MARTe2-core - User story #1754

Ranges not working for signals from custom types (introspection)

05.06.2024 17:38 - Giuseppe Ferro

Status:	Closed	**Start date:**	05.06.2024
Priority:	Normal	**Due date:**	
Assignee:		**% Done:**	0%
Category:		**Estimated time:**	0.00 hour
Target version:		**Spent time:**	0.00 hour
Git branch (link):		**SVN commit (link/?p=rev):**	
Git merge to develop (link):			

Description

Even if basic type members of custom types, the ByteSize computed by the RealTimeApplicationBuilder does not take in account the Ranges

RealTimeApplicationConfigurationBuilderTest.cpp:2561

```
//allocate memory without considering ranges because it is considered as a struct
signalNumberOfBytes = (numberOfElements * signalTypeDescriptor.numberOfBits) / 8u;
```

It is clear also from the tests:
Normal Signal:
```
"            \"0\" = {"
"                QualifiedName = \"ProcessedSignals.Signal1\""
"                Type = \"uint32\""
"                NumberOfDimensions = \"2\""
"                NumberOfElements = \"4\""
"                Alias = \"SineWave\""
"                Ranges = { { \"0\" \"0\" } { \"3\" \"3\" } } "
"                DataSource = \"DDB1\""
"                Default = \"{1 2 3 4}\""
"                FullType = \"uint32\""
"                DataSourceNumber = \"0\""
"                ByteSize = 8"
"                ByteOffset = { { 0 4 } { 12 4 } } "
"            }"
```

Custom signal:
```
"            \"3\" = {"
"                QualifiedName = \"ADCs.Signal3.c2\""
"                Type = \"float32\""
"                NumberOfDimensions = 1"
"                NumberOfElements = 3"
"                FullType = \"TestStructC.float32\""
"                MemberSize = 12"
"                DataSource = \"Drv1\""
"                Alias = \"ADCs1234.c2\""
"                Ranges = { { \"0\" \"0\" } } "
"                Samples = \"2\""
"                DataSourceNumber = \"1\""
"                ByteSize = 12"
"                ByteOffset = { { 0 4 } } "
"            }"
```

History

#1 - 05.06.2024 17:39 - Giuseppe Ferro

- Status changed from New to Code: Impl

#2 - 24.06.2024 09:41 - Giuseppe Ferro

- Status changed from Code: Impl to Unit: Rev

#3 - 24.06.2024 09:42 - Giuseppe Ferro

- Assignee changed from Giuseppe Ferro to André Neto

https://vcis-gitlab.f4e.europa.eu/aneto/MARTe2/-/tree/%231754_Ranges_For_Custom_Types?ref_type=heads

#4 - 02.09.2024 09:59 - André Neto

- Assignee deleted (André Neto)

- Status changed from Unit: Rev to Closed

Merged to develop in f46ae822b5a332fb4b91467e733b2165605cee68