Top 8 considerations for choosing a local development environment
Not a Demo
What questions should I ask of local environments as a tech lead?
In case you have to go:

Got skillz? Use Lando (or BLT)
Windows 10 pro or not at all
It’s still “easier” to use an installed native stack
Team leads need composability!!!!
Agenda

1. Architecture: Native Stack vs Native DYI vs VM vs Docker vs Docker+
2. CLI support
3. Composability of environments and configurability of tests
4. Support for other languages
5. Toolset vs application
6. Open-Sourciness
7. Implications of popularity
8. Options for commercial support
9. Current Solutions and approaches
## Architectures

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<th>Tools</th>
<th>Docker</th>
<th>Docker +</th>
<th>Native Stack</th>
<th>Native DYI</th>
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<tr>
<td></td>
<td>Docker</td>
<td>Lando</td>
<td>MAMP</td>
<td>Linux</td>
<td>DrupalVM</td>
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<td>docker4drupal</td>
<td>DDev</td>
<td>Acquia Dev Desktop</td>
<td>Mac with Brew</td>
<td>VirtualBox</td>
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<td>Windows with pain</td>
<td>VB + Vagrant</td>
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Docker is the ubiquitous installer for OSS
Docker Issues:

- "Getting in to that machine to do a task"
- Running CLI
- Running Builds
- Running Tests
- File system performance
- File system permissions
Docker Issues:

- Docker for Windows requires Windows 10 Pro (not home)
- Docker Toolbox is Legacy (blerg)
Desktop Windows Version Market Share Worldwide
Dec 2016 - Jan 2018
CLI Tools

More than ever, a Drupal developer can benefit from CLI tools:
CLI Tools

- **Drush 9 & Drupal Console**: Snapshot, export config, generate code, run operations on sites
- **Composer**: PHP package management
- **PHPUnit**: Unit Testing for PHP - *can lead to TDD*
- **Behat**: Behavioural Testing for PHP - *can lead to BDD*
- **Phing / Robo**: Build tools
- **NPM**: Javascript package management
- **Gulp / Grunt**: Javascript minification, compilation, unit testing, and linting
- **BLT**: Built, Launch, Test
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<tr>
<td>Ease of CLI Tool Execution</td>
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Environment configuration and Testing

- How long does it take for a developer to be on-boarded? Can that developer be fully productive? (IDEs are critical for D8)
- Can I match versions of services with the ones run in my production cloud?
- Can I write my configurations in code, commit them to git and have all team members upload them?
Composability

Lando

```bash
# Drupal 8 recipe
name: db

# Start with the default Drupal 8 recipe
recipe: drupal8

# Configure the Drupal8 recipe
config:

  # See: https://www.drupal.org/docs/7/system-requirements
  # Optionally specify the php version to use.
  # If omitted this will default to the latest php version supported by Drupal 8.
  # Consult the 'php' service to see what versions are available. Note that all
  # such versions may not be supported in Drupal 8s so YMMV.
  # See: https://www.drupal.org/docs/7/system-requirements/php
  # NOTE: that this needs to be wrapped in quotes so that it is a string
  # php: '7.1'
```

Vagrant

```bash
# Verify version requirements.
require_ansible_version "= #{vconfig['drupal Ansible version_min']}"
Vagrant.require_version "= #{vconfig['drupal_vagrant_version_min']"

ensure_plugins(vconfig['vagrant_plugins'])
Vagrant.configure('2') do |config|
  # Set the name of the VM. See: http://stackoverflow.com/a/17864388/180134
  config.vm.define vconfig['vagrant_machine_name']

  # Networking configuration.
  config.vm.hostname = vconfig['vagrant_hostname']
  config.vm.network :private_network,
    ip: vconfig['vagrant_ip'],
    auto_network: vconfig['vagrant_ip'] == '0.0.0.0' ? false : vconfig['vagrant-auto_network']
  unless vconfig['vagrant_public_ip'].empty?
    config.vm.network :public_network,
    ip: vconfig['vagrant_public_ip'] != '0.0.0.0' ? vconfig['vagrant_public_ip'] : nil
  end

  # SSH options.
  config.ssh.insert_key = false
```
Environment configuration and Testing

- Do care about testing? Is it important for an everyday dev to run tests?
- How valid are my local tests?
- Can I integrate with my build/test pipeline?
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<tr>
<td>Config &amp; Testing</td>
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Support for things other than Drupal

● What if you have a backend service that Drupal relies on?
● What if you want to run an Angular front end?
Support for things other than Drupal

- What protections do I have against dependency conflicts?
- How will I update the software?
- Can I snapshot state?
- Can I bring up other services quickly?
- How easy are they to install?
- How do I configure versions?
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<td>Support for other software</td>
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What’s in the box?

- UI?
- Installer?
- Synchronisation?
- Tools?
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**It Depends!**
Open-Source-iness

- Can I extend it?
- Can I contribute?
- Will it be tied to a cloud vendor?
- Will it persist?
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Popularity

- Can I extend it?
- Will it persist?
Popularity

- Github stars
- Downloads
- Drupal.org
- Twitter
- Blogs
Commercial Support

- May be important for compliance / security / etc
- Custom agreements can be made with open source developers
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<tr>
<td>Sys Admin</td>
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<td>Developer</td>
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