

[MS-VGSP]: Visio Graphics Service Protocol Specification

Intellectual Property Rights Notice for Open Specifications Documentation

- **Technical Documentation.** Microsoft publishes Open Specifications documentation for protocols, file formats, languages, standards as well as overviews of the interaction among each of these technologies.
- **Copyrights.** This documentation is covered by Microsoft copyrights. Regardless of any other terms that are contained in the terms of use for the Microsoft website that hosts this documentation, you may make copies of it in order to develop implementations of the technologies described in the Open Specifications and may distribute portions of it in your implementations using these technologies or your documentation as necessary to properly document the implementation. You may also distribute in your implementation, with or without modification, any schema, IDL's, or code samples that are included in the documentation. This permission also applies to any documents that are referenced in the Open Specifications.
- **No Trade Secrets.** Microsoft does not claim any trade secret rights in this documentation.
- **Patents.** Microsoft has patents that may cover your implementations of the technologies described in the Open Specifications. Neither this notice nor Microsoft's delivery of the documentation grants any licenses under those or any other Microsoft patents. However, a given Open Specification may be covered by Microsoft's Open Specification Promise (available here: <http://www.microsoft.com/interop/osp>) or the Community Promise (available here: <http://www.microsoft.com/interop/cp/default.mspx>). If you would prefer a written license, or if the technologies described in the Open Specifications are not covered by the Open Specifications Promise or Community Promise, as applicable, patent licenses are available by contacting iplg@microsoft.com.
- **Trademarks.** The names of companies and products contained in this documentation may be covered by trademarks or similar intellectual property rights. This notice does not grant any licenses under those rights.
- **Fictitious Names.** The example companies, organizations, products, domain names, e-mail addresses, logos, people, places, and events depicted in this documentation are fictitious. No association with any real company, organization, product, domain name, email address, logo, person, place, or event is intended or should be inferred.

Reservation of Rights. All other rights are reserved, and this notice does not grant any rights other than specifically described above, whether by implication, estoppel, or otherwise.

Tools. The Open Specifications do not require the use of Microsoft programming tools or programming environments in order for you to develop an implementation. If you have access to Microsoft programming tools and environments you are free to take advantage of them. Certain Open Specifications are intended for use in conjunction with publicly available standard specifications and network programming art, and assumes that the reader either is familiar with the aforementioned material or has immediate access to it.

Revision Summary

Date	Revision History	Revision Class	Comments
07/13/2009	0.1	Major	Initial Availability
08/28/2009	0.2	Editorial	Revised and edited the technical content
11/06/2009	0.3	Editorial	Revised and edited the technical content
02/19/2010	1.0	Major	Updated and revised the technical content
03/31/2010	1.01	Editorial	Revised and edited the technical content
04/30/2010	1.02	Editorial	Revised and edited the technical content
06/07/2010	1.03	Editorial	Revised and edited the technical content
06/29/2010	1.04	Editorial	Changed language and formatting in the technical content.
07/23/2010	1.04	No change	No changes to the meaning, language, or formatting of the technical content.
09/27/2010	1.04	No change	No changes to the meaning, language, or formatting of the technical content.
11/15/2010	1.04	No change	No changes to the meaning, language, or formatting of the technical content.
12/17/2010	1.04	No change	No changes to the meaning, language, or formatting of the technical content.

Table of Contents

1 Introduction	6
1.1 Glossary	6
1.2 References	6
1.2.1 Normative References	6
1.2.2 Informative References	8
1.3 Protocol Overview (Synopsis)	8
1.3.1 Web Drawing	8
1.3.2 Drawing Page	8
1.3.3 Shape	9
1.4 Relationship to Other Protocols	9
1.5 Prerequisites/Preconditions	9
1.6 Applicability Statement	9
1.7 Versioning and Capability Negotiation	9
1.8 Vendor-Extensible Fields	10
1.9 Standards Assignments	10
2 Messages.....	11
2.1 Transport	11
2.2 Common Message Syntax	11
2.2.1 Namespaces	11
2.2.2 Messages	12
2.2.3 Elements	12
2.2.4 Complex Types	12
2.2.4.1 AddonDataSource (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.Grap hicsServer)	13
2.2.4.2 ArrayOfAddonDataSource (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.Grap hicsServer)	14
2.2.4.3 BaseRequestContract (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.Grap hicsServer)	14
2.2.4.4 DiagramBase (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.Grap hicsServer)	15
2.2.4.5 VisioGraphicsServiceFault (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.Grap hicsServer)	15
2.2.5 Simple Types	16
2.2.5.1 FaultCode (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.Grap hicsServer)	16
2.2.6 Attributes	18
2.2.7 Groups	18
2.2.8 Attribute Groups	18
3 Protocol Details	19
3.1 Server Details	19
3.1.1 Abstract Data Model	19
3.1.2 Timers	19

3.1.2.1	Recalculation Timeout	19
3.1.3	Initialization	19
3.1.4	Message Processing Events and Sequencing Rules.....	19
3.1.4.1	GetRasterDiagram	20
3.1.4.1.1	Messages	21
3.1.4.1.1.1	IVisioGraphicsService_GetRasterDiagram_InputMessage	21
3.1.4.1.1.2	IVisioGraphicsService_GetRasterDiagram_OutputMessage	21
3.1.4.1.2	IVisioGraphicsService_GetRasterDiagram_VisioGraphicsServiceFaultFault _FaultMessage	21
3.1.4.1.3	Elements.....	21
3.1.4.1.3.1	GetRasterDiagram	21
3.1.4.1.3.2	GetRasterDiagramResponse.....	22
3.1.4.1.4	Complex Types	22
3.1.4.1.4.1	RasterDiagramRequestContract (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Serv er.GraphicsServer)	22
3.1.4.1.4.2	RasterDiagram (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Serv er.GraphicsServer)	22
3.1.4.2	GetVectorDiagram	23
3.1.4.2.1	Messages	24
3.1.4.2.1.1	IVisioGraphicsService_GetVectorDiagram_InputMessage	24
3.1.4.2.1.2	IVisioGraphicsService_GetVectorDiagram_OutputMessage	24
3.1.4.2.2	IVisioGraphicsService_GetVectorDiagram_VisioGraphicsServiceFaultFault _FaultMessage	24
3.1.4.2.3	Elements.....	24
3.1.4.2.3.1	GetVectorDiagram	24
3.1.4.2.3.2	GetVectorDiagramResponse.....	25
3.1.4.2.4	Complex Types	25
3.1.4.2.4.1	VectorDiagramRequestContract (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Serv er.GraphicsServer)	25
3.1.4.2.4.2	VectorDiagram (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Serv er.GraphicsServer)	25
3.1.4.2.4.3	RenderedPage (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Serv er.GraphicsServer)	26
3.1.4.2.4.4	ArrayOfDiagramResource (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Serv er.GraphicsServer)	26
3.1.4.2.4.5	DiagramResource (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Serv er.GraphicsServer)	27
3.1.5	Timer Events	27
3.1.5.1	Recalculation Timeout	27
3.1.6	Other Local Events	27
3.2	Client Details.....	27
3.2.1	Abstract Data Model	27
3.2.2	Timers	27
3.2.3	Initialization	27

3.2.4	Message Processing Events and Sequencing Rules.....	28
3.2.5	Timer Events	28
3.2.6	Other Local Events	28
4	Protocol Examples.....	29
4.1	GetRasterDiagram	29
4.2	GetVectorDiagram	35
4.3	GetVectorDiagram with AddonDataSource	37
5	Security.....	54
5.1	Security Considerations for Implementers.....	54
5.2	Index of Security Parameters	54
6	Appendix A: Full WSDL.....	55
7	Appendix B: Product Behavior.....	61
8	Change Tracking.....	62
9	Index	63

1 Introduction

This document specifies the Visio Graphics Service Protocol. This protocol enables a protocol client to communicate with a protocol server to retrieve information about a [Web drawing](#) that is stored in a document repository.

1.1 Glossary

The following terms are defined in [\[MS-GLOS\]](#):

domain
Hypertext Transfer Protocol (HTTP)
Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)
Transmission Control Protocol (TCP)
UTC (Coordinated Universal Time)

The following terms are defined in [\[MS-OFCGLOS\]](#):

data connection
data provider
data source
endpoint
Extensible Application Markup Language (XAML)
font
fully qualified class name
list
Office data connection (ODC) file
Portable Network Graphics (PNG)
primary key
row
SOAP (Simple Object Access Protocol)
SOAP action
SOAP body
SOAP fault
URI (Uniform Resource Identifier)
URL (Uniform Resource Locator)
view
WSDL (Web Services Description Language)
WSDL operation

The following terms are specific to this document:

MAY, SHOULD, MUST, SHOULD NOT, MUST NOT: These terms (in all caps) are used as described in [\[RFC2119\]](#). All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

1.2 References

1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information. Please check the archive site, <http://msdn2.microsoft.com/en-us/library/E4BD6494-06AD-4aed-9823-445E921C9624>, as an additional source.

[MS-DSDIFFGRAM] Microsoft Corporation, "[SharePoint Web Services: DataSet DiffGram Structure Specification](#)", June 2008.

[MS-SLXV] Microsoft Corporation, "Silverlight XAML Vocabulary Specification 2008", October 2008, [Silverlight XAML Vocabulary Specification 2008](#)

[MS-SPSTWS] Microsoft Corporation, "[SharePoint Security Token Service Web Service Protocol Specification](#)", July 2009.

[MS-VGSFF] Microsoft Corporation, "[Visio Graphics Service File Format \(.vdw\) Specification](#)", July 2009.

[RFC1738] Berners-Lee, T., Masinter, L., and McCahill, M., "Uniform Resource Locators (URL)", RFC 1738, December 1994, <http://www.ietf.org/rfc/rfc1738.txt>

[RFC1980] Seidman, J., "A Proposed Extension to HTML : Client-Side Image Maps", August 1996, <http://www.ietf.org/rfc/rfc1980.txt>

[RFC2083] Boutell, T., "PNG (Portable Network Graphics) Specification Version 1.0", RFC 2083, March 1997, <http://www.ietf.org/rfc/rfc2083.txt>

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, <http://www.ietf.org/rfc/rfc2119.txt>

[RFC2616] Fielding, R., Gettys, J., Mogul, J., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2616, June 1999, <http://www.ietf.org/rfc/rfc2616.txt>

[SOAP1.1] Box, D., Ehnebuske, D., Kakivaya, G., et al., "Simple Object Access Protocol (SOAP) 1.1", May 2000, <http://www.w3.org/TR/2000/NOTE-SOAP-20000508/>

[SOAP1.2/1] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 1: Messaging Framework", W3C Recommendation, June 2003, <http://www.w3.org/TR/2003/REC-soap12-part1-20030624>

[SOAP1.2/2] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 2: Adjuncts", W3C Recommendation, June 2003, <http://www.w3.org/TR/2003/REC-soap12-part2-20030624>

[WSA1.0 Core] Gudgin, M., Ed., Hadley, M., Ed., and Rogers, Tony, Ed., "Web Services Addressing 1.0 - Core", W3C Recommendation 9 May 2006, <http://www.w3.org/TR/2006/REC-ws-addr-core-20060509/ws-addr-core.pdf>

[WSA1.0 Metadata] Gudgin, M., Ed., Hadley, M., Ed., Rogers, T., Ed., Yalcinalp, U., Ed., "Web Services Addressing 1.0 - Metadata", W3C Recommendation 4 September 2007, <http://www.w3.org/TR/ws-addr-metadata/>

[WSA1.0] World Wide Web Consortium, "Web Services Addressing 1.0 - WSDL Binding", 29 May 2006, <http://www.w3.org/TR/ws-addr-wsdl/>

[WSAddressing] Box, D., Christensen, E., Ferguson, D., et al., "Web Services Addressing (WS-Addressing)", August 2004, <http://www.w3.org/Submission/ws-addressing/>

If you have any trouble finding [WSAddressing], please check [here](#).

[WSDL] Christensen, E., Curbera, F., Meredith, G., and Weerawarana, S., "Web Services Description Language (WSDL) 1.1", W3C Note, March 2001, <http://www.w3.org/TR/2001/NOTE-wsdl-20010315>

[WS-MetaDataExchange] Ballinger, K. et al., "Web Services Metadata Exchange (WS-MetadataExchange) Version 1.1", August 2006, <http://specs.xmlsoap.org/ws/2004/09/mex/WS-MetadataExchange.pdf>

[WS-Policy] Siddharth, B., Box, D., Chappell, D., et al., "Web Services Policy 1.2 - Framework (WS-Policy)", April 2006, <http://www.w3.org/Submission/2006/SUBM-WS-Policy-20060425/>

[WSSE 1.0] Nadalin, A., Kaler, C., Hallam-Baker, P., and Monzillo, R., Eds., "Web Services Security: SOAP Message Security 1.0 (WS-Security 2004)", OASIS Standard 200401, March 2004, <http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-soap-message-security-1.0.pdf>

[XMLNS] World Wide Web Consortium, "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation 8 December 2009, <http://www.w3.org/TR/REC-xml-names/>

[XMLSCHEMA1] Thompson, H.S., Ed., Beech, D., Ed., Maloney, M., Ed., and Mendelsohn, N., Ed., "XML Schema Part 1: Structures", W3C Recommendation, May 2001, <http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/>

[XMLSCHEMA2] Biron, P.V., Ed. and Malhotra, A., Ed., "XML Schema Part 2: Datatypes", W3C Recommendation, May 2001, <http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/>

1.2.2 Informative References

[MC-NMF] Microsoft Corporation, "[.NET Message Framing Protocol Specification](#)", October 2007.

[MS-GLOS] Microsoft Corporation, "[Windows Protocols Master Glossary](#)", March 2007.

[MS-OFCGLOS] Microsoft Corporation, "[Microsoft Office Master Glossary](#)", June 2008.

[MS-SPTWS] Microsoft Corporation, "[Service Platform Topology Web Service Protocol Specification](#)", July 2009.

[RFC2818] Rescorla, E., "HTTP Over TLS", RFC 2818, May 2000, <http://www.ietf.org/rfc/rfc2818.txt>

1.3 Protocol Overview (Synopsis)

This protocol enables a protocol client to retrieve a [Web drawing](#). It enables a protocol client to request from a protocol server, a [drawing page](#) in a Web drawing, and to receive either a raster or vector formatted drawing page. A raster formatted drawing page is returned in the **Portable Network Graphics (PNG)** format as specified in [\[RFC2083\]](#). A vector formatted drawing page is returned in **XAML** as specified in [\[MS-SLXV\]](#).

A typical scenario for using this protocol is an application that retrieves and displays a Web drawing from a .vdw file stored in a document repository.

1.3.1 Web Drawing

A Web drawing is a collection of [drawing pages](#), [shapes](#), [fonts](#), images, **data connections (2)**, and recalculation information that can be rendered as a raster or vector drawing.

A Web drawing is contained in a .vdw file that conforms to the format specified in [\[MS-VGSFF\]](#) section 2.2.1. The .vdw file is typically stored in a document repository.

1.3.2 Drawing Page

A drawing page is a collection of [shapes](#) that are viewed together.

Drawing pages are specified in [\[MS-VGSFF\]](#) section 2.2.2.

1.3.3 Shape

A shape is a collection of geometry, text, images, hyperlinks, and data in a [drawing page](#).

Shapes are specified in [\[MS-VGSFF\]](#) section 2.2.3.

1.4 Relationship to Other Protocols

This protocol uses the **SOAP** message protocol for formatting request and response messages, as described in [\[SOAP1.1\]](#), [\[SOAP1.2/1\]](#) and [\[SOAP1.2/2\]](#). It transmits those messages by using **HTTP**, as described in [\[RFC2616\]](#), **HTTPS**, as described in [\[RFC2818\]](#), or **TCP**, as described in [\[MC-NMF\]](#).

The following diagram shows the underlying messaging and transport stack that this protocol uses:

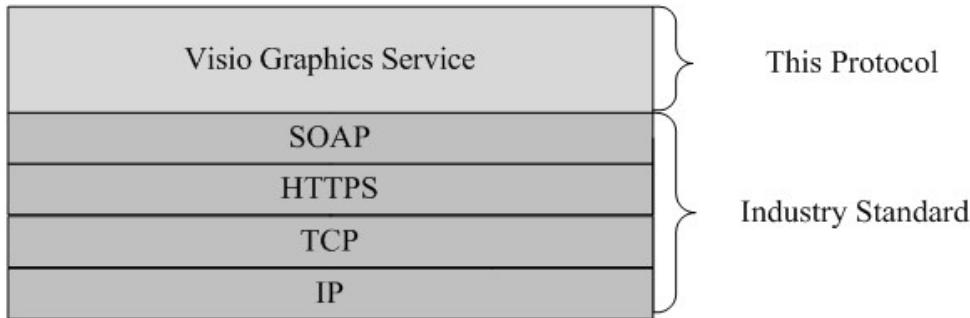


Figure 1: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

This protocol operates against a protocol server that exposes one or more **endpoint (4) URIs** that are known by protocol clients. The endpoint (4) URI of the protocol server and the transport that is used by the protocol server are either known by the protocol client or obtained by using the discovery mechanism that is described in [\[MS-SPTWS\]](#).

The protocol client obtains the requisite ApplicationClassId and ApplicationVersion values and the endpoint (4) URI of the protocol server that provides the discovery mechanism, as described in [\[MS-SPTWS\]](#), by means that are independent of either protocol.

This protocol requires the protocol client to have appropriate permission to call the methods on the protocol server.

The protocol client implements the token-based security mechanisms that are required by the protocol server and related security protocols, as described in [\[MS-SPSTWS\]](#).

1.6 Applicability Statement

This protocol is designed to support retrieval of [Web drawings](#).

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports:** This protocol can be implemented by using transports that support sending SOAP messages, as specified in section [2.1](#).
- **Protocol Versions:** This protocol is not versioned.
- **Capability Negotiation:** This protocol does not support version negotiation.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2 Messages

In the following sections, the schema definition might be less restrictive than the processing rules imposed by the protocol. The **WSDL** in this specification matches the WSDL that shipped with the product and provides a base description of the schema. The text that introduces the WSDL specifies additional restrictions that reflect actual Microsoft product behavior. For example, the schema definition might allow for an element to be empty, null, or not present but the behavior of the protocol as specified restricts the same elements to being non-empty, present, and not null.

2.1 Transport

Protocol servers MUST support SOAP over HTTP, HTTPS, or TCP.

All protocol messages MUST be transported by using HTTP or TCP bindings at the transport level.

Protocol messages MUST be formatted as specified in either [\[SOAP1.1\]](#) section 4 or [\[SOAP1.2/1\]](#) section 5. Protocol server faults MUST be returned by using HTTP status codes, as specified in [\[RFC2616\]](#) section 10, or **SOAP faults**, as specified in [\[SOAP1.1\]](#) section 4.4 or [\[SOAP1.2/1\]](#) section 5.4.

If the HTTPS transport is used, a server certificate MUST be deployed.

This protocol MAY transmit an additional SOAP header, the **ServiceContext** header, as specified in [\[MS-SPSTWS\]](#).

This protocol does not define any means for activating a protocol server or protocol client. The protocol server MUST be configured and begin listening in an implementation-specific way. In addition, the protocol client MUST know the format and transport that is used by the server, for example, the SOAP format over an HTTP transport.

2.2 Common Message Syntax

This section contains common definitions used by this protocol. The syntax of the definitions uses the XML Schema as defined in [\[XMLSCHEMA1\]](#) and [\[XMLSCHEMA2\]](#), and Web Services Description Language as defined in [\[WSDL\]](#).

2.2.1 Namespaces

This specification defines and references various XML namespaces using the mechanisms specified in [\[XMLNS\]](#). Although this specification associates a specific XML namespace prefix for each XML namespace that is used, the choice of any particular XML namespace prefix is implementation-specific and not significant for interoperability.

Prefix	Namespace URI	Reference
xsd	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]
soapenc	http://schemas.xmlsoap.org/soap/encoding/	[SOAP1.2/1] [SOAP1.2/2]
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
tns	http://tempuri.org/	

Prefix	Namespace URI	Reference
wsap	http://schemas.xmlsoap.org/ws/2004/08/addressing/policy	[WSAddressing]
msc	http://schemas.microsoft.com/ws/2005/12/wsdl/contract	[WS-MetaDataExchange]
wsam	http://www.w3.org/2007/05/addressing/metadata	[WSA1.0 Metadata]
soap12	http://schemas.xmlsoap.org/wsdl/soap12/	[SOAP1.2/1] [SOAP1.2/2]
wsa10	http://www.w3.org/2005/08/addressing	[WSA1.0 Core]
wsa	http://schemas.xmlsoap.org/ws/2004/08/addressing	[WSAddressing]
wsaw	http://www.w3.org/2006/05/addressing/wsdl	[WSA1.0]
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
wsx	http://schemas.xmlsoap.org/ws/2004/09/mex	[WS-MetaDataExchange]
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]
wsu	http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd	[WSSE 1.0]
wsp	http://www.w3.org/ns/ws-policy	[WS-Policy]

2.2.2 Messages

None.

2.2.3 Elements

None.

2.2.4 Complex Types

The following table summarizes the set of common XML Schema complex type definitions defined by this specification. XML Schema complex type definitions that are specific to a particular operation are described with the operation.

Complex Type	Description
AddonDataSource	A complex type used to specify a custom data provider used in the Web drawing .
ArrayOfAddonDataSource	An array of AddonDataSource elements.
BaseRequestContract	A complex type used to specify a request message for all protocol server operations.
DiagramBase	A complex type used to specify a response message for all protocol server operations.

Complex Type	Description
VisioGraphicsServiceFault	A complex type used to specify an error that occurs during a protocol operation.

2.2.4.1 AddonDataSource (from namespace

http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer)

The **AddonDataSource** complex type contains information about a custom data provider used in a [Web drawing](#).

```

<xs:complexType name="AddonDataSource">
  <xs:sequence>
    <xs:element minOccurs="0" name="ConnectionString" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="Data" nillable="true">
      <xs:complexType>
        <xs:annotation>
          <xs:appinfo>
            <ActualType Name="DataSet"
Namespace="http://schemas.datacontract.org/2004/07/System.Data"
xmlns="http://schemas.microsoft.com/2003/10/Serialization/" />
          </xs:appinfo>
        </xs:annotation>
        <xs:sequence>
          <xs:element ref="xs:schema"/>
          <xs:any/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element minOccurs="0" name="Id" type="xs:int"/>
    <xs:element minOccurs="0" name="QueryString" nillable="true" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

ConnectionString: A string that specifies arguments which define the location of the custom data provider and how to connect to it. There MUST be exactly one instance of this element and it MUST NOT be null. MUST be a **fully qualified class name**.

Data: Specifies the data retrieved from the custom data provider. MUST be encoded in the DiffGram format as specified in [\[MS-DSDIFFGRAM\]](#). This element MUST NOT be null.

xs:schema: Specifies the schema for the Data element. This element can be null.

Id: An integer that specifies the identifier of this **AddonDataSource**. MUST be greater than or equal to zero and MUST be unique across all the AddonDataSource elements in the containing [ArrayOfAddonDataSource](#) array. There MUST be exactly one instance of this element.

QueryString: A string that specifies information used to call and retrieve data from the custom data provider. There MUST be exactly one instance of this element and it MUST NOT be null.

2.2.4.2 ArrayOfAddonDataSource (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>)

The **ArrayOfAddonDataSource** complex type contains an array of [AddonDataSource](#) elements.

```
<xs:complexType name="ArrayOfAddonDataSource">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="AddonDataSource" nillable="true"
      type="tns:AddonDataSource"/>
  </xs:sequence>
</xs:complexType>
```

AddonDataSource: Specifies an AddonDataSource element. This element MUST NOT be null.

2.2.4.3 BaseRequestContract (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>)

The **BaseRequestContract** complex type contains information used to specify the request parameters for all protocol server operations.

```
<xs:complexType name="BaseRequestContract">
  <xs:sequence>
    <xs:element minOccurs="0" name="DataSources" nillable="true"
      type="tns:ArrayOfAddonDataSource"/>
    <xs:element minOccurs="0" name="DisableRefresh" type="xs:boolean"/>
    <xs:element minOccurs="0" name="FileUri" nillable="true" type="xs:anyURI"/>
    <xs:element minOccurs="0" name="PageNumber" type="xs:int"/>
    <xs:element minOccurs="0" name="TimeLastModified" type="xs:dateTime"/>
  </xs:sequence>
</xs:complexType>
```

DataSources: An [ArrayOfAddonDataSource](#) that specifies the custom data providers in the [Web drawing](#). MUST have zero elements if there are no custom data providers. If **DataSources** is not empty, then the **Data** field of each [AddonDataSource](#) element MUST NOT be null.

DisableRefresh: A Boolean that specifies whether the requested [drawing page](#) is refreshed by the protocol server. A value of "true" indicates that the returned drawing page is not refreshed; a value of "false" indicates that the returned drawing page is refreshed. There MUST be exactly one instance of this element.

FileUri: An anyURI that specifies the [URL](#) of the .vdw file in a document repository that contains the Web drawing being requested. There MUST be exactly one instance of this element and it MUST NOT be null.

PageNumber: An integer that specifies the one-based index of a drawing page in the Web drawing. MUST be greater than zero and less than or equal to the total number of drawing pages in the requested Web drawing. There MUST be exactly one instance of this element.

TimeLastModified: An optional **dateTime** element that specifies the date and time, in [UTC \(Coordinated Universal Time\)](#) format, when the .vdw file was last modified in the document repository. There MUST be zero or exactly one instance of this element.

2.2.4.4 DiagramBase (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.Graphic sServer)

The **DiagramBase** complex type contains information used to specify response data for all protocol server operations.

```
<xs:complexType name="DiagramBase">
  <xs:sequence>
    <xs:element minOccurs="0" name="CacheAge" type="xs:int"/>
    <xs:element minOccurs="0" name="DataSources" nillable="true"
      type="tns:ArrayOfAddonDataSource"/>
  </xs:sequence>
</xs:complexType>
```

CacheAge: An integer that specifies the duration in minutes for which the processed [drawing page](#) is cached in memory by the protocol server. MUST be greater than zero. There MUST be exactly one instance of this element.

DataSources: An [ArrayOfAddonDataSource](#) that specifies the custom data providers in the [Web drawing](#). MUST have zero elements if there are no custom data providers. If not empty, then the **Data** field of each contained [AddonDataSource](#) element MUST NOT be empty.

2.2.4.5 VisioGraphicsServiceFault (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.Graphic sServer)

The **VisioGraphicsServiceFault** complex type contains information about errors that occur during protocol server operations.

```
<xs:complexType name="VisioGraphicsServiceFault">
  <xs:sequence>
    <xs:element minOccurs="0" name="Details" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="Error" type="tns:FaultCode"/>
    <xs:element minOccurs="0" name="Flags" type="xs:int"/>
  </xs:sequence>
</xs:complexType>
```

Details: A string that specifies a detailed description of the error. There MUST be exactly one instance of this element and it MUST NOT be null.

Error: A [FaultCode](#) that specifies the type of error. There MUST be exactly one instance of this element.

Flags: An integer that specifies additional information related to the FaultCode indicating an error occurred during mapping of [rows \(2\)](#) of data to [shapes](#) when processing the request for a [drawing page](#). There MUST be exactly one instance of this element. MUST be a value from the following table:

Value	Description
0x00000000	No error.
0x00000001	A column was deleted in the data source (1) .

Value	Description
0x00000002	A column's data type was changed in the data source (1).
0x00000004	A row (2) was deleted in the data source (1).
0x00000008	A duplicate row (2) was found in the data source (1).
0x00000010	A primary key column was deleted in the data source (1).
0x40000000	An unexpected failure occurred.

2.2.5 Simple Types

The following table summarizes the set of common XML Schema simple type definitions defined by this specification. XML Schema simple type definitions that are specific to a particular operation are described with the operation.

Simple Type	Description
FaultCode	A simple type used to specify a specific error that occurs during a protocol operation.

2.2.5.1 FaultCode (from namespace

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>)

The **FaultCode** simple type contains information about a specific error that occurs during a protocol operation. MUST be a value from the following table:

```

<xs:simpleType name="FaultCode">
  <xs:restriction base="xs:string">
    <xs:enumeration value="DataConnectivityError"/>
    <xs:enumeration value="EmptyRasterDiagramRequest"/>
    <xs:enumeration value="EmptyVectorDiagramRequest"/>
    <xs:enumeration value="OfficeDataConnectionFileNotFound"/>
    <xs:enumeration value="OfficeDataConnectionFileRetrievalError"/>
    <xs:enumeration value="OfficeDataConnection FileAccessDenied"/>
    <xs:enumeration value="IncompatibleDomain"/>
    <xs:enumeration value="WssViewAccessDenied"/>
    <xs:enumeration value="WssListAccessDenied"/>
    <xs:enumeration value="InvalidPageNumber"/>
    <xs:enumeration value="InvalidResolution"/>
    <xs:enumeration value="InvalidFileUrl"/>
    <xs:enumeration value="RasterizationError"/>
    <xs:enumeration value="InvalidFileExtension"/>
    <xs:enumeration value="EmptyServerData"/>
    <xs:enumeration value="OpenServerFileFailed"/>
    <xs:enumeration value="NoReadPermissionToFile"/>
    <xs:enumeration value="KeyNotFoundFromCollection"/>
    <xs:enumeration value="ExceededMaxDiagramSize"/>
    <xs:enumeration value="IncompatibleVersion"/>
    <xs:enumeration value="DataProviderNotTrusted"/>
    <xs:enumeration value="DataBindingConflict"/>
    <xs:enumeration value="UnableToGetExternalDataSourceCredentials"/>
    <xs:enumeration value="UnattendedAccountTypeMismatch"/>
    <xs:enumeration value="RecalcTimedOut"/>
  </xs:restriction>
</xs:simpleType>

```

```

<xs:enumeration value="LicenseExpired"/>
</xs:restriction>
</xs:simpleType>

```

The following table specifies the allowable values for FaultCode:

Value	Meaning
DataConnectivityError	An error occurred while trying to connect to data sources specified in the document.
EmptyRasterDiagramRequest	An internal error occurred.
EmptyVectorDiagramRequest	An internal error occurred.
OfficeDataConnectionFileNotFound	The Office data connection (ODC) file specified in the document could not be found.
OfficeDataConnectionFileRetrievalError	The Office data connection (ODC) file URL specified in the document is not a well formed URL as specified in [RFC1738] .
OfficeDataConnectionFileAccessDenied	Access to the Office data connection (ODC) file specified in the document was denied.
IncompatibleDomain	The specified document is referring to a list (1) data source that is not in a compatible domain .
WssViewAccessDenied	The user does not have permissions to the view used as external data source by the web drawing.
WssListAccessDenied	The user does not have permissions to the list (1) used as external data source by the web drawing.
InvalidPageNumber	The PageNumber specified in BaseRequestContract does not exist in the document.
InvalidResolution	The Resolution specified in RasterDiagramRequestContract is invalid.
InvalidFileUrl	The FileUri specified in BaseRequestContract is not a well formed URL as specified in [RFC1738] .
RasterizationError	An error occurred during rasterization of the document.
InvalidFileExtension	The FileUri specified in BaseRequestContract does not refer to a file with a valid extension.
EmptyServerData	The data in the document is empty or invalid.
OpenServerFileFailed	The document could not be opened.
NoReadPermissionToFile	Access to the document was denied.
KeyNotFoundFromCollection	The document could not be opened.
ExceededMaxDiagramSize	The document size exceeded the limit configured by the service administrator.
IncompatibleVersion	The document version is incompatible with the server.

Value	Meaning
DataProviderNotTrusted	The document requires a connection to custom data provider(s) that are not allowed by the service administrator.
DataBindingConflict	Unable to update the graphical elements that are mapped to data.
UnableToGetExternalDataSourceCredentials	Credentials required to connect to data sources specified in the document could not be retrieved.
UnattendedAccountTypeMismatch	The default credentials used for connecting to data sources are of invalid type.
RecalcTimedOut	The document recalculation duration exceeded the limit configured by the service administrator.
LicenseExpired	Visio Graphics Service license has expired.

2.2.6 Attributes

This specification does not define any common XML Schema attribute definitions.

2.2.7 Groups

This specification does not define any common XML Schema group definitions.

2.2.8 Attribute Groups

This specification does not define any common XML Schema attribute group definitions.

3 Protocol Details

In the following sections, the schema definition might be less restrictive than the processing rules imposed by the protocol. The WSDL in this specification matches the WSDL that shipped with the product and provides a base description of the schema. The text that introduces the WSDL specifies additional restrictions that reflect actual Microsoft product behavior. For example, the schema definition might allow for an element to be empty, null, or not present but the behavior of the protocol as specified restricts the same elements to being non-empty, present, and not null.

The client side of this protocol is simply a pass-through. That is, no additional timers or other state is required on the client side of this protocol. Calls made by the higher-layer protocol or application are passed directly to the transport, and the results returned by the transport are passed directly back to the higher-layer protocol or application.

Except where specified, protocol clients MUST interpret HTTP status codes returned by the protocol server as specified in [\[RFC2616\]](#) (Section 10, Status Code Definitions).

This protocol allows protocol servers to notify protocol clients of application-level faults using SOAP faults. Except where specified, these SOAP faults are not significant for interoperability, and protocol clients can interpret them in an implementation-specific manner.

This protocol allows protocol servers to perform implementation-specific authorization checks and notify protocol clients of authorization faults either using HTTP status codes or using SOAP faults as specified previously in this section.

3.1 Server Details

This protocol is based on stateless interaction between the client and server. The protocol server returns the requested [drawing page](#) of the [Web drawing](#). There are no dependencies between instances of client and server interaction.

3.1.1 Abstract Data Model

None.

3.1.2 Timers

3.1.2.1 Recalculation Timeout

The **Recalculation Timeout** timer measures the time it takes for the protocol server to recalculate the [drawing page](#) of the [Web drawing](#). This timeout is configured on the protocol server.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

The protocol server operations are stateless. These operations can be executed in any order.

This specification includes the following **WSDL operations**:

WSDL Operation	Description
GetRasterDiagram	This operation retrieves a drawing page from the Web drawing rendered in a raster format.
GetVectorDiagram	This operation retrieves a drawing page from the Web drawing rendered in a vector format.

3.1.4.1 GetRasterDiagram

This operation retrieves a [drawing page](#) from the [Web drawing](#) rendered in a raster format.

```
<wsdl:operation name="GetRasterDiagram">
  <wsdl:input wsam:Action="http://tempuri.org/IVisioGraphicsService/GetRasterDiagram"
    message="tns:IVisioGraphicsService_GetRasterDiagram_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/IVisioGraphicsService/GetRasterDiagramResponse"
    message="tns:IVisioGraphicsService_GetRasterDiagram_OutputMessage"/>
  <wsdl:fault
    wsam:Action="http://tempuri.org/IVisioGraphicsService/GetRasterDiagramVisioGraphicsServiceFault"
    name="VisioGraphicsServiceFaultFault"
    message="tns:IVisioGraphicsService_GetRasterDiagram_VisioGraphicsServiceFaultFault_FaultMessage"/>
</wsdl:operation>
```

The protocol client sends a **IVisioGraphicsService_GetRasterDiagram_InputMessage** request WSDL message and the protocol server MUST respond with a **IVisioGraphicsService_GetRasterDiagram_OutputMessage** response WSDL message, as follows:

1. If the protocol server determines that an error occurred during the protocol server operation, the protocol server MUST respond with a [VisioGraphicsServiceFault](#) SOAP fault with the **Error** field set to the appropriate [FaultCode](#) and return.
2. Otherwise, the protocol server MUST return a [RasterDiagram](#).

If the requested drawing page contains custom data providers, the following sequence of messages MUST be followed:

1. The protocol server MUST respond with a **IVisioGraphicsService_GetRasterDiagram_OutputMessage** response WSDL message. The custom data providers MUST be specified in the **DataSources** attribute of the RasterDiagram contained within this response. The **Image** attribute of this RasterDiagram MUST be null.
2. The protocol client MUST retrieve the data from the custom data providers and send another **IVisioGraphicsService_GetRasterDiagram_InputMessage** request WSDL message. This request MUST be identical to the original request except that the **DataSources** attribute of the [RasterDiagramRequestContract](#) MUST NOT be null.
3. The protocol server MUST respond with a **IVisioGraphicsService_GetRasterDiagram_OutputMessage** response WSDL message. If no errors occurred, the response MUST contain a RasterDiagram and the **Image** attribute of the RasterDiagram MUST NOT be null.

3.1.4.1.1 Messages

3.1.4.1.1.1 IVisioGraphicsService_GetRasterDiagram_InputMessage

The requested WSDL message for the **GetRasterDiagram** WSDL operation.

The **SOAP action** value is:

```
http://tempuri.org/IVisioGraphicsService/GetRasterDiagram
```

The **SOAP body** contains the **GetRasterDiagram** element.

3.1.4.1.1.2 IVisioGraphicsService_GetRasterDiagram_OutputMessage

The response WSDL message for the **GetRasterDiagram** method.

The SOAP action value is:

```
http://tempuri.org/IVisioGraphicsService/GetRasterDiagramResponse
```

The SOAP body contains the **GetRasterDiagramResponse** element.

3.1.4.1.2

IVisioGraphicsService_GetRasterDiagram_VisioGraphicsServiceFaultFaultMessage

The response WSDL message for the **GetRasterDiagram** method.

The SOAP action value is:

```
http://tempuri.org/IVisioGraphicsService/GetRasterDiagramVisioGraphicsServiceFaultFault
```

The SOAP body contains a **VisioGraphicsServiceFault** element.

3.1.4.1.3 Elements

3.1.4.1.3.1 GetRasterDiagram

The input data for the **GetRasterDiagram** WSDL operation.

```
<xs:element name="GetRasterDiagram">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="rasterDiagramRequestContract" nillable="true"
        xmlns:q1="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer"
        type="q1:RasterDiagramRequestContract"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

rasterDiagramRequestContract: The request parameters for a **GetRasterDiagram** WSDL operation. There MUST be exactly one instance of this element.

3.1.4.1.3.2 GetRasterDiagramResponse

The result data for the **GetRasterDiagram** WSDL operation.

```
<xs:element name="GetRasterDiagramResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="GetRasterDiagramResult" nillable="true"
        xmlns:q2="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer"
        type="q2:RasterDiagram"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetRasterDiagramResult: The results for a **GetRasterDiagram** WSDL operation. There MUST be exactly one instance of this element.

3.1.4.1.4 Complex Types

3.1.4.1.4.1 RasterDiagramRequestContract (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>)

The **RasterDiagramRequestContract** complex type contains information used to specify the request parameters for a **GetRasterDiagram** WSDL operation. This complex type inherits from [BaseRequestContract](#) which specifies additional parameters.

```
<xs:complexType name="RasterDiagramRequestContract">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BaseRequestContract">
      <xs:sequence>
        <xs:element minOccurs="0" name="Resolution" type="xs:int"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Resolution: An integer that is unused and MUST be set to 1 or 2. Client MUST ignore it, if receiving an element of this type.

3.1.4.1.4.2 RasterDiagram (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>)

The **RasterDiagram** complex type contains information used to specify the response for a **GetRasterDiagram** WSDL operation. This complex type inherits from [DiagramBase](#) which specifies additional parameters.

```
<xs:complexType name="RasterDiagram">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:DiagramBase">
      <xs:sequence>
        <xs:element minOccurs="0" name="AreaMaps" nillable="true" type="xs:string"/>
        <xs:element minOccurs="0" name="Image" nillable="true" type="xs:base64Binary"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

```

<xs:element minOccurs="0" name="ShapeInfo" nillable="true" type="xs:string"/>
</xs:sequence>
</xs:extension>
</xs:complexContent>
</xs:complexType>

```

AreaMaps: A string that specifies the geometric outline information of the [shapes](#) in the raster image. The format of this data is specified in [\[RFC1980\]](#). There MUST be exactly one instance of this element.

Image: A base64Binary that specifies the [drawing page](#) as a raster image in PNG format as specified in [\[RFC2083\]](#). There MUST be exactly one instance of this element.

ShapeInfo: A string that specifies information about the shapes in the drawing page. The syntax of this element is specified by [\[MS-VGSFF\]](#) section 2.4.8. There MUST be exactly one instance of this element.

3.1.4.2 GetVectorDiagram

This operation retrieves a [drawing page](#) from the [Web drawing](#) rendered in a vector format.

```

<wsdl:operation name="GetVectorDiagram">
  <wsdl:input wsam:Action="http://tempuri.org/IVisioGraphicsService/GetVectorDiagram"
  message="tns:IVisioGraphicsService_GetVectorDiagram_InputMessage"/>
  <wsdl:output
  wsam:Action="http://tempuri.org/IVisioGraphicsService/GetVectorDiagramResponse"
  message="tns:IVisioGraphicsService_GetVectorDiagram_OutputMessage"/>
  <wsdl:fault
  wsam:Action="http://tempuri.org/IVisioGraphicsService/GetVectorDiagramVisioGraphicsServiceFault"
  name="VisioGraphicsServiceFaultFault"
  message="tns:IVisioGraphicsService_GetVectorDiagram_VisioGraphicsServiceFaultFault_FaultMessage"/>
</wsdl:operation>

```

The protocol client sends a **IVisioGraphicsService_GetVectorDiagram_InputMessage** request WSDL message and the protocol server MUST respond with a **IVisioGraphicsService_GetVectorDiagram_OutputMessage** response WSDL message, as follows:

1. If the protocol server determines that an error occurred during the protocol server operation, the protocol server MUST respond with a [VisioGraphicsServiceFault](#) SOAP fault with the **Error** field set to the appropriate [FaultCode](#) and return.
2. Otherwise, the protocol server MUST return a [VectorDiagram](#).

If the requested drawing page contains custom data providers, the following sequence of messages MUST be followed:

1. The protocol server MUST respond with a **IVisioGraphicsService_GetVectorDiagram_OutputMessage** response WSDL message. The custom data providers MUST be specified in the **DataSources** attribute of the VectorDiagram contained within this response. The **OutputPage** attribute of this VectorDiagram MUST be null.
2. The protocol client MUST retrieve the data from the custom data providers and send another **IVisioGraphicsService_GetVectorDiagram_InputMessage** request WSDL message. This

request MUST be identical to the original request except that the **DataSources** attribute of the [**VectorDiagramRequestContract**](#) MUST NOT be null.

3. The protocol server MUST respond with a **IVisioGraphicsService_GetVectorDiagram_OutputMessage** response WSDL message. If no errors occurred, the response MUST contain a VectorDiagram and the **OutputPage** attribute of the VectorDiagram MUST NOT be null.

3.1.4.2.1 Messages

3.1.4.2.1.1 IVisioGraphicsService_GetVectorDiagram_InputMessage

The requested WSDL message for the **GetVectorDiagram** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/IVisioGraphicsService/GetVectorDiagram
```

The SOAP body contains the **GetVectorDiagram** element.

3.1.4.2.1.2 IVisioGraphicsService_GetVectorDiagram_OutputMessage

The response WSDL message for the **GetVectorDiagram** method.

The SOAP action value is:

```
http://tempuri.org/IVisioGraphicsService/GetVectorDiagramResponse
```

The SOAP body contains the **GetVectorDiagramResponse** element.

3.1.4.2.2

IVisioGraphicsService_GetVectorDiagram_VisioGraphicsServiceFault_FaultMessage

The response WSDL message for the **GetVectorDiagram** method.

The SOAP action value is:

```
http://tempuri.org/IVisioGraphicsService/GetVectorDiagramVisioGraphicsServiceFaultFault
```

The SOAP body contains a **VisioGraphicsServiceFault** element.

3.1.4.2.3 Elements

3.1.4.2.3.1 GetVectorDiagram

The input data for the **GetVectorDiagram** WSDL operation.

```
<xs:element name="GetVectorDiagram">
  <xs:complexType>
    <xs:sequence>
```

```

<xs:element minOccurs="0" name="vectorDiagramRequest" nillable="true"
xmlns:q3="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer"
r" type="q3:VectorDiagramRequestContract"/>
  </xs:sequence>
</xs:complexType>
</xs:element>

```

vectorDiagramRequest: The request parameters for a **GetVectorDiagram** WSDL operation. There MUST be exactly one instance of this element and it MUST NOT be null.

3.1.4.2.3.2 GetVectorDiagramResponse

The result data for the **GetVectorDiagram** WSDL operation.

```

<xs:element name="GetVectorDiagramResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="GetVectorDiagramResult" nillable="true"
xmlns:q4="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer"
r" type="q4:VectorDiagram"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

GetVectorDiagramResult: The results for a **GetVectorDiagram** WSDL operation. There MUST be exactly one instance of this element and it MUST NOT be null.

3.1.4.2.4 Complex Types

3.1.4.2.4.1 VectorDiagramRequestContract (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>)

The **VectorDiagramRequestContract** complex type contains information used to specify the request parameters for a **GetVectorDiagram** WSDL operation. This complex type inherits from [BaseRequestContract](#) which specifies additional parameters.

```

<xs:complexType name="VectorDiagramRequestContract">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BaseRequestContract">
      <xs:sequence/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

3.1.4.2.4.2 VectorDiagram (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>)

The **VectorDiagram** complex type contains information used to specify the response for a **GetVectorDiagram** WSDL operation. This complex type inherits from [DiagramBase](#) which specifies additional parameters.

```

<xs:complexType name="VectorDiagram">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:DiagramBase">
      <xs:sequence>
        <xs:element minOccurs="0" name="OutputPage" nillable="true" type="tns:RenderedPage"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

OutputPage: A [RenderedPage](#) that specifies the [drawing page](#) in vector format. There MUST be exactly one instance of this element and it MUST NOT be null.

3.1.4.2.4.3 RenderedPage (from namespace

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>)

The **RenderedPage** complex type contains information that specifies a [drawing page](#) in a vector format.

```

<xs:complexType name="RenderedPage">
  <xs:sequence>
    <xs:element minOccurs="0" name="Resources" nillable="true"
type="tns:ArrayOfDiagramResource"/>
    <xs:element minOccurs="0" name="ShapeInfo" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="Xaml" nillable="true" type="xs:string"/>
  </xs:sequence>
</xs:complexType>

```

Resources: An [ArrayOfDiagramResource](#) that specifies all the resources used by the **Xaml** field. There MUST be exactly one instance of this element and it MUST NOT be null.

ShapeInfo: A string that specifies information about the [shapes](#) in the drawing page. The syntax of this element is specified by [\[MS-VGSFF\]](#) section 2.4.8. There MUST be exactly one instance of this element and it MUST NOT be null.

Xaml: A string that specifies the vector drawing page in XAML format as specified in [\[MS-SLXV\]](#). There MUST be exactly one instance of this element and it MUST NOT be null.

3.1.4.2.4.4 ArrayOfDiagramResource (from namespace

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>)

The **ArrayOfDiagramResource** complex type contains an array of [DiagramResource](#) elements.

```

<xs:complexType name="ArrayOfDiagramResource">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="DiagramResource" nillable="true"
type="tns:DiagramResource"/>
  </xs:sequence>
</xs:complexType>

```

DiagramResource: A DiagramResource element that specifies the fonts and images. It MUST NOT be null.

3.1.4.2.4.5 DiagramResource (from namespace http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.Graphic sServer)

The **DiagramResource** complex type contains information that specifies either a font or an image required by a [drawing page](#).

```
<xs:complexType name="DiagramResource">
  <xs:sequence>
    <xs:element minOccurs="0" name="ByteData" nillable="true" type="xs:base64Binary"/>
    <xs:element minOccurs="0" name="Name" nillable="true" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

ByteData: A base64Binary that specifies the resource in the format of a stream of bytes. There MUST be exactly one instance of this element and it MUST NOT be null.

Name: A string that specifies the name for the resource as referenced by the **Xaml** field of the [RenderedPage](#). MUST refer to either a font as specified in [\[MS-VGSFF\]](#) section 2.1.6.2 or an image as a specified in [\[MS-VGSFF\]](#) section 2.1.6.3. There MUST be exactly one instance of this element and it MUST NOT be null.

3.1.5 Timer Events

3.1.5.1 Recalculation Timeout

The **Recalculation Timeout** event cancels the request for the [drawing page](#) with a [VisioGraphicsServiceFault](#). The **Error** field of VisioGraphicsServiceFault MUST be set to **RecalcTimedOut FaultCode**.

3.1.6 Other Local Events

None.

3.2 Client Details

The client side of this protocol is simply a pass-through. That is, no additional timers or other state is required on the client side of this protocol. Calls made by the higher-layer protocol or application are passed directly to the transport, and the results returned by the transport are passed directly back to the higher-layer protocol or application.

3.2.1 Abstract Data Model

None.

3.2.2 Timers

None.

3.2.3 Initialization

None.

3.2.4 Message Processing Events and Sequencing Rules

None.

3.2.5 Timer Events

None.

3.2.6 Other Local Events

None.

4 Protocol Examples

The following subsections contain examples of this protocol's usage.

4.1 GetRasterDiagram

In this scenario, the protocol client calls the [GetRasterDiagram](#) method on a protocol server named "ExampleServer". The protocol server responds with a [GetRasterDiagramResponse](#). In this case the [drawing page](#) does not contain custom data providers.

To request the raster formatted drawing page, the protocol client constructs the following WSDL message:

```
<s:Envelope>
  <s:Header>
    <a:Action
      s:mustUnderstand="1">http://tempuri.org/IVisioGraphicsService/GetRasterDiagram</a:Action>
    <a:MessageID>urn:uuid:891be72c-aaaf-473a-a4f8-82c3da217414</a:MessageID>
    <a:ReplyTo>
      <a:Address>http://www.w3.org/2005/08/addressing/anonymous</a:Address>
    </a:ReplyTo>
    <a:To s:mustUnderstand="1">https://ExampleServer:
      32844/69e08a7b0e904d1a95de6dbf31c51529/VisioGraphicsService.svc/secure</a:To>
    <o:Security>.....</o:Security>
  </s:Header>
  <s:Body>
    <GetRasterDiagram>
      <rasterDiagramRequest>
        <b:DataSources i:nil="true"/>
        <b:DisableRefresh>true</b:DisableRefresh>
        <b:FileUri>http://ExampleServer/BasicDiagram.vdw</b:FileUri>
        <b:PageNumber>1</b:PageNumber>
        <b:TimeLastModified>2009-05-20T17:42:20</b:TimeLastModified>
        <b:Resolution>1</b:Resolution>
      </rasterDiagramRequest>
    </GetRasterDiagram>
  </s:Body>
</s:Envelope>
```

The protocol server then responds with the following:

```
<s:Envelope xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    <a:Action
      s:mustUnderstand="1">http://tempuri.org/IVisioGraphicsService/GetRasterDiagramResponse</a:Action>
  </s:Header>
  <s:Body>
    <GetRasterDiagramResponse xmlns="http://tempuri.org/">
      <GetRasterDiagramResult
        xmlns:d4p1="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer"
        xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <d4p1:CacheAge>60</d4p1:CacheAge>
        <d4p1:DataSources i:nil="true"></d4p1:DataSources>
        <d4p1:AreaMaps>
          <Page>
```


UIEBgVEGBG+TwfFPCYmNTXm8A9ATvn3sdmACBGGEBpsbVVxcIEewsGJijEnhIwM55aJiuQoDAqIAAM8qv+aSAx8Skvt4
 E7gnYofdm7sYECNCICDA1rr66QMBjYsGQHJHAQwJ2zKPDdBUCBEYFBjhRfsOnBTwmJvX1JnBPwM65N3M3JkCgRkCaQXH1
 1QUChMLhuSIBB4SsHMeGqarECawKiDAjPjrPingMTGprzeBewJ2zr2uzEBAjUCAkyNq68uEPCYWDakRyTwkICd89AxW
 YUAqVEBAWaUX/NJAY+JSX29CdwTsHPuzdyNCRCoeERBgalx9dYGax8SCITkigYcE7JyHhukqBAiMCggwo/yaTwp4TEzq60
 3gnoCdc2/mbkyAQI2AAFPj6qsLBDwmFgzJEQk8JGdnPDRMVyFAYFRAgBn113xSwGniU19Avce7Jx7M3djAgRqbASyGld
 fXSDgMbFgsS15I4CEBO+ehYboKAQKjAgLMKL/mkwIeE5P6ehO4J2Dn3Ju5GxmGUCMgwNS4+uoCAY+JBUNyRAIPcdg5Dw3T
 VQgQGBUQYeb5Nz8U8JiY1NebwD0Bo+fezN2YAIeAQGmxxtVXFwh4TCwYkiMssejAznlomK5CgMcogAAzyq/5pIDhxs+3
 gTuCdg592buxgQi1AgIMDwvvrpAwGniwZACKcBDAnbOQ8N0FQIERgUEmFF+zScFPCYm9fUmcE/Azrk3czcmQKBGQICpcf
 XVBQIeEwuG51gEHhKwcx4apqsQIDAqIMCM8ms+KeAxMamvN4F7AnbOvZm7MQUECNQICt2rry4Q8JhYMCRHJPCQgJ3z0DB
 dhQCBuQEBzRpF80kbj41Jfb0J3Bocw+7N3I0JEKgREGBqXH11gYDHxIIhOSKbhwsnleG6SoECIwKCDCj/JpPCnhMTOrr
 TeCegJ1zb+ZuTIBAJYAAU+PqqwsEPCYWDmkRCTwkYoc8NEExIUbGVECAgeXXFFLAY2JSX28C9wTsnHszd2MCBgoEBJgaV
 19dIOAxswBIjkgIqe756FhugoBaqMCAswov+aTah4Tk/p6E7gnYOfcm7kbEyBQIyDA1Lj66gIBj4kFQ3JEAg8J2DkPd
 NVCBAYFRBgrv1nxTwmJjU15vAPQE7597M3ZgAgroBabG1VcXChhMLBISIxJ4SMDoewiYrkKawKiaADPKr/mkgMfEpL7
 eBo4J2Dn3Zu7GBAjUCAgwna6+ukDAY2LBkByRwEMCds5Dw3QVaGRGBQSYUX7NJwU8Jib19SzwT8DOuTdzNyZAoEZAGk1x
 9dUFAh4TC4bkIAQeErBzHhqmqxAgMcogIzyaz4p4DExqa83gXscds69mbsxaQI1AgJMjauvLhDwmFgwJEck8JCANfpQM
 F2FAIFRAQFmlF/zSQGPiU19QncE7Bz7s3cjqkQqBEGYgpcfXWBgMfEgiE5IoGhBoYch4bpKgQIjAoIMKp8mk8KeExM6u
 tN4J6AnXnv5m5MgECNgABT4+qrCwQ8JhYMyREJPCRg5z0w0TfchQGBUQIAZ5dd8usBjY1JfbwL3B0ycezN3YwIEagQemBp
 XX10g4DGxYeiOsoAhATvn0W6CgEcOwICzCi/5pMCHhOT+noTuCdg59ybusrstifaJIMDUuPrqAgGpiQVDckQCDwnyQOQN
 01UIEBgVEGBG+TwfFPCYmNTXm8A9ATvn3sdmACBGGEBpsbVVxcieEwsGJijEnhIwM55aJiuQoDAqIAAM8qv+aSAx8Skv
 t4E7gnYofdm7sYECNCICDA1rr66QMBjYsGQHJHAQwJ2zKPDdBUCBEYFBjhRfsOnBTwmJvX1JnBPwM65N3M3JkCgRkCaQX
 H11QUChMLhuSIBB4SsHMeGqarECawKiDAjPjrPingMTGprzeBewJ2zr2zuzeBAjUCAkyNq68uEPCYWDakRyTwkICd89A
 wXYUAgVEBAWaUX/NJAY+JSX29CdwTsHPuzdyNCRCoeERBgalx9dYGax8SCITkigYcE7JyHhukqBAiMCggwo/yaTwp4TEzq
 603gnoCdc2/mbkyAQI2AAFPj6qsLBDwmFgzJEQk8JGdnPDRMVyFAYFRAgBn113xSwGniU19Avce7Jx7M3djAgRqbASyG
 1dfXSDgMbFgsS15I4CEBO+ehYboKAQKjAgLMKL/mkwIeE5P6ehO4J2Dn3Ju5GxmGUCMgwNS4+uoCAY+JBUNyRAIPcdg5Dw
 3TVQgQGBUQYeb5Nz8U8JiY1NebwD0Bo+fezN2YAIeAQGmxxtVXFwh4TCwYkiMssejAznlomK5CgMcogAAzyq/5pIDhxs
 +3gTuCdg592buxgQi1AgIMDwvvrpAwGniwZACKcBDAnbOQ8N0FQIERgUEmFF+zScFPCYm9fUmcE/Azrk3czcmQKBGQICp
 CfXVBQIeEwuG51gEHhKwcx4apqsQIDAqIMCM8ms+KeAxMamvN4F7AnbOvZm7MQUECNQICt2rry4Q8JhYMCRHJPCQgJ3z0
 DBdhQCBuQEBzRpF80kbj41Jfb0J3Bocw+7N3I0JEKgREGBqXH11gYDHxIIhOSKbhwsnleG6SoECIwKCDCj/JpPCnhMTO
 rrTeCegJ1zb+ZuTIBAJYAAU+PqqwsEPCYWDmkRCTwkYoc8NEExIUbGVECAgeXXFFLAY2JSX28C9wTsnHszd2MCBgoEBJg
 aV19dIOAxswBIjkgIqe756FhugoBaqMCAswov+aTah4Tk/p6E7gnYOfcm7kbEyBQIyDA1Lj66gIBj4kFQ3JEAg8J2DkP
 DdNVCBAYFRBgrv1nxTwmJjU15vAPQE7597M3ZgAgroBabG1VcXChhMLBISIxJ4SMDoewiYrkKawKiaADPKr/mkgMfEp
 L7eBo4J2Dn3Zu7GBAjUCAgwna6+ukDAY2LBkByRwEMCds5Dw3QVaGRGBQSYUX7NJwU8Jib19SzwT8DOuTdzNyZAoEZAGk
 1x9dUFAh4TC4bkIAQeErBzHhqmqxAgMcogIzyaz4p4DExqa83gXscds69mbsxaQI1AgJMjauvLhDwmFgwJEck8JCANfpQM
 QMF2FAIFRAQFmlF/zSQGPiU19QncE7Bz7s3cjqkQqBEGYgpcfXWBgMfEgiE5IoGhBoYch4bpKgQIjAoIMKp8mk8KeExM
 6utN4J6AnXnv5m5MgECNgABT4+qrCwQ8JhYMyREJPCRg5z0w0TfchQGBUQIAZ5dd8usBjY1JfbwL3B0ycezN3YwIEagQemBp
 BpXX10g4DGxYeiOsoAhATvn0W6CgEcOwICzCi/5pMCHhOT+noTuCdg59ybusrstifaJIMDUuPrqAgGpiQVDckQCDwnyQOQN
 8N01UIEBgVEGBG+TwfFPCYmNTXm8A9ATvn3sdmACBGGEBpsbVVxcieEwsGJijEnhIwM55aJiuQoDAqIAAM8qv+aSAx8Skv
 kvt4E7gnYofdm7sYECNCICDA1rr66QMBjYsGQHJHAQwJ2zKPDdBUCBEYFBjhRfsOnBTwmJvX1JnBPwM65N3M3JkCgRkCa
 qXH11QUChMLhuSIBB4SsHMeGqarECawKiDAjPjrPingMTGprzeBewJ2zr2zuzeBAjUCAkyNq68uEPCYWDakRyTwkICd8
 9AwXYUAgVEBAWaUX/NJAY+JSX29CdwTsHPuzdyNCRCoeERBgalx9dYGax8SCITkigYcE7JyHhukqBAiMCggwo/yaTwp4TE
 zq603gnoCdc2/mbkyAQI2AAFPj6qsLBDwmFgzJEQk8JGdnPDRMVyFAYFRAgBn113xSwGniU19Avce7Jx7M3djAgRqbAS
 YG1dfXSDgMbFgsS15I4CEBO+ehYboKAQKjAgLMKL/mkwIeE5P6ehO4J2Dn3Ju5GxmGUCMgwNS4+uoCAY+JBUNyRAIPcdg5
 Dw3TVQgQGBUQYeb5Nz8U8JiY1NebwD0Bo+fezN2YAIeAQGmxxtVXFwh4TCwYkiMssejAznlomK5CgMcogAAzyq/5pIDhxs
 +3gTuCdg592buxgQi1AgIMDwvvrpAwGniwZACKcBDAnbOQ8N0FQIERgUEmFF+zScFPCYm9fUmcE/Azrk3czcmQKBGQICp
 CpcfXVBQIeEwuG51gEHhKwcx4apqsQIDAqIMCM8ms+KeAxMamvN4F7AnbOvZm7MQUECNQICt2rry4Q8JhYMCRHJPCQgJ3
 z0DBdhQCBuQEBzRpF80kbj41Jfb0J3Bocw+7N3I0JEKgREGBqXH11gYDHxIIhOSKbhwsnleG6SoECIwKCDCj/JpPCnhM
 TOrrTeCegJ1zb+ZuTIBAJYAAU+PqqwsEPCYWDmkRCTwkYoc8NEExIUbGVECAgeXXFFLAY2JSX28C9wTsnHszd2MCBgoEB
 JgaV19dIOAxswBIjkgIqe756FhugoBaqMCAswov+aTah4Tk/p6E7gnYOfcm7kbEyBQIyDA1Lj66gIBj4kFQ3JEAg8J2D
 KPDdNVCBAYFRBgrv1nxTwmJjU15vAPQE7597M3ZgAgroBabG1VcXChhMLBISIxJ4SMDoewiYrkKawKiaADPKr/mkgMf
 EpL7eBo4J2Dn3Zu7GBAjUCAgwna6+ukDAY2LBkByRwEMCds5Dw3QVaGRGBQSYUX7NJwU8Jib19SzwT8DOuTdzNyZAoEZ
 Agk1x9dUFAh4TC4bkIAQeErBzHhqmqxAgMcogIzyaz4p4DExqa83gXscds69mbsxaQI1AgJMjauvLhDwmFgwJEck8JCAN
 fpQMf2FAIFRAQFmlF/zSQGPiU19QncE7Bz7s3cjqkQqBEGYgpcfXWBgMfEgiE5IoGhBoYch4bpKgQIjAoIMKp8mk8KeEx
 xm6utN4J6AnXnv5m5MgECNgABT4+qrCwQ8JhYMyREJPCRg5z0w0TfchQGBUQIAZ5dd8usBjY1JfbwL3B0ycezN3YwIEagQ
 EmBpXX10g4DGxYeiOsoAhATvn0W6CgEcOwICzCi/5pMCHhOT+noTuCdg59ybusrstifaJIMDUuPrqAgGpiQVDckQCDwnyQOQN
 8N01UIEBgVEGBG+TwfFPCYmNTXm8A9ATvn3sdmACBGGEBpsbVVxcieEwsGJijEnhIwM55aJiuQoDAqIAAM8qv+aSAx8Skv
 kvt4E7gnYofdm7sYECNCICDA1rr66QMBjYsGQHJHAQwJ2zKPDdBUCBEYFBjhRfsOnBTwmJvX1JnBPwM65N3M3JkCgRkCa
 qXH11QUChMLhuSIBB4SsHMeGqarECawKiDAjPjrPingMTGprzeBewJ2zr2zuzeBAjUCAkyNq68uEPCYWDakRyTwkIC
 d89AwXYUAgVEBAWaUX/NJAY+JSX29CdwTsHPuzdyNCRCoeERBgalx9dYGax8SCITkigYcE7JyHhukqBAiMCggwo/yaTwp4
 TEzq603gnoCdc2/mbkyAQI2AAFPj6qsLBDwmFgzJEQk8JGdnPDRMVyFAYFRAgBn113xSwGniU19Avce7Jx7M3djAgRqbAS
 ASYg1dfXSDgMbFgsS15I4CEBO+ehYboKAQKjAgLMKL/mkwIeE5P6ehO4J2Dn3Ju5GxmGUCMgwNS4+uoCAY+JBUNyRAIPcd
 g5Dw3TVQgQGBUQYeb5Nz8U8JiY1NebwD0Bo+fezN2YAIeAQGmxxtVXFwh4TCwYkiMssejAznlomK5CgMcogAAzyq/5pID
 Hxks+3gTuCdg592buxgQi1AgIMDwvvrpAwGniwZACKcBDAnbOQ8N0FQIERgUEmFF+zScFPCYm9fUmcE/Azrk3czcmQKBG
 QICpcfXVBQIeEwuG51gEHhKwcx4apqsQIDAqIMCM8ms+KeAxMamvN4F7AnbOvZm7MQUECNQICt2rry4Q8JhYMCRHJPCQg
 J3z0DBdhQCBuQEBzRpF80kbj41Jfb0J3Bocw+7N3I0JEKgREGBqXH11gYDHxIIhOSKbhwsnleG6SoECIwKCDCj/JpPCn
 hMTOrrTeCegJ1zb+ZuTIBAJYAAU+PqqwsEPCYWDmkRCTwkYoc8NEExIUbGVECAgeXXFFLAY2JSX28C9wTsnHszd2MCBgo
 EBjgaV19dIOAxswBIjkgIqe756FhugoBaqMCAswov+aTah4Tk/p6E7gnYOfcm7kbEyBQIyDA1Lj66gIBj4kFQ3JEAg8J

2DkPDdNVCBAYFRBgRvk1nxTwmJjU15vAPQE7597M3zgAgRoBAabG1VcXChhMLB1S1xJ4SMDOeWiYrkKAwKiAADPKr/mkg
 MfEpL7eB04J2Dn3Zu7GBAjuCAGwNa6+ukDAY2LBkByRwEMCds5Dw3QVAgRGBQSYUX7NJwU8Jib19SzWt8DOuTdzNyZAoE
 ZAgK1x9dUFAh4TC4bkjAoErBzHhqmxqAgMCogwIzyaz4p4DEXqa83gXsCds69mbsxaQI1AgJMjauvLhDwmFgwJeck8JC
 AnfPQMf2FAIFRAQfmlF/zSQGPiUl9vQncE7Bz7s3cjQkQgBEQYGpcfXWBgMfEgiE51oGHB0ych4bpKgQIjAoIMKP8mk8K
 eExM6utN4J6AnXnv5m5MgECNgABT4+qrCwQ8JhYMyREJPCRg5zw0TfcgQGBUQIAZ5dd8UsBjY1JfbwL3BOycezN3YwIEa
 gQEbmBpXX10g4DGxYEiOSOAhATvn0WG6CgECowICzCi/5pMCHhOT+noTuCd95ybuRsTfAjIMDUuPrqAgGPiQVDckQCDw
 nYOQ8N01UIEBgVEGBG+TWFFPCyMNTXm8A9ATvn3zdmACBggEBpsbVvxciEewsGJ1jEnhTwM55aJiuoDAqIAAM8qv+aS
 Ax8Skvt4E7gnYoFd7sYECNQICDA1rr66QMBjYsQGHJHAQwJ2zkdPdBUCBeyFBjhRfs0nBTwmJvX1JnBPwM65N3M3JkCg
 RkCAqXH11QUChhMLhuSIBB4SShMeGqarECAwKiDAjPjRPingMTGrzeBewJ2zr2ZuzEBAjUCAkyNq68uEPcyWDAkRyTwk
 ICd89AwXYUAgVEBAWaUX/NJAY+JSX29CdwTsHPuzdyNCRCoERBgalx9dYGAx8SCITkigYcE7JyHukqBAiMCggwo/yaTw
 p4TEzq603gnoCdc2/mbkyAQI2AAFPj6qsLBdmFgZJEQk8JGdnPDRMvYFAYFRAGBn113xSwGNiU19vAvce7Jx7M3djAgR
 qBASyG1dfxFSDgMbFgS1514CEBO+ehYboKAQkjAgLMKL/mkwieE5P6eh04J2Dn3Ju5GxmGUCMgwNS4+uoCAY+jBUNyRAIP
 Cdg5Dw3TVQgQGBUQYEB5Nz8U8JiY1NebwD0Bo+fezN2YAIeAAGmxtVFXFwh4TCwYkiMSejAznlomK5CgMcogAAzyq/5p
 IDHxks+3gTuCdg592buxgQI1AgIMDwuvrpAwGNiwZACKcBDAnbQ08N0FQIERgUEmFF+zScFPCyM9fUmce/Azrk3czcmQK
 BGQICpcfXVBQIEewuG51gEHhKwcx4apqsQIDAqIMCM8ms+KeAxMamvN4F7AnbOvZm7MQECNQICTI2rry4Q8JhYMCRHJPC
 QgJ3z0DBdhQCBUQEBZpRf80kBj41Jfb0J3B0wc+7N310JEKgREGBqXH11gYDHxIIhOSKBhwTsnIeG6SoECIwKCDCj/JpP
 CnhMTOrrTeCegJ1zb+zuTIBAjYAAU+PqQwsEPcyWDMkRCTwkyoc8NeXIUbgVEcageXXfFLAY2JSX28C9wTsnHszd2Mcb
 GoEBJgaV19dIOAxsWBIjkgjQIE756fhugoBAqMCAswov+aTAh4Tk/p6E7gnYofcm7kbEyBQIyDA1l_j66gIBj4kfQ3jeAg
 8J2DkPDdNVCBAYFRBgrkv1nxTwmJjU15vAPQE7597M3zgAgRoBAbG1VcXChhMLB1S1xJ4SMDOeWiYrkKAwKiAADPKr/m
 kgMfEpL7eB04J2Dn3Zu7GBAjuCAGwNa6+ukDAY2LBkByRwEMCds5Dw3QVAgRGBQSYUX7NJwU8Jib19SzWt8DOuTdzNyza
 oEZAgK1x9dUFAh4TC4bkjAoErBzHhqmxqAgMCogwIzyaz4p4DEXqa83gXsCds69mbsxaQI1AgJMjauvLhDwmFgwjeck8
 JCAmfPQMf2FAIFRAQfmlF/zSQGPiUl9vQncE7Bz7s3cjQkQgBEQYGpcfXWBgMfEgiE51oGHB0ych4bpKgQIjAoIMKP8mk
 8KeExM6utN4J6AnXnv5m5MgECNgABT4+qrCwQ8JhYMyREJPCRg5zw0TfcgQGBUQIAZ5dd8UsBjY1JfbwL3BOycezN3YwI
 EgQEmBpXX10g4DGxYEiOSOAhATvn0WG6CgECowICzCi/5pMCHhOT+noTuCd95ybuRsTfAjIMDUuPrqAgGPiQVDckQc
 DwnYOQ8N01UIEBgVEGBG+TWFFPCyMNTXm8A9ATvn3zdmACBggEBpsbVvxciEewsGJ1jEnhTwM55aJiuoDAqIAAM8qv+
 aSAx8Skvt4E7gnYoFd7sYECNQICDA1rr66QMBjYsQGHJHAQwJ2zkdPdBUCBeyFBjhRfs0nBTwmJvX1JnBPwM65N3M3Jk
 CgRkCAqXH11QUChhMLhuSIBB4SShMeGqarECAwKiDAjPjRPingMTGrzeBewJ2zr2ZuzEBAjUCAkyNq68uEPcyWDAkRyT
 wkICd89AwXYUAgVEBAWaUX/NJAY+JSX29CdwTsHPuzdyNCRCoERBgalx9dYGAx8SCITkigYcE7JyHukqBAiMCggwo/ya
 Twp4TEzq603gnoCdc2/mbkyAQI2AAFPj6qsLBdmFgZJEQk8JGdnPDRMvYFAYFRAGBn113xSwGNiU19vAvce7Jx7M3djA
 gRqBASyG1dfxFSDgMbFgS1514CEBO+ehYboKAQkjAgLMKL/mkwieE5P6eh04J2Dn3Ju5GxmGUCMgwNS4+uoCAY+jBUNyRA
 IPCdg5Dw3TVQgQGBUQYEB5Nz8U8JiY1NebwD0Bo+fezN2YAIeAAGmxtVFXFwh4TCwYkiMSejAznlomK5CgMcogAAzyq/
 5pIDHxks+3gTuCdg592buxgQI1AgIMDwuvrpAwGNiwZACKcBDAnbQ08N0FQIERgUEmFF+zScFPCyM9fUmce/Azrk3czcm
 QKBGQICpcfXVBQIEewuG51gEHhKwcx4apqsQIDAqIMCM8ms+KeAxMamvN4F7AnbOvZm7MQECNQICTI2rry4Q8JhYMCRHJ
 PCQgJ3z0DBdhQCBUQEBZpRf80kBj41Jfb0J3B0wc+7N310JEKgREGBqXH11gYDHxIIhOSKBhwTsnIeG6SoECIwKCDCj/J
 pPCnhMTOrrTeCegJ1zb+zuTIBAjYAAU+PqQwsEPcyWDMkRCTwkyoc8NeXIUbgVEcageXXfFLAY2JSX28C9wTsnHszd2M
 CBGoeEBJgaV19dIOAxsWBIjkgjQIE756fhugoBAqMCAswov+aTAh4Tk/p6E7gnYofcm7kbEyBQIyDA1l_j66gIBj4kfQ3je
 Ag8J2DkPDdNVCBAYFRBgrkv1nxTwmJjU15vAPQE7597M3zgAgRoBAbG1VcXChhMLB1S1xJ4SMDOeWiYrkKAwKiAADPKr
 /mkgMfEpL7eB04J2Dn3Zu7GBAjuCAGwNa6+ukDAY2LBkByRwEMCds5Dw3QVAgRGBQSYUX7NJwU8Jib19SzWt8DOuTdzNy
 zAoEZAgK1x9dUFAt+PiY+Pjz8/jwrr//mTx9zfhc8Gcg6jfw82WrEdhJECawK8WEGB+9Xgcrl1g6+vLY9WD3W/Ab6D1N/C
 9d/wRIECACQCYgwGR+qgkQIECAAECBAGQaBQQYBqxtSjAgAABAgQIECBABMqYDI/1QOIECBAGAABAgQINAoIMI3YWhEg
 QIAAAQIECBAGakIMJmfagIECBAGQIAAAQIEGgQeUEmEZsrQgQIECAAECBAGQyAEQemMx/PNQECBAGQIECAAECjQICTCO2V
 gQIECBAGAABAgQIZAICToanmgABAgQIECBAGACBRgEBphFbKwIECBAGQIAAAQIEMgEBJvNNTYAAAQIECBAGQIBAa4AA04
 itFQECBAGQIECAAECmYAAK/mpJkCAAECBAGQIECgUUCAAcTwigABAgQIECBAGACBTECAyfxUEyBAGAABAgQIECDQKCD
 ANGJrRYAAAQIECBAGQIBAJ1DAZH6qCRAgQIAAAQIECBBoFBBgGrG11kCAAECBAGQIEAgExBjMj/VBAGQIECAAECBAG0
 CggwjdaESBAGAABAgQIECCOCQgwmZ9qAgQIECBAGAABAgQaBQSYRmyTCBAGQIAAAQIECBDIBASYzE81AQIECBAGQIAAA
 QKNAGJMI7ZWBAGQIECAAECBAGQJ5qgeaaECBAGQIECAA1FGAGQmEVsrAgQIECBAGAABAgQyAEQem81NNgAABAgQIEC
 BAjgADT1kOVAQIECBAGQIAAAQKZgACT+akmQIAAAQIECBAGQKBRQ1BpxNaKAAECBAGQIECAA1FMQ1DJ/FQTIECAA
 CBAGQINAoIMA0YmtFgAABAgQIECBAGEAmlBkfqoJECBAGAABAgQIEGGUegasBuiQIAAAQIECBAGQCATEGAGy9UECBAG
 QIAAAQIECDQKDCN2F0RIECAAECBAGQIAJAJCDCZn2oCBAGQIECAAECBBoFBjHgbKOIECBAGAABAgQIEmgeBjJMTzUBA
 gQIECBAGAABAgQaCkwjt1YECBAGQIAAAQIEGQCkzp5oAAQIECBAGQIAAgUYBAAyrwysCBAGQIECAAECBDBASbz0
 2AAAECBAGQIECAQKOAANOirRUBAgQIECBAGAABAgPmAAP5qS2AgAABAgQIECBAGQIECBAGQIAAgUxAgMn
 8VBMgQIAAAQIECBAG0CggwDRia0WAAAECBAGQIECAQCYgwGR+qgkQIECAAECBAGQaBQQYBqxtSJAqAABAgQIECBAG
 YDI/1QOIECBAGAABAgQINAoIMI3YWhEgQIAAAQIECBAGkAkIMJmfagIECBAGQIAAAQIEGGUemEZsrQgQIECAAECBAGQy
 AQEmMxPNQECBAGQIECAAECjQICTCO2VgQIECBAGAABAgQaBQSYRmyTCBAGQIECBAGACBRgEBphFbKwIECBAGQIAAAQ
 IEMgEBjvNNTYAAAQIECBAGQIBAa4AA04itFQECBAGQIECAAECmYAAK/mpJkCAAECBAGQIECgUUCAAcTwigABAgQIECB
 AgACBTECAyfxUEyBAGAABAgQIECDQKCDANGJrRYAAAQIECBAGQIBAJ1DAZH6gCRAGQIAAAQIECBBoFBFbgGrG1IkCAA
 ECBAGQIEAgExBjMj/VBAGQIECAAECBAG0CggwJhaESBAGAABAgQIECQCCQgwzm9qAgQIECBAGAABAgQaBQSYRmytCBAGQ
 IAAAQIECDIBASYzE81AQIECBAGQIAAAQKNAgJMI7ZWBAGQIECAAECBAGQjJM5qeAAECBAGQIECAA1FGAGQmEVsrAg
 QIECBAGAABAgQyAEQem81NNgAABAgQIECBAGECjgADTiK0VAQIECBAGQIAAAQIECBAGACT+akmQIAAAQIECBAGQKBRQ1Bpx
 NaKAAECBAGQIECAA1FMQ1DJ/FQTIECAAECBAGQINAoIMI0YmtFgAABAgQIECBAGEAm1MBkfqoJECBAGQABAgQIEGgUEG
 Aa sbuQIAAAQIECBAGQICATEGAGyP9UECBAGQIAAAQIECDQKDCN2FORIECAAECBAGQIJAJCDCZn2oCBAGQIECAAECBBoFB
 JhgBKOIECBAGAABAgQIEMgEBjJMTzUBAgQIECBAGAABAgQaCkwjt1YECBAGQIAAAQIECGQCAkzp5oAAQIECBAGQIAAgU
 YBAAyrwysCBAGQIECAAECBAGQIECAQKOANOirRUBAgQIECBAGAABAgPmAAP5qS2AgAABAgQIECB
 AoFFAgGnE1ooAAQIECBAGQIAAgUxAgMn8VBMgQIAAAQIECBAG0CggwDRia0WAAAECBAGQIECAQCYgwGR+qgkQIECAA
 ECBAGQaBQSYBqxtSJAqAABAgQIECBAGQINAoIMI3YWhEgQIAAAQIECBAGkAkIMJmfagIECBAGQ
 IAAAQIEGgUEmEZsrQgQIECAAECBAGQyAEQemMxPNQECBAGQIECAAECjQICTCO2VgQIECBAGAABAgQIECBAGQIAAAQIE
 CBAGQaBQSYBqxtSJAqAABAgQIECBAGQINAoIMI3YWhEgQIAAAQIECBAGkAkIMJmfagIECBAGQ


```

<ShapeInfo Name="_1" DisplayName="Sheet.1"
Layout="\{&quot;type&quot;:&quot;2D&quot;,&quot;bounds&quot;:\{&quot;x&quot;:191,&quot;y&quot;
:191,&quot;width&quot;:287,&quot;height&quot;:287\}\}" />
</Page>
</d4p1:ShapeInfo>
</GetRasterDiagramResult>
</GetRasterDiagramResponse>
</s:Body>
</s:Envelope>

```

4.2 GetVectorDiagram

In this scenario, the protocol client calls the [GetVectorDiagram](#) method on a protocol server named "ExampleServer". The protocol server responds with a [GetVectorDiagramResponse](#). In this case the [drawing page](#) does not contain custom data providers.

To request the vector formatted drawing page, the protocol client constructs the following WSDL message:

```

<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    <a:Action s:mustUnderstand="1"
    xmlns:a="http://www.w3.org/2005/08/addressing">http://tempuri.org/IVisioGraphicsService/GetVe
    ctorDiagram</a:Action>
    <a:MessageID xmlns:a="http://www.w3.org/2005/08/addressing">urn:uuid:d6266798-5744-42ed-
    9753-cc263fda28ae</a:MessageID>
    <a:ReplyTo xmlns:a="http://www.w3.org/2005/08/addressing">
      <a:Address>http://www.w3.org/2005/08/addressing/anonymous</a:Address>
    </a:ReplyTo>
    <a:To s:mustUnderstand="1"
    xmlns:a="http://www.w3.org/2005/08/addressing">https://ExampleServer:32844/69e08a7b0e904d1a95
    de6dbf31c51529/VisioGraphicsService.svc/secure</a:To>
    <o:Security xmlns:o="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
    secext-1.0.xsd">.....</o:Security>
  </s:Header>
  <s:Body>
    <GetVectorDiagram xmlns="http://tempuri.org/">
      <vectorDiagramRequest
      xmlns:b="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer
      " xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <b:DataSources i:nil="true"></b:DataSources>
        <b:DisableRefresh>true</b:DisableRefresh>
        <b:FileUri>http://ExampleServer/BasicDiagram.vdw</b:FileUri>
        <b:PageNumber>1</b:PageNumber>
        <b:TimeLastModified>2009-05-20T17:42:20</b:TimeLastModified>
      </vectorDiagramRequest>
    </GetVectorDiagram>
  </s:Body>
</s:Envelope>

```

The protocol server then responds with the following:

```

<s:Envelope xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>

```

```

<a:Action
s:mustUnderstand="1">http://tempuri.org/IVisioGraphicsService/GetVectorDiagramResponse</a:Action>
</s:Header>
<s:Body>
<GetVectorDiagramResponse xmlns="http://tempuri.org/">
<GetVectorDiagramResult
xmlns:d4p1="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
<d4p1:CacheAge>60</d4p1:CacheAge>
<d4p1:DataSources i:nil="true"></d4p1:DataSources>
<d4p1:OutputPage>
<d4p1:Resources></d4p1:Resources>
<d4p1:ShapeInfo>
<Page Name="Page-1" Zoom="-1.000000" OffsetX="407.142857" OffsetY="528.857143" DefaultUnitsText="50" DefaultUnitsAngle="81" DefaultUnitsDuration="44" DefaultUnitsPage="73" DocumentID="1360559653">
<Pages>
<Page Name="Page-1" />
</Pages>
<ShapeInfo Name="_1" DisplayName="Sheet.1" Layout="\\" type\;" ;\2D\;" ;\bounds\;" :\\" x\;" :191,\;" y\;" :191,\;" width\;" :287,\;" height\;" :287\}" />
</Page>
</d4p1:ShapeInfo>
<d4p1:Xaml>
<Canvas Height="1056" Name="Workspace" Width="816" xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation">
<!-- Page -->
<Canvas Width="816" Height="1056" Name="D">
<Canvas.Background>
<SolidColorBrush Color="#FFFFFFFFF"/>
</Canvas.Background>
<Canvas>
Tag="\\" type\;" ;\2D\;" ;\bounds\;" :\\" x\;" :192,\;" y\;" :192,\;" width\;" :285,\;" height\;" :285\}" Name="_1" RenderTransform="1, 0, 0, 1, 192, -579">
<Rectangle Canvas.Left="-0.5" Canvas.Top="770.5" Height="286" Name="_1_G0_P0" Width="286" StrokeThickness="1" StrokeDashCap="Round" StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round">
<Rectangle.Stroke>
<SolidColorBrush Color="#FF000000"/>
</Rectangle.Stroke>
<Rectangle.Fill>
<SolidColorBrush Color="#FFFFFFFFF"/>
</Rectangle.Fill>
</Rectangle>
</Canvas>
</Canvas>
</d4p1:Xaml>
</d4p1:OutputPage>
</GetVectorDiagramResult>
</GetVectorDiagramResponse>
</s:Body>
</s:Envelope>

```

4.3 GetVectorDiagram with AddonDataSource

In this scenario, the protocol client calls the [GetVectorDiagram](#) method on a protocol server named "ExampleServer". In this case the protocol client is requesting a [drawing page](#) in a [Web drawing](#) that is linked to data with a custom data provider.

Initially the protocol client constructs the following WSDL message:

```
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    <a:Action s:mustUnderstand="1"
      xmlns:a="http://www.w3.org/2005/08/addressing">http://tempuri.org/IVisioGraphicsService/GetVectorDiagram</a:Action>
    <a:MessageID xmlns:a="http://www.w3.org/2005/08/addressing">urn:uuid:cd490d30-778d-447c-91f3-c0b0ea0e5de4</a:MessageID>
    <a:ReplyTo xmlns:a="http://www.w3.org/2005/08/addressing">
      <a:Address>http://www.w3.org/2005/08/addressing/anonymous</a:Address>
    </a:ReplyTo>
    <a:To s:mustUnderstand="1"
      xmlns:a="http://www.w3.org/2005/08/addressing">https://ExampleServer:32844/69e08a7b0e904d1a95de6dbf31c51529/VisioGraphicsService.svc/secure</a:To>
    <o:Security xmlns:o="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">.....</o:Security>
  </s:Header>
  <s:Body>
    <GetVectorDiagram xmlns="http://tempuri.org/">
      <vectorDiagramRequest
        xmlns:b="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer"
        xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <b:DataSources i:nil="true"></b:DataSources>
        <b:DisableRefresh>false</b:DisableRefresh>
        <b:FileUri>http://ExampleServer/Data_Connected.vdw</b:FileUri>
        <b:PageNumber>1</b:PageNumber>
        <b:TimeLastModified>2009-05-22T16:24:27</b:TimeLastModified>
      </vectorDiagramRequest>
    </GetVectorDiagram>
  </s:Body>
</s:Envelope>
```

The protocol server then responds with the following [GetVectorDiagramResponse](#):

```
<s:Envelope xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    <a:Action
      s:mustUnderstand="1">http://tempuri.org/IVisioGraphicsService/GetVectorDiagramResponse</a:Action>
  </s:Header>
  <s:Body>
    <GetVectorDiagramResponse xmlns="http://tempuri.org/">
      <GetVectorDiagramResult
        xmlns:d4p1="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer"
        xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <d4p1:CacheAge>0</d4p1:CacheAge>
        <d4p1:DataSources>
          <d4p1:AddonDataSource>
            <d4p1:ConnectionString>datamodule=Microsoft.Office.Visio.Server.EcsDataHandler,
Microsoft.Office.Visio.Server, Version=14.0.0.0, Culture=neutral,
PublicKeyToken=71e9bce111e9429c;provider=Microsoft.ACE.OLEDB.12.0;user id=Admin;data
```

```

source=http://ExampleServer/sampleddata.xlsx;mode=Read;extended
properties='HDR=YES;imex=1;maxscanrows=0;excel 12.0.0';jet oledb:system database='';jet
oledb:registry path='';jet oledb:engine type=37;jet oledb:database locking mode=0;jet
oledb:global partial bulk ops=2;jet oledb:global bulk transactions=1;jet oledb:new database
password='';jet oledb:create system database=False;jet oledb:encrypt database=False;jet
oledb:don't copy locale on compact=False;jet oledb:compact without replica repair=False;jet
oledb:sfp=False;jet oledb:support complex data=False</d4p1:ConnectionString>
<d4p1:Data>
    <xsschema id="NewDataSet" xmlns="" xmlns:xss="http://www.w3.org/2001/XMLSchema"
    xmlns:msdata="urn:schemas-microsoft-com:xml-msdata">
        <xss:element name="NewDataSet" msdata:IsDataSet="true" msdata:Locale="">
            <xss:complexType>
                <xss:choice minOccurs="0" maxOccurs="unbounded">
                    <xss:element name="Table1" msdata:Locale="">
                        <xss:complexType>
                            <xss:sequence>
                                <xss:element name="ID" type="xss:string"
minOccurs="0"></xss:element>
                                <xss:element name="FN" type="xss:string"
minOccurs="0"></xss:element>
                                <xss:element name="LN" type="xss:string"
minOccurs="0"></xss:element>
                            </xss:sequence>
                        </xss:complexType>
                    </xss:element>
                </xss:choice>
            </xss:complexType>
        </xss:element>
    </xsschema>
    <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata"
xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1"></diffgr:diffgram>
</d4p1:Data>
<d4p1:Id>1</d4p1:Id>
<d4p1:QueryString>SheetName=Sheet1; RangeName=A1:C5;</d4p1:QueryString>
</d4p1:AddOnDataSource>
</d4p1:DataSources>
<d4p1:OutputPage i:nil="true"></d4p1:OutputPage>
</GetVectorDiagramResult>
</GetVectorDiagramResponse>
</s:Body>
</s:Envelope>

```

To request the vector formatted drawing page with an [AddOnDataSource](#), the protocol client now constructs the following WSDL message:

```

<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope">
    <s:Header>
        <a:Action s:mustUnderstand="1"
        xmlns:a="http://www.w3.org/2005/08/addressing">http://tempuri.org/IVisioGraphicsService/GetVe
ctorDiagram</a:Action>
        <a:MessageID xmlns:a="http://www.w3.org/2005/08/addressing">urn:uuid:c22e255b-6923-496d-
a3f5-a2f3c45f4bbd</a:MessageID>
        <a:ReplyTo xmlns:a="http://www.w3.org/2005/08/addressing">
            <a:Address>http://www.w3.org/2005/08/addressing/anonymous</a:Address>
        </a:ReplyTo>
        <a:To s:mustUnderstand="1"
        xmlns:a="http://www.w3.org/2005/08/addressing">https://ExampleServer:32844/69e08a7b0e904d1a95
de6dbf31c51529/VisioGraphicsService.svc/secure</a:To>
        <o:Security xmlns:o="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secrext-1.0.xsd">.....</o:Security>

```

```

</s:Header>
<s:Body>
    <GetVectorDiagram xmlns="http://tempuri.org/">
        <vectorDiagramRequest
            xmlns:b="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer"
            xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
            <b:DataSources>
                <b:AddonDataSource>
                    <b:ConnectionString>datamodule=Microsoft.Office.Visio.Server.EcsDataHandler,
                    Microsoft.Office.Visio.Server, Version=14.0.0.0, Culture=neutral,
                    PublicKeyToken=71e9bce11e9429c;provider=Microsoft.ACE.OLEDB.12.0;user id=Admin;data
                    source=http://ExampleServer/sampleddata.xlsx;mode=Read;extended
                    properties='HDR=YES;imex=1;maxscanrows=0;excel 12.0';jet oledb:system database='';jet
                    oledb:registry path='';jet oledb:engine type=37;jet oledb:database locking mode=0;jet
                    oledb:global partial bulk ops=2;jet oledb:global bulk transactions=1;jet oledb:new database
                    password='';jet oledb:create system database=False;jet oledb:encrypt database=False;jet
                    oledb:don't copy locale on compact=False;jet oledb:compact without replica repair=False;jet
                    oledb:sfp=False;jet oledb:support complex data=False</b:ConnectionString>
                    <b>Data>
                        <xss:schema id="NewDataSet" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns="">
                            <xs:element name="NewDataSet" msdata:IsDataSet="true" msdata:Locale="">
                                <xs:complexType>
                                    <xs:choice minOccurs="0" maxOccurs="unbounded">
                                        <xs:element name="Table1">
                                            <xs:complexType>
                                                <xs:sequence>
                                                    <xs:element name="ID" type="xs:double"
minOccurs="0"></xs:element>
                                                    <xs:element name="FN" type="xs:string"
minOccurs="0"></xs:element>
                                                    <xs:element name="LN" type="xs:string"
minOccurs="0"></xs:element>
                                                </xs:sequence>
                                            </xs:complexType>
                                        </xs:element>
                                    </xs:choice>
                                </xs:complexType>
                            </xs:element>
                            <diffgr:diffgram xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1"
msdata="urn:schemas-microsoft-com:xml-msdata">
                                <NewDataSet xmlns="">
                                    <Table1 diffgr:id="Table1" msdata:rowOrder="0"
diffgr:hasChanges="inserted">
                                        <ID>1</ID>
                                        <FN>Happy</FN>
                                        <LN>kitty</LN>
                                    </Table1>
                                    <Table1 diffgr:id="Table12" msdata:rowOrder="1"
diffgr:hasChanges="inserted">
                                        <ID>2</ID>
                                        <FN>Silly</FN>
                                        <LN>dog</LN>
                                    </Table1>
                                    <Table1 diffgr:id="Table13" msdata:rowOrder="2"
diffgr:hasChanges="inserted">
                                        <ID>3</ID>
                                        <FN>Order</FN>
                                        <LN>Id</LN>
                                    </Table1>
                            </NewDataSet>
                        </diffgr:diffgram>
                    </xss:schema>
                </b>Data>
            </b:DataSources>
        </vectorDiagramRequest>
    </GetVectorDiagram>
</s:Body>

```

```

<Table1 diffgr:id="Table14" msdata:rowOrder="3"
diffgr:hasChanges="inserted">
    <ID>4</ID>
    <FN>green</FN>
    <LN>turtle</LN>
</Table1>
</NewDataSet>
</diffgr:diffgram>
</b:Data>
<b:Id>1</b:Id>
<b:QueryString>SheetName=Sheet1; RangeName=A1:C5;</b:QueryString>
</b:AddOnDataSource>
</b:DataSources>
<b:DisableRefresh>false</b:DisableRefresh>
<b:FileUri>http://ExampleServer/Data_Connected.vdw</b:FileUri>
<b:PageNumber>1</b:PageNumber>
<b:TimeLastModified>2009-05-22T16:24:27</b:TimeLastModified>
</vectorDiagramRequest>
</GetVectorDiagram>
</s:Body>
</s:Envelope>

```

Finally, the protocol server responds with the following GetVectorDiagramResponse:

```

<s:Envelope xmlns:a="http://www.w3.org/2005/08/addressing"
xmlns:s="http://www.w3.org/2003/05/soap-envelope">
    <s:Header>
        <a:Action
s:mustUnderstand="1">http://tempuri.org/IVisioGraphicsService/GetVectorDiagramResponse</a:Action>
    </s:Header>
    <s:Body>
        <GetVectorDiagramResponse xmlns="http://tempuri.org/">
            <GetVectorDiagramResult
                xmlns:d4p1="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer"
                xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
                    <d4p1:CacheAge>5</d4p1:CacheAge>
                    <d4p1:DataSources i:nil="true"></d4p1:DataSources>

                    <d4p1:OutputPage>
                        <d4p1:Resources></d4p1:Resources>
                        <d4p1:ShapeInfo>
                            <Page Name="Page-1" Zoom="1.192093" OffsetX="346.714286" OffsetY="769.714286"
DefaultUnitsText="50" DefaultUnitsAngle="81" DefaultUnitsDuration="44" DefaultUnitsPage="73"
Conflict="0" DocumentID="-1092095043">
                                <Pages>
                                    <Page Name="Page-1" />
                                </Pages>
                                <ShapeInfo Name="_1" DisplayName="Tagged process"
Layout="\\" type="" ; bounds="" : \"; width="" ; height="" : 132,276,222,75\}">
                                    <ShapeDataItems>
                                        <ShapeData Name="ID" FormattedValue="1" Value="1" Format="{0:0.####} {1}"
Type="2" LangID="1033" UnitLabel="0" Unit="32" BindingID="1" />
                                        <ShapeData Name="FN" FormattedValue="Happy" Value="Happy" Format="{0}"
Type="0" LangID="1033" UnitLabel="0" Unit="105" BindingID="1" />
                                        <ShapeData Name="LN" FormattedValue="kitty" Value="kitty" Format="{0}"
Type="0" LangID="1033" UnitLabel="0" Unit="105" BindingID="1" />
                                    </ShapeDataItems>
                                </ShapeInfo>
                            </Page>
                        </d4p1:ShapeInfo>
                    </d4p1:OutputPage>
                </GetVectorDiagramResult>
            </GetVectorDiagramResponse>
        </s:Body>
</s:Envelope>

```

```

        </ShapeInfo>
        <ShapeInfo Name="_9" DisplayName="Tagged process.9"
Layout="\{&quot;type&quot;:&quot;2D&quot;,&quot;bounds&quot;:\{&quot;x&quot;:96,&quot;y&quot;:
:456,&quot;width&quot;:222,&quot;height&quot;:75\}\}">
        <ShapeDataItems>
            <ShapeData Name="ID" FormattedValue="2" Value="2" Format="{0:0.####} {1}"
Type="2" LangID="1033" UnitLabel="0" Unit="32" BindingID="2" />
            <ShapeData Name="FN" FormattedValue="Silly" Value="Silly" Format="{0}"
Type="0" LangID="1033" UnitLabel="0" Unit="105" BindingID="2" />
            <ShapeData Name="LN" FormattedValue="dog" Value="dog" Format="{0}" Type="0"
LangID="1033" UnitLabel="0" Unit="105" BindingID="2" />
        </ShapeDataItems>
    </ShapeInfo>
    <ShapeInfo Name="_17" DisplayName="Tagged process.17"
Layout="\{&quot;type&quot;:&quot;2D&quot;,&quot;bounds&quot;:\{&quot;x&quot;:120,&quot;y&quot;:
:648,&quot;width&quot;:222,&quot;height&quot;:75\}\}">
    <ShapeDataItems>
        <ShapeData Name="ID" FormattedValue="3" Value="3" Format="{0:0.####} {1}"
Type="2" LangID="1033" UnitLabel="0" Unit="32" BindingID="3" />
        <ShapeData Name="FN" FormattedValue="Order" Value="Order" Format="{0}"
Type="0" LangID="1033" UnitLabel="0" Unit="105" BindingID="3" />
        <ShapeData Name="LN" FormattedValue="Id" Value="Id" Format="{0}" Type="0"
LangID="1033" UnitLabel="0" Unit="105" BindingID="3" />
    </ShapeDataItems>

```

...

```

    </ShapeDataItems>
</ShapeInfo>
<ShapeInfo Name="_25" DisplayName="Tagged process.25"
Layout="\{&quot;type&quot;:&quot;2D&quot;,&quot;bounds&quot;:\{&quot;x&quot;:480,&quot;y&quot;:
:492,&quot;width&quot;:222,&quot;height&quot;:75\}\}">
    <ShapeDataItems>
        <ShapeData Name="ID" FormattedValue="4" Value="4" Format="{0:0.####} {1}"
Type="2" LangID="1033" UnitLabel="0" Unit="32" BindingID="4" />
        <ShapeData Name="FN" FormattedValue="green" Value="green" Format="{0}"
Type="0" LangID="1033" UnitLabel="0" Unit="105" BindingID="4" />
        <ShapeData Name="LN" FormattedValue="turtle" Value="turtle" Format="{0}"
Type="0" LangID="1033" UnitLabel="0" Unit="105" BindingID="4" />
    </ShapeDataItems>

```

...

```

</ShapeDataItems>
</ShapeInfo>
</Page>
</d4p1:ShapeInfo>
<d4p1:Xaml>
    <Canvas Height="1056" Name="Workspace" Width="816"
xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation">
        <!-- Page -->
        <Canvas Width="816" Height="1056" Name="D">
            <Canvas.Background>
                <SolidColorBrush Color="#FFFFFFFF" />
            </Canvas.Background>
            <Canvas
Tag="\{&quot;type&quot;:&quot;2D&quot;,&quot;bounds&quot;:\{&quot;x&quot;:132,&quot;y&quot;:
76,&quot;width&quot;:96,&quot;height&quot;:72\}\}" Name="_1" RenderTransform="1, 0, 0, 1,
132, -708">
                <Canvas Name="_2">
                    <Canvas Tag="Shdw" RenderTransform="1, 0, 0, 1, 1.92, 1.92">
                        <Path Name="S_2_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M72 1056
L96 1056 L96 1032 L96 984 L0 984 L0 1056 L72 1056 Z">
                            <Path.Stroke>
                                <SolidColorBrush Color="#7FDEDEDE" />
                            </Path.Stroke>
                            <Path.Fill>
                                <SolidColorBrush Color="#7FDEDEDE" />

```

```

                </Path.Fill>
            </Path>
        </Canvas>
        <Path Name="_2_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M72 1056
L96 1056 L96 1032 L96 984 L0 984 L0 1056 L72 1056 Z">
            <Path.Stroke>
                <SolidColorBrush Color="#00404040" />
            </Path.Stroke>
            <Path.Fill>
                <LinearGradientBrush StartPoint="0.5,0" EndPoint="0.5,1">
                    <LinearGradientBrush.GradientStops>
                        <GradientStop Color="#00FF00FF" />
                        <GradientStop Color="#00FF00FF" Offset="1" />
                    </LinearGradientBrush.GradientStops>
                </LinearGradientBrush>
            </Path.Fill>
        </Path>
    </Canvas>
    <Canvas Name="_3" RenderTransform="1, 0, 0, 1, 72, 0">
        <Path Name="_3_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M0 1056
L24 1056 L24 1032 L0 1056 Z">
            <Path.Stroke>
                <SolidColorBrush Color="#FF404040" />
            </Path.Stroke>
            <Path.Fill>
                <SolidColorBrush Color="#FF000000" />
            </Path.Fill>
        </Path>
    </Canvas>
    <Canvas Name="_5">
        <Canvas.RenderTransform>
            <MatrixTransform Matrix="1,0,0,1,102,-16.65076" />
        </Canvas.RenderTransform>
        <Path Name="_5_G0_P0" Data="M1.92 1054.08 L118.08 1054.08 L118.08
1038.57080078125 L1.92 1038.57080078125 L1.92 1054.08 Z"></Path>
        <Path Name="_5_G1_P1" Data="M1.92 1054.08 L118.08 1054.08"></Path>
        <Path Name="_5_G0_P0_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1038.57080078125 L1.92 1038.57080078125 L1.92 1054.08 Z">
            <Path.Stroke>
                <SolidColorBrush Opacity="0" Color="#FF404040" />
            </Path.Stroke>
        </Path>
        <Path Name="_5_G1_P1_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08">
            <Path.Stroke>
                <SolidColorBrush Color="#FF404040" />
            </Path.Stroke>
        </Path>
        <TextBlock
Tag="Left;Top;;1.2;0.01388888888889;0.013888888888889;0.013888888888889;0.013888888888889"
Height="0.201553942620754" Visibility="Collapsed" Width="0.75625" RenderTransform="96, 0, 0,
96, 1.92, 1038.608582" TextWrapping="Wrap">
            <Run Name="txt_5_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">LN </Run>
        </TextBlock>
    <Canvas>

```

```

        <Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="3.2534" OriginY="1049.5" UnicodeString="LN">
            <Glyphs.Fill>
                <SolidColorBrush Color="#FF000000" />
            </Glyphs.Fill>
        </Glyphs>
    </Canvas>
    <Canvas Name="_6">
        <TextBlock
Tag="Right;Center;;1.2;0.013888888888889;0.013888888888889;0.013888888888889;0.0138888888888888
9" Height="0.201553942620754" Visibility="Collapsed" Width="1.0386175337222"
RenderTransform="96, 0, 0, 96, 18.372717, 1038.608582" TextWrapping="Wrap">
        <Run Name="txt_6_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">not kitty </Run>
    </TextBlock>
    <Canvas>
        <Canvas.RenderTransform>
            <MatrixTransform Matrix="96,0,0,96,18.3744,1038.571" />
        </Canvas.RenderTransform>
        <Glyphs UnicodeString="kitty" OriginX="0.825711078964174"
OriginY="0.111110001802444" FontUri="CommonFonts/4C1AABE5-BA71-4F2C-8263-66731F995C4B.odttf"
FontRenderingEmSize="0.111110001802444" Fill="#FF000000" Visibility="Visible" />
    </Canvas>
    </Canvas>
</Canvas>
<Canvas Name="_7">
    <Canvas.RenderTransform>
        <MatrixTransform Matrix="1,0,0,1,102,-36" />
    </Canvas.RenderTransform>
    <Path Name="_7_G0_P0" Data="M1.92 1054.08 L118.08 1054.08 L118.08
1038.57080078125 L1.92 1054.08 Z"></Path>
    <Path Name="_7_G1_P1" Data="M1.92 1054.08 L118.08 1054.08"></Path>
    <Path Name="_7_G0_P0_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08 L118.08 1038.57080078125 L1.92 1038.57080078125 L1.92 1054.08 Z">
        <Path.Stroke>
            <SolidColorBrush Opacity="0" Color="#FF404040" />
        </Path.Stroke>
    </Path>
    <Path Name="_7_G1_P1_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08">
        <Path.Stroke>
            <SolidColorBrush Color="#FF404040" />
        </Path.Stroke>
    </Path>
    <TextBlock
Tag="Left;Top;;1.2;0.013888888888889;0.013888888888889;0.013888888888889;0.013888888888889"
Height="0.201553942620754" Visibility="Collapsed" Width="0.75625" RenderTransform="96, 0, 0,
96, 1.92, 1038.608582" TextWrapping="Wrap">
        <Run Name="txt_7_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">FN </Run>
    </TextBlock>
    <Canvas>
        <Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="3.2534" OriginY="1049.5" UnicodeString="FN">
            <Glyphs.Fill>
                <SolidColorBrush Color="#FF000000" />
            </Glyphs.Fill>
        </Glyphs>
    </Canvas>

```

```

        </Canvas>
        <Canvas Name="_8">
            <TextBlock
Tag="Right;Center;;1.2;0.01388888888889;0.01388888888889;0.01388888888889;0.013888888888888
9" Height="0.201553942620754" Visibility="Collapsed" Width="1.0342764082339"
RenderTransform="96, 0, 0, 96, 18.789465, 1038.608582" TextWrapping="Wrap">
                <Run Name="txt_8 fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">not Happy </Run>
            </TextBlock>
            <Canvas>
                <Canvas.RenderTransform>
                    <MatrixTransform Matrix="96,0,0,96,18.7872,1038.571" />
                </Canvas.RenderTransform>
                <Glyphs UnicodeString="Happy" OriginX="0.787411080680788"
OriginY="0.111110001802444" FontUri="CommonFonts/4C1AABE5-BA71-4F2C-8263-66731F995C4B.odttf"
FontRenderingEmSize="0.111110001802444" Fill="#FF000000" Visibility="Visible" />
            </Canvas>
        </Canvas>
        <Canvas Name="_4">
            <Path Name="4_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M0 1056
L72 1056 L96 1032 L96 984 L0 984 L0 1056 Z">
                <Path.Stroke>
                    <SolidColorBrush Color="#FF404040" />
                </Path.Stroke>
                <Path.Fill>
                    <LinearGradientBrush StartPoint="0.5,0" EndPoint="0.5,1">
                        <LinearGradientBrush.GradientStops>
                            <GradientStop Color="#FFFAFAFA" />
                            <GradientStop Color="#FFFFFF" Offset="1" />
                        </LinearGradientBrush.GradientStops>
                    </LinearGradientBrush>
                </Path.Fill>
            </Path>
        </Canvas>
    </Canvas>
    <Canvas
Tag="\\" type\\"" :&quot;2D&quot;,&quot;bounds\\"" :&quot;x\\"" :96,&quot;y\\"" :45
6,&quot;width\\"" :96,&quot;height\\"" :72\\"\}" Name="_9" RenderTransform="1, 0, 0, 1, 96,
-528">
        <Canvas Name="_10">
            <Canvas Tag="Shdw" RenderTransform="1, 0, 0, 1, 1.92, 1.92">
                <Path Name="S_10_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M72 1056
L96 1056 L96 1032 L96 984 L0 984 L0 1056 L72 1056 Z">
                    <Path.Stroke>
                        <SolidColorBrush Color="#7FDEDEDE" />
                    </Path.Stroke>
                    <Path.Fill>
                        <SolidColorBrush Color="#7FDEDEDE" />
                    </Path.Fill>
                </Path>
            </Canvas>
            <Path Name="_10_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M72 1056
L96 1056 L96 1032 L96 984 L0 984 L0 1056 L72 1056 Z">
                <Path.Stroke>
                    <SolidColorBrush Color="#00404040" />
                </Path.Stroke>

```

```

        <Path.Fill>
            <LinearGradientBrush StartPoint="0.5,0" EndPoint="0.5,1">
                <LinearGradientBrush.GradientStops>
                    <GradientStop Color="#00FF00FF" />
                    <GradientStop Color="#00FF00FF" Offset="1" />
                </LinearGradientBrush.GradientStops>
            </LinearGradientBrush>
        </Path.Fill>
    </Path>
</Canvas>
<Canvas Name="_11" RenderTransform="1, 0, 0, 1, 72, 0">
    <Path Name="_11_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
        StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M0 1056
        L24 1056 L24 1032 L0 1056 Z">
        <Path.Stroke>
            <SolidColorBrush Color="#FF404040" />
        </Path.Stroke>
        <Path.Fill>
            <SolidColorBrush Color="#FF000000" />
        </Path.Fill>
    </Path>
</Canvas>
<Canvas Name="_13">
    <Canvas.RenderTransform>
        <MatrixTransform Matrix="1, 0, 0, 1, 102, -16.688582" />
    </Canvas.RenderTransform>
    <Path Name="_13_G0_P0" Data="M1.92 1054.08 L118.08 1054.08 L118.08
        1038.61 L1.92 1038.61 L1.92 1054.08 Z" />
    <Path Name="_13_G1_P1" Data="M1.92 1054.08 L118.08 1054.08" />
    <Path Name="_13_G0_P0_line" StrokeThickness="0.5" StrokeDashCap="Round"
        StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
        1054.08 L118.08 1054.08 L118.08 1038.61 L1.92 1038.61 L1.92 1054.08">
        <Path.Stroke>
            <SolidColorBrush Opacity="0" Color="#FF404040" />
        </Path.Stroke>
    </Path>
    <Path Name="_13_G1_P1_line" StrokeThickness="0.5" StrokeDashCap="Round"
        StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
        1054.08 L118.08 1054.08">
        <Path.Stroke>
            <SolidColorBrush Color="#FF404040" />
        </Path.Stroke>
    </Path>
    <TextBlock
        Tag="Left;Top;;1.2;0.01388888888889;0.01388888888889;0.01388888888889;0.01388888888889"
        Height="0.16116" Visibility="Collapsed" Width="0.75625" RenderTransform="96, 0, 0, 96, 1.92,
        1038.608582" TextWrapping="Wrap">
        <Run Name="txt_13_fld0" FontFamily="Calibri" FontSize="0.11111"
            Foreground="#FF000000">LN </Run>
    </TextBlock>
</Canvas>
<Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
    BA71-4F2C-8263-66731F995C4B.odttf" OriginX="3.2534" OriginY="1049.5" UnicodeString="LN">
    <Glyphs.Fill>
        <SolidColorBrush Color="#FF000000" />
    </Glyphs.Fill>
</Glyphs>
</Canvas>
<Canvas Name="_14">

```

```

        <TextBlock
Tag="Right;Center;;1.2;0.0138888888889;0.0138888888889;0.0138888888889;0.0138888888888
9" Height="0.16116" Visibility="Collapsed" Width="1.0386" RenderTransform="96, 0, 0, 96,
18.372717, 1038.608582" TextWrapping="Wrap">
    <Run Name="txt_14_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">dog </Run>
</TextBlock>
<Canvas>
    <Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="100.5" OriginY="1049.5" UnicodeString="dog">
        <Glyphs.Fill>
            <SolidColorBrush Color="#FF000000" />
        </Glyphs.Fill>
    </Canvas>
</Canvas>
<Canvas Name="_15">
    <Canvas.RenderTransform>
        <MatrixTransform Matrix="1, 0, 0, 1, 102, -36" />
    </Canvas.RenderTransform>
    <Path Name="_15_G0_P0" Data="M1.92 1054.08 L118.08 1054.08 L118.08
1038.61 L1.92 1038.61 L1.92 1054.08 Z" />
    <Path Name="_15_G1_P1" Data="M1.92 1054.08 L118.08 1054.08" />
    <Path Name="_15_G0_P0_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08 L118.08 1038.61 L1.92 1038.61 L1.92 1054.08">
        <Path.Stroke>
            <SolidColorBrush Opacity="0" Color="#FF404040" />
        </Path.Stroke>
    </Path>
    <Path Name="_15_G1_P1_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08">
        <Path.Stroke>
            <SolidColorBrush Color="#FF404040" />
        </Path.Stroke>
    </Path>
    <TextBlock
Tag="Left;Top;;1.2;0.0138888888889;0.0138888888889;0.0138888888889;0.0138888888889"
Height="0.16116" Visibility="Collapsed" Width="0.75625" RenderTransform="96, 0, 0, 96, 1.92,
1038.608582" TextWrapping="Wrap">
        <Run Name="txt_15_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">FN </Run>
    </TextBlock>
    <Canvas>
        <Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="3.2534" OriginY="1049.5" UnicodeString="FN">
            <Glyphs.Fill>
                <SolidColorBrush Color="#FF000000" />
            </Glyphs.Fill>
        </Canvas>
    <Canvas Name="_16">
        <TextBlock
Tag="Right;Center;;1.2;0.0138888888889;0.0138888888889;0.0138888888889;0.0138888888888
9" Height="0.16116" Visibility="Collapsed" Width="1.0343" RenderTransform="96, 0, 0, 96,
18.789465, 1038.608582" TextWrapping="Wrap">
            <Run Name="txt_16_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">Silly </Run>
        </TextBlock>
    </Canvas>

```

```

        <Canvas>
            <Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="84.559" OriginY="1049.5" UnicodeString="Silly">
                <Glyphs.Fill>
                    <SolidColorBrush Color="#FF000000" />
                </Glyphs.Fill>
            </Glyphs>
        </Canvas>
    </Canvas>
</Canvas Name=" 12">
    <Path Name="_12_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M0 1056
L72 1056 L96 1032 L96 984 L0 984 L0 1056 Z">
        <Path.Stroke>
            <SolidColorBrush Color="#FF404040" />
        </Path.Stroke>
        <Path.Fill>
            <LinearGradientBrush StartPoint="0.5,0" EndPoint="0.5,1">
                <LinearGradientBrush.GradientStops>
                    <GradientStop Color="#FFFAFAFA" />
                    <GradientStop Color="#FFFFFFFF" Offset="1" />
                </LinearGradientBrush.GradientStops>
            </LinearGradientBrush>
        </Path.Fill>
    </Path>
</Canvas>
</Canvas>
<Canvas
Tag="\{\&quot;type&quot;:\&quot;2D&quot;,&quot;bounds&quot;:\&quot;x&quot;:120,&quot;y&quot;:6
48,&quot;width&quot;:96,&quot;height&quot;:72\}\}" Name="_17" RenderTransform="1, 0, 0, 1,
120, -336">
    <Canvas Name=" 18">
        <Canvas Tag="Shdw" RenderTransform="1, 0, 0, 1, 1.92, 1.92">
            <Path Name="S_18_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M72 1056
L96 1056 L96 1032 L96 984 L0 984 L0 1056 L72 1056 Z">
                <Path.Stroke>
                    <SolidColorBrush Color="#7FDEDEDE" />
                </Path.Stroke>
                <Path.Fill>
                    <SolidColorBrush Color="#7FDEDEDE" />
                </Path.Fill>
            </Path>
        </Canvas>
        <Path Name="_18_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M72 1056
L96 1056 L96 1032 L96 984 L0 984 L0 1056 L72 1056 Z">
                <Path.Stroke>
                    <SolidColorBrush Color="#00404040" />
                </Path.Stroke>
                <Path.Fill>
                    <LinearGradientBrush StartPoint="0.5,0" EndPoint="0.5,1">
                        <LinearGradientBrush.GradientStops>
                            <GradientStop Color="#00FF00FF" />
                            <GradientStop Color="#00FF00FF" Offset="1" />
                        </LinearGradientBrush.GradientStops>
                    </LinearGradientBrush>
                </Path.Fill>
            </Path>
        </Path>
    </Canvas>

```

```

        </Canvas>
        <Canvas Name="_19" RenderTransform="1, 0, 0, 1, 72, 0">
            <Path Name=" _19_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M0 1056
L24 1056 L24 1032 L0 1056 Z">
                <Path.Stroke>
                    <SolidColorBrush Color="#FF404040" />
                </Path.Stroke>
                <Path.Fill>
                    <SolidColorBrush Color="#FF000000" />
                </Path.Fill>
            </Path>
        </Canvas>
        <Canvas Name="_21">
            <Canvas.RenderTransform>
                <MatrixTransform Matrix="1, 0, 0, 1, 102, -16.688582" />
            </Canvas.RenderTransform>
            <Path Name=" _21_G0_P0" Data="M1.92 1054.08 L118.08 1054.08 L118.08
1038.61 L1.92 1038.61 L1.92 1054.08 Z"/>
                <Path Name=" _21_G1_P1" Data="M1.92 1054.08 L118.08 1054.08" />
                <Path Name=" _21_G0_P0_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08 L118.08 1038.61 L1.92 1038.61 L1.92 1054.08">
                    <Path.Stroke>
                        <SolidColorBrush Opacity="0" Color="#FF404040" />
                    </Path.Stroke>
                </Path>
                <Path Name=" _21_G1_P1_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08">
                    <Path.Stroke>
                        <SolidColorBrush Color="#FF404040" />
                    </Path.Stroke>
                </Path>
            <TextBlock
Tag="Left;Top;;1.2;0.01388888888889;0.01388888888889;0.01388888888889;0.01388888888889"
Height="0.16116" Visibility="Collapsed" Width="0.75625" RenderTransform="96, 0, 0, 96, 1.92,
1038.608582" TextWrapping="Wrap">
                <Run Name="txt_21_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">LN </Run>
            </TextBlock>
        <Canvas>
            <Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="3.2534" OriginY="1049.5" UnicodeString="LN">
                <Glyphs.Fill>
                    <SolidColorBrush Color="#FF000000" />
                </Glyphs.Fill>
            </Glyphs>
        </Canvas>
        <Canvas Name="_22">
            <TextBlock
Tag="Right;Center;;1.2;0.01388888888889;0.01388888888889;0.01388888888889;0.01388888888889
9" Height="0.16116" Visibility="Collapsed" Width="1.0386" RenderTransform="96, 0, 0, 96,
18.372717, 1038.608582" TextWrapping="Wrap">
                <Run Name="txt_22_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">Id </Run>
            </TextBlock>
        <Canvas>
            <Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="103.67" OriginY="1049.5" UnicodeString="Id">

```

```

        <Glyphs.Fill>
            <SolidColorBrush Color="#FF000000" />
        </Glyphs.Fill>
    </Canvas>
</Canvas>
<Canvas Name="_23">
    <Canvas.RenderTransform>
        <MatrixTransform Matrix="1, 0, 0, 1, 102, -36" />
    </Canvas.RenderTransform>
    <Path Name="_23_G0_P0" Data="M1.92 1054.08 L118.08 1054.08 L118.08
1038.61 L1.92 1038.61 L1.92 1054.08 Z" />
    <Path Name="_23_G1_P1" Data="M1.92 1054.08 L118.08 1054.08" />
    <Path Name="_23_G0_P0_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08 L118.08 1038.61 L1.92 1038.61 L1.92 1054.08">
        <Path.Stroke>
            <SolidColorBrush Opacity="0" Color="#FF404040" />
        </Path.Stroke>
    </Path>
    <Path Name="_23_G1_P1_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08">
        <Path.Stroke>
            <SolidColorBrush Color="#FF404040" />
        </Path.Stroke>
    </Path>
    <TextBlock
Tag="Left;Top;;1.2;0.01388888888889;0.01388888888889;0.01388888888889;0.01388888888889"
Height="0.16116" Visibility="Collapsed" Width="0.75625" RenderTransform="96, 0, 0, 96, 1.92,
1038.608582" TextWrapping="Wrap">
        <Run Name="txt_23_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">FN </Run>
    </TextBlock>
    <Canvas>
        <Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="3.2534" OriginY="1049.5" UnicodeString="FN">
            <Glyphs.Fill>
                <SolidColorBrush Color="#FF000000" />
            </Glyphs.Fill>
        </Canvas>
    <Canvas Name="_24">
        <TextBlock
Tag="Right;Center;;1.2;0.01388888888889;0.01388888888889;0.01388888888889;0.01388888888888
9" Height="0.16116" Visibility="Collapsed" Width="1.0343" RenderTransform="96, 0, 0, 96,
18.789465, 1038.608582" TextWrapping="Wrap">
        <Run Name="txt_24_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">Order </Run>
    </TextBlock>
    <Canvas>
        <Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="93.242" OriginY="1049.5" UnicodeString="Order">
            <Glyphs.Fill>
                <SolidColorBrush Color="#FF000000" />
            </Glyphs.Fill>
        </Canvas>
    </Canvas>

```

```

        </Canvas>
        <Canvas Name="_20">
            <Path Name="20_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M0 1056
L72 1056 L96 1032 L96 984 L0 984 L0 1056 Z">
                <Path.Stroke>
                    <SolidColorBrush Color="#FF404040" />
                </Path.Stroke>
                <Path.Fill>
                    <LinearGradientBrush StartPoint="0.5,0" EndPoint="0.5,1">
                        <LinearGradientBrush.GradientStops>
                            <GradientStop Color="#FFAFAFAFA" />
                            <GradientStop Color="#FFFFFFFFF" Offset="1" />
                        </LinearGradientBrush.GradientStops>
                    </LinearGradientBrush>
                </Path.Fill>
            </Path>
        </Canvas>
    </Canvas>
<Canvas Name="_25" RenderTransform="1, 0, 0, 1,
480, -492">
    Tag="\{&quot;type&quot;:&quot;2D&quot;,&quot;bounds&quot;:\{&quot;x&quot;:480,&quot;y&quot;:4
92,&quot;width&quot;:96,&quot;height&quot;:72\}\}" Name="_25" RenderTransform="1, 0, 0, 1,
480, -492">
        <Canvas Name="_26">
            <Canvas Tag="Shdw" RenderTransform="1, 0, 0, 1, 1.92, 1.92">
                <Path Name="S_26_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M72 1056
L96 1056 L96 1032 L96 984 L0 984 L0 1056 L72 1056 Z">
                    <Path.Stroke>
                        <SolidColorBrush Color="#7FDEDEDE" />
                    </Path.Stroke>
                    <Path.Fill>
                        <SolidColorBrush Color="#7FDEDEDE" />
                    </Path.Fill>
                </Path>
            </Canvas>
            <Path Name="26_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M72 1056
L96 1056 L96 1032 L96 984 L0 984 L0 1056 L72 1056 Z">
                <Path.Stroke>
                    <SolidColorBrush Color="#00404040" />
                </Path.Stroke>
                <Path.Fill>
                    <LinearGradientBrush StartPoint="0.5,0" EndPoint="0.5,1">
                        <LinearGradientBrush.GradientStops>
                            <GradientStop Color="#00FF00FF" />
                            <GradientStop Color="#00FF00FF" Offset="1" />
                        </LinearGradientBrush.GradientStops>
                    </LinearGradientBrush>
                </Path.Fill>
            </Path>
        </Canvas>
        <Canvas Name="_27" RenderTransform="1, 0, 0, 1, 72, 0">
            <Path Name="_27_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M0 1056
L24 1056 L24 1032 L0 1056 Z">
                <Path.Stroke>
                    <SolidColorBrush Color="#FF404040" />
                </Path.Stroke>
                <Path.Fill>

```

```

                <SolidColorBrush Color="#FF000000" />
            </Path.Fill>
        </Path>
    </Canvas>
    <Canvas Name="_29">
        <Canvas.RenderTransform>
            <MatrixTransform Matrix="1, 0, 0, 1, 102, -16.688582" />
        </Canvas.RenderTransform>
        <Path Name="_29_G0_P0" Data="M1.92 1054.08 L118.08 1054.08 L118.08
1038.61 L1.92 1038.61 L1.92 1054.08 z" />
        <Path Name="_29_G1_P1" Data="M1.92 1054.08 L118.08 1054.08" />
        <Path Name="_29_G0_P0_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08 L118.08 1038.61 L1.92 1038.61 L1.92 1054.08">
            <Path.Stroke>
                <SolidColorBrush Opacity="0" Color="#FF404040" />
            </Path.Stroke>
        </Path>
        <Path Name="_29_G1_P1_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08">
            <Path.Stroke>
                <SolidColorBrush Color="#FF404040" />
            </Path.Stroke>
        </Path>
        <TextBlock
Tag="Left;Top;;1.2;0.01388888888889;0.01388888888889;0.01388888888889;0.01388888888889"
Height="0.16116" Visibility="Collapsed" Width="0.75625" RenderTransform="96, 0, 0, 96, 1.92,
1038.608582" TextWrapping="Wrap">
            <Run Name="txt_29_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">LN </Run>
        </TextBlock>
        <Canvas>
            <Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="3.2534" OriginY="1049.5" UnicodeString="LN">
                <Glyphs.Fill>
                    <SolidColorBrush Color="#FF000000" />
                </Glyphs.Fill>
            </Glyphs>
        </Canvas>
        <Canvas Name="_30">
            <TextBlock
Tag="Right;Center;;1.2;0.01388888888889;0.01388888888889;0.01388888888889;0.01388888888888
9" Height="0.16116" Visibility="Collapsed" Width="1.0386" RenderTransform="96, 0, 0, 96,
18.372717, 1038.608582" TextWrapping="Wrap">
            <Run Name="txt_30_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">turtle </Run>
        </TextBlock>
        <Canvas>
            <Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="92.523" OriginY="1049.5" UnicodeString="turtle">
                <Glyphs.Fill>
                    <SolidColorBrush Color="#FF000000" />
                </Glyphs.Fill>
            </Glyphs>
        </Canvas>
    </Canvas>
    <Canvas Name="_31">
        <Canvas.RenderTransform>

```

```

        <MatrixTransform Matrix="1, 0, 0, 1, 102, -36" />
    </Canvas.RenderTransform>
    <Path Name="_31_G0_P0" Data="M1.92 1054.08 L118.08 1054.08 L118.08
1038.61 L1.92 1038.61 L1.92 1054.08 Z"/>
    <Path Name="_31_G1_P1" Data="M1.92 1054.08 L118.08 1054.08" />
    <Path Name="_31_G0_P0_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08 L118.08 1038.61 L1.92 1038.61 L1.92 1054.08">
        <Path.Stroke>
            <SolidColorBrush Opacity="0" Color="#FF404040" />
        </Path.Stroke>
    </Path>
    <Path Name="_31_G1_P1_line" StrokeThickness="0.5" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="M1.92
1054.08 L118.08 1054.08">
        <Path.Stroke>
            <SolidColorBrush Color="#FF404040" />
        </Path.Stroke>
    </Path>
    <TextBlock
Tag="Left;Top;;1.2;0.01388888888889;0.01388888888889;0.01388888888889;0.01388888888889"
Height="0.16116" Visibility="Collapsed" Width="0.75625" RenderTransform="96, 0, 0, 96, 1.92,
1038.608582" TextWrapping="Wrap">
        <Run Name="txt_31_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">FN </Run>
    </TextBlock>
    <Canvas
<Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="3.2534" OriginY="1049.5" UnicodeString="FN">
        <Glyphs.Fill>
            <SolidColorBrush Color="#FF000000" />
        </Glyphs.Fill>
    </Glyphs>
    <Canvas>
        <TextBlock
Tag="Right;Center;;1.2;0.01388888888889;0.01388888888889;0.01388888888889;0.01388888888888
9" Height="0.16116" Visibility="Collapsed" Width="1.0343" RenderTransform="96, 0, 0, 96,
18.789465, 1038.608582" TextWrapping="Wrap">
            <Run Name="txt_32_fld0" FontFamily="Calibri" FontSize="0.11111"
Foreground="#FF000000">green </Run>
        </TextBlock>
        <Canvas
            <Glyphs FontRenderingEmSize="10.667" FontUri="CommonFonts/4C1AABE5-
BA71-4F2C-8263-66731F995C4B.odttf" OriginX="91.789" OriginY="1049.5" UnicodeString="green">
                <Glyphs.Fill>
                    <SolidColorBrush Color="#FF000000" />
                </Glyphs.Fill>
            </Glyphs>
        </Canvas>
    </Canvas>
    <Canvas Name="_28">
        <Path Name="_28_G0" StrokeThickness="0.33333" StrokeDashCap="Round"
StrokeEndLineCap="Round" StrokeLineJoin="Round" StrokeStartLineCap="Round" Data="F0 M0 1056
L72 1056 L96 1032 L96 984 L0 984 L0 1056 Z">
            <Path.Stroke>
                <SolidColorBrush Color="#FF404040" />
            </Path.Stroke>
        <Path.Fill>

```

```
<LinearGradientBrush StartPoint="0.5,0" EndPoint="0.5,1">
    <LinearGradientBrush.GradientStops>
        <GradientStop Color="#FFFAFAFA" />
        <GradientStop Color="#FFFFFF" Offset="1" />
    </LinearGradientBrush.GradientStops>
</LinearGradientBrush>
</Path.Fill>
</Path>
</Canvas>
</Canvas>
</Canvas>
</d4p1:Xaml>
</d4p1:OutputPage>

</GetVectorDiagramResult>
</GetVectorDiagramResponse>
</s:Body>
</s:Envelope>
```

5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

For ease of implementation, the full WSDL is provided below:

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:tns="http://tempuri.org/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:wsam="http://www.w3.org/2007/05/addressing/metadata"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema" name="IVisioGraphicsService"
  targetNamespace="http://tempuri.org/" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xss:schema elementFormDefault="qualified" targetNamespace="http://tempuri.org/"
      xmlns:xss="http://www.w3.org/2001/XMLSchema">
      <xss:import
        namespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServ
        er" />
      <xss:element name="GetRasterDiagram">
        <xss:complexType>
          <xss:sequence>
            <xss:element
              xmlns:q1="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServe
              r" minOccurs="0" name="rasterDiagramRequestContract" nillable="true"
              type="q1:RasterDiagramRequestContract" />
            </xss:sequence>
          </xss:complexType>
        </xss:element>
      <xss:element name="GetRasterDiagramResponse">
        <xss:complexType>
          <xss:sequence>
            <xss:element
              xmlns:q2="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServe
              r" minOccurs="0" name="GetRasterDiagramResult" nillable="true" type="q2:RasterDiagram" />
            </xss:sequence>
          </xss:complexType>
        </xss:element>
      <xss:element name="GetVectorDiagram">
        <xss:complexType>
          <xss:sequence>
            <xss:element
              xmlns:q3="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServe
              r" minOccurs="0" name="vectorDiagramRequest" nillable="true"
              type="q3:VectorDiagramRequestContract" />
            </xss:sequence>
          </xss:complexType>
        </xss:element>
      <xss:element name="GetVectorDiagramResponse">
        <xss:complexType>
          <xss:sequence>
            <xss:element
              xmlns:q4="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServe
              r" minOccurs="0" name="GetVectorDiagramResult" nillable="true" type="q4:VectorDiagram" />
            </xss:sequence>
          </xss:complexType>
        </xss:element>
      </xss:schema>
    <xss:schema
      xmlns:tns="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServ
      er" elementFormDefault="qualified"
      targetNamespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.Graphi
      csServer" xmlns:xs="http://www.w3.org/2001/XMLSchema">
```

```

<xs:complexType name="RasterDiagramRequestContract">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BaseRequestContract">
      <xs:sequence>
        <xs:element minOccurs="0" name="Resolution" type="xs:int" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:element name="RasterDiagramRequestContract" nillable="true"
type="tns:RasterDiagramRequestContract" />
<xs:complexType name="BaseRequestContract">
  <xs:sequence>
    <xs:element minOccurs="0" name="DataSources" nillable="true"
type="tns:ArrayOfAddonDataSource" />
    <xs:element minOccurs="0" name="DisableRefresh" type="xs:boolean" />
    <xs:element minOccurs="0" name="FileUri" nillable="true" type="xs:anyURI" />
    <xs:element minOccurs="0" name="PageNumber" type="xs:int" />
    <xs:element minOccurs="0" name="TimeLastModified" type="xs:dateTime" />
  </xs:sequence>
</xs:complexType>
<xs:element name="BaseRequestContract" nillable="true" type="tns:BaseRequestContract"
/>
<xs:complexType name="ArrayOfAddonDataSource">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="AddonDataSource"
nillable="true" type="tns:AddonDataSource" />
  </xs:sequence>
</xs:complexType>
<xs:element name="ArrayOfAddonDataSource" nillable="true"
type="tns:ArrayOfAddonDataSource" />
<xs:complexType name="AddonDataSource">
  <xs:sequence>
    <xs:element minOccurs="0" name="ConnectionString" nillable="true" type="xs:string"
/>
    <xs:element minOccurs="0" name="Data" nillable="true">
      <xs:complexType>
        <xs:sequence>
          <xs:element ref="xs:schema" />
          <xs:any />
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element minOccurs="0" name="Id" type="xs:int" />
    <xs:element minOccurs="0" name="QueryString" nillable="true" type="xs:string" />
  </xs:sequence>
</xs:complexType>
<xs:element name="AddonDataSource" nillable="true" type="tns:AddonDataSource" />
<xs:complexType name="RasterDiagram">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:DiagramBase">
      <xs:sequence>
        <xs:element minOccurs="0" name="AreaMaps" nillable="true" type="xs:string" />
        <xs:element minOccurs="0" name="Image" nillable="true" type="xs:base64Binary"
/>
        <xs:element minOccurs="0" name="ShapeInfo" nillable="true" type="xs:string" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

```

</xs:complexType>
<xs:element name="RasterDiagram" nillable="true" type="tns:RasterDiagram" />
<xs:complexType name="DiagramBase">
  <xs:sequence>
    <xs:element minOccurs="0" name="CacheAge" type="xs:int" />
    <xs:element minOccurs="0" name="DataSources" nillable="true"
type="tns:ArrayOfAddonDataSource" />
  </xs:sequence>
</xs:complexType>
<xs:element name="DiagramBase" nillable="true" type="tns:DiagramBase" />
<xs:complexType name="VisioGraphicsServiceFault">
  <xs:sequence>
    <xs:element minOccurs="0" name="Details" nillable="true" type="xs:string" />
    <xs:element minOccurs="0" name="Error" type="tns:FaultCode" />
    <xs:element minOccurs="0" name="Flags" type="xs:int" />
  </xs:sequence>
</xs:complexType>
<xs:element name="VisioGraphicsServiceFault" nillable="true"
type="tns:VisioGraphicsServiceFault" />
<xs:simpleType name="FaultCode">
  <xs:restriction base="xs:string">
    <xs:enumeration value="DataConnectivityError" />
    <xs:enumeration value="EmptyRasterDiagramRequest" />
    <xs:enumeration value="EmptyVectorDiagramRequest" />
    <xs:enumeration value="OfficeDataConnectionFileNotFound" />
    <xs:enumeration value="OfficeDataConnectionFileRetrievalError" />
    <xs:enumeration value="OfficeDataConnection FileAccessDenied" />
    <xs:enumeration value="IncompatibleDomain" />
    <xs:enumeration value="WssViewAccessDenied" />
    <xs:enumeration value="WssListAccessDenied" />
    <xs:enumeration value="InvalidPageNumber" />
    <xs:enumeration value="InvalidResolution" />
    <xs:enumeration value="InvalidFileUrl" />
    <xs:enumeration value="RasterizationError" />
    <xs:enumeration value="InvalidFileExtension" />
    <xs:enumeration value="EmptyServerData" />
    <xs:enumeration value="OpenServerFileFailed" />
    <xs:enumeration value="NoReadPermissionToFile" />
    <xs:enumeration value="KeyNotFoundFromCollection" />
    <xs:enumeration value="ExceededMaxDiagramSize" />
    <xs:enumeration value="IncompatibleVersion" />
    <xs:enumeration value="DataProviderNotTrusted" />
    <xs:enumeration value="DataBindingConflict" />
    <xs:enumeration value="UnableToGetExternalDataSourceCredentials" />
    <xs:enumeration value="UnattendedAccountTypeMismatch" />
    <xs:enumeration value="RecalcTimedOut" />
    <xs:enumeration value="LicenseExpired" />
  </xs:restriction>
</xs:simpleType>
<xs:element name="FaultCode" nillable="true" type="tns:FaultCode" />
<xs:complexType name="VectorDiagramRequestContract">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BaseRequestContract">
      <xs:sequence />
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:element name="VectorDiagramRequestContract" nillable="true"
type="tns:VectorDiagramRequestContract" />

```

```

<xs:complexType name="VectorDiagram">
    <xs:complexContent mixed="false">
        <xs:extension base="tns:DiagramBase">
            <xs:sequence>
                <xs:element minOccurs="0" name="OutputPage" nillable="true"
type="tns:RenderedPage" />
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<xs:element name="VectorDiagram" nillable="true" type="tns:VectorDiagram" />
<xs:complexType name="RenderedPage">
    <xs:sequence>
        <xs:element minOccurs="0" name="Resources" nillable="true"
type="tns:ArrayOfDiagramResource" />
            <xs:element minOccurs="0" name="ShapeInfo" nillable="true" type="xs:string" />
            <xs:element minOccurs="0" name="Xaml" nillable="true" type="xs:string" />
    </xs:sequence>
</xs:complexType>
<xs:element name="RenderedPage" nillable="true" type="tns:RenderedPage" />
<xs:complexType name="ArrayOfDiagramResource">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="DiagramResource"
nillable="true" type="tns:DiagramResource" />
    </xs:sequence>
</xs:complexType>
<xs:element name="ArrayOfDiagramResource" nillable="true"
type="tns:ArrayOfDiagramResource" />
<xs:complexType name="DiagramResource">
    <xs:sequence>
        <xs:element minOccurs="0" name="ByteData" nillable="true" type="xs:base64Binary" />
        <xs:element minOccurs="0" name="Name" nillable="true" type="xs:string" />
    </xs:sequence>
</xs:complexType>
<xs:element name="DiagramResource" nillable="true" type="tns:DiagramResource" />
</xs:schema>
<xs:schema xmlns:tns="http://schemas.microsoft.com/2003/10/Serialization/"
attributeFormDefault="qualified" elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/2003/10/Serialization/"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
    <xs:element name="anyType" nillable="true" type="xs:anyType" />
    <xs:element name="anyURI" nillable="true" type="xs:anyURI" />
    <xs:element name="base64Binary" nillable="true" type="xs:base64Binary" />
    <xs:element name="boolean" nillable="true" type="xs:boolean" />
    <xs:element name="byte" nillable="true" type="xs:byte" />
    <xs:element name="dateTime" nillable="true" type="xs:dateTime" />
    <xs:element name="decimal" nillable="true" type="xs:decimal" />
    <xs:element name="double" nillable="true" type="xs:double" />
    <xs:element name="float" nillable="true" type="xs:float" />
    <xs:element name="int" nillable="true" type="xs:int" />
    <xs:element name="long" nillable="true" type="xs:long" />
    <xs:element name="QName" nillable="true" type="xs:QName" />
    <xs:element name="short" nillable="true" type="xs:short" />
    <xs:element name="string" nillable="true" type="xs:string" />
    <xs:element name="unsignedByte" nillable="true" type="xs:unsignedByte" />
    <xs:element name="unsignedInt" nillable="true" type="xs:unsignedInt" />
    <xs:element name="unsignedLong" nillable="true" type="xs:unsignedLong" />
    <xs:element name="unsignedShort" nillable="true" type="xs:unsignedShort" />
    <xs:attribute name="FactoryType" type="xs:QName" />

```

```

<xs:attribute name="Id" type="xs:ID" />
<xs:attribute name="Ref" type="xs:IDREF" />
</xs:schema>
</wsdl:types>
<wsdl:message name="IVisioGraphicsService_GetRasterDiagram_InputMessage">
<wsdl:part name="parameters" element="tns:GetRasterDiagram" />
</wsdl:message>
<wsdl:message name="IVisioGraphicsService_GetRasterDiagram_OutputMessage">
<wsdl:part name="parameters" element="tns:GetRasterDiagramResponse" />
</wsdl:message>
<wsdl:message name="IVisioGraphicsService_GetRasterDiagram_VisioGraphicsServiceFaultFault_FaultMessage">
<wsdl:part
xmlns:q1="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServe
r" name="detail" element="q1:VisioGraphicsServiceFault" />
</wsdl:message>
<wsdl:message name="IVisioGraphicsService_GetVectorDiagram_InputMessage">
<wsdl:part name="parameters" element="tns:GetVectorDiagram" />
</wsdl:message>
<wsdl:message name="IVisioGraphicsService_GetVectorDiagram_OutputMessage">
<wsdl:part name="parameters" element="tns:GetVectorDiagramResponse" />
</wsdl:message>
<wsdl:message name="IVisioGraphicsService_GetVectorDiagram_VisioGraphicsServiceFaultFault_FaultMessage">
<wsdl:part
xmlns:q2="http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServe
r" name="detail" element="q2:VisioGraphicsServiceFault" />
</wsdl:message>
<wsdl:portType name="IVisioGraphicsService">
<wsdl:operation name="GetRasterDiagram">
<wsdl:input wsam:Action="http://tempuri.org/IVisioGraphicsService/GetRasterDiagram"
message="tns:IVisioGraphicsService_GetRasterDiagram_InputMessage" />
<wsdl:output
wsam:Action="http://tempuri.org/IVisioGraphicsService/GetRasterDiagramResponse"
message="tns:IVisioGraphicsService_GetRasterDiagram_OutputMessage" />
<wsdl:fault
wsam:Action="http://tempuri.org/IVisioGraphicsService/GetRasterDiagramVisioGraphicsServiceFau
ltFault" name="VisioGraphicsServiceFaultFault"
message="tns:IVisioGraphicsService_GetRasterDiagram_VisioGraphicsServiceFaultFault_FaultMessa
ge" />
</wsdl:operation>
<wsdl:operation name="GetVectorDiagram">
<wsdl:input wsam:Action="http://tempuri.org/IVisioGraphicsService/GetVectorDiagram"
message="tns:IVisioGraphicsService_GetVectorDiagram_InputMessage" />
<wsdl:output
wsam:Action="http://tempuri.org/IVisioGraphicsService/GetVectorDiagramResponse"
message="tns:IVisioGraphicsService_GetVectorDiagram_OutputMessage" />
<wsdl:fault
wsam:Action="http://tempuri.org/IVisioGraphicsService/GetVectorDiagramVisioGraphicsServiceFau
ltFault" name="VisioGraphicsServiceFaultFault"
message="tns:IVisioGraphicsService_GetVectorDiagram_VisioGraphicsServiceFaultFault_FaultMessa
ge" />
</wsdl:operation>
</wsdl:portType>
<wsdl:binding name="CustomBinding_IVisioGraphicsService" type="tns:IVisioGraphicsService">
<soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
<wsdl:operation name="GetRasterDiagram">
<soap:operation soapAction="http://tempuri.org/IVisioGraphicsService/GetRasterDiagram"
style="document" />
<wsdl:input>
<soap:body use="literal" />

```

```
</wsdl:input>
<wsdl:output>
  <soap:body use="literal" />
</wsdl:output>
<wsdl:fault name="VisioGraphicsServiceFaultFault">
  <soap:fault use="literal" name="VisioGraphicsServiceFaultFault" namespace="" />
</wsdl:fault>
</wsdl:operation>
<wsdl:operation name="GetVectorDiagram">
  <soap:operation soapAction="http://tempuri.org/IVisioGraphicsService/GetVectorDiagram" style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
<wsdl:fault name="VisioGraphicsServiceFaultFault">
  <soap:fault use="literal" name="VisioGraphicsServiceFaultFault" namespace="" />
</wsdl:fault>
</wsdl:operation>
</wsdl:binding>
</wsdl:definitions>
```

7 Appendix B: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include released service packs:

- Microsoft® SharePoint® Server 2010

Exceptions, if any, are noted below. If a service pack or Quick Fix Engineering (QFE) number appears with the product version, behavior changed in that service pack or QFE. The new behavior also applies to subsequent service packs of the product unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms SHOULD or SHOULD NOT implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term MAY implies that the product does not follow the prescription.

8 Change Tracking

No table of changes is available. The document is either new or has had no changes since its last release.

9 Index

A

Abstract data model

[client](#) 27

[server](#) 19

AddonDataSource (*from namespace*)

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>) complex type 13

Applicability 9

ArrayOfAddonDataSource (*from namespace*)

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>) complex type 14

Attribute groups 18

Attributes 18

B

BaseRequestContract (*from namespace*)

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>) complex type 14

C

Capability negotiation 9

Change tracking 62

Client

[abstract data model](#) 27

[details](#) 27

[initialization](#) 27

[local events](#) 28

[message processing](#) 28

overview 19

[sequencing rules](#) 28

[timer events](#) 28

[timers](#) 27

Complex types 12

AddonDataSource (*from namespace*)

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>) 13

ArrayOfAddonDataSource (*from namespace*)

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>) 14

BaseRequestContract (*from namespace*)

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>) 14

DiagramBase (*from namespace*)

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>) 15

VisioGraphicsServiceFault (*from namespace*)

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>) 15

D

Data model - abstract

[client](#) 27

[server](#) 19

DiagramBase (*from namespace*)

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>) complex type 15

E

Events

[local - client](#) 28

[local - server](#) 27

[timer - client](#) 28

Examples

[GetRasterDiagram](#) 29

[GetVectorDiagram](#) 35

[GetVectorDiagram with AddonDataSource](#) 37
overview 29

F

FaultCode (*from namespace*)

<http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer>) simple type 16

Fields - vendor-extensible 10

Full WSDL 55

G

[GetRasterDiagram example](#) 29

[GetVectorDiagram example](#) 35

[GetVectorDiagram with AddonDataSource example](#) 37

[Glossary](#) 6

[Groups](#) 18

I

[Implementer - security considerations](#) 54

[Index of security parameters](#) 54

[Informative references](#) 8

Initialization

[client](#) 27

[server](#) 19

[Introduction](#) 6

L

Local events

[client](#) 28

[server](#) 27

M

Message processing

[client](#) 28

[server](#) 19

Messages

[AddonDataSource \(from namespace
http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer\)](#)
[complex type](#) 13

[ArrayOfAddonDataSource \(from namespace
http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer\)](#)
[complex type](#) 14

[attribute groups](#) 18

[attributes](#) 18

[BaseRequestContract \(from namespace
http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer\)](#)
[complex type](#) 14

[complex types](#) 12

[DiagramBase \(from namespace
http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer\)](#)
[complex type](#) 15

[elements](#) 12

[enumerated](#) 12

[FaultCode \(from namespace
http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer\)](#)
[simple type](#) 16

[groups](#) 18

[namespaces](#) 11

[simple types](#) 16

[syntax](#) 11

[transport](#) 11

[VisioGraphicsServiceFault \(from namespace
http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer\)](#)
[complex type](#) 15

N

[Namespaces](#) 11

[Normative references](#) 6

O

[Operations](#)

[GetRasterDiagram](#) 20

[GetVectorDiagram](#) 23

[Overview \(synopsis\)](#) 8

P

[Parameters - security index](#) 54

[Preconditions](#) 9

[Prerequisites](#) 9

[Product behavior](#) 61

R

[References](#)

[informative](#) 8

[normative](#) 6

[Relationship to other protocols](#) 9

S

[Security](#)

[implementer considerations](#) 54

[parameter index](#) 54

[Sequencing rules](#)

[client](#) 28

[server](#) 19

[Server](#)

[abstract data model](#) 19

[details](#) 19

[GetRasterDiagram operation](#) 20

[GetVectorDiagram operation](#) 23

[initialization](#) 19

[local events](#) 27

[message processing](#) 19

[overview](#) 19

[sequencing rules](#) 19

[Simple types](#) 16

[FaultCode \(from namespace
http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer\)](#) 16

[Standards assignments](#) 10

[Syntax](#)

[messages - overview](#) 11

T

[Timer events](#)

[client](#) 28

[Timers](#)

[client](#) 27

[Tracking changes](#) 62

[Transport](#) 11

[Types](#)

[complex](#) 12

[simple](#) 16

V

[Vendor-extensible fields](#) 10

[Versioning](#) 9

[VisioGraphicsServiceFault \(from namespace
http://schemas.datacontract.org/2004/07/Microsoft.Office.Visio.Server.GraphicsServer\)](#)
[complex type](#) 15

W

[WSDL](#) 55