

# Microsoft Azure Devops (MS-TFS)

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# Unidad 6 Despliegue Continuo - CD y Azure Pipelines Devops



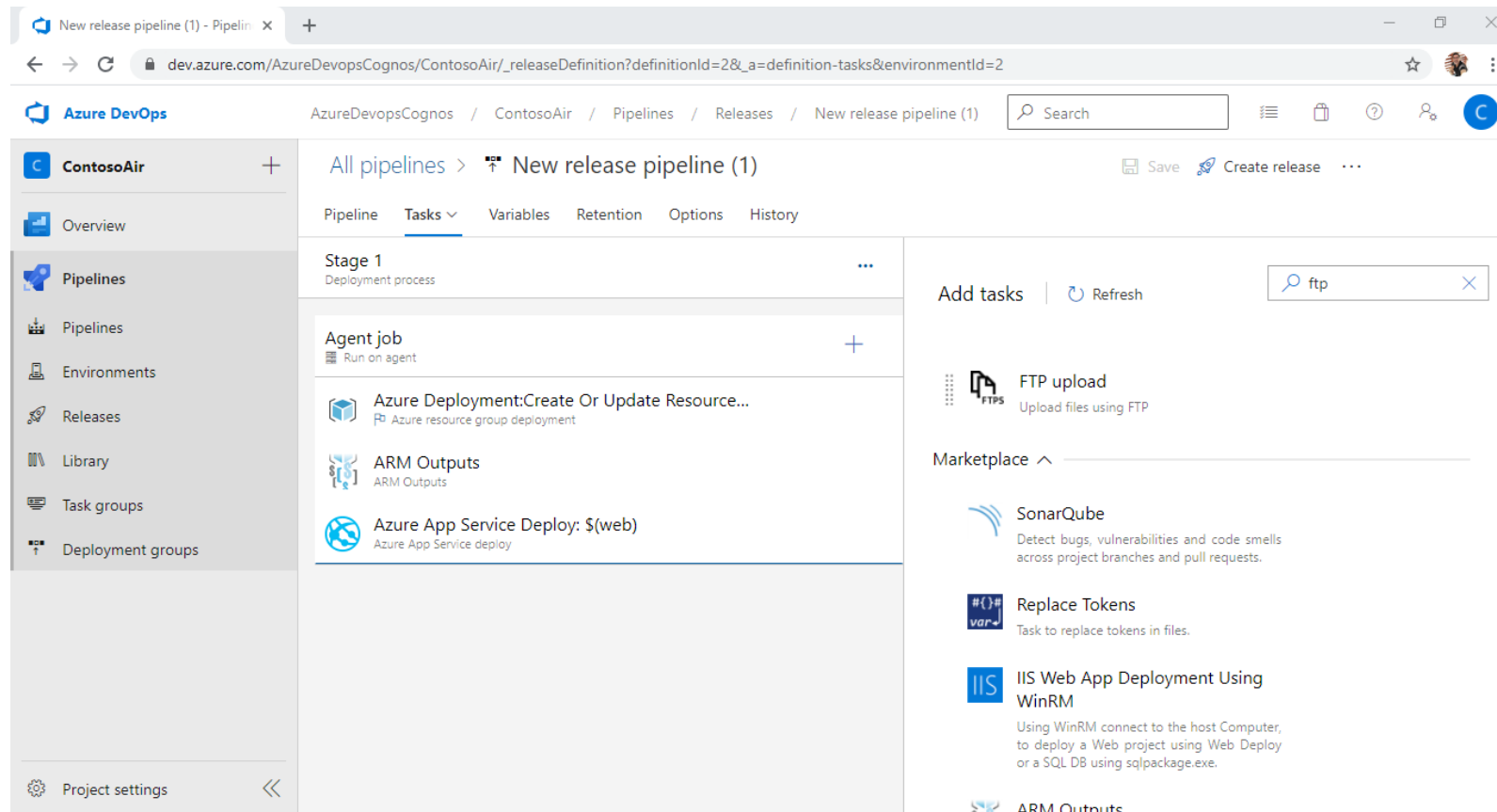
- FTP y Azure Devops
- Pipeline de Entrega Continua - CD
- Pipeline de Release Management
- Pull Request y Protección de Ramas



# Pipeline Azure Devops

- El pipeline tiene una estructura jerárquica
- Pipeline
  - Stage
    - Job
      - tasks

# FTP y Azure Devops



The screenshot displays the Azure DevOps web interface for configuring a new release pipeline. The browser address bar shows the URL: `dev.azure.com/AzureDevOpsCognos/ContosoAir/_releaseDefinition?definitionId=2&a=definition-tasks&environmentId=2`. The interface includes a left-hand navigation pane with options like Overview, Pipelines, Environments, Releases, Library, Task groups, and Deployment groups. The main area is titled "New release pipeline (1)" and shows "Stage 1" with a "Deployment process" agent job. Below this, three tasks are listed: "Azure Deployment: Create Or Update Resource...", "ARM Outputs", and "Azure App Service Deploy: \$(web)". On the right, the "Add tasks" section is active, showing a search bar with "ftp" entered. Below the search bar, the "Marketplace" section lists several tasks: "FTP upload" (Upload files using FTP), "SonarQube" (Detect bugs, vulnerabilities and code smells across project branches and pull requests), "Replace Tokens" (Task to replace tokens in files), "IIS Web App Deployment Using WinRM" (Using WinRM connect to the host Computer, to deploy a Web project using Web Deploy or a SQL DB using sqlpackage.exe), and "ARM Outputs".



New release pipeline (1) - Pipeline x

dev.azure.com/AzureDevopsCognos/ContosoAir/\_releaseDefinition?definitionId=2&a=definition-tasks&environmentId=2

Azure DevOps

AzureDevopsCognos / ContosoAir / Pipelines / Releases / New release pipeline (1)

Search

Save Create release

ContosoAir

Overview

Pipelines

Pipelines

Environments

Releases

Library

Task groups

Deployment groups

Project settings

All pipelines > New release pipeline (1)

Pipeline Tasks Variables Retention Options History

Stage 1  
Deployment process

Agent job  
Run on agent

Azure Deployment:Create Or Update Resource...  
Azure resource group deployment

ARM Outputs  
ARM Outputs

Azure App Service Deploy: \$(web)  
Azure App Service deployment

FTP Upload:  
Some settings need attention

FTP upload

Task version 2.\*

Display name \*  
FTP Upload:

Authentication Method \*  
FTP service connection

FTP Service Connection \*  
This setting is required.

Root folder \*  
This setting is required.

View YAML Remove



# FTP Task YAML

- <https://docs.microsoft.com/en-us/azure/devops/pipelines/tasks/utility/ftp-upload?view=azure-devops>

## YAML snippet

```
YAML Copy
# FTP upload
# Upload files using FTP
- task: FtpUpload@2
  inputs:
    #credentialsOption: 'serviceEndpoint' # Options: serviceEndpoint, i
    #serverEndpoint: # Required when credentialsOption == ServiceEndpoi
    #serverUrl: # Required when credentialsOption == Inputs
    #username: # Required when credentialsOption == Inputs
    #password: # Required when credentialsOption == Inputs
    rootDirectory:
    #filePatterns: '**'
    #remoteDirectory: '/upload/$(Build.BuildId)/'
    #clean: false
    #cleanContents: false # Required when clean == False
    #preservePaths: false
    #trustSSL: false
```



# Pipeline de Entrega Continua - CD

- Por lo general, la **entrega continua** se refiere a los cambios que implementa un desarrollador en una aplicación, a los que se les realizan pruebas de errores automáticas y que se cargan en un repositorio (como GitHub o un registro de contenedor), para que luego el equipo de operaciones pueda implementarlos en un entorno de producción en vivo.
- La CD Es una solución al problema de la **poca visibilidad y comunicación entre los equipos comerciales y de desarrollo**. Con ese fin, el propósito de la distribución continua es garantizar que la implementación del código nuevo se lleve a cabo con el mínimo esfuerzo.



- La entrega continua se automatiza en Azure DevOps usando pipeline

The screenshot displays the Azure DevOps web interface for a pipeline named 'Pipeline CD ContosoAir'. The browser address bar shows the URL: `dev.azure.com/AzureDevOpsCognos/ContosoAir/_releaseDefinition?definitionId=2&a=definition-pipeline`. The interface includes a left-hand navigation pane with options like Overview, Pipelines, Environments, Releases, Library, Task groups, and Deployment groups. The main content area shows the pipeline configuration with tabs for Pipeline, Tasks, Variables, Retention, Options, and History. The 'Pipeline' tab is active, showing a visual representation of the pipeline. It includes an 'Artifacts' section with a build artifact named '\_ContosoAir-CI' and a 'Stages' section with 'Stage 1' (1 job, 3 tasks). A 'Schedule not set' indicator is also visible. The top right of the interface features a search bar and user profile icons.



# Pipeline de Release Management



Releases - Pipelines

dev.azure.com/AzureDevopsCognos/ContosoAir/\_release?\_a=releases&view=mine&definitionId=2

Azure DevOps

AzureDevopsCognos / ContosoAir / Pipelines / Releases

Search

ContosoAir

Overview

Pipelines

Pipelines

Environments

Releases

Library

Task groups

Deployment groups

Project settings

Search all pipelines

+ New

Pipeline CD ContosoAir

Stage 1

New release pipeline

No deployments found

Pipeline CD ContosoAir

Edit Create release

Releases Deployments Analytics

All releases

Releases	Created	Stages
Release-4 20201119.... master	19/11/2020 11:07:14	Stage 1
Release-3 20201119.... master	19/11/2020 10:56:15	Stage 1
Release-2 20201119.... master	19/11/2020 10:52:28	Stage 1
Release-1 20201119.... master	19/11/2020 10:48:14	Stage 1



# Pull Request y Protección de Ramas

- Se accede a las ramas desde una cuenta de GitHub

The screenshot displays the Azure DevOps web interface. The left sidebar shows the navigation menu with 'Pipelines' selected. The main content area shows the results of a pipeline run titled '#20201119.2 Merge branch 'master' of https://github.com/jbossgroup/ContosoAir'. The pipeline was triggered by 'jbossgroup' and is in a 'Success' state. The 'Jobs' section shows a single job named 'Job' that completed successfully in 53 seconds. The 'Summary' tab is active, showing details about the repository, time, and related items.

**#20201119.2 Merge branch 'master' of https://github.com/jbossgroup/ContosoAir**  
on jbossgroup.ContosoAir Retained

**Summary** Releases

Triggered by jbossgroup [View 2 changes](#)

Repository and version	Time started and elapsed	Related	Tests and coverage
jbossgroup/ContosoAir master 73c09bb	Today at 10:10 1m 1s	0 work items 1 published	<a href="#">Get started</a>

**Jobs**

Name	Status	Duration
Job	Success	53s



...

github.com/jbossgroup/ContosoAir

github.com/jbossgroup/ContosoAir

Search or jump to... Pull requests Issues Marketplace Explore

Learn Git and GitHub without any code!  
Using the Hello World guide, you'll start a branch, write comments, and open a pull request.  
[Read the guide](#)

jbossgroup / ContosoAir  
forked from microsoft/ContosoAir

Watch 0 Star 0 Fork 786

<> Code Pull requests Actions Projects Wiki Security Insights Settings

master 5 branches 0 tags  
This branch is 4 commits ahead of microsoft:master. Pull request Compare

jbossgroup Updated build pipeline ✓ 70e2bbf 2 hours ago 28 commits

deployment	Update azuredeploy.json	2 years ago
locales	First commit	2 years ago
public	First commit	2 years ago
scss	First commit	2 years ago
src	Update book.form.service.js	2 years ago

About  
Source code repository for ContosoAir application  
Readme  
MIT License

Releases  
No releases published  
[Create a new release](#)

Packages

# Credenciales de Git



The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left displays the file structure of a project named 'CONTOSO-AIR', including files like 'app.js', 'front.js', 'package-lock.json', 'package.json', 'README.md', 'server.js', 'web.config', and 'webpack.config.js'. The main editor area is open to 'azure-pipelines.yml', which contains the following YAML configuration:

```
1 vmImage: ubuntu-16.04
2 trigger:
3   - master
4 steps:
5   - task: Npm@1
6     inputs:
7       command: 'custom'
8       customcommand: 'install --production'
9   - script: |
10     npm install
11     npm test
12     displayName: 'Run unit tests'
13   - task: PublishTestResults@2
14     continueOnError: true
```

Below the editor, the TERMINAL panel is active, showing the output of the 'git config --list' command in a Windows command prompt:

```
Daddy@Daddy-PC MINGW64 /c/ContosoAir (master)
$ git config --list
diff.astextplain.textconv=astextplain
filter.lfs.clean=git-lfs clean -- %f
filter.lfs.smudge=git-lfs smudge -- %f
filter.lfs.process=git-lfs filter-process
filter.lfs.required=true
http.sslbackend=openssl
http.sslcainfo=C:/Program Files/Git/mingw64/ssl/certs/ca-bundle.crt
core.autocrlf=true
core.fscache=true
core.symlinks=false
credential.helper=manager
pull.rebase=false
user.name=jbossigroup
```

The status bar at the bottom indicates the current branch is 'master' and shows other icons for file encoding and search.

# Administración de Credenciales Windows 10



Administrador de credenciales


Panel de control > Cuentas de usuario > Administrador de credenciales


Buscar en el Panel de control

Ventana principal del Panel de control

## Administrar credenciales

Vea y elimine su información de inicio de sesión guardada para sitios web, redes y aplicaciones conectadas.

 **Credenciales web**

 **Credenciales de Windows**

[Copia de seguridad de credenciales](#) [Restaurar credenciales](#)

**Credenciales de Windows** [Agregar una credencial de Windows](#)

No hay credenciales de Windows.

**Credenciales basadas en certificados** [Agregar una credencial basada en certificado](#)

No hay certificados.

**Credenciales genéricas** [Agregar una credencial genérica](#)

HDInsight on VSCode/http://192.168.56.105:8998admin	Fecha de modificación: 17/07/2020	⌵
MongoDB Compass/Connections/d3295258-15ef-4be...	Fecha de modificación: 01/09/2020	⌵
Tableau:public.tableau.comccarreno@bamtech.com.pe	Fecha de modificación: 07/08/2020	⌵
Tableau:public.tableau.comccarrenovi@gmail.com	Fecha de modificación: 05/08/2020	⌵
git:https://AzureDevopsCognosCCarreno@dev.azure.c...	Fecha de modificación: 12/11/2020	⌵
git:https://github.com	Fecha de modificación: Hoy	⌵
Microsoft_PaidConnectivity_WiFi_AccessToken	Fecha de modificación: 04/06/2020	⌵
MicrosoftAccount:user=ccarrenovi@outlook.es	Fecha de modificación: Hoy	⌵

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Cuentas de usuario

# Laboratorio



- Lab 8 GitHub integration with Azure Pipelines
- Lab 9 GitHub integration with Azure Boards