

FTP Client Object for Wonderware Application Server

**User Guide
Ver 1.x Rev 1.5
PR 00175**

WONDERWARE FINLAND
P.O. Box 38
FIN-00371 Helsinki Finland
tel. int. + 358 9 5404940
fax int. + 358 9 5413541
www.klinkmann.com

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FTP Client Object for Wonderware Application Server

Introduction

The purpose of FTP Client Object for Wonderware Application Server (further in the text **FTP WAS Object**) is to download and upload files from/to ftp server. The FTP WAS Object is intended for use inside Wonderware System Platform environment.

The FTP WAS Object is delivered as Wonderware Application Server standard description file **Ftp_Client_vx.aaPDF** file, where **x** is a current version of FTP WAS Object.

Configuration

For general information about objects (including relationships, deployment and alarm distribution) - see the Wonderware Integrated Development Environment (IDE) documentation.

For information on configuration options for object information, scripts, user-defined attributes (UDAs), or attribute extensions, click **Extensions Help** in the Help file header.

General Configuration

The following section describes the Object Editor options for configuration and the associated attributes.

Use the **General** tab to configure and tune the behavior of the FTP WAS object:

Editor Option	Associated Attribute	Description
FTP Server	FTP.ServerAddress	FTP Server address
Port	FTP.Port	FTP Server port
Username	FTP.Username	FTP Server username
Password	FTP.Password	FTP Server user password
Passive mode	FTP.PassiveMode	FTP connection mode: False – Active mode, True – passive mode
Remote Dir	Upload.RemoteDir	FTP server directory where files are uploaded
Local Dir	Upload.LocalDir	Source of files for upload
Delete files(s) after upload	Upload.DeleteAfterUpload	If checked uploaded files are deleted from Local directory after successful upload to

		server.
FTP Path	Download.FTP_Path	Location of files on ftp server for downloading
Download To:	Download.LocalPath	Local directory where downloaded files will be stored
Delete file(s) after download	Download.DeleteAfterDownload	If True then file on ftp will be deleted after its successful download

Uploading files

You can browse Local Dir using “...” button after selecting folder object will add *.* that means that all files will be uploaded from selected folder.

You can select files by extension - C:\1*.olf or select to upload only one file -C:\1\len1.olf

Configuration example:

The screenshot shows the 'Ftp_Client_001' configuration window with the following settings:

- General Tab:**
 - FTP Server: 192.168.75.230
 - Port: 21
 - Username: gr
 - Password: *
 - Passive Mode:
- Upload Section:**
 - Remote Dir: DirOnFTPServer
 - Local Dir: C:\To FTP*.* (with a browse button "...")
 - Delete file(s) after upload:
- Download Section:**
 - FTP Path: (empty)
 - Download To: (empty) (with a browse button "...")
 - Delete file(s) after download:

If you want to delete uploaded files check the “Delete file(s) after upload” checkbox.

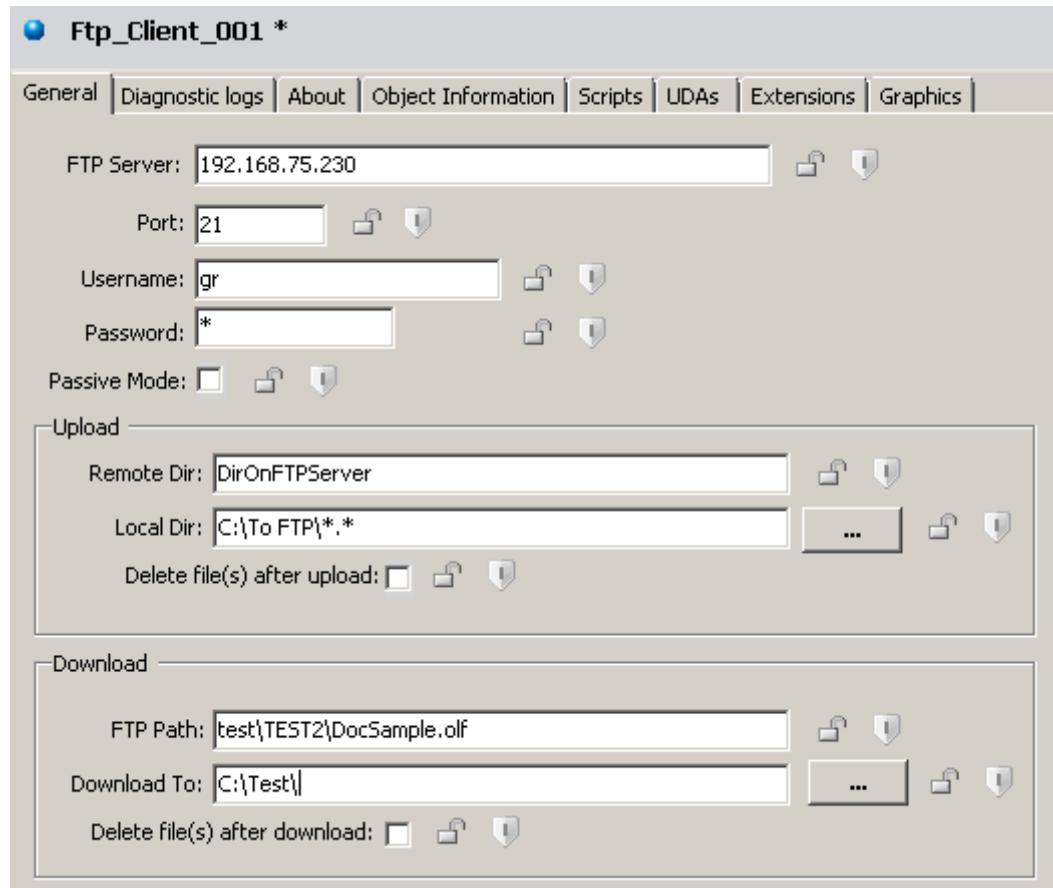
Downloading files

For file downloading via ftp you need to set following parameters:

FTP Path – location of files on ftp server.

Download To – local directory where downloaded files will be stored.

Configuration example:



Run-Time Object Attributes

All object attributes are grouped into following groups by prefix:

FTP - defines attributes for FTP server configuration

Download - defines attributes for FTP download

License - defines attributes for licensing

Upload - defines attributes for FTP upload

The following table describes the run-time only attributes for the object.

Note: Configurable run-time attributes are described in the configuration sections. For more information, see **Configuration** section above.

Attribute	Description	Run-Time Access
FTP.LastError	Shows ftp upload last error	Read-Only
FTP.Progress	Reports upload progress	Read-Only

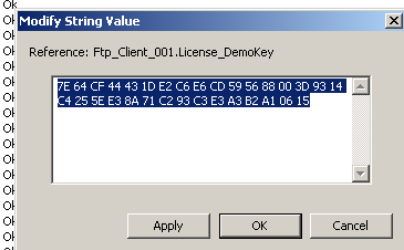
	to user	
Upload.Start	Starts upload	User
Download.Start	Starts download	User
License.CustomerID	Unique generated customer ID	Read-Only
License.DemoExpirationDate	Demo license expiration date	Read-Only
License.DemoKey	Demo license key	User
License.IsLicensed	If true product is licensed	Read-Only
License.ProductID	Product ID	Read-Only
License.SoftwareKey	Product software key	User

Licensing

The **demo license** is for free and provides an unlimited functionality, but is valid only for a limited time period. After demo license expiration upload/download request will be rejected. The demo license can be obtained by sending inquiry to info@wonderware.fi.

To activate received demo License key, you need to set it to object attribute **License.DemoKey**:

AttributeReference	Value	Timestamp	Quality	Status
Ftp_Client_001.Upload_Start	false	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Upload_RemoteDir	U\udir1\	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Upload_LocalDir	C:\temp\FU\	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Upload_DeleteAfterUpload	false	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_SoftwareKey		2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_ProductID	PR00175 100	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_IsLicensed	true	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_DemoKey	7E 64 CF 44 43 1D E2 C6 E6 CD 59 56 88 00 ...	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_DemoExpirationDate		2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_CustomerID	8d29-7275-4f7b-ff2b	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_Username	gr	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_ServerAddress	195.2.103.41	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_Progress	Valid Demo license is found. Expires: 2/28/20...	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_Port	21	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_Password	1	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_PassiveMode	true	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_LastError		2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Download_Start	false	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Download_LocalPath	C:\temp\DD\	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Download_FTPPath	D:\Dir1\Dir2\	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Download_DeleteAfterDownload	false	2/7/2011 1:46:16.109 PM	C0:Good	Ok

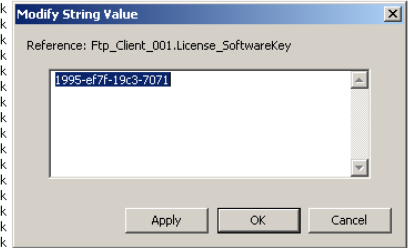


The **software key** enables to run object for unlimited time without any restrictions.

To get and enable the software key:

- get "Product ID" from object attribute **License.ProductID** (e.g. PR00175 100);
- get "Customer ID" from object attribute **License.CustomerID**;
- copy/paste it to e-mail (or text file or similar) and provide this "Customer ID" string when ordering FTP Object;
- when product is purchased, copy the received "Software Key" to object attribute **License.SoftwareKey**:

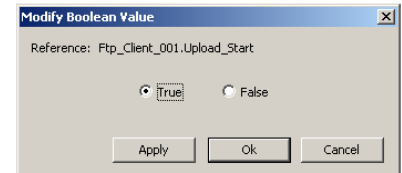
AttributeReference	Value	Timestamp	Quality	Status
Ftp_Client_001.Upload_Start	false	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Upload_RemoteDir	U\udir1\	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Upload_LocalDir	C:\temp\FU\	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Upload_DeleteAfterUpload	false	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_SoftwareKey	1995-ef7f-19c3-7071	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_ProductID	PR00175 100	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_IsLicensed	true	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_DemoKey		2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_DemoExpirationDate		2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_CustomerID	8d29-7275-4f7b-ff2b	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_Username	gr	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_ServerAddress	195.2.103.41	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_Progress	Valid license was found.	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_Port	21	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_Password	1	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_PassiveMode	true	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_LastError		2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Download_Start	false	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Download_LocalPath	C:\temp\D\D\	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Download_FTPPath	D\Dir1\Dir2\	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Download_DeleteAfterDownload	false	2/7/2011 1:46:16.109 PM	C0:Good	Ok



Uploading files in run-time

After necessary attributes are configured in FTP Object configuration editor or Object Viewer, to start ftp upload, set Attribute **Upload.Start** to true and upload starts:

AttributeReference	Value	Timestamp	Quality	Status
Ftp_Client_001.Upload_Start	false	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Upload_RemoteDir	U\udir1\	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Upload_LocalDir	C:\temp\FU\	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Upload_DeleteAfterUpload	false	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_SoftwareKey	1995-ef7f-19c3-7071	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_ProductID	PR00175 100	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_IsLicensed	true	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_DemoKey	deded	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_DemoExpirationDate		2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.License_CustomerID	8d29-7275-4f7b-ff2b	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_Username	gr	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_ServerAddress	195.2.103.41	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_Progress	Valid license was found.	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_Port	21	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_Password	1	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_PassiveMode	true	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.FTP_LastError		2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Download_Start	false	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Download_LocalPath	C:\temp\D\D\	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Download_FTPPath	D\Dir1\Dir2\	2/7/2011 1:46:16.109 PM	C0:Good	Ok
Ftp_Client_001.Download_DeleteAfterDownload	false	2/7/2011 1:46:16.109 PM	C0:Good	Ok



FTP upload also can be set up by using WAS scripts:

```
Ftp_Client_001.FTP.ServerAddress = "195.2.103.41";
Ftp_Client_001.FTP.Password = "1";
Ftp_Client_001.FTP.Username = "gr";
```

```
Ftp_Client_001.Upload.LocalDir = "C:\\temp\\*. *";
Ftp_Client_001.Upload.RemoteDir = "U\udir1\";
Ftp_Client_001.Upload.Start = true;
```

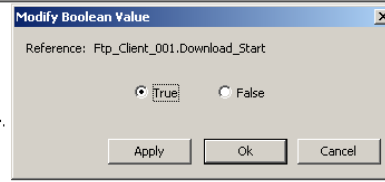
Downloading files in run-time

For file downloading via ftp you need to set following parameters:

FTP Path – location of files on ftp server.

Download To – local directory where downloaded files will be stored.

AttributeReference	Timestamp	Value	Quality	Status
Ftp_Client_001.License_ProductID	2/7/2011 4:49:41.500 PM	PR00175 100	C0:Good	Ok
Ftp_Client_001.License_IsLicensed	2/7/2011 4:49:41.500 PM	true	C0:Good	Ok
Ftp_Client_001.License_DemoKey	2/7/2011 4:49:41.500 PM		C0:Good	Ok
Ftp_Client_001.License_DemoExpirationDate	2/7/2011 4:49:41.500 PM		C0:Good	Ok
Ftp_Client_001.License_CustomerID	2/7/2011 4:49:41.500 PM	8d29-7275-4f7b-ff2b	C0:Good	Ok
Ftp_Client_001.FTP_Username	2/7/2011 4:49:41.500 PM	gr	C0:Good	Ok
Ftp_Client_001.FTP_ServerAddress	2/7/2011 4:49:41.500 PM	195.2.103.41	C0:Good	Ok
Ftp_Client_001.FTP_Progress	2/7/2011 4:49:41.500 PM	8 of 8 file(s) uploaded successfully.	C0:Good	Ok
Ftp_Client_001.FTP_Port	2/7/2011 4:49:41.500 PM	21	C0:Good	Ok
Ftp_Client_001.FTP_Password	2/7/2011 4:49:41.500 PM	1	C0:Good	Ok
Ftp_Client_001.FTP_PassiveMode	2/7/2011 4:49:41.500 PM	false	C0:Good	Ok
Ftp_Client_001.FTP_LastError	2/7/2011 4:49:41.500 PM		C0:Good	Ok
Ftp_Client_001.Download_Start	2/7/2011 4:49:41.500 PM	false	C0:Good	Ok
Ftp_Client_001.Download_LocalPath	2/7/2011 4:49:41.500 PM	C:\\temp\\	C0:Good	Ok
Ftp_Client_001.Download_FTTPath	2/7/2011 4:49:41.500 PM	D:\\Dir1*.*	C0:Good	Ok
Ftp_Client_001.Download_DeleteAfterDownload	2/7/2011 4:49:41.500 PM	false	C0:Good	Ok
Ftp_Client_001.UploadRun	2/7/2011 4:53:53.281 PM	false	C0:Good	Ok
Ftp_Client_001.DownloadRun	2/7/2011 4:53:48.609 PM	false	C0:Good	Ok



FTP download also can be set up by using WAS scripts:

```
Ftp_Client_001.FTP.ServerAddress = "195.2.103.41";
Ftp_Client_001.FTP.Password = "1";
Ftp_Client_001.FTP.Username = "gr";

Ftp_Client_001.Download.LocalPath = "C:\\temp\\";
Ftp_Client_001.Download.FTPPath = "D\\Dir1\\*.*";
Ftp_Client_001.Download.Start = true;
```

Object upgrade procedure

- 1) Open ArchestrA IDE - Undeploy all Application Engine(s) that are hosting FTP object object(s)
- 2) Import new version of FTP object into ArchestrA IDE.
- 3) Close and Open ArchestrA IDE to update object editor.
- 4) Deploy object host platform to install software update.
- 5) Deploy all Application Engine(s) that are hosting FTP object(s) to load latest AG runtime libraries.

WONDERWARE FINLAND
FTP Client Object
for Wonderware Application Server
Revision History

2010.09.02	Rev 1.0	First Release.
2010.09.03	Rev 1.1	Object version 1.
2011.01.05	Rev 1.2	Object version 2.
2011.01.11	Rev 1.3	Object version 4.
2011.03.07	Rev 1.4	Object version 7.
2014.02.14	Rev 1.5	Object version 10.