DYNAMICS MINDS

Microsoft Dynamics 365 and Power Platform Conference

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MAY 27 - 29, 2024

Portorož, Slovenia, Europe

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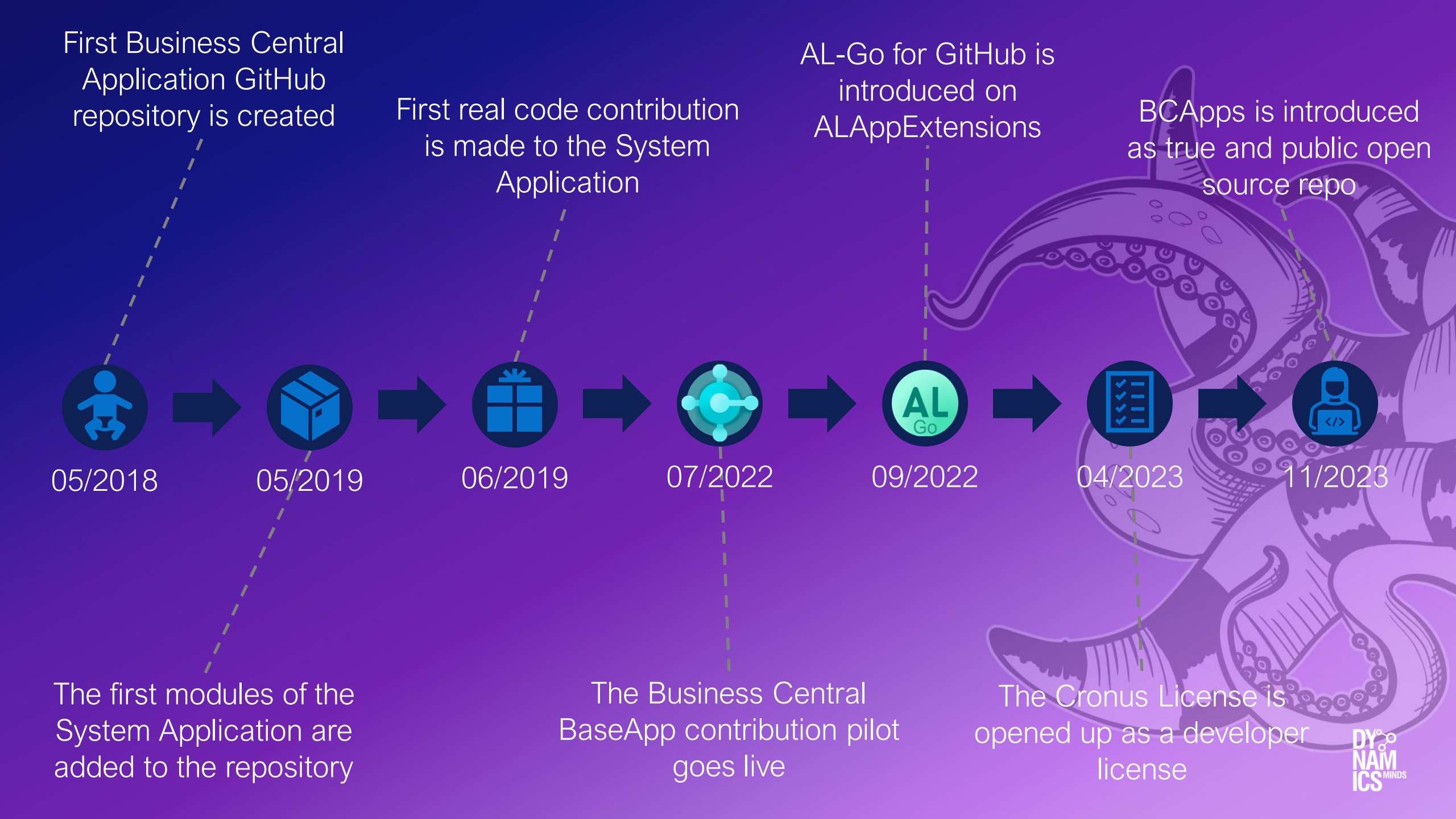
Dual MS MVP, MS RD, Docker Captain

How everyone can contribute to the Business Central standard code

Disclaimer: Content by Microsoft with some updates, presented with their OK


First Business Central Application GitHub repository is created
First real code contribution is made to the System Application
AL-Go for GitHub is introduced on ALAppExtensions
BCApps is introduced as true and public open source repo
05/2018
05/2019
06/2019
07/2022
09/2022
04/2023
11/2023
AL
Go
The first modules of the System Application are added to the repository
The Business Central BaseApp contribution pilot goes live
The Cronus License is opened up as a developer license

BCApps: A community effort

BCApps was officially launched November 2023

Since then, version 24.0 has been built in close collaboration with the community

Microsoft says Thank you to all the contributors!

101 Forks

248 Stars

68 Contributors

861 Merged PRs

77+ of which are shipping in 24.0

Open Source is more than writing code!

It’s about collaborating & reviewing

It’s about learning from others

It’s about teaching others

It’s about ensuring quality

It’s a requirement

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Why?

Partner perspective

Make the product better, strengthen BC ecosystem

Solve (annoying) things only once

Build a relation with MS engineers

Attract and keep the best devs

It’s fun!

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Challenges

Partner perspective

Where is the limit in sharing?

(Key) intellectual property, size/time, priorities

How can we legally allow it?

Employee contract

Welcome to BCApps!

GitHub

Welcome to BCApps: Microsoft Dynamics 365 Business Central Application

The Repository

This repository contains the source code for several *Business Central* applications, developed by Microsoft.

The source code in this repository is available to everyone under the standard MIT license.

✨ **BCApps run on AL-Go for GitHub** ✨

Contributing

In this repository, we welcome contributions to the **System Application**, **Business Foundation** and the **Developer Tools**, such as **Test Runner**, **Performance Toolkit** and others.

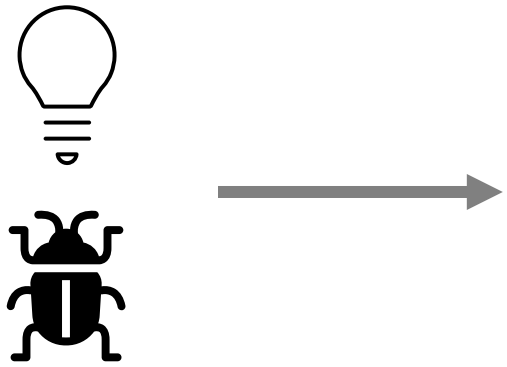
- If you are looking to contribute to **Microsoft's 1st party apps** you can do so in the ALAppExtensions repository.
- If you are looking to contribute to the **Base Application** you can do so in the BusinessCentralApps repository. Please note, that this repository is private but you can request access by filling out this form.

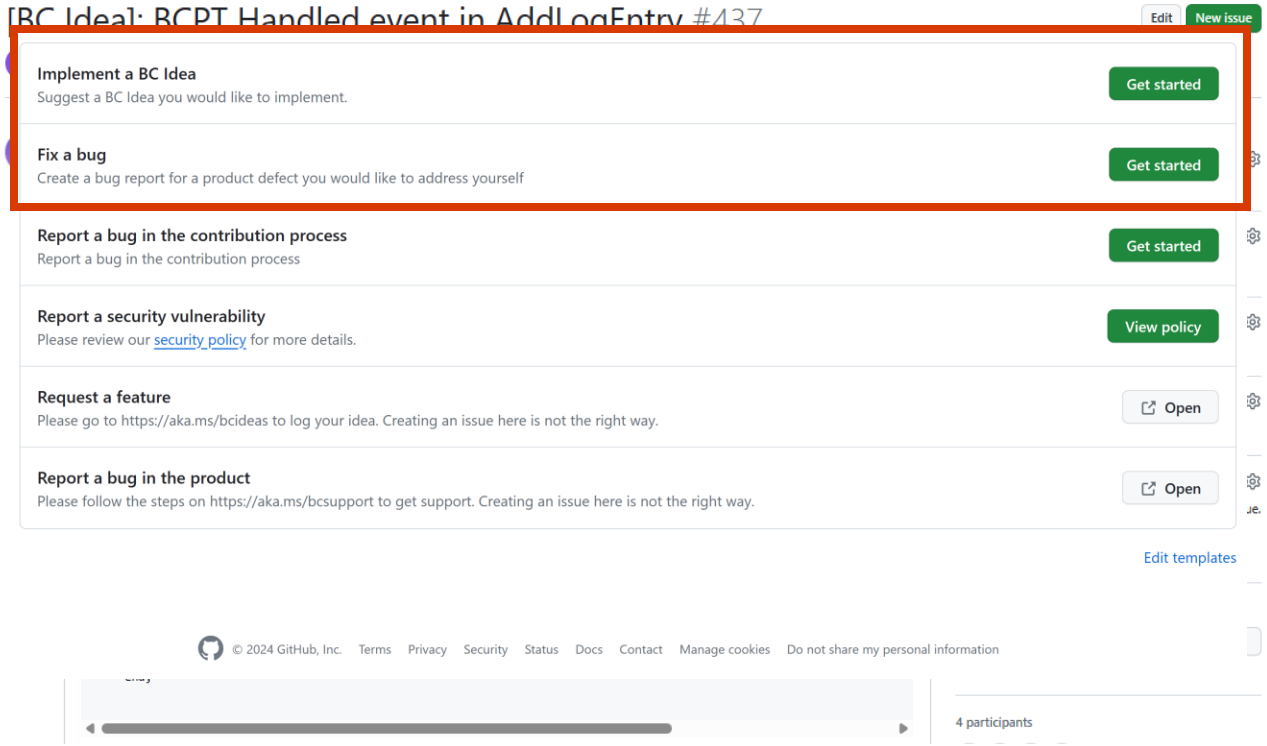
Want to learn more about how to contribute to this repository? Please refer to our Contribution Guidelines.

⚠️ **IMPORTANT** ⚠️ : This is not the right place to report product defects with customer impact to Microsoft! Issues created in this repository might not get picked up by the Microsoft engineering team and issues reported in this repository do not fall under SLAs (Service Level Agreements) and hence have no guaranteed time to mitigation, just as provided fixes won't get backported to all supported versions of the product.

Getting Started with Contributing

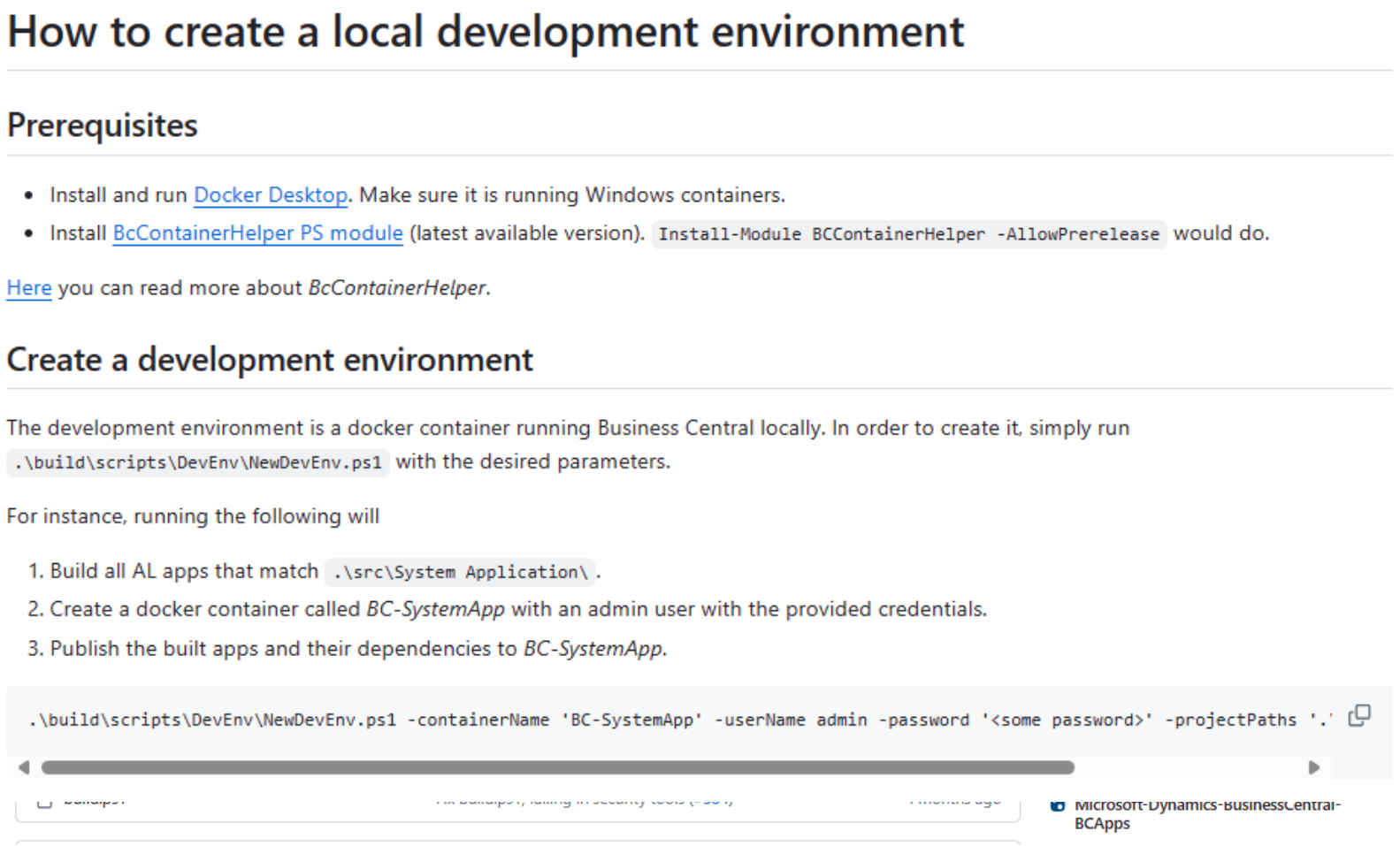
1. It all starts with an idea or a bug
2. Create a GitHub issue
3. Gain approval





Setting up your Development Environment

1. Create a fork
2. Set up a container for your dev. Environment (local or COSMO Alpaca)
3. Time to develop!



How to create a local development environment

Prerequisites

- Install and run Docker Desktop. Make sure it is running Windows containers.
- Install BcContainerHelper PS module (latest available version). `Install-Module BCContainerHelper -AllowPrerelease` would do.

Here you can read more about *BcContainerHelper*.

Create a development environment

The development environment is a docker container running Business Central locally. In order to create it, simply run `.\build\scripts\DevEnv\NewDevEnv.ps1` with the desired parameters.

For instance, running the following will

1. Build all AL apps that match `.\src\System Application\`.
2. Create a docker container called *BC-SystemApp* with an admin user with the provided credentials.
3. Publish the built apps and their dependencies to *BC-SystemApp*.

```
.\build\scripts\DevEnv\NewDevEnv.ps1 -containerName 'BC-SystemApp' -userName admin -password '<some password>' -projectPaths '.'
```

Microsoft-Dynamics-BusinessCentral-BCApps

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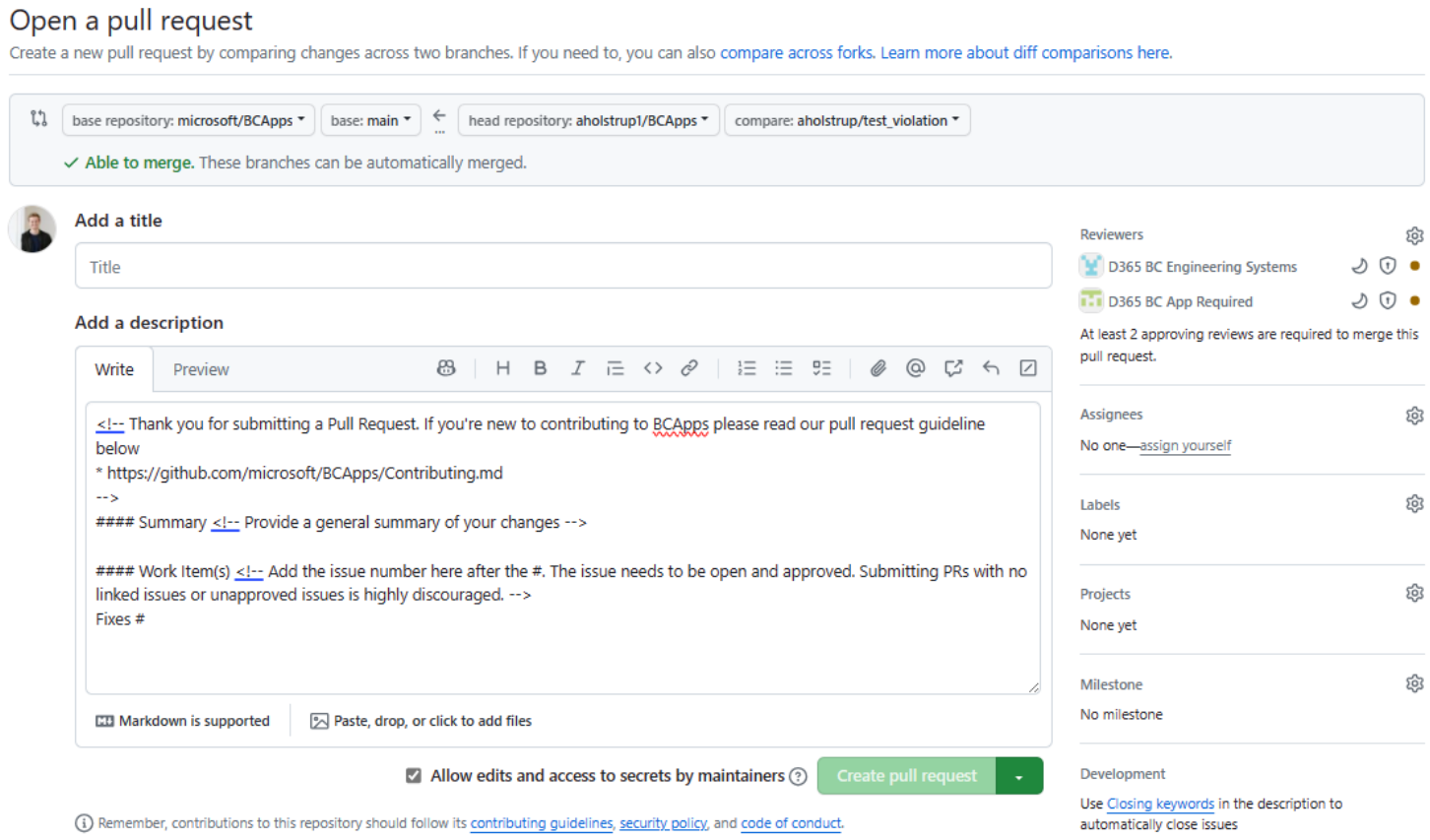
COSMO Alpaca is free for base app contributions! (for 20h / month)

If you decide to further use it, COSMO will get in touch.
After an agreement, the price will be 0,90 € / hour

Opening a Pull Request

1. Add a title
2. Provide a summary
3. Link to your issue



Merging a Pull Request

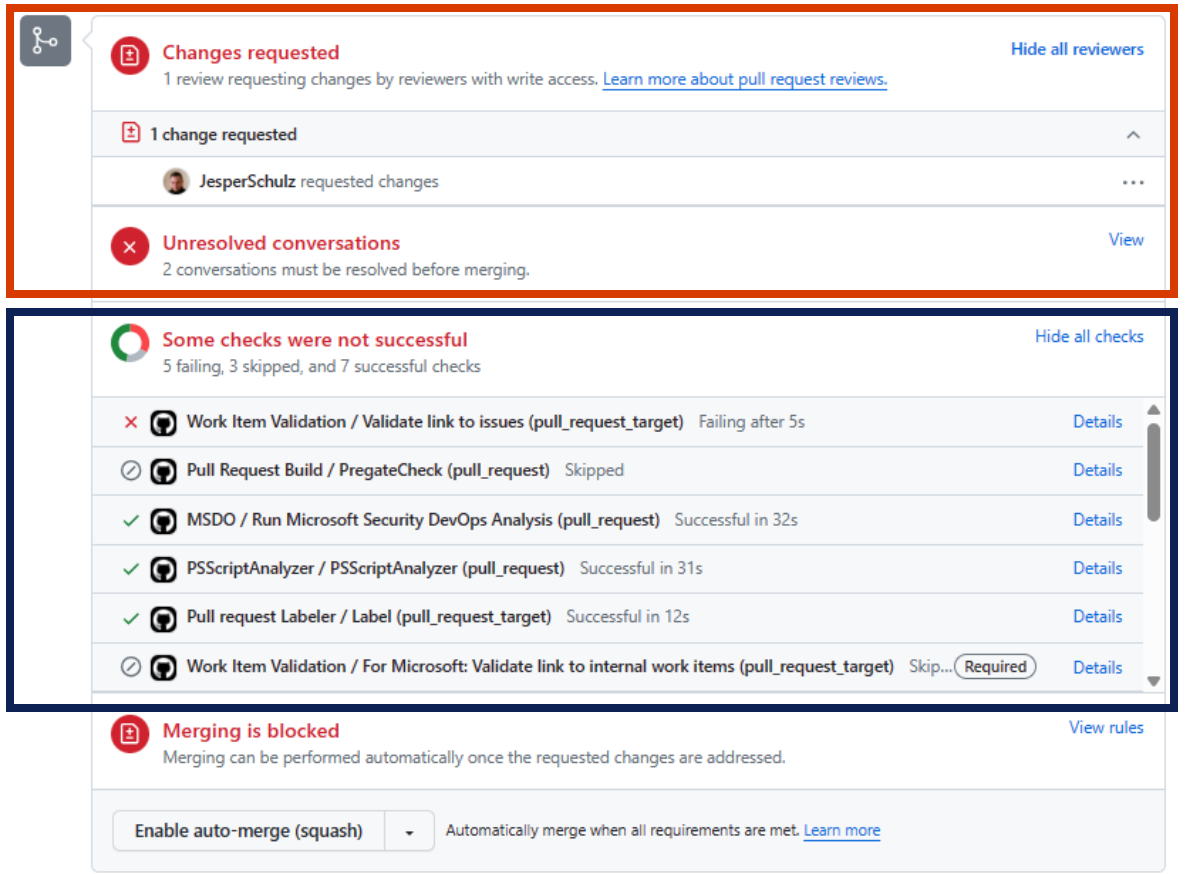
What is required before merging?

Code Reviews

- Comment Resolution
- Approvals

Checks

- Work Item Validation
- For Microsoft: Validate link to internal work items
- Pull Request Build



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Our experience

Bert Verbeek – 4PS Group by Hilti

Technical Solution Architect & Microsoft MVP

When we find an **error** in standard BC it is very easy and quick to do it by ourself because we know the issue and have the code. So no hassle to create support tickets etc. And in the next minor we already have the fix we have implemented through the open source project!

We saw the benefits of a **new feature** (batch posting transfer orders) for our end users. So we created the feature and test automation. In the next major release our end users can already take benefit of it!

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Our experience

Simon Fischer – 4PS Group by Hilti

Senior Developer

It felt wrong to keep such a basic functionality (Azure Blob Storage integration for BC) to myself, knowing that others will have to do the same things **over and over again** - instead of spending time on the actual solution.

The community feedback was very rewarding and it showed me, that there is a will to collaborate more. I hope that the contribution will **encourage others** to do the same.

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Our experience

Kilian Seizinger – prisma informatik GmbH

Developer & Microsoft MVP

Contributing **functional improvements** to the BC standard might seem like additional work, but because maintenance is also done by Microsoft and others in the community, it actually is less work in the end.

Saving time by **solving problems** once and for all gives me the opportunity to work on new topics. And I just like the Open Source mindset!

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Our experience

Alexander Drogin – KPMG

Senior Technical Architect

I find many benefits in being a part of the Open Source community. It's always a **good learning and a very rewarding experience** to work alongside some of the best Business Central developers.

Besides, open source helps me **solve practical problems**. For instance, I've always been troubled by the need to isolate false positive BaseApp tests. Now my own test runs get cleaner with every test I fix.

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Our experience

Tom Kapitan – Fusion5

Technical Lead & Microsoft MVP

I hate doing the same development multiple times. And if it's something we (as partners) don't see added value, it's fantastic to have this opportunity to **fix/improve the Business Central code** through the open-source program.

You can do anything - I've tried to **refactor Transformation Rules** (→ go to the BaseApp repo and help me by providing your feedback as a code review) but also improved the **extensibility of D365 Sales integrations** in 7-9 contributions for different parts needed for a proper BC-CE AppSource solution.

Hear directly from two of the top contributors:

Business Central Open-Source Contributions:
The quickest way how to see your name during Microsoft BC Keynotes

Tom Kapitan & Alexander Drogin – Wednesday, 12:15, Mediteranea I

Don’t be scared! Learning and teaching is fun 🥳

Jump into reviews & discussions
You and the product quality can only benefit!

Docs are Open Source too!

Thanks for your attention! Questions?

Let me know how you liked it:
LinkedIn and X/Twitter - tobiasfenster