



Better Translation Technology

# XTM Connect – Change Control for GIT (backend version)

## XTM Connect – Change Control for GIT

Documentation for XTM Connect – Change Control for GIT.

Published by XTM International Ltd.

© Copyright XTM International Ltd. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, including photocopying, without prior written consent of XTM International Ltd.

All Intellectual Property, in particular Intellectual Property of the code, resulting from and related to the development of the XTM Connect – Change Control for GIT application remains in the sole ownership of XTM International.

July 2018



XTM-International Ltd, PO Box 2167, Gerrards Cross, SL9 8XF, UK  
Tel.: +44 (0)1753 480479 email: [sales@xtm-intl.com](mailto:sales@xtm-intl.com) <https://xtm.cloud>

## Table of Contents

---

<b>Table of Contents .....</b>	<b>3</b>
<b>1. Introduction .....</b>	<b>4</b>
<b>2. How XTM Connect – Change Control works .....</b>	<b>5</b>
<b>3. Communication .....</b>	<b>6</b>
Communication between XTM Connect and GIT repository.....	6
Communication between XTM and XTM Connect .....	6
Accessing repositories.....	6
Ports .....	6
Proxy servers .....	6
Credentials .....	6
<b>4. Prerequisites and data required for configuration .....</b>	<b>7</b>
<i>Prerequisites.....</i>	<i>7</i>
<i>Data required for configuration of XTM Connect – Change Control .....</i>	<i>7</i>
1. Client details.....	7
2. Repositories.....	7
3. Buckets .....	7
4. Synchronization .....	8
5. Project creation in XTM.....	8
6. File name specific target languages .....	8
7. Processing of large files .....	9
8. Workflows with pre-processing.....	9
9. Target files delivery method .....	9

## 1. Introduction

---

XTM Connect – Change Control is an auxiliary application for both XTM Cloud and XTM Suite. It connects directly to GIT repositories to automate the process of sending new or changed content to XTM and creating translation projects. Then, once the project workflow is complete, it returns translated content to the repository. The advantages of XTM Connect – Change Control for GIT are that it reduces the number of manual tasks and thereby decreases costs, turnaround times, and human errors.

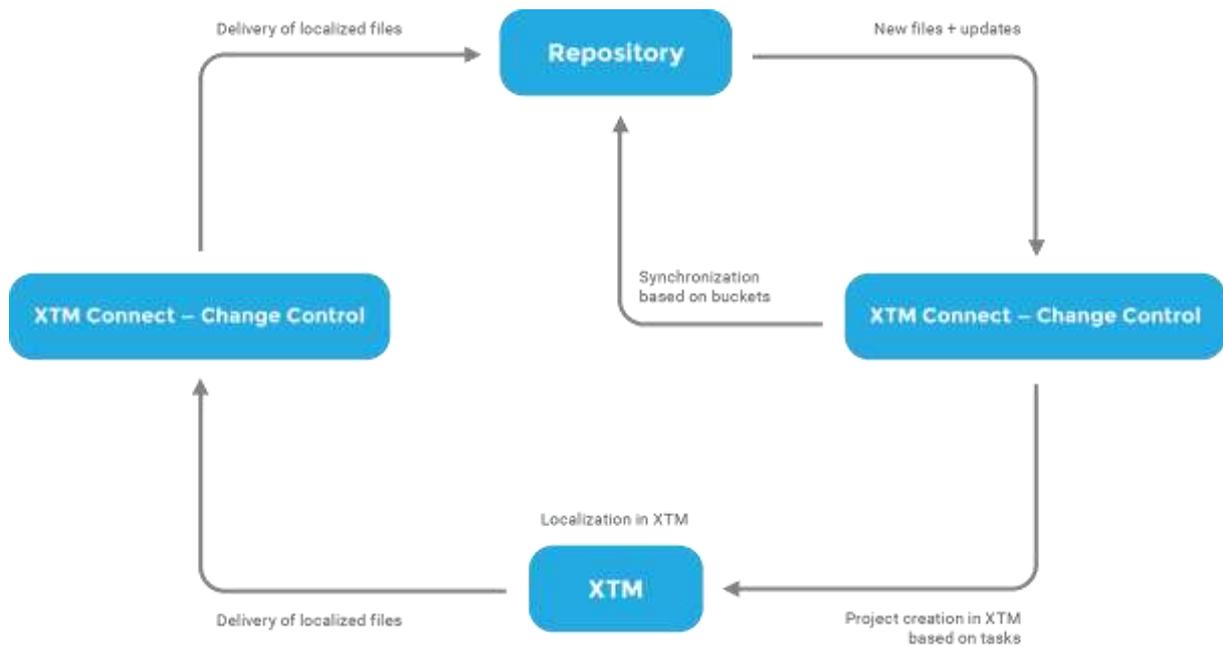
The use of this application is provided under the terms of a separate license.

Contact the XTM Sales at [sales@xtm-intl.com](mailto:sales@xtm-intl.com) to learn more about XTM Connect – Change Control for GIT and request a quote. When you have purchased XTM Connect – Change Control for GIT, XTM will enable the API connection for you.

## 2. How XTM Connect - Change Control works

Once XTM Connect – Change Control for GIT is configured to connect with a repository, it synchronises the data at a specified time interval. At the moment of synchronization, XTM Connect – Change Control for GIT recognizes files that have been updated or added to the repository since the last synchronization and creates copies of this content as tasks. The tasks are then used to create a project in XTM Cloud or Suite using a template predefined in XTM.

When the translation is finished, XTM sends the translated files back to XTM Connect – Change Control for GIT which returns them to the original repository and the cycle is finished until the GIT repository is updated.



*XTM Connect – Change Control workflow diagram*

### 3. Communication

---

#### **Communication between XTM Connect and GIT repository**

XTM Connect – Change Control for GIT has been developed in JAVA. The application uses the JGit library to communicate with GIT repositories.

XTM Connect – Change Control for GIT uses *git clone* to create a copy of the original repository on the server where the XTM Connect application is installed. All updates to the original repository are reflected in the cloned repository using *git pull*. Finished translations are delivered from the cloned repository to a specified location in the original repository using *git push*.

#### **Communication between XTM and XTM Connect**

XTM Connect – Change Control for GIT for GIT can be used with both cloud and standalone versions of XTM. For communication with XTM, XTM Connect uses the XTM SOAP API.

Performance of the application can be increased by installing the XTM Connect – Change Control for GIT on an on-premise server located near the GIT repository. Keeping the application within a company network increases both the performance of the connector as well as the company's data security.

#### **Accessing repositories**

The application connects to remote GIT repositories using the HTTP(S) protocol or an Open SSH key that requires a passphrase.

#### **Ports**

XTM Connect communication ports are not fixed and can be set to match the GIT repository ports the application connects to.

#### **Proxy servers**

Configurations with proxy servers have not been tested with XTM Connect – Change Control for GIT. When the use of proxy servers is required, it is recommended to keep the XTM Connect server and the GIT server on the same side of the proxy and avoid proxy mediation between the application and the GIT repository.

#### **Credentials**

All login credentials to GIT repositories and XTM are stored in a database located on the server where the XTM Connect application is installed.

## 4. Prerequisites and data required for configuration

---

### Prerequisites

XTM Connect – Change Control is installed on client servers. It can run on the client production server but this is not obligatory.

The sever can be a low specification or a virtual server. The server should be located near the Git server. The minimum server specification needed for XTM Connect – Change Control for GIT is the following: 8 GB RAM, 2 cores, JDK 1.8, a firewall configured to allow sending requests to XTM, and enough disk space to save the repositories together with their all the target language files.

After purchase, an XTM International specialist will install all required software on the server, which will include Apache Tomcat and the XTM Connect application. After installation they will test the connections.

### Data required for configuration of XTM Connect – Change Control

Please gather the following data and provide it to XTM support at [support@xtm-intl.com](mailto:support@xtm-intl.com) to configure your instance of XTM Connect – Change Control.

#### 1. Client details

- Client name used for logging in to XTM
- User ID or user name: XTM advises to create a new user specifically for XTM Connect, so that it is simple to track XTM Connect activity separately from manual actions of other users. The XTM Connect user needs the Project Manager role.
- Password for the user

#### 2. Repositories

XTM Connect can connect to multiple repositories. If you want to configure multiple repositories, please provide a list of them with the following data for each:

- Name of repository
- Repository URL
- Authentication data to log in to the repository:
  - User name

Password/Personal Access Token/Passphrase for an Open SSH

#### 3. Buckets

A bucket is a configuration container for new or updated files in the repository. These files are taken for translation and the translated files returned. If you want to configure multiple buckets, please provide a list of them with the following data for each:

- Name for a bucket: In case there are multiple repositories and/or synchronization configurations, name of bucket can make any updates to the configurations simpler in the future.
- Name of the repository to connect to
- Base paths to files or a regular expression rule that specifies multiple branches in a single repository
- Information if the connector should also synchronize with files in the subfolders of the base path
- Extensions of files for synchronization: extensions of files which can be taken for translation.
- Information if files for synchronization are used for a continuous project: A continuous project is a project where the source files are replaced with a newer version in order not to create multiple projects for localization of the same, constantly evolving files.
- Target directory. Files can be delivered to:
  - The folder with the source files

- A newly created folder. You can specify the name of the folder.
- A new, target language specific folder generated automatically using your specified name convention pattern that is based on the source directory, for example: source files taken from “en-proj” can be delivered after translation to “fr-proj”, provided that the directory-language mappings have been specified beforehand.

#### 4. Synchronization

- Time intervals between synchronization with repository: buckets will collect files for translation automatically as scheduled, thus frequent synchronization with repositories is not required. XTM suggests no less than 5 minutes between synchronization with repositories.

When a file that had already been synchronized has been updated and synchronized again and a translation project has not yet been created in XTM, XTM Connect will create a new task and cancel the previous one.

When a file that had already been synchronized has been updated and synchronized again and a translation project has been already created in XTM, translation of the previous version of the file will be completed in XTM and the updated version of the file will go for translation together with the next project created in XTM.

#### 5. Project creation in XTM

- Base name for project: the project created by XTM Connect will be always named the same with an ordering number added to the base project name.
- Customer ID: you can check customer ID in XTM on the Customers tab. Place your cursor on the  icon to display customer ID and other information.
- Template ID: XTM Connect takes all project data from a predefined template with the exception of name of the project, customer choice and language combinations. You can check template ID in XTM on the Projects > Templates tab. Place your cursor on the  icon to display template ID.
- Language combinations: multiple target languages can be used.
- Project creation schedule: you can choose multiple times and days of the week for creating a new project in XTM based on synchronized files.
- Project creation method: when synchronization intervals are different from the project creation schedule, several synchronizations can occur before the project creation. You can have:
  - One project that includes files from all of the synchronizations.
  - Multiple projects. Each project includes only source files that were discovered after the previous and before the next synchronization.
  - One project that only includes files that were added or modified before the last synchronization. The project will not include files discovered during former synchronizations.

#### Example

If 10 files were added to the repository between two scheduled project creation events, and two synchronizations occurred over the time with the first discovering 4 new files, and the latter discovering 6 new files, the project will include 6 source files. The 4 files from the first synchronization will be disregarded.

#### 6. File name specific target languages

There is an option to set project target languages based on language codes included in source file names. In such case, source files are grouped into projects with the same target languages. Target languages are determined from file names using regular expressions. This method lets you translate files from the same branch into different target languages. For example: File1\_es\_pt.xml into Spanish and Portuguese or File2\_de\_fr.xml into German and French.

Accurate patterns must be provided to XTM Support to set correct rules and languages. The specified target languages must be unambiguous, for example file names that include “\_es” are meant to be translated into Spanish (Spain), “\_pt” into Portuguese (Portugal) otherwise it is unclear whether “\_fr” should be set to French (Canada) instead of French (France) or a different language variant.

## 7. Processing of large files

Decide how to process big .xml files:

- Normal processing: new and modified files are used as source files for the translation project.
- Optimized processing: xml strings that were added or modified are extracted from the files and joined during project creation into a single source file. When the translation is complete, the translated strings are returned to the files they were taken from. As a result, files can be processed much faster.

## 8. Workflows with pre-processing

- New source language: specify the pivot language the source files will be translated into before they are translated into the project’s target languages
- Define what will happen to files after the post-processing workflow step:
  - Default: files from completed pre-processing are sent to the repository with a changed name
  - Replace source: files from completed pre-processing replace the original source files in the repository
  - Replace source when languages are the same: files from completed postprocessing replace the original source files in the repository only when the project’s source and new source (pivot) languages are the same
  - Do not send: files from completed pre-processing are NOT sent back to the repository

## 9. Target files delivery method

Select the translated files delivery method you wish to use:

- To create a sibling directory using target language – creates a new folder with the target language code and pastes files to that new directory
- To rename a file using target language – adds or modifies the target language code in the file name
- To overwrite source files – replaces source files with the translated files
- To select a target branch – moves translated files to a specified branch

When files translated via XTM Connect – Change Control for Git are manually modified, the application creates their copy with a timestamp in the name, and then takes them for translation. By doing so, the original manually modified file remains unchanged while translation for it is provided in the renamed file. This mechanism protects you from file version conflicts.



XTM International Ltd, PO Box 2167, Gerrards Cross, SL9 8XF, UK  
Tel.: +44 (0)1753 480479 email: [sales@xtm-intl.com](mailto:sales@xtm-intl.com) <https://xtm.cloud>