Cello How-To Guide

Product Analytics

techcello

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1 Product Analytics

CelloSaaS analytics helps to capture various information about the application and its usage, users, time duration, page size, response size and URL details. This can help the Product management teams and administrators to analyze and understand the usage patterns of the application by various tenants and its users and optimize the product accordingly.

This information is captured at the runtime by the framework by simply enabling the Product Analytics settings; similarly it could be turned off when it is not required. This can be enabled at the following levels

1. Application level as whole

2. Tenant level via the setting templates, where in a tenant can turn on / turn off the analytics.

CelloSaaS analytics is not just a tool for measuring web traffic and usage but can be used as a tool for business and market research, and to assess and improve the effectiveness of the product. It helps the ISVs to understand how many users accessing the application/module/feature at a given point of time, or how well the new features are used by the tenants and their users and so on.

Follow the below instruction to enable/disable Product Analytics

1.1 Configure Connection String

The logging of the usage can be stored in a separate database [similar to that of the UserConnectionString, with the use of the *ProductAnalyticsConnectionString* in the *web.config* file in the *<connectionStrings>* section.

```
<addname="ProductAnalyticsConnectionString"connectionString="Data Source=Server;Initial
Catalog=Database;User Id=UserId;Password=Password;"providerName="System.Data.SqlClient"/>
```

1.2 Inherit from CelloController

```
public class RolesController : CelloSaaS.View.CelloController
    {
        private string TenantId = TenantContext.GetTenantId(new Role().EntityIdentifier);

        // your code goes here
    }
```

1.3 Enable / Disable Product Analytics

Product Analytics can be turned **ON** and **OFF** at both Application and Tenant Level.

1.3.1 Application Based

To enable or disable the product analytics on an application basis, the appsettings should be set as follows,

<add key="EnableProductAnalytics" value="true"/>

This feature is available in namespace: CelloSaaS.View.TrackUsage

The TrackUsage / DisableTrackUsage attribute is to be used on the controller or on the action on which the requests to be tracked or not tracked.

1.3.2 Tracking

A. Track Usage Attribute in Controller:

```
[CelloSaaS.View.TrackUsage(TraceLevel = CelloSaaS.View.TraceLevels.Verbose)]
publicclassRolesController : CelloSaaS.View.CelloController
{ ... }
```

B. TrackUsage Attribute in Action Method:

```
[CelloSaaS.View.TrackUsage(TraceLevel = CelloSaaS.View.TraceLevels.Verbose)]
publicActionResult UserList()
{ ... }
```

C. To Disable Tracking:

```
[DisableTrackUsage]
publicActionResult UserList()
{ ... }
```

The attribute when used in the controller, causes all the requests for all the actions in that controller to be logged in the database. The attribute when used in the action method, causes all the requests for this particular action method to be logged. The DisableTrackUsage attribute is used to avoid the tracking of the requests for the particular action method or for all the methods in the controller.

1.3.3 Trace Levels

None: No analytics information is logged at this level

UrlTrace: The following data are available in this level of tracing:

- ActionName
- ControllerName
- TimeStamp
- CurrentUrl
- UserId
- TenantId

Verbose: The following data are available in this level of tracing:

- ActionName
- UserId
- ControllerName
- TimeStamp
- CurrentUrl
- TenantId
- ResponseStatusCode
- ResponseDescription
- ExceptionDetails
- MachineName
- RequestMethod
- RequestMode
- IPAddress

Note: The following additional data are captured and logged

- Browser Details [browser type , Platform, EcmaScriptVersion]

- Request Mode can be either AJAX or WEB. The captured data are stored in the ProductAnalytics table in the database.

1.3.4 Tenant Based

To enable or disable on a per tenant basis, setting to be made from the tenant settings

Tenant Settings

Checking the Disable Product Analytics Checkbox does not log the analytics for the specific tenant

1.4   Viewing Analytics Data via Dashboard

CelloSaaS Product Analytics Audit

Note: Click on the action icon against each record to view the Browser details and Exception captured

1.5 Fetching Analytics Data via Service

The product analytics log data can be accessed via the following API:

CelloSaaS.ServiceProxies.ProductAnalytics.ProductAnalyticsProxy

Public Dictionary<string, ProductAnalytics> GetProductAnalyticsLog(CelloSaaS.Model.ISearchCondition condition)

Contact Information

Any problem using this guide (or) using Cello Framework. Please feel free to contact us, we will be happy to assist you in getting started with Cello.

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