

A. Mismatch Shown in Admin Console 5.3.1:

The screenshot shows the RTI Administration Console interface. The main window displays a DDS Logical View with a diagram showing a mismatch between a subscriber's DDS data type (ShapeTypeExtended) and a publisher's DDS data type (ShapeType). The error message "Not matched" is displayed in red text. The console also shows a console log with two warning messages from the RTILogger, indicating that the DISCEndpointDiscoveryPlugin_unregisterParticipant method was called.

| Name | Type / Ordinal | Extensib | Optional | Min Sample |
|-----------------------|-------------------|------------|----------|------------|
| ShapeTypeExtended | ShapeTypeExtended | extensible | | 29 |
| {base type} | ShapeType | extensible | | 20 |
| color (key) | string<128> | mutable | false | 5 |
| x | long | final | false | 4 |
| y | long | final | false | 4 |
| shapsize | long | final | false | 4 |
| fillKind | ShapeFillKind | extensible | false | 4 |
| SOLID_FILL | 0 | | | |
| TRANSPARENT_FILL | 1 | | | |
| HORIZONTAL_HATCH_FILL | 2 | | | |
| VERTICAL_HATCH_FILL | 3 | | | |
| angle | float | final | false | 4 |
| countCheck | COUNT | final | false | 1 |
| {typedef} | UINT_8 | final | false | 1 |

Figure 1: DDS Data Type for Subscriber (Code Generated using RTI 5.3.1)

The screenshot shows the RTI Administration Console interface. The main window displays a DDS Logical View with a diagram showing a mismatch between a publisher's DDS data type (ShapeType) and a subscriber's DDS data type (ShapeTypeExtended). The error message "Not matched" is displayed in red text. The console also shows a console log with two warning messages from the RTILogger, indicating that the DISCEndpointDiscoveryPlugin_unregisterParticipant method was called.

| Name | Type / Ordinal | Extensib | Optional | Min Sample |
|-----------------------|-------------------|------------|----------|------------|
| ShapeTypeExtended | ShapeTypeExtended | extensible | | 29 |
| {base type} | ShapeType | extensible | | 20 |
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| x | long | final | false | 4 |
| y | long | final | false | 4 |
| shapsize | long | final | false | 4 |
| fillKind | ShapeFillKind | extensible | false | 4 |
| SOLID_FILL | 0 | | | |
| TRANSPARENT_FILL | 1 | | | |
| HORIZONTAL_HATCH_FILL | 2 | | | |
| VERTICAL_HATCH_FILL | 3 | | | |
| angle | float | final | false | 4 |
| countCheck | octet | final | false | 1 |

Figure 2: DDS Data Type for Publisher (RTI 6.0.0 Prototyper using ShapeExample.xml)

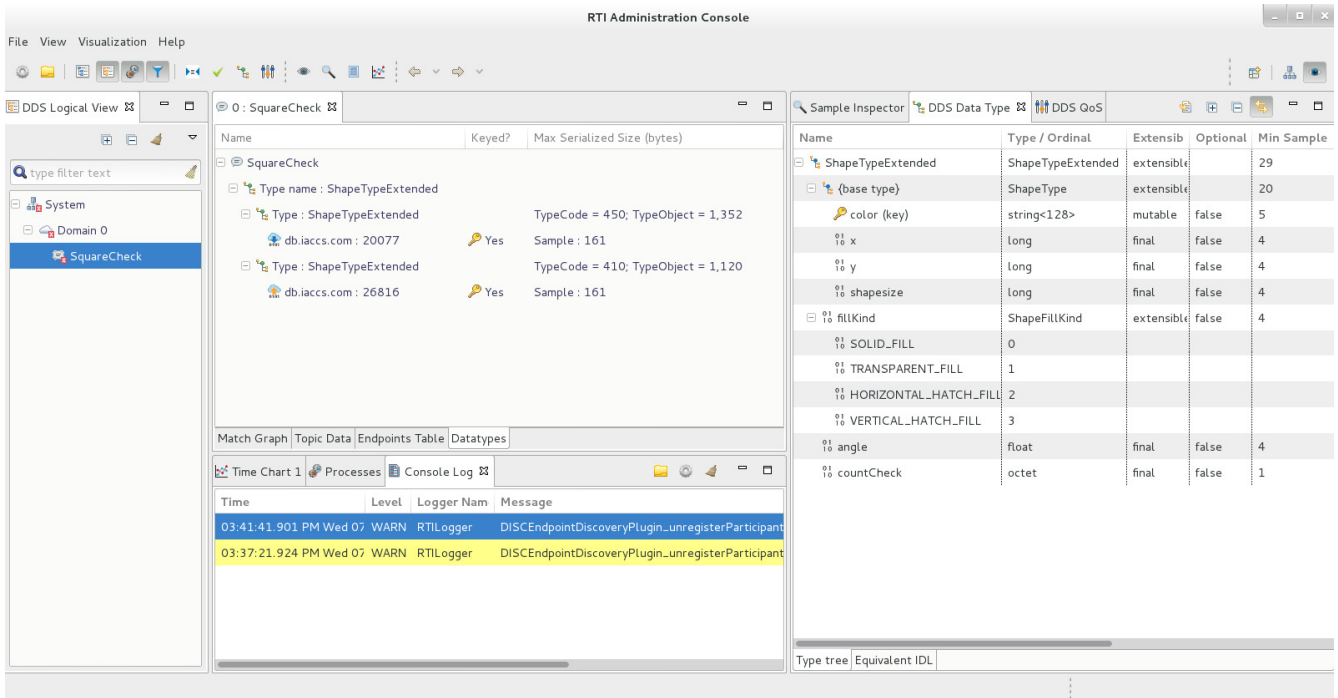


Figure 3: DDS Data Types with TypeCode and TypeObject

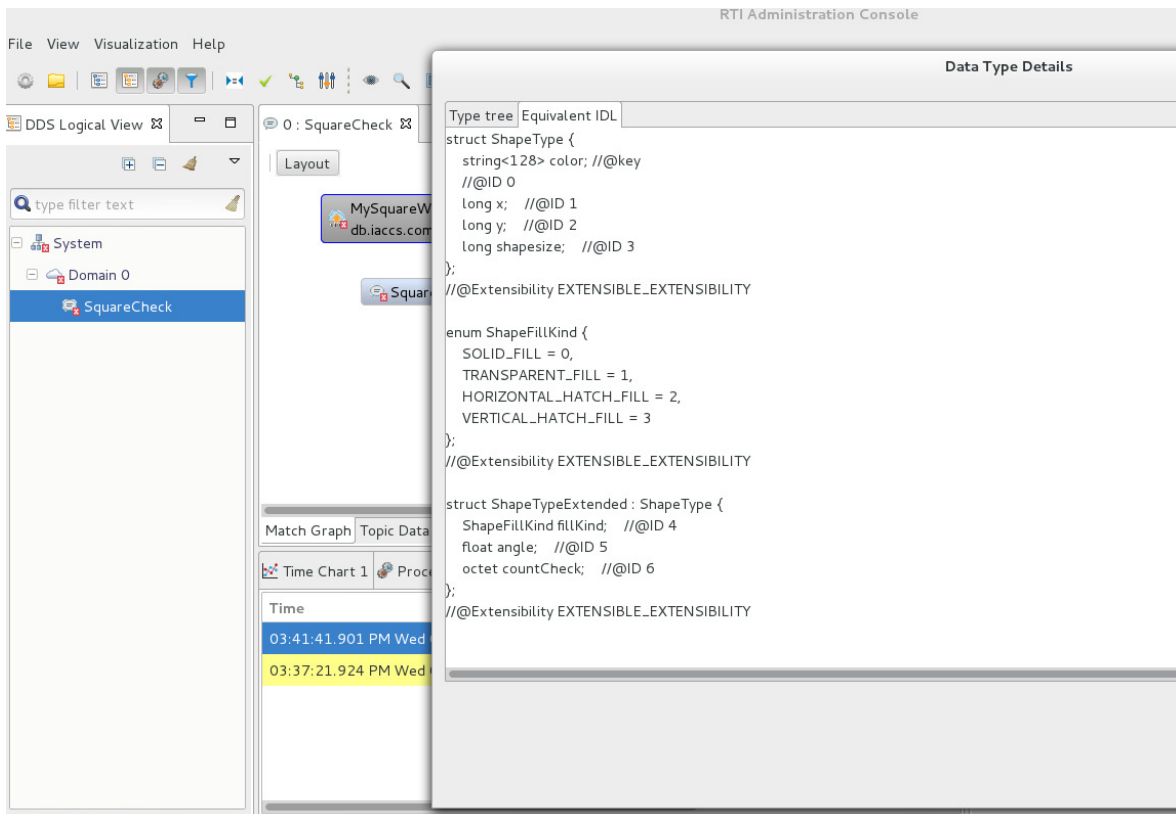


Figure 4: Equivalent IDL for Publisher

B. No Mismatch Shown in Admin Console 6.0.0:

The screenshot displays the RTI Administration Console interface. On the left, the 'DDS Logical View' shows a tree structure with 'System', 'Domain 0', and 'SquareCheck' selected. The main workspace shows a diagram with three nodes: 'MySQLWriter : MySQLWriter', 'SquareCheck', and 'Process : 20077'. Lines connect 'SquareCheck' to both 'MySQLWriter' and 'Process : 20077'. A tooltip is visible over the 'MySQLWriter' node, containing the following text:

```
Data Writer: SquareCheck (MySQLWriter : MySQLWriter)
Instance Handle: 0101b408.6b26ca6e.ecbd58f1.80000002
Health : Healthy
```

On the right side, the 'Sample Inspector' panel shows a table of DDS Data Type information:

| Name | Type / Ordinal | Extensibility |
|-----------------------|-------------------|---------------|
| ShapeTypeExtended | ShapeTypeExtended | extensible |
| ShapeType | ShapeType | extensible |
| string<128> | string<128> | mutable |
| long | long | final |
| long | long | final |
| long | long | final |
| shapessize | long | final |
| fillKind | ShapeFillKind | extensible |
| SOLID_FILL | 0 | |
| TRANSPARENT_FILL | 1 | |
| HORIZONTAL_HATCH_FILL | 2 | |
| VERTICAL_HATCH_FILL | 3 | |
| angle | float | final |
| countCheck | octet | final |

Figure 5: No Mismatch