**What's new in Dynamics 365 Business Central telemetry - September 2023**

It is September and it has been a month since the last newsletter. The last month has been action packed in the Business Central product group, where we have had much fun closing the 2023 release wave 2 as well as preparing for the next version(s).

As always, the bleeding edge news on Dynamics 365 Business Central telemetry happens on Twitter/X (not sure about the future of this platform, but will stay there for a bit), so if you want to keep up with the latest and greatest (and the beta versions of the Power BI telemetry apps) then follow me there (@kennienp). The intention of these monthly newsletters is to try to gather everything that I know and learn about this area and present it here. Let’s go…

In the September 2023 edition, read about these things:

* The 2023 release wave 2 is coming soon. Are you ready (to deal with broken PTEs)?
* Power BI Usage apps – September updates
* New signal/updates
* Documentation updates
* New blogs and videos

# The 2023 release wave 2 is coming soon. Are you ready (to deal with broken PTEs)?

In every release wave of Business Central, we change things that break apps and per-tenant extensions (PTEs). But we give partners and customers 12+ months to fix and refactor code prior to breaking changes. We even send out email notifications to app/extension publishers that they need to fix things. And then in Business Central, we will postpone upgrades to next major version if the environment has apps/extensions that are non-compatible with the next major. Wouldn’t it be nice if you as a VAR partner could setup alerts on these events in due time so that you would have an overview on which apps/extensions need fixing at which customers? Well, this is finally possible!

In September, we are starting to emit per-environment telemetry on PTEs that are non-compatible to next major and early KQL samples are out now. Check them out here

<https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/KQL/Queries/ExampleQueriesForEachArea/PTEEnvironmentValidation.kql>

But Kennie, how do I alert on that? And can I get alerts in Teams AND in emails? Yup. Check out how to do just that here: <https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/administration/telemetry-alert>

For PTE validation failures against next major, use this KQL query for your alerts:

<https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/Alerts/AlertingKQLSamples/PTEEnvironmentValidation.kql>

# Power BI Usage apps – September updates

The September updates for both apps mainly focus on small bugfixes (only listed in the release notes) and enhanced filtering.

## For both apps

**Error report**

On the page FeatureErrors, added top/bottom parsing visuals for the AL stack trace.

## Environment Usage app (for VARs)

On all four reports (Usage, Errors, Performance, and Administration): Added global filters on environment version (full and short)

**Usage report**

On page 'Feature Usage', data can now be filtered with filters from the AppDim dimension

Release note: <https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/PowerBI/Reports/AppSource/environment-app-pbix/changelog.txt>

## App Usage app (for ISVs)

**Error report**

Added global page filters on app, app publisher, app id, and app version. This makes it easier to filter once on an app and then see error results across all pages.

**Administration report**

On the page Inventory, added platform version and major version to environment visual and page filters. This makes it a little bit easier for you to see on which versions of Business Central your customers are.

Release note: <https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/PowerBI/Reports/AppSource/isv-app-pbix/changelog-isv-app.txt>

# New signal/updates

**Job Queue**

We added three new events:

Job queue entry {Job Queue Id} errored after {attempt number} attempts

Job queue entry run by user

Job queue entry rescheduled on login

I want to highlight especially the first event. Use this to start troubleshooting job queue errors where the entry has been stopped because it failed for the last time before being set in Error state. As an administrator, you want to know about job queue entries that are going into the final failed state and require manual intervention (restarting etc).

For more information about the three events, see    
<https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/administration/telemetry-job-queue-lifecycle-trace>

KQL code samples for job queue telemetry has also been updated with the new events:

<https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/KQL/Queries/ExampleQueriesForEachArea/JobQueue.kql>

**Coming soon/in the works (no ETA given)**

PTE validation signal (coming in September 2023) (PTEs that were uploaded in the Extension management page and PTEs that block updates to next major)

Early KQL samples are out now. Check them out here

<https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/KQL/Queries/ExampleQueriesForEachArea/PTEEnvironmentValidation.kql>

<https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/KQL/Queries/ExampleQueriesForEachArea/PTEUploadValidation.kql>

Configuration of changelog (coming in 23.0)

Business Events lifecycle events (coming in 23.0)

Onboarding telemetry: format data of date dimensions

Information on files blocked from upload due to malware scanning (only in the online version).

# Documentation updates

**Long running AL methods**

The documentation for telemetry on long running AL methods now includes copy-to-clipboard KQL sample code for easy performance troubleshooting.

Read more here: <https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/administration/telemetry-al-method-trace#sample-kql-code-for-analyzing-al-method-performance>

**Job Queue**

We updated the docs for Dynamics 365 Business Central job queue telemetry to show  
three new events (see above)  
paragraphs on troubleshooting job queues with telemetry and on alerting on job queues with telemetry  
KQL samples  
  
For more information, see    
<https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/administration/telemetry-job-queue-lifecycle-trace>

The KQL code samples for job queue telemetry also got a huge makeover, check out the naming of custom dimensions in the code examples (telemetry events are treated as an API, so not trivial to rename existing things)  
  
For more information, see <https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/KQL/Queries/ExampleQueriesForEachArea/JobQueue.kql>

Check it out and let me know if you think we can do more.

# Tips and tricks

**Copy environment will keep the telemetry connection string.**

The environment settings set in the admin center, including the Application Insights connection string and update window, are copied over to the target environment when copying an environment. If you don't want the target environment to emit telemetry to the same Application Insights resource as the source environment, you can remove or change the connection string after the copy completes or use Data Collection Rules on the Application Insights resource to filter out telemetry from any environments from which you don't want to collect telemetry on that resource.

For more information, see <https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/administration/tenant-admin-center-environments-copy#environment-copies>

**Azure Data Explorer KQL cheat sheets**

The team behind KQL

<https://techcommunity.microsoft.com/t5/azure-data-explorer-blog/azure-data-explorer-kql-cheat-sheets/ba-p/1057404>

# Blog posts and videos

Microsoft MVP Eric Wauters aka Waldo wrote a blog post on how to analyze deadlocks at a specific customer using telemetry:

<https://www.waldo.be/2023/08/31/analyzing-deadlocks-in-business-central-with-telemetry/>

James Pearson wrote a blog post about Using the Dynamic Data Type in KQL, see

<https://jpearson.blog/2023/08/22/using-the-dynamic-data-type-in-kql/>

I was guest in the podcast *In the Dynamics Corner Chair* by Brad Prendergast and Kristoffer Ruyeras. The episode was called “Save the World a Little Every Day” and has a lot if telemetry insights (among other things). For more information, see

<https://www.dynamicscorner.com/2023/09/episode-232-in-the-dynamics-corner-chair-save-the-world-a-little-every-day/>

Did you know that the BCTech repo has pages with links to blog posts and videos on telemetry?

Blogs: <https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/BLOGS.md>

Videos: <https://github.com/microsoft/BCTech/blob/master/samples/AppInsights/VIDEOS.md>

If you create blog posts/videos on telemetry (or know of things that are not linked from these two pages), feel free to do a pull request to the repository (or send me an email/message).

**That’s all folks!**

That's it for the September newsletter. If you made it all the way down here, then you are truly a Telemetry Hero. See you in a month.

PS. Would love to hear your experiences on using alerts to be more proactive. Reach out (or blog about your experiences.)

PPS. It is not too late to rate the Power BI apps on Appsource 😊 Your feedback matters (a lot).

Do it here:

<https://appsource.microsoft.com/en-us/product/power-bi/microsoftdynsmb.bc_telemetry_pbi_app>

(for environment telemetry)

or

<https://appsource.microsoft.com/en-us/product/power-bi/microsoftdynsmb.bc_telemetry_pbi_app_isv_version>

(for app telemetry)