



# White Paper

## Fabasoft Cloud Client

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## 1 Introduction

Fabasoft provides a native client that allows, for example, editing documents directly via the web client or synchronizing documents on the workstation. This document describes how to install and configure the Fabasoft Cloud Client.

The Fabasoft Cloud Client can be used with following products:

- Fabasoft Cloud
- Fabasoft Private Cloud

There are two native client types:

- **Fabasoft Cloud Client**  
In general this client is the right choice. If enterprise policies do not allow installing software, administrators can distribute the enterprise client. The functionality of the Fabasoft Cloud Client and Fabasoft Cloud Enterprise Client is the same.
- **Fabasoft Cloud Enterprise Client**  
In the enterprise environment the installation of software in local user profiles is sometimes not possible (e.g. users are not allowed to execute MSI files or with the use of terminal servers). The enterprise client is installed for all users of a computer (so-called per-machine installation) and can be centrally distributed by administrators.  
**Attention:** The installation of the Fabasoft Cloud Client and the Fabasoft Cloud Enterprise Client on the same computer is not supported.

## 2 Software Requirements

**System environment:** All information contained in this document implicitly assumes a Microsoft Windows, Ubuntu or Apple macOS environment.

**Supported platforms:** For detailed information on supported operating systems and software, see the software product information.

**Descriptions in this document are based on the following software:**

- Microsoft Windows 7 Enterprise SP1
- Microsoft Windows 8.1 Enterprise
- Microsoft Windows 10 Enterprise
- Apple macOS High Sierra 10.14 (x64)
- Ubuntu 18.04 (x64) with Xorg window system

## 3 Microsoft Windows

This chapter refers to a Microsoft Windows operating system.

### 3.1 Installing

#### Fabasoft Cloud Client

To install the Fabasoft Cloud Client (into the per-user installation context), perform the following steps:

1. Download the `CloudClient.msi` installation package from the Fabasoft Cloud or Fabasoft Private Cloud.

<https://at.cloud.fabasoft.com/folio/fscasp/content/lib/CloudClient.msi>  
<https://<host private cloud>/cloud/fscasp/content/lib/CloudClient.msi>

2. Run the `CloudClient.msi` installation package and follow the installation wizard.

The Fabasoft Cloud Client is installed in the following folder:

`C:\Users\<username>\AppData\Local\Fabasoft\`

**Note:** The installation of the Fabasoft Cloud Client and the Fabasoft Cloud Enterprise Client on the same computer is not supported.

## Fabasoft Cloud Enterprise Client

To install the Fabasoft Cloud Enterprise Client (into the per-machine installation context), perform the following steps:

1. Download the `CloudClientEnterprise.msi` installation package from the Fabasoft Cloud or Fabasoft Private Cloud.

<https://at.cloud.fabasoft.com/folio/fscasp/content/lib/CloudClientEnterprise.msi>  
<https://<host private cloud>/cloud/fscasp/content/lib/CloudClientEnterprise.msi>

2. Make sure that you have administrative rights.
3. Run the `CloudClientEnterprise.msi` installation package and follow the installation wizard.

The Fabasoft Cloud Enterprise Client is installed in the following folder:

`C:\Program Files (x86)\Fabasoft\Cloud\Client\.`

In case of a 32 bit operating system the base folder is `Program Files`.

**Note:** The installation of the Fabasoft Cloud Client and the Fabasoft Cloud Enterprise Client on the same computer is not supported.

## 3.2 Deployment via Active Directory

The deployment of per-machine installation packages (MSI) via Active Directory is described in the white paper "[Deployment of ActiveX Controls via Microsoft Windows Active Directory](#)".

### 3.2.1 Deployment of the Google Chrome Extension

The deployment of the Google Chrome Extension is described in the official Chromium documentation: <http://dev.chromium.org/administrators/policy-list-3#ExtensionInstallForcelist>

In case of the Fabasoft Cloud Enterprise Client the following key should be deployed:

`HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Google\Chrome\ExtensionInstallForcelist`

`"1"="icjlkccflchmagmkfidekficomdnlcig;https://clients2.google.com/service/update2/crx"`

### 3.2.2 Deployment of the Mozilla Firefox Extension

The deployment of the Mozilla Firefox Extension is described in the official Mozilla documentation: [https://developer.mozilla.org/en-US/Add-ons/WebExtensions/Alternative\\_distribution\\_options/Add-ons\\_in\\_the\\_enterprise](https://developer.mozilla.org/en-US/Add-ons/WebExtensions/Alternative_distribution_options/Add-ons_in_the_enterprise)

In case of the Fabasoft Cloud Enterprise Client the following key should be deployed:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Mozilla\Firefox\Extensions
```

```
"nmextmozpu@fabasoft.com"="<path_to_extracted_CloudFirefoxExtension_xpi>"
```

This archive file is located on the web server and can be extracted using any ZIP extractor:

```
https://at.cloud.fabasoft.com/folio/fscasp/content/lib/CloudFirefoxExtension.xpi  
https://<host private cloud>/cloud/fscasp/content/lib/CloudFirefoxExtension.xpi
```

**Note:** Without changing the Mozilla Firefox preferences (as described in the documentation: `extensions.autoDisableScopes`, `extensions.enabledScopes`), each user will be notified on the next application startup, that a new Mozilla Firefox Extension was installed. In this case, the user must explicitly confirm, that the Mozilla Firefox Extension should be enabled.

### 3.2.3 Deployment of the Microsoft Edge Extension

For deploying an offline app on a Windows client, you have to activate “sideloading” on your client as described here:

<https://docs.microsoft.com/en-us/windows-hardware/manufacture/desktop/sideload-apps-with-dism-s14>

After sideloading has been activated, you can download the Microsoft Edge Extension from your web server:

```
https://at.cloud.fabasoft.com/folio/fscasp/content/lib/CloudEdgeExtension.appxbundle  
https://<host private cloud>/cloud/fscasp/content/lib/CloudEdgeExtension.appxbundle
```

Install the application using PowerShell by specifying the package path as described in the article above:

```
Add-AppxPackage -Path <path_to_bundle>\CloudEdgeExtension.appxbundle
```

## 3.3 Trusted Sites for Fabasoft app.telemetry

To allow that Fabasoft app.telemetry get more information about the client configuration and taking a screenshot, when pressing the app.telemetry feedback button you have to manually set a trusted site registry key for your web service URL.

**Key:** HKEY\_CURRENT\_USER\Software\Fabasoft\WebClient\TrustedSites\Cloud\<web service URL e.g. at.cloud.fabasoft.com>

**Note:** For the Fabasoft Cloud/Fabasoft Private Cloud this key will be set automatically after a successful log-in.

## 3.4 General Settings

To avoid that users have to make settings on their own and for best performance deploy following settings on the clients:

- Add the defined domain name (HTTPS) to the trusted sites. This is necessary to enable features like opening and saving documents directly via the web browser.

**Key:** HKEY\_CURRENT\_USER\Software\Microsoft\Windows\CurrentVersion\Internet Settings\ZoneMap\Domains\<domain name e.g. fabasoft.com>\<hostname e.g. \*.cloud>

**Value name:** https

**Type:** REG\_DWORD

**Value data:** 2

- Disable ActiveX Filtering (<https://support.microsoft.com/en-us/help/17469/windows-internet-explorer-use-activex-controls>).  
Key: HKEY\_CURRENT\_USER\Software\Microsoft\Internet Explorer\Safety\ActiveXFiltering  
Value name: IsEnabled  
Type: REG\_DWORD  
Value data: 0
- Enable setting and retrieving HTTP cookies for the trusted site. This setting is necessary to avoid warnings in the log-in dialog of the Fabasoft Cloud Client.  
Key: HKEY\_CURRENT\_USER\Software\Microsoft\Windows\CurrentVersion\Internet Settings\Zones\2  
Value name: 1A10  
Type: REG\_DWORD  
Value data: 0
- Increase the WebDAV file size limit to 1 GB to be able to work with large documents.  
Key: HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\WebClient\Parameters  
Value name: FileSizeLimitInBytes  
Type: REG\_DWORD  
Value data: 1073741824
- Allow opening hyperlinks in Microsoft Office (<http://support.microsoft.com/kb/218153>).  
Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Office\9.0\Common\Internet (32 bit operating system)  
or  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Office\9.0\Common\Internet (64 bit operating system)  
Value name: ForceShellExecute  
Type: REG\_DWORD  
Value data: 1

For more information about the meaning of these keys, consult <http://msdn.microsoft.com>.

### 3.5 Predefined Settings for Users

The users have the possibility to make different settings in the options dialog. These settings can also be set by the administrator so that the users can no longer change them.

The predefined settings can be defined in the following registry key:

HKEY\_LOCAL\_MACHINE\SOFTWARE\Fabasoft\NativeClient\Cloud\options

For more information about the functionality, see

<https://help.cloud.fabasoft.com/index.php?topic=doc/User-Help-Fabasoft-Cloud-eng/the-fabasoft-cloud-client.htm#options-dialog>

- Restrict Path Length  
Value name: SYNC\_RESTRICTPATHLEN  
Type: REG\_DWORD  
Value data (disabled): 0  
Value data (enabled): 1
- Enable LAN Synchronization  
Value name: SYNC\_ENABLESYNCONLAN  
Type: REG\_DWORD



- Value data (disabled): 0  
Value data (enabled): 1
- Automatic Proxy Login  
Value name: HTTP\_PROXYAUTOLOGIN  
Type: REG\_DWORD  
Value data (disabled): 0  
Value data (enabled): 1
  - Download Speed Limitation  
Value name: HTTP\_DOWNLOADLIMITED  
Type: REG\_DWORD  
Value data (disabled): 0  
Value data (enabled): 1
  - Download Speed Limit (KB/s) (required if HTTP\_DOWNLOADLIMITED is enabled)  
Value name: HTTP\_DOWNLOADLIMIT  
Type: REG\_DWORD  
Value data: <KB/s>
  - Upload Speed Limitation  
Value name: HTTP\_UPLOADLIMITED  
Type: REG\_DWORD  
Value data (disabled): 0  
Value data (enabled): 1
  - Upload Speed Limit (KB/s) (required if HTTP\_UPLOADLIMITED is enabled)  
Value name: HTTP\_UPLOADLIMIT  
Type: REG\_DWORD  
Value data: <KB/s>
  - Generate PDF Preview on the Workstation (Unencrypted Documents)  
Value name: CONT\_PDF  
Type: REG\_DWORD  
Value data (disabled): 0  
Value data (enabled): 1  
Value data (specific enabled): 2
  - PDF Preview Third-Party Applications (required if CONT\_PDF is set to specific enabled)  
Value name: CONT\_PDFAPPS  
Type: REG\_DWORD  
Microsoft Word: 0x04  
Microsoft Excel: 0x08  
Microsoft PowerPoint: 0x10  
Microsoft Visio: 0x20  
**Note:** For activating several third-party applications sum up the hexadecimal values (e.g. Microsoft Word and Microsoft Excel: 0xC).
  - Generate PDF Preview on the Workstation (Encrypted Documents)  
Value name: CONT\_PDFENC  
Type: REG\_DWORD  
Value data (disabled): 0  
Value data (enabled): 1  
Value data (specific enabled): 2

- PDF Preview Third-Party Applications (required if `CONT_PDFENC` is set to specific enabled)  
Value name: `CONT_PDFENCAPPS`  
Type: `REG_DWORD`  
Microsoft Word: `0x04`  
Microsoft Excel: `0x08`  
Microsoft PowerPoint: `0x10`  
Microsoft Visio: `0x20`  
**Note:** For activating several third-party applications sum up the hexadecimal values (e.g. Microsoft Word and Microsoft Excel: `0xC`).
- Generate Thumbnails From the PDF Preview on the Workstation (Encrypted Documents)  
Value name: `CONT_THUMBSENC`  
Type: `REG_DWORD`  
Value data (disabled): `0`  
Value data (enabled): `1`
- Disable Autoupdate  
Value name: `AUTOUPDATE_ENABLE`  
Type: `REG_DWORD`  
Value data (disabled): `0`

### 3.6 File and Registry Locations

The data in these locations must not be removed or modified. The configuration settings will be written during the setup process and/or when logging in with the Fabasoft Web Browser Client.

- `C:\Users\<user>\AppData\Local\Temp (%TEMP%)`
- `C:\Users\<user>\AppData\Local\Fabasoft (%LOCALAPPDATA%)`
- `C:\Users\<user>\<synchronized folder> (%USERPROFILE%)`
- `C:\Program Files (x86)\Fabasoft (Fabasoft Cloud Enterprise Client)`
- `HKEY_CURRENT_USER\Software\Fabasoft`
- `HKEY_CURRENT_USER\Software\Classes\CLSID\<CLSID>`
- `HKEY_CURRENT_USER\Software\Classes\<ProgID>`
- `HKEY_CURRENT_USER\Software\Microsoft\Office\Excel\AddIns\<ProgID>`
- `HKEY_CURRENT_USER\Software\Microsoft\Office\Outlook\AddIns\<ProgID>`
- `HKEY_CURRENT_USER\Software\Microsoft\Office\PowerPoint\AddIns\<ProgID>`
- `HKEY_CURRENT_USER\Software\Microsoft\Office\Word\AddIns\<ProgID>`
- `HKEY_CURRENT_USER\Software\Mozilla\NativeMessagingHosts\<ID>`
- `HKEY_CURRENT_USER\Software\Google\Chrome\NativeMessagingHosts\<ID>`
- `HKEY_LOCAL_MACHINE\SOFTWARE\Fabasoft`
- `HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Fabasoft`
- `HKEY_LOCAL_MACHINE\SOFTWARE\Classes\CLSID\<CLSID>`
- `HKEY_LOCAL_MACHINE\SOFTWARE\Classes\<ProgID>`
- `HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer\ShellIconOverlayIdentifiers`
- `HKEY_LOCAL_MACHINE\SOFTWARE\Classes\*\shellex\ContextMenuHandlers\<ProgID>`
- `HKEY_LOCAL_MACHINE\SOFTWARE\Classes\Directory\background\shellex\ContextMenuHandlers\<ProgID>`

- HKEY\_LOCAL\_MACHINE\SOFTWARE\Classes\Directory\shellex\ContextMenuHandlers\<ProgID>
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Classes\Folder\Background\shellex\ContextMenuHandlers\<ProgID>
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Classes\Folder\shellex\ContextMenuHandlers\<ProgID>
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Classes\IE.AssocFile.URL\ShellEx\ContextMenuHandlers\<ProgID>
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Classes\IE.AssocFile.WEBSITE\ShellEx\ContextMenuHandlers\<ProgID>
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Classes\InternetShortcut\ShellEx\ContextMenuHandlers\<ProgID>
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Classes\lnkfile\shellex\ContextMenuHandlers\<ProgID>
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Classes\Microsoft.Website\shellex\ContextMenuHandlers\<ProgID>

## 4 Apple macOS

This chapter refers to an Apple macOS operating system.

### 4.1 Installing

To install the Fabasoft Cloud Client, perform the following steps:

1. Download the `CloudClient.dmg` installation package from the Fabasoft Cloud or Fabasoft Private Cloud.  
<https://at.cloud.fabasoft.com/folio/fscasp/content/lib/CloudClient.dmg>  
<https://<host private cloud>/cloud/fscasp/content/lib/CloudClient.dmg>
2. Double-click the downloaded DMG file.
3. Drag the app to the “Applications” folder.  
**Note:** In case of an update keep in mind to close the Fabasoft Cloud Client (menu bar > Cloud symbol > Quit) before dragging the new app to the “Applications” folder and replacing the old one.
4. Open the “Applications” folder and run the Fabasoft Cloud Client.
5. Enter the credentials of an administrative user to finish the installation.

### 4.2 Uninstalling

#### Uninstalling the Client

To uninstall the Fabasoft Cloud Client, perform the following steps:

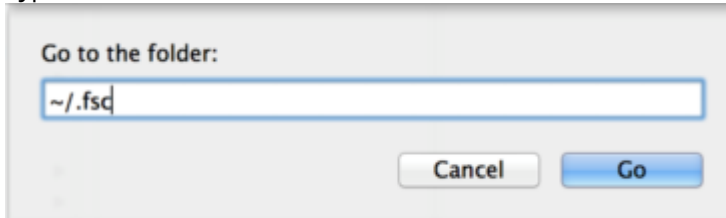
1. Quit the Fabasoft Cloud Client.
2. Open “System Preferences” > “Extensions” and disable the “Finder” entry under “Fabasoft Cloud”.
3. Open “Finder” and delete the following files:
  - o `/Applications/Fabasoft Cloud.app`
  - o `/Library/Internet Plug-Ins/npFabasoftCloud.plugin`
  - o `/Library/PrivilegedHelperTools/com.fabasoft.finderinjectorpu`
  - o `~/Library/Application Support/Fabasoft`

- o /Library/Application Support/Adobe/CEP/extensions/com.fabasoft.cloud

## Removing the Fabasoft Settings (Optional)

To remove the settings, perform the following steps:

1. Open the Finder, point to "Go" and click "Go to folder".  
A dialog box opens.
2. Type "~/fsc" and click "Go".



This command leads you to the folder containing the settings.

3. Delete the .fsc folder.

**Note:** When removing the .fsc folder all settings and not yet saved files will be lost.

## 4.3 File and Registry Locations

The data in these locations must not be removed or modified. The configuration settings will be written during the setup process and/or when logging in with the Fabasoft Web Browser Client.

- /Applications/Fabasoft Cloud.app
- /Library/Internet Plug-Ins/npFabasoftCloud.plugin
- /Library/PrivilegedHelperTools/com.fabasoft.finderinjectorpu
- ~/Library/Application Support/Fabasoft
- ~/.fsc/
- /Library/Application Support/Adobe/CEP/extensions/com.fabasoft.cloud

## 5 Ubuntu

This chapter refers to an Ubuntu operating system.

### 5.1 Installing

To install the Fabasoft Cloud Client, perform the following steps:

1. Download the `cloudclient_amd64.deb` installation package from the Fabasoft Cloud or Fabasoft Private Cloud.  
[https://at.cloud.fabasoft.com/folio/fscasp/content/lib/cloudclient\\_amd64.deb](https://at.cloud.fabasoft.com/folio/fscasp/content/lib/cloudclient_amd64.deb)  
[https://<host private cloud>/cloud/fscasp/content/lib/cloudclient\\_amd64.deb](https://<host private cloud>/cloud/fscasp/content/lib/cloudclient_amd64.deb)
2. Double-click the downloaded DEB file and install it.

**Note:** Make sure that the prerequisite packages `libgnomevfs2-0` and `libgnomevfs2-common` are installed before installing the Fabasoft Cloud Client.

## 5.2 Client Certificates

When using a certificate-based authentication the client certificates have to be stored in the Fabasoft Client. To do so, open the context menu of the notification symbol and click "Options". On the "Certificates" tab, import the client certificate.

## 5.3 Uninstalling

To uninstall the Fabasoft Cloud Client, perform the following steps:

1. Open a terminal and execute the following command:

```
sudo dpkg -r foliocloudplugin
```

2. Delete the `.fsc` folder in your home directory.

**Note:** When removing the `.fsc` folder all settings and not yet saved files will be lost.

## 5.4 File and Registry Locations

The data in these locations must not be removed or modified. The configuration settings will be written during the setup process and/or when logging in with the Fabasoft Web Browser Client.

- `/opt/fabasoft`
- `/etc/opt/chrome/native-messaging-hosts`
- `/etc/chromium/native-messaging-hosts`
- `/usr/lib/mozilla/native-messaging-hosts`
- `/usr/share/applications/`
- `~/.fsc/`

## 6 Network Settings

To ensure the proper functionality of the Fabasoft Cloud Client, correct network settings (e.g. proxy) in the operating system are mandatory. The used web browsers must be configured so that they use these network settings.

## 7 Certificate Settings

If you use your own server certificates that are not commonly trusted, you have to add the corresponding CA as a trusted root certificate on the clients.

For detailed information about adding trusted root certificates consult the documentation of the corresponding operating system.

### Microsoft Windows

You can use the "Certificates" MMC snap-in.

### Apple macOS

Double-click the CA certificate, add it to the keychain and choose "Always Trust".

### Ubuntu

Store the CA certificate in `/usr/local/share/ca-certificates/` and execute the following command: `sudo dpkg-reconfigure ca-certificates`

## 8 Web Browser Settings

When installing the native client also plug-ins for Microsoft Internet Explorer, Mozilla Firefox and Safari are provided. For Google Chrome an own extension has to be downloaded from the Google Chrome Web Store (see chapter 8.2 "Google Chrome"). Make sure that the plug-ins are allowed in the used web browser ("allow always").

### Microsoft Internet Explorer

"Tools" > "Manage Add-ons" > "Toolbars and Extensions"

### Mozilla Firefox

"Menu" > "Add-ons" > "Plugins"

### Apple Safari

"Preferences" > "Security" > "Internet plug-ins" > "Website Settings"

### Google Chrome

"Customize and control Google Chrome" > "Extensions"

### Further configuration steps

If a web browser is not optimally configured, the Fabasoft Web Client shows the necessary configuration steps in the "Web Browser State". For Microsoft Internet Explorer it is possible to deploy the necessary registry keys (see next chapter).

## 8.1 Microsoft Internet Explorer

To avoid that users have to make settings on their own and for best performance deploy following settings on the clients:

- Enable the native XMLHTTP support ("Tools" > "Internet Options" > "Advanced" > "Enable native XMLHTTP support"). Dynamic web applications generally rely on XMLHTTP requests.  
Key: HKEY\_CURRENT\_USER\Software\Microsoft\Internet Explorer\Main  
Value name: XMLHTTP  
Type: REG\_DWORD  
Value data: 1
- Disable the pop-up blocker for the defined domain name ("Tools" > "Pop-up Blocker" > "Pop-up Blocker Settings" > "Allowed Sites"). Some use cases (e.g. "Explore") open a new window. To avoid warnings, pop-ups should be allowed.  
Key: HKEY\_CURRENT\_USER\Software\Microsoft\Internet Explorer\New Windows\Allow  
Value name: <web service domain name e.g. \*.cloud.fabasoft.com>  
Type: REG\_BINARY  
Value data: 0
- Enable the caching of SSL pages ("Tools" > "Internet Options" > "Advanced" > "Do not save encrypted pages to disk"). Improves the performance of HTTPS connections.  
Key: HKEY\_CURRENT\_USER\Software\Microsoft\Windows\CurrentVersion\Internet Settings  
Value name: DisableCachingOfSSLPages  
Type: REG\_DWORD  
Value data: 0

- Disable the client certificate selection in the trusted sites, if not more than one certificate exists (“Tools” > “Internet Options” > “Security” > “Trusted sites” > “Don’t prompt for client certificate selection when no certificates or only one certificate exists”). If you access the system with a certificate, you can avoid the certificate selection dialog.

Key: HKEY\_CURRENT\_USER\Software\Microsoft\Windows\CurrentVersion\Internet Settings\Zones\2

Value name: 1A04

Type: REG\_DWORD

Value data: 0

- Enable that web sites in less privileged zones can navigate into the trusted sites (“Tools” > “Internet Options” > “Security” > “Trusted sites” > “Websites in less privileged web content zone can navigate into this zone”). Avoid warnings when accessing Fabasoft Cloud services on different web sites.

Key: HKEY\_CURRENT\_USER\Software\Microsoft\Windows\CurrentVersion\Internet Settings\Zones\2

Value name: 2101

Type: REG\_DWORD

Value data: 0

- Allow the execution of the native client that is used e.g. for opening and saving documents directly via the web browser.

Key:

HKEY\_CURRENT\_USER\Software\Microsoft\Windows\CurrentVersion\Ext\Stats\{75D629C5-46D5-48ec-A645-C03FE21232FA}\iexplore\AllowedDomains\<domain name e.g. fabasoft.com>

- Increase the number of concurrent connections to the web server to improve the performance.

Key: HKEY\_CURRENT\_USER\Software\Microsoft\Internet Explorer\Main\FeatureControl\FEATURE\_MAXCONNECTIONSPERSERVER

Value name: iexplore.exe

Type: REG\_DWORD

Value data: 6

- Increase the number of concurrent connections to the web server to improve the performance.

Key: HKEY\_CURRENT\_USER\Software\Microsoft\Internet Explorer\Main\FeatureControl\FEATURE\_MAXCONNECTIONSPER1\_0SERVER

Value name: iexplore.exe

Type: REG\_DWORD

Value data: 6

For more information about the meaning of these keys, consult <http://msdn.microsoft.com>.

## 8.2 Google Chrome

For Google Chrome beside the native client also a Chrome extension is needed.

To install the Fabasoft Cloud web browser extension, perform the following steps:

1. Search in the Google Chrome Web Store for the extension:  
<https://chrome.google.com/webstore/search/fabasoft%20cloud>
2. Click “Add to Chrome”.
3. Click “Add” to confirm adding the extension.

**Note:** If you want to use the extension in the Google Chrome incognito mode, you have to select “Allow in incognito” for the extension.

## 8.3 Mozilla Firefox

For Mozilla Firefox beside the native client also a Firefox extension is needed.

To install the Fabasoft Cloud web browser extension, perform the following steps:

1. Open the Fabasoft Cloud or Fabasoft Private Cloud.  
`https://at.cloud.fabasoft.com/folio/`  
`https://<host private cloud>/cloud/`
2. In the welcome screen, you will be notified to install the Fabasoft Cloud Firefox Extension.
3. Click “Add it now”.
4. Click “Allow”.
5. Click “Add” to confirm adding the extension.

## 9 Working With Third-Party Products

A core feature of Fabasoft products is the management of a varied range of content. This includes running the tools needed for viewing and editing content like documents or pictures.

These tools are required to be installed on client workstations.

The native client identifies the type of content and uses mechanisms of the client operating system to map a tool to the identified type. The native client honors security policies of the client operating system and adds Fabasoft-specific security structures on top of the operating system.

### 9.1 Security Settings

When performing operations like viewing, editing or playing content the native client runs tools installed on the client workstation. Which tool has to perform a given operation on a given type of content is determined by mechanisms defined by the Microsoft Windows Shell. These mechanisms are described in <http://msdn2.microsoft.com/en-us/library/bb762764.aspx>.

Furthermore, the execution of programs by the Microsoft Windows Shell is controlled by security policies, as described in the following documents:

<http://technet2.microsoft.com/WindowsServer/en/Library/9044c404-c9ab-40a2-b804-06703c54ee421033.msp>

<http://www.microsoft.com/technet/prodtechnol/windows2000serv/reskit/regentry/93497.msp>

In addition, the native client defines restriction points applying to Fabasoft products only. These are part of the broader customization mechanisms for running tools, defined by the registry sub tree `HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters`.

In the root of this tree one of two policies can be declared:

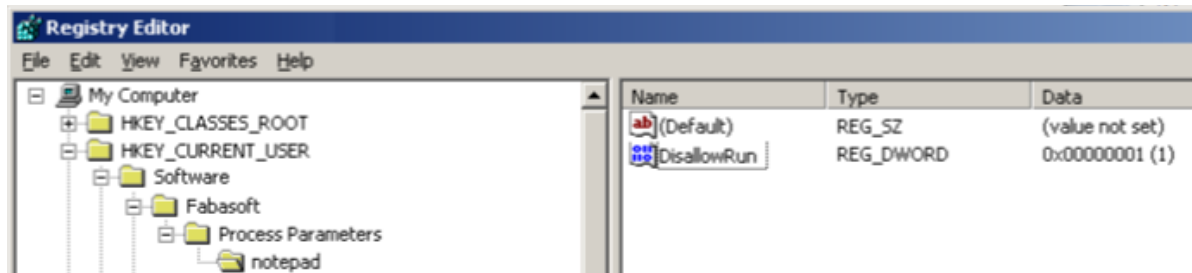
- If a named value of type `String` with the name `Security` and the value “Black” is present, the so called “Blacklist Security” policy applies.
- Otherwise, the mode of operation is “Whitelist Security”.



### 9.1.1 Blacklist Security

This security policy is the less secure tool restriction mode. It is therefore switched off by default. Any program not restricted by operating system policies and not explicitly disallowed by the native client is allowed to run. To explicitly disallow the execution of a tool, there must be a registry key `HKEY_CURRENT_USER\Software\Fabasoft\Process Parameters\<base name of the tool executable>` holding a named value of type `DWORD` with the name `DisallowRun` and the value "1".

**Example:**



The setting in this example does not allow loading any executable from a file with the base name "notepad". The base name comparison is case-insensitive.

#### Default Blacklist

If the native client security is set to "Black", the following executables are disallowed by default:

- Standard script engine hosts
  - wscript
  - cscript
- Elevated browsers
  - mshta
- Standard registry editors
  - regedit
  - regedt32

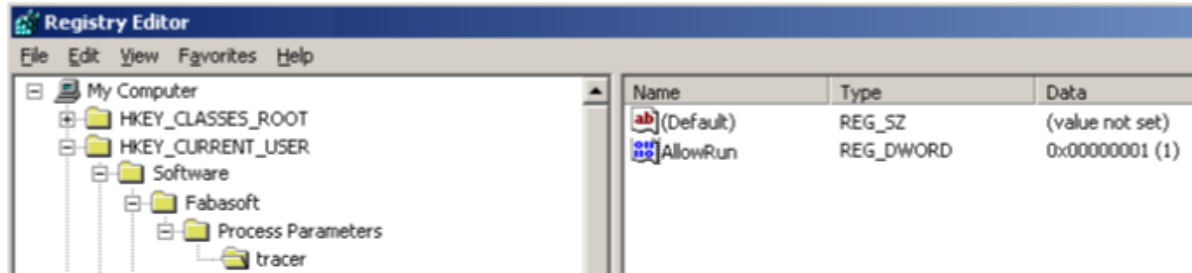
For any of these executables, no registry entry is needed to disallow its execution. If there is an explicit entry, execution can be allowed by setting the named value `DisallowRun` to the value "0".

### 9.1.2 Whitelist Security

This is the default native client security mode. Tool execution is restricted to an explicit list of executables. Only executables defined by that list can be executed within a Fabasoft product if not restricted by operating system policies.

To explicitly allow the execution of a tool, there must be a registry key `HKEY_CURRENT_USER > Software > Fabasoft > Process Parameters > <base name of the tool executable>` holding a named value of type `DWORD` with the name `AllowRun` and the value "1".

## Example:



The setting in this example allows loading an executable from a file with the base name “tracer”. The base name comparison is case-insensitive.

## Default Whitelist

If the native client security is set to any value other than “Black”, the following executables are allowed by default:

- Standard text editors/viewers
  - notepad
  - wordpad
- Standard image editors/viewers
  - mspaint
  - rundll32 [shimgvw]
  - rundll32 [photoviewer]
- Standard final format editors/viewers
  - acro32
  - acrobat
  - xpsviewer
- Supported package editors/viewers
  - winzip32
  - rundll32 [zipfldr]
- Supported signature editors/viewers
  - siqsc
- Supported help viewers
  - hh
- Supported mail clients
  - thunderbird
  - outlook
  - msimn
- LibreOffice
  - soffice
  - swriter
  - scalc
  - simpres
  - sdraw
  - smath
- Microsoft Office
  - winword

- o excel
- o powerpnt
- o visio
- o msaccess
- o mspub
- o frontpg
- o fpeditor
- o winproj
- o wordview
- o xlview
- o pptview
- o ois
- Windows Media Player
  - o wmpplayer
- Apple Quicktime Player
  - o quicktimeplayer

For any of these executables, no registry entry is needed to allow its execution. If there is an explicit entry, execution can be disallowed by setting the named value `AllowRun` to the value "0".

## 9.2 Document Properties

Document properties allow you to embed read-only metadata in documents edited with Microsoft Word. Before you can insert document properties into a Microsoft Word document, you have to activate the Fabasoft Cloud COM add-in that is installed with the native client. To enable the COM add-in, click the Office button and click "Word Options". In the dialog box, click "Add-Ins", select "COM Add-Ins" in the *Manage* drop-down list box and click "Go". In the dialog box that is opened, select "Fabasoft Cloud Word Extension" and click "OK".

**Note:** The document properties will only be refreshed when opening the document, if the add-in is active.

The COM add-in can be activated manually as described above, or the corresponding registry keys can be deployed after installing the native client.

```
[HKEY_CURRENT_USER\Software\Microsoft\Office\Word\Addins\FolioPU.OxWord]
"FriendlyName"="Fabasoft Cloud Word Extension"
"LoadBehavior"=dword:00000003
```

## 9.3 Temporary Files

To be able to edit or read a document in a third-party product the document file has to be stored temporarily on the client. The location of the temporary files can be manually defined by setting the following registry key:

```
[HKEY_CURRENT_USER\Software\Fabasoft\WebClient\ConfigValues\Cloud\DocDir]
@="directory path"
```

The directory path can be defined the following way:

- absolute directory path (e.g. `C:\MyTempFolder`)  
The user needs write access to the directory.

- <local>  
Corresponds to CSIDL\_LOCAL\_APPDATA under Microsoft Windows (e.g. C:\Users\- <roaming>  
Corresponds to CSIDL\_APPDATA under Microsoft Windows (e.g. C:\Users\- <temp>  
The temporary directory (e.g. C:\Users\

## 10 Importing

It may be necessary to adjust the following limits.

### 10.1 E-Mails With Long Subject

If the subject of an imported e-mail contains a long text, the request URL may exceed the default limit of Microsoft Internet Information Services. Information about increasing the limit can be found here (`UrlSegmentMaxLength`):

<http://support.microsoft.com/kb/820129>

### 10.2 Special Characters

If the file name of an imported file contains many special characters, the escaped request URL may exceed the default limit of Microsoft Internet Information Services. Information about increasing the limit can be found here:

<http://www.iis.net/ConfigReference/system.webServer/security/requestFiltering/requestLimits>

## 11 Proxy Settings

The following chapters show how to define proxy settings.

### 11.1 General

We support the default method for defining a proxy server on the appropriate operating system. On Windows, this configuration can be done in the „Internet Options“, on macOS Sierra this could be done in the “System Settings -> Network -> Proxies“. On Ubuntu, this configuration has to be done via environment variables

```
export http_proxy=http://your.proxy.server:port/
export https_proxy=https://your.proxy.server:port/
auto_proxy=http://your.server/wpad.dat
```

### 11.2 Automatic Proxy Configuration

For security reasons we only support the automatic proxy configuration via the direct configuration of the Proxy-Auto-Config URL (PAC-URL). We do not support automatically retrieving this URL via Web Proxy Autodiscovery Protocol.

We first look for a proxy server bypass configuration, then for a manually configured proxy server. If there is no bypass and no manually proxy server configuration we evaluate the PAC URL.

Our fallback for every error or misconfiguration is a direct connection to the server.

This file will be evaluated every 30 minutes and additionally on a change of the system configuration, except on Ubuntu, there you have to restart the system.

If the URL or any proxy server evaluated from the URL is not reachable it will be ignored for the next 30 minutes.

If the script delivered from the PAC URL hangs or needs longer than 5 seconds, we abort the evaluation.

