

# Adapt Authoring Tool: Installation

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# 1 Installing Prerequisites

The authoring tool and framework require other software to operate. This section will provide the directions on what to install. Instructions have been provided for installation on a Debian or RPM based server. Other instructions are provided at each software packages website. Administrative or Sudo access is required to complete the installation.

## 1.1 Installing Git

Git is a tool for managing source code, and makes it easier to download and update the software. Git may already be installed on the server to which you are installing the authoring tool, to check from command line:

```
$ git --version.
```

### 1.1.1 Debian Based Install

From the command line:

```
$ sudo apt install git-all
```

### 1.1.2 RPM Based Install

From the command line:

```
$ sudo dnf install git-all
```

## 1.2 NodeJS

NodeJS is an open source, cross-platform JavaScript run-time environment that executes JavaScript code outside of a browser. NodeJS is what allows the authoring tool to function and be viewable in a browser, and to format the courses so that they can be published. The authoring tool only supports the long term supportable (LTS) version of NodeJS which at the writing of these instructions is v10.x. To check if NodeJS is installed or which version is installed, from command line type:

```
$ node --version.
```

### 1.2.1 Debian Based Install

From the command line:

```
curl -sL https://deb.nodesource.com/setup_10.x | sudo -E bash -  
sudo apt-get install -y nodejs
```

### 1.2.2 RPM Based Install

From command line as Root:

```
curl -sL https://rpm.nodesource.com/setup_10.x | bash -
```

You will also need to install the build tools to be able to use the authoring tool.

```
yum install gcc-c++ make or  
yum groupinstall 'Development Tools'
```

## 1.3 Grunt

Grunt is used to automate functions of the authoring tool when publishing the course. Grunt runs scripts that are required so that the course can be viewed in a basic web browser. Grunt also works behind the scenes when adding media to a course during creation. Grunt is managed by the Node Package Manager (NPM), because of this the installation is the same for all linux based systems.

### 1.3.1 Update NPM

You should make sure that NPM is current on the system that you are installing Grunt on. To make sure that NPM is updated to the current version, on the command line type:

```
$ sudo npm update -g npm
```

### 1.3.2 Install Grunt

From command line:

```
$ npm install -g grunt-cli
```

## 1.4 MongoDB Community Edition

The authoring tool uses MongoDB to handle tracking the information in courses as well as the standard information for how the authoring tool should operate. We are using the community edition because it is open source and does not require purchasing a license key or subscription. MongoDB is not installed unless needed on a server, so it is doubtful that it would already be installed. Completing the install operations, will update to the required version for the authoring tool if it is installed.

### 1.4.1 Debian Based Install

From the command line:

```
sudo apt-key adv --keyserver hkp://keyserver.ubuntu.com:80 --recv 9DA31620334BD75D9DCB49F368818C72E52529D4
echo "deb [ arch=amd64 ] https://repo.mongodb.org/apt/ubuntu bionic/mongodb-org/4.0 multiverse"
| sudo tee /etc/apt/sources.list.d/mongodb-org-4.0.list
sudo apt-get update
sudo apt-get install -y mongodb-org
sudo service mongod start
```

### 1.4.2 RPM Based Install

The RPM installation is slightly more detailed than other installations, if needed the instructions can be located at:  
<https://docs.mongodb.com/manual/tutorial/install-mongodb-on-red-hat/>

1. You will need to create a repo file so that MongoDB can be installed directly using yum:

File location and name: `/etc/yum.repos.d/mongodb-org-4.0.repo`

File contents:

```
[mongodb-org-4.0]
name=MongoDB Repository
baseurl=https://repo.mongodb.org/yum/redhat/$releasever/mongodb-org/4.0/x86_64/
gpgcheck=1
enabled=1
gpgkey=https://www.mongodb.org/static/pgp/server-4.0.asc
```

2. Install the latest stable version of MongoDB.

From command line: `sudo yum install -y mongodb-org`

3. Start MongoDB

From command line: `sudo service mongod start`

4. Ensure that MongoDB will automatically start following a system reboot

From command line: `sudo chkconfig mongod on`

## 1.5 FFmpeg

FFmpeg is used to handle preview images for both photos and videos inside of the authoring tool as well as to make the media available when the course is published.

### 1.5.1 Debian Based Install

From the command line:

```
sudo add-apt-repository ppa:mc3man/trusty-media
sudo apt-get update
sudo apt-get install ffmpeg
sudo apt-get install frei0r-plugins
```

### 1.5.2 RPM Based Install

For RPM based systems, the install process requires the installation of other software to allow FFmpeg to be installed. The complete instructions are listed below.

1. Add EPEL repository:

```
sudo yum install epel-release
```

2. Add RPMFusion repository

```
sudo yum localinstall --nogpgcheck https://download1.rpmfusion.org/free/el/rpmfusion-free-release-7.noarch.rpm
https://download1.rpmfusion.org/nonfree/el/rpmfusion-nonfree-release7.noarch.rpm
```

3. Install FFmpeg

```
sudo yum install ffmpeg ffmpeg-devel
```

## 2 Installing The Authoring Tool

The authoring tool requires multiple steps to install. These steps are the same for all types of server operating systems.

### 2.1 Clone Adapt\_Authoring

The authoring tool is hosted on GitHub, this process will download all of the necessary files and copy them onto the target server.

Using the command prompt, navigate to the installation folder. This folder will require basic user access since the files inside this directory will change based on how the course is created and modified. Once in the target directory:

```
git clone https://github.com/adaptlearning/adapt_authoring.git
```

This process can take a moment to occur, the command prompt will return when completed.

### 2.2 Install required NPM packages

This process will install and compile all the necessary software that is needed to operate the backend of the authoring tool.

Navigate to the `adapt_authoring` directory that was created in the previous step.

From command line: `npm install --production`

This process can take a few minutes to complete and will show the activity of the process on screen.



## 2.3 Install Script

This is the process that will install the authoring tool. To begin the installation script, from the command line:

```
node install
```

The install script will begin.

```
ubuntu@ubuntu:~/adapt_authoring$ node install

This script will install the application.
Would you like to continue?
> Continue? Y/n (Y) y

We need to configure the tool before install.
Tip: just press ENTER to accept the default value in brackets.
> Server port (5000)
> Server name (localhost)
> Data directory path (data)
> Git repository URL to be used for the authoring tool source code (https://github.com/adaptlearning/adapt_authoring.git)
> Git repository URL to be used for the framework source code (https://github.com/adaptlearning/adapt_framework.git)
> Specific git revision to be used for the framework. Accepts any valid revision type (e.g. branch/tag/commit) (tags/v2.3.3)
> Master database name (adapt-tenant-master)
> Will you be using a full database connection URI? (all connection options in the URI) y/N (N)
> Database host (localhost)
> Database server port (27017)
> Database server user (only specify if using database authentication) █
```

For most options the default listed in the parentheses are the correct answers that should be used. For the question: **Specific git revision to be used for the framework** you should use `tags/v4.0.1`. This allows the authoring tool to use the most recent stable version of the framework that operates the tool.

The install script will also ask for an SMTP server and account to be entered. This option will be based on the settings provided by EITS and with their authorization. This option does allow individual users to reset their own passwords.

```
Now we need to set up a 'Super Admin' account. This account can be used to manage everything on your app.productname instance.  
> Email address capstone@capstone.nmi  
> Password *****  
> Confirm Password *****  
  
/ Building web application
```

The script will then ask you for a Super Admin account. This account is used to create users and add plugins and other administrative functions. This can be a valid email, but this is not the primary user account that should be creating courses. If by mistake, the passwords do not match, the script will stop and must be restarted.

```
Web application built successfully.  
  
Installation completed successfully, the application can now be started with 'node server'.
```

Once the script completes it will provide the above message.

## 2.4 PM2: Process Manager

PM2 is a node based process manager to make sure that the server will remain running and will restart should the server reboot.

### 2.4.1 Installing PM2

To install PM2, from command line:

```
sudo npm install pm2 -g
```

When you return to the command prompt, PM2 will be installed and ready for use.

### 2.4.2 Starting The Server

To start the server you should be in the `adapt_authoring` directory. From command line:

```
pm2 start server.js
```

This will start the server and allow you to access the Adapt Authoring Tool. To access the tool, open your internet browser of choice (Chrome or FireFox are preferred), and enter the address to the server. You will need to add `:5000` to the end of the address for it to connect properly. EITS will provide you with the server name or direct address after install.