

Code Pipeline with approvals in AzureDevOps

If like me you assumed that the functionality is missing, you are mistaken. The functionality can be included, it just does not match its counterpart within the UI — By [Craig Godden-Payne@beardy.digital](#)



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Azure Dev Ops supports code pipelines as well as a UI pipeline builder. One thing that isn't immediately clear is how to allow for gated approvals for the code pipeline,

something which is obvious in UI mode.

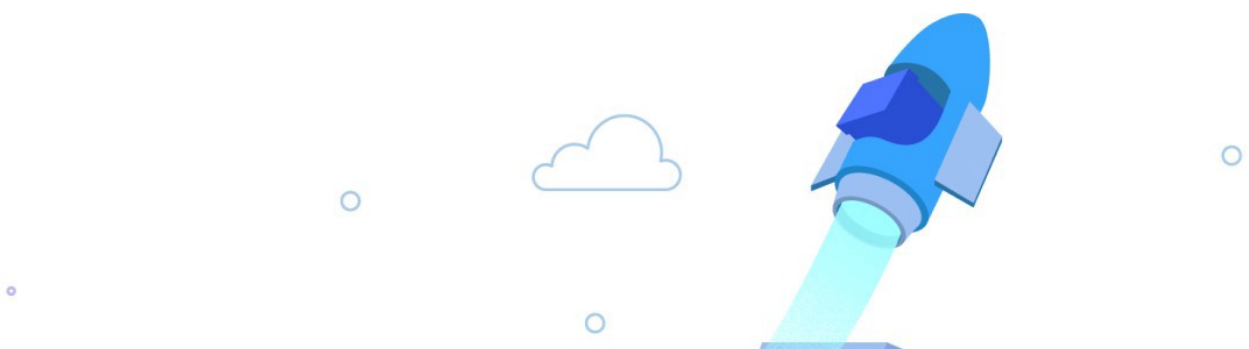
If like me you assumed that the functionality is missing, you are mistaken. The functionality can be included, it just does not match its counterpart within the UI.

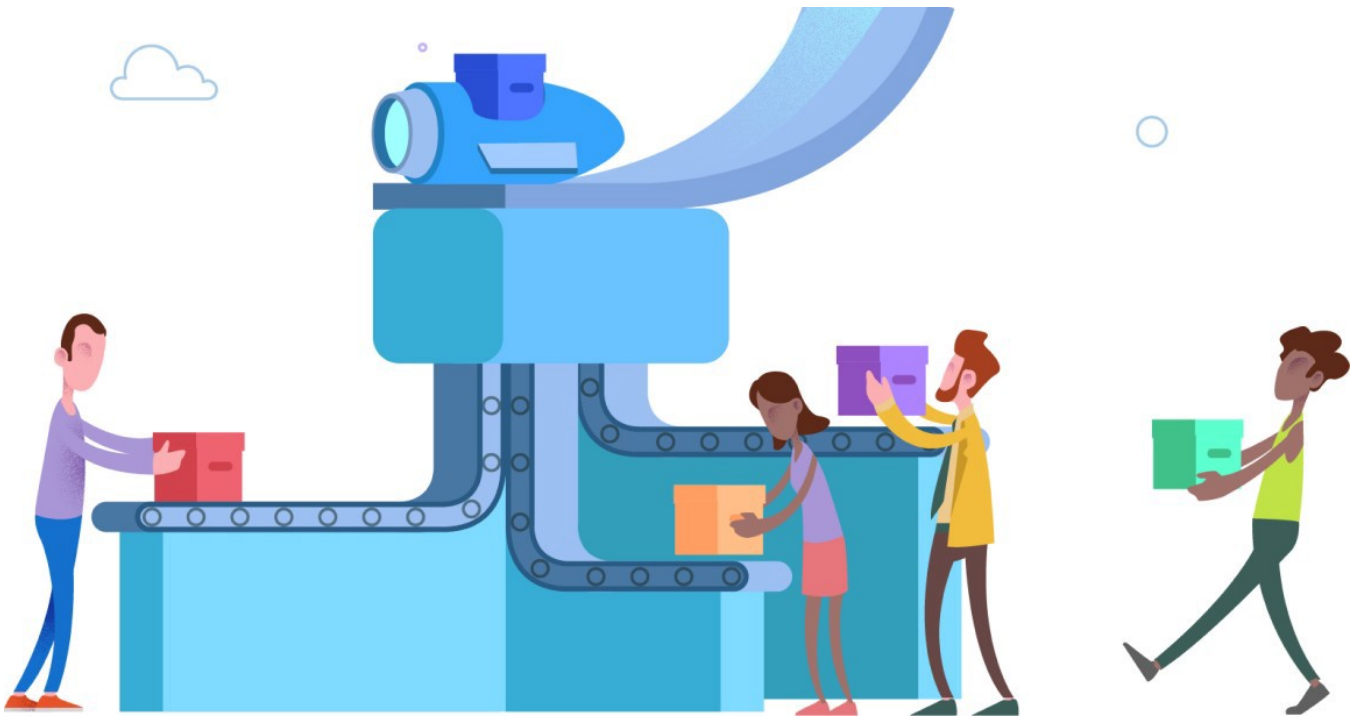
You are able to introduce approvals by using environments.



At a glance, Environments look to include functionality for working with virtual machines or kubernetes, but this is not the only function.

You are able to create an environment, which requires approvals or checks. Once a code pipeline runs with this environment, it will pause with an approval





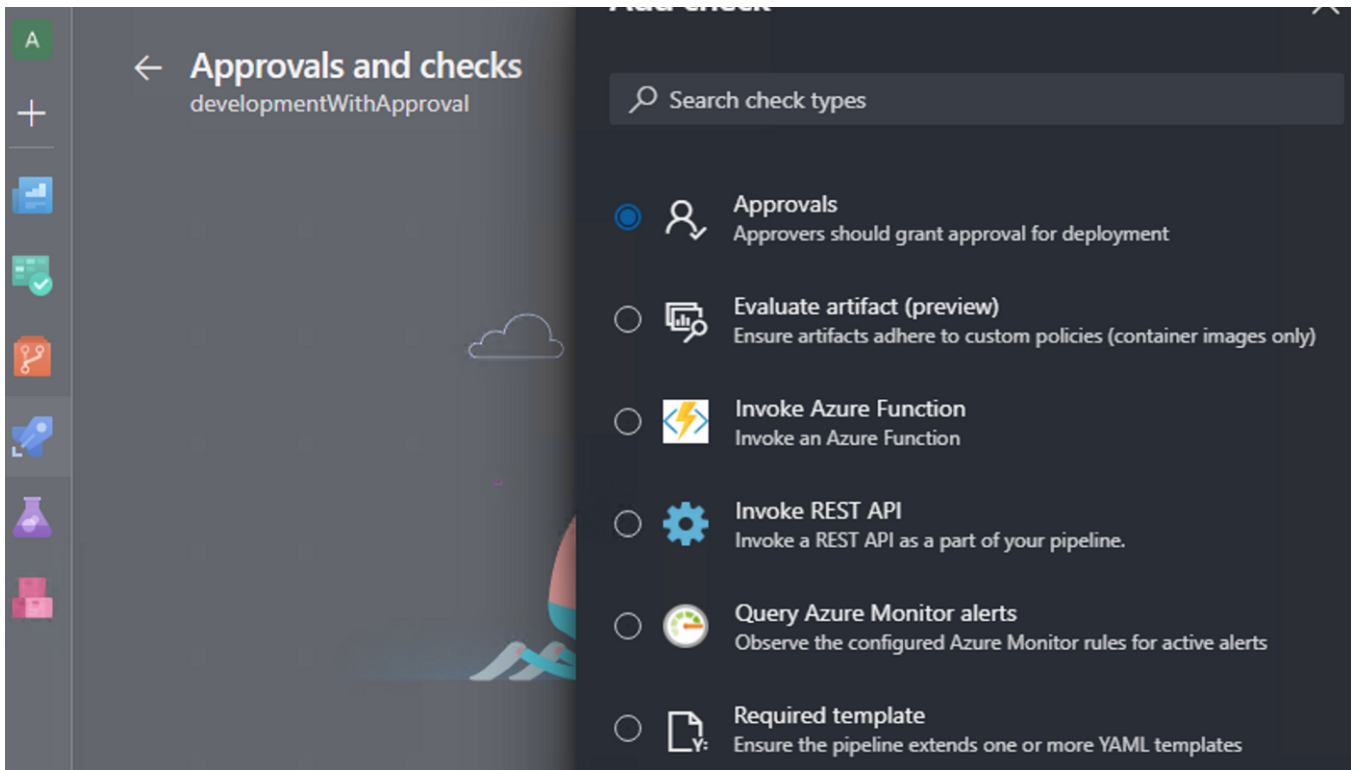
Here is an example of a code pipeline, note the environment is set to development for an auto deploy, and developmentWithApproval for a gated build.

This example is a terraform pipeline, where someone from a devops team would want to manually approve any changes to infrastructure in AWS.

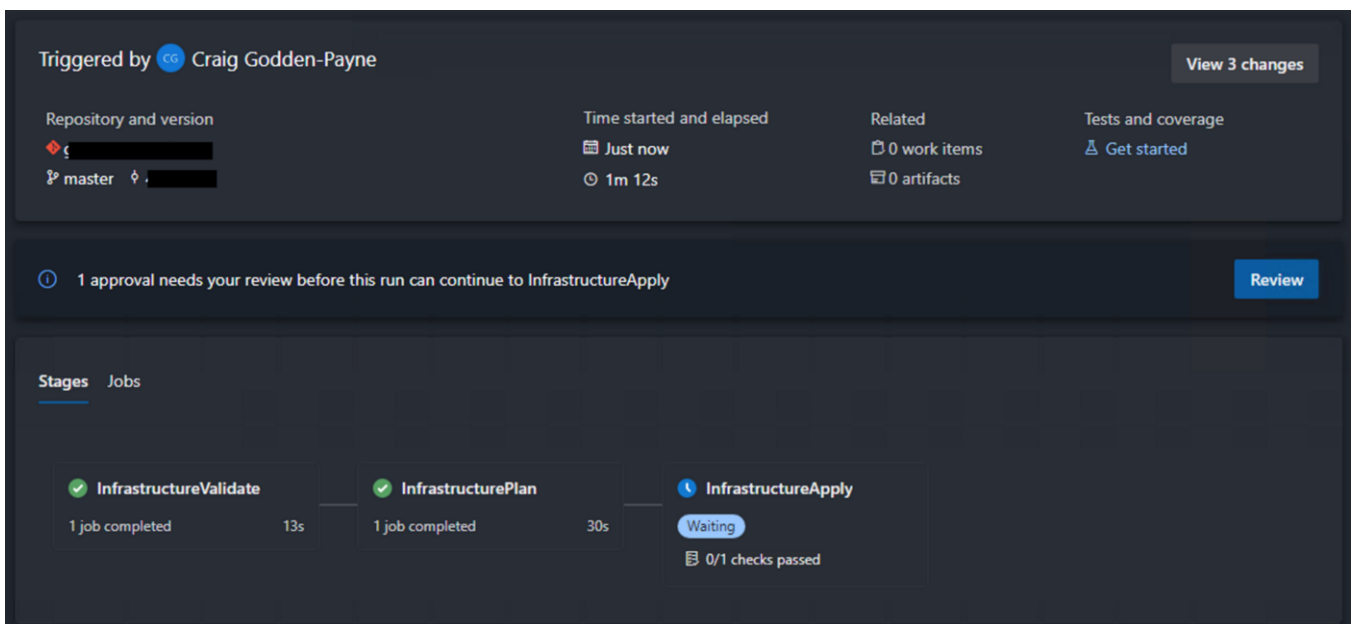
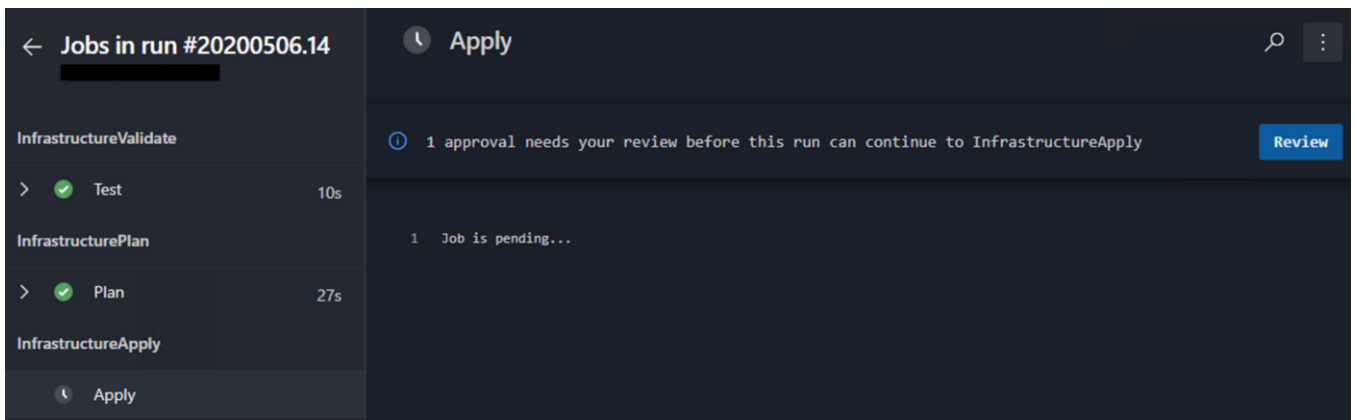
```
variables:
  awsCredentials: 'aws-craig-godden-payne-credentials'
  terraformVersion: '0.12.24'
stages:
- stage: InfrastructurePlan
  jobs:
  - deployment: Plan
    displayName: Plan
    environment: development
    strategy:
      runOnce:
        deploy:
          steps:
            - checkout: self
              displayName: Pull Git
              persistCredentials: true
            - task: TerraformInstaller@0
              displayName: Install Terraform
              inputs:
                terraformVersion: '$(terraformVersion)'
            - task: AWSShellScript@1
              displayName: Terraform Plan
              inputs:
                awsCredentials: '$(awsCredentials)'
                regionName: 'eu-west-2'
                scriptType: 'inline'
```

```
- stage: InfrastructureApply
  jobs:
    - deployment: Apply
      displayName: Apply
      environment: developmentWithApproval
      strategy:
        runOnce:
          deploy:
            steps:
              - checkout: self
                displayName: Pull Git
                persistCredentials: true
              - task: TerraformInstaller@0
                displayName: Install Terraform
                inputs:
                  terraformVersion: '$(terraformVersion)'
              - task: AWSShellScript@1
                displayName: Apply Terraform
                inputs:
                  awsCredentials: '$(awsCredentials)'
                  regionName: 'eu-west-2'
                  scriptType: 'inline'
                  inlineScript: |
                    terraform init
                    terraform apply
```

Azure DevOps Add check



Now when the pipeline runs, it will wait at the appropriate stage, for approval.



Once the approver has approved the deploy, then the code deploy pipeline will continue as normal.

← Jobs in run #20200506.14

InfrastructureValidate

> ✓ Test10s

InfrastructurePlan

> ✓ Plan27s

InfrastructureApply

▼ ✓ Apply18s

✓ Initialize job2s

✓ Pull Git2s

✓ Install Terraform2s

✓ Apply Terraform12s

✓ Post-job: Pull Git<1s

✓ Finalize Job<1s

⌚ Apply

1 Pool: [Azure Pipelines](#)

2 Image: ubuntu-latest

3 Queued: Just now [[manage parallel jobs](#)]

4 Agent: Hosted Agent

5 Started: Just now

6

7 The agent request is already running or has already completed.

8 Job live console data:

9 **Starting: Apply**

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