` and commit changes to version control before deploying to production.

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COMPOSER TEMPLATE

► **Step 5. Update the database**

```
drush updatedb
```

COMPOSER TEMPLATE

► **Step 6. Take site off maintenance mode**

```
drush sset system.maintenance_mode 0
```

```
drush cache-rebuild
```

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**RELATED
DRUPAL.ORG
ISSUES**

COMPOSER SUPPORT

▶ **Proposal: Composer Support in Core Initiative**

▶ **<https://www.drupal.org/project/ideas/issues/2958021>**

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ISSUES

- ▶ **Improve instructions to core/
UPDATE.txt**
- ▶ **[https://www.drupal.org/project/
drupal/issues/2867757](https://www.drupal.org/project/drupal/issues/2867757)**

**USiNG COMPOSER TO
MANAGE YOUR
DRUPAL SiTE**

COMPOSERiZE DRUPAL

- ▶ **Comperize Drupal Composer plugin**
- ▶ **Convert a non-Composer-managed Drupal project to a Composer-managed one!**
- ▶ **<https://github.com/grasmash/composerize-drupal>**

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DRUPAL CONSOLE

▶ Drupal Console's **composerize** command

▶ [https://hechoendrupal.gitbooks.io/
drupal-console/content/en/commands/
composerize.html](https://hechoendrupal.gitbooks.io/drupal-console/content/en/commands/composerize.html)

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COMPOSERiZE MODULE

▶ **Composerize Module**

▶ **“Not ready for prime time.”**

▶ **<https://www.drupal.org/project/composerize>**

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DIY COMPOSERiZE

- ▶ Free tutorial on Drupalize.Me
- ▶ Use Composer with Your Drupal Project by Matthew Grasmick
- ▶ <https://drupalize.me/tutorial/use-composer-your-drupal-project>

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**KEEPING TRACK OF
UPDATES**

KEEPING TRACK OF UPDATES

▶ **On your site:**

▶ **Reports > Available updates > Settings**

▶ **Enter email addresses to be notified
daily or weekly**

KEEPING TRACK OF UPDATES

▶ **Subscribe to security announcements mailing list**

▶ **Log in to drupal.org**

▶ **On your account page:**

Edit > My newsletters tab

KEEPING TRACK OF UPDATES

▶ **On Twitter:**

▶ **Follow @drupalsecurity**

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KEEPING TRACK OF UPDATES

▶ Subscribe to RSS Feeds:

▶ core security updates

<https://www.drupal.org/security/rss.xml>

▶ contributed project updates

<https://www.drupal.org/security/contrib/rss.xml>

▶ public service announcements

<https://www.drupal.org/security/psa/rss.xml>

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KEEPING TRACK OF UPDATES

▶ **On Drupal Slack:**

▶ **<https://www.drupal.org/slack>**

▶ **Join *#*announcements channel**

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MORE RESOURCES

SECURITY AND MAINTENANCE

- ▶ **Drupal 8 User Guide**
- ▶ **Chapter 13: Security and Maintenance**
- ▶ **<https://drupalize.me/series/user-guide/security-chapter>**

TUTORIAL

▶ **Update Drupal's Minor Version**

▶ **[https://drupalize.me/tutorial/
update-drupals-minor-version](https://drupalize.me/tutorial/update-drupals-minor-version)**

COMPOSER

▶ **Introduction to Composer for Drupal Users**

▶ **Drupalize.Me tutorial series**

▶ **<https://drupalize.me/series/>**

[introduction-composer-drupal-users](#)

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COMPOSER

▶ **Official Composer Site**

▶ **<https://getcomposer.org>**

HAPPY UPDATING!