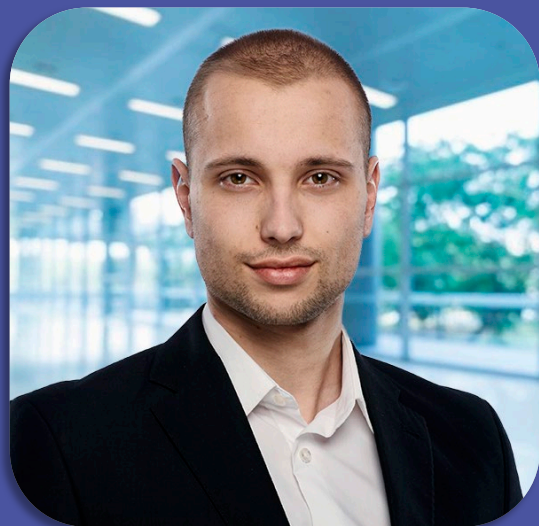


From Idea to Release: Process of Contributing to Business Central

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emea 2024



Stefan Šošić

CEO @ BC ILITY



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<https://github.com/StefanSosic>



<https://ssosic.com>



stefan.sosic@bcility.com

Agenda

- How do contributions work?
- Open - source repositories
- Pitching a new BC Idea
- Creating Bug
- Contributing as a developer
 - GitHub Fork and Cloning
 - Local Development environment
 - Testing your code
 - New AL Files
 - Create your first Pull Request
 - Pull Request Cis
- Other way for contributions

How do contributions work?

The Concept

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- Collaborative approach
- Share implementations



Accelerate Product Growth



Improve Product Quality & Auditability



Enhance Extensibility, Customizability & Compatibility



Foster Collaboration



Develop Community

- Open - sourced all except localizations and platforms.

Open - source repositories

System Application & Business Foundation

<https://github.com/microsoft/BCApps>

Base Application

<https://github.com/microsoft/BusinessCentralApps>

AL-Go

<https://github.com/microsoft/AL-Go>

BcContainerHelper

<https://github.com/microsoft/navcontainerhelper>

Add-On Apps (extensions) ❌

<https://github.com/microsoft/ALAppExtensions>

AL Compiler

<https://github.com/microsoft/AL>

BingMaps App

<https://github.com/microsoft/bcsamples-bingmaps.appsource>

Bank Import Formats

<https://github.com/microsoft/BusinessCentralBankImportFormat>

Pitching a new BC Idea

Sequence of pitching a new BC Idea:

1. Dynamics 365 Business Central Forum
2. GitHub Repository

Open - source repositories

Dynamics 365 Business
Central Forum



The primary platform for pitching
new ideas or voting on existing ones:

<https://aka.ms/bcideas>

Open - source repositories

Dynamics 365 Business Central Forum



The Ideas section is organized into multiple categories

The screenshot shows the Dynamics 365 Application Ideas forum page. At the top, there is a navigation bar with the Microsoft logo and 'Dynamics 365' followed by menu items: Products, Solutions, Pricing, Partners, Platform, Resources, Support, and Community. Below the navigation bar, the page title is 'Dynamics 365 Application Ideas > Dynamics+365+Business+Central'. Underneath, there is a sub-header 'Share your ideas and vote for future ideas'. The main content is a table with two columns: 'Ideas Category' and 'Posts'. The table lists five categories: Data Migrations (211), Development (1266), Documentation (54), Financial Management (1373), and General (1754).

Ideas Category	Posts
Data Migrations	(211)
Development	(1266)
Documentation	(54)
Financial Management	(1373)
General	(1754)

Pitching a new BC Idea

Dynamics 365 Business Central Forum

Idea statuses

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STATUS DETAILS

NEW

STATUS DETAILS

UNDER REVIEW



Administrator

Thank you for your feedback. We are considering adding it to our longer term roadmap. Your help is greatly appreciated!

STATUS DETAILS

PLANNED



Administrator

Thank you for your feedback. We are considering adding it to our longer term roadmap.

STATUS DETAILS

NEEDS VOTES



Administrator

Thank you for this suggestion! Currently this is not on our roadmap. We are tracking this idea and if it gathers more votes and comments we will consider it in the future.

STATUS DETAILS

COMPLETED



Administrator

Thank you!

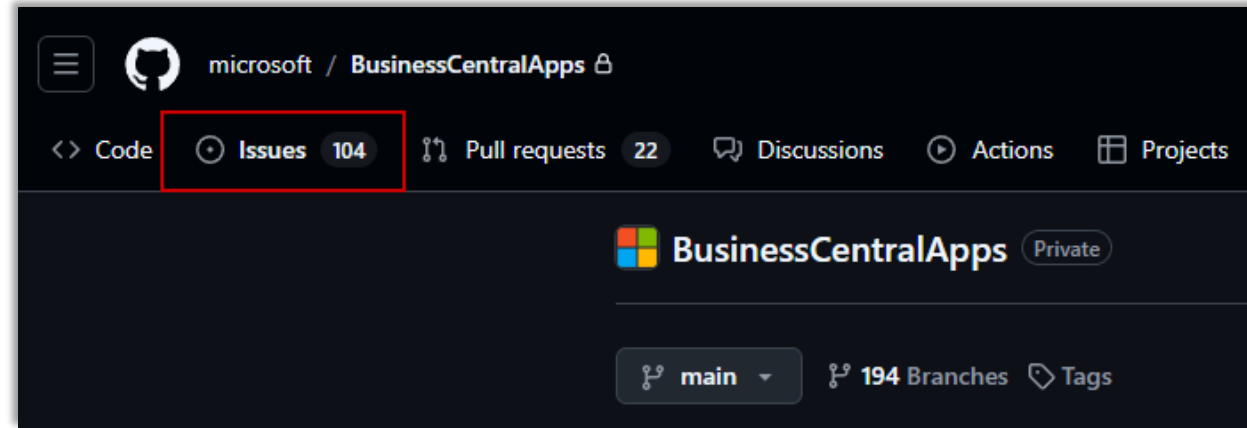
This feature is now released: <https://learn.microsoft.com/dynamics365/release-plan/2023wave2/smb/dynamics365-business-central/scan-barcodes-business-central-mobile-app-ios-android>

Pitching a new BC Idea

GitHub Repository

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- When your idea gains enough support from the community on the forum, you can then create a BC Idea



microsoft / BusinessCentralApps

Code Issues 104 Pull requests 22 Discussions Actions Projects

BusinessCentralApps Private

main 194 Branches Tags

is:issue state:open

Beta Give feedback

Labels Milestones New issue

Open 104 Closed 421

Author Labels Projects Milestones Assignees Types Sort

[BC Idea]: Make archived sales documents available from customer card factbox BCIdea

#978 · avaanr opened 4 hours ago

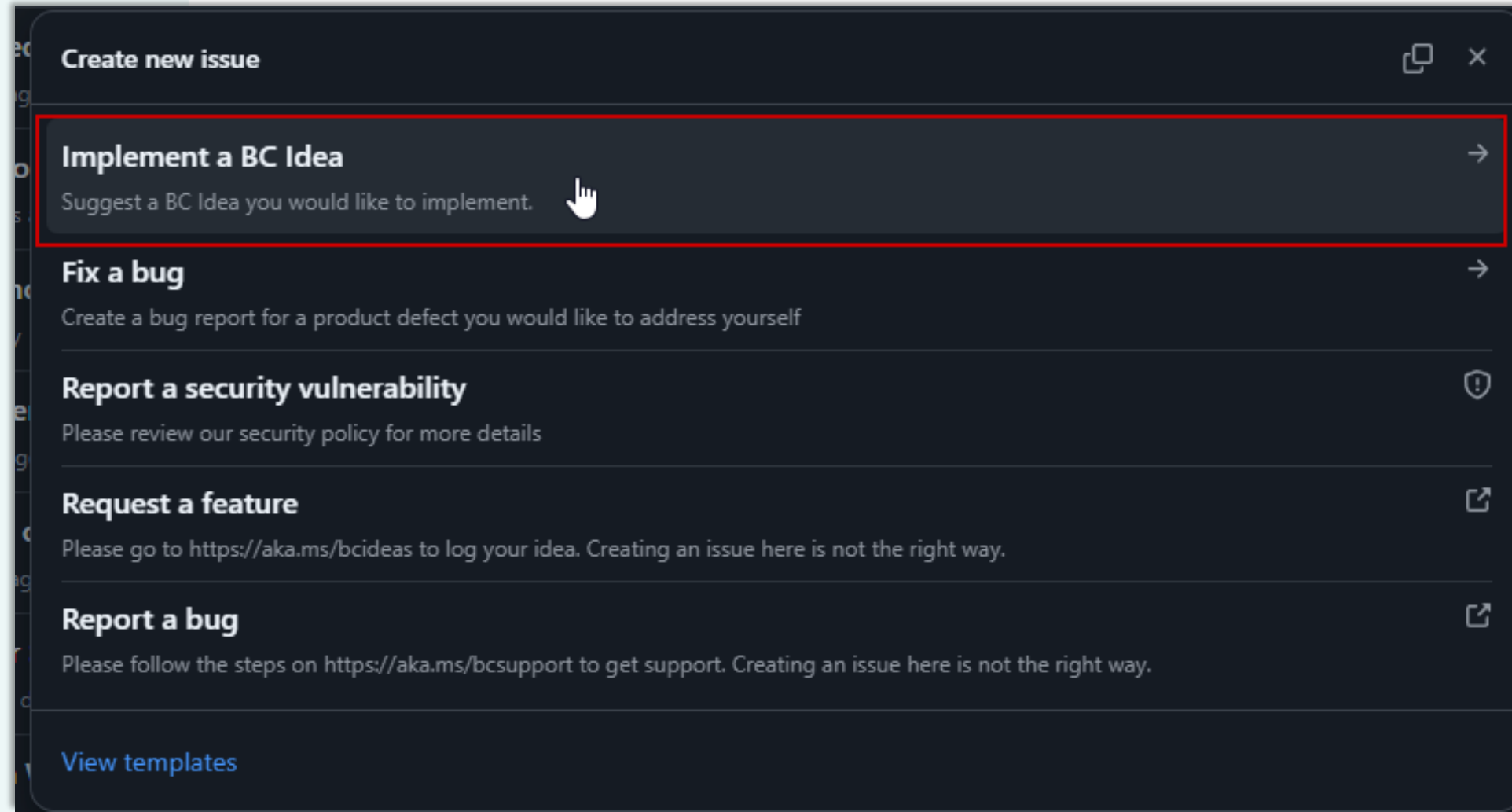
[Bug]: Containers cannot be restarted Bug

#976 · TKapitan opened 9 hours ago

Pitching a new BC Idea

GitHub Repository

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Create new issue

- Implement a BC Idea** →
Suggest a BC Idea you would like to implement.
- Fix a bug** →
Create a bug report for a product defect you would like to address yourself
- Report a security vulnerability** ⚠️
Please review our security policy for more details
- Request a feature** ↗️
Please go to <https://aka.ms/bcideas> to log your idea. Creating an issue here is not the right way.
- Report a bug** ↗️
Please follow the steps on <https://aka.ms/bcsupport> to get support. Creating an issue here is not the right way.

[View templates](#)

Pitching a new BC Idea

GitHub Repository

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Create new issue

Add a title *

[BC Idea]:

Thanks for taking the time to create a BC Idea issue!

⚠ ⚠ BEFORE WE GET STARTED ⚠ ⚠ Please do not create an issue for a BC Idea unless you intend to implement it yourself. If you are not planning to implement the BC Idea yourself, please go to aka.ms/bcideas and upvote the feature on BC Ideas instead.

Before you create a new issue please: 🔍 Search existing issues to avoid creating duplicates.

Read more about what and how to contribute in the CONTRIBUTIONS document of this repository:

<https://github.com/microsoft/BusinessCentralApps/blob/main/CONTRIBUTING.md>.

BC Idea Link

Please link to the BC Idea

ex. <https://experience.dynamics.com/ideas/idea/?ideaid=123456>

Description

Please include the description from the BC Ideas page

Write

Preview

H B I | ☰ <> 🔗 | ☰ ☰ ☰ | @ ↻ ↶ ☑

Description of BC Idea

📎 Paste, drop, or click to add files

I will provide the implementation for this BC Idea

To provide the implementation for a BC idea, select this checkbox and then Get started. Thanks for contributing.

I will provide the implementation for this BC Idea

Pitching a new BC Idea

Full process example

Dynamics 365 Application Ideas > Dynamics 365 Business Central > General > **Make the Manual Setup page easier to browse**

4



Make the Manual Setup page easier to browse

Søren Alexandersen on 4/30/2024 2:03:22 PM

Vote

The Manual Setup page is an important entry point for understanding setup options in Business Central.

Often, it is the very first place you start looking for setup when you are new to the product - either as a customer or a partner.

It is hard to intuitively understand and find setup options through this page.

When you open it you get tired and immediately lose sense of what you're looking for, with no guidance.

Key issues:

1. The page offers no visual categorization (like the Assisted Setup page)
2. Categories are displayed in a column with no option to group by this column
3. The page is cluttered with information that make it very "busy", like for example the "keywords" and "expected duration" columns. The latter is only relevant when setups are being used in a checklist context.

Suggestions for improvement:

- Group by "Category" in the same visual way as the "Assisted Setup" page. With that, the "Category" column can be removed.
- Remove the "Keywords" and "Expected Duration" columns. They are not relevant here.
- Move the "Extension Name" column to the end, as this is nice-to-know information.
- Some entries in the default lists as "Uncategorized". Fix this, so no entries are left in this category.

Goal is to make this a visually appealing page that is a great entry point for finding all manual setup pages.

(sort of like a categorized control panel)

Category: [General](#)

Pitching a new BC Idea

Full process example

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[BC Idea]: Make the Manual Setup page easier to browse #1232

Edit

New issue

Closed

#1231

 StefanSusic opened on Jun 1

edited by StefanSusic · Edits · ⋮

BC Idea Link

<https://experience.dynamics.com/ideas/idea/?ideaid=117b4867-fa06-ef11-a73c-000d3a7c29a5>

Description

The Manual Setup page is an important entry point for understanding setup options in Business Central.

Often, it is the very first place you start looking for setup when you are new to the product - either as a customer or a partner.

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Move the "Extension Name" column to the end, as this is nice-to-know information.

Some entries in the default lists as "Uncategorized". Fix this, so no entries are left in this category.

Goal is to make this a visually appealing page that is a great entry point for finding all manual setup pages.

I will provide the implementation for this BC Idea

I will provide the implementation for this BC Idea

BusinessCentralApps Issue: [#764](#)

Internal work item: [AB#533478](#)

Assignees

No one assigned

Labels

Approved BCIdea Linked

Type

No type

Projects

No projects

Milestone

No milestone


Relationships

None yet

Development

 [Make the Manual Setup page easier to browse](#)
microsoft/BCApps


Notifications

 Unsubscribe

You're receiving notifications because you're subscribed to this thread.

Participants




 Lock conversation

Pitching a new BC Idea


Full process example


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 JesperSchulz added **Approved** on Jun 3



I will provide the implementation for this BC Idea

I will provide the implementation for this BC Idea

 StefanSosic mentioned this on Jun 1

 [Make the Manual Setup page easier to browse #1231](#)

 [Make the Manual Setup page easier to browse microsoft/BusinessCentralApps#764](#) 

  JesperSchulz closed this as **completed** in [#1231](#) on Jun 20

Pitching a new BC Idea

Creating a Bug

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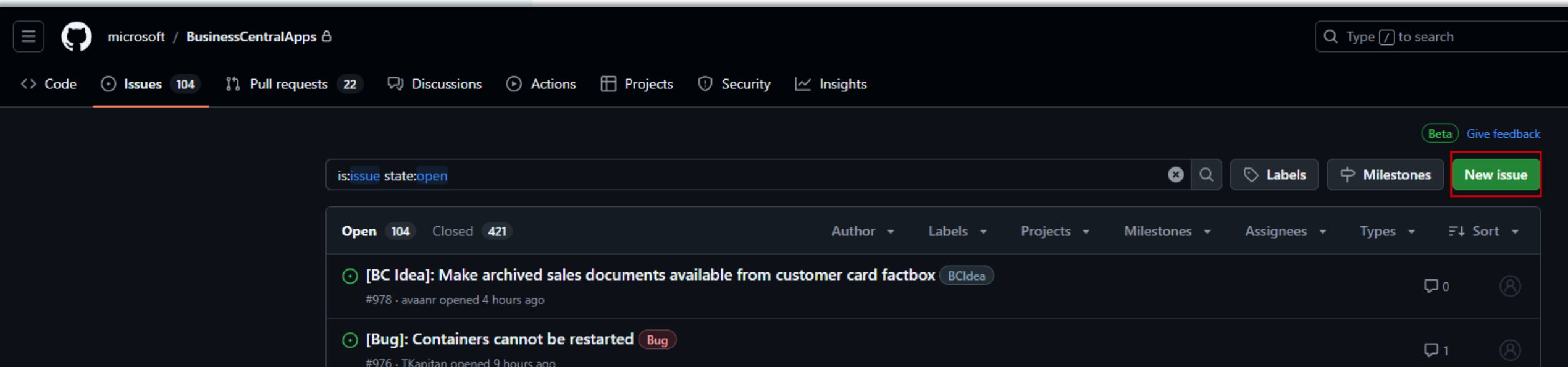
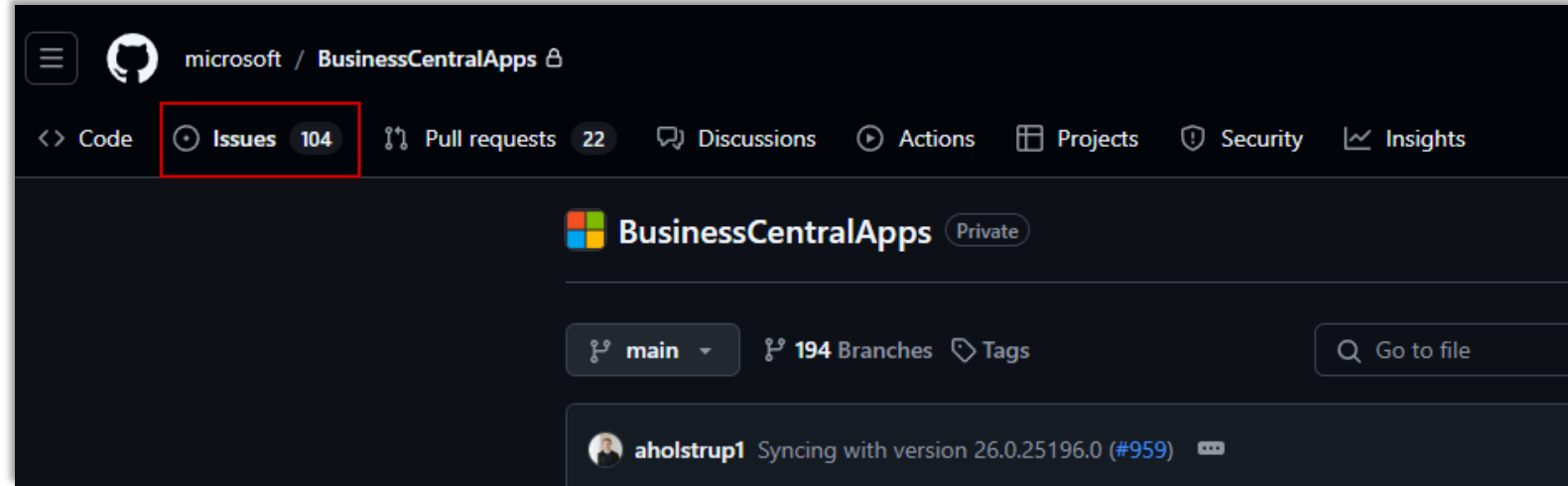
If you find the bug in Business Central
lying around for some time, you could:

1. Report it
2. Get approval
3. Submit fix for it

Pitching a new BC Idea

Creating a Bug

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Pitching a new BC Idea

Creating a Bug

directions vienna
emea 2024

Create new issue

- Implement a BC Idea**
Suggest a BC Idea you would like to implement.
- Fix a bug**
Create a bug report for a product defect you would like to address yourself
- Report a security vulnerability**
Please review our security policy for more details
- Request a feature**
Please go to <https://aka.ms/bcideas> to log your idea. Creating an issue here is not the right way.
- Report a bug**
Please follow the steps on <https://aka.ms/bcsupport> to get support. Creating an issue here is not the right way.

[View templates](#)

Pitching a new BC Idea

Creating a Bug

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Create new issue

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Suggest a BC Idea you would like to implement.
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Please follow the steps on <https://aka.ms/bcsupport> to get support. Creating an issue here is not the right way.

[View templates](#)

Pitching a new BC Idea

Creating a Bug

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Create new issue

Add a title *

[Bug]:

Thanks for taking the time to fill out this bug report!

⚠ ⚠ BEFORE WE GET STARTED ⚠ ⚠ This is not the right place to report product defects with customer impact to Microsoft! Issues reported in this repository do not fall under SLAs (Service Level Agreements) and hence have no guaranteed time to mitigation. If your customers are experiencing product defects or you have discovered a severe issue in the product, please follow the steps outlined in <https://learn.microsoft.com/dynamics365/business-central/dev-itpro/technical-support> to get your issue routed to the right team at Microsoft and to get it treated with the right priority.

Before you create a new issue, please check the following: 🔍 Search existing issues to avoid creating duplicates. 🚀 Test using the latest bcinsider builds to see if your issue has already been fixed

Read more about what and how to contribute in the CONTRIBUTIONS document of this repository:
<https://github.com/microsoft/BusinessCentralApps/blob/main/CONTRIBUTING.md>.

Describe the issue

A clear and concise description of what the issue is

Write Preview

H B I | ☰ <> 🔗 | ☰ ☰ ☰ | @ 🗨️ ↩️ 🗑️

Describe the issue

📎 Paste, drop, or click to add files

Expected behavior

Describe what behavior you expected

Write Preview

H B I | ☰ <> 🔗 | ☰ ☰ ☰ | @ 🗨️ ↩️ 🗑️

Expected behavior

Pitching a new BC Idea

Creating a Bug

It's crucial to provide as much information as possible to get approval quickly. Here's how to do it:

1. **Issue Description:** Clearly describe the problem and add some screenshots.
2. **Expected Behavior:** Explain how the feature should work.
3. **Reproduction Steps:** Provide exact steps to reproduce the issue. Make sure to use a clean environment without any customizations to ensure no third-party extensions are causing the problem. Screenshots or even GIFs can be helpful here.
4. **Planning to Fix:** If you plan to resolve the bug yourself, tick the checkbox.

I will provide a fix for a bug

To provide a fix for a bug, select this checkbox and then Get started. Thanks for contributing.

I will provide a fix for a bug

Contributing as developer

Prerequisite to contributing to Base Application

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As this is a private repository, you won't see the repository without being granted access by Microsoft.

You can request access to it by filling out the following form:

<https://aka.ms/JoinBCCodevelopmentPilot>

Join the Microsoft Dynamics 365 Business Central Base Application contribution pilot



Do you want to get access to the <https://github.com/microsoft/BusinessCentralApps> repository and contribute to the development of the Business Central application platform, then simply fill out the form below and we will get you started within a few days!

* Required

1. Full name *

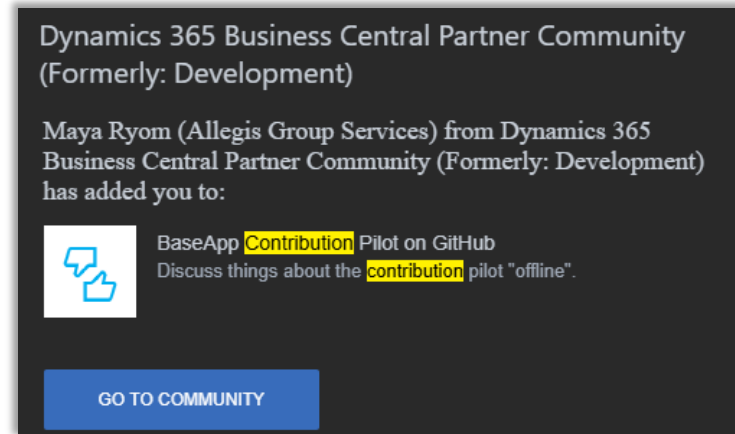
2. Email address *

Contributing as developer

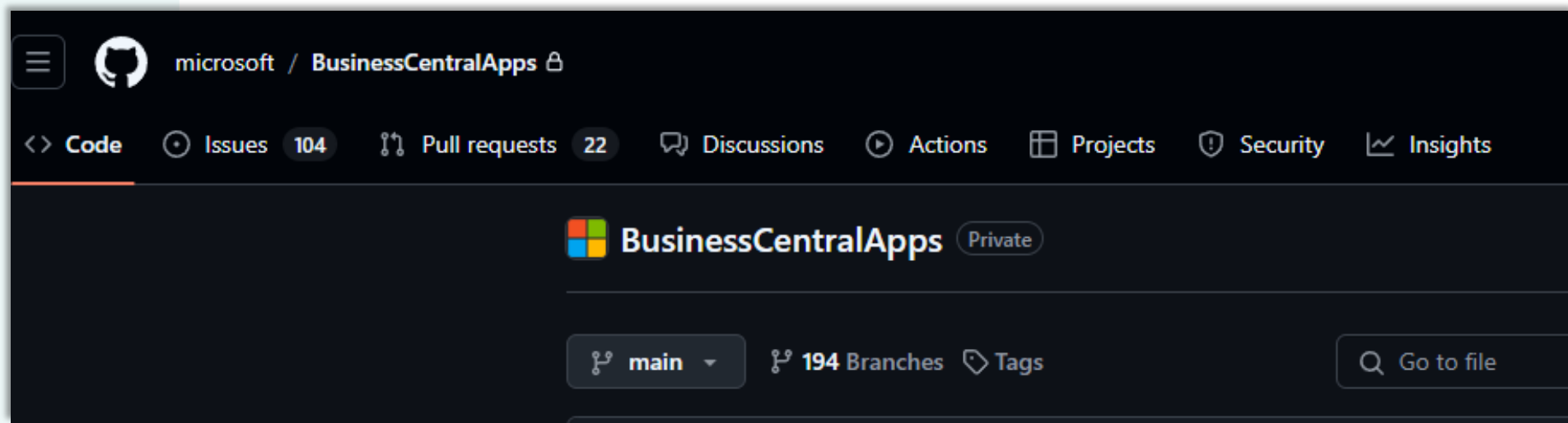
Prerequisite to contributing to Base Application

directions vienna
emea 2024

Once your request is processed, you will get access also to Viva engage group:



And also the most important, GitHub repository:



Contributing as developer

Knowledge prerequisite

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GitHub Account

Contributing as developer

Knowledge prerequisite

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Basic git understanding

Contributing as developer

Knowledge prerequisite



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Contributing as developer

Knowledge prerequisite

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Contributing as developer

Knowledge prerequisite

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Contributing as developer

Knowledge prerequisite

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Contributing as developer

Creating a fork on GitHub

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- No new branches on the Microsoft repository by contributors
- Each contributor should have own fork

The screenshot shows the GitHub interface for the repository 'microsoft / AL'. The repository is public and has 244 forks. The 'Fork' button is highlighted with a red box and a red circle with the number '1'. A dropdown menu is open, showing 'Existing forks' and 'You don't have any forks of this repository.' Below this, the option '+ Create a new fork' is highlighted with a red box and a red circle with the number '2'. The repository name 'AL' is shown with a Microsoft logo and the word 'Public'. The navigation bar includes 'Code', 'Issues 240', 'Pull requests', 'Actions', 'Wiki', 'Security', and 'Insights'. The main content area shows a pull request by EmilDamsbo and a commit by 14cd82a.

Contributing as developer

Creating a fork on GitHub


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Create a new fork

A *fork* is a copy of a repository. Forking a repository allows you to freely experiment with changes without affecting the original project. [View existing forks.](#)

Required fields are marked with an asterisk ().*

Owner *

 StefanSusic

Repository name *

AL

✔ AL is available.


By default, forks are named the same as their upstream repository. You can customize the name to distinguish it further.

Description (optional)

Home of the Dynamics 365 Business Central AL Language extension for Visual Studio Code. Used to track issues

Copy the `master` branch only

Contribute back to microsoft/AL by adding your own branch. [Learn more.](#)

 You are creating a fork in your personal account.

Create fork

Contributing as developer

Creating a fork on GitHub

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The screenshot shows a GitHub repository page for 'StefanSasic / AL'. The repository is public and forked from 'microsoft/AL'. The page includes navigation tabs for Code, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The repository name 'AL' is displayed with a 'Public' badge. A 'Pin' button and a 'Watch' button (with 0 watchers) are visible. The current branch is 'master', and there is 1 branch and 1 tag. A search bar for files is present, along with 'Add file' and 'Code' buttons. A message indicates 'This branch is up to date with microsoft/AL:master'. Below this, a commit by 'EmilDamsbo' is shown, which is a merge pull request from 'microsoft/features/al-bug-temp...' (microsoft#7858) with commit hash '14cd82a' from last month and 460 commits. The repository is owned by 'github'.

Contributing as developer

Creating a fork on
GitHub



Make sure your fork is up to date!

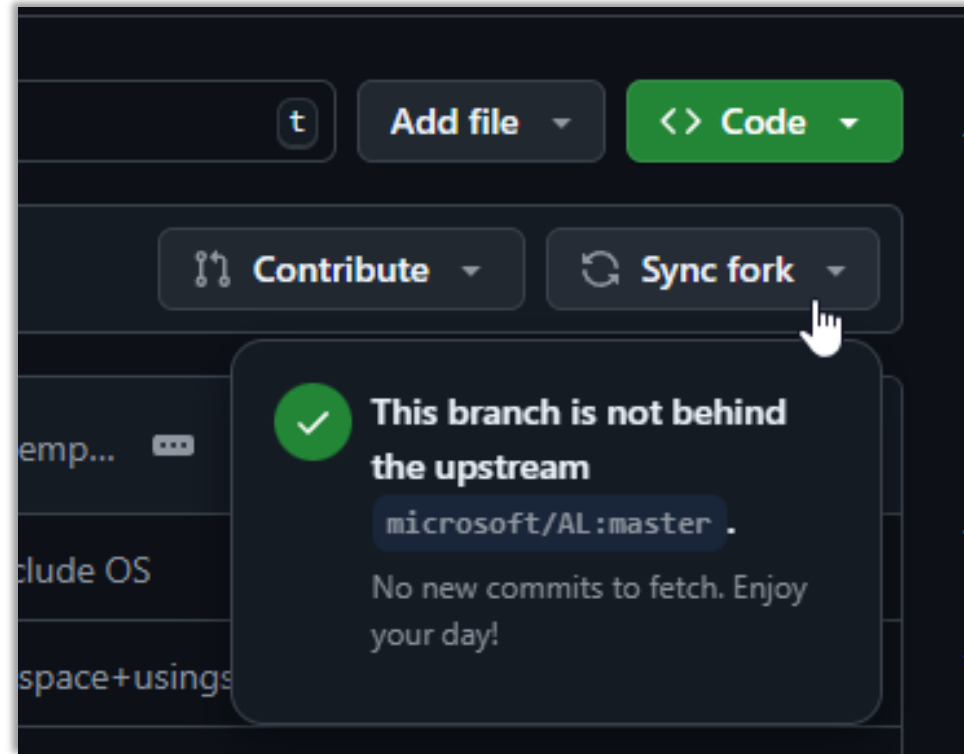
In order to avoid:

- merge conflict
- work on the most recent code

Contributing as developer

Creating a fork on GitHub

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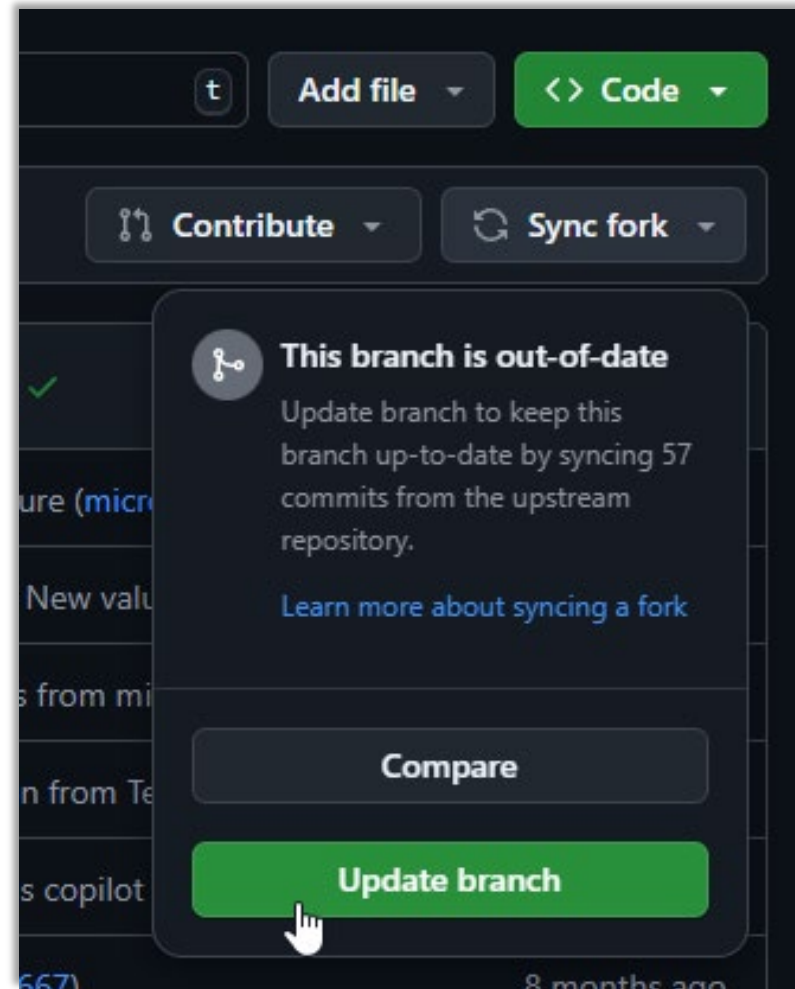
If it shows like this, that branch is not behind the upstream, you are good to go.

Contributing as developer

Creating a fork on GitHub



Click on “Update branch” before proceeding any work.



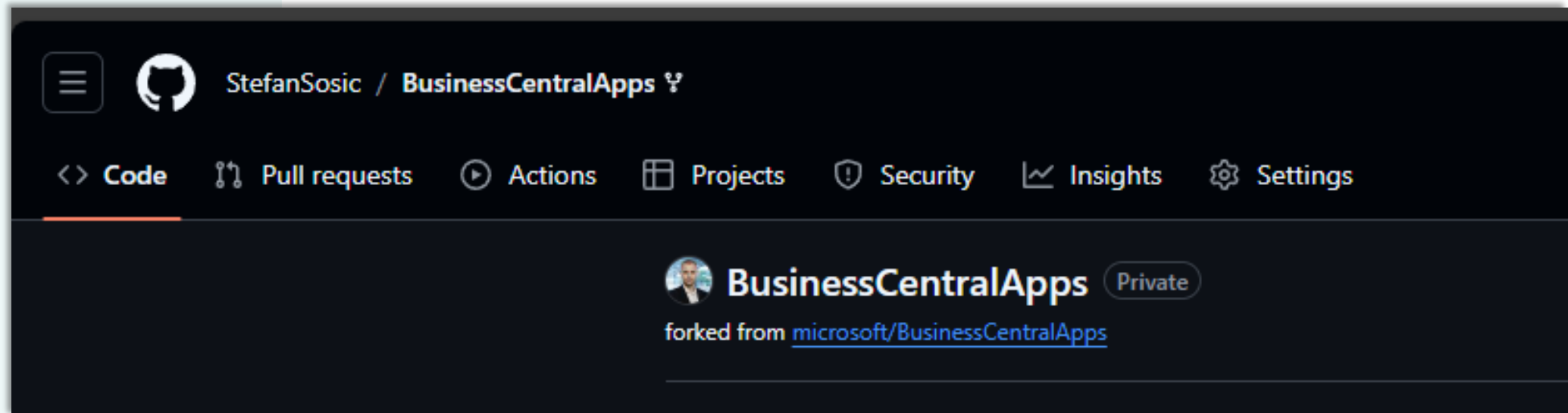
Contributing as developer

Creating a fork on GitHub



Cloning the GitHub repository

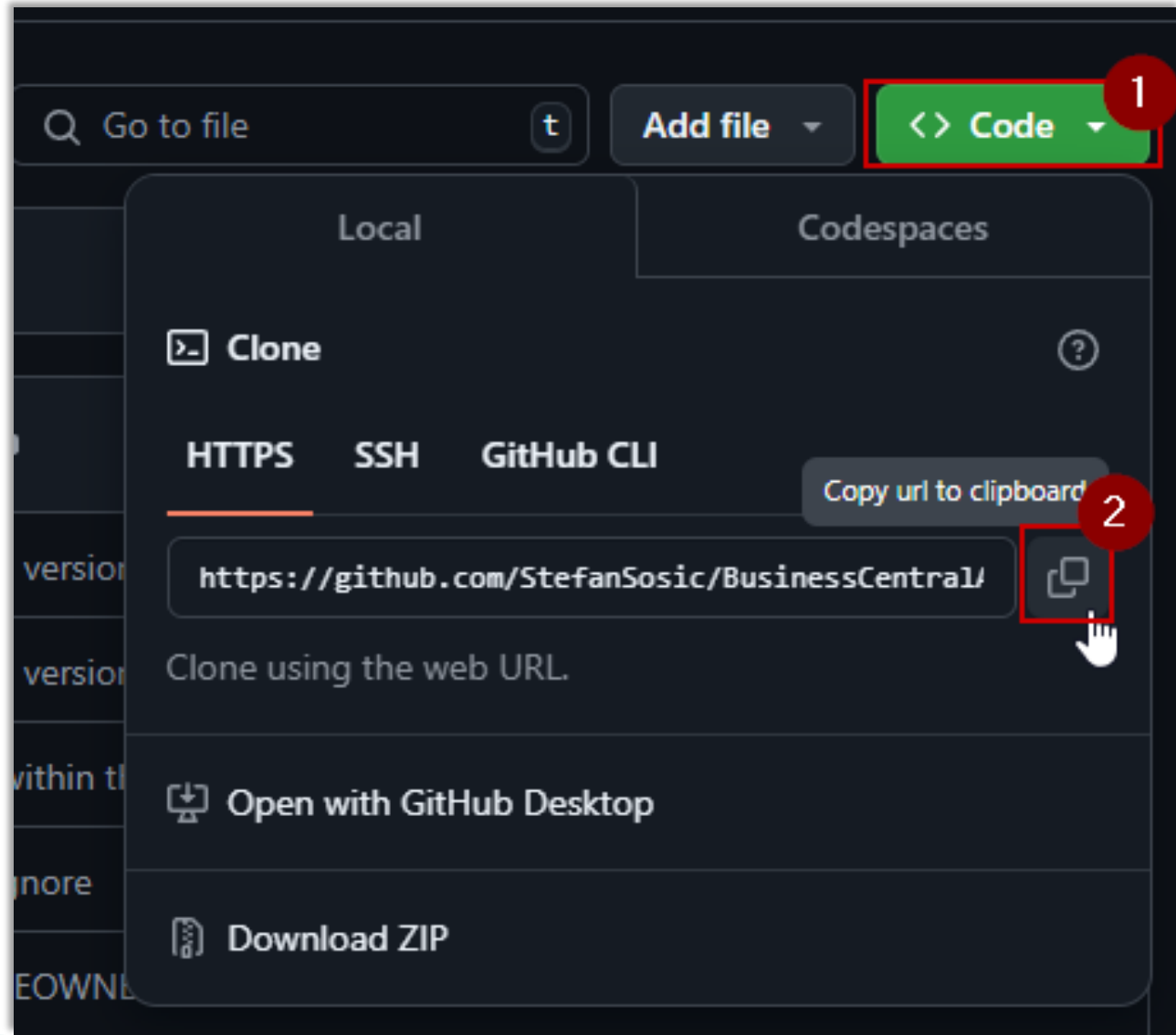
Make sure you are on your own fork!



Contributing as developer

Creating a fork on GitHub

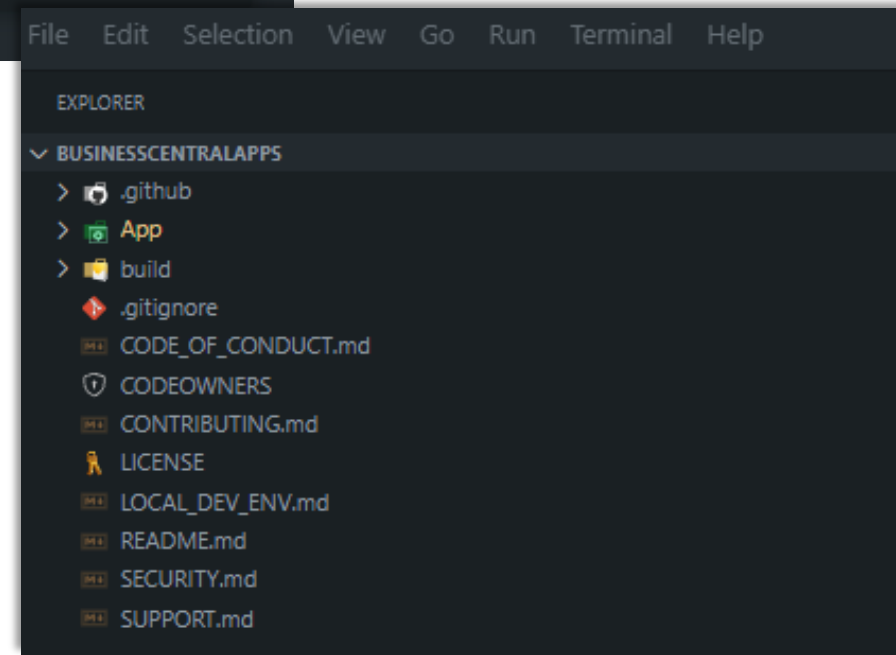
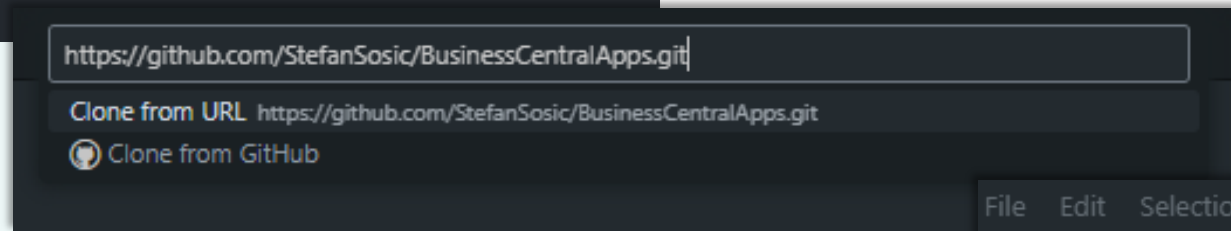
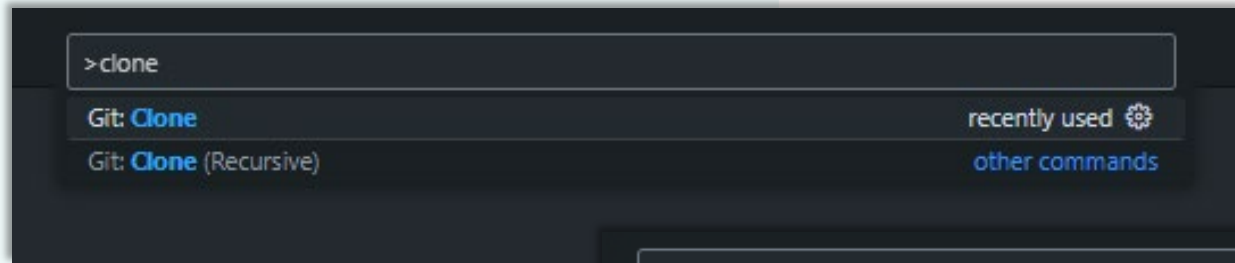
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Contributing as developer

Creating a fork on GitHub

directions vienna
emea 2024



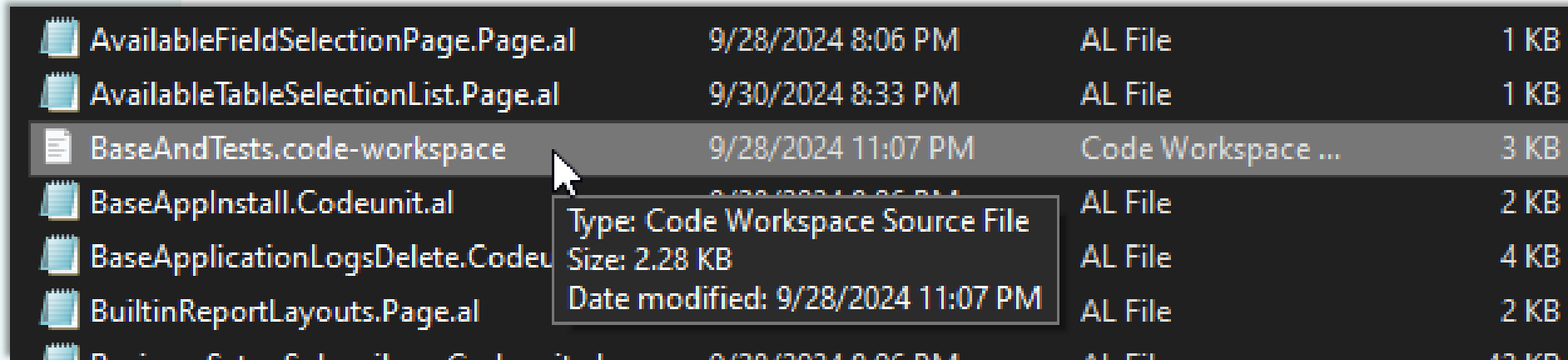
Contributing as developer

Creating a fork on GitHub



This is not the right way to open your development environment.

Each repository has its own **Visual Studio workspace file**.



For Base Application it's under path:




BusinessCentralApps\App\Layers\W1\BaseApp

Contributing as developer

Creating a fork on GitHub



For System Application, BCApps\src:

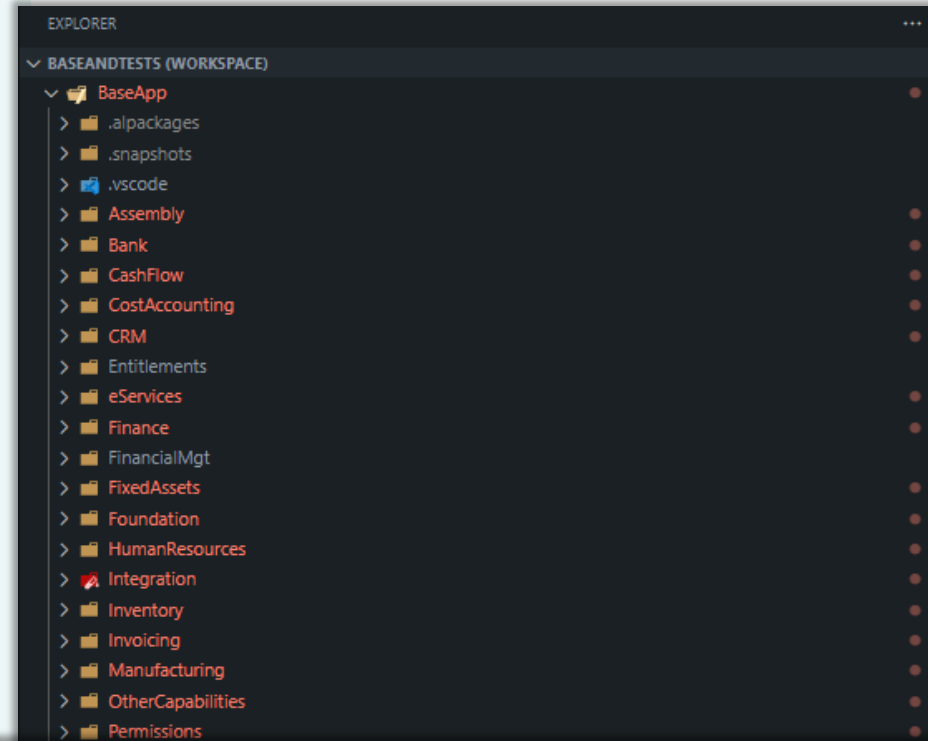
 tools	9/4/2024 3:12 PM	File folder	
 BusinessFoundation.code-workspace	9/4/2024 3:12 PM	Code Workspace ...	1 KB
 SystemApplication.code-workspace	9/4/2024 3:12 PM	Code Workspace ...	1 KB

Contributing as developer

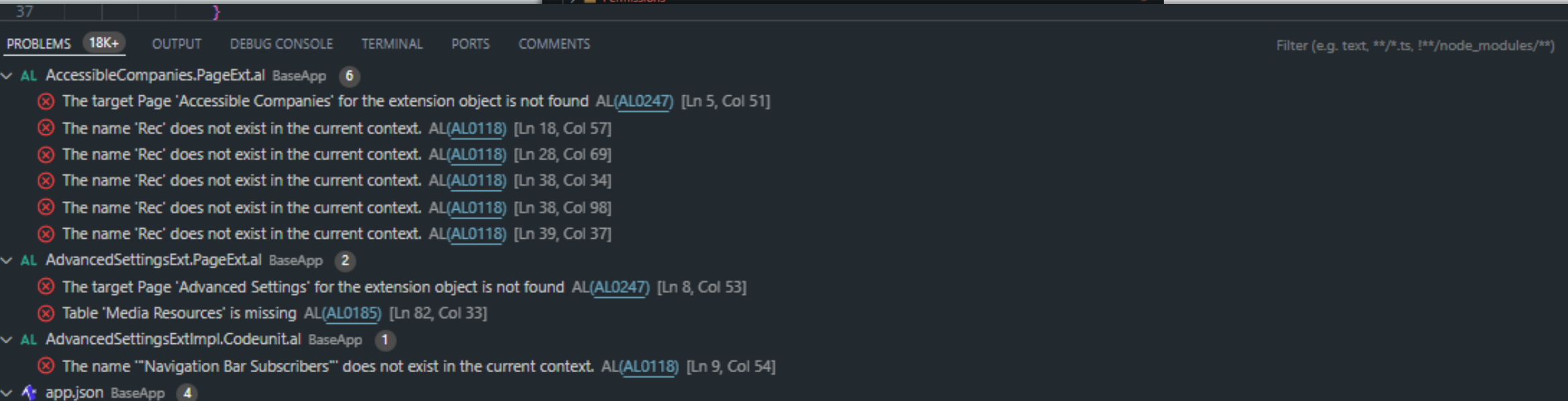
Creating a fork on GitHub

You are missing two crucial things:

1. AL Packages
2. Dot Net files



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Contributing as developer

Local Development
environment

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You need Docker installed on your local machine.

Docker Download Link:

<https://www.docker.com/products/docker-desktop/>



Contributing as developer

Local Development
environment

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Running script for local docker environment

The path for the Business Central repository is:

BusinessCentralApps\App\Projects\Base Application\.AL-Go

Open PowerShell as Administrator:

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Windows\system32>
```

Contributing as developer

Local Development
environment

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```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Windows\system32> cd "C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\App\Projects\Base Application\AL-Go"
PS C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\App\Projects\Base Application\AL-Go> dir

Directory: C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\App\Projects\Base Application\AL-Go

Mode                LastWriteTime         Length Name
----                -
-a----             9/28/2024   8:06 PM           4030 cloudDevEnv.ps1
-a----             9/28/2024   8:06 PM            178 ImportTestDataInBcContainer.ps1
-a----             9/28/2024   8:06 PM            366 ImportTestToolkitToBcContainer.ps1
-a----             9/28/2024   8:06 PM           6527 localDevEnv.ps1
-a----             9/28/2024   8:06 PM           2070 localDevEnv.settings.json
-a----             9/28/2024   8:06 PM            165 NewBcContainer.ps1
-a----             9/28/2024   8:06 PM            223 PreCompileApp.ps1
-a----             9/28/2024   8:06 PM            164 PublishBcContainerApp.ps1
-a----             9/28/2024   8:06 PM            164 RunTestsInBcContainer.ps1
-a----             9/28/2024   8:06 PM            361 settings.json

PS C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\App\Projects\Base Application\AL-Go> .\localDevEnv.ps1
```

Contributing as developer

Local Development
environment

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emea 2024

```
Administrator: Windows PowerShell

LocalDevEnv

Downloading Github-Helper.psml from https://raw.githubusercontent.com/microsoft/AL-Go/a2a51be438318a7e355fa9044815cf7890ffed1a/Actions/Github-Helper.psml
Downloading AL-Go-Helper.ps1 from https://raw.githubusercontent.com/microsoft/AL-Go/a2a51be438318a7e355fa9044815cf7890ffed1a/Actions/AL-Go-Helper.ps1
Downloading Packages.json from https://raw.githubusercontent.com/microsoft/AL-Go/a2a51be438318a7e355fa9044815cf7890ffed1a/Actions/Packages.json

This script will create a docker based local development environment for your project.

NOTE: You need to have Docker installed, configured and be able to create Business Central containers for this to work.
If this fails, you can setup a cloud based development environment by running cloudDevEnv.ps1

All apps and test apps will be compiled and published to the environment in the development scope.
The script will also modify launch.json to have a Local Sandbox configuration point to your environment.

Applying settings from C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\.github\AL-Go-Settings.json
Applying settings from C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\App\Projects\Base Application\AL-Go\settings.json
No settings found in C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\.github\localDevEnv.settings.json
Applying settings from C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\App\Projects\Base Application\AL-Go\localDevEnv.settings.json
No settings found in C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\App\Projects\Base Application\AL-Go\sosic.settings.json
Checking System Requirements

Container name
-----
Please enter the name of the container to create (default bcserver)
```

Contributing as developer

Local Development environment

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```
Container name
```

```
-----
```

```
Please enter the name of the container to create (default bcserver)
```

```
bcserver selected
```

```
Authentication mechanism for container
```

```
Authentication mechanism for container
```

```
-----
```

```
a Windows Authentication
```

```
b Username/Password authentication
```

```
Select authentication mechanism for container (default b)
```

```
Authentication mechanism for container
```

```
-----
```

```
a Windows Authentication
```

```
b Username/Password authentication
```

```
Select authentication mechanism for container (default b)
```

```
Username/Password authentication selected
```

Windows PowerShell credential request. ? X



Please enter username and password for your container

User name:

Password:

OK

Cancel

Contributing as developer

Local Development
environment

directions vienna
emea 2024

`LicenseFileUrl`

When developing PTEs, you can optionally specify a developer licensefile with permissions to object IDs of your dependant apps

Local path or a secure download URL to license file (default none)

```
Using BcContainerHelper preview version
Import from C:\ProgramData\BcContainerHelper\6.0.27-preview1257\BcContainerHelper\BcContainerHelper.ps1
BcContainerHelper version 6.0.27-preview1257
BC.HelperFunctions emits usage statistics telemetry to Microsoft
Running on Windows, PowerShell 5.1.19041.5007
Applying settings from C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\.github\AL-Go-Settings.json
Applying settings from C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\App\Projects\Base Application\AL-Go\settings.json
No settings found in C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\.github\localDevEnv.settings.json
Applying settings from C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\App\Projects\Base Application\AL-Go\localDevEnv.settings.json
No settings found in C:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\App\Projects\Base Application\AL-Go\sosic.settings.json
Checking type
Checking appFolders, testFolders and bcptTestFolders
Application Dependency 26.0.0.0
Checking artifact setting for project
Downloading artifacts from https://bcinsider-fvh2ekdjecfjd6gk.b02.azurefd.net/sandbox/26.0.24595.0/base
Updating app- and test Dependencies
Analyzing Test App Dependencies
Checking appDependencyProbingPaths
Press ENTER to accept the Business Central insider EULA (https://go.microsoft.com/fwlink/?linkid=2245051) or break the script to cancel:
```


Contributing as developer

Local Development environment

directions vienna
emea 2024

```
Administrator: Windows PowerShell
$script = Join-Path $PSScriptRoot "../../../build/scripts/NewBcContainer.ps1" -Resolve
. $script -parameters $parameters
[ImportTestToolkitToBcContainer override
[Diagnostics.CodeAnalysis.SuppressMessageAttribute('PSReviewUnusedParameter', 'parameters', Justification = 'The parameter is not used, but it's script needs to match this format')]
Param(
    [hashtable] $parameters
)

$script = Join-Path $PSScriptRoot "../../../build/scripts/ImportTestToolkitToBcContainer.ps1" -Resolve
. $script -parameters $parameters
[Custom pre-compilation script defined.
Param(
    [string] $appType,
    [ref] $compilationParams
)

$scriptPath = Join-Path $PSScriptRoot "../../../build/scripts/PreCompileApp.ps1" -Resolve
. $scriptPath -parameters $compilationParams -appType $appType
[PublishBcContainerApp override
Param([Hashtable]$parameters)

$script = Join-Path $PSScriptRoot "../../../build/scripts/PublishBcContainerApp.ps1" -Resolve
. $script -parameters $parameters
[ImportTestDataInBcContainer override
Param(
    [Hashtable]$parameters
)

$script = Join-Path $PSScriptRoot "../../../build/scripts/ImportTestDataInBcContainer.ps1" -Resolve
. $script -parameters $parameters
[RunTestsInBcContainer override
Param([Hashtable]$parameters)

$script = Join-Path $PSScriptRoot "../../../build/scripts/RunTestsInBcContainer.ps1" -Resolve
. $script -parameters $parameters
Pulling generic image

Pulling mcr.microsoft.com/businesscentral:1tsc2019-dev
```


Contributing as developer

Downloading AL Packages

directions vienna
emea 2024

Download the symbols needed for Base Application.

The screenshot shows the Visual Studio Code interface with the Explorer view on the left and the Code editor on the right. The Explorer view shows the workspace structure for 'BASEANDTESTS (WORKSPACE)', including folders like '.alpackages', '.snapshots', and '.vscode', and a file named 'launch.json'. The Code editor displays the content of 'launch.json' with the following configuration:

```
1 {
2   "version": "0.2.0",
3   "configurations": [
4     {
5       "name": "Your own server",
6       "request": "launch",
7       "type": "al",
8       "environmentType": "OnPrem",
9       "server": "http://bcserver",
10      "serverInstance": "BC",
11      "authentication": "UserPassword",
12      "startupObjectId": 22,
13      "startupObjectType": "Page",
14      "breakOnError": "All",
15      "launchBrowser": true,
16      "enableLongRunningSqlStatements": true,
17      "enableSqlInformationDebugger": true,
18      "tenant": "default",
19      "usePublicURLFromServer": true
20    }
21  ]
22 }
```

Contributing as developer

Downloading AL Packages

directions vienna
emea 2024

```
>download
```

AL: Download symbols

recently used 

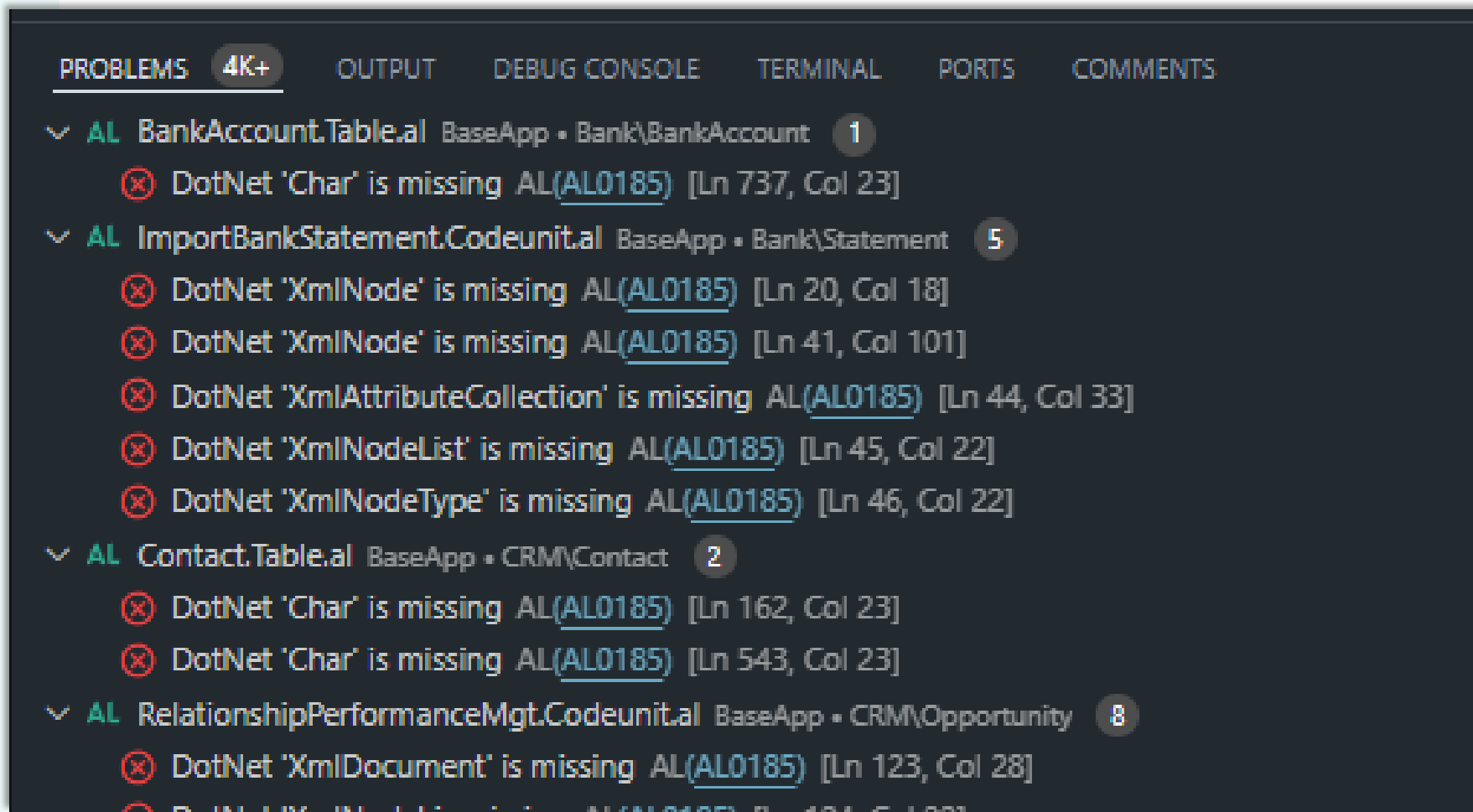
```
PROBLEMS 18K+ OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS AL
[2024-10-20 17:25:03.61] Targeting server 'http://bcserver', server instance 'BC' and tenant 'default'.
[2024-10-20 17:25:03.61] Please authenticate in the Visual Studio Code...
[2024-10-20 17:25:50.00] Using reference symbols cache paths: [c:\Users\sosic\Documents\AL Projects\Microsoft\BusinessCentralApps\AppLayers\W1\BaseApp\alpackages]
[2024-10-20 17:25:50.03] Targeting server 'http://bcserver', server instance 'BC' and tenant 'default'.
[2024-10-20 17:25:50.06] Using user name and password authentication. User name used is: 'admin'.
[2024-10-20 17:25:51.31] Sending request to http://bcserver:7049/BC/dev/metadata?tenant=default
[2024-10-20 17:25:53.55] Sending request to http://bcserver:7049/BC/dev/packages?publisher=Microsoft&appName=System&versionText=26.0.0.0&appId=8874ed3a-0643-4247-9ced-7a7002f7135d&tenant=default
[2024-10-20 17:25:53.55] Sending request to http://bcserver:7049/BC/dev/packages?publisher=Microsoft&appName=System Application&versionText=26.0.0.0&appId=63ca2fa4-4f03-4f2b-a480-172fef340d3f&tenant=default
[2024-10-20 17:25:53.55] Sending request to http://bcserver:7049/BC/dev/packages?publisher=Microsoft&appName=Business Foundation&versionText=26.0.0.0&appId=f3552374-a1f2-4356-848e-196002525837&tenant=default
[2024-10-20 17:25:56.63] The following dependencies will be queried for propagated dependencies:
[2024-10-20 17:25:56.72] All reference symbols have been downloaded.
Symbols have been downloaded.
```

Contributing as developer

Downloading AL Packages

directions vienna
emea 2024

You should get the message “Symbols have been downloaded.”



Contributing as developer

Defining assembly
probing path for
DotNet's



In order to resolve issues related to missing DotNet files you will need to define the assembly probing path.

Where are the DotNet's?

C:\ProgramData\BcContainerHelper\Extensions\bcserver\.netPackages

Where do I put that path?

Contributing as developer

Defining assembly probing path for DotNet's

directions vienna
emea 2024

The screenshot shows the Visual Studio Code interface with a workspace named 'BaseAndTests (Workspace)'. The Explorer view on the left shows a folder named 'BaseApp' containing several assembly files (AL) and a workspace file named 'BaseAndTests.code-workspace'. The main editor area displays the contents of 'BaseAndTests.code-workspace', which is a JSON configuration file. The file defines a list of folders for assembly probing, each with a 'path' property. The paths are: '..\\Tests\\TestRunner-Internal', '..\\Tests\\Upgrade', '..\\Tests\\User', '..\\Tests\\VAT', '..\\Tests\\Workflow', and '..\\Tests\\BCPT-SampleTests'. A comment at the bottom of the file reads: 'Jesper Schulz-Wedde, 2 years ago • First push of W1 folder'. A red error message is visible at the top of the editor: '"folders": [Array has duplicate items.'.

```
BaseAndTests.code-workspace 1, M
{
  "folders": [
    {
      "path": "..\\Tests\\TestRunner-Internal"
    },
    {
      "path": "..\\Tests\\Upgrade"
    },
    {
      "path": "..\\Tests\\User"
    },
    {
      "path": "..\\Tests\\VAT"
    },
    {
      "path": "..\\Tests\\Workflow"
    },
    {
      "path": "..\\Tests\\BCPT-SampleTests"
    }
  ],
  "settings": {
  }
}
```

Contributing as developer

Defining assembly
probing path for
DotNet's



Inside “settings” part, you will need to define the following:

```
"al.assemblyProbingPaths": [  
  "C:/ProgramData/BcContainerHelper/Extensions/bcserver/.netPackages"  
]
```

Contributing as developer

Defining assembly probing path for DotNet's

directions vienna
emea 2024

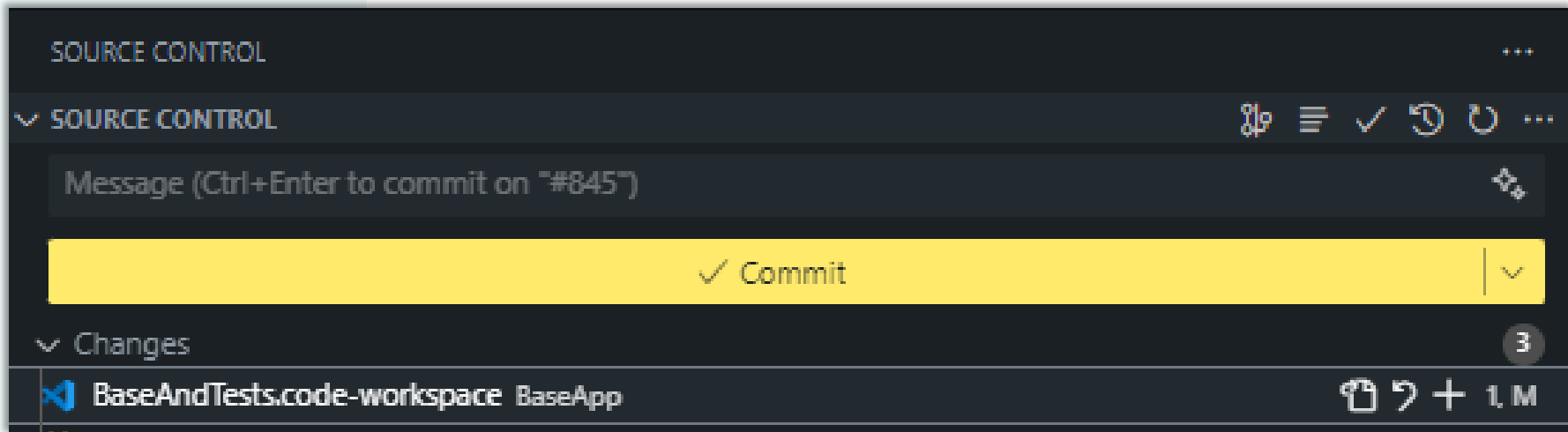
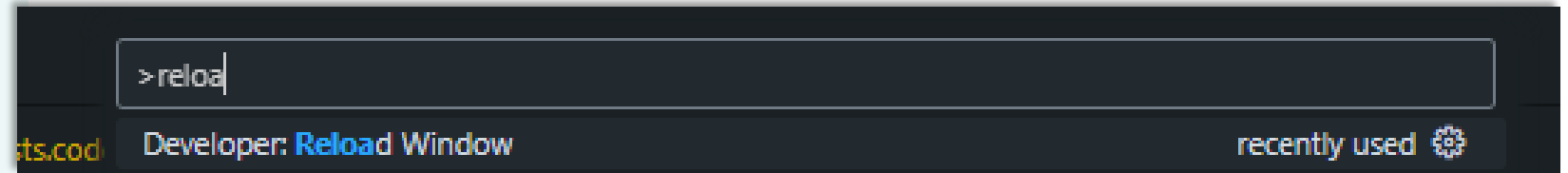
```
BaseAndTests.code-workspace 1, M X
BaseApp > BaseAndTests.code-workspace > {} settings > [ ] al.assemblyProbingPaths
2 "folders": [ Array has duplicate items.
123     {
124         "path": "..\\Tests\\TestRunner-Internal"
125     },
126     {
127         "path": "..\\Tests\\Upgrade"
128     },
129     {
130         "path": "..\\Tests\\User"
131     },
132     {
133         "path": "..\\Tests\\VAT"
134     },
135     {
136         "path": "..\\Tests\\Workflow"
137     },
138     {
139         "path": "..\\Tests\\BCPT-SampleTests"
140     },
141 ],
142 "settings": {
143     "al.assemblyProbingPaths": [
144         "C:/ProgramData/BcContainerHelper/Extensions/bcserver/.netPackages" "bcserver": Unkn
145     ]
146 }
147 }
```

Contributing as developer

Defining assembly probing path for DotNet's

directions vienna
emea 2024

Wait a bit and errors will be gone. If not, restart your VS Code:



Make sure you don't commit this file!

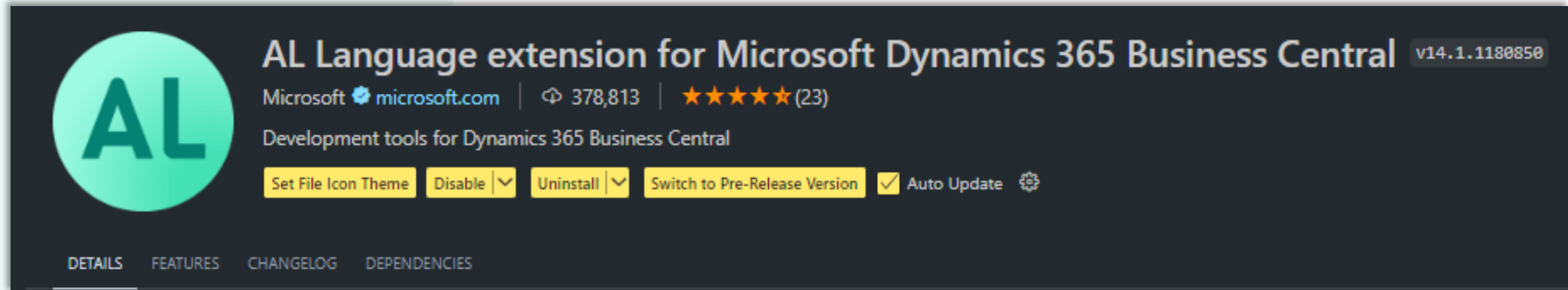
Contributing as developer

Use the correct AL Language extension for VS Code

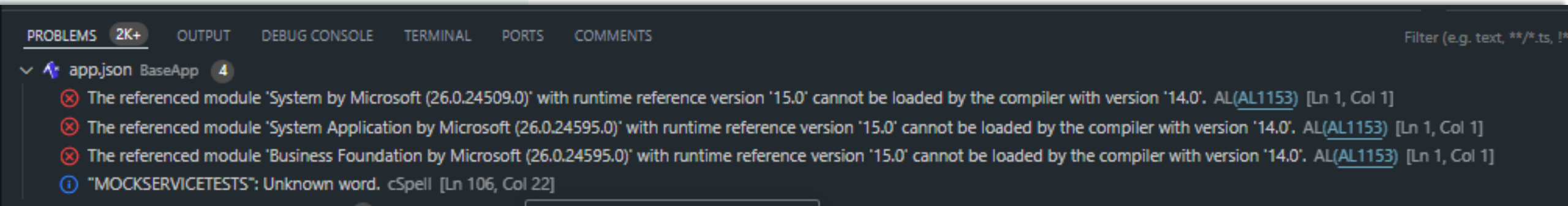
directions vienna
emea 2024

Even using a **pre-release version can cause errors.**

The safest method is to use the **VSIX file** which comes with your **local environment.**



The screenshot shows the Visual Studio Marketplace page for the 'AL Language extension for Microsoft Dynamics 365 Business Central'. The extension is published by Microsoft (microsoft.com) and has 378,813 downloads and a 5-star rating from 23 reviews. The current version is v14.1.1180850. The interface includes buttons for 'Set File Icon Theme', 'Disable', 'Uninstall', and 'Switch to Pre-Release Version', along with an 'Auto Update' checkbox. Navigation tabs for 'DETAILS', 'FEATURES', 'CHANGELOG', and 'DEPENDENCIES' are visible at the bottom.



The screenshot shows the Visual Studio Code Problems window with four errors listed for the 'app.json' file in the 'BaseApp' project. The first three errors are related to module loading failures due to version mismatches (runtime version '15.0' vs compiler version '14.0') for 'System by Microsoft (26.0.24509.0)', 'System Application by Microsoft (26.0.24595.0)', and 'Business Foundation by Microsoft (26.0.24595.0)'. The fourth error is a cSpell error for the word 'MOCKSERVICETESTS'.

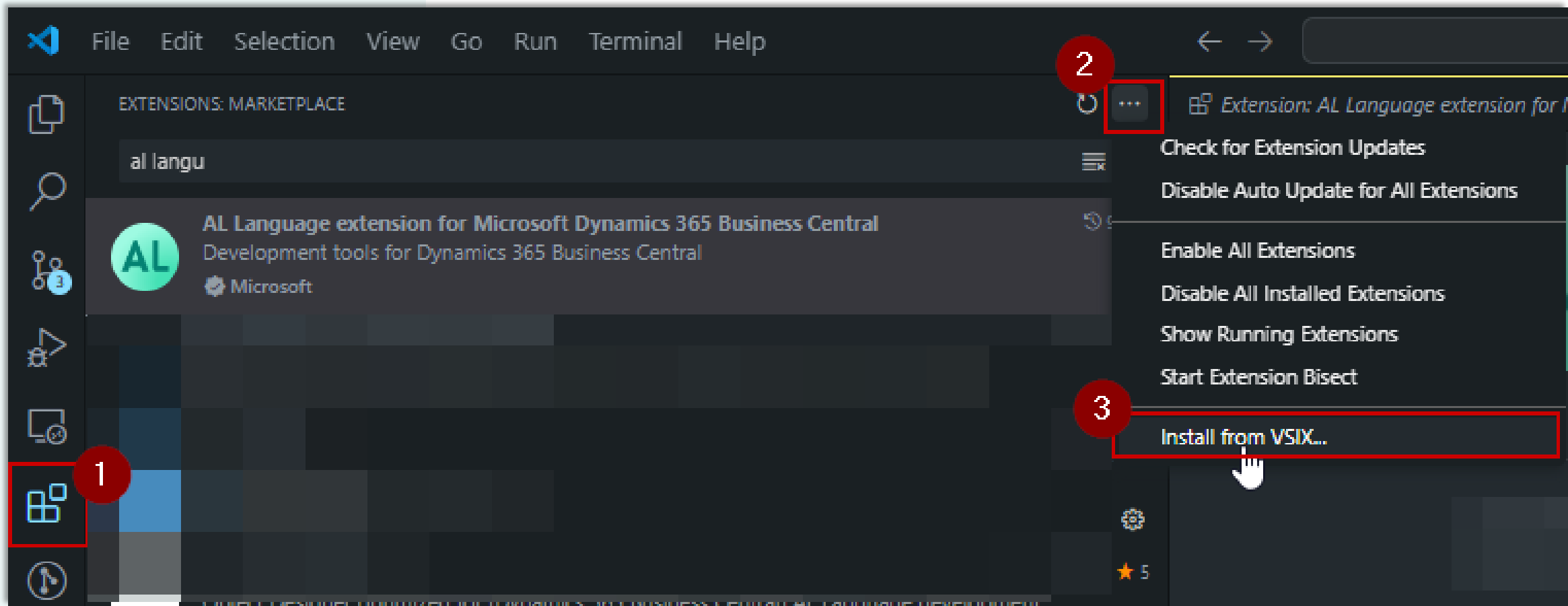
```
PROBLEMS 2K+ OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS Filter (e.g. text, **/*.ts, !*)
```

- ✘ The referenced module 'System by Microsoft (26.0.24509.0)' with runtime reference version '15.0' cannot be loaded by the compiler with version '14.0'. AL(AL1153) [Ln 1, Col 1]
- ✘ The referenced module 'System Application by Microsoft (26.0.24595.0)' with runtime reference version '15.0' cannot be loaded by the compiler with version '14.0'. AL(AL1153) [Ln 1, Col 1]
- ✘ The referenced module 'Business Foundation by Microsoft (26.0.24595.0)' with runtime reference version '15.0' cannot be loaded by the compiler with version '14.0'. AL(AL1153) [Ln 1, Col 1]
- ⓘ "MOCKSERVICETESTS": Unknown word. cSpell [Ln 106, Col 22]

Contributing as developer

Use the correct AL Language extension for VS Code

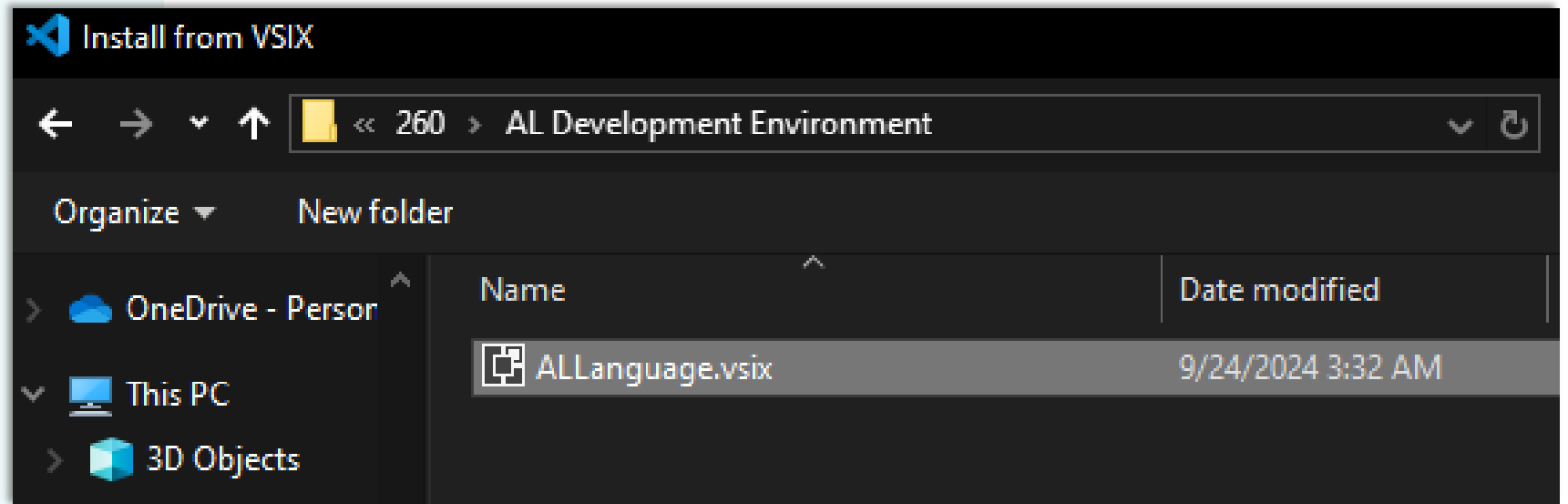
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emea 2024



Contributing as developer

Use the correct AL Language extension for VS Code

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emea 2024



Contributing as developer

Use the correct AL
Language extension for
VS Code



Where is my VSIX file?

Example path is:

```
C:\bcartifacts.cache\sandbox\26.0.24595.0\platform\ModernDev  
\program files\Microsoft Dynamics NAV\260\AL Development  
Environment
```

Why it's said example path?

Because the Business Central version is increasing it will be your sandbox version, in this case 26.0.24595.0 as long as the “260” version with the new major release of Business Central.

Contributing as developer

Other possible errors



At the moment of creating this presentation there is one error that is currently present on the repository in Base Application.

Feel free to comment it out. But keep in mind when pushing changes to your branch to **exclude that file**.

```
AL SignedXMLMgt.Codeunit.al BaseApp 2
⊗ Argument 1: cannot convert from 'DotNet "System.Security.Cryptography.RSACryptoServiceProvider"' to 'DotNet "System.Security.Cryptography.AsymmetricAlgorithm"' AL(AL0133) [Ln 52, Col 39]
⊗ Argument 1: cannot convert from 'DotNet "System.Security.Cryptography.RSACryptoServiceProvider"' to 'DotNet "System.Security.Cryptography.AsymmetricAlgorithm"' AL(AL0133) [Ln 86, Col 33]
```

Contributing as developer

Branch policy on your
fork



- No branch policy on your Fork
 - Missing protection for “main” branch
- Always create new branches
- Sync fork and “main” branch

Contributing as developer

Branch naming

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- No strict naming rule
- Branches are on your Fork
- ID in branch names

```
StefanSosic:#962
```



```
TKapitan:Issue#965
```



```
pri-kise:feature/861-ext-texts-job-fixes
```



Contributing as developer

Testing your code



Tests are **always** needed!

When developing a new feature or fixing the bug, tests are **essential**.

The question isn't whether you need tests, but if you've written enough to cover the entire feature.

When making tests make sure you **follow guidelines**.

Contributing as developer

Testing your code

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```
1082 + [Test]
1083 + [HandlerFunctions('MessageHandlerCombineShipment')]
1084 + [Scope('OnPrem')]
1085 + procedure CombineSingleServiceShipmentWithCustomerCombineShipment()
1086 + var
1087 +     Customer: Record Customer;
1088 +     ServiceHeader: Record "Service Header";
1089 +     Quantities: List of [Decimal];
1090 +     ItemNo: Code[20];
1091 + begin
1092 +     // [FEATURE] [Combine Shipments] [Description Service Line]
1093 +     // [SCENARIO 363166] Creating single Service Shipments with Customer which has set
1094 +     // Combine Shipments to "true"
1095 +     Initialize();
1096 +     // [GIVEN] Create new Customer with Combine Shipments = true
1097 +     CreateCustomerWithCombineShipments(Customer);
1098 +
1099 +     // [GIVEN] Create new Item
1100 +     ItemNo := LibraryInventory.CreateItemNo();
1101 +
1102 +     // [GIVEN] Create single Service Order
1103 +     CreateServiceOrderForCustomerAndDoShipment(ServiceHeader, Customer, Quantities,
1104 +     ItemNo);
1105 +     LibraryService.PostServiceOrder(ServiceHeader, true, false, false);
1106 +     // [WHEN] Combine Shipment with "Post Invoices" and "Copy Text Lines" = true
1107 +     LibraryVariableStorage.Enqueue(CombineShipmentMsg); // Enqueue for MessageHandler.
1108 +     RunCombineShipments(Customer."No.", false, true, false, true);
1109 +
1110 +     // [THEN] Verify Posted Service Invoice contains single lines with correct data
1111 +     VerifyPostedServiceInvoice(Quantities, ItemNo);
1112 + end;
```

Contributing as developer

New AL Files

directions vienna
emea 2024

Object ranges

- Per module
- Try find free one and suggest
- Double check/confirm with Microsoft

Object header with copyright information

- Copyright information on beginning of the object

```
1 // -----  
2 // Copyright (c) Microsoft Corporation. All rights reserved.  
3 // Licensed under the MIT License. See License.txt in the project root for license information.  
4 // -----  
5  
6 namespace System.Integration;  
7
```

Contributing as developer

Creating your first Pull Request

directions vienna
emea 2024

Take the issue on GitHub

Combine Shipments in Service Orders #845

Open

#936



JesperSchulz opened on Jul 11

edited by azure-boards · Edits · ...

This issue is generated from the following idea on aka.ms/bcideas: [Combine Shipments in Service Orders](#)

As we have the field "Combine Shipment" in the Sales Header we need this functionality also in the Service Header. The user can set the Flag on several Service Orders and with a new Report Combine Service Shipments the Service Invoices will be created. In general it is the same function from the Sales that is needed in the Service.

Internal work item: [AB#396370](#)



AndreiPanko added **Approved** on Jul 11



AndreiPanko added this to the [Project and service management](#) milestone on Jul 11

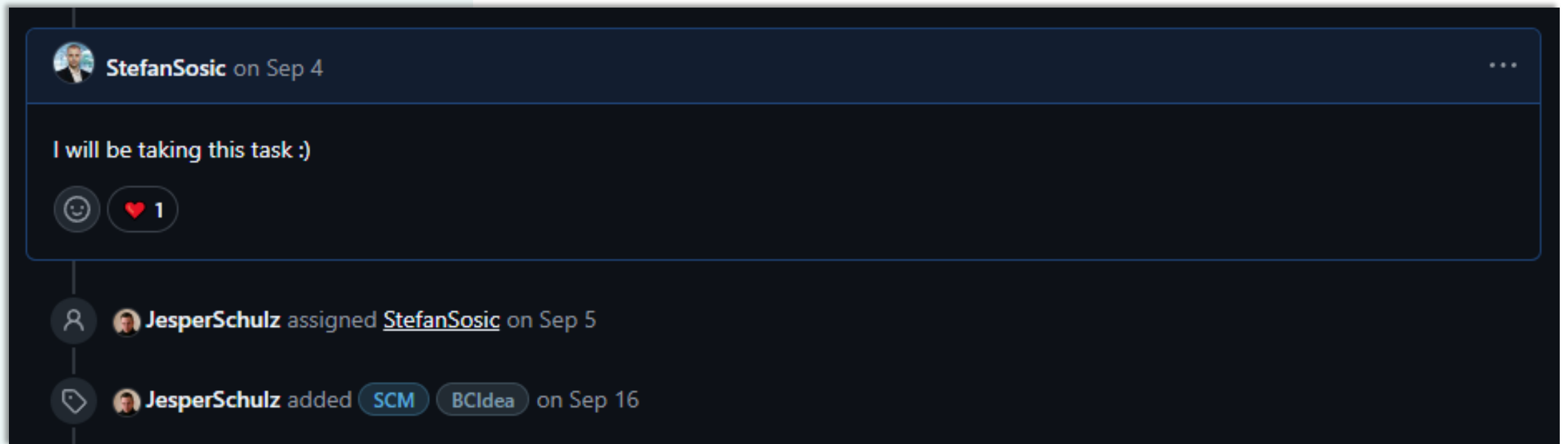
Make sure it has an "Approved" tag on it.

Contributing as developer

Creating your first Pull Request



What is the benefit?



Contributing as developer

Creating your first Pull Request

directions vienna
emea 2024

Combine Shipments in Service Orders #845

New issue

Open

#936



JesperSchulz opened on Jul 11

edited by azure-boards · Edits · ...

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Internal work item: [AB#396370](#)



Assignees



StefanSosic

Labels

Approved

BCIdea

Linked

SCM

Type

No type

Projects

Contributing as developer

Creating your first Pull
Request



Create a branch

1. Go to cloned Fork
2. Make sure Fork is synced
3. Make sure “main” branch is synced
4. Create new branch based on “main”

Contributing as developer

Creating your first Pull Request



Pre-Pull Request

You finished your development. Now what?

Make sure you do the following:

- Variables are sorted
- Usings are sorted
- You don't leave unused variables
- Check if you are making breaking changes (if you are doing breaking changes, make sure you put obsolete property and CLEAN tags)
- Check spelling in your Labels/Texts/Procedures/Descriptions
- Casing of methods, variables, procedures
- Missing parenthesis
- Empty lines if mistakenly added
- Correct spacing/formatting

These are just the most commonly seen mistakes, which get most of the comments on Pull Request.

Contributing as developer

Creating your first Pull Request

directions vienna
emea 2024

Create Pull Request

The screenshot shows the GitHub pull request interface for the repository 'CentralApps'. At the top, there is a search bar with the placeholder text 'Type / to search' and a repository icon. Below the search bar, a navigation menu includes 'Pull requests' (with a count of 22), 'Discussions', 'Actions', 'Projects', 'Security', and 'Insights'. A notification banner from 'StefanSasic:contributionGuide' states 'had recent pushes less than a minute ago' and includes a 'Compare & pull request' button. Below the notification, there is a filter section with a search input containing 'is:pr is:open', a 'Labels 13' button, and a 'Milestones 2' button, followed by a 'New pull request' button. At the bottom, a summary bar shows '22 Open' and '388 Closed' pull requests, along with dropdown menus for 'Author', 'Label', 'Projects', 'Milestones', 'Reviews', 'Assignee', and 'Sort'.

CentralApps

Search: Type / to search

Pull requests 22 Discussions Actions Projects Security Insights

StefanSasic:contributionGuide had recent pushes less than a minute ago [Compare & pull request](#)

Filters [Labels 13](#) [Milestones 2](#) [New pull request](#)

22 Open ✓ 388 Closed Author Label Projects Milestones Reviews Assignee Sort

Contributing as developer

Creating your first Pull Request

Create Pull Request



Compare changes

Compare changes across branches, commits, tags, and more below. If you need to, you can also [compare across forks](#).



base repository: microsoft/BusinessCentralApps ▾

base: main ▾



...

head repository: microsoft/BusinessCentralApps ▾

compare: main ▾



Contributing as developer

Creating your first Pull Request

directions vienna
emea 2024

Create Pull Request

Compare changes

Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also [compare across forks](#) or [learn more about diff comparisons](#).



base repository: microsoft/BusinessCentralApps

base: main



head repository: StefanSosic/BusinessCentralApps

compare: main



There isn't anything to compare.

microsoft:main and StefanSosic:main are identical

Choose a head ref

contribution

Branches

Tags

contributionGuide

Contributing as developer

Creating your first Pull Request

directions vienna
emea 2024

Create Pull Request

Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also [compare across forks](#) or [learn more about diff comparisons](#).



base repository: microsoft/BusinessCentralApps

base: main



head repository: StefanSosic/BusinessCentralApps

compare: contributionGuide

✓ **Able to merge.** These branches can be automatically merged.

Discuss and review the changes in this comparison with others. [Learn about pull requests](#)

Create pull request

1 commit

1 file changed

1 contributor

Commits on Oct 20, 2024

Contribution Guide



StefanSosic committed 6 minutes ago



b9b859d



Contributing as developer

Creating your first Pull Request

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emea 2024

Create Pull Request

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#). [Learn more about diff comparisons here](#).

base repository: microsoft/BusinessCentralApps base: main head repository: StefanSosic/BusinessCentralApps compare: contributionGuide

✓ Able to merge. These branches can be automatically merged.



Add a title

#123 Contribution Guide

Add a description

Write

Preview



<!-- Thank you for submitting a Pull Request. If you're new to contributing to BusinessCentralApps please read our pull request guideline below

* <https://github.com/microsoft/BusinessCentralApps/blob/main/CONTRIBUTING.md>

-->

Summary <!-- Provide a general summary of your changes -->

Work Item(s) <!-- Add the issue number here after the #. The issue needs to be open and approved. Submitting PRs with no linked issues or unapproved issues is highly discouraged. -->

Fixes #

Markdown is supported

Paste, drop, or click to add files

Allow edits and access to secrets by maintainers

Create pull request

Helpful resources

- [Contributing](#)
- [Code of conduct](#)
- [Security policy](#)
- [Support](#)
- [GitHub Community Guidelines](#)

Remember, contributions to this repository should follow its [contributing guidelines](#), [security policy](#), and [code of conduct](#).

Contributing as developer

Creating your first Pull Request


directions vienna
emea 2024

Create Pull Request

Work Item(s) <!-- Add the issue number here after the #. The issue needs to be a linked issues or unapproved issues is highly discouraged. -->

Fixes #123

 #123 Test coverage for physical inventory calculation

 Markdown is supported

 Paste, drop, or click to add files

Contributing as developer

Creating your first Pull Request

directions vienna
emea 2024

Create Pull Request

BC Idea Link

<https://experience.dynamics.com/ideas/idea/?ideaid=c761c21c-8185-ef11-9443-6045bdb37955>

Description

When using the "XML Buffer Writer" Codeunit it throws an custom error when we try to import an xml with an attribute value with long attributes. by using the setValue Procedure instead of the Table Field directly this could be solved and make the XML Buffer Writer usable with long attributes.

I will provide the implementation for this BC Idea

I will provide the implementation for this BC Idea

Internal work item: [AB#554626](#)

Contributing as developer

Creating your first Pull Request

directions vienna
emea 2024

Create Pull Request



StefanSusic commented on Aug 27 • edited by github-actions bot

Summary

This issue is generated from the following idea on aka.ms/bcideas: [Request to add Renumber Document Numbers ribbon/function at Job Journal page](#)

If Renumber Document Numbers ribbon/function is available at most journals including General Journal, Item Journal, Job G/L Journal pages, please also include and make it available at Job Journal page too, to have a consistent user experience.

Especially Job Journal are used to record labour hours from Timesheet, there will be many journal lines. It causes inconvenience and for the user to edit/update Document No. on every single Job Journal line.

Work Item(s)

Fixes [#849](#)


Fixes [AB#471658](#)






Contributing as developer


Creating your first Pull Request













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emea 2024


 **Code owner review required** [Show all reviewers](#)
Waiting on code owner review from microsoft/dynamics-365-business-central. [Learn more about pull request reviews.](#)

 **2 pending reviewers** 

 **No unresolved conversations** [View](#)
There aren't yet any conversations on this pull request.

 **Some checks were not successful** [Hide all checks](#)
1 skipped, 9 successful, and 1 failing checks

-   **Pull Request Build / PregateCheck (pull_request)** Skipped [Details](#)
-   **Work Item Validation / Validate link to issues (pull_request_target)** Successful in 19s [Details](#)
-   **Work Item Validation / For Microsoft: Validate link to internal work items (pull_request_target)** Faili... [Details](#)
-   **Pull Request Build / Initialization (pull_request)** Successful in 38s [Details](#)
-   **Pull Request Build / Build Base Application (Default) / Base Application (Default) (pull_request)** Suc... [Details](#)
-   **Pull Request Build / Build Base Application Test - Bucket 1 (Default) / Base Application Test - Bucket ...** [Details](#)

 **Merging is blocked**
Merging can be performed automatically with 1 approving review.

Contributing as developer

Creating your first Pull Request



Contribution License Agreement

When you are doing your first pull request, you will be asked to accept CLA (Contribution License Agreement).

Options:

1. (default - no company specified) I have sole ownership of intellectual property rights to my Submissions and I am not making Submissions in the course of work for my employer.

@microsoft-github-policy-service agree

1. (when company given) I am making Submissions in the course of work for my employer (or my employer has intellectual property rights in my Submissions by contract or applicable law). I have permission from my employer to make Submissions and enter into this Agreement on behalf of my employer. By signing below, the defined term "You" includes me and my employer.

@microsoft-github-policy-service agree company="Microsoft"

Contributing as developer

Creating your first Pull Request

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Re: [microsoft/BCApps] Make the Manual Setup page easier to browse (PR #1231)



microsoft-github-policy-service[bot] <notifications@github.com>

To: microsoft/BCApps <BCApps@noreply.github.com>

Cc: Stefan Susic; Mention <mention@noreply.github.com>



Reply



Reply all



Forward



Sat 6/1/2024 9:38 PM

@StefanSusic please read the following Contributor **License Agreement** (CLA). If you agree with the CLA, please reply with the following information.

@microsoft-github-policy-service agree [company="{your company}"]

Options:

- (default - no company specified) I have sole ownership of intellectual property rights to my Submissions and I am not making Submissions in the course of work for my employer.

@microsoft-github-policy-service agree

- (when company given) I am making Submissions in the course of work for my employer (or my employer has intellectual property rights in my Submissions by contract or applicable law). I have permission from my employer to make Submissions and enter into this **Agreement** on behalf of my employer. By signing below, the defined term "You" includes me and my employer.

@microsoft-github-policy-service agree company="Microsoft"

Contributor **License Agreement**

Contribution License Agreement

This **Contribution License Agreement** ("**Agreement**") is agreed to by the party signing below ("**You**"), and conveys certain **license** rights to Microsoft Corporation and its affiliates ("**Microsoft**") for Your contributions to Microsoft open source projects. This **Agreement** is effective as of the latest signature date below.

Contributing as developer

Creating your first Pull Request

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Merged **Make the Manual Setup page easier to browse #1231**
JesperSchulz merged 6 commits into `microsoft:main` from `StefanSosic:Issue#764` on Jun 20

github-actions bot added `AL: System Application` `From Fork` labels on Jun 1

StefanSosic commented on Jun 1 Contributor Author ...

@microsoft-github-policy-service agree

@microsoft-github-policy-service agree

😊

Contributing as developer

Pull Request CIs

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Issue not approved

The image shows a GitHub Actions workflow log on the left and a pull request status summary on the right. The workflow log shows a comment from the 'github-actions' bot stating that issue #962 is not valid. The pull request status summary shows several checks: 'Code owner review required' (failing), 'No unresolved conversations' (passing), '1 workflow awaiting approval' (warning), and 'Work Item Validation / Validate link to issues (pull_request_target)' (failing).

github-actions bot commented yesterday

Issue [#962](#) is not valid. Please make sure you link an **issue** that exists, is **open** and is **approved**.

Code owner review required [Show all reviewers](#)
Waiting on code owner review from microsoft/dynamics-365-business-central. [Learn more about pull request reviews](#).

2 pending reviewers

No unresolved conversations [View](#)
There aren't yet any conversations on this pull request.

1 workflow awaiting approval [Hide all checks](#)
Users without write permissions need approval to run workflows. [Learn more about approving workflows](#).
1 failing, 1 skipped, 1 expected, and 1 successful checks

Work Item Validation / Validate link to issues (pull_request_target) Failing after 25s [Details](#)

Contributing as developer

Pull Request CIs

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Work Item(s)

Fixes [#849](#)

Fixes [AB#471658](#)



Missing internal work item



Code owner review required

Waiting on code owner review from microsoft/dynamics-365-business-central. [Learn more about pull request reviews.](#)

Show all reviewers



2 pending reviewers



No unresolved conversations

There aren't yet any conversations on this pull request.

View



Some checks were not successful

1 skipped, 9 successful, and 1 failing checks

Hide all checks



Pull Request Build / PregateCheck (pull_request) Skipped

Details



Work Item Validation / Validate link to issues (pull_request_target) Successful in 19s

Details



Work Item Validation / For Microsoft: Validate link to internal work items (pull_request_target) Faili...

Details



Pull Request Build / Initialization (pull_request) Successful in 38s

Details



Pull Request Build / Build Base Application (Default) / Base Application (Default) (pull_request) Suc...

Details



Pull Request Build / Build Base Application Test - Bucket 1 (Default) / Base Application Test - Bucket ...

Details



Merging is blocked

Merging can be performed automatically with 1 approving review.

Contributing as developer

Pull Request CIs

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Build validation and tests



All checks have passed

1 skipped and 10 successful checks

[Hide all checks](#)

- ✓  Pull Request Build / Build Base Application (Default) / Base Application (Default) (pull_request) Suc... [Details](#)
- ✓  Pull Request Build / Build Base Application Test - Bucket 1 (Default) / Base Application Test - Bucket ... [Details](#)
- ✓  Pull Request Build / Build Base Application Test - Bucket 2 (Default) / Base Application Test - Bucket ... [Details](#)
- ✓  Pull Request Build / Build Base Application Test - Bucket 3 (Default) / Base Application Test - Bucket ... [Details](#)
- ✓  Pull Request Build / Build Base Application Test - Bucket 4 (Default) / Base Application Test - Bucket ... [Details](#)
- ✓  Pull Request Build / Pull Request Status Check (pull_request) Successful in 9s Required [Details](#)

Contributing as developer

Pull Request CIs

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Build validation and tests

Some checks were not successful [Hide all checks](#)
1 skipped, 7 successful, and 3 failing checks

✓		Work Item Validation / For Microsoft: Validate link to internal work items (pull_request_target) Succ...	Details
✓		Pull Request Build / Build Base Application (Default) / Base Application (Default) (pull_request) Suc...	Details
✗		Pull Request Build / Build Base Application Test - Bucket 1 (Default) / Base Application Test - Bucket ...	Details
✓		Pull Request Build / Build Base Application Test - Bucket 2 (Default) / Base Application Test - Bucket ...	Details
✗		Pull Request Build / Build Base Application Test - Bucket 3 (Default) / Base Application Test - Bucket ...	Details
✓		Pull Request Build / Build Base Application Test - Bucket 4 (Default) / Base Application Test - Bucket ...	Details

✗ Merging is blocked
Merging can be performed automatically with 1 approving review.


Contributing as developer


Pull Request CIs

CI failed notifications










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[StefanSosic/BusinessCentralApps] Run cancelled: CI/CD - main (efcb553)

 [StefanSosic/BusinessCentralApps] CI/CD workflow run


CI/CD: Some jobs were not successful

[View workflow run](#)

	CI/CD / Initialization Succeeded in 54 seconds	
	CI/CD / CheckForUpdates Succeeded in 41 seconds	 1
	CI/CD / Build Base Application (Default) / Base Application (Default) Succeeded in 10 minutes and 36 seconds	 10
	CI/CD / Build Base Application Test - Bucket 3 (Default) / Base Application Test - Bucket 3 (Default) Cancelled	 1
	CI/CD / Build Base Application Test - Bucket 4 (Default) / Base	

Contributing as developer

Pull Request CIs

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CI failed notifications

The screenshot shows the GitHub Notifications interface. On the left, there is a sidebar with a menu icon, the GitHub logo, and the word "Notifications". Below this, there are three filter buttons: "Inbox" (with a count of 5), "Saved", and "Done". At the bottom of the sidebar is a "Filters" section. The main area of the notifications is divided into "All" and "Unread" tabs, with a search bar labeled "Search notifications". Below the tabs, there is a "Select all" checkbox. A single notification is visible, marked as unread with a blue dot and a red 'x' icon. The notification text is: "microsoft/BusinessCentralApps – Work Item Validation #1060" followed by "Work Item Validation workflow run failed for #962 branch".

Notifications

Inbox 5

Saved

Done

Filters

All Unread

Search notifications

Select all



× microsoft/BusinessCentralApps – Work Item Validation #1060
Work Item Validation workflow run failed for #962 branch

Contributing as developer



Pull Request Tags



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Linked

  **github-actions** bot added the **Linked** label 2 days ago

Integration/SCM/Finance and so on...

  **JesperSchulz** added the **Integration** label 3 weeks ago

  **JesperSchulz** added **Finance** labels 2 weeks ago

  **JesperSchulz** added **SCM** labels 2 weeks ago

Contributing as developer

Pull Request Tags

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Follow Up

- Due complexity
- Discussion with creator/internal Microsoft between departments
- Additional information needs to be provided:
 - From Pull Request creator
 - From Microsoft to Pull Request Creator



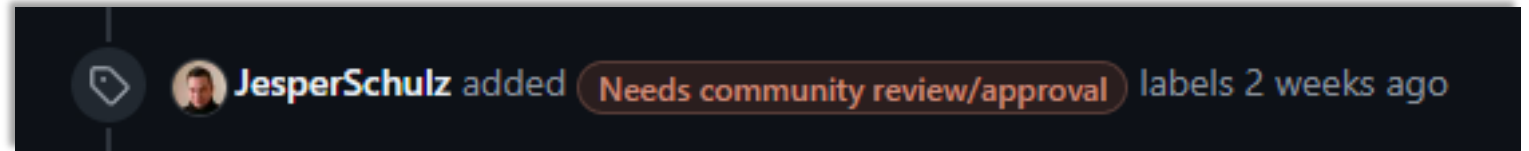
Jesper Schulz added the **Follow Up** label on Feb 28

Contributing as developer

Pull Request Tags

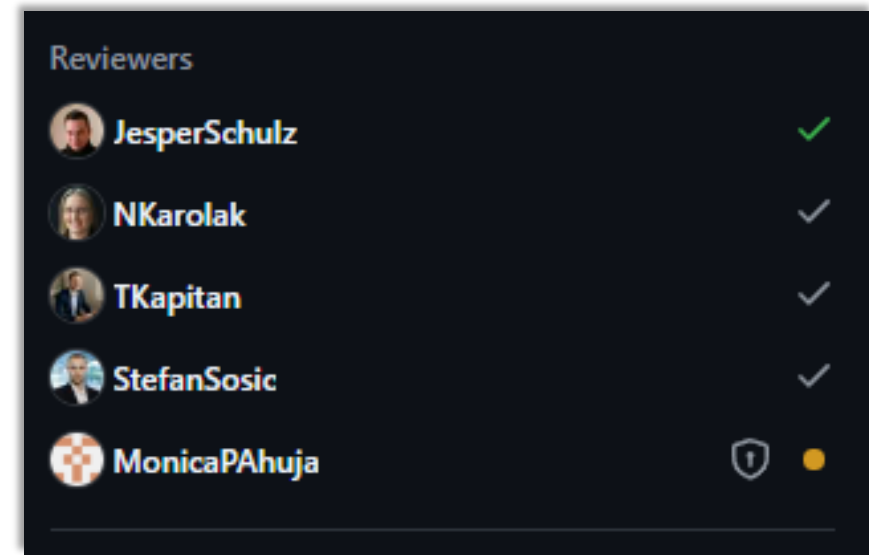
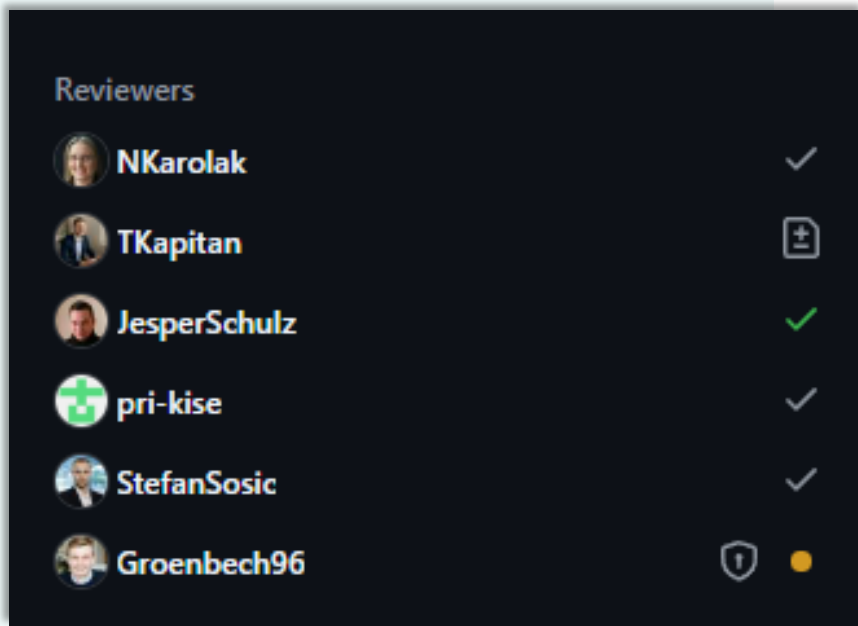


Needs community review/approval



Other community members are required to review your pull request.

A standard Pull Requests approval looks like this:

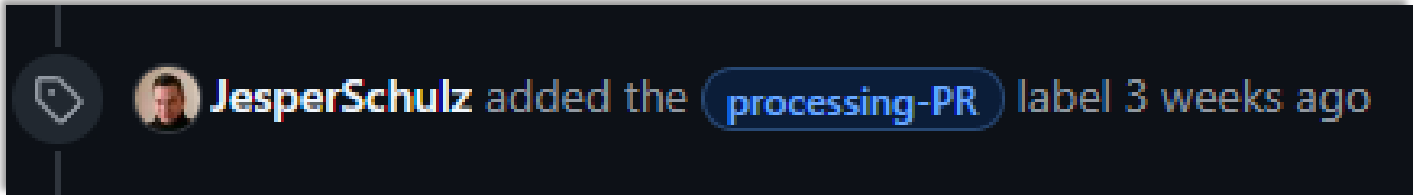


Contributing as developer

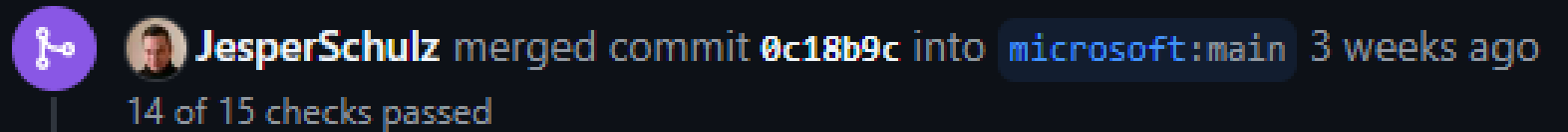
Pull Request Tags

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Processing PR



- Ready to be merged to “main” branch
- Microsoft internal
 - Testing (cross localizations)
 - Validation of functionality



Other ways for contributions

Review of pull requests

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Contributions are not only creation of solutions and bug fixes.

As valuable as that are Review of Pull Requests.

You may already seen before in this guide tag on Pull Request:



Your input is valuable and as many different people look at some Pull Requests we can make sure:

- Quality is ensured
- Different aspects are took into consideration
- Nothing gets slipped trough

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Want more details?

<https://ssosic.com/BCContributionGuide>

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Give me Feedback!

and help me improve!

Please rate my session in the Conference App!

and leave a constructive comment.

Thank you !

