

Versioning

Semantic Versioning Overview

<https://semver.org/>

1. Version 1.0.0 defines the public API. The way in which the version number is incremented after this release is dependent on this public API and how it changes.
2. Patch version Z (x.y.Z | x > 0) MUST be incremented if only backwards compatible bug fixes are introduced. A bug fix is defined as an internal change that fixes incorrect behavior.
3. Minor version Y (x.Y.z | x > 0) MUST be incremented if new, backwards compatible functionality is introduced to the public API.
 - a. It MUST be incremented if any public API functionality is marked as deprecated.
 - b. It MAY be incremented if substantial new functionality or improvements are introduced within the private code.
 - c. It MAY include patch level changes.
 - d. Patch version MUST be reset to 0 when minor version is incremented.
4. Major version X (X.y.z | X > 0) MUST be incremented if any backwards incompatible changes are introduced to the public API.
 - a. It MAY also include minor and patch level changes.
 - b. Patch and minor versions MUST be reset to 0 when major version is incremented.

Existing Versioning

Anax

Today Anax versions only update the minor version on an IBM release of IEAM which is built off the Open Horizon projects. The patch version is never changed. In addition there is a build number (auto-incrementing integer related to the IBM-internal Jenkins job that builds Anax) that increments. There is an IBM-internal Jenkins pipeline that creates a GitHub Release every Thursday. This release utilizes the ever-increasing build number to differentiate between builds.

Exchange-API

The Exchange-API project only creates a GitHub Release when there is an IBM release of IEAM. The version of Exchange-API is manually updated by a developer on every commit along with the Changelog. Only the minor version is updated and there is no associated build number.

SDO-Owner-Services

TBD

Vault-Exchange-Auth

TBD

Proposed Changes for Open Horizon Projects

For both Anax and Exchange-API, a GitHub Action should exist to build each project and store its built artifacts. Additionally Docker artifacts created should be uploaded to Dockerhub using the `testing` tag.

While adhering to the SemVer policy would be ideal, it's currently not feasible due to existing processes and conventions already in place both in the Open Source as well as IBM internal communities. That being said, versioning should be changed such that the *minor* version is only updated on an IEAM release at first and then independently as determined by the LF Edge Open Horizon community. The patch version should be updated whenever there is any commit made to the repository. Build numbers should be added via a unique value as determined by the GitHub Action.

Changelog work is TBD. Need to talk to LF EdgeX Foundry DevOps WG