Integração Contínua

AUTOMATIZAÇÃO DE BUILDS PARA APLICAÇÕES .NET FRAMEWORK





Integração Contínua

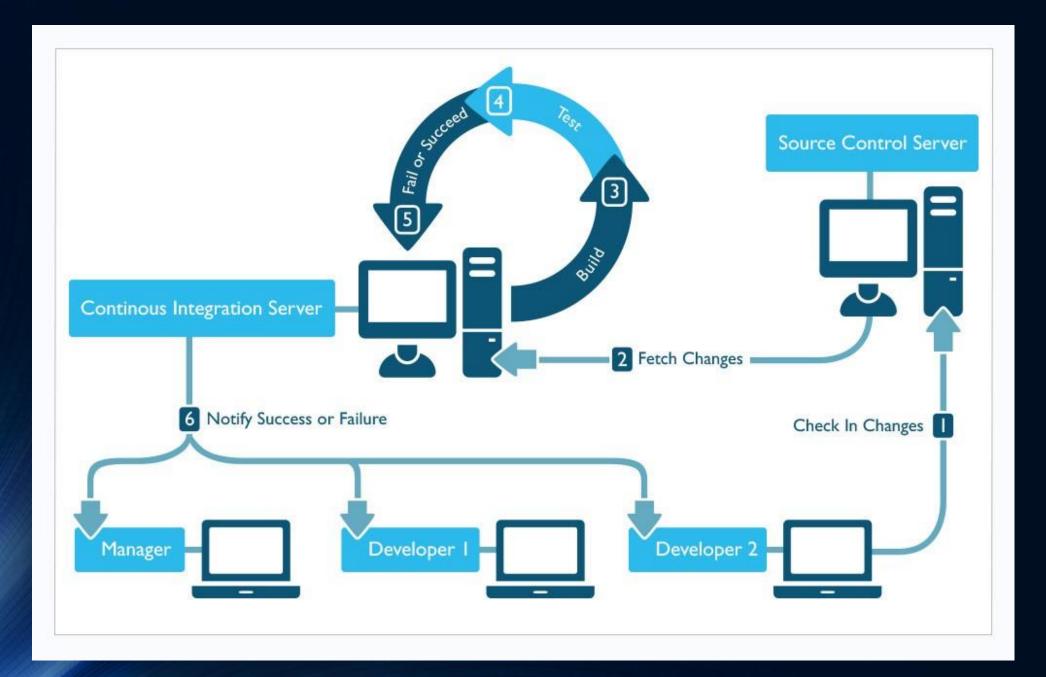


Integração Contínua (motivação)

"Os desenvolvedores de software frequentemente trabalham de forma isolada e posteriormente precisam integrar as suas alterações com o restante do time.

Esperar dias ou semanas para integração do código frequentemente decorre em diversos conflitos de merges, bugs difíceis de serem corrigidos, diferentes estratégias de codificação e esforços duplicados."

Sam Guckenheimer



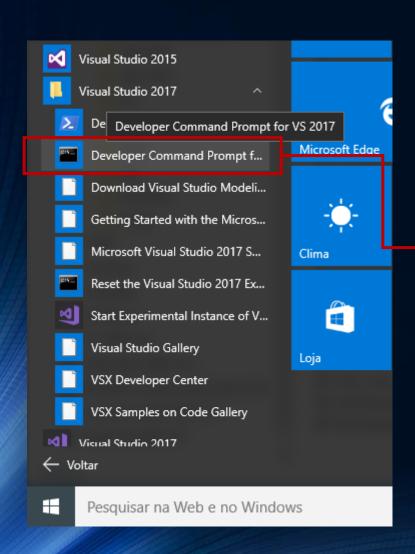
Integração Contínua (definição)

"Integração Contínua é uma pratica de desenvolvimento de software onde os membros de um time integram seu trabalho frequentemente, geralmente cada pessoa integra pelo menos uma vez ao dia – podendo haver múltiplas integrações por dia. Cada integração é verificada por um build automatizado (incluindo testes) para detectar erros de integração o mais rápido possível. Muitos times acham que essa abordagem leva a uma significante redução nos problemas de integração e permite que um time desenvolva software coeso mais rapidamente."

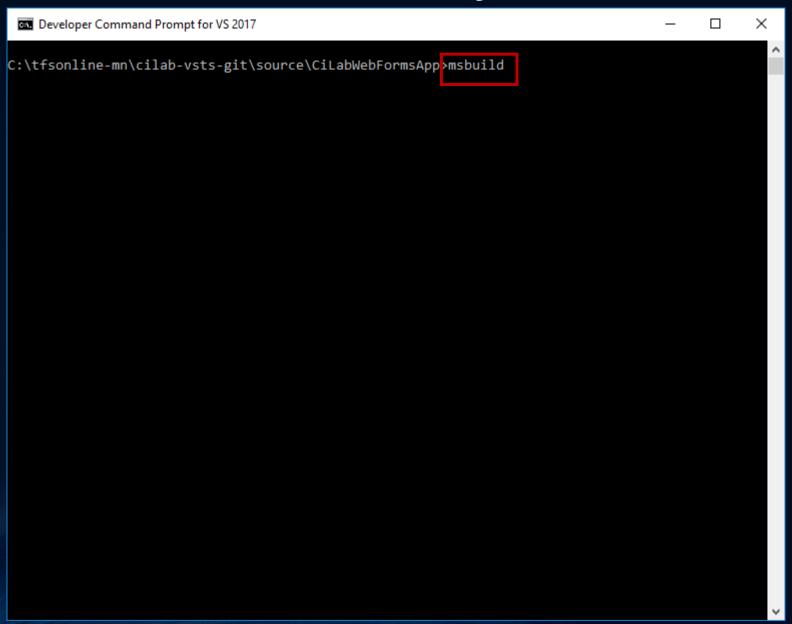
Martin Fowler

Integração Contínua





Developer Command Prompt for VS 2017 C:\tfsonline-mn\cilab-vsts-git\source\CiLabWebFormsApp>csc /out:CiLabWebFormsApp.dll /target:l ibrary /reference:..\packages\Microsoft.CodeDom.Providers.DotnetcompilerPlatform.1.0.3\lib\net 45\Microsoft.CodeDom.Providers.DotNetCompilerPlatform.dll /reference:..\packages\Microsoft.Web .Infrastructure.1.0.0.0\lib\net40\Microsoft.Web.Infrastructure.dll /reference:..\packages\AspN et.ScriptManager.bootstrap.3.0.0\lib\net45\AspNet.ScriptManager.bootstrap.dll /reference:..\pa ckages\AspNet.ScriptManager.jQuery.1.10.2\lib\net45\AspNet.ScriptManager.jQuery.dll /reference ...\packages\Microsoft.AspNet.ScriptManager.MSAjax.5.0.0\lib\net45\Microsoft.ScriptManager.MSA jax.dll /reference:..\packages\Microsoft.AspNet.ScriptManager.WebForms.5.0.0\lib\net45\Microso ft.ScriptManager.WebForms.dll /reference:..\packages\Microsoft.AspNet.Web.Optimization.1.1.3\l ib\net40\System.Web.Optimization.dll /reference:..\packages\WebGrease.1.5.2\lib\WebGrease.dll /reference:..\packages\Antlr.3.4.1.9004\lib\Antlr3.Runtime.dll /reference:..\packages\Microsof t.AspNet.Web.Optimization.WebForms.1.1.3\lib\net45\Microsoft.AspNet.Web.Optimization.WebForms. dll /reference:..\packages\Microsoft.AspNet.FriendlyUrls.Core.1.0.2\lib\net45\Microsoft.AspNet .FriendlyUrls.dll /reference:..\packages\Newtonsoft.Json.6.0.4\lib\net45\Newtonsoft.Json.dll reference:..\packages\Microsoft.ApplicationInsights.2.2.0\lib\net45\Microsoft.ApplicationInsig hts.dll /reference:..\packages\Microsoft.ApplicationInsights.Agent.Intercept.2.0.6\lib\net45\M icrosoft.AI.Agent.Intercept.dll /reference:..\packages\Microsoft.ApplicationInsights.Dependenc vCollector.2.2.0\lib\net45\Microsoft.AI.DependencyCollector.dll /reference:..\packages\Microso ft.ApplicationInsights.PerfCounterCollector.2.2.0\lib\net45\Microsoft.AI.PerfCounterCollector. dll /reference:..\packages\Microsoft.ApplicationInsights.WindowsServer.TelemetryChannel.2.2.0\ lib\net45\Microsoft.AI.ServerTelemetryChannel.dll /reference:..\packages\Microsoft.Application Insights.WindowsServer.2.2.0\lib\net45\Microsoft.AI.WindowsServer.dll /reference:..\packages\M icrosoft.ApplicationInsights.Web.2.2.0\lib\net45\Microsoft.AI.Web.dll *.cs App Start*.cs Microsoft (R) Visual C# Compiler version 2.3.2.62019 (b7354608) Copyright (C) Microsoft Corporation. All rights reserved. C:\tfsonline-mn\cilab-vsts-git\source\CiLabWebFormsApp>dir CiLabWebFormsApp.dll O volume na unidade C não tem nome. O Número de Série do Volume é 1406-95ED Pasta de C:\tfsonline-mn\cilab-vsts-git\source\CiLabWebFormsApp 9.2.6 CiLabWebFormsApp.dll 25/09/2017 11:28 1 arquivo(s) 9.216 bytes



```
Developer Command Prompt for VS 2017
 Copiando o arquivo de "C:\tfsonline-mn\cilab-vsts-git\source\packages\Microsoft.Net.Compile /
 rs.1.3.2\tools\System.IO.FileSystem.dll" para "bin\roslyn\System.IO.FileSystem.dll".
 Copiando o arquivo de "C:\tfsonline-mn\cilab-vsts-git\source\packages\Microsoft.Net.Compile
 rs.1.3.2\tools\System.IO.FileSystem.Primitives.dll" para "bin\roslyn\System.IO.FileSystem.P
 rimitives.dll".
 Copiando o arquivo de "C:\tfsonline-mn\cilab-vsts-git\source\packages\Microsoft.Net.Compile
 rs.1.3.2\tools\System.Reflection.Metadata.dll" para "bin\roslyn\System.Reflection.Metadata.
 dll".
 Copiando o arquivo de "C:\tfsonline-mn\cilab-vsts-git\source\packages\Microsoft.Net.Compile
 rs.1.3.2\tools\vbc.exe" para "bin\roslyn\vbc.exe".
 Copiando o arquivo de "C:\tfsonline-mn\cilab-vsts-git\source\packages\Microsoft.Net.Compile
 rs.1.3.2\tools\vbc.exe.config" para "bin\roslyn\vbc.exe.config".
 Copiando o arquivo de "C:\tfsonline-mn\cilab-vsts-git\source\packages\Microsoft.Net.Compile
 rs.1.3.2\tools\vbc.rsp" para "bin\roslyn\vbc.rsp".
 Copiando o arquivo de "C:\tfsonline-mn\cilab-vsts-git\source\packages\Microsoft.Net.Compile
 rs.1.3.2\tools\VBCSCompiler.exe" para "bin\roslyn\VBCSCompiler.exe".
 Copiando o arquivo de "C:\tfsonline-mn\cilab-vsts-git\source\packages\Microsoft.Net.Compile
 rs.1.3.2\tools\VBCSCompiler.exe.config" para "bin\roslyn\VBCSCompiler.exe.config".
CopyAppConfigFile:
 Copiando o arquivo de "Web.config" para "bin\CiLabWebFormsApp.dll.config".
CopyFilesToOutputDirectory:
 Copiando o arquivo de "obj\Debug\CiLabWebFormsApp.dll" para "bin\CiLabWebFormsApp.dll".
 CiLabWebFormsApp -> C:\tfsonline-mn\cilab-vsts-git\source\CiLabWebFormsApp\bin\CiLabWebForm
 sApp.dll
 Copiando o arquivo de "obj\Debug\CiLabWebFormsApp.pdb" para "bin\CiLabWebFormsApp.pdb".
Projeto de compilação pronto "C:\tfsonline-mn\cilab-vsts-git\source\CiLabWebFormsApp\CiLabWeb
FormsApp.csproj" (destinos padrão).
Compilação com êxito.
   0 Aviso(s)
   0 Erro(s)
Tempo Decorrido 00:00:03.66
C:\tfsonline-mn\cilab-vsts-git\source\CiLabWebFormsApp>_
```

```
Developer Command Prompt for VS 2017
                     (Forma abreviada: /pp)
                     Exemplo:
                       /pp:out.txt
 /detailedsummary
                    Mostra informações detalhadas ao final do build
                    sobre as configurações criadas e o modo como elas foram
                     agendadas para nós.
                     (Forma abreviada: /ds)
 @<file>
                     Insere as configurações de linha de comando com base em um arquivo de texto. F
                    vários arquivos de resposta, especifique cada arquivo de resposta
                    separadamente.
                    Qualquer arquivo de resposta chamado "msbuild.rsp" é automaticamente
                    consumido das seguintes localizações:
                     o diretório de msbuild.exe
                    (2) o diretório do primeiro projeto ou solução compilado
                    Não inclua nenhum arquivo MSBuild.rsp automaticamente. (Forma abreviada:
 /noautoresponse
                    /noautorsp)
 /nologo
                    Não exibe a faixa de inicialização e a mensagem de direitos autorais.
 /version
                     Exibe somente informações sobre versão. (Forma abreviada: /ver)
  /help
                    Exibe essa mensagem de uso. (Forma abreviada: /? ou /h)
Exemplos:
       MSBuild MyApp.sln /t:Rebuild /p:Configuration=Release
        MSBuild MyApp.csproj /t:Clean
                             /p:Configuration=Debug;TargetFrameworkVersion=v3.5
C:\tfsonline-mn\cilab-vsts-git\source\CiLabWebFormsApp>_
```

- /property:Configuration=Release
- /property:DeployOnBuild=true
- /property:PublishProfile=MyPublishProfile.pubxml

Integração Contínua

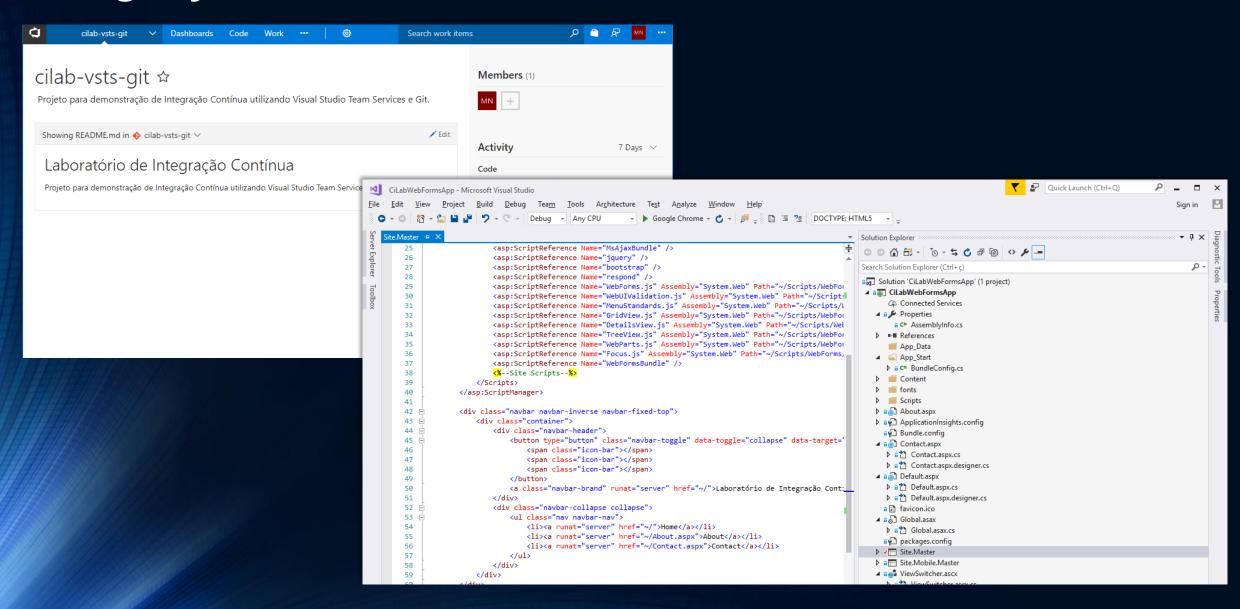


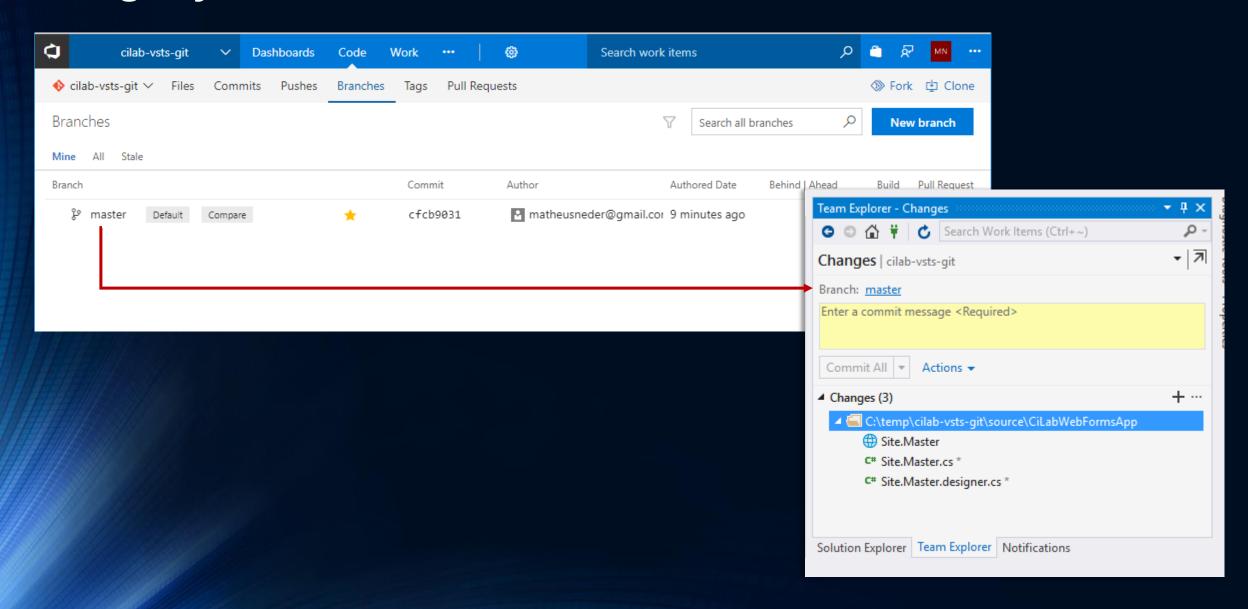
Visual Studio Team Services

Git

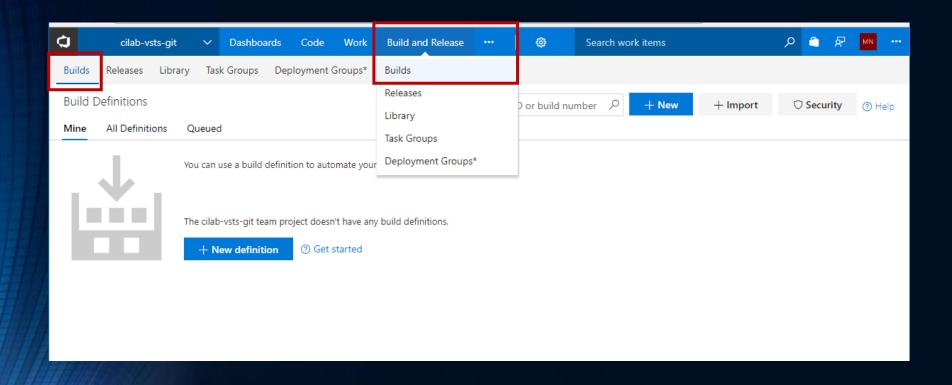
Terminologia (TFS vs. Git)

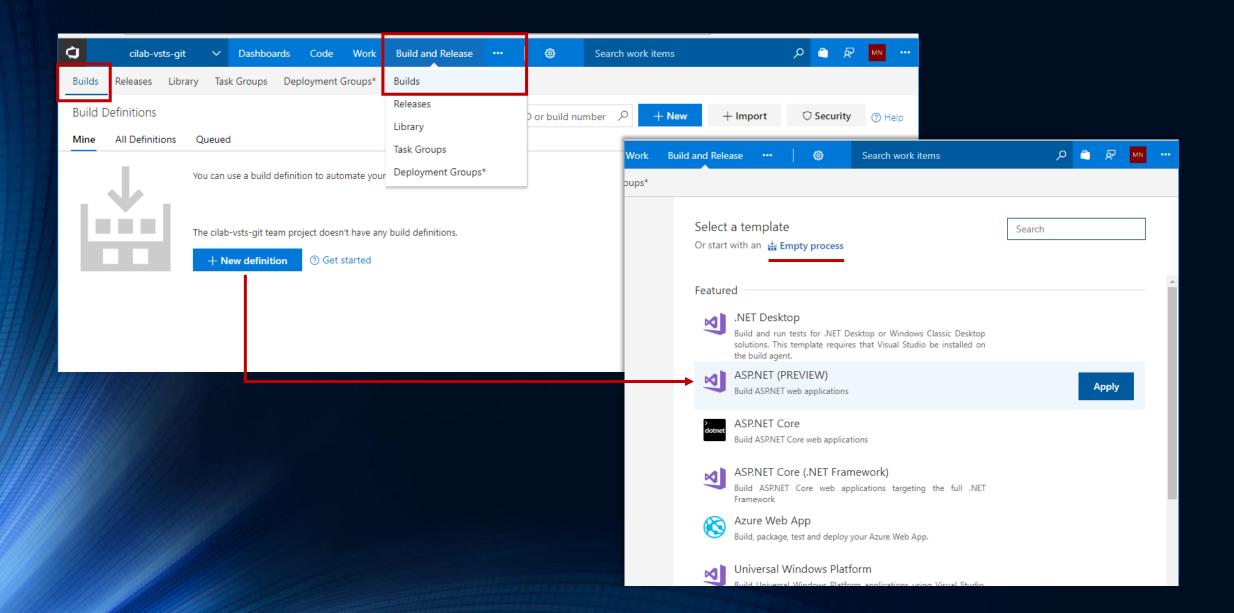
TFS	Git
Create workspace and get latest version	Clone
Switch workspace branch	Checkout
Checkin	Commit / Push
Pending changes	Status ou Changes no VS Team Explorer UI
Shelve	Stash
Get latest version	Pull
Label	Tag
Include changes	Stage
Exclude changes	Unstage
Branch	Branch
Merge	Merge / Rebase

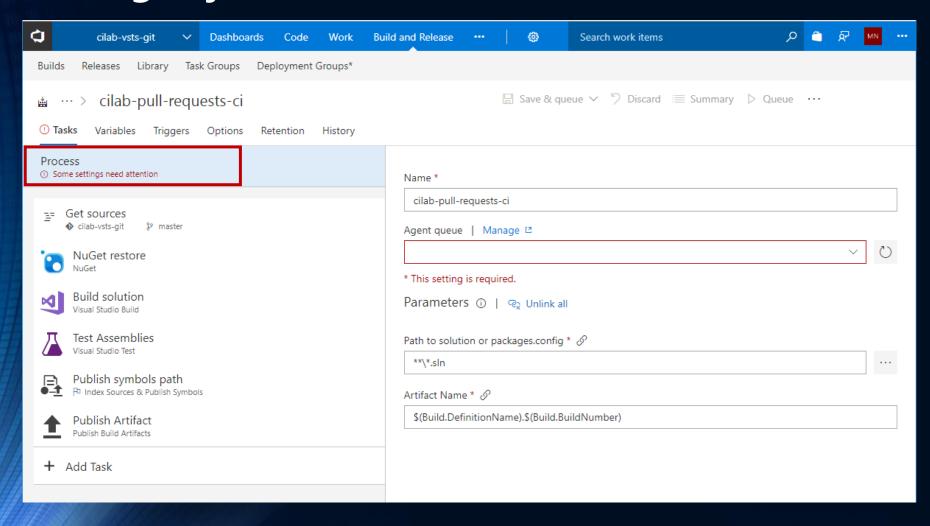


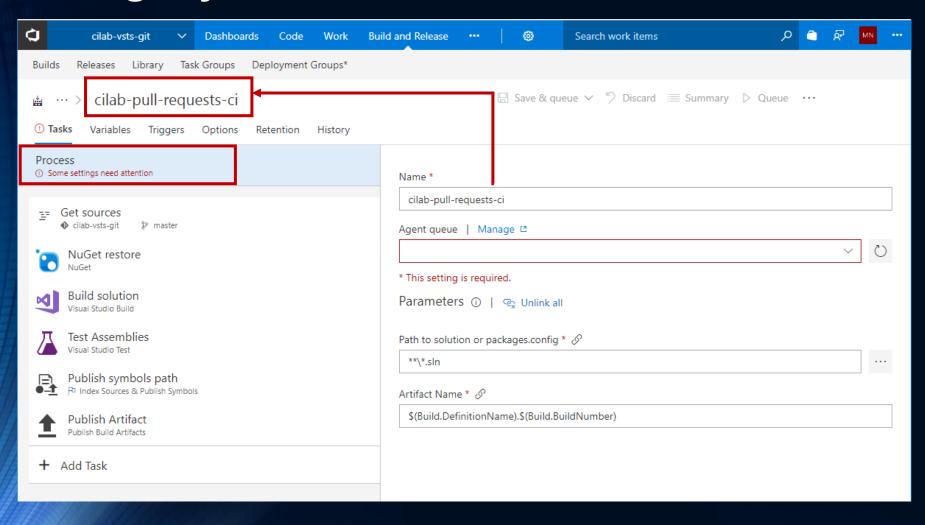


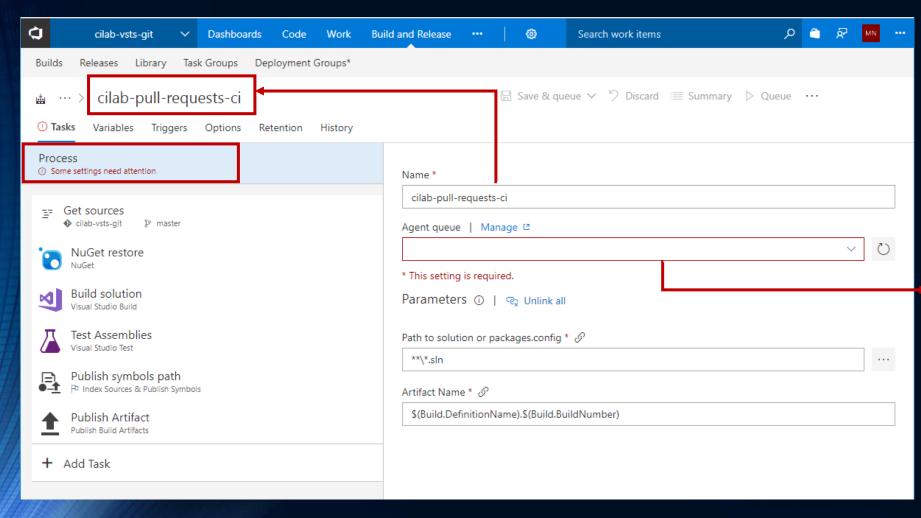
Definições de Build





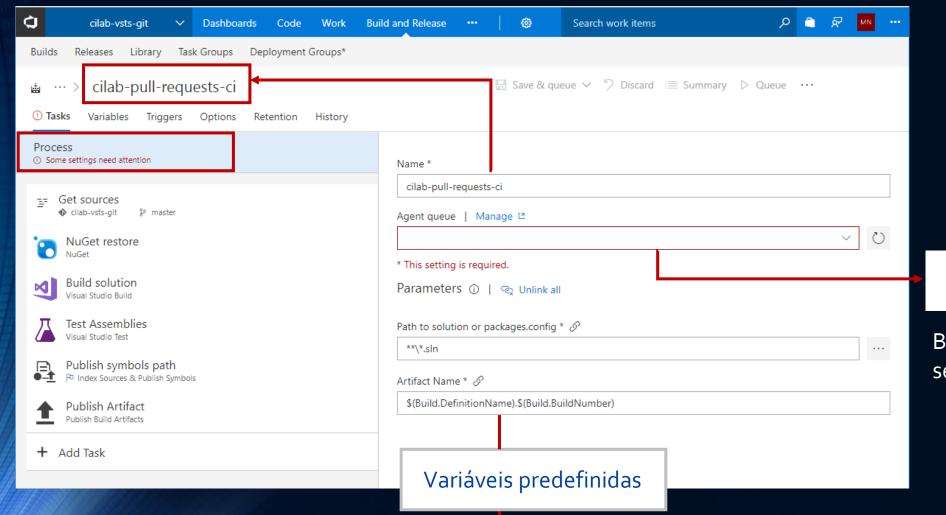






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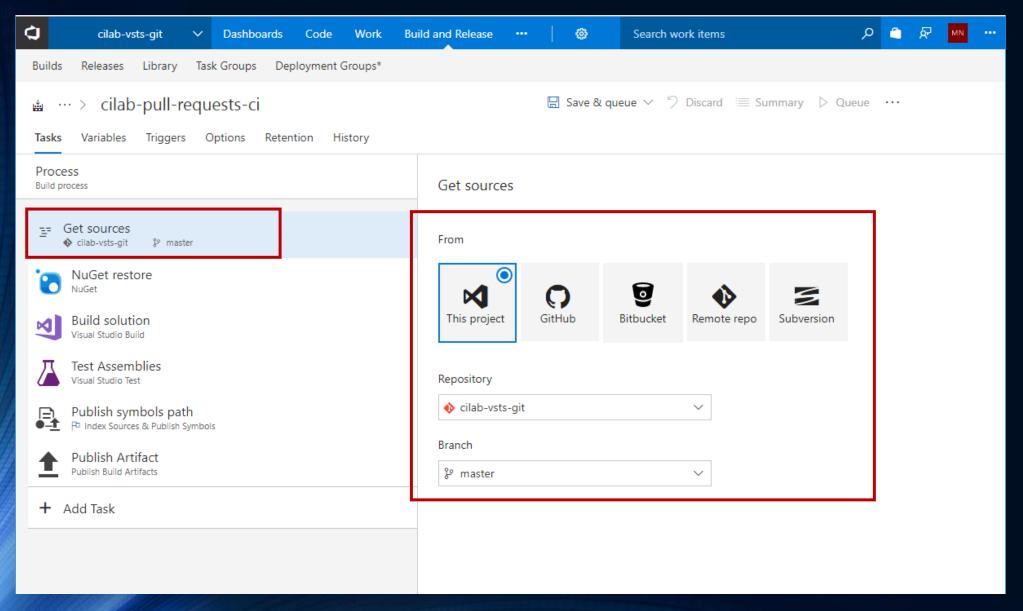
Builds executados nos servidores do VSTS (nuvem).

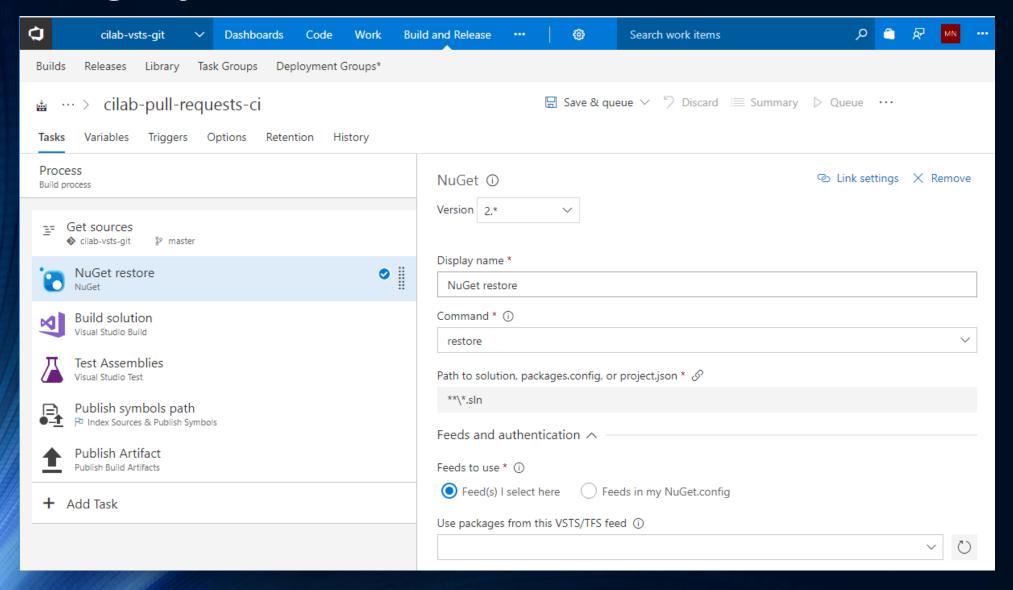


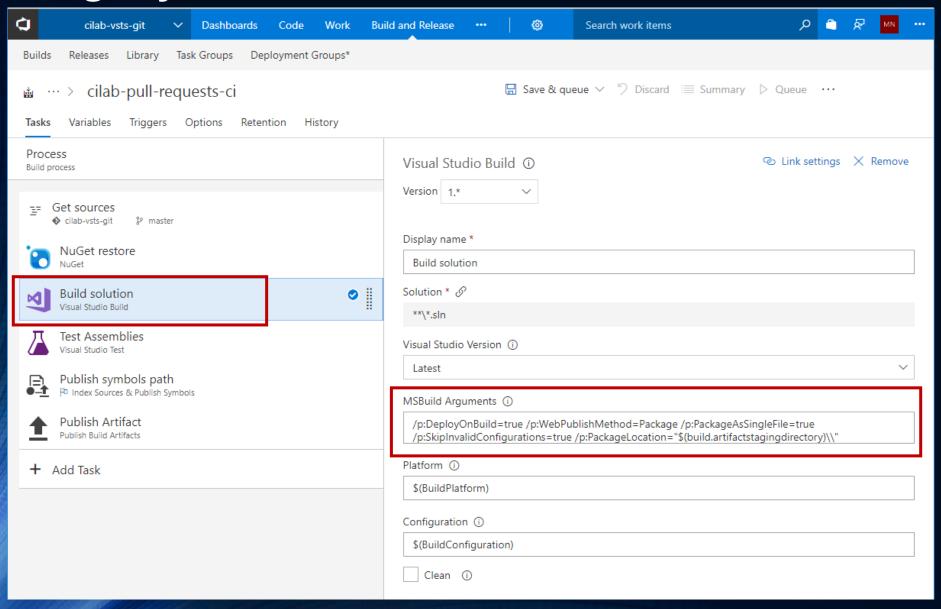
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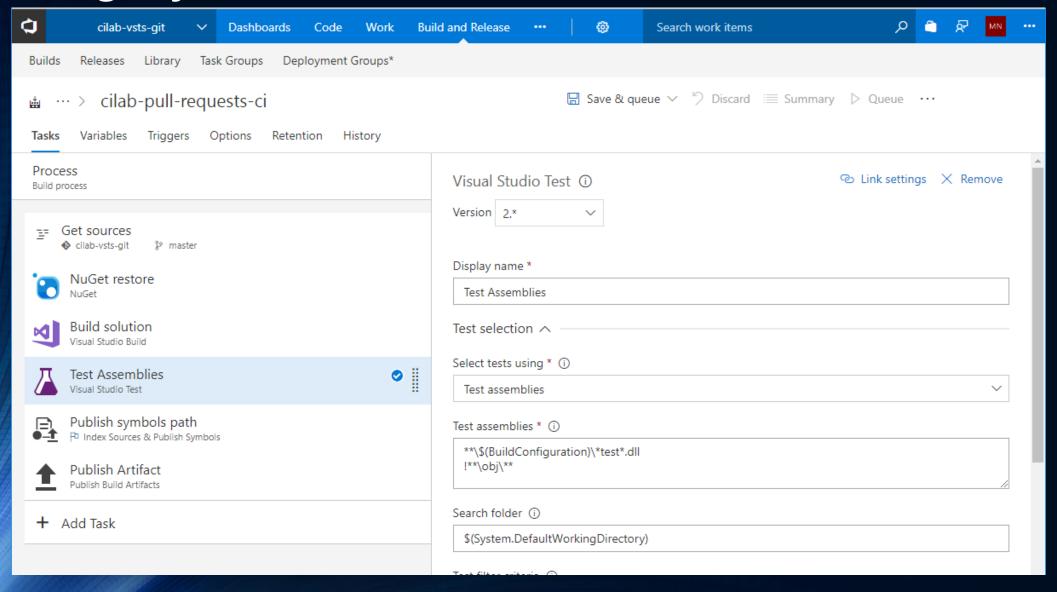
Builds executados nos servidores do VSTS (nuvem).

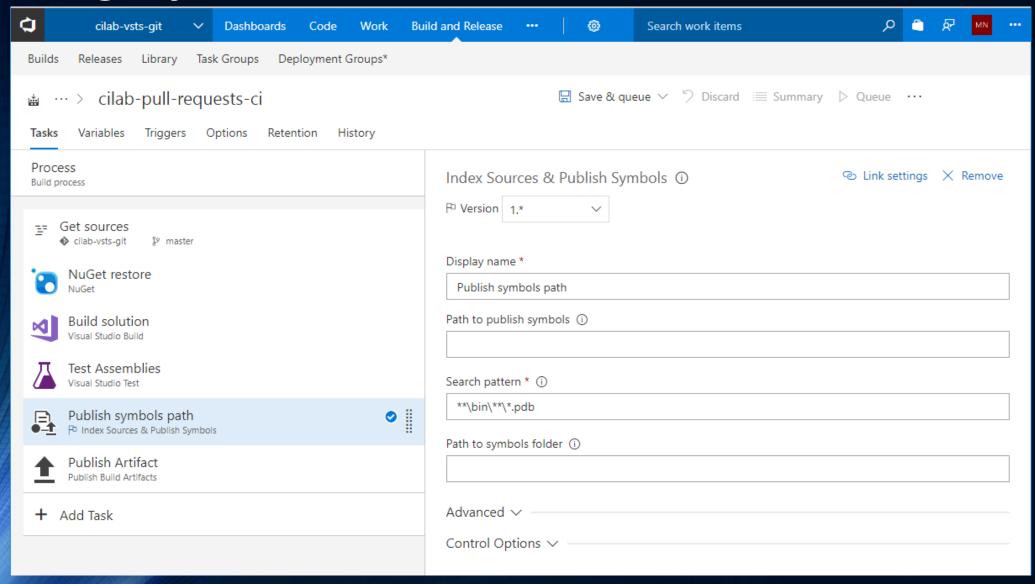
https://docs.microsoft.com/en-us/vsts/build-release/concepts/definitions/build/variables

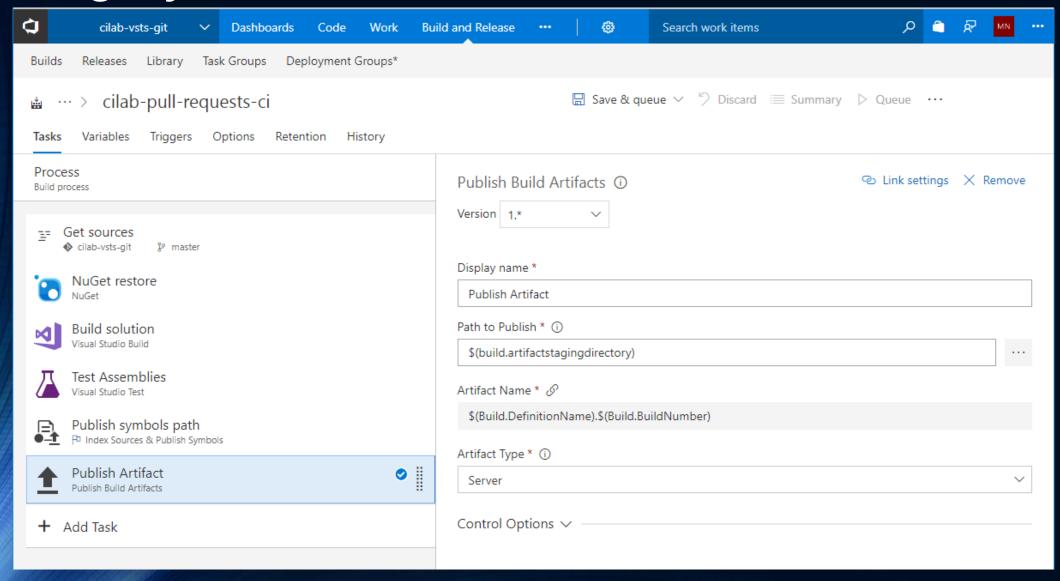


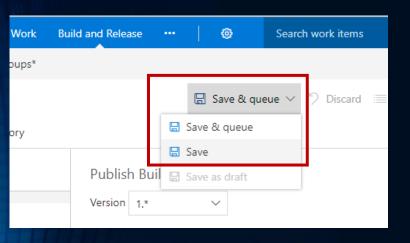


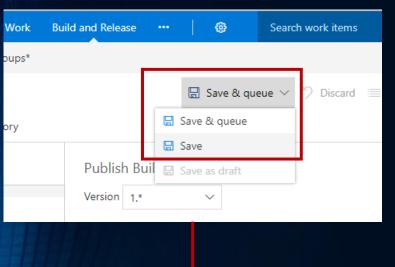


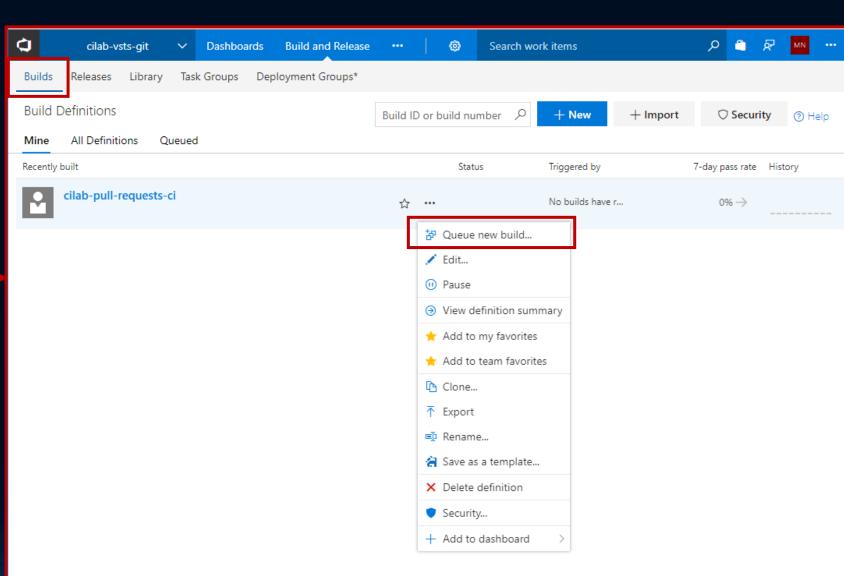


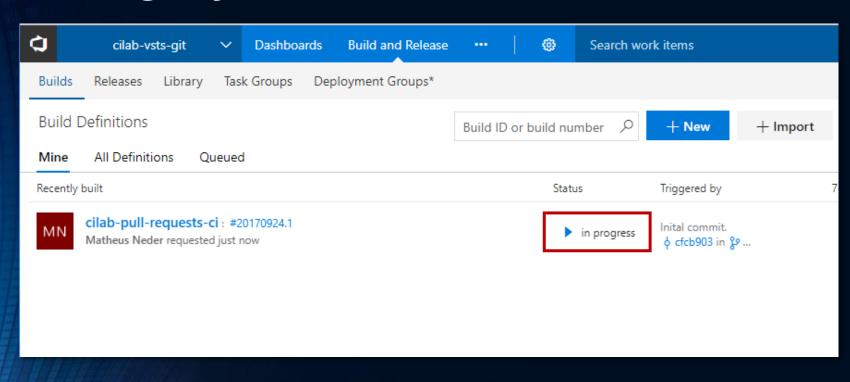


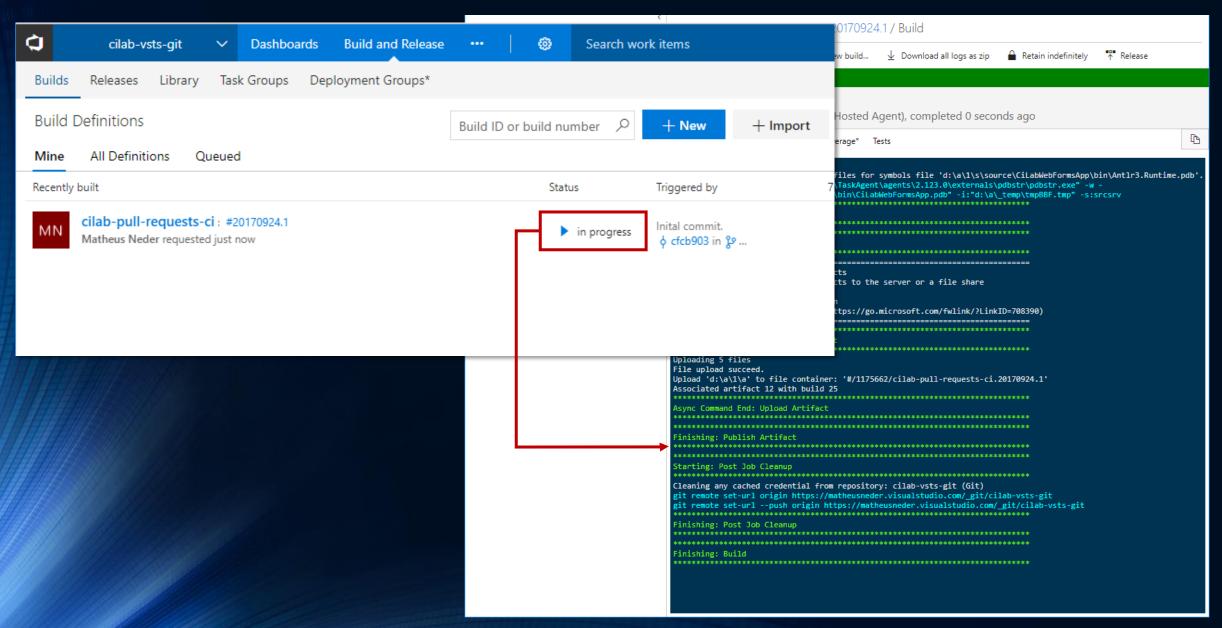


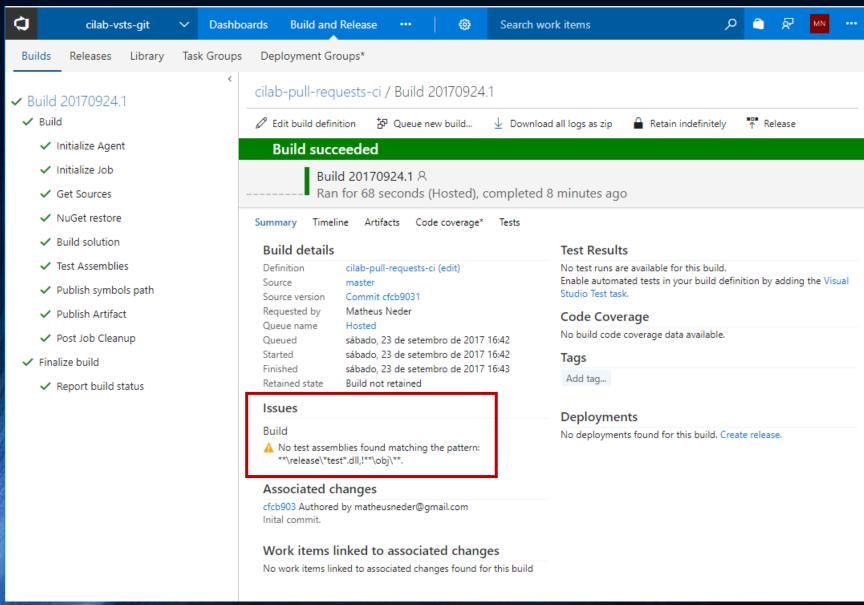


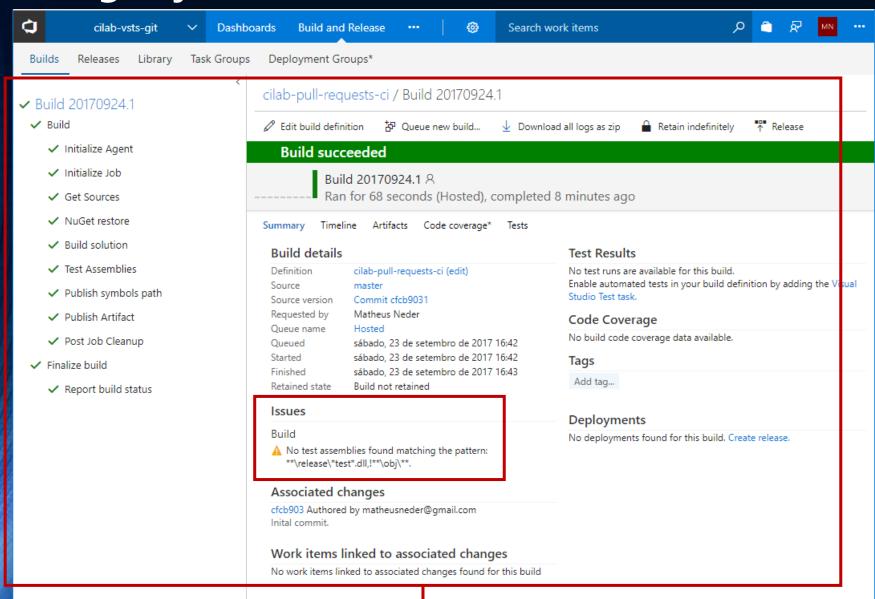




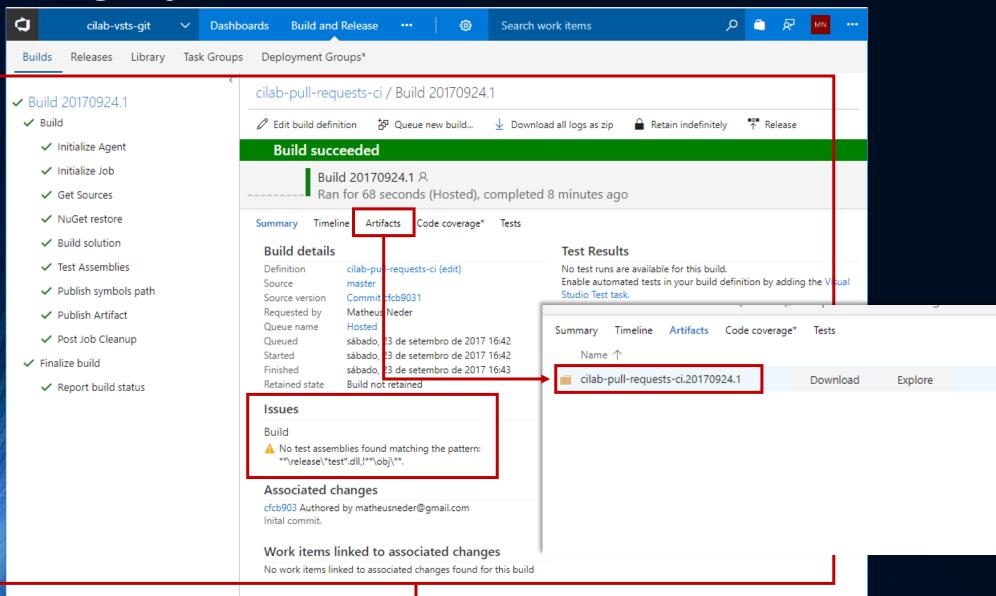




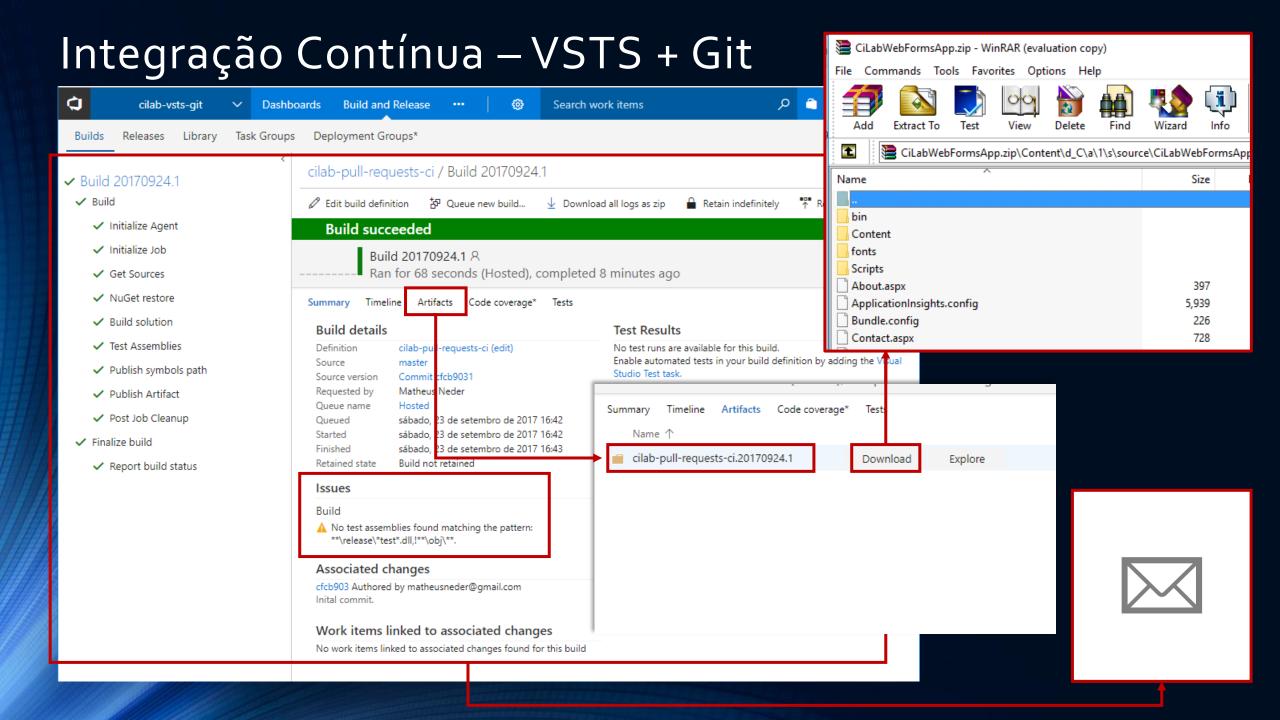




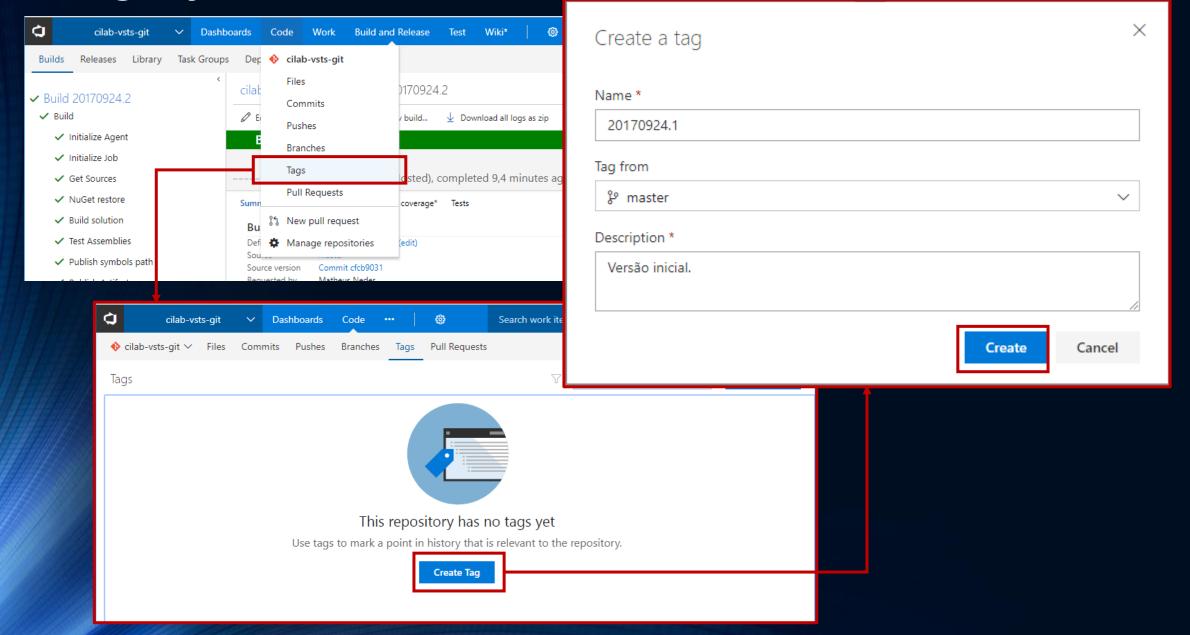


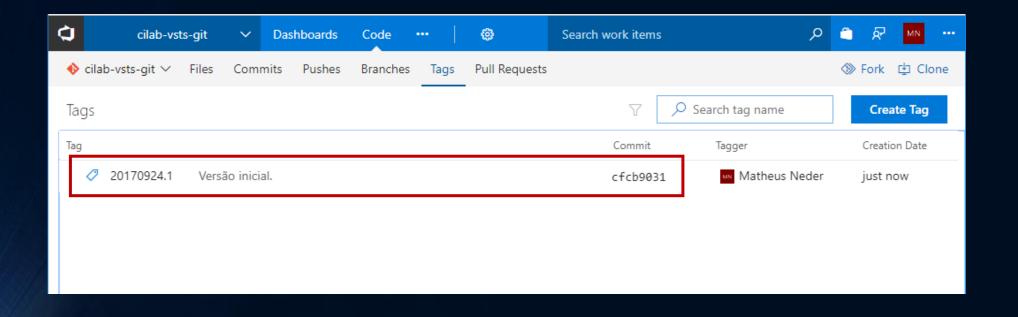




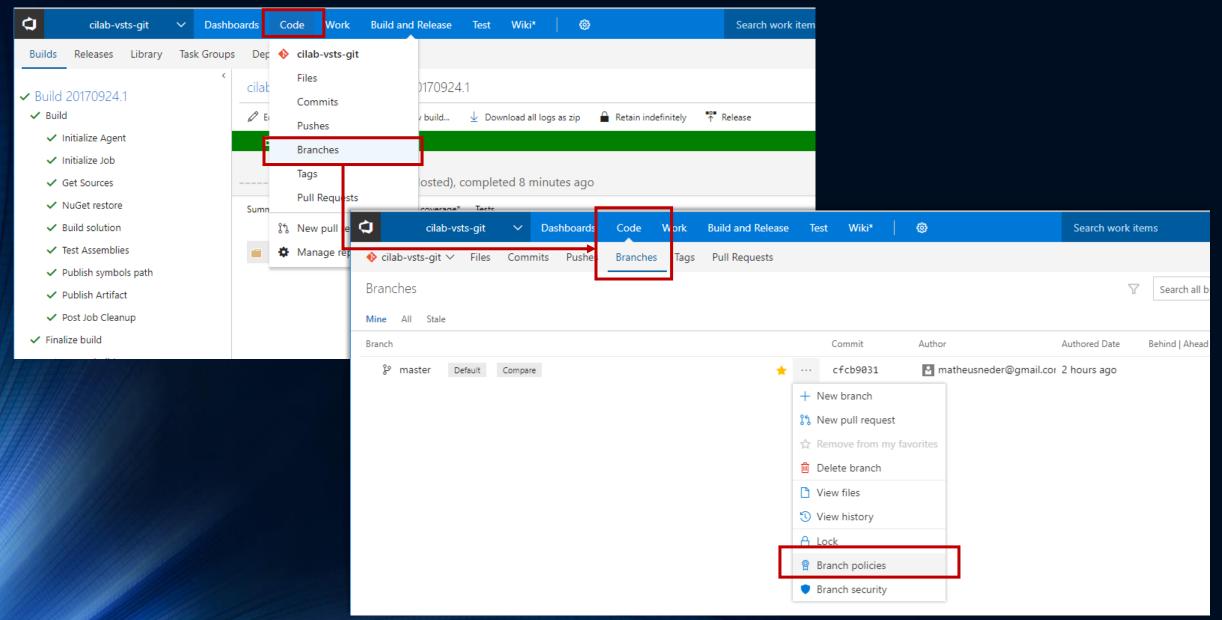


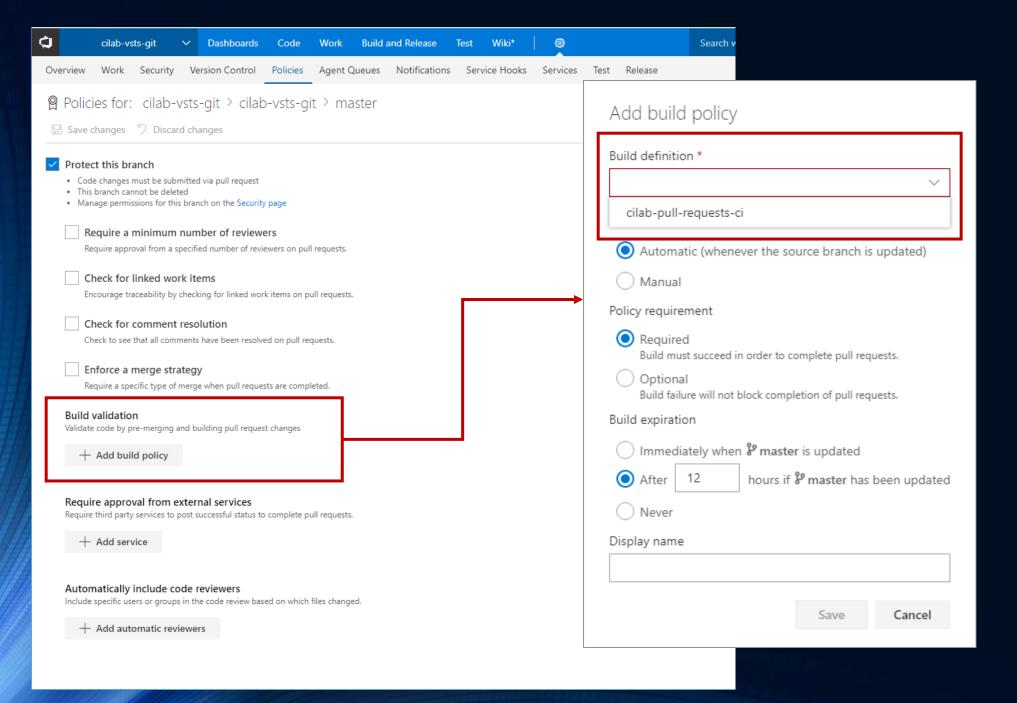
Tags





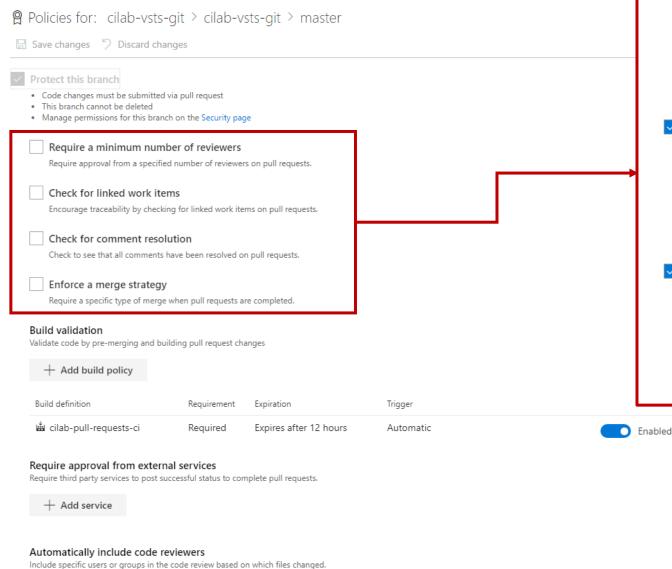
Proteção do ramo principal (master/trunk)





Policies for: cilab-vsts-git > cilab-vsts-git > master					
☐ Save changes					
 Protect this branch Code changes must be submitted via pull request This branch cannot be deleted Manage permissions for this branch on the Security page 					
Require a minimum number of reviewers Require approval from a specified number of reviewers on pull requests.					
Check for linked work items Encourage traceability by checking for linked work items on pull requests.					
Check for comment resolution Check to see that all comments have been resolved on pull requests.					
Enforce a merge strategy Require a specific type of merge when pull requests are completed.					
Build validation Validate code by pre-merging and building pull request changes					
+ Add build policy					
Build definition	Requirement	Expiration	Trigger		
📥 cilab-pull-requests-ci	Required	Expires after 12 hours	Automatic		Enabled
Require approval from external services Require third party services to post successful status to complete pull requests. + Add service					
Automatically include code reviewers Include specific users or groups in the code review based on which files changed.					
+ Add automatic reviewers					

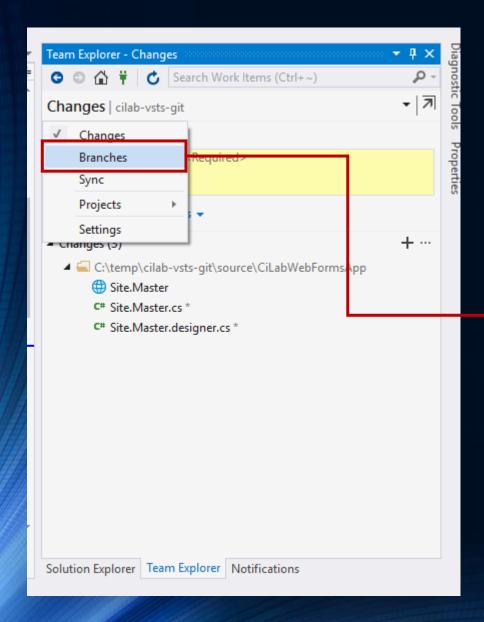
Integração Contínua – VS...

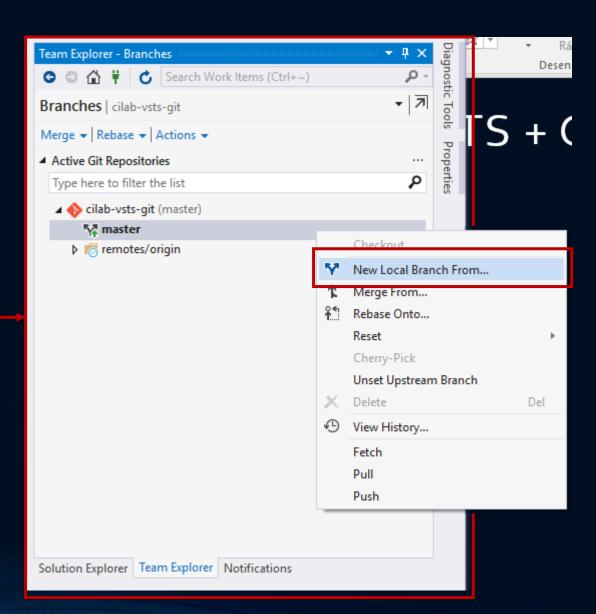


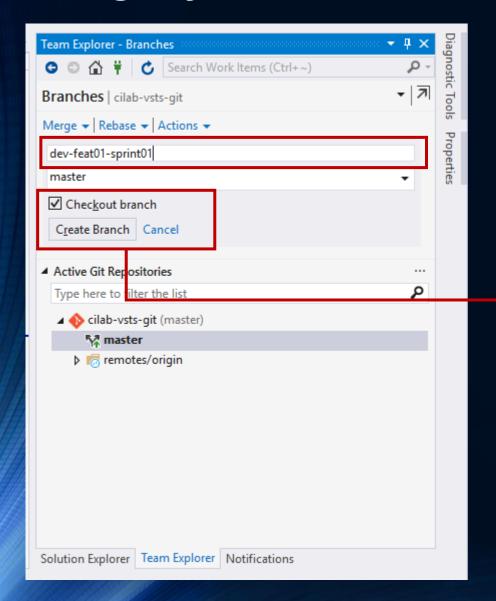
+ Add automatic reviewers

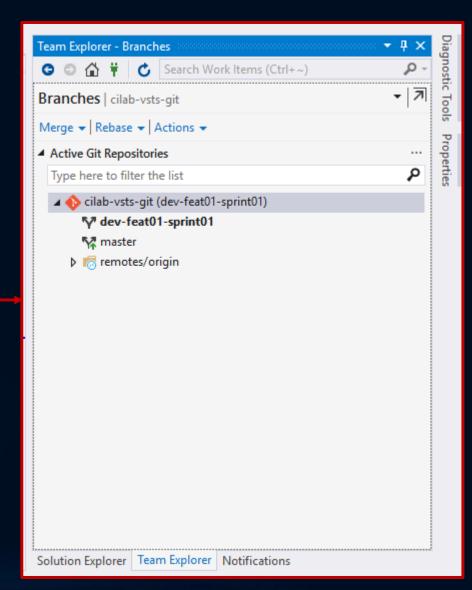
Require a minimum number of reviewers Require approval from a specified number of reviewers on pull requests. Minimum number of reviewers Allow users to approve their own changes. Allow completion even if some reviewers vote "Waiting" or "Reject". Reset code reviewer votes when there are new changes. Check for linked work items Encourage traceability by checking for linked work items on pull requests. Policy requirement Required Block pull requests from being completed unless they have at least one linked work item. Warn if there are no linked work items, but allow pull requests to be completed. Check for comment resolution Check to see that all comments have been resolved on pull requests. Policy requirement Required Block pull requests from being completed while any comments are active. Optional Warn if any comments are active, but allow pull requests to be completed.

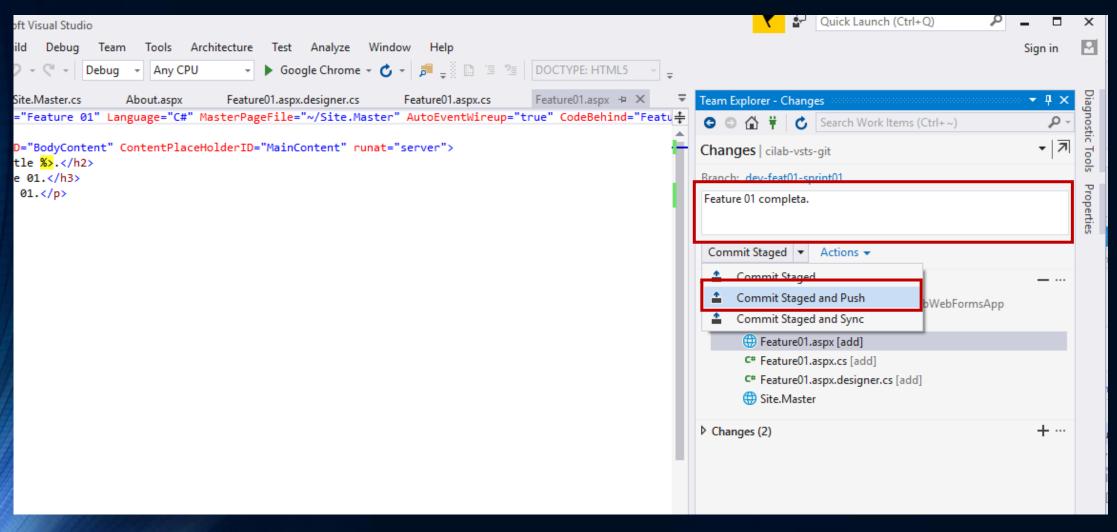
Evolução do ramo principal

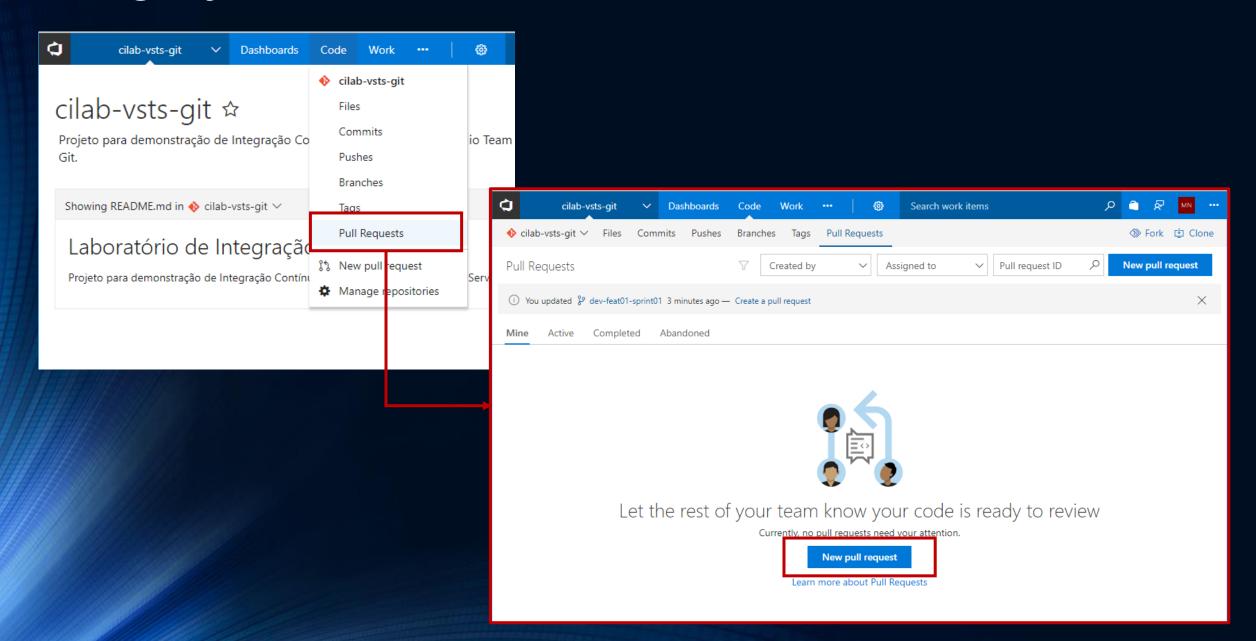


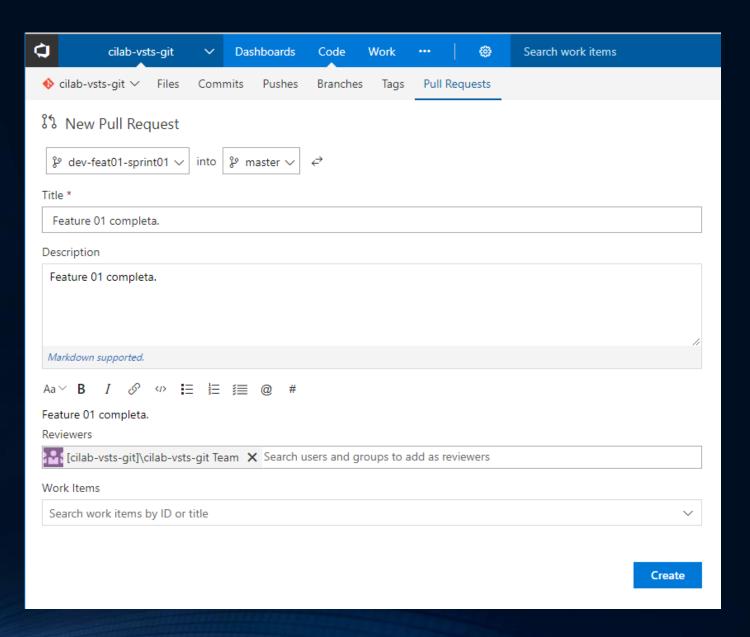


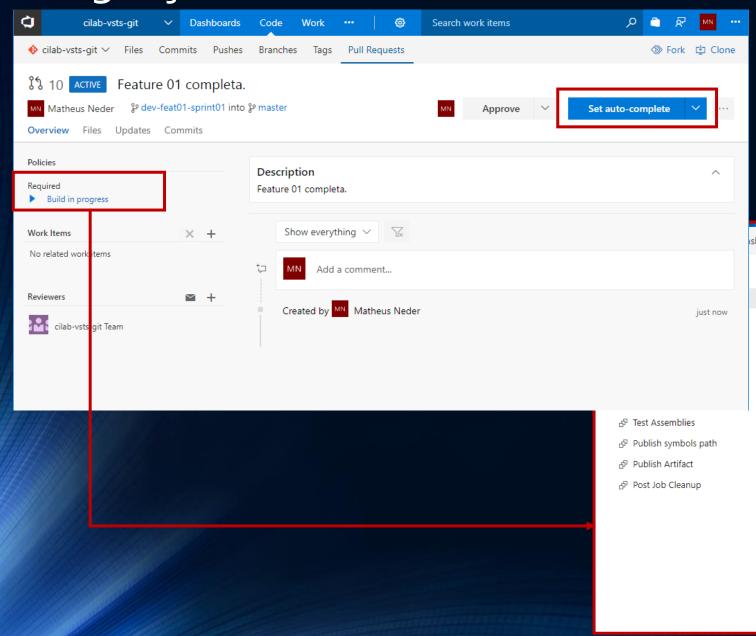


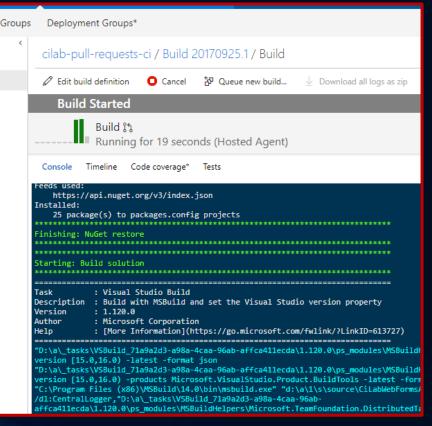


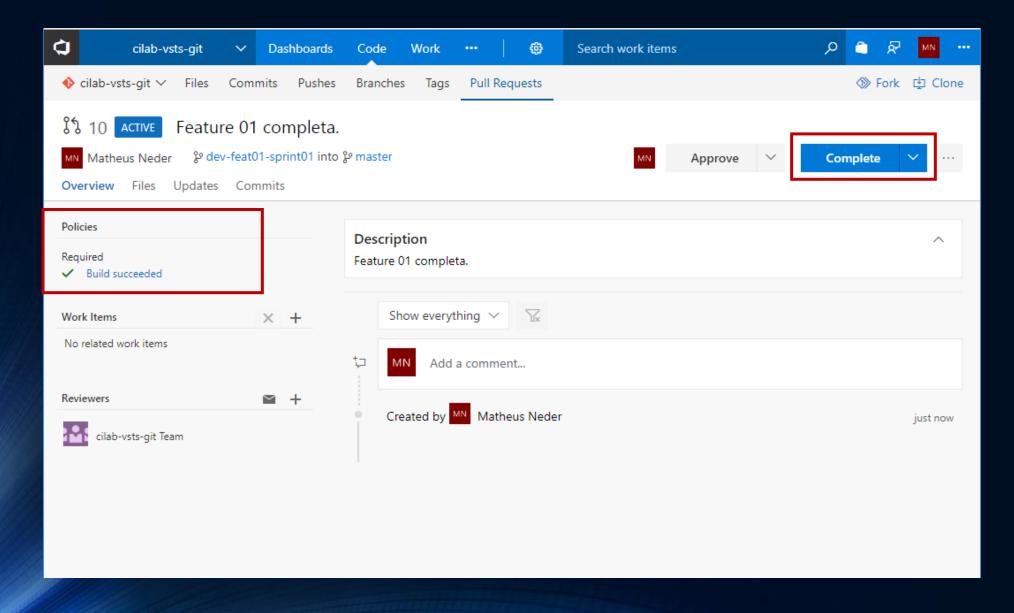


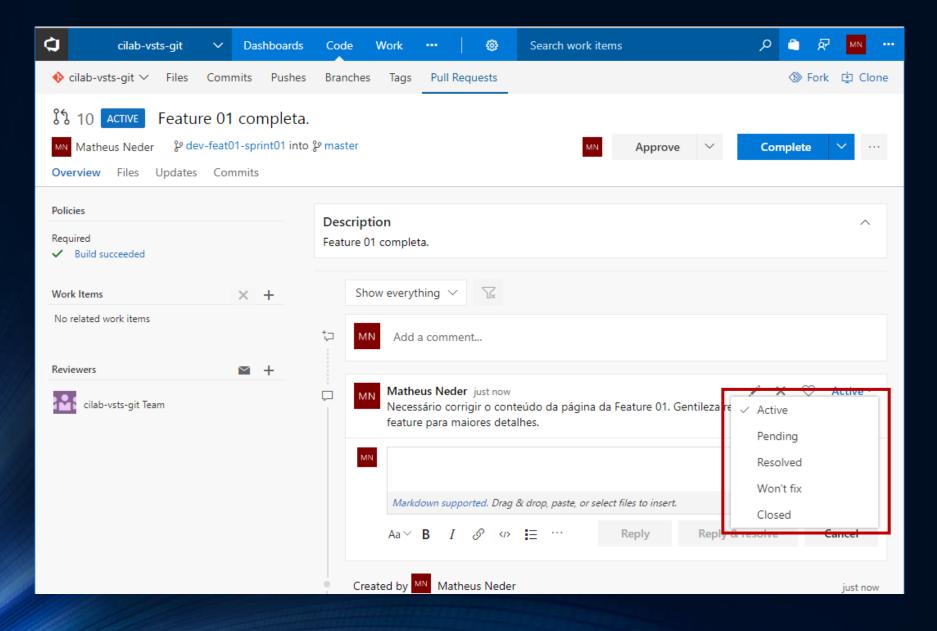


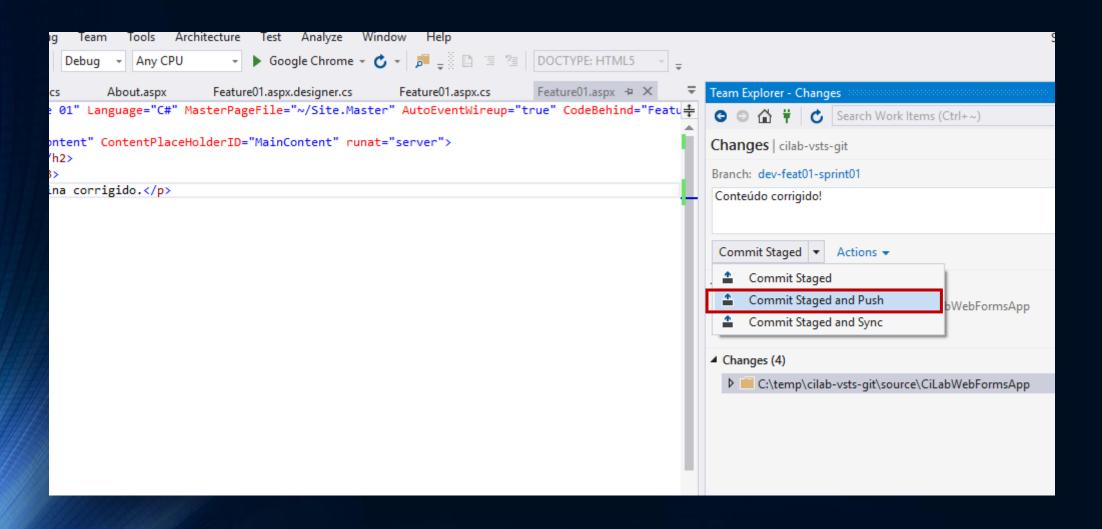


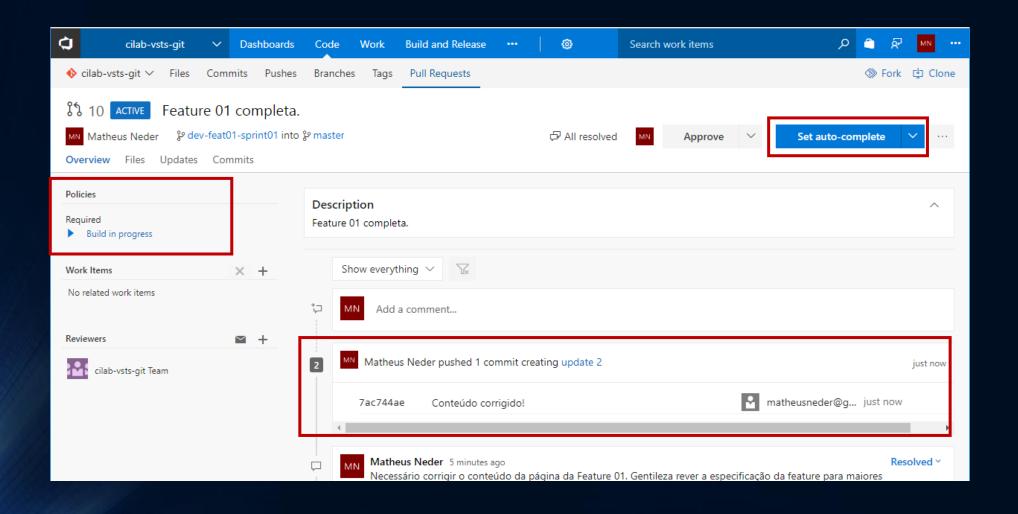


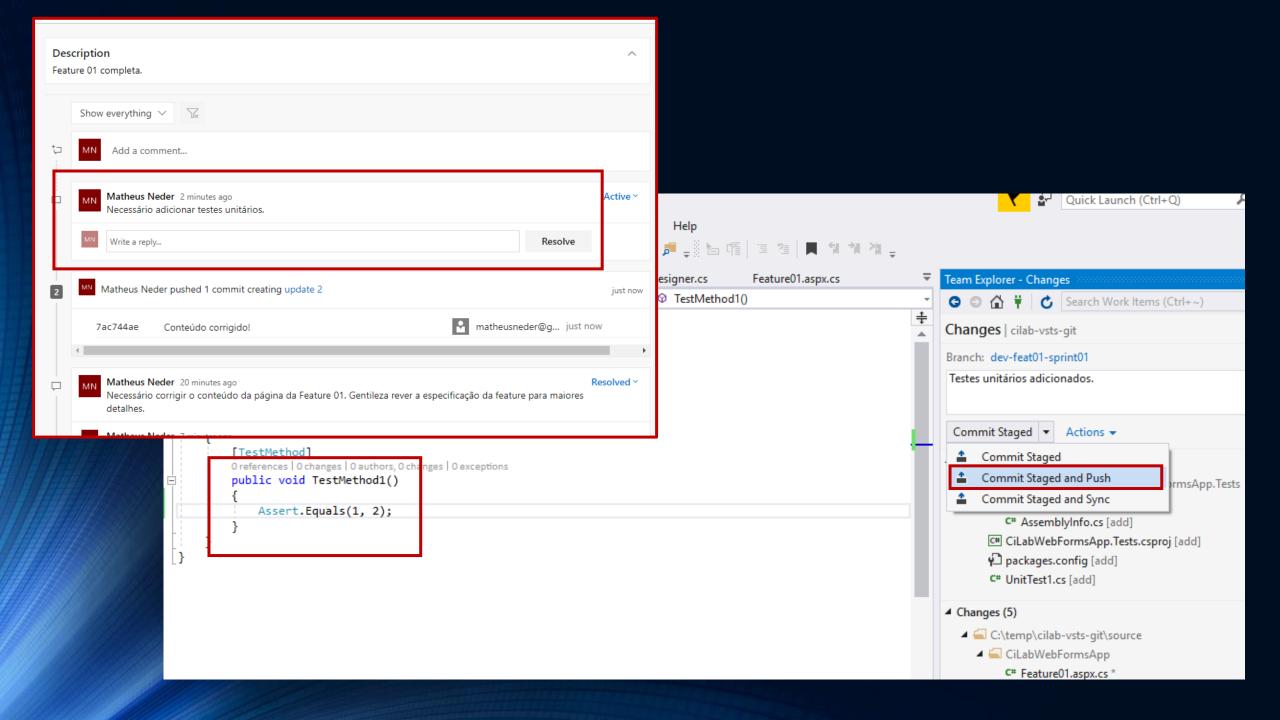


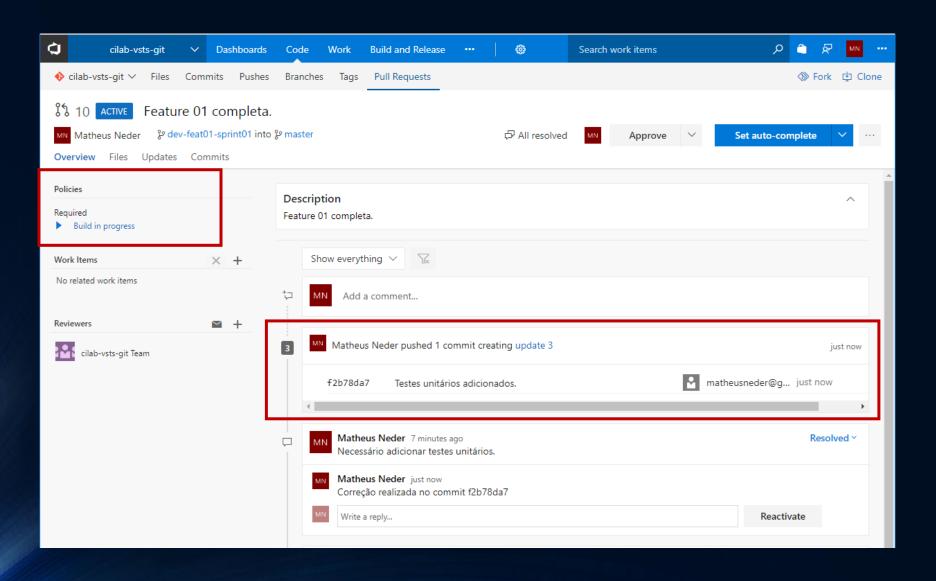


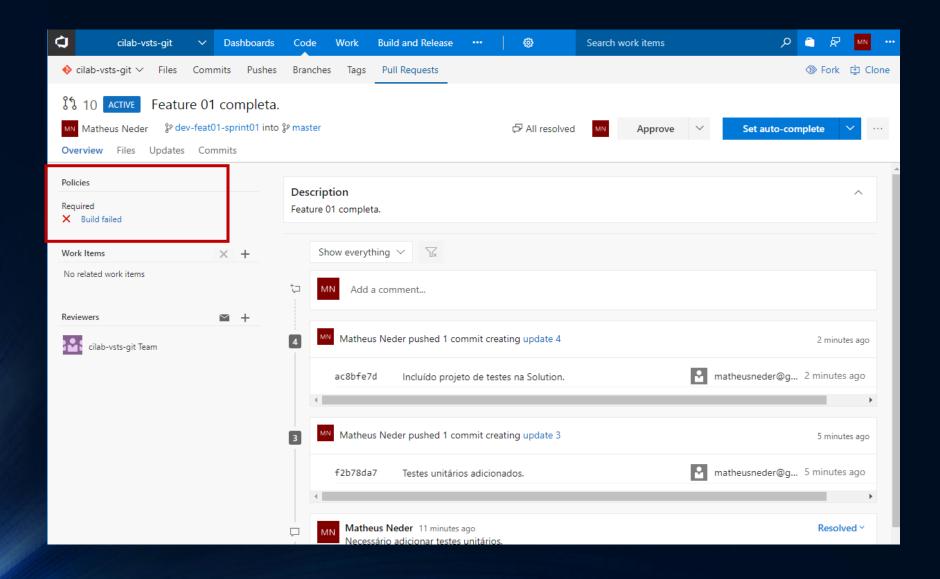


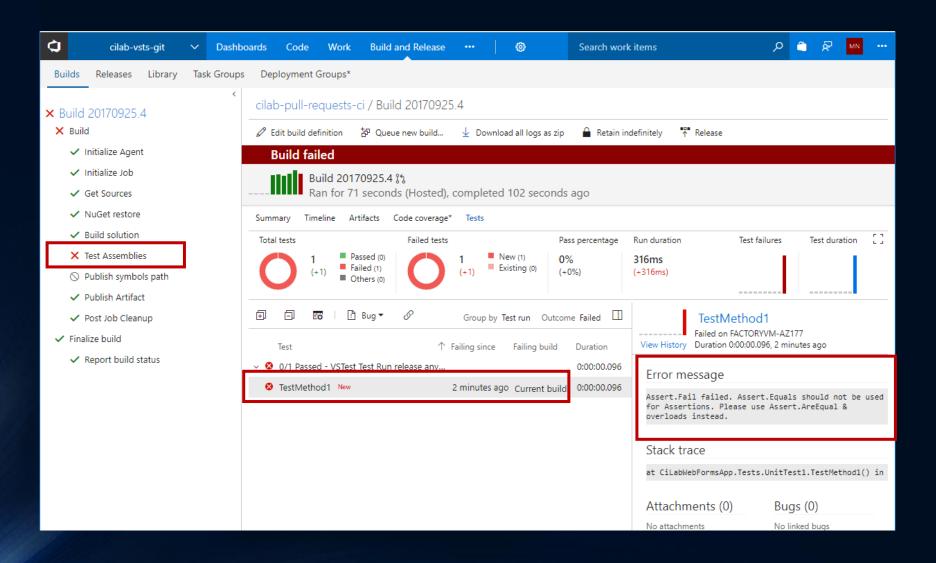


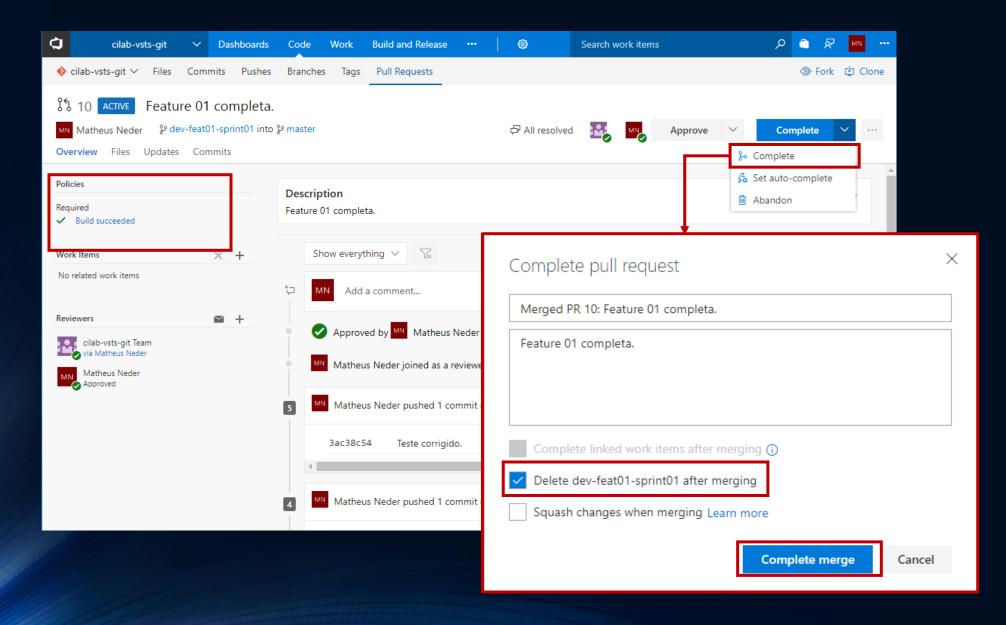


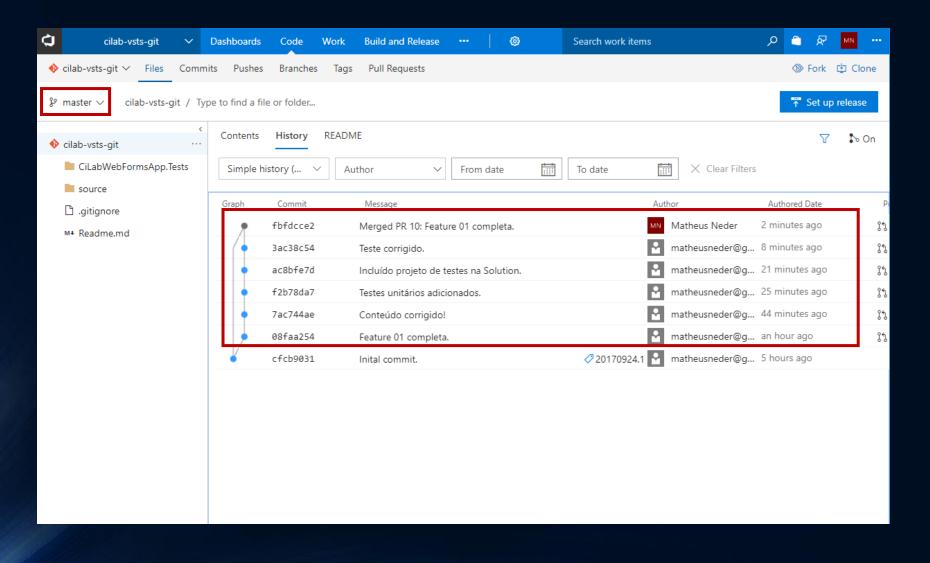












Perguntas?

Contato / Social

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- https://github.com/matheusneder
- https://www.linkedin.com/in/matheus-neder-66b16a16/

