

Local Development Environments

Benefits

- work without an internet connection (airplane, car, etc.) [VM][STACK]
- test changes without breaking your live site [SANDBOX][VM][STACK]
- test software changes without breaking your server [VM][STACK]
- almost identical to your production site [SANDBOX]

Tools

- WAMP/XAMP/LAMP/MAMP (stack)
- Bitnami (stack/vm)
- Acquia dev desktop (stack)
- Quickstart (vm)
- Vagrant (drupal.org/project/vagrant)
- "roll your own" virtual machine (vm)
- sandbox on hosting server
- Backup and Migrate module (drupal.org/project/backup_migrate) – If you can install this on your live site, you can easily export and make a copy of your site for your local development environment.

Terms

- **local environment** - setting up a suite of software (stack/environment) on your own computer (local machine). This applies to Linux and Mac. Windows machines will have to run a virtual machine + stack.
- **virtual machine (VM)** - a program that runs another operating system on your computer (a computer within a computer) (vVrtualbox, VMware, etc)
- **stack** - turnkey software that runs webserver including Apache, MySQL and PHP. You could run your own webserver with this software and run other sites on this software (not just Drupal). Majority of the web runs on these types of servers.
- **sandbox** - hosted on the same server as your live site as a test version
- ***AMP** - Apache(webserver), MySQL(database), PHP(programming language) * stands for the operating system (W-windows, X-unix, L-linux, M-mac)

Dev Environment Workflow

1. Set up a tool
2. Get files from site
3. Get database from site
4. Make your changes
5. ?

Clarifications & Caveats

- In what order do you set this up? You have a virtual machine, install the stack, then install Drupal (or another PHP web application).
- Virtual machines can run slow if you don't have enough memory to run both operating systems at once.
- Your development environment doesn't always have to mimic your host server exactly.
- Web browser needs to be able to distinguish between accessing a local site and a site on the internet.
- **What sort of changes can you make on the local environment?**
 - Changes are still being made to the live database, so you can't really push database changes back to the live site (unless you know no changes are being made.)
 - It is a good place to work on theming, since the theme layer is independent of the content.
 - Keep detailed notes for yourself if you are going to change the database (make a new view, for example) so you then have a new “recipe” for deployment and can re-configure on the live site.

TCDrupal Meetup – 11/16/2011