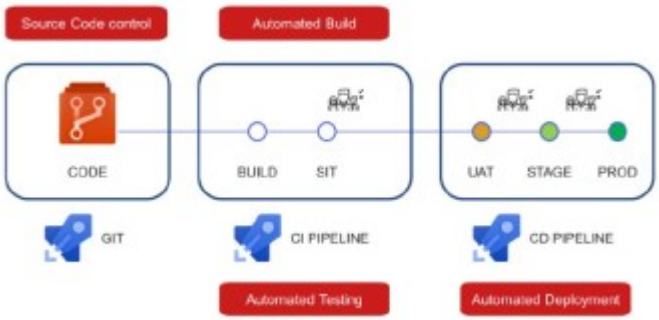
Continuous Integration and Continuous Delivery (CI/CD)

Aras DevOps is based on Continuous Integration (CI) and Continuous Delivery (CD) practices.



The above illustration shows the basic flow of the CI and CD process of merging code changes from multiple contributors to a single Repository.

- Code equals source code control. Source code control includes items such as AML Packages, configuration files, and settings. It includes the Code Tree modification and the various libraries that constitute the solution.
- **Commits** are means to manage changes that take solutions from one configuration to the next.
- The CI **Pipeline** supports Continuous Integration, where various contributors use **Pull requests** (**PRs**) to submit their contributions to the integrated solution. The system automatically builds and runs any available automated tests written by developers. If automated tests fail, the **PR** will fail. The developer will need to fix their code to successfully submit their **PR**. Reviewers check the work before accepting it.
- The resulting **Artifacts** with successful **Pipelines** are candidates for deployment to a System Integration Testing (SIT) instance for manual testing.

Continuous Delivery is an approach where teams release quality products frequently and predictably from a source code Repository to production in an automated fashion. Once code has been tested and built as part of the CI process, Continuous Delivery takes over during the final stages to ensure it can be deployed as packaged, with everything it needs to deploy to any environment at any time.

Continuous Delivery can cover everything from provisioning the infrastructure to deploying the application to the testing or production environment.

1. **Important**

When Aras DevOps is purchased separately (as opposed to within an Aras Enterprise subscription), the customer independently hosts the UAT, staging, and production environments on their own infrastructure. The creation of these **Pipelines** falls completely outside the scope of Aras DevOps.