

Hi team,

I'm having some issues with KQL queries where I want to retrieve the value of some custom dimension that I've logged in custom events. That custom dimension contains a datetime value, and I want to write a query which does something with that datetime (for instance, get the max datetime), so I want to retrieve it as a *datetime*.

However, when retrieving a custom dimension using KQL, the value of the custom dimension is returned as a *dynamic* data-type, so I want to convert it to a datetime, and that's where things become interesting.

Consider this dataset (which exists of only one row atm 😊)

```
1 customEvents
2 | where name == "VesselTelemetryStopped"
3 | project customDimensions.VesselId, customDimensions.LastTelemetryReceivedTimestamp
4
5
```

Results | Chart | Columns | Display time (UTC+00:00) | Group columns

Completed. Showing results from the custom time range.

customDimensions_VesselId	customDimensions_LastTelemetryReceivedTimestamp
> 9829801-eath	03/18/2021 08:29:04 +00:00

As you can see, I have a customDimension with the name 'LastTelemetryReceivedTimestamp' which contains a datetime.

However, when I want to get the customevent with the max LastTelemetryReceivedTimestamp per vesselId, like this:

```
1 customEvents
2 | where name == "VesselTelemetryStopped"
3 | project customDimensions.VesselId, ts = customDimensions.LastTelemetryReceivedTimestamp
4 | summarize max (ts) by customDimensions_VesselId
5
```

I get this error:

✘ max(): argument #1 expected to be one of next expressions (long, integer, double, datetime, timespan, decimal, string). If issue persists, please open a support ticket. Request id: 15415f78-9963-4de9-ab90-94a459108dbe

We receive this error because the customDimension value is retrieved as *dynamic*. Fine you might think, just convert it explicitly to datetime like this:

```
1 customEvents
2 | where name == "VesselTelemetryStopped"
3 | project vesselId = tostring(customDimensions.VesselId), ts = todatetime(customDimension)
4 | summarize max(ts) by vesselId
5
```

Results Chart | Columns | Display time (UTC+00:00) | Group columns

Completed. Showing results from the custom time range.

vesselId	max_ts [UTC]
> 9829801-eath	

But as you can see, now I receive 'null'. The todatetime function outputs null if it was not able to convert the given value to a datetime.

However, if I do this:

```
10 print todatetime("03/18/2021 08:29:04 +00:00")
11
```

Results Chart | Columns | Display time (UTC+00:00)

Completed. Showing results from the custom time range.

print_0 [UTC]
> 3/18/2021, 8:29:04.000 AM

This just works.

Does anyone has a good idea about this, or knows how this can be solved ? How can I successfully convert a dynamic value to a datetime value ?