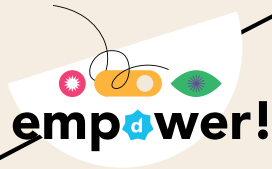


Welcome



[YOUR TRAINER THIS SESSION]

Data
Acquisition



Pedro
Debevere

pedro.debevere@skyline.be



Speed up
your
development
with DIS

[WHAT YOU WILL SEE THIS SESSION]

Agenda

Fundamentals track

1. What is DIS?
2. Installation & Configuration
3. Templates
4. NuGet Packages
5. Editor Windows
6. Tool Windows
7. Conclusion

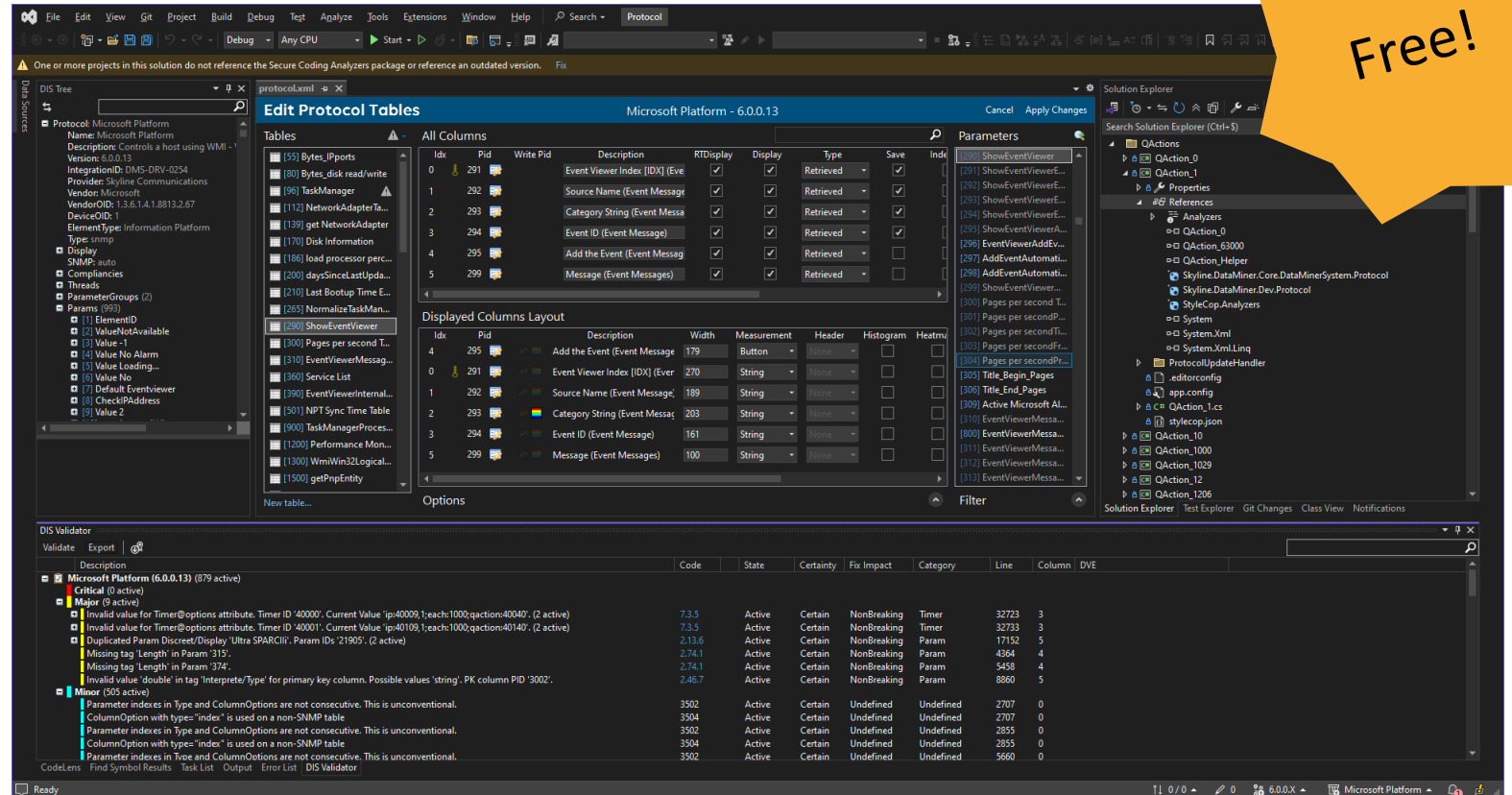
What is DIS

Introduction

What is DIS?

- [DataMiner Integration Studio](#)
- Visual Studio 2022 Extension

Free!

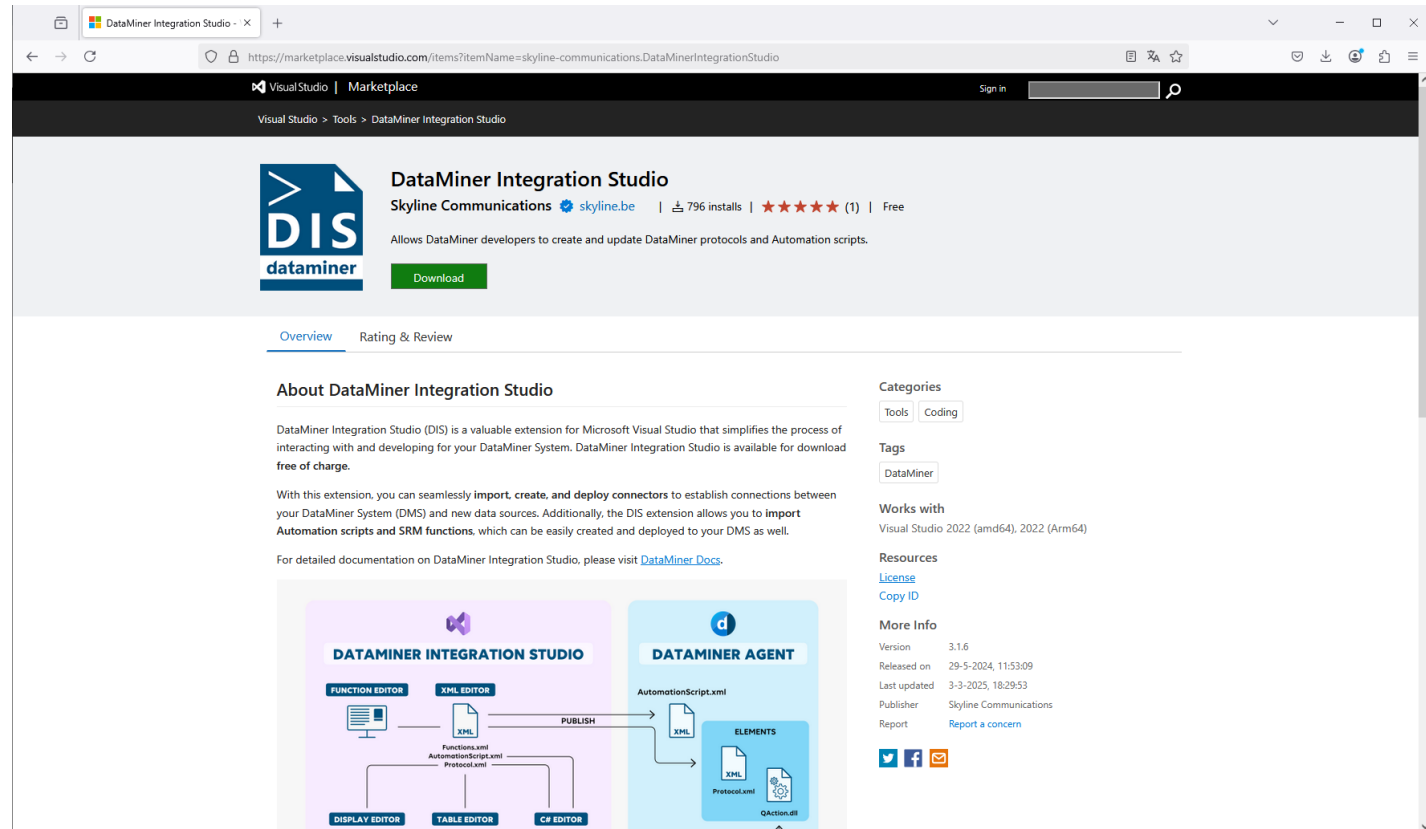


Installation & Configuration

Quick Start Instructions

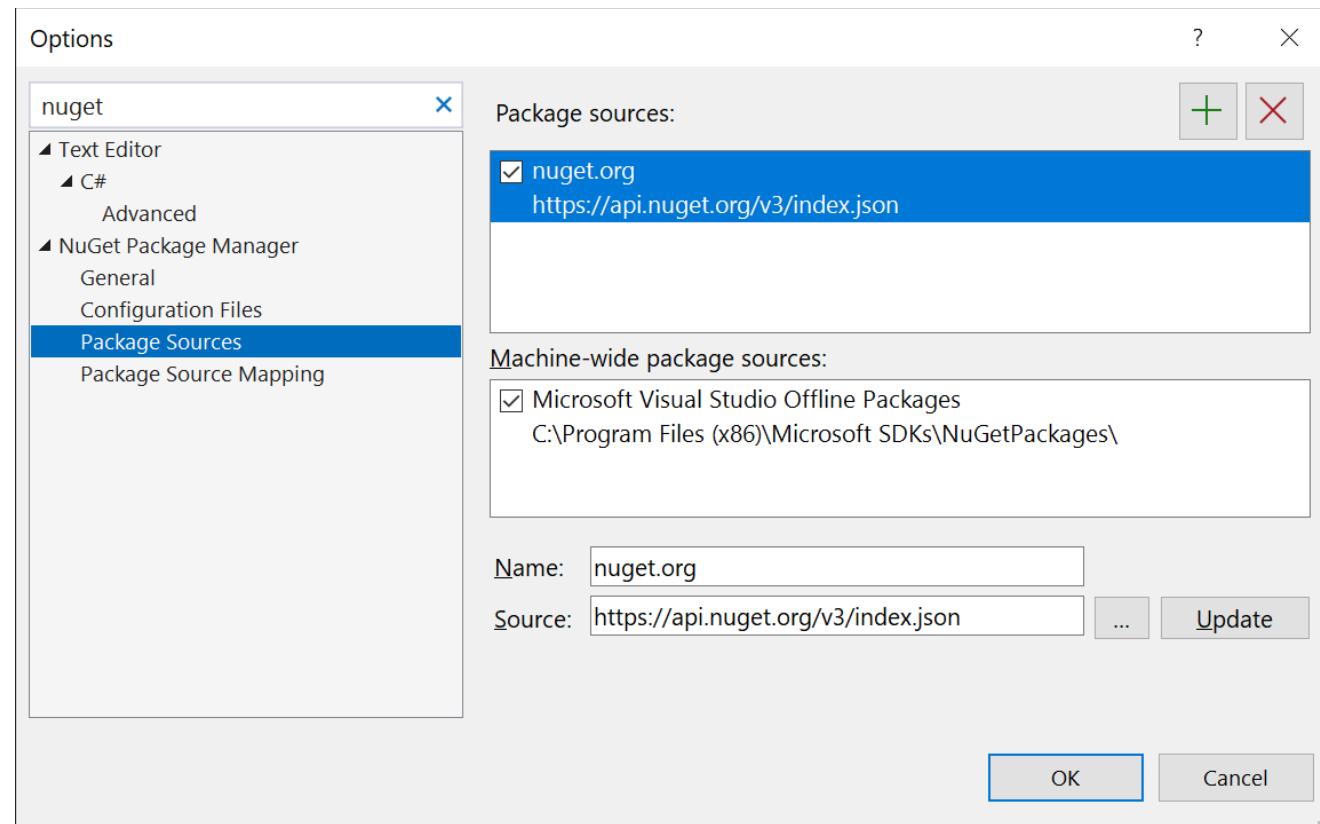
Installation

- [Marketplace](#)
- Visual Studio IDE



Configuration

- *Extensions > DIS > Settings...*
 - *Account*
 - *DMA*
- *Tools > Options...*



Templates

.NET Templates

Templates

- Skyline.DataMiner.VisualStudioTemplates

- nuget.org
- [GitHub](https://github.com)

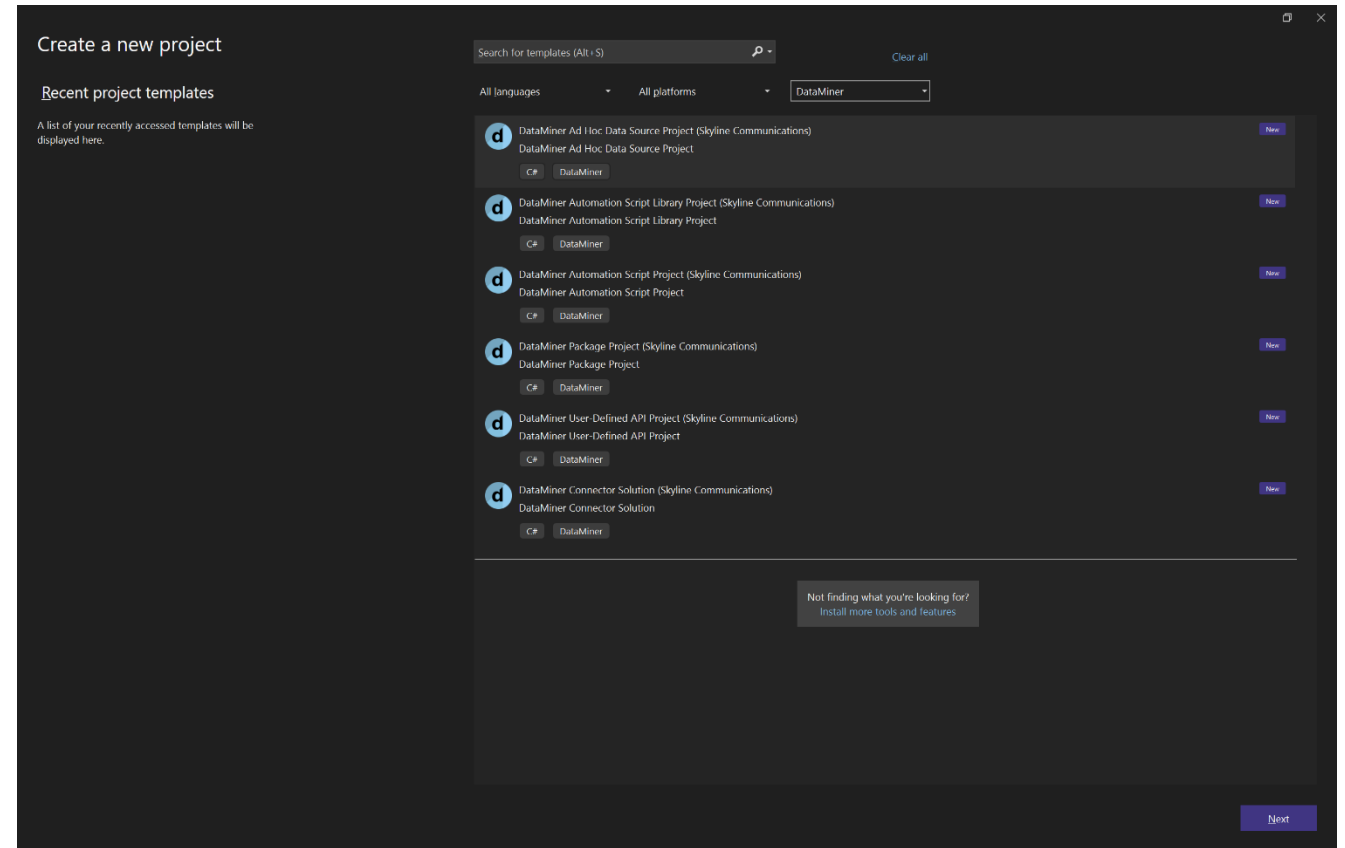
- *Extensions > DIS > Settings...*

- Templates

- dotnet CLI

`dotnet new install`

`Skyline.DataMiner.VisualStudioTemplates`

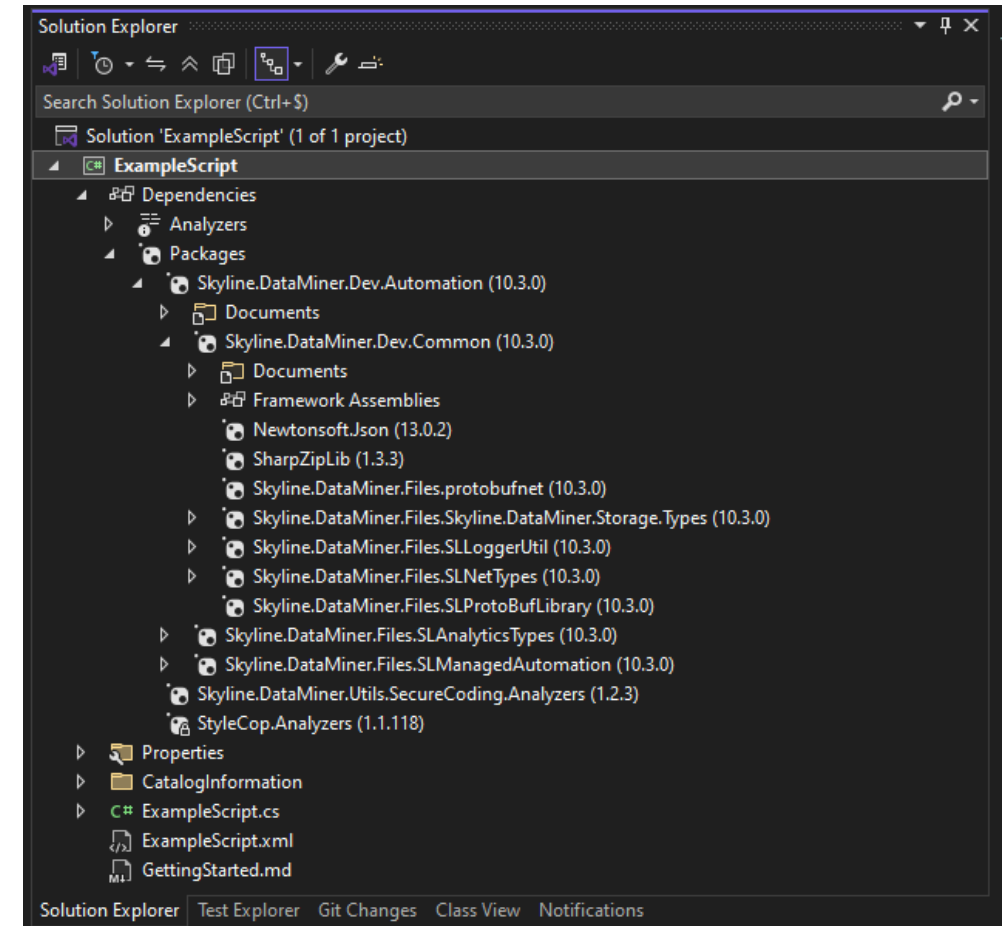


NuGet Packages

Essential Libraries for Efficient Development

Dev Packs

- NuGet packages
 - [Skyline.DataMiner.Dev.Protocol](#)
 - [Skyline.DataMiner.Dev.Automation](#)
 - [Skyline.DataMiner.Dev.Common](#)
- Skyline.DataMiner.Files.*



Class Library

- NuGet packages
 - [Skyline.DataMiner.Core.DataMinerSystem.Protocol](#)
 - [Skyline.DataMiner.Core.DataMinerSystem.Automation](#)
 - Skyline.DataMiner.Core.DataMinerSystem.Common
- Docs: [Skyline NuGet Packages](#)

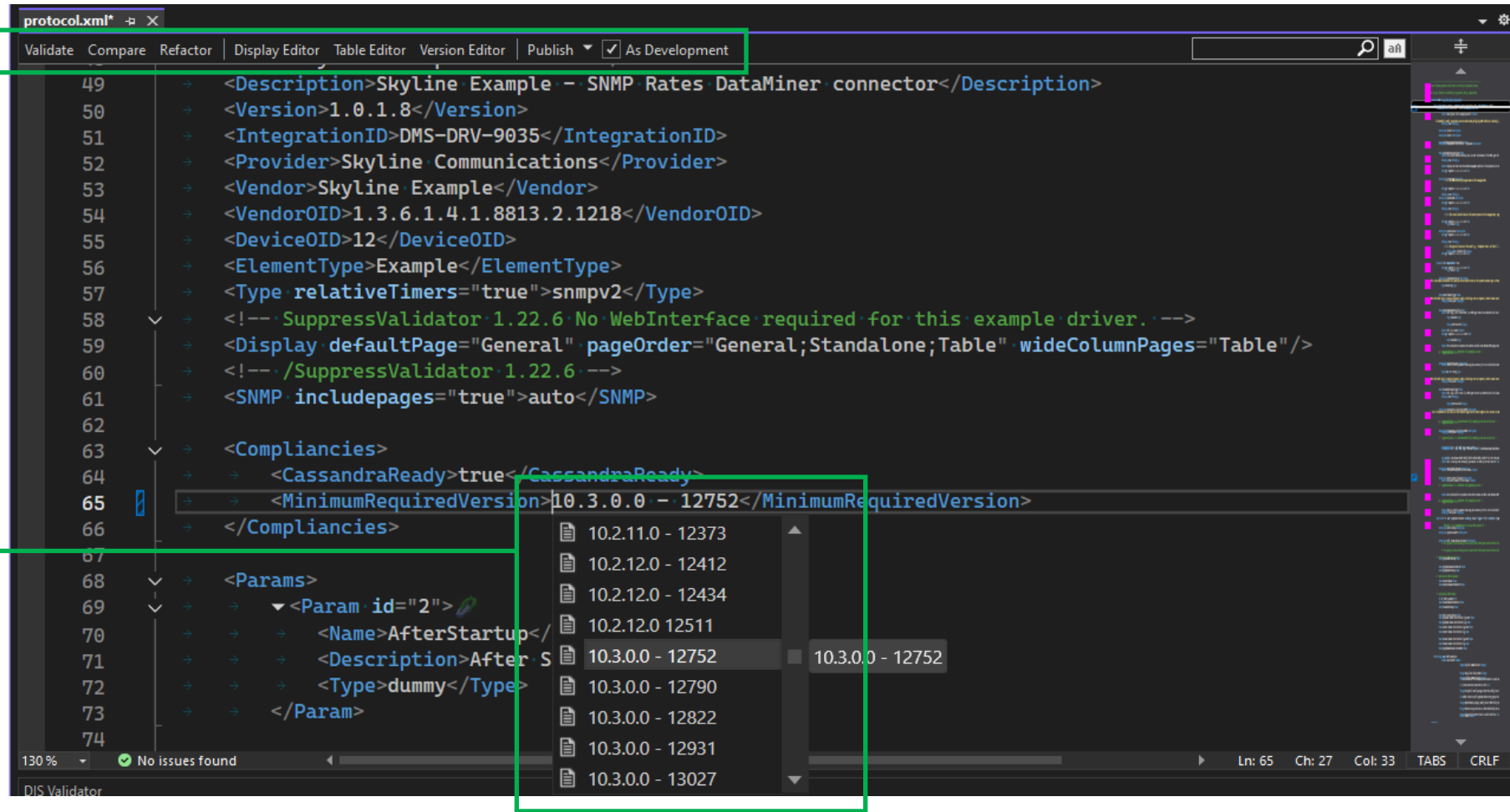
Editor windows

Key Editor Features at a Glance

XML Editor

Menu bar

XML Schema
IntelliSense
([XmlSchemas](#))



Page Editor

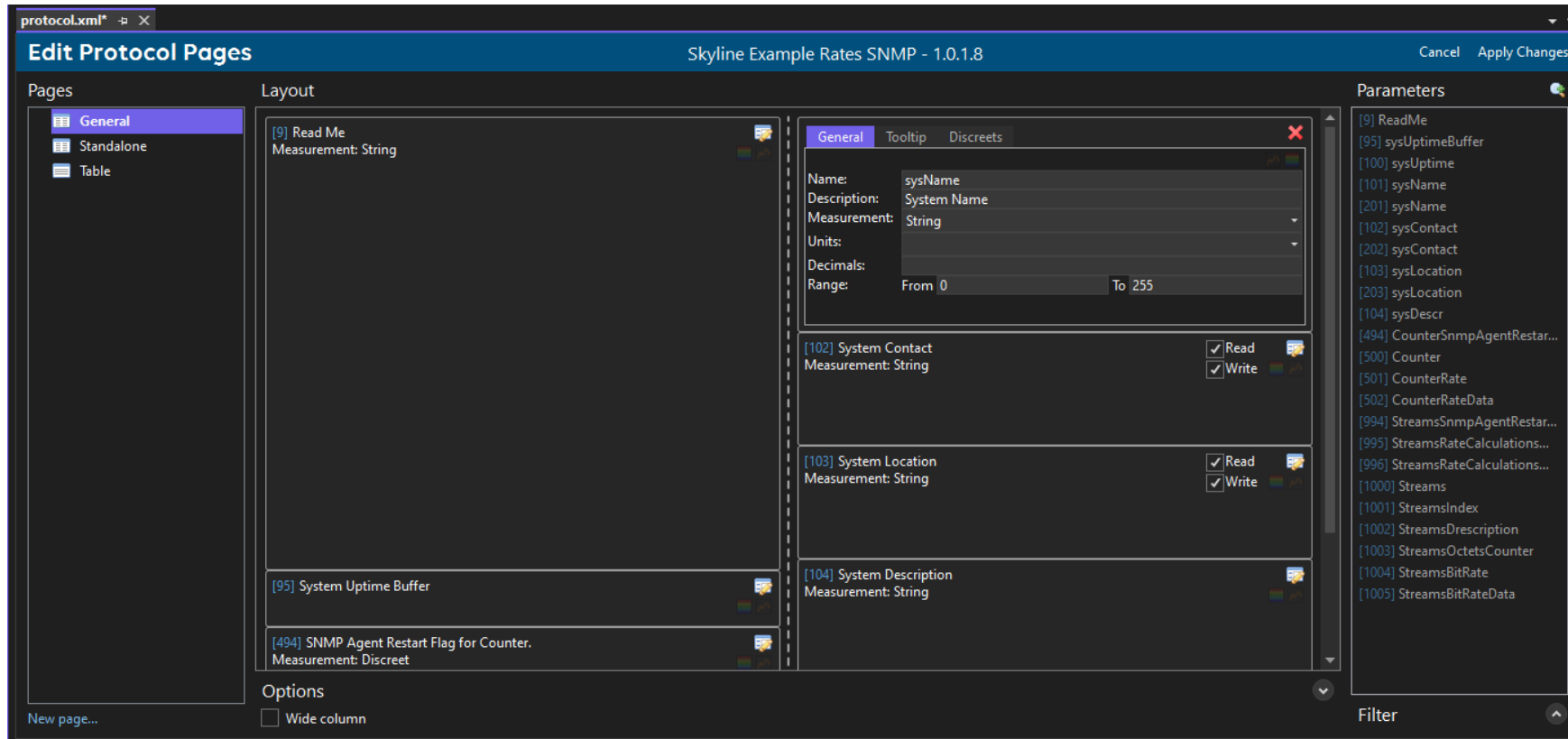


Table Editor

protocol.xml*

Edit Protocol Tables

Skyline Example Rates SNMP - 1.0.1.8

Cancel Apply Changes

Tables

[1000] Streams

All Columns

Idx	Pid	Write Pid	Description	RTDisplay	Display	Type	Save	Indexed	Foreign Key	Extra Optio
0	1001		Index [IDX] (Streams)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	SNMP	<input type="checkbox"/>	<input type="checkbox"/>	None	;
1	1002		Description (Streams)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	SNMP	<input type="checkbox"/>	<input type="checkbox"/>	None	;
2	1003		Octets Counter (Streams)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	SNMP	<input type="checkbox"/>	<input type="checkbox"/>	None	;
3	1004		Bit Rate (Streams)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Retrieved	<input type="checkbox"/>	<input type="checkbox"/>	None	;
4	1005		Bit Rate Data (Streams)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Retrieved	<input type="checkbox"/>	<input type="checkbox"/>	None	;

Displayed Columns Layout

Idx	Pid	Description	Width	Measurement	Header	Histogram	Heatmap	Sort Type	Sort Automatic	Sort Priority
0	1001	Index [IDX] (Streams)	97	String	None	<input type="checkbox"/>	<input type="checkbox"/>	String	None	
1	1002	Description (Streams)	275	String	None	<input type="checkbox"/>	<input type="checkbox"/>	String	None	
2	1003	Octets Counter (Streams)	130	Number	None	<input type="checkbox"/>	<input type="checkbox"/>	Integer	None	
4	1005	Bit Rate Data (Streams)	0	String	None	<input type="checkbox"/>	<input type="checkbox"/>	String	None	
3	1004	Bit Rate (Streams)	140	Number	None	<input type="checkbox"/>	<input type="checkbox"/>	Integer	None	

Parameters

[100] sysUptime

[101] sysName

[201] sysName

[102] sysContact

[202] sysContact

[103] sysLocation

[203] sysLocation

[104] sysDescr

[491] CounterTimeoutTri...

[492] CounterGroupAfter...

[493] CounterAfterGroup...

[494] CounterSnmppAgen...

[500] Counter

[501] CounterRate

[502] CounterRateData

[991] StreamsTimeoutTri...

[992] StreamsGroupAfter...

[993] StreamsAfterGroup...

[994] StreamsSnmppAgen...

[995] StreamsRateCalcul...

[996] StreamsRateCalcul...

[1000] Streams

[1001] StreamsIndex

[1002] StreamsDescription

[1003] StreamsOctetsCo...

[1004] StreamsBitRate

[1005] StreamsBitRateData

New table...

Options

Filter

Version History Editor

protocol.xml* [icon] [x]

Edit Protocol Version History

Cancel Apply Changes

Current Version Current Range All Versions

Version: 1 . 0 . 1 . 8 [Go to this version in All Versions tree](#)

Based On: 1.0.1.7

Author: SVD

Company: Skyline Communications

Date: 11/29/2024 15

Add

Type	Content
Change	Move to ProtocolExtensions NuGet package. ✖
Change	Fine-tuning Discreet Values to avoid true/false. ✖

Add

Type	Reference
Task Id	255428 [icon] ✖

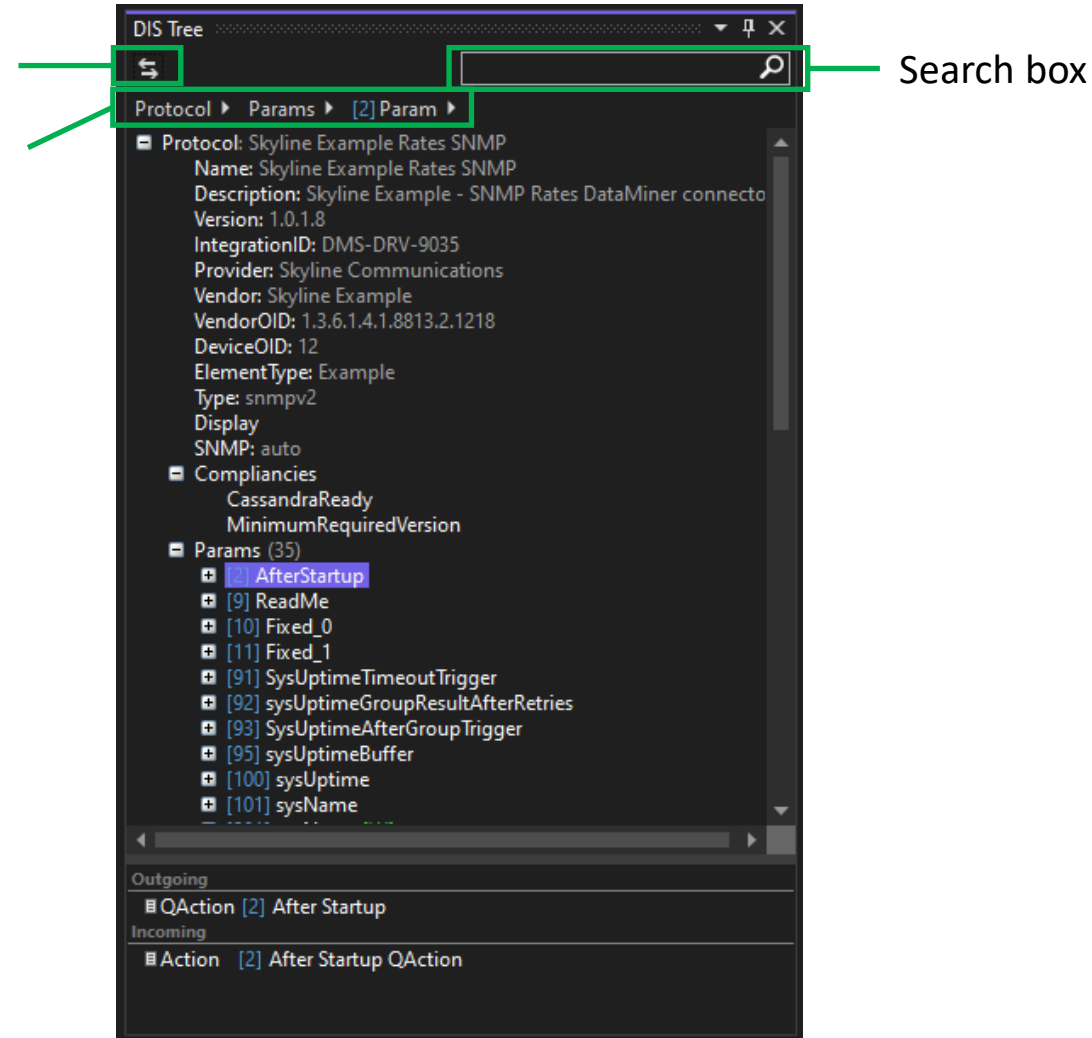
Tool Windows

Tool Windows at a Glance

DIS Tree

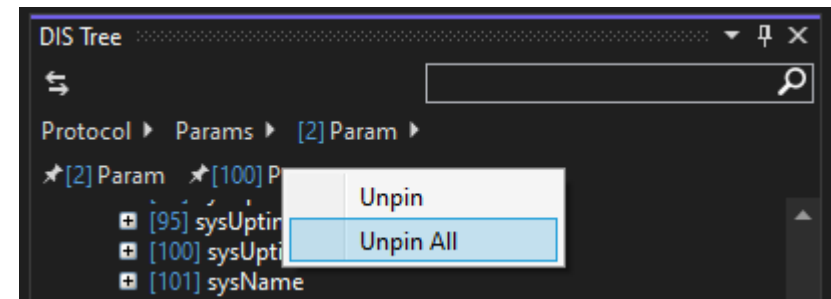
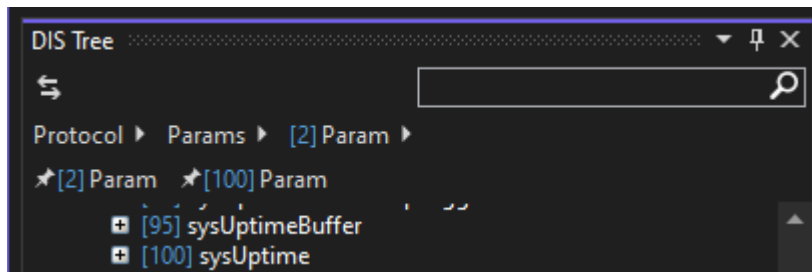
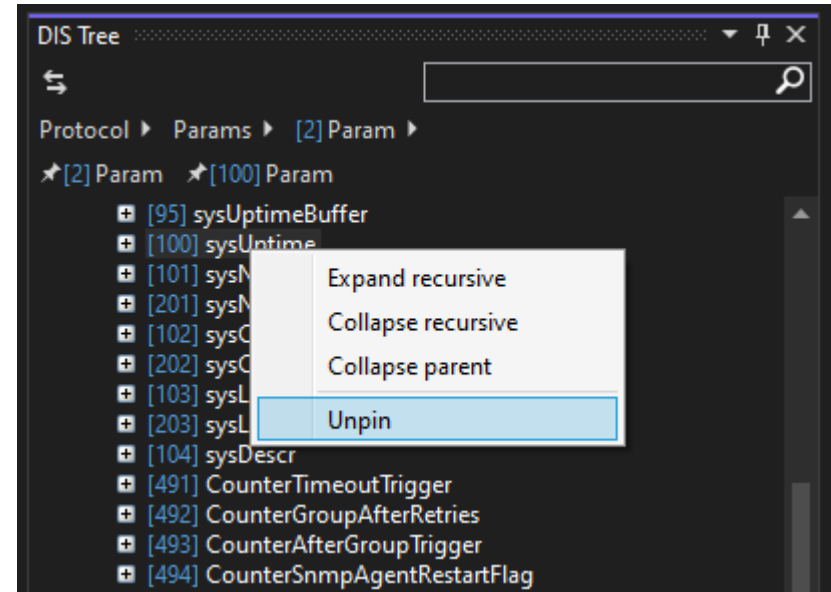
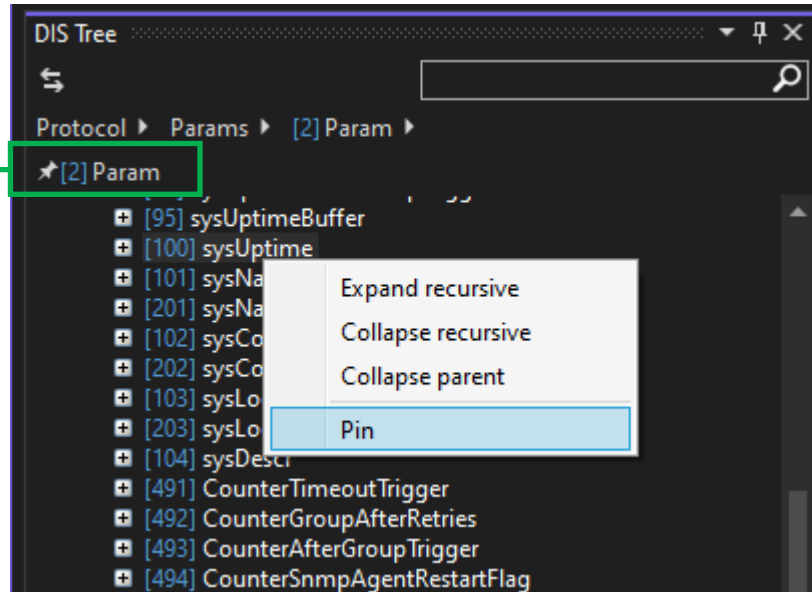
Sync with active document

Breadcrumbs

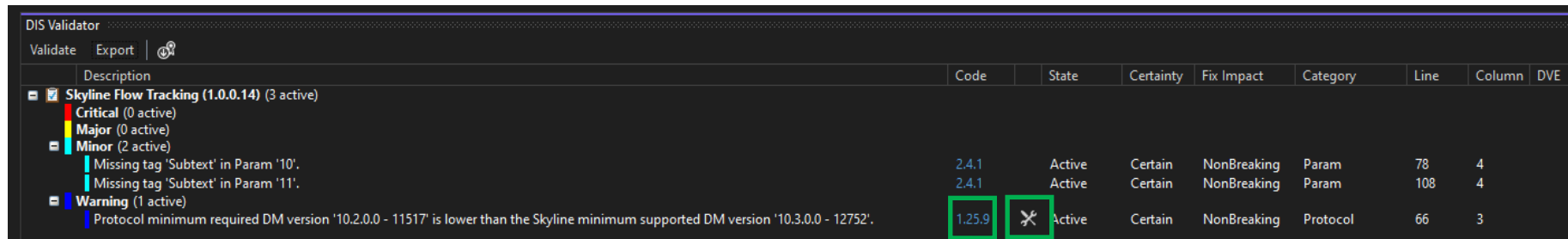


DIS Tree

Pinned items



DIS Validator



Description	Code	State	Certainty	Fix Impact	Category	Line	Column	DVE
Skyline Flow Tracking (1.0.0.14) (3 active)								
Critical (0 active)								
Major (0 active)								
Minor (2 active)								
Missing tag 'Subtext' in Param '10'.	2.4.1	Active	Certain	NonBreaking	Param	78	4	
Missing tag 'Subtext' in Param '11'.	2.4.1	Active	Certain	NonBreaking	Param	108	4	
Warning (1 active)								
Protocol minimum required DM version '10.2.0.0 - 11517' is lower than the Skyline minimum supported DM version '10.3.0.0 - 12752'.	1.25.9	X Active	Certain	NonBreaking	Protocol	66	3	

Link to [online documentation](#)

Auto fix

DIS Validator

Also available as [dotnet tool](#)

```
dotnet tool install -g Skyline.DataMiner.CICD.Tools.Validator
```

```
dataminer-validator validate-protocol-solution --solution-file-path "<pathToSlnFile>" --  
results-output-directory-path "<FolderPath>"
```

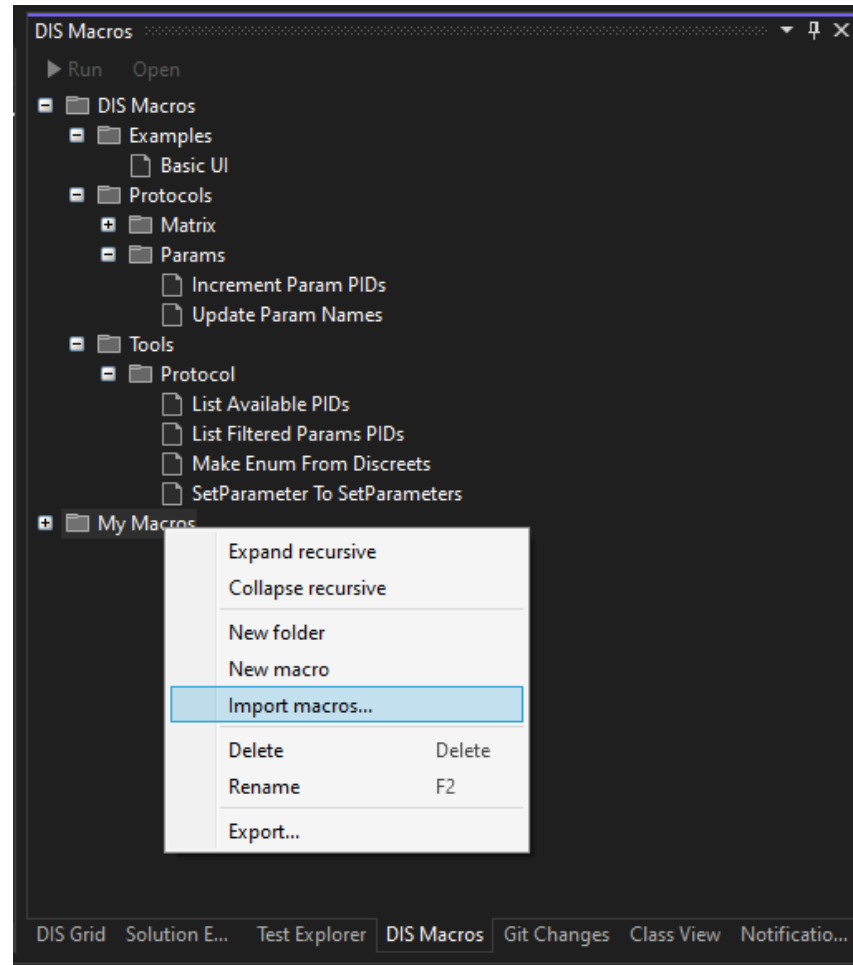
Supported output formats:

- HTML
- JSON
- XML

Description	State	Certainty	Fix Impact	Category	Code	Line	Column	DVE
▼ ExampleConnector v1.0.0.1 (4 active)								
▼ Critical (1 active)								
Empty tag 'ElementType'.	Active	Certain	Breaking	Protocol	1.7.2	56	2	
▼ Major (1 active)								
Method 'SLProtocol.CheckTrigger' references a non-existing 'Trigger' with ID '10'. QAction ID '2'.	Active	Certain	NonBreaking	QAction	3.3.1	106	3	
▼ Minor (1 active)								
Missing tag 'Subtext' in Param '10'.	Active	Certain	NonBreaking	Param	2.4.1	75	4	
▼ Warning (1 active)								
Page 'General' has been added more than once to the pageOrder attribute.	Active	Certain	NonBreaking	Protocol	1.22.9	58	2	

Generated by Skyline.DataMiner.CICD.Tools.Validator v1.1.2.0 at 3/8/2024 9:51:47 AM.

DIS Macros



DIS Macros

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <DisMacro xmlns="http://www.skyline.be/dis">
3   <Description>
4     <![CDATA[Allows to build an CSharp enum variable.
5     Result will be placed in the clipboard.]]>
6   </Description>
7   <Author>SKYLINE2/SimonV</Author>
8   <Script>
9     <Code>
10      <![CDATA[using System;
11      using System.Collections.Generic;
12      using System.Windows;
13      using System.Xml.Linq;
14      using SLDISMacros.Interfaces;
15      using SLDISMacros.Extensions;
16
17      public class Script
18      {
19        public static void Run(IEngine engine)
20        {
21          string selectedText = engine.Input.GetSelectedText();
22          XDocument xDoc = MacroExtensions.StringToXDoc
```

```
DisMacro.cs Make Enum From... Discrets.xml
Linked with C:\ProgramData\Skyline Communications\DataMinerIntegrationStudio\Macros\DIS Macros\Tools\Protocol\Make Enum From Discrets.xml (Go to Definition)
DisMacro Script Run(IEngine engine)
1 using System;
2 using System.Collections.Generic;
3 using System.Windows;
4 using System.Xml.Linq;
5 using SLDISMacros.Interfaces;
6 using SLDISMacros.Extensions;
7
8 0 references
9 public class Script
10 {
11 0 references
12 public static void Run(IEngine engine)
13 {
14   string selectedText = engine.Input.GetSelectedText();
15   XDocument xDoc = MacroExtensions.StringToXDoc(selectedText);
16   List<string> enumItems = new List<string>();
17   IEnumerable<XElement> xDiscreetTags = xDoc.Root.Elements("Discreet");
18   foreach (XElement xDiscreetTag in xDiscreetTags)
19   {
20     XElement xDisplayTag = xDoc.Root.Element("Display");
21     string displayText = xDisplayTag.Value;
22     enumItems.Add(displayText);
23   }
24   XDocument xEnumDoc = MacroExtensions.XmlToXDoc(enumItems);
25   engine.Clipboard.SetText(xEnumDoc.ToString());
26 }
```

DIS Macros

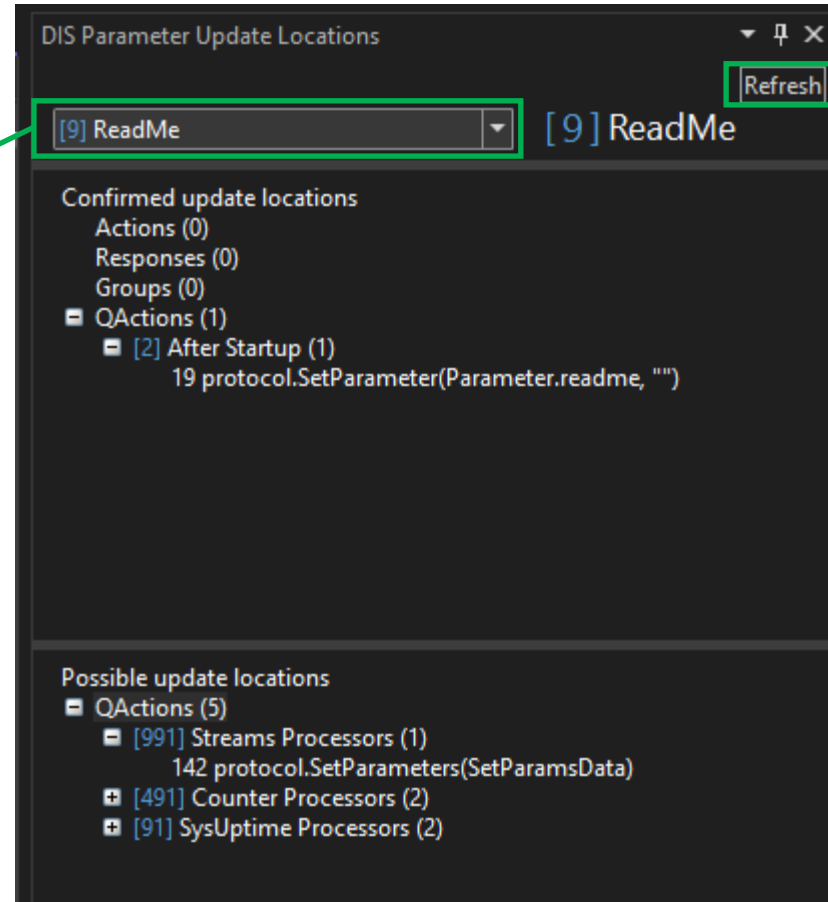
The screenshot displays the DIS Macros IDE interface. The main editor shows XML code for a protocol, with line numbers 150 through 171 visible. The code includes elements like `<Type>double</Type>`, `</Interprete>`, `<Measurement>`, `<Type>discreet</Type>`, `<Discreets>`, `<Discreet>`, `<Display>Success</Display>`, `<Value>0</Value>`, `</Discreet>`, `<Display>Timeout</Display>`, `<Value>1</Value>`, `</Discreet>`, `</Discreets>`, `</Measurement>`, `</Param>`, `<Param id="93">`, `<Name>SysUptimeAfterGroupTrigger</Name>`, `<Type>dummy</Type>`, `</Param>`, `<Param id="95" trending="false">`, and `<Name>svsIntimeBuffer</Name>`. The status bar at the bottom indicates "131 %", "No issues found", and "Ln: 163 Ch: 17 Col: 29".

On the right side, the "DIS Macros" panel is open, showing a tree view of macros. A context menu is open over the "My Macros" folder, displaying options: "Open", "Run", "Duplicate", "Delete", "Rename", "Export...", and "F2".

DIS Parameter Update Locations

New!

Parameter selection



Refresh

Refresh button

DIS Diagram

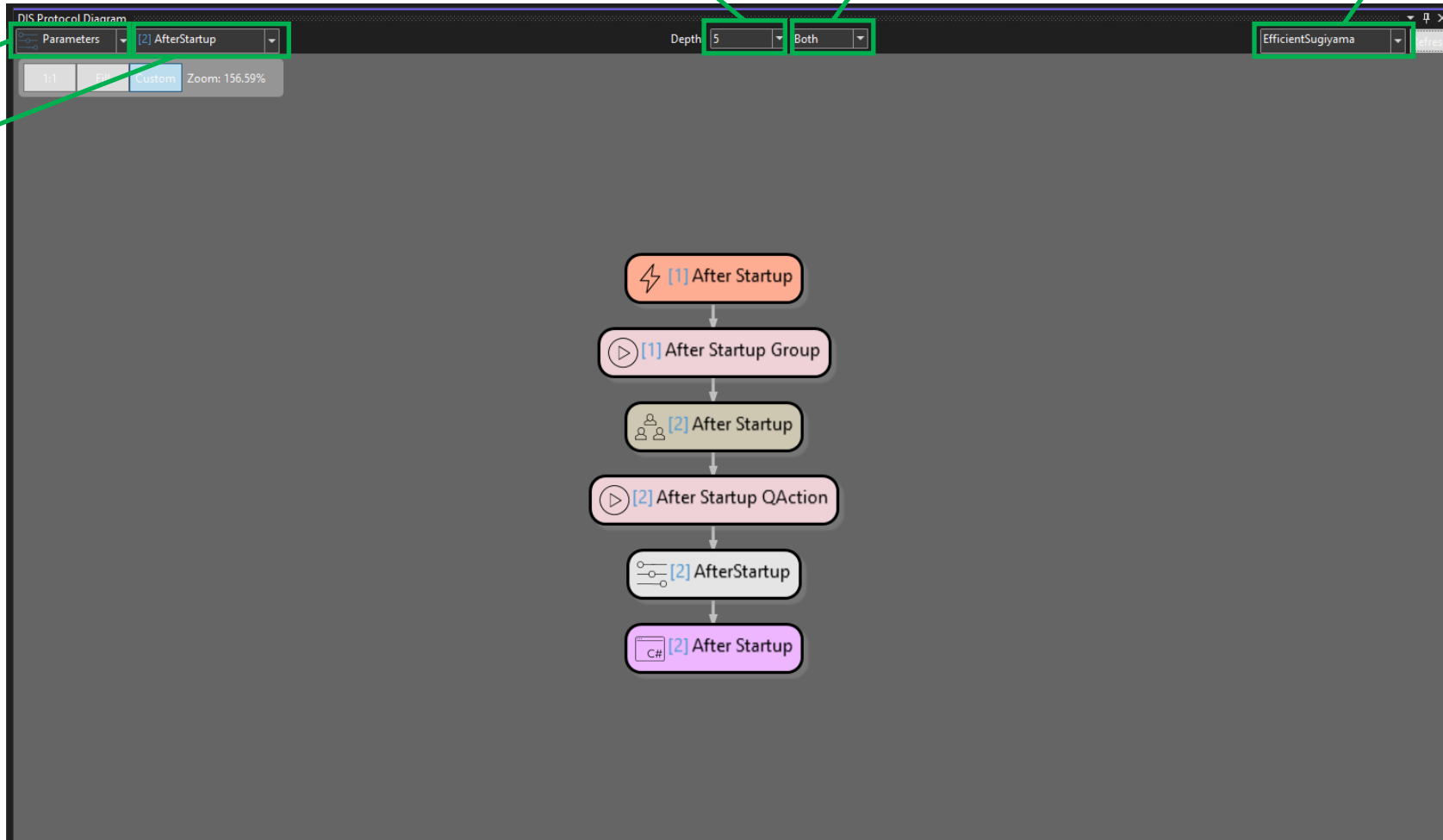
Chain depth

Direction

Visualization style

Item type selection


Item selection



Swap button



Conclusion



Conclusion

- [DIS documentation](#)
- [DIS Release Notes](#)
- Feedback: *Extensions > DIS > Send Feedback...*
- [Feature Suggestions](#)

[ASK AWAY]



Questions?