

MS9740A

Optical Spectrum Analyzer

MS9740A C# Sample Remote Library

Introduction



This document explains how to use “AnritsuRemote.dll”.

The “AnritsuRemote.dll” is dynamic link library for .NET framework, please load this dll by your Microsoft Visual Studio before the coding.

You can send remote commands to the instrument with the “Anritsu.Common” class. This class provides primitive send/receive interface. You can send any commands with this class. The “Anritsu.OSA” class provides specific interface for some major functions of MS9740A OSA. You can program without knowing the remote commands specification. Also, primitive send/receive command can be sent because this class inherits “Anritsu.Common” class.

Note:

We tested this library with National Instruments GPIB driver version of 2.4/2.5. We do not warrant the performance on other GPIB driver version.

Not only GPIB driver but also .NET Framework 1.1/2.0 Language Support is required to use this library, please install it in advance.

The “Anritsu.OSA” class does not support all functions of MS9740A.

We tested this library with Visual Studio 2008. We do not warrant the performance of other version of Visual Studio.

Installation

Run Setup.exe to install this library.

The following files will be installed to the selected folder.

(Default folder is “C:¥Program Files¥Anritsu Corporation¥RemoteSample¥”.)

1. AnritsuRemote.dll
2. RemoteSample.exe
3. NationalInstruments.NI4882.dll
4. System.Drawing.ni.dll
5. System.ni.dll
6. System.Windows.Forms.ni.dll
7. Microsoft.VisualBasic.ni.dll
8. mscorlib.ni.dll

The “AnritsuRemote.dll” is the library for controlling instruments.

The “RemoteSample.exe” is sample executable which uses “AnritsuRemote.dll”.

Please see source files for more information.

AnritsuRemote.Common class

Constructor

public Common()

Method

1.1.1 connect

public void connect (int boardNumber, int address)

Connects to the instrument.

This method has to be called before sending commands.

Parameters:

boardNumber: board number of GPIB interface

address: GPIB address

1.1.2 close

Call this method at the end

public void close()

Closes the GPIB interface.

1.1.3 WriteCommand

public void WriteCommand(String command)

Sends command to the instrument.

Parameters:

command: Remote command string

1.1.4 Query

public String Query(String command)

Sends command to the instrument and receives the response.

Parameters:

command: Remote command string

Returns:

Response string from the instrument.

1.1.5 QueryBinary

public String QueryBinary(String command)

Sends command to the instrument and receives binary data stream.

Parameters:

command: Remote command string

Returns:

Byte array response from the instrument.

AnritsuRemote.OSA class

Constructor

public OSA()

Method

1.1.6 sweepSingle

public void sweepSingle()

Performs a single sweep

1.1.7 sweepRepeat

public void sweepRepeat()

Performs a repeat sweep

1.1.8 stopSweep

public void stopSweep()

Interrupts the current sweep

1.1.9 setStartWavelength

public void setStartWavelength(double wavelength)

Sets start wavelength to OSA

Parameters:

wavelength: start wavelength

1.1.10 setStopWavelength

public void setStopWavelength()

Sets stop wavelength to OSA

Parameters:

wavelength: stop wavelength

1.1.11 setResolution

public void setResolution(Resolution resolution)

Sets resolution bandwidth to OSA

Parameters:

resolution: resolution bandwidth

1.1.12 setVBW

public void setVBW(VBW vbw)

Sets video bandwidth to OSA

Parameters:

vbw: video bandwidth

1.1.13 setSamplingPoints

public void setSamplingPoints (SamplingPoint point)

Sets video bandwidth to OSA

Parameters:

point: sampling point

1.1.14 getTraceDataA

public double[] getTraceDataA()

Gets trace data stored in Trace A.

Returns:

trace data stored in Trace A

1.1.15 getSMSR

public SMSR getSMSR()

Gets result of SMSR analysis.

Sweep has to be done before calling this method.

Returns:

Result of analysis

● United States

Anritsu Company

1155 East Collins Blvd., Suite 100, Richardson,
TX 75081, U.S.A.
Toll Free: 1-800-267-4878
Phone: +1-972-644-1777
Fax: +1-972-671-1877

● Canada

Anritsu Electronics Ltd.

700 Silver Seven Road, Suite 120, Kanata,
Ontario K2V 1C3, Canada
Phone: +1-613-591-2003
Fax: +1-613-591-1006

● Brazil

Anritsu Eletrônica Ltda.

Praça Amadeu Amaral, 27 - 1 Andar
01327-010 - Bela Vista - São Paulo - SP - Brazil
Phone: +55-11-3283-2511
Fax: +55-11-3288-6940

● Mexico

Anritsu Company, S.A. de C.V.

Av. Ejército Nacional No. 579 Piso 9, Col. Granada
11520 México, D.F., México
Phone: +52-55-1101-2370
Fax: +52-55-5254-3147

● United Kingdom

Anritsu EMEA Ltd.

200 Capability Green, Luton, Bedfordshire, LU1 3LU, U.K.
Phone: +44-1582-433200
Fax: +44-1582-731303

● France

Anritsu S.A.

12 avenue du Québec, Bâtiment Iris 1- Silic 612,
91140 VILLEBON SUR YVETTE, France
Phone: +33-1-60-92-15-50
Fax: +33-1-64-46-10-65

● Germany

Anritsu GmbH

Nemetschek Haus, Konrad-Zuse-Platz 1
81829 München, Germany
Phone: +49-89-442308-0
Fax: +49-89-442308-55

● Italy

Anritsu S.r.l.

Via Elio Vittorini 129, 00144 Roma, Italy
Phone: +39-6-509-9711
Fax: +39-6-502-2425

● Sweden

Anritsu AB

Kistagången 20B, 164 40 KISTA, Sweden
Phone: +46-8-534-707-00
Fax: +46-8-534-707-30

● Finland

Anritsu AB

Teknobulevardi 3-5, FI-01530 VANTAA, Finland
Phone: +358-20-741-8100
Fax: +358-20-741-8111

● Denmark

Anritsu A/S (Service Assurance)

Anritsu AB (Test & Measurement)
Kay Fiskers Plads 9, 2300 Copenhagen S, Denmark
Phone: +45-7211-2200
Fax: +45-7211-2210

● Russia

Anritsu EMEA Ltd.

Representation Office in Russia

Tverskaya str. 16/2, bld. 1, 7th floor.
Russia, 125009, Moscow
Phone: +7-495-363-1694
Fax: +7-495-935-8962

● United Arab Emirates

Anritsu EMEA Ltd.

Dubai Liaison Office

P O Box 500413 - Dubai Internet City
Al Thuraya Building, Tower 1, Suit 701, 7th Floor
Dubai, United Arab Emirates
Phone: +971-4-3670352
Fax: +971-4-3688460

● India

Anritsu India Private Limited

2nd & 3rd Floor, #837/1, Binnamangla 1st Stage,
Indiranagar, 100ft Road, Bangalore - 560038, India
Phone: +91-80-4058-1300
Fax: +91-80-4058-1301

● Singapore

Anritsu Pte. Ltd.

11 Chang Charn Road, #04-01, Shriro House
Singapore 159640
Phone: +65-6282-2400
Fax: +65-6282-2533

● P.R. China (Shanghai)

Anritsu (China) Co., Ltd.

Room 2701-2705, Tower A,
New Caohejing International Business Center
No. 391 Gui Ping Road Shanghai, 200233, P.R. China
Phone: +86-21-6237-0898
Fax: +86-21-6237-0899

● P.R. China (Hong Kong)

Anritsu Company Ltd.

Unit 1006-7, 10/F., Greenfield Tower, Concordia Plaza,
No. 1 Science Museum Road, Tsim Sha Tsui East,
Kowloon, Hong Kong, P.R. China
Phone: +852-2301-4980
Fax: +852-2301-3545

● Japan

Anritsu Corporation

8-5, Tamura-cho, Atsugi-shi, Kanagawa, 243-0016 Japan
Phone: +81-46-296-1221
Fax: +81-46-296-1238

● Korea

Anritsu Corporation, Ltd.

5FL, 235 Pangyoyeok-ro, Bundang-gu, Seongnam-si,
Gyeonggi-do, 463-400 Korea
Phone: +82-31-696-7750
Fax: +82-31-696-7751

● Australia

Anritsu Pty. Ltd.

Unit 21/270 Ferntree Gully Road, Notting Hill,
Victoria 3168, Australia
Phone: +61-3-9558-8177
Fax: +61-3-9558-8255

● Taiwan

Anritsu Company Inc.

7F, No. 316, Sec. 1, NeiHu Rd., Taipei 114, Taiwan
Phone: +886-2-8751-1816
Fax: +886-2-8751-1817

Please Contact: