

Workshare Compare Online & iManage Work 10

Admin Guide

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Overview

The integration between Workshare Compare Online and iManage Work 10 brings the DeltaView comparison technology directly into the Work 10 browser environment so that users can initiate a comparison from within Work 10 and view the comparison in the browser too.

Workshare Compare Online displays the results of a comparison (the redline) as well as a summary of changes in the browser, providing a fast and lightweight user experience.

The screenshot displays the Workshare Compare Online interface. At the top, it shows "116 total changes" and navigation options: Change Summary, Save as PDF, Save as DOCX, Tracked Changes, Previous Change, and Next Change. Below this, there are two document versions: ORIGINAL (w1002dev16.1 - Sample Original Document.doc) and MODIFIED (w1002dev16.2 - Sample Original Document.doc.doc). The main content area shows a document titled "DRAFT ARRANGEMENT LETTER FOR STAND-ALONE BONDS". The document text includes: "The Directors Quality Bonds Plc Issuer Plc", "The Lead Manager and the other Managers (as defined in paragraph 2 below)", "[Date]", "Dear ~~Sirs~~ Sir/Madam.", "PROPOSED QUALITY BONDS PLC ISSUE BY QUALITY BONDS PLC ISSUER PLC ("the Issuer")", "Introduction", "1. This arrangement letter sets out the scope and limitations of the work to be performed by us in related with the above transaction, namely the proposed issue of [] ("the issue") which will involve the preparation by the issuer, and for which the issuer will be solely responsible, of an offering circular [in accordance with the listing rules of the [relevant] stock exchange]. This letter is written in the context of the respective roles of the directors of the issuer, the head manager ("the lead manager"), the other managers (as defined in paragraph 2 below) and ourselves.", "Addressees", "2. This arrangement letter is addressed to the directors of Quality Bonds Plc issuer plc, to the lead manager and to each of the managers who have agreed or, prior to the issue of the offering letter, will agree to participate in the proposed issue of the issue". On the left side, there is a "Page Changed content" summary table:

Page	Changed content
1	Sirs Sir/Madam.
2	6. The Lead Manager confirms the proposed issue.
2	7. Any such claims for compensation immediately by our lawyers.
3	Our work will, where ... professional guidance] in other jurisdictions,
3	Our work will, where ... professional guidance].
4	9
4	4.3
4	4.3 This clause is not intended to
4	6.4
4	The audit opinion ... the date specified.
5	It will be necessary ... matters are discussed. We shall answer queries ... negligence) for our answers
5	6
5	We shall answer queries ... negligence) for our answers
5	5

In order for Workshare's Compare Online functionality to be available from the Work 10 browser environment, installation and configuration of the following is required:

- Workshare Compare Server
- Workshare iManage Integration Server

This extends the Work 10 interface to include Workshare comparison options to a document's context menu.

System Requirements

Supported client browsers

- Google Chrome, latest version
- Microsoft Edge, latest version
- Microsoft Internet Explorer 11

Servers

You will need to install and configure the following services:

iManage Work 10

This must be installed on premise (either at your offices or a cloud data center that you control).

- For iManage Work 10.0.2 to 10.1.3:
 - Use WIIS 1.0 (if you work with Workshare Compare Desktop 9.5.3 or below)
- For iManage Work 10.0.2 to 10.2:
 - Use WIIS 1.2 (if you work with Workshare Compare Desktop 9.5.4 or above)

Workshare Compare Server

Workshare Compare Server (9.5.2 or above) is installed on Microsoft Windows Server 2016 x64 Edition. It is strongly recommended that you install Compare Server on a dedicated server instance.

The recommended hardware for Compare Server is as follows:

- **CPU:** 64-bit architecture-based computer with Intel or AMD processor with 4 cores
- **Memory:** 4GB RAM – more memory may be needed if you intend multiple users to regularly compare long and complex documents
- **Storage:** 1GB free disk space for installation; additional space required for storage of DVJS comparisons and queued comparisons

Workshare iManage Integration Server (WIIS)

This is an ASP.NET application that is called from the Work 10 web UI. It provides the configuration files needed to extend Work 10, responds to users clicking on the Workshare menu items and retrieves documents from Work 10 to send to Compare Server.

WIIS requires Windows Server 2012 R2 or 2016.

Note: Compare Server and WIIS should be installed on separate server machines.

Installation

Installing Workshare Compare Server

Workshare Compare Server is provided as a standard installation file, with an additional company-specific file for licensing purposes:

Workshare.CompareServer Install-[build #].exe	The executable file used to install Compare Server.
Product.lic	The license file that contains the Compare Server license.

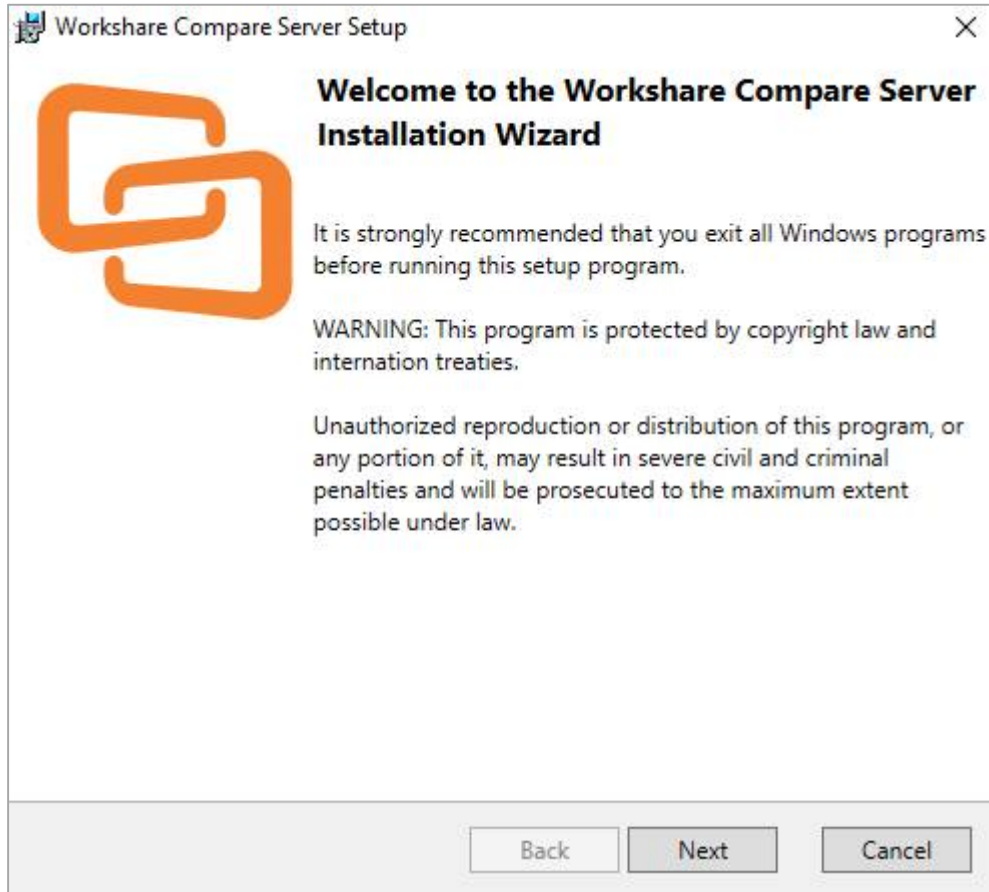
Note: Both installation files (the EXE and the LIC file) must be on a local drive of the server machine and not on a mapped network drive or UNC path.

During install or uninstall of Compare Server, information and error entries are written to log files. These plain text files are saved in the current user's temporary folder (for example, C:\Documents and Settings\Admin\Local Settings\Temp).

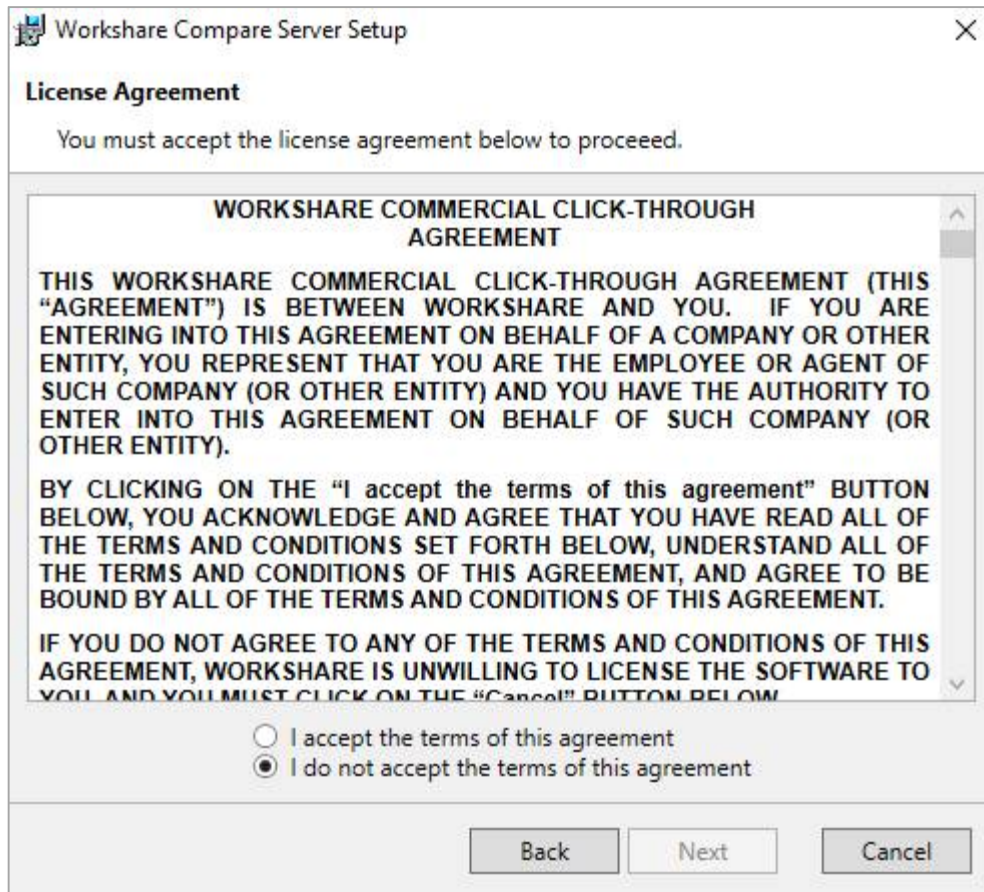
The following procedure explains how to install Compare Server on your server using the executable installer. Before beginning the installation procedure, make sure that all other programs are closed and disable any anti-virus software.

To install Compare Server:

1. Double-click the **Workshare.CompareServerInstall-9.5.XXXX.exe** file. The Workshare Compare Server Installation Wizard is displayed.



2. Click **Next**. The License Agreement screen is displayed.



The screenshot shows a dialog box titled "Workshare Compare Server Setup" with a close button (X) in the top right corner. Below the title bar, the text "License Agreement" is displayed. Underneath, a message states: "You must accept the license agreement below to proceed." The main content area contains the following text:

WORKSHARE COMMERCIAL CLICK-THROUGH AGREEMENT

THIS WORKSHARE COMMERCIAL CLICK-THROUGH AGREEMENT (THIS "AGREEMENT") IS BETWEEN WORKSHARE AND YOU. IF YOU ARE ENTERING INTO THIS AGREEMENT ON BEHALF OF A COMPANY OR OTHER ENTITY, YOU REPRESENT THAT YOU ARE THE EMPLOYEE OR AGENT OF SUCH COMPANY (OR OTHER ENTITY) AND YOU HAVE THE AUTHORITY TO ENTER INTO THIS AGREEMENT ON BEHALF OF SUCH COMPANY (OR OTHER ENTITY).

BY CLICKING ON THE "I accept the terms of this agreement" BUTTON BELOW, YOU ACKNOWLEDGE AND AGREE THAT YOU HAVE READ ALL OF THE TERMS AND CONDITIONS SET FORTH BELOW, UNDERSTAND ALL OF THE TERMS AND CONDITIONS OF THIS AGREEMENT, AND AGREE TO BE BOUND BY ALL OF THE TERMS AND CONDITIONS OF THIS AGREEMENT.

IF YOU DO NOT AGREE TO ANY OF THE TERMS AND CONDITIONS OF THIS AGREEMENT, WORKSHARE IS UNWILLING TO LICENSE THE SOFTWARE TO YOU AND YOU MUST CLICK ON THE "Cancel" BUTTON BELOW.

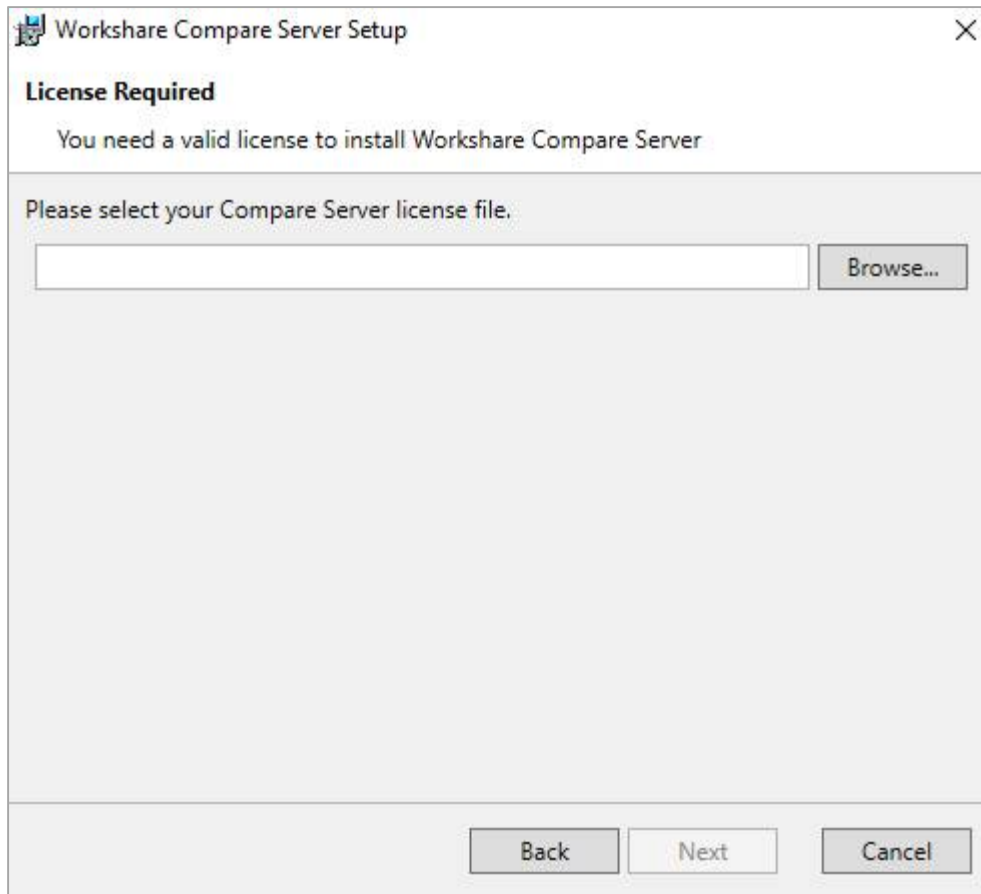
Below the text, there are two radio buttons:

- I accept the terms of this agreement
- I do not accept the terms of this agreement

At the bottom of the dialog box, there are three buttons: "Back", "Next", and "Cancel".

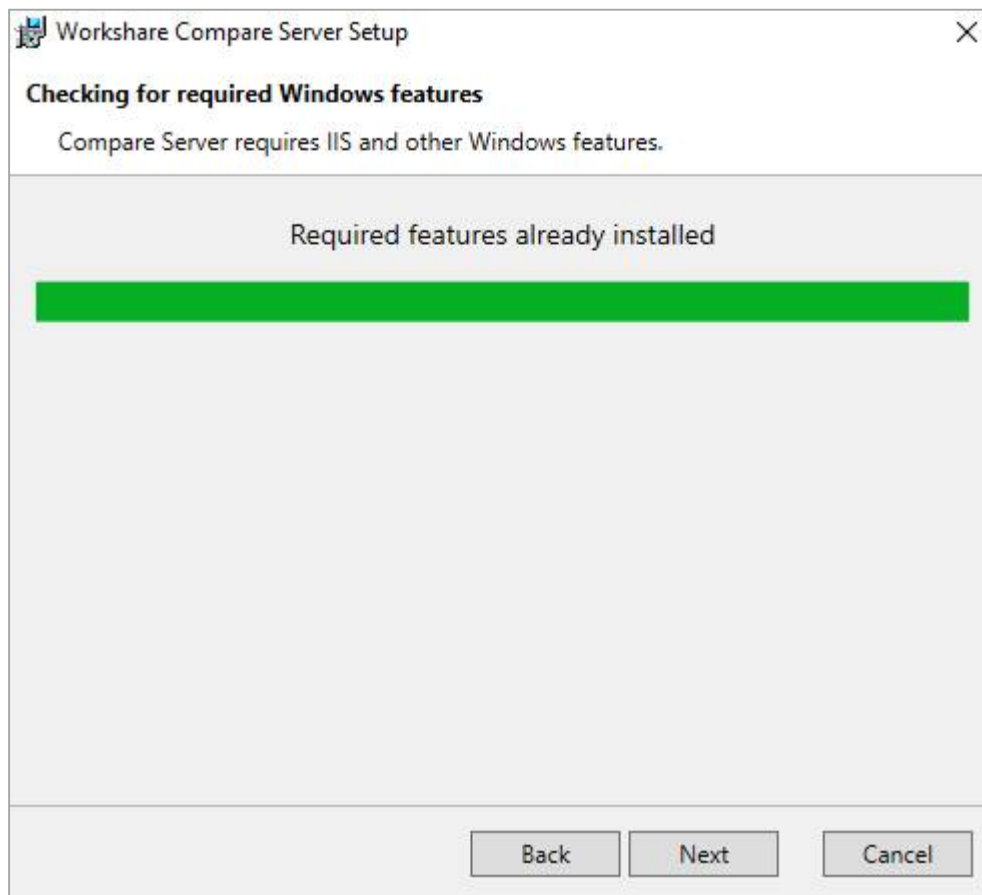
3. Read the agreement and select the **I accept the terms of this agreement** radio button.

4. Click **Next**.

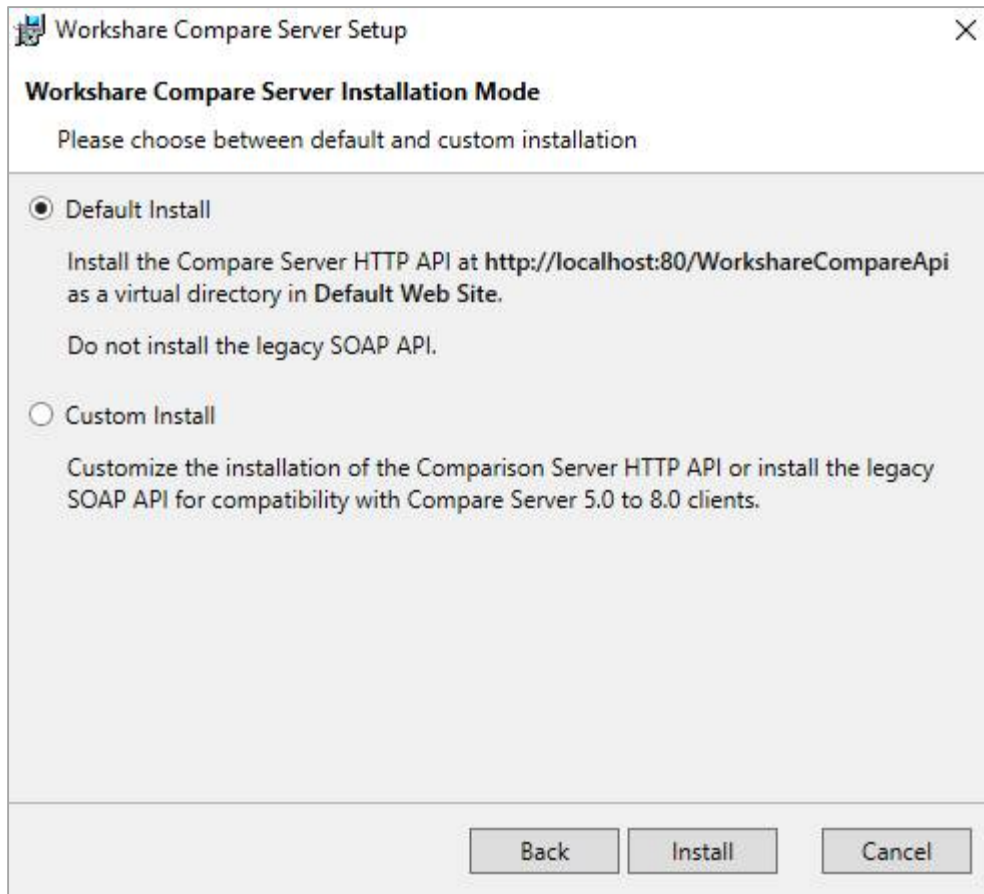


5. Workshare will automatically detect your license file if it is in the same location as the installation file. If necessary, browse to the location of your license (.lic) file. This location **MUST** be on the local machine.

6. Click **Next**. Workshare checks you have the required Windows components and other prerequisites. If any are not found, Workshare will install them.



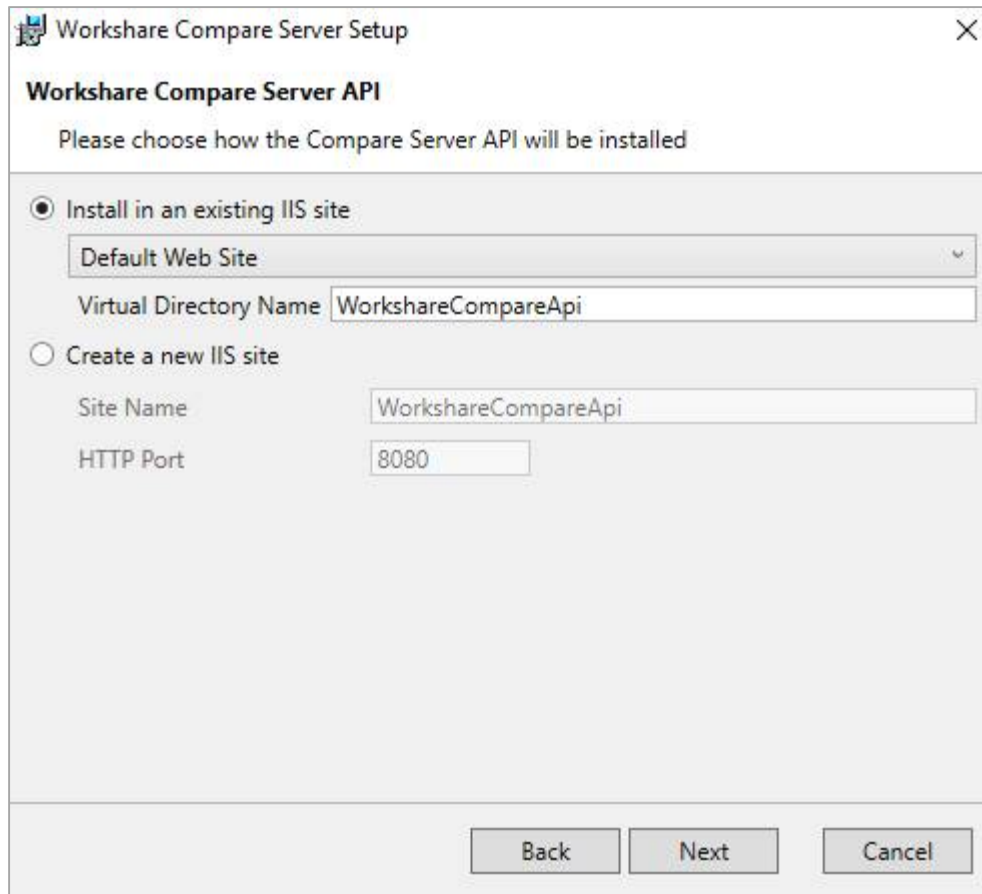
Note: If the installer cannot install the required components, it will display an error showing the command it tried to run. You can troubleshoot by reinserting your Windows Server installation media and rerunning the installer, or by running the command manually.

7. Click **Next**.

8. Continue in one of the following ways:

- Leave **Default Install** selected and click **Install**. Workshare Compare Server is installed as a web service with RESTful APIs. Go to step 13.
- If you want to customize the installation of the RESTful APIs or you want to install the legacy SOAP APIs, select **Custom Install** and click **Install**.

The following screen is displayed.



The screenshot shows a Windows-style dialog box titled "Workshare Compare Server Setup". The main heading is "Workshare Compare Server API". Below the heading, it says "Please choose how the Compare Server API will be installed". There are two radio button options: "Install in an existing IIS site" (which is selected) and "Create a new IIS site". Under the "Install in an existing IIS site" option, there is a dropdown menu for "Default Web Site" and a text input field for "Virtual Directory Name" containing "WorkshareCompareApi". Under the "Create a new IIS site" option, there is a text input field for "Site Name" containing "WorkshareCompareApi" and a text input field for "HTTP Port" containing "8080". At the bottom of the dialog, there are three buttons: "Back", "Next", and "Cancel".

9. Select an existing IIS site or create a new IIS site for the installation of the RESTful APIs.

10. Click **Next**.

The screenshot shows a Windows dialog box titled "Workshare Compare Server Setup" with a close button (X) in the top right corner. The main heading is "Workshare Compare Server Legacy SOAP API". Below the heading is the instruction: "Please choose how the Compare Server Legacy SOAP API will be installed".

There are three radio button options:

- Do not install the legacy SOAP API
- As a Windows Service
 - HTTP Port:
 - TCP Port:
- As a Website hosted within IIS
 - Use an Existing Site
 - Default Web Site:
 - Virtual Directory Name:
 - Install in a New Site
 - Site Name:
 - HTTP Port:

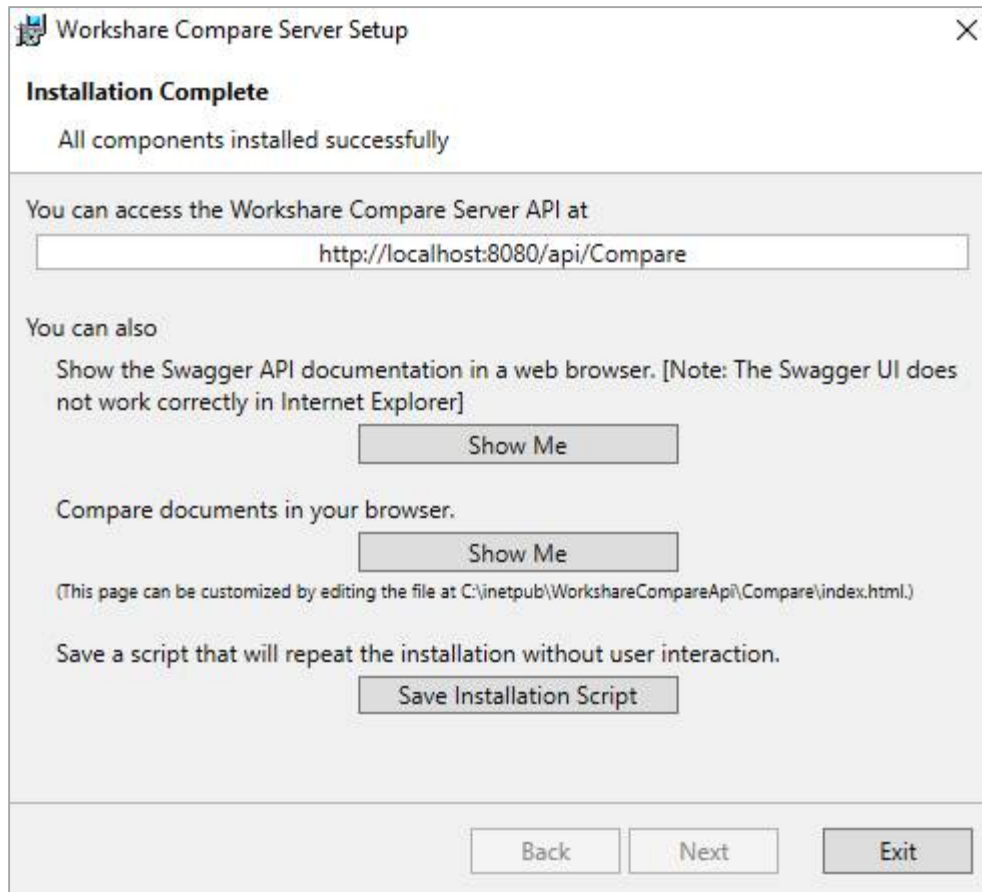
At the bottom of the dialog box are three buttons: "Back", "Install", and "Cancel".

11. If you want to install the legacy SOAP APIs, select how to install them:

- **As a Windows Service:** This provides access to the comparison engine via the HTTP, TCP and Named Pipe protocols. Specify the HTTP and TCP ports.
- **As a Website hosted within IIS:** This provides access to the comparison engine via the HTTP and HTTPS protocols. If you want to configure the website further, use IIS Manager. Specify the website and port, or you can leave the default settings.

Note: Do not use a port that is already in use for a new website, i.e. port 80 if you have an existing website.

12. Click **Install**. Compare Server is installed.



13. Once installation is complete, the confirmation dialog provides useful information about your install:

- The URL for the API is provided.
- You can display the Swagger API documentation in your browser. You can also try a test comparison from there.

Note: *If you are using the Microsoft Internet Explorer browser, the Swagger API documentation may not display correctly.*

- You can run a comparison in your browser.
- Click **Save Installation Script** if you want to save your installation settings for further Compare Server installs.

14. Click **Exit**.

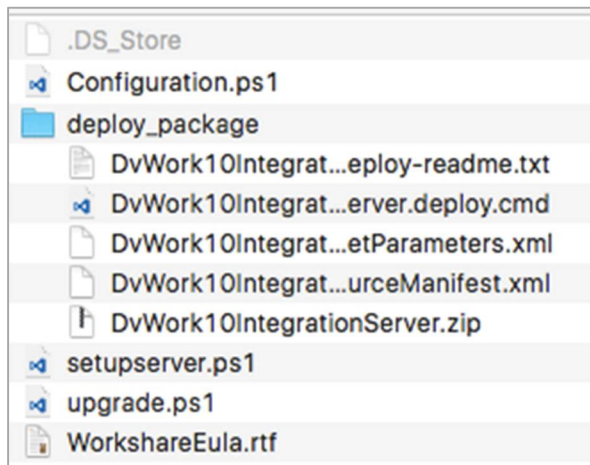
Installing WIIS

The WIIS provides the APIs needed to embed Workshare's comparison technology into the Work 10 UI. It also provides the web interface so that comparisons launched from Work 10 can be displayed in a browser.

If you have Workshare Compare Desktop, you may want to install WIIS so that users can launch comparisons from a document's context menu in Work 10 and the redline is displayed in Workshare's desktop application. When both Compare Server is available and a user has Compare Desktop, the user can choose whether to run and view the comparison in Workshare Compare Online or Workshare Compare Desktop.

To install WIIS:

1. Extract the zip file to a single folder.



2. Edit Configuration.ps1 to provide specific details of your environment. You must provide:
 - **\$WorkServer**: The full URL of your Work 10 server. Both the WIIS server and users' web browsers must be able to connect to this URL.
 - **\$CompareServer**: The full URL of your Compare Server. Users' web browsers must be able to connect to this URL.
 - **\$ThisIntegrationServer**: The full URL of WIIS. Users' web browsers must be able to connect to this URL.

Note: You may also edit this file to change the install location of the application, and to provide an SSL certificate to use.

3. Run setupserver.ps1. This will:
 - Install the prerequisites needed to run the ASP.NET application
 - Install the ASP.NET application
 - If an SSL certificate is provided, bind install the certificate and bind the service to HTTPS

4. Make sure the application is bound to HTTPS.

If you did not provide a certificate, then you must make sure WIIS is available on HTTPS. This is done through Internet Information Services Manager (IIS Manager). A self-certifying certificate can be used - see the section on HTTPS ([HTTPS and SSL certificates](#)).

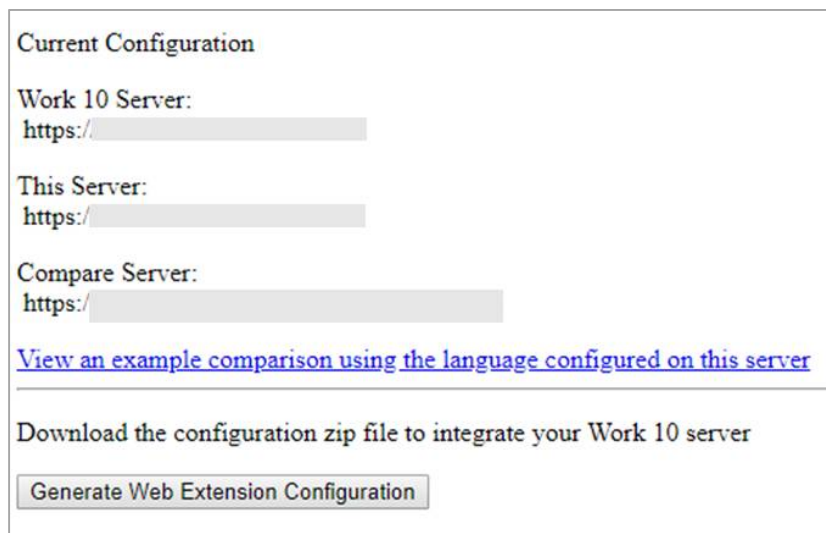
5. Look in IIS Manager to check the DvWork10 site is running.
6. Navigate to `https://<<WIIS-URL>>/admin` (where WIIS-URL is the name of the server where you installed WIIS) to verify that the values you provided in Configuration.ps1 have been successfully applied.

Configuration

Adding Workshare options to Work 10's menus is done by installing a configuration file on the Work 10 server. First you download the configuration file from WIIS and then you install it on your Work 10 server. The install process varies according to your version of iManage Work 10.

Downloading configuration file from WIIS

1. Navigate to `https://<<WIIS-URL>/admin`. The page shows the details of your servers from Configuration.ps1.



The screenshot shows a web interface titled "Current Configuration". It contains three text input fields, each with a "https://" prefix and a greyed-out area for the rest of the URL. The fields are labeled "Work 10 Server:", "This Server:", and "Compare Server:". Below these fields is a blue hyperlink: "View an example comparison using the language configured on this server". At the bottom of the form, there is a heading "Download the configuration zip file to integrate your Work 10 server" and a button labeled "Generate Web Extension Configuration".

2. Click the **Generate Web Extension Configuration** button.

Installing WIIS extension on iManage Work 10.1.3 and below

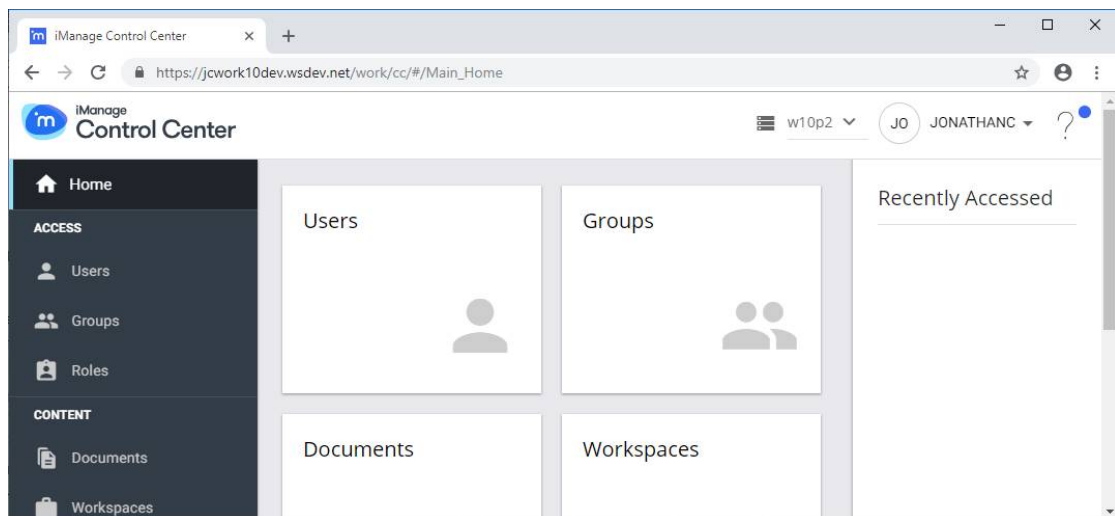
1. Copy the configuration file to your Work 10 server. The workshare.zip file should be copied to <<WorkSite Root Folder>>\web_module\ext\installed. In a default installation, this folder is C:\Program Files\Autonomy\WorkSite\web_module\ext\installed.
2. Restart the Work 10 service.

The Work 10 service reads its configuration on start up. You can verify that the extensions have been installed in the Worksite log - <<Worksite Root Folder>>\Apache\logs\worksite.log. You should see an entry like:

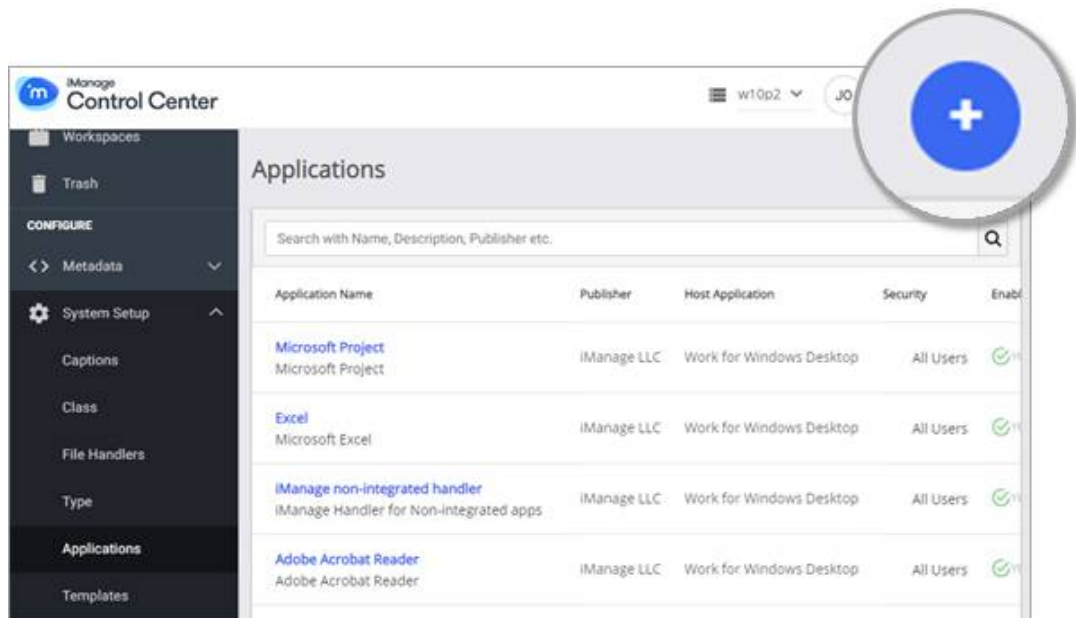
```
[2017-08-17 16:37:30,394] [tid 7520] [ip -] [user -] [persona -] [client -]
[ws.login.oauth2client] [INFO] Registered client "Workshare Integration" with 3
extension(s)
```

Installing WIIS extension on iManage Work 10.2 and above

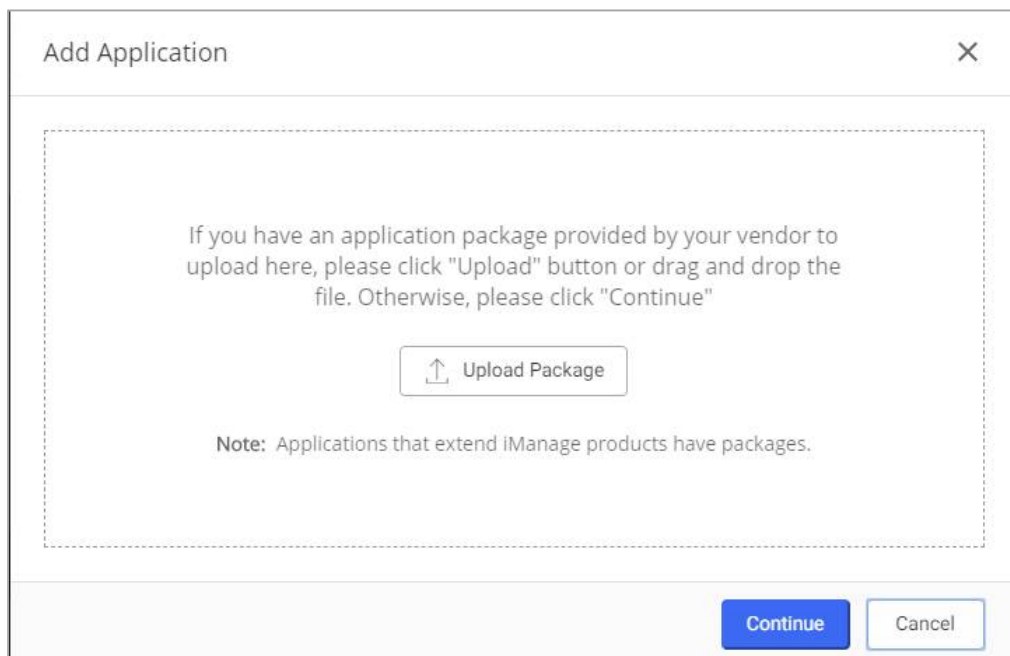
1. Navigate to the iManage Work Control Center at [https://\[work-server-name\]/work/cc/](https://[work-server-name]/work/cc/).



2. In the left menu bar, scroll to **Configure > System Setup > Applications**.




3. Click the add button in the top right of the screen.




4. Upload the zip file downloaded from the WIIS server – either by drag & drop onto the dialog or by browsing for it.

5. **Do not click Continue yet.** Wait for Work 10 to process the uploaded file.

Add Application ✕


Configuration Authentication Security


workshare.zip Change Package


 This application adds user interface extensions to iManage Work Web

Name
Workshare Integration Description

Publisher
Workshare Website

Client ID *
NDeltaviewN Contact Email

 Auto-generate

Enable  YES ▼

Back Continue Cancel

- Once the above screen is displayed, click **Continue**.

Add Application ✕

Configuration — Authentication — Security

i This application adds user interface extensions to iManage Work Web

Does this application require authentication with Work? Yes No

Client Secret *
D45808F3-0430-42E6-92E5 [Edit](#)

Client Secret Expires On
 Never Expires

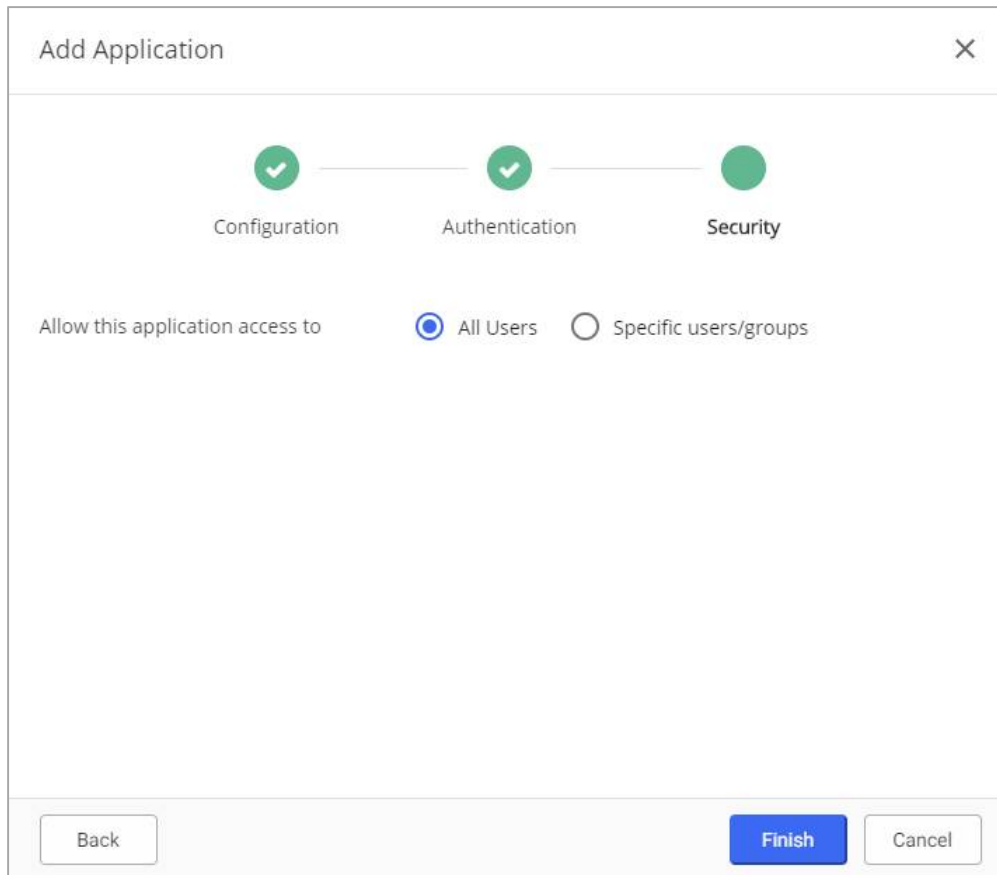
Redirect URL *
 ⊕

Application Type Native Web

Client Type Public Confidential

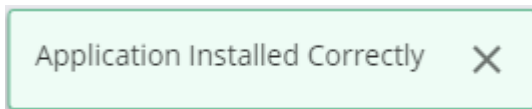
- Under **Client Type**, select the **Confidential** radio button.

8. Click **Continue**.



The screenshot shows a dialog box titled "Add Application" with a close button (X) in the top right corner. The dialog contains a progress indicator with three steps: "Configuration", "Authentication", and "Security". The first two steps are marked with green checkmarks, and the third is marked with a green circle. Below the progress indicator, there is a section "Allow this application access to" with two radio buttons: "All Users" (selected) and "Specific users/groups". At the bottom of the dialog, there are three buttons: "Back", "Finish", and "Cancel".

9. The above screen enables you to restrict WIIS functionality to specified users or groups. This can be changed later – refer to iManage Work 10 administration guides for details.
10. Click **Finish**. The application is installed and a confirmation message is displayed.



HTTPS and SSL certificates

All interaction between the Work 10 server, WIIS, Compare Server and the users' browsers must be over HTTPS. This is because authentication of the user for the WIIS is handled by OAuth2 on the Work 10 server.

Users' browsers must trust the certificates of the Work 10 server, the WIIS and Compare Server.

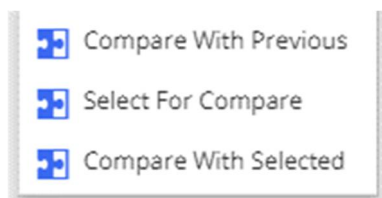
The WIIS must trust the certificates of the Work 10 server and Compare Server. There are no direct HTTPS calls from the Work 10 server to the other servers: the interaction between Work 10 and WIIS is initiated from the Work 10 web UI in a browser.

The User Interface

Workshare options added to Work 10

The Work 10 web UI is extended to allow the user to choose two documents (or versions) to be compared by Workshare.

The following options are added to the Work 10 "kebab" menu.

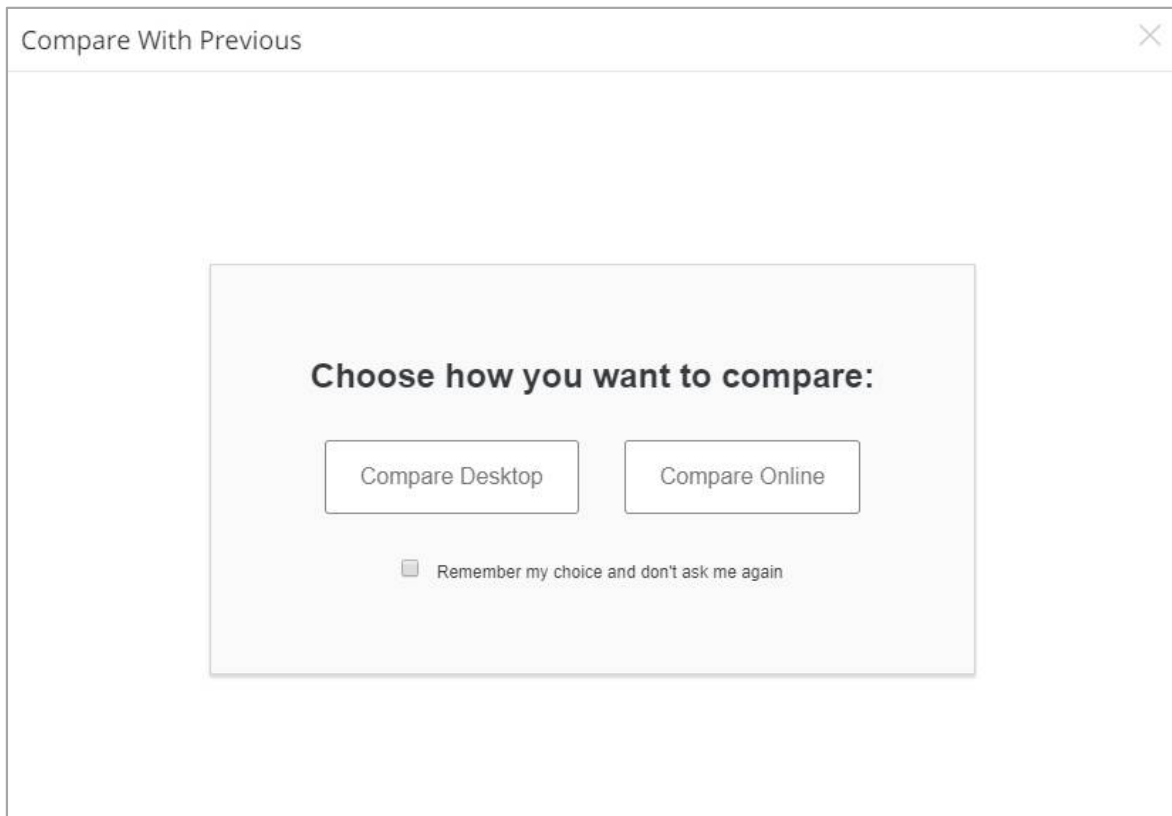


These menu items are only available if the selected document is in DOC, DOCX, RTF or PDF format. In addition:

Option	Description
Compare With Previous	This option is available if the selected document has versions. Clicking this option initiates a comparison with the immediately previous version.
Select For Compare	<p>This option is always available for files of the supported file types. Clicking this option stores the ID of the selected document.</p> <div style="border: 1px solid orange; padding: 5px; margin: 10px 0;"> <p><i>Note: This is done through a hidden iframe loaded from WIIS. If the certificate of the WIIS server is not trusted by the browser, this functionality will fail and there will be no feedback to the user.</i></p> </div> <p>The most recently selected document will be stored until the end of the Work 10 browser session.</p> <p>To deselect a document, click Select For Compare for another document.</p>
Compare With Selected	<p>This option is available if a document has already been selected (using Select For Compare).</p> <p>Clicking this option initiates a comparison between the previously selected document and this one.</p>

The comparison flow

Once two documents have been chosen and a comparison initiated the following screen is displayed inside the Work 10 web UI.



A user is presented with the choice of:

- Running the comparison in Compare Online and viewing the comparison in the browser
- or
- Running the comparison in Compare Desktop and viewing the comparison in the Workshare desktop application.

The user's preference can be stored to skip this choice on subsequent comparisons.

Compare Desktop

Clicking this button launches the Workshare comparison desktop product with the document selection dialog populated with the two documents selected through the web UI.

Note: Workshare Compare/Professional 9.5.1 (or later) with iManage integration must be installed on the desktop.

Compare Online

Clicking this button means Compare Server runs the comparison. The documents are downloaded from Work 10, sent to Compare Server and the resulting comparison (or redline) is displayed in the browser.

The screenshot displays the 'Compare With Selected' window. At the top, it shows '114 total changes' and navigation buttons for 'Change Summary', 'Save as PDF', 'Save as DOCX', 'Tracked Changes', 'Previous Change', and 'Next Change'. Below this, there are tabs for 'ORIGINAL' (w10p2021.1 - Sample Original Document.doc) and 'MODIFIED' (w10p2020.1 - Sample Modified Document.doc). The main area shows a document titled 'DRAFT ARRANGEMENT LETTER FOR STAND-ALONE BONDS'. The text includes: 'The Directors Quality Bonds Plc Issuer Plc', 'The Lead Manager and the other Managers (as defined in paragraph 2 below)', '[Date]', 'Dear Sirs/Sir/Madam.', and 'PROPOSED QUALITY BONDS PLC ISSUE BY QUALITY BONDS PLC ISSUER PLC ("the Issuer")'. An 'Introduction' section follows, starting with '1. This arrangement letter sets out the scope and limitations of the work to be performed by us in related with the above transaction, namely the proposed issue of [] ("the issue") which will involve the preparation by the issuer, and for which the issuer will be solely responsible, of an offering circular in accordance with the listing rules of the [relevant] stock exchange. This letter is written in the context of the respective roles of the directors of the issuer, the head manager ("the lead manager"), the other managers'. The left sidebar lists change categories: 'CONTENT (59)', 'NUMBERING (11)', 'CAPITALIZATION (1)', 'PUNCTUATION (3)', and 'FOOTNOTE (6)'. Below this, a table shows 'Page Changed content' with various changes highlighted in red and green.

For a description of the Workshare Compare Online interface, refer to this knowledge base article - [View your comparison in a browser.](#)

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For details of Workshare patents, see www.workshare.com/patents

Revisions

Published: 17/08/18

Revised for WIIS 1.2: 13/12/18; minor revision: 10/01/19, 13/5/19 & 05/08/19

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