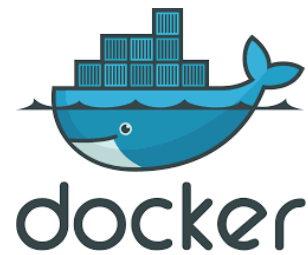




Continuous
Integration
@Spectrecoin

Toolchain

- Based on Jenkins
- Running on AWS
- Mostly dockerized



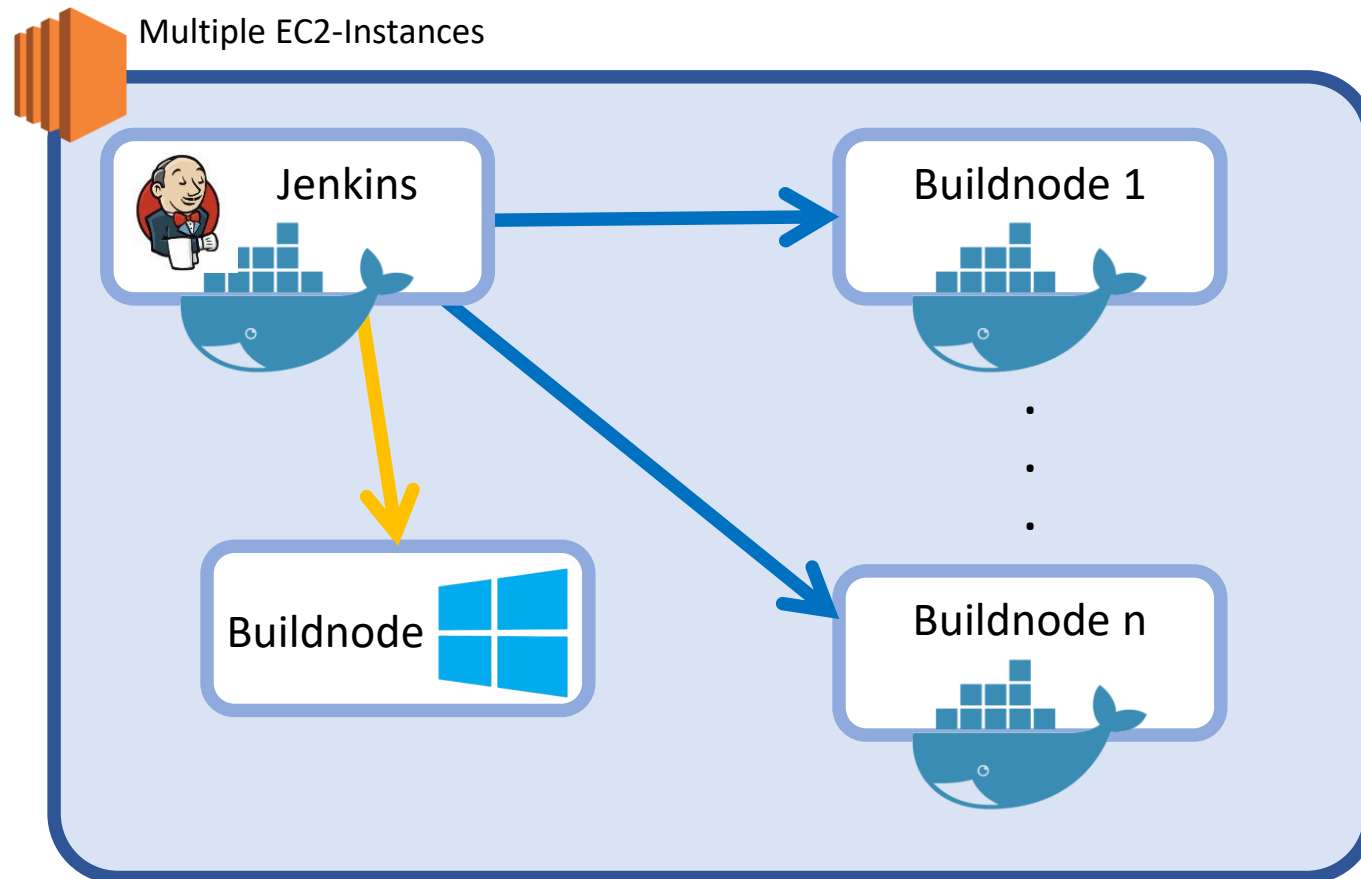
Build components



- Docker-Image **spectre-builder**
 - Contains all requirements to *build* Spectrecoin wallet
- Docker-Image **spectre-base**
 - Contains all requirements to *run* Spectrecoin wallet
- Docker-Image **github-uploader**
 - Bundles corresponding GitHub project for easy upload of release artifacts to GitHub release area
- **Wrapper-Dockerfiles** to generate final Docker-Image with ready-to-use Spectrecoin wallet
- All of this separately for different major Linux distributions



Toolchain layout



Build chains – Part 1

Builder-Image and Base-Image

1. Push to GitHub-Repo triggers buildjob at Jenkins
2. Jenkins spawns EC2 buildnode instance
3. Jenkins runs image build on buildnode
4. Image is pushed to DockerHub
5. Jenkins stops EC2 buildnode

This part runs only if there are changes on the builder or base image.



Build chains – Part 2

Spectrecoin-Image

1. Push to GitHub-Repo triggers buildjob at Jenkins
2. Jenkins spawns EC2 buildnode instance
3. Jenkins runs image build on buildnode
 1. Binaries where compiled on spectre-builder instance
 2. Binaries where copied to to new Docker image derived from spectre-base
4. Final image is pushed to DockerHub
5. Jenkins stops EC2 buildnode

This part runs if changes on develop- or master-branch where pushed. Builds from master-branch are releases.



Build chains – Part 3

Spectrecoin Binary distribution

1. Push to GitHub-Repo triggers buildjob at Jenkins
2. Jenkins spawns EC2 buildnode instance
3. A Docker instance of *github-uploader* is started
4. This instance pulls Spectrecoin images from DockerHub
5. Extract the binaries from the Spectrecoin image
6. Compress binaries into upload-ready archive
7. Uploads to GitHub release area
8. Jenkins stops EC2 buildnode

This part runs if changes on develop- or master-branch where pushed.
Builds from master-branch are releases.



Open tasks / wish list

- Automate build of Windows and Mac wallet
- Provide real Packages for major Linux distributions, so package manager can be used to install/update Spectrecoin
- Provide installer package also for Windows version



Links

- Jenkins: <https://jenkins.io/>
- AWS: <https://aws.amazon.com/de/>
- Docker: <https://www.docker.com/>

- spectre-base: <https://github.com/spectrecoin/spectre-base>
- spectre-builder: <https://github.com/spectrecoin/spectre-builder>
- github-uploader: <https://github.com/spectrecoin/github-uploader>
- spectre: <https://github.com/spectrecoin/spectre>
- spectre-distribution: <https://github.com/spectrecoin/spectre-distribution>

