




Deltek

Deltek Touch 3.6 for Maconomy® 2.5.2

Installation Guide

December 18, 2020



While Deltek has attempted to verify that the information in this document is accurate and complete, some typographical or technical errors may exist. The recipient of this document is solely responsible for all decisions relating to or use of the information provided herein.

The information contained in this publication is effective as of the publication date below and is subject to change without notice.

This publication contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, or translated into another language, without the prior written consent of Deltek, Inc.

This edition published December 2020.

© Deltek, Inc.

Deltek's software is also protected by copyright law and constitutes valuable confidential and proprietary information of Deltek, Inc. and its licensors. The Deltek software, and all related documentation, is provided for use only in accordance with the terms of the license agreement. Unauthorized reproduction or distribution of the program or any portion thereof could result in severe civil or criminal penalties.

All trademarks are the property of their respective owners.

Contents

Overview	1
Supported Mobile Operating Systems.....	1
Adding Custom Notes to This Guide	1
Downloading Deltek Products using Deltek Software Manager	3
Accessing DSM from within the Deltek Support Center	3
Accessing DSM Lite	4
DSM Documentation and Troubleshooting	4
What is New?	5
Touch Installer	5
Touch Web Service	5
Server Side Settings	5
Locale	6
Layouts	6
Maconomy Dialogs	6
Touch App	6
Prerequisites	7
Technical Considerations	7
Compatibility Mode Definitions	8
Feature Matrix.....	10
Maconomy Configuration.....	13
MScript.....	13
RESTful.....	14
Recommended System Parameters.....	15
Deltek Touch for Maconomy Infrastructure.....	17
Deltek Touch Technology Layers	17
Services Tier	18
Supported Deployment Scenarios.....	19
Deltek Touch for Maconomy Security	19
User Authentication Models	19
ICR Metadata Storage	20
Certificates and Protocols	21
Security Assessments.....	21
Microsoft IIS Web Server Configuration on Windows Server 2012	23

Microsoft IIS Web Server Configuration on Windows 2016 Server	24
Microsoft IIS Web Server Configuration on Windows Server 2019	25
Deltek Touch for Maconomy Installation on Windows Server	26
Deltek Touch for Maconomy Installation on Linux Server	30
Prerequisite	30
RHEL 6.0 and 6.5	30
Deltek Touch for Maconomy Setup.....	33
Maconomy MScript Web Services	33
Validate MScript Web Services	33
Maconomy RESTful Web Services	33
Enable RESTful Web Services in Maconomy.....	33
Proxy Server Setup.....	35
Set Up HTTPS	37
Add Rules to the “containers” REST API.....	37
Add Rules to the Filedrop API	39
Add Rules to the Auth API	40
Add Rules to the Maconomy-API.....	40
Add Rules to the Logging API.....	41
Preserve Host Header	42
Update configuration.ini	42
configuration.ini	43
Server Side Configuration Settings	48
Touch Authentication Setup	67
Deltek Touch with Single Sign-On Setup.....	67
Touch with Azure Setup.....	68
Touch with OneLogin Setup	72
Touch with Okta Setup.....	73
Touch with OIDC Setup	74
Deltek Touch with Load Balancing	75
Appendix A: Localization	76
Appendix B: Touch Server URL in Email	77
ProductApplication.php.....	77
Link for Customers	77
How to Create the Link to Email Users	77
Appendix C: Logging Capability	79
How to Enable Logging?	79

Where is the Log File?	79
How to Determine Who are Using Deltek Touch?	79
Example	79
How to Determine Which Deltek Touch Functionality is Used?	80
Appendix D: Google Analytics	82
Prerequisites:	82
Appendix E: Old MScript Web Service Installation	87
MConfig	87
Maconomy Service Pack	87
Maconomy Hot Fix	87
Install MScript Web Services	88
Update configuration.ini	89
Install Dictionaries	90
Maconomy RESTful Web Services	90
Appendix F: If You Need Assistance	92
Customer Services	92
Deltek Support Center	92
Access Deltek Support Center	93
Additional Documentation	93

Overview

The Deltek Touch for Maconomy application is the best way for on-the-go Deltek Maconomy users to not only submit and track time, expenses, and mileage, but also approve time, expenses, vendor invoices, purchase orders, and even draft client invoices. It gives you access to several dialog boxes related to Time Registration and Expenses (both Expense and Mileage) in Maconomy. Even when you are away from the office, immediate mobile device access means Deltek Touch keeps you informed and in control.

Note: Not all functionality is available in all Maconomy versions and in MScript and REST Web services. For more information, see the *Deltek Touch for Maconomy Mscript and REST Web Services Comparison Guide*.

This document provides instructions for the installation and configuration of the Deltek Touch for Maconomy.

Note: The official name of the application is *Deltek Touch for Maconomy*. This document only uses it at first mention. The succeeding instances of the application name display *Deltek Touch*. In addition, the application name in *Apple App Store* and *Google Play* displays *Deltek Touch for Maconomy*.

Supported Mobile Operating Systems

Deltek Touch for Maconomy supports mobile devices that run on the following operating systems:


- Apple iOS 13.0 and higher
- Android 9.0 and higher

Note: Deltek Touch Web application will no longer run in Internet Explorer, the only supported browsers are Safari and Chrome.

Adding Custom Notes to This Guide

If you would like to add custom notes to this guide that are specific to your company, Adobe® Reader® X provides this ability. If you do not already use Adobe Reader X, you can download it [here](#) free from Adobe.

To add a custom note using Adobe Reader X, complete the following steps:

1. On the Reader toolbar, click **Comment** at the far right.
2. In the **Annotations** pane that displays, click  **Sticky Note**. The cursor changes to match the button.
3. Position the cursor at the location in the guide where you want the note to appear, and click. A note icon is inserted at the location and a text box pops up.
4. Enter your information in the text box.
5. Continue adding notes as needed.
6. Save the document.

Note: Deltek recommends that you save the document to a slightly different filename so as to keep the original from being overwritten.

When reading the document, cursor over a note icon to see the information. Double-click a note icon to edit the information.

Downloading Deltek Products using Deltek Software Manager

You can use Deltek Software Manager (DSM) to download complete Deltek products, hot fixes, cumulative updates, and sub-releases. You can access DSM through the Deltek Support Center or use Deltek Software Manager Lite to download Deltek products.

Accessing DSM from within the Deltek Support Center

To access DSM from within the Deltek Support Center:

1. In your Web browser, go to <https://deltek.custhelp.com>.
2. Enter your Deltek Support Center **Username** and **Password**, and click **Login**.
3. When the Deltek Support Center page displays, click **Product Downloads**.
4. On the Deltek Software Manager screen, click **Launch Deltek Software Manager**.
5. Click **Settings** at the top right of the dialog box to use the Settings dialog box to specify the folder where you want to download Deltek products, and click **OK**.

Note: When you log on for the first time, DSM asks you to select a default folder where Deltek products are to be downloaded.

You can change this folder anytime in the Settings dialog box.

6. In the left pane, expand the Deltek product that you want to download, if it is not already expanded.
7. Select the product type that you want to download.

Options include:

- **Complete**
- **Cumulative Updates**
- **HotFixes**
- **Sub-Release**

8. In the table, select the check box that corresponds to the Deltek product that you want to download.

The right pane displays a message stating that the product has been added to the download queue.

Note: To view the items in the download queue, click **View Download Queue** at the bottom of the left pane.

9. Click **Download** at the bottom of the left pane to download the product to the folder that you selected.

Accessing DSM Lite

To access Deltek Software Manager Lite:

1. In your Web browser, go to <https://dsm.deltek.com/DeltekSoftwareManagerLite>.
2. Enter your Deltek Support Center **Username** and **Password**, and click **Logon**.
3. When the Deltek Software Manager Lite page displays, select a product from the drop-down list.
4. Click the product type that you want to download.

Note: The download behavior and download folder may differ depending on the browser and browser settings that you are using.

DSM Documentation and Troubleshooting

- To view the online help for Deltek Software Manager, click [here](#).
- To view a tutorial on how to use Deltek Software Manager, click [here](#).
- To view more information on troubleshooting Deltek Software Manager, click [here](#).

Note: When you click a link, you will be asked to log into DSM if you are not already logged in.

What is New?

Starting with this release, Touch supports:

- Android 11 and iOS 14
- Maconomy 2.5.2
- Touch Backend 3.6
- Windows Server 2019

Starting with this release, Touch no longer supports:

- Android 8 and iOS 12
- Maconomy 2.2 and 2.3
- Touch Backend 3.0

Touch Installer

The following updates are made to the Touch 3.6 Installer:

- The Touch Installer now installs PHP 7.4.12 for Windows, and PHP 7.2.25 for OEL, which contain several new security updates.

Note: *This only applies to initial installation or if Touch previously installed the PHP version.*

If PHP has already been installed on the Touch Server and it was not installed by the Touch installer, the Touch installer does not overwrite the existing installation as it may break existing installed products. Deltek strongly recommends that you install on a Touch Server without PHP. In addition, Deltek makes every effort to update to the most recent version of PHP in every release.

- Windows Server 2019 is now supported. For more information, see the [Microsoft IIS Web Server Configuration on Windows Server 2019](#) section.
- The missing maconomy.tar file in the Touch 3.5 Linux installer is fixed for and 3.6.

Touch Web Service

Server Side Settings

- New:
 - ShowSettingRefreshTimeSheetOnOpen, DefaultValueForSettingRefreshTimeSheetOnOpen, CanChangeSettingRefreshTimeSheetOnOpen
 - ShowSettingICR, DefaultValueForSettingICR, CanChangeSettingICR
- Changed:
 - ExpenseAttachmentType
 - MaxAttachmentFileSize
 - ShowDefaultExpenseReceiptName

For additional details, see the [Server Side Configuration Settings](#) section.

Locale

- Changes to support Expense Entry Automation With ICR

Layouts

The following are changes to the standard Touch layouts:

- Find_JobFavorite_Timesheet.I is replaced with Find_JobFavorite.I, and is applicable for Touch API 3.6 (or higher).
- MileageSheetLineLayoutREST.I and PurchaseOrderLayoutREST.I are updated to allow the removal of unnecessary attributes on lookup fields.
- Quick Capture layouts (QuickCaptureAttachReceiptLayoutREST.I, and QuickCaptureExpenseSheetLineLayoutREST.I) are updated.

In addition, you can now add your own restriction for the data shown in the standard and advanced search screens. For more information, see the Appendix A, Search Screens section of the Deltek Touch 3.6 for Maconomy 2.5.2 Layout Configuration Guide.

Maconomy Dialogs

There are no new Maconomy dialogs you need to allow access to.

Touch App

Version 3.6 of our Touch iOS and Android apps are now available for download from Apple Store and Google Play, respectively.

The Touch application supports Touch backend version 2.3, and 3.1 (or higher).

Note: Deltek recommends that you use Touch backend 3.6 to access all the functionalities. To check if your version is still supported, tap **Settings » About** in the app.

The Touch app supports the following Maconomy versions:

- Maconomy 2.4 GA (or higher)
- Maconomy 2.5 (or higher)

Note: The app will run in fully compatible mode only if you have Maconomy 2.5.2. On all other Maconomy versions, the app will run in partially compatible mode. To check if your version is still supported, tap **Settings » About** in the app.

- Although the Touch app is still available for users on the following Maconomy versions, Deltek no longer guarantees that the app can run against these versions:
 - Starting with Touch 3.2, Maconomy 2.0 is no longer supported.
 - Starting with Touch 3.5, Maconomy X1 and 2.1 are no longer supported.
 - Starting with Touch 3.6, Maconomy 2.2 and 2.3 are no longer supported.
- If you are on these Maconomy versions, Deltek recommends that you do not upgrade the app.

Prerequisites

Before you begin the installation of Deltek Touch for Maconomy, it is important to understand the information in this section.

Technical Considerations

The following requirements must be met to run Deltek Touch for Maconomy:

- Deltek Touch can be run only on Maconomy 2.4 (or higher), and 2.5 (or higher).
- Deltek Touch cannot be installed on Sun (Solaris) or AIX server platforms. As a workaround, it is possible to install Touch Time on Windows or Red Hat Enterprise Linux (RHEL), and then attach it to a Maconomy server running on Sun or AIX.
- Deltek Touch runs on IIS or Apache for Windows and Apache for RHEL.

Environment	Prerequisites
Windows + IIS	<ul style="list-style-type: none"> ▪ Deltek Touch requires IIS be installed on a server that runs Windows Server 2012, Windows Server 2012 R2, Windows Server 2016, or Windows Server 2019. ▪ Deltek Touch requires PHP 7.4.12 or higher to be installed on Windows. The Touch Server installer installs the required version of PHP.
Windows + Apache	<ul style="list-style-type: none"> ▪ You must install Apache on a server that runs Windows Server 2012, Windows Server 2012 R2, Windows Server 2016, or Windows Server 2019. ▪ Deltek Touch requires PHP 7.4.12 or higher to be installed on Windows. The Touch server installer installs the required version of PHP.
Linux + Apache	<ul style="list-style-type: none"> ▪ Deltek Touch supports RHEL 6.x. ▪ Deltek Touch only supports Apache 2.4 on RHEL 6.x. ▪ Deltek Touch requires PHP to be installed. On RHEL 6.x, Deltek Touch requires PHP 7.0.27 or higher. ▪ Our tests were conducted on the following setup: <ul style="list-style-type: none"> ▪ RHEL 6.10 + PHP 7.0.27 + Apache 2.4
	<ul style="list-style-type: none"> ▪ Deltek Touch supports Oracle Linux 7.0. ▪ Deltek Touch only supports Apache 2.4 on Oracle Linux 7.0. ▪ Deltek Touch requires PHP to be installed. On Oracle Linux 7.0, Deltek Touch requires PHP 7.2.25.

- Deltek Touch is based on Maconomy dialogs. Therefore, Maconomy must be set up correctly with regards to functionality and dialog access. Please see section below for further details.
- Deltek Touch for Maconomy setup requires the following add-ons:
 1. Maconomy Portal: Daily Time Sheets (110)

2. Time on time (122)

- Deltek Touch for Maconomy supports Single Sign-On (login using domain credentials) using Kerberos on both Apache and IIS Web server.
- Deltek Touch for Maconomy also supports SSO with the Windows Azure Active Directory (WAAD).
- Deltek Touch for Maconomy also supports SSO with OneLogin
- Session cookies must be disabled when using Deltek Touch for Maconomy (in **MaconomyTouch.I**).

Note: By default, session cookies are disabled in **MaconomyTouch.I**.

- Deltek Touch for Maconomy supports applications from Apple App Store and Google Play. If you are using an unsupported version of Maconomy (compatibility mode), you may be able to use the native browser of your device to enter your organization's Deltek Touch for Maconomy URL.

Note: The Deltek Touch for Maconomy URL has the format <https://<server>/deltektouch/maconomy/time>, where <server> refers to the host name of your Touch Server.

- Microsoft IIS 10 that comes with Windows Server 2016 has HTTP/2 enabled by default. If this causes problems in Touch, Deltek recommends that you disable HTTP/2 in IIS 10 to avoid any issues.

Note: To disable HTTP/2, complete the following steps:

1. Start the registry editor (regedit).
2. Go to the following path:
HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\HTTP\Parameters
3. Under the Parameters folder, add two new DWORD (32-bit) values as follows:
EnableHttp2Tls and EnableHttp2Cleartext.
4. Ensure both new values have been set to 0 (disabled).
5. Restart your machine.

Compatibility Mode Definitions

Compatibility Mode	Description
Fully Compatible	You must be on Touch Android application, iOS application, Web application, Touch Server, and AP. All features and functions in the application are available to you.
Partially Compatible	At least one of the components (Touch Server and/or API) is an older version. Some features of the application are hidden and not available to you.

Compatibility Mode	Description
Browser Compatible	<p><i>This only applies to system administrators.</i> At least one of the components (Touch Server and/or API) is an older version. The current application does not work with the Touch Server or API, but you can still use the application through the mobile browser.</p> <p>If you are using the browser version of Deltek Touch, not all functionality will be available and you should expect considerably slower performance of loading of the application when accessing from browser.</p>
Incompatible	<p>There are some combinations of API and Touch Server that make it impossible to even use the browser version to run the application.</p> <p>In case of incompatibility, Deltek Touch displays two messages. The first one informs you about the incompatibility that it detects. Clicking OK on the incompatibility message displays the debug message, which contains additional information about the environment and is meant only for troubleshooting. After you click OK on the debug message, you cannot use the native application anymore.</p> <div style="border: 1px solid #0070C0; padding: 10px; margin: 10px 0;"> <p>Note: You could also encounter the debug message when using the browser version of Deltek Touch, but this is a very rare situation. It happens if the network communication fails during login because the application is retrieving the Touch Server version from the configuration.ini file. If the Touch Server version is not retrieved, the incompatible and debug messages display.</p> </div> <p>The debug message displays when one of the following scenarios occur:</p> <ul style="list-style-type: none"> ▪ The minimum Touch Server version defined in Deltek Touch is greater than the version in the Deltek Touch Server. For example: <ul style="list-style-type: none"> ▪ App Minimum Touch Server Version: 1.0.3.0 ▪ Deltek Touch Server: 1.0.2.0 ▪ The maximum Touch Server version defined in Deltek Touch is lower than the version set in Deltek Touch Server. For example: <ul style="list-style-type: none"> ▪ App Maximum Touch Server Version: 1.3.1.0 ▪ Deltek Touch Server: 1.3.2.0 ▪ If there is no Touch Server version defined on the Deltek Touch Server or Deltek Touch cannot retrieve the current Touch Server version.

Prerequisites

Compatibility Mode	Description
	<ul style="list-style-type: none"> If there is no product version retrieved by the client-side. If the product version is not supported by the client-side. If the API version is not supported by the client-side

Feature Matrix

Feature	Touch Version	3.6	
	Maconomy Version	2.4	2.5
Weekly Time Registration		•	•
Daily Time Registration		•	•
Expense Registration		•	•
Mileage Registration		•	•
Approvals (Time, Expense, Purchase Order, Vendor Invoice, Draft Invoice)		•	•
Requires approval hierarchies		•	•
Quotes Approval			⊕
Rejected Time Flow		•	•
Approval by Employee Type		•	•
Possibility to Use Remarks on Favorites		•	•
Layout Configuration (see Layout Configuration Guide for details)		•	•
Server-Side Configuration Options (see Installation Guide for details)		•	•
Unicode Support		•	•
Support for RESTful Web Services (from 2.2.4 and 2.3 GA)		•	•
Auto-Completion of Domain Name		•	•
Password Management: Change, Reset, Expired and Blocked Password		⊕	⊕
Expense Justification		⊕	⊕
Support for SSO with Microsoft Azure		•	•

Prerequisites

Feature	Touch Version	3.6	
	Maconomy Version	2.4	2.5
Registering Time in Days		⊕	⊕
Support for Check In/Out Entries Multiple Times Per Day			⊕
Approving Time in Days		•	•
Support for Login to Touch Using Maconomy Credentials in an SSO Environment		•	•
Purchase Order Fields Available in Timesheet and Expense Sheet for Subcontractor		⊕	⊕
Notifications for Rejected Expenses and Mileage		⊕	⊕
Purchase Orders		⊕	⊕
Absence Management		⊕	⊕
Enhanced PIN Security		•	•
Timesheet Tracking Post Submission		⊕	⊕
Enhanced Usage Tracking		•	•
Favorites Only on Find Job Screen		•	•
Automatic Receipt Name for Attachment on Expense Sheet		•	•
Absence in Hours		⊕	⊕
Enhanced Look and Feel		•	•
Add Tax Code and Tax, Currency to Expense Sheet Line		•	•
Biometrics Login		•	•
Block User in Touch		⊕	⊕
Support for Option List Based Fields in REST Layouts		⊕	⊕
Mandatory Attribute in Layouts		⊕	⊕
Option to Hide Maconomy Login for SSO Users		•	•
Support Information on About Screen		•	•

Prerequisites

Feature	Touch Version	3.6	
	Maconomy Version	2.4	2.5
Support for Option List in Expense Justification		⊕	⊕
Invoice Allocation Lines for Approval for G/L Accounts		•	•
Support for Long Text Fields		⊕	⊕
Substitute Approval		•	•
Maconomy 2FA		⊕	⊕
Map Feature on the Expense Sheet Line Screen		⊕	⊕
Attaching Receipts Using Quick Capture		⊕	⊕
OneLogin Support		⊕	⊕
Transfer Calculated Distance in Google Maps to Touch		⊕	⊕
Secure Storage Plugin Update			•
Timesheet Check In			⊕
Support for Quote Approval			⊕
New URLs for Downloading Touch for Android and iOS			•
Security: Binary Stripping		•	•
Security: Stored Cross-site Scripting in MScript (Expense/Mileage)		•	•
SIEM Application Level/UI Logging in Touch			•
Advanced User Settings Control			•
Improved Touch Icons for Apple and Android		•	•
Application Performance Monitor in REST			⊕
SSL Certificate Check Capability			•
Enhanced Approval Workflow			⊕
Support for Okta Authentication		⊕	⊕
Overtime Control in Timesheets			⊕

Feature	Touch Version	3.6	
	Maconomy Version	2.4	2.5
Improved Touch Icons for Apple and Android		•	•
Android Face ID Authentication		•	•
Pull Down to Refresh Timesheets		•	•
Default Keyboard Setting in Lowercase for Logins		•	•
Customizable Search Screens in REST		⊕	⊕
Improved Popup Field Values		⊕	⊕
Expense Entry Automation With ICR			⊕
Enhanced Reloading of Timesheet Data			⊕
Color Coded Time Balances			⊕

Note: The ⊕ symbol indicates that a feature is available for Touch installations using the RESTful API only. The • symbol indicates that the feature is available for both MScript and REST.

Standard Maconomy Functionality Not Available in Deltek Touch

The following Maconomy standard features are not available in Deltek Touch:

- Proxy time and expense registration
- Approvals which are not based on approval hierarchies
- Custom actions
- Ability to change the timesheet header

Maconomy Configuration

MScript

If Deltek Touch is using the old (MScript-based) web services, make sure that users have access to the following dialogs:

Time

- TimeRegistration
- DailyTimeRegistration
- DailyTimeSheets

Prerequisites

- DailyTimeSheetLines
- JobFavorite
- JobFavorites
- TimeSheets

Expense

- ExpenseSheets
- MileageSheets
- DocumentArchives
- DocumentRevisions

Approvals

- ApprovalObjects
- ExpenseSheetLines
- TimeRegistrationDetails
- PurchaseOrders
- ShowVendorInvoices
- InvoiceEditing

RESTful

If Deltek Touch is using the new (RESTful) web services, make sure that users have access to the following dialogs:

Login:

- API_CurrentEmployee
- API_CurrentUserRole
- CurrentEmployeeApprovalsAPI

Time:

- TimeRegistration
- DailyTimeRegistration
- JobFavorite
- TimeSheets
- DailyCheckIn

Expense:

- ExpenseSheets
- MileageSheets
- DocumentArchives
- Notes

Absence and Allowance:

Prerequisites

- AbsenceCalendarLines
- AbsenceEntryOverview

Purchase Orders:

- PurchaseOrders
- DocumentArchives

Approvals:

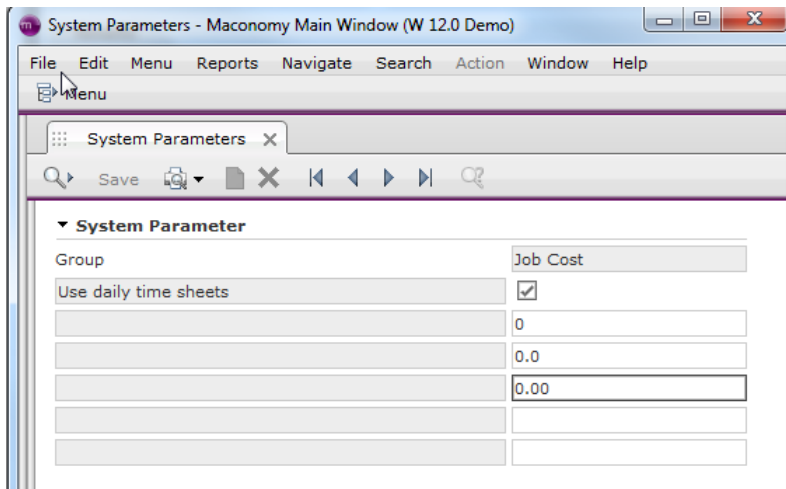
- TimeRegistrationDetails
- QuoteEditing
- ApproveJobQuotesByEmployee
- [approvepurchaseordersbyemployee](#)
- [approvepurchaseorderlinesbyemployee](#)
- [showpurchaseorderlines](#)
- PurchaseOrders
- [approveexpensesheetsbyemployee](#)
- [approveexpensesheetlinesbyemployee](#)
- ExpenseSheetLines
- [approvetimesheetsbyemployee](#)
- [approvetimesheetlinesbyemployee](#)
- [approvevendorinvoicesbyemployee](#)
- [approvevendorinvoicealloclinesbyemployee](#)
- [showinvoiceallocationlines](#)
- ShowVendorInvoices
- [InvoiceAllocation](#)
- [approvedraftinvoicesbyemployee](#)
- InvoiceEditing

Recommended System Parameters

Use Daily Time Sheets

If use MScript in weekly or daily mode, or if you use REST in daily mode, make sure that you mark the “Use daily time sheets” system parameter during installation to register time on a day at a time.

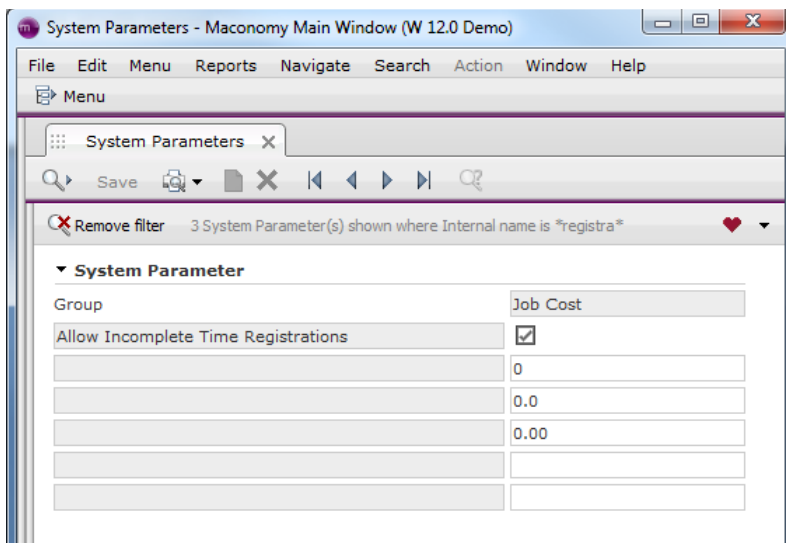
Prerequisites



Allow Incomplete Time Registrations

Another recommended system parameter is “Allow Incomplete Time Registrations.” This system parameter is not required, but if you select it, the application allows you to add a line with, for example, only a description. This task must be completed before submission.

A similar system parameter can be enabled for expenses. This supports the workflow for Quick Capture.

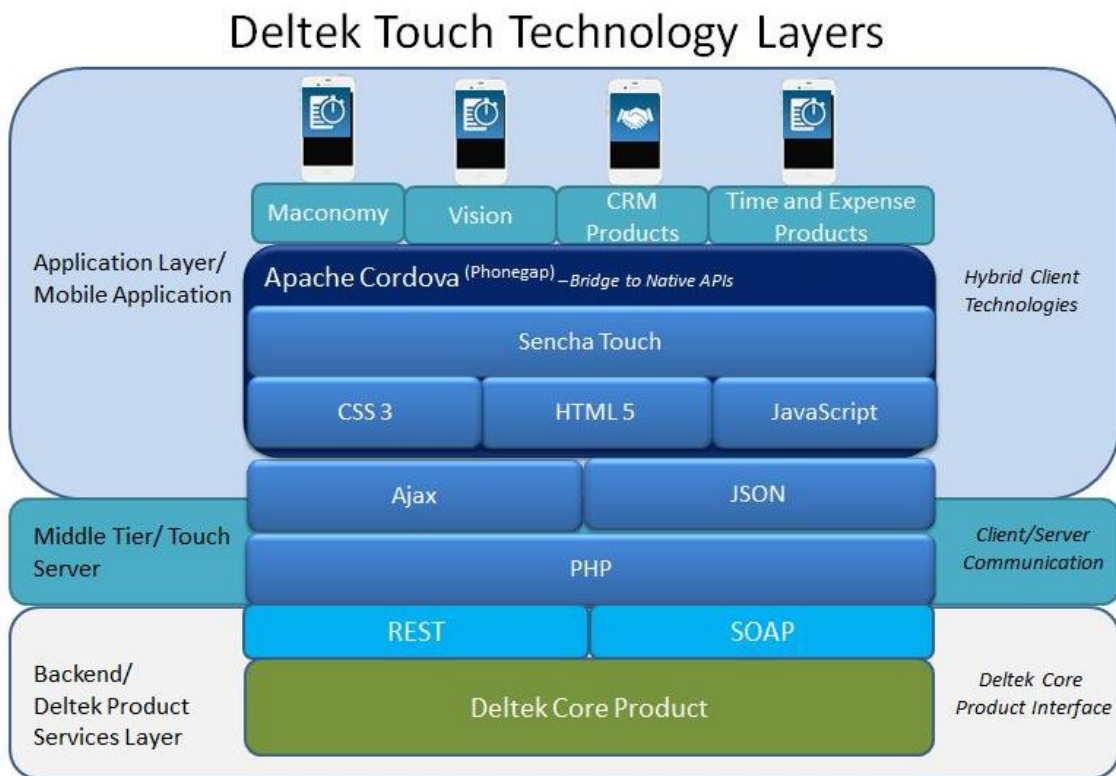


Deltek Touch for Maconomy Infrastructure

The Deltek Touch for Maconomy infrastructure is composed of the application tier, middle tier, and services tier. The Touch Server (middle tier) is used to optimize service delivery and transform data when necessary. The Touch Server only communicates with the product service layer and does not have access to the database.

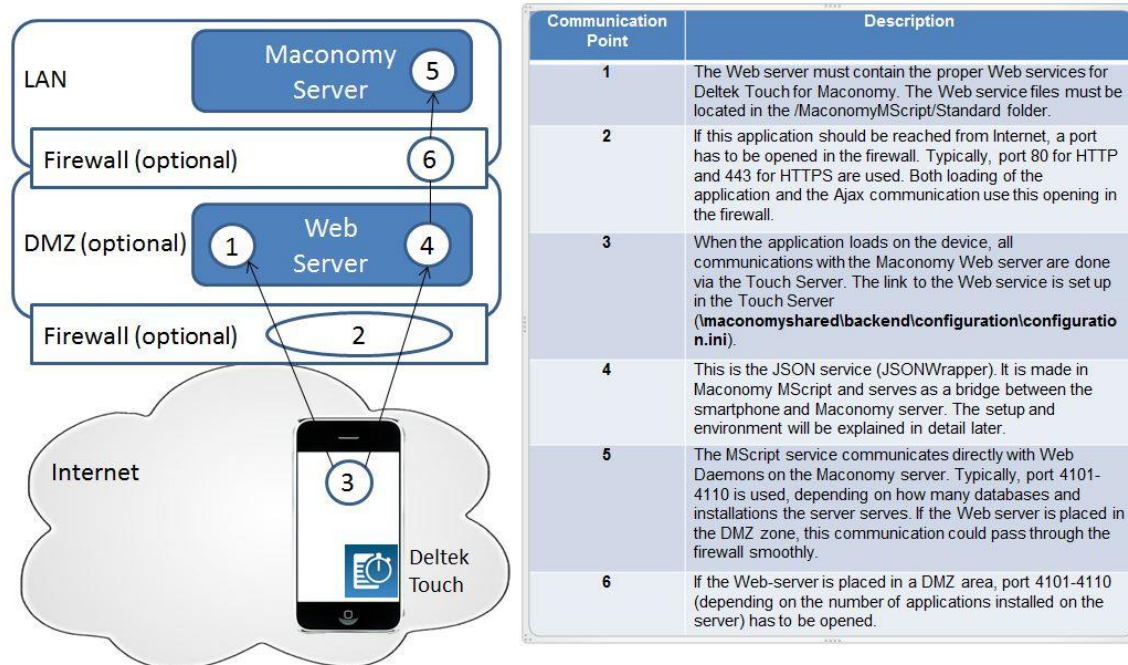
The Touch Application (client tier) is a hybrid application created using HTML 5 and CSS 3 but with the ability to access the native device capabilities.

Deltek Touch Technology Layers

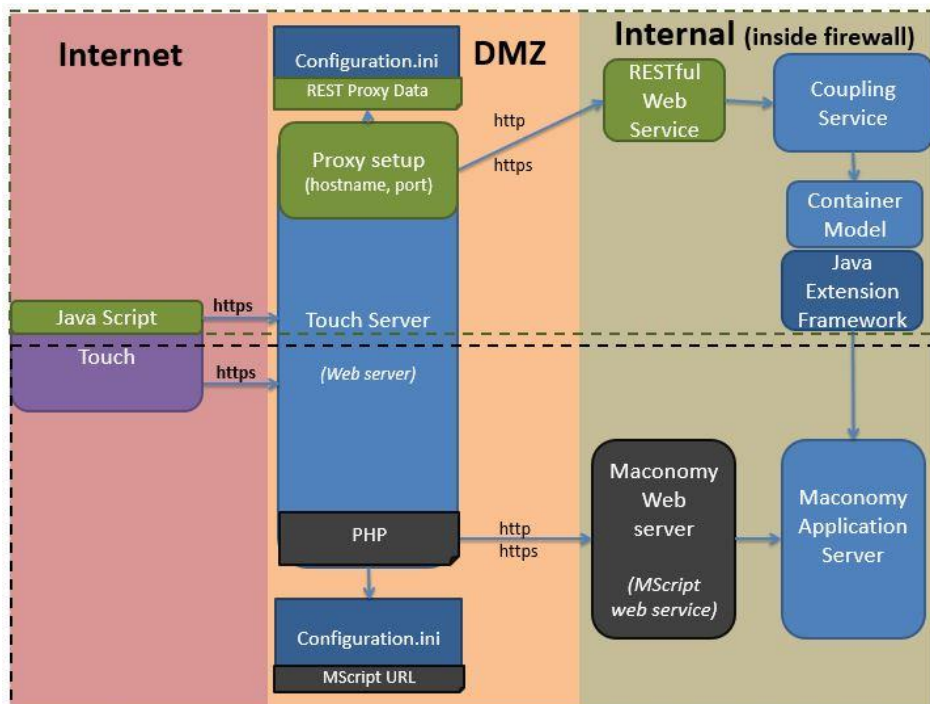


Services Tier

For Deltek Touch for Maconomy, the services tier corresponds to the Maconomy Web services. The interaction between the Maconomy product and Touch Time (client + middle tier) is illustrated below:

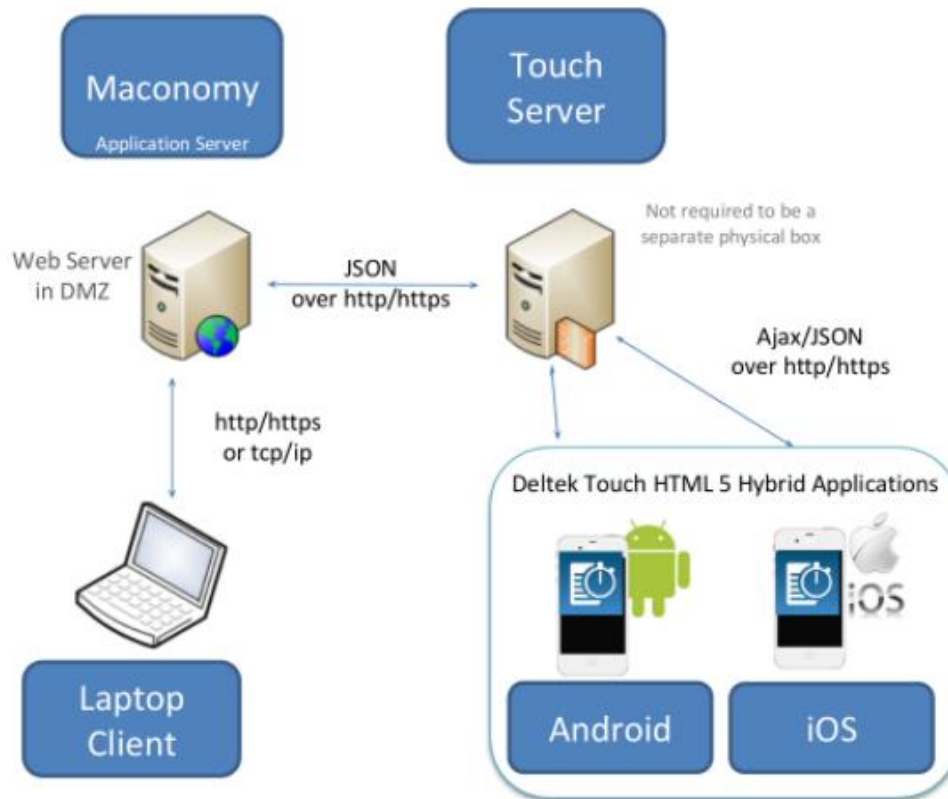


Touch 2.0 supports two Web services (MScript and REST) as illustrated below:



Supported Deployment Scenarios

The Deltek Touch for Maconomy application may be installed on another IIS or Apache server, or as a separate directory on an existing Maconomy IIS or Apache Web server.



Note: Mobile applications now require HTTP/SSL using a certificate from a recognized certificate authority. Self-signed and SHA-1 encrypted certificates cannot be used.

Deltek Touch for Maconomy Security

Deltek Touch for Maconomy is a front-end application that integrates with Deltek's traditional back office applications, such as Maconomy. Deltek Touch only interacts with the Web services layer of each of these applications, and no direct database interaction is performed. All data interaction is performed in the Web services layer.

User Authentication Models

Deltek Touch does not introduce users and passwords, or define its own models. Instead, it uses the existing product user provisioning, authentication, and authorization models.

Deltek Touch does introduce the PIN concept your convenience in application login. Once you log on to the system successfully, you can store a PIN to simplify subsequent logins. The PIN is required for all users, unless they use biometric login. Touch stores credentials for users in the device keystore/keychain.

Passwords are not stored for users using 3rd party authentication (Azure, OneLogin, or Okta), only the username.

Users can use biometric login (iOS Face ID and Touch ID, and Android Fingerprint and Face authentication) in lieu of using the PIN. This feature can be turned off if a company wishes not to use this feature.

Single Sign-On Via Kerberos

The first time you log in to Touch, you enter your network user name, password, and domain. Once successfully authenticated, you must set a PIN. Once you have set your PIN, you can log in using only this PIN. To protect your login credentials in transit, Deltek recommends that the Touch Web Server be configured to use HTTPS (instead of HTTP). The domain credentials are sent from your mobile device to the Maconomy Web server via the Touch Server.

Using HTTPS/TLS encrypts your network traffic, making it very difficult to sniff the credentials as they are passed to the Web server. On the Maconomy Web server, the domain credentials are used only to obtain a Kerberos ticket for the Maconomy service on your behalf. Your domain credentials are not stored on the Web server. As soon as this ticket is obtained, the credentials are deleted.

Single Sign-On Via Azure

The first time you log on to Deltek Touch, you enter your Azure credentials. The Azure user name is entered in Deltek Touch, but the password is entered in the native Windows Azure login screen. Once successfully authenticated, you must nominate a PIN. Once you have set your PIN, you can log on using only this PIN.

Your Azure credentials are not stored on the Touch Server or the Maconomy server. Instead, the token returned by Azure is sent to the Maconomy server to perform the Maconomy authentication. To protect the Azure token in transit, Deltek recommends that the Touch Web Server as well as the REST proxy server be configured to use HTTPS (instead of HTTP).

Sign on Using Maconomy Credentials

If Deltek Touch is not set up with Single Sign-On, you log on using your Maconomy credentials (user name and password). When logging on the first time using your Maconomy credentials, you have the option to set a PIN. Once you have set the PIN, you can use it for future logins. You can reset the PIN at any time or you can also switch back to using your Maconomy credentials instead of the PIN.

On the Maconomy Web server, the credentials are used for logging on to the Maconomy system. In a successful login, a token is added to the session and the session ID is sent back to your mobile device. From that point forward, any communication between the mobile device and Maconomy Web server includes the session ID for authentication. This means that the Maconomy credentials are sent from the mobile device to the Maconomy Web server only for the login. The password is not stored and cannot be reverse-engineered on the Maconomy Web server.

ICR Metadata Storage

In addition to attaching receipts to your expense reports using Quick Capture, Deltek together with Verifyi optimized this functionality to include the scanning of receipts to automatically fill in details for your expense sheets using intelligent character recognition (ICR).

Starting with Touch 3.6, you can utilize this feature either by capturing a photo, or selecting a photo from your device's gallery. Through Verifyi's ICR hosted system, the photo is converted to machine-readable data. The uploaded photo and extracted data are deleted from Verifyi's ICR hosted system after use. Verifyi does not store any metadata. Once a file is uploaded to a secure, encrypted S3 bucket, Verifyi

loads this file into memory, deletes it from storage, performs data extraction, and returns the data to Deltek.

Certificates and Protocols

For security reasons and due to the SSL restriction enforced by Apple, Deltek Touch no longer supports HTTP links, which include HTTP for the online help URL (see HELPDOURL in configuration.ini).

All URLs that Deltek Touch uses must be HTTPS. This includes the Touch Server URL, which you enter when you use the application for the first time. It also includes the REST proxy URL.

Note: Deltek recommends that you prepare for this transition beforehand. Otherwise, users will not be able to use Deltek Touch application.

When using Secure Sockets Layer (SSL), you must have a certificate issued by a trusted certificate authority. You must not use self-signed certificates or SHA-1 encrypted certificates. Wild card certificates work if they come from a trusted certificate authority but are not considered a best practice.

Starting with Touch 3.5, SSL certificate pinning is supported. The Touch app validates the SSL certificate used for the Touch Server URL against the fingerprint you configured in the SSL_CERT_FP1 and/or the SSL_CERT_FP2 settings in configuration.ini. To support a smooth transition when the SSL certificate expires, the fingerprint of both the old and new certificate should be provided.

For security reasons, Deltek recommends that you disable HTTP on the Touch Server. In order to disable HTTP on the Touch Server, perform the following:

1. Remove any configuration for Port 80 from the Edit Site Bindings dialog box for IIS and httpd.conf (or any relevant .conf file to manage VirtualHosts) on Apache.
2. Disable Basic Authentication on the Authentication page for IIS.
3. Verify AuthType Basic is not present on the directory directive for Apache.

Deltek Touch does not allow connections to servers with either TLS 1.0, or SSL 3 and earlier to be enabled, or any older protocols. Only TLS 1.1 and/or TLS 1.2 may be enabled for connections to be successful.

If any of the deprecated protocols are enabled, users trying to connect to IIS servers when running Deltek Touch will get error like "Invalid Server URL". To resolve this issue, perform the following on the Touch Server:

1. Deprecated transport layers disabled – TLS 1.0, SSL 3 (or earlier).
2. Supported transport layers enabled (if not already) – TLS 1.1 and/or TLS 1.2.
3. Restart the server.

Note: Here is a support article from Microsoft on how to disable the deprecated transport layers: <https://support.microsoft.com/en-us/kb/187498> (How to disable PCT 1.0, SSL 2.0, SSL 3.0, or TLS 1.0 in Internet Information Services).

Security Assessments

Deltek strives to deliver a highly secure applications. Therefore, two independent security assessors, GuidePoint Security and Stratum, have performed a Mobile Application Security Assessment with the intent of evaluating the security posture of Deltek's Mobile Touch suite of applications. The security

baselines for the scope of the audit were the OWASP Top 10 Web Application vulnerabilities and the OWASP Top 10 Mobile vulnerabilities.

Attention: For more information, see
https://www.owasp.org/index.php/Top10#OWASP_Top_10_for_2013.

Microsoft IIS Web Server Configuration on Windows Server 2012

Perform this procedure if you are going to install the Deltek Touch for Maconomy application on Windows Server 2012. The Deltek Touch for Maconomy installer checks if Microsoft Internet Information Services (IIS) is already installed before proceeding with the installation. The installation terminates if IIS is not yet installed.

Note: Deltek Touch for Maconomy requires **Anonymous Authentication** and does not support **Basic Authentication**.

To configure Microsoft IIS Web server on Windows 2012 Server, complete the following steps:

1. From the desktop view, display the Charm Bar. To do this, take one of the following actions:
 - Move the cursor to the bottom right corner of the screen, which causes the bar to display on the right.
 - On your keyboard, press the Windows key + **C**.

Attention: For more information about Charm Bar, see the following link:
<http://windows.about.com/od/windowsforbeginners/a/Get-To-Know-The-New-Windows-8-Start-Menu.htm>.

2. Click **Start » Administrative Tools » Server Manager**.
3. On the left pane, click **IIS**.
4. On the right pane, scroll down to see the **ROLES and FEATURES** section.
5. From the **Tasks** drop-down list, select **Add Roles and Features**. The Add Roles and Feature Wizard displays.
6. Click **Next**.
7. Select the **Role-based or feature-based installation** option.
8. On the Select Destination Server page, verify if the **Select a server from the server pool** option is selected. Click **Next**.
9. On the Select server roles page, expand **Web Server (IIS) » Web Server » Application Development**, select **CGI** and **ISAPI** extensions
10. On the Select server roles page, expand **Web Server (IIS) » Web Server » Management Tools**, and then select **IIS Management Scripts and Tools**.
11. Click on **Next**. The Select features page displays.
12. Click **Next**, and then click **Install**.

Microsoft IIS Web Server Configuration on Windows 2016 Server

Perform this procedure if you are going to install the Deltek Touch for Maconomy application on Windows Server 2016. The Deltek Touch for Maconomy installer checks if Microsoft Internet Information Services (IIS) is already installed before proceeding with the installation. The installation terminates if IIS is not yet installed.

Note: Deltek Touch for Maconomy requires **Anonymous Authentication** and does not support **Basic Authentication**.

To configure Microsoft IIS Web server on Windows 2016 Server, complete the following steps:

1. Click **Start » Windows Administrative Tools » Server Manager**.
2. On the left pane, click **IIS**.
3. On the right pane, scroll down to see the ROLES and FEATURES section.
4. From the **Tasks** drop-down list, select **Add Roles and Features**. The Add Roles and Feature Wizard displays.
5. Click **Next**.
6. Select the **Role-based or feature-based installation** option.
7. On the Select Destination Server page, verify if the **Select a server from the server pool option** is selected. Click **Next**.
8. On the Select server roles page, expand **Web Server (IIS) » Web Server » Application Development**, select the **CGI** and **ISAPI** extensions
9. On the Select server roles page, expand **Web Server (IIS) » Web Server » Management Tools**, and then select *IIS Management Scripts and Tools*.
10. Click on **Next**.
11. On the Select features page, click **Next**, and then click **Install**.

Microsoft IIS Web Server Configuration on Windows Server 2019

Perform this procedure if you are going to install the Deltek Touch for Maconomy application on Windows Server 2019. The Deltek Touch for Maconomy installer checks if Microsoft Internet Information Services (IIS) is already installed before proceeding with the installation. The installation terminates if IIS is not yet installed.

Note: Deltek Touch for Maconomy requires **Anonymous Authentication** and does not support **Basic Authentication**.

To configure Microsoft IIS Web server on Windows 2019 Server, complete the following steps:

1. Click **Start » Windows Administrative Tools » Server Manager**.
2. On the left pane, click **IIS**.
3. On the right pane, scroll down to see the ROLES and FEATURES section.
4. From the **Tasks** drop-down list, select **Add Roles and Features**. The Add Roles and Feature Wizard displays.
5. Click **Next**.
6. Select the **Role-based or feature-based installation** option.
7. On the Select Destination Server page, verify if the **Select a server from the server pool option** is selected. Click **Next**.
8. On the Select server roles page, expand **Web Server (IIS) » Web Server » Application Development**, select the **CGI** and **ISAPI** extensions
9. On the Select server roles page, expand **Web Server (IIS) » Web Server » Management Tools**, and then select *IIS Management Scripts and Tools*.
10. Click on **Next**.
11. On the Select features page, click **Next**, and then click **Install**.

Deltek Touch for Maconomy Installation on Windows Server

Before you proceed, make sure that you downloaded the server component from Deltek Software Manager (DSM). Once the server part is installed, download the application from *Google Play Store* or *Apple App Store* and install it in your device.

Attention: For more information about DSM, see 3TUDownloading Deltek Products using Deltek Software ManagerU3T in this document.

To install the Deltek Touch application, complete the following steps:

1. Run **DeltekTouchMaconomy36.exe** to launch the installation program.

Note: Taking into consideration the enhanced security in Windows Server 2012, Deltek recommends selecting the **Run as Administrator** option when launching the installation executables even if you (as the logged-on user) has local administrative rights. You can access this option by right-clicking the installation executable file name in Windows Explorer and then clicking **Run as Administrator** on the shortcut menu.

2. On the Welcome to the Deltek Touch Maconomy 3.6 Installation Wizard page, click **Next**.
3. On the Select Web Server Type page, select one of the following options, and click **Next**:
 - **Apache Web Server**
 - **IIS**
4. On the Maconomy Product Information page, provide the necessary information, and click **Next**:
 - **Maconomy MScript URL** – Enter the full Maconomy Touch URL (for example, `http://eu100242:20003/cgi-bin/Maconomy/MaconomyTouch.w16de.en_US.exe`).
 - **Charset** – *You can only edit this field if you are performing a new install.* Select a character set from the drop-down list.

Note: The default character set is **ISO-8859-1**. You need to change the character set manually in `configuration.ini` from ISO-8859-1 to UTF-8.

- **Maconomy 2.2.4 or later** – Select this option if your Maconomy core is 2.2.4 or later.

Note: If this option is not marked, you will not be able to set up Touch to use the RESTful web services. If your Maconomy version is 2.2.4 / 2.3 GA or later, then is very important to mark this option, to be able to set up REST for Touch.

5. On the IIS Website Information page, select or enter the default Web site, and click **Next**.

Note: Select the **Please check the box if the website is configured for SLL** check box to use the HTTPS protocol when transmitting data over the Internet.

If no site displays in the drop-down list, make sure you completed the steps from Microsoft IIS Web Server configuration on Windows Server from the previous section.

If you do not have an IIS site already, starting with Touch 3.0, it is now possible to create a dedicated IIS Site for Deltek Touch, within the Touch installer. Click the **New Site** button if you wish to create a new IIS Site. You will need to supply the following details:

- a. **Site Name** – Name of your new IIS Web Site
 - b. **Physical Path** – Local directory for locating your web site
 - c. **Binding**
 - i. **Type** – HTTP or HTTPS
 - ii. **IP Address**
 - iii. **Port Number**
 - iv. **Host Name**
 - v. **SSL Certificate** (visible if type is HTTPS)
6. Take one of the following actions, depending on the selected Web server type in step 3 and the selection you make for the **Maconomy 2.2.4 or later** option in step 4:

Apache Web Server	IIS
If you selected Apache Web Server in step 3 but do not select Maconomy 2.2.4 or later in step 4, the Choose Apache Installation Directory page displays. Proceed to step 7.	If you selected IIS in step 3 but do not select Maconomy 2.2.4 or later in step 4, the Choose Application Install Directory page displays. Proceed to step 10.
<p>If you selected Apache Web Server in step 3 and Maconomy 2.2.4 or later in step 4, the REST Proxy Data page displays. Provide the necessary information, and click Next.</p> <ul style="list-style-type: none"> ▪ Host Name – Enter the host name of the REST endpoint machine (for example, touch.<company name>.com). ▪ Port Number – Enter the port number if there is a specific port connecting to REST endpoint. ▪ Language – Enter a specific Language to use in Maconomy core (for example, en-US). ▪ Database – Enter the short name of the Maconomy core. 	<p>If you selected Apache Web Server in step 3 and Maconomy 2.2.4 or later in step 4, the REST Proxy Data page displays. Provide the necessary information, and click Next.</p> <ul style="list-style-type: none"> ▪ Host Name – Enter the host name of the REST endpoint machine (for example, touch.<company name>.com). ▪ Port Number – Enter the port number if there is a specific port connecting to REST endpoint. ▪ Language – Enter a specific Language to use in Maconomy core (for example, en-US). ▪ Proxy Pass Client Code – Enter the first pattern from rewrite rules if applied (for example, in

Apache Web Server	IIS
Proceed to step 7.	<p>resttouch/containers/*, the value is “resttouch”).</p> <ul style="list-style-type: none"> ▪ Database – Enter the short name of the Maconomy core. ▪ IIS Site Name – Enter the IIS application name on where the rewrite rules are applied (for example, DeltekTouch). If the rewrite rules are set to IIS Site Level (for example, Default Web Site), this field should be blank. <p>All these fields (except Host Name) will have default values derived from the URL you entered on the Maconomy Product Information page, respectively the data you specified on the IIS website Information page.</p>

- On the Choose Apache Installation Directory page, verify if the default location for the Apache Web software is correct, and click **Next**. Otherwise, click **Browse** to navigate to the installation folder, and click **Next**. Proceed to step 10.

Note:

- The default folder is C:\Program Files (x86)\Apache on a 64-bit machine or C:\Program Files\Apache on a 32-bit machine.
- If you selected Apache Web Server, the files are installed onto <INSTALL_DIR>\htdocs\DeltekTouch\Maconomy\Time_<MaconomyLanguage>. If multiple instances of Deltek Touch for Maconomy are installed (using the same Maconomy language) on Apache Web server, the folder name will be incremented.

For example:

1st instance -

<INSTALL_DIR>\htdocs\DeltekTouch\Maconomy\Time_<MaconomyLanguage>

2nd instance -

<INSTALL_DIR>\htdocs\DeltekTouch\Maconomy\Time_<MaconomyLanguage>_1

3rd instance -

<INSTALL_DIR>\htdocs\DeltekTouch\Maconomy\Time_<MaconomyLanguage>_2

You can rename the “Time_<MaconomyLanguage>_<number>” folder after the install; the updated folder name will reflect on the URL.

- On the REST Module Setup, select the setup for REST Module and click **Next**:
 - **Use for Time** (requires Maconomy 2.2.4 or later) – Select this option to use RESTful Web service for time registration. If not selected, it uses the MScript Web service.

- **Use for Expense** (requires Maconomy 2.2.4 or later) – Select this option to use RESTful Web service for expense and mileage registration. If not selected, it uses the MScript Web service.
- **Use for Approvals** (requires Maconomy 2.5.1 or later) – Select this option to use RESTful Web service for approvals.

By default, the first two options are not selected, while the third option is selected.

9. On the Maconomy Coupling Service Endpoint page, this only displays when one of the REST Module is selected. Enter the coupling service details and click **Next**.
 - **Hostname** – This is the hostname/IP from the Maconomy Coupling Service. Auto-populated from MScript URL.
 - **Port Number** – This is the port number from the Maconomy Coupling Service.
10. On the Choose Application Install Directory page, verify if the default location for the Deltek Touch software is correct, and click **Next**. Otherwise, click **Browse** to navigate to the installation folder, and click **Next**. Continue to the next page (step 11).

Note: If you selected IIS, the default folder is C:\Program Files (x86)\Deltek\Touch on 64-bit machine or else C:\Program Files\Deltek\Touch on 32-bit machine. You can run the installer multiple times to install several instances of Deltek Touch for Maconomy. Each instance, however, requires a new virtual directory pointing to a different physical location (Install Directory).

11. On the Pre-Installation Summary page, review the installation details that you provided. The set of information details on the Pre-Installation Summary page varies, depending on the Web server type that you selected in step 3.
 - If you want to change any settings, click **Back**, and make the necessary updates.
 - If you are done, click **Install** to begin the installation.

Note: If there are errors, the DeltekTouchInstall.log file displays. For **Apache Web Server**, the log file is saved in the C:\Program Files\Apache folder. For **IIS**, the log file is saved in the Application Install folder.

You can test the REST Container URL specified on the screen.

12. When the installation is done, on the InstallShield Wizard Complete page, click **Finish**.

Note: If you selected **Apache Web Server**, restart the Apache Windows service for the changes to take effect.

For Apache, the default URL is **https://<server>:<port>/deltektouch/maconomy/time/**, where **<server>** refers to the host name of your Deltek Touch Server and **<port>** refers to the port number that the Maconomy server uses to listen for requests.

For IIS, the default URL is usually **https://<server>/deltektouch/maconomy/time/**.

Deltek Touch for Maconomy Installation on Linux Server

Perform this procedure if you are going to install the Deltek Touch for Maconomy application on Linux server.

Prerequisite

Before you proceed with the PHP upgrade, make sure that you alter the channel subscription and select the optional repository.

Attention: For more information, see <http://snippets.roozbehk.com/post/35750940300/php-mbstring-missing-on-red-hat-enterprise-linux-6>.

RHEL 6.0 and 6.5

The recent version is PHP 7.0.27 with Apache 2.4.

For the Apache 2.4 installation, complete the following steps:

Note: If Apache 2.2 is installed, you should stop the original httpd (Apache 2.2) because the configurations would overlap. In addition, you should disable automatic startup of Apache 2.2 if enabled).

1. Download the file **rhsc1-httpd24-epel-6-x86_64-1-2.noarch** from the following link:
https://www.softwarecollections.org/repos/rhsc1/httpd24/epel-6-x86_64/noarch/
2. From WinSCP, copy the file from Windows to RHEL **/var/tmp**.
3. In the terminal window, run the following commands:
 - a. `rpm -i rhsc1-httpd24-epel-6-x86_64-1-2.noarch.rpm`
 - b. `yum install httpd24`
 - c. `ps -ef | grep httpd`
 - d. `/etc/init.d/httpd24-httpd start`

For the PHP 7.0.27 installation/upgrade, complete the following steps:

Note: At this point, you may get a prompt stating that there are one or more dependencies missing from the system that should also be installed. You perform the installation manually because this is an SCL package and yum cannot install the dependencies automatically.

In the terminal window, run the following commands:

1. `yum list | grep rh-php70*`
2. For new install: `yum install rh-php70-php.x86_64`

For update: `yum update rh-php70-php.x86_64`

3. `/etc/init.d/httpd24-httpd restart`

If Deltek Touch is still not working, perform the following actions after you complete any of the installation steps above, depending on your RHEL version.

- Execute the command `sudo setsebool -P httpd_can_network_connect` on.
- Launch the Deltek Touch website.

Note: Before you perform the installation procedure, make sure that you rename **DeltekTouch** folder found on the specified location for **Apache Web Root** inside **installDeltekTouch.sh** file to **DeltekTouchPrev**. By default, the location is set to `/var/www/html`.

```
cd <location specified in Apache Web Root parameter>
```

```
mv DeltekTouch DeltekTouchPrev
```

The file name where the location of the Web root parameter is set is as follows:
././Linux/installDeltekTouch.sh.

To install the application, complete the following steps:

1. Copy **DeltekTouchMaconomyLinux36.tar** and save it to a temporary folder on a Linux machine.
2. Extract the TAR file using `tar -xvf DeltekTouchMaconomyLinux36.tar`. The files are extracted to the Linux sub-directory.
3. Update the following properties in **install DeltekTouch.sh** within the section enclosed in "-----".
 - `APACHE_PORT`
 - `SVR_NAME`
 - `CHARSET`
 - `PHP_INSTALLED`
 - `APACHE_WEB_ROOT`
 - `INSTALL_DIRECTORY`
 - `URLDomain`
 - `CLIENTURL`
 - `MACONOMY_224UP`

If the current Maconomy core is 2.2.4 or later, provide details for the following entries:

- `REST_HOST_NAME`
- `REST_PORT_NUMBER`
- `REST_LANGUAGE`
- `REST_DATABASE`
- `USERESTFORTIME`
- `USERESTFOREXPENSE`

4. Run the following command from the terminal to install the software:

```
./installDeltekTouch.sh
```

Note: Make sure you run the command as root user.

5. After the installation, restart the Apache Web server for the changes to take effect.

Deltek Touch for Maconomy Setup

This section contains information on how to set up Deltek Touch for Maconomy, corresponding service pack, hot fix, Web services, and related configuration settings.

Maconomy MScript Web Services

This section is mandatory. It includes the installation of the MScript Web services.

Note: Even if you prefer to use the RESTful Web services, you still need to have the MScript Web services installed.

Validate MScript Web Services

Touch 3.6 can be installed only on Maconomy 2.5.2.

Note: If you use an older Maconomy version, you must upgrade to Maconomy 2.5.2, in order to be able to install the Touch 3.6 backend.

For Touch 3.6, there are no FPU's available in DSM.

The MScript Web services for Touch 3.6 are included in the Maconomy 2.5.2 APU.

Once you installed the Maconomy 2.5.2 APU, the MScript Web Services should be installed automatically.

Please check the following:

- Maconomy 2.5.2 APU is installed
- MaconomyTouch CGI program is installed
- Touch API 3.6.0.11.21 is installed (in the app go to Settings/About and check the Web Service version)
- Latest dictionaries are installed

Note: If any of the above conditions is not met, please check [Appendix E](#) for further suggestions.

Maconomy RESTful Web Services

Enable RESTful Web Services in Maconomy

The RESTful Web services need to be enabled in the Coupling Service. If this is already the case, continue with the Proxy Server setup. Otherwise, perform the instructions discussed in this section.

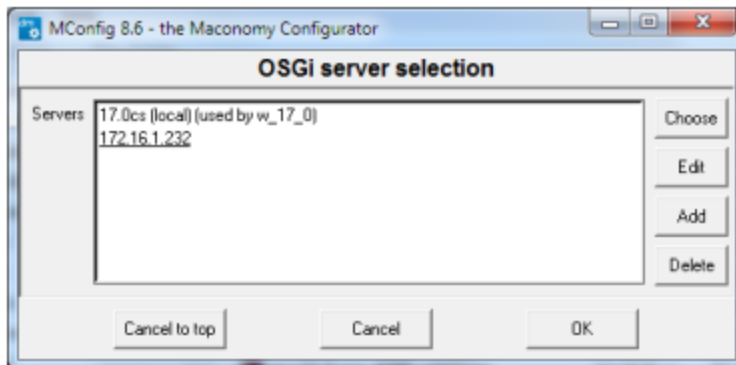
To enable the RESTful Web services, complete the following steps:

1. Right-click the MConfig executable, select **Run as administrator**, and follow the prompts accepting all default values.
2. In the MConfig Main window, double-click the application to open.

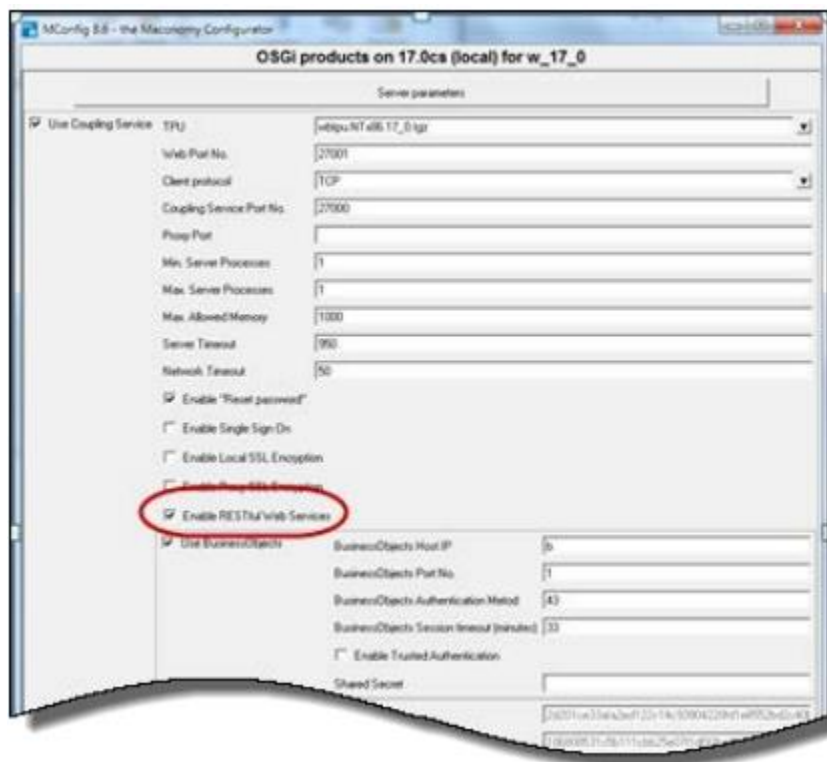
3. In the Application Instance window, click **OSGi products**.



4. On the **OSGi Server Selection** screen, select the Coupling Service to update.



5. Select the **Enable RESTful Web Services** option.



6. Click **OK** to save.
7. When the SSL warning displays, click **OK** to return to the Application Instance window.

8. Click **OK** to accept the changes and return to the main screen.
9. Click **Next**, **Next**, and **Yes** to complete the installation.

Proxy Server Setup

Apache

To enable the proxy server in Apache, complete the following steps:

1. Open the “httpd.conf” file.
2. Add the following line of codes:

```
ProxyRequests Off
ProxyPreserveHost On
```
3. Under the <VirtualHost>, add the following line of code:

```
AllowEncodedSlashes NoDecode
```
4. Add the “ProxyPass” for containers, filedrop, maconomy-api and logging REST API, for example:

```
ProxyPass /containers      http:// 10.1.1.11:1111/containers  retry=0 nocanon
ProxyPass /filedrop        http:// 10.1.1.11:1111/filedrop    retry=0 nocanon
ProxyPass /auth            http:// 10.1.1.11:1111/auth        retry=0 nocanon
ProxyPass /maconomy-api    http:// 10.1.1.11:1111          retry=0 nocanon
ProxyPass /logging         http:// 10.1.1.11:1111/logging   retry=0 nocanon
```



```
RequestHeader set Maconomy-Forwarded-Base-Path maconomy-api
<Proxy *>
    Order deny,allow
    Allow from all
</Proxy>
```
5. Restart the Apache Server.

IIS

If you use the Touch 2.2 (or higher) Installer to install a new REST Touch or upgrade to REST Touch, most of the steps described below will be done by the Installer:

1. Install the Microsoft IIS URL Rewrite 2.0.
2. Install the Application Request Routing (ARR).
3. Set server variable HTTP_X_FORWARDED_PROTO.
4. Create rewrite rules for container, filedrop, auth, maconomy-api and logging.
5. Update configuration.ini.
6. Enable preserveHostHeader.
7. Enable support for “:” and “/” in web requests

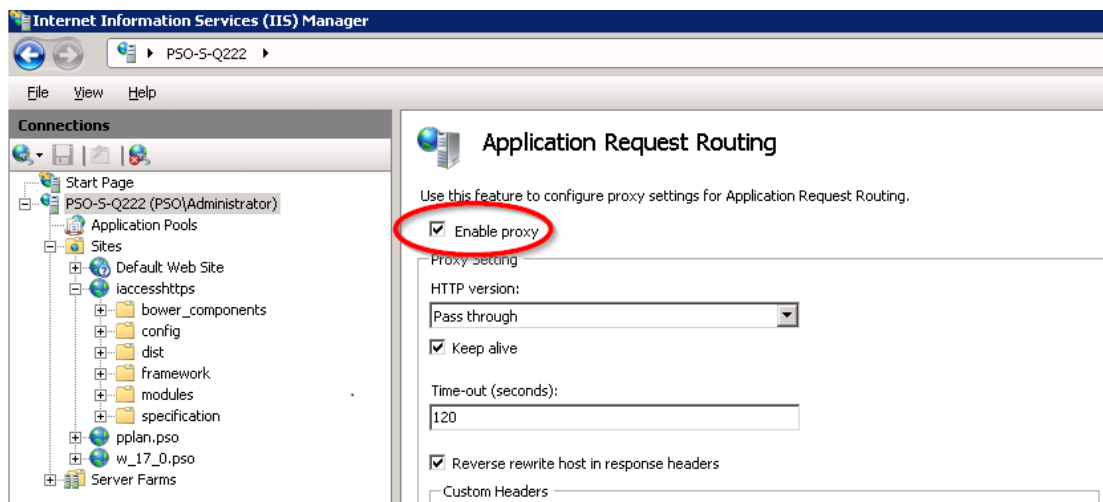
The only remaining manual setup step is for switching to using HTTPS.

In case you do not use the Installer, as specified above, respectively if your installation is not successful, you can find below the description of the manual steps needed to be performed by you for setting up the REST proxy on IIS.

Before you set up the proxy server in IIS, you need to install the **Microsoft IIS URL Rewrite 2.0** and install the **Application Request Routing (ARR)**.

Attention: For more information on IIS URL Rewrite, see <http://www.iis.net/downloads/microsoft/url-rewrite>. For more information on installing the ARR plugin, see <http://www.microsoft.com/en-us/download/details.aspx?id=39715>. In IIS 8.0 and 8.5, you need to install the “Web Platform Installer” before you can install the ARR plugin.

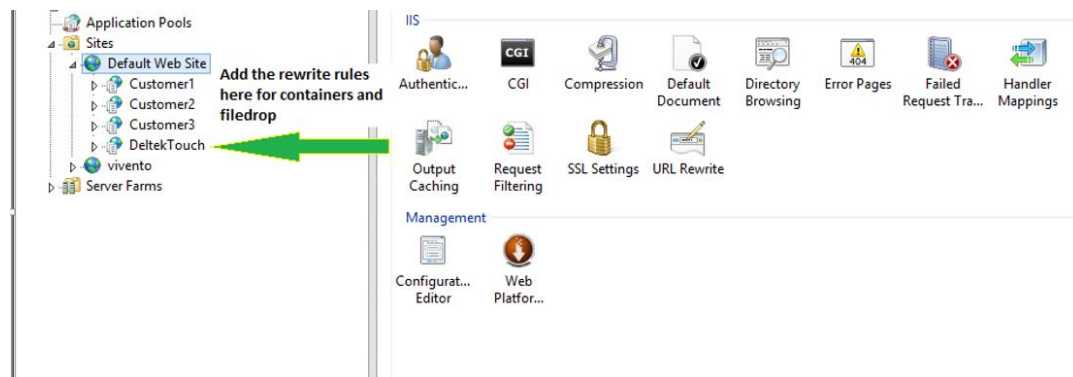
1. Restart IIS Manager.
2. In the “Application Request Routing” configuration window, click **Server Proxy Settings**.
3. Select **Enable proxy**.



To perform the proxy server setup, complete the following steps:

1. Add the rewrite rules for the proxy in the IIS manager. First click the website where you want to define the rewrite rules.

Deltek recommends that rules must be added to the local site (for example, DeltekTouch) not to the root site (for example, Default Web Site).



2. Click the applet “**URL Rewrite**.”

3. Add the rules for “containers” REST API for specific client. For more information, see the [Add Rules to “containers” REST API](#) section.
4. Add the rules for “filedrop” REST API for specific client. For more information, see the [Add Rules to Filedrop API](#) section.
5. Add the rules for “auth” REST API for specific client. For more information, see the [Add Rules to Auth API](#) section.
6. Add the rules for “maconomy-api” REST API for specific client. For more information, see the [Add Rules to Maconomy-API](#) section.
7. Add the rules for “logging” REST API for specific client. For more information, see the [Add Rules to Logging API](#) section.
8. Restart the IIS Manager.

Set Up HTTPS

To set up HTTPS, complete the following steps:

1. Open the **URL Rewrite** applet.
2. In the **Actions** pane, click **View Server Variables....**
3. On the Server Variables window, click **Add...** and add the variable **HTTP_X_FORWARDED_PROTO**.
4. In the configuration.ini file, change the **REST_HTTP_PROTOCOL** to **https** and **REST_DOMAIN_NAME** (if not set) to an external URL accessible thru Internet. (for example, touch.deltek.com).
5. Restart the Web server.

Add Rules to the “containers” REST API

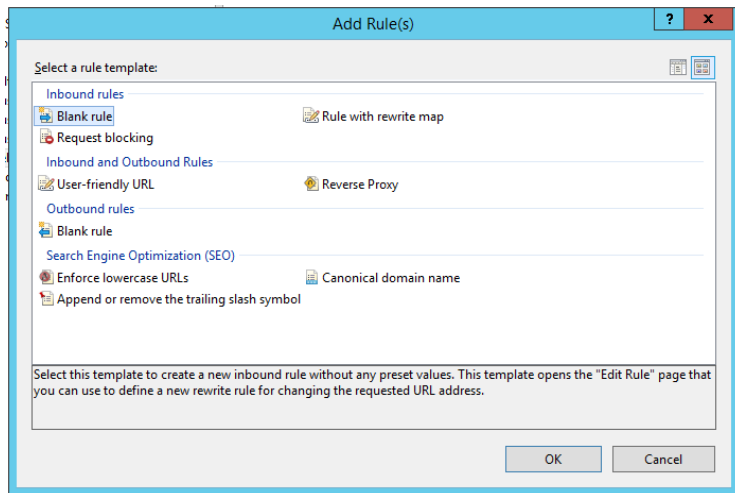
The rules can be added on application or site level.

To add rules to the “containers’ REST API, complete the following steps:


1. If the rewrite rules are on the IIS application, you must specify both **REST_IIS_TOUCH_FOLDER_NAME** and **REST_PROXY_PASS_CLIENT_CODE**
2. If the rewrite rules are on the IIS site, both **REST_IIS_TOUCH_FOLDER_NAME** and **REST_PROXY_PASS_CLIENT_CODE** should be empty.

To add the rules to container API, complete the following steps:

1. Open the **URL Rewrite** applet.
2. In the **Actions** pane, click **Add Rule(s)**.
3. On the Add Rule(s) dialog box, select the **Blank Rule** option in the **Inbound rules** section.



4. Click **OK**.
5. On the Edit Inbound Rules window, enter or select the appropriate values:

 **Edit Inbound Rule**

Name:
Containers

Match URL

Requested URL:
Matches the Pattern

Using:
Wildcards

Pattern:
containers/*

☒ Ignore case

Test pattern...

Conditions

Server Variables

Action

Action type:
Rewrite

Action Properties

Rewrite URL:
http://127.0.0.1:4111/containers/{R:1}

☒ Append query string

☐ Log rewritten URL

☐ Stop processing of subsequent rules

- **Name** – Set the rule name (for example, Containers).
- **Requested URL** – Select the Matches the **Pattern** option.
- **Using** – Select the **Wildcards** option.
- **Pattern** – Enter the pattern, for example, **proxycode/containers/(*)**.
- **Ignore case** – Select this option.
- **Conditions** – *Do not change anything.*

- **Server Variables** – Add the HTTP_X_FORWARDED_PROTO with an **https** value if the Touch server is setup with https. Otherwise, use **http**. Checked the 'Replace the existing value.'
 - **Action**
 - **Action type** – Select the **Rewrite** option.
 - **Action Properties**
 - **Rewrite URL** – Enter the URL for the RESTful API, for example, `http://10.2.6.131:8082/containers/{R:1}`.
 - **Append query string** – Select this option.
 - **Log rewritten URL** – Do not select this option.
 - **Stop processing of subsequent rules** – Do not select this option.
6. On the right pane, click **Apply**.

Add Rules to the Filedrop API

To add the rules to the filedrop API, complete the following steps:

1. Open the **URL Rewrite** applet.
2. In the Actions pane, click **Add Rule(s)**.
3. On the Add Rule(s) dialog box, select the **Blank Rule** option in the **Inbound rules** section.
4. Click **OK**.
5. On the Edit Inbound Rules window, enter or select the appropriate values:
 - **Name** – Set the rule name (for example, Filedrop).
 - **Requested URL** – Select the **Matches the Pattern** option.
 - **Using** – Select the **Wildcards** option.
 - **Pattern** – Enter the pattern, for example, `proxycode/filedrop/*`.
 - **Ignore case** – Select this option.
 - **Conditions** – *Do not change anything.*
 - **Server Variables** – Add the HTTP_X_FORWARDED_PROTO with an **https** value if the Touch server is setup with https. Otherwise, use **http**. Checked the 'Replace the existing value.'
 - **Action**
 - **Action type** – Select the **Rewrite** option.
 - **Action Properties**
 - **Rewrite URL** – Enter the URL for the RESTful API, for example, `http://10.2.6.131:8082/filedrop/{R:1}`.
 - **Append query string** – Select this option.
 - **Log rewritten URL** – Do not select this option.
 - **Stop processing of subsequent rules** – Do not select this option.
6. On the right pane, click **Apply**.

Add Rules to the Auth API

To add the rules to the auth API, complete the following steps:

1. Open the **URL Rewrite** applet.
2. In the Actions pane, click **Add Rule(s)**.
3. On the Add Rule(s) dialog box, select the **Blank Rule** option in the **Inbound rules** section.
4. Click **OK**.
5. On the Edit Inbound Rules window, enter or select the appropriate values:
 - **Name** – Set the rule name (for example, Auth).
 - **Requested URL** – Select the **Matches the Pattern** option.
 - **Using** – Select the **Wildcards** option.
 - **Pattern** – Enter the pattern, for example, proxycode/auth/*.
 - **Ignore case** – Select this option.
 - **Conditions** – Do not change anything.
 - **Server Variables** – Add the HTTP_X_FORWARDED_PROTO with an https value if the Touch server is setup with https. Otherwise, use http. Checked the 'Replace the existing value.'
 - **Action**
 - **Action type** – Select the **Rewrite** option.
 - **Action Properties**
 - **Rewrite URL** – Enter the URL for the RESTful API, for example, http://10.2.6.131:8082/filedrop/{R:1}.
 - **Append query string** – Select this option.
 - **Log rewritten URL** – Do not select this option.
 - **Stop processing of subsequent rules** – Do not select this option.
6. On the right pane, click **Apply**.

Add Rules to the Maconomy-API

To add the rules to the Maconomy-API, complete the following steps:

1. Open the **URL Rewrite** applet.
2. In the Actions pane, click **Add Rule(s)**.
3. On the Add Rule(s) dialog box, select the **Blank Rule** option in the **Inbound rules** section.
4. Click **OK**.
5. On the Edit Inbound Rules window, enter or select the appropriate values:
 - **Name** – Set the rule name (for example, Maconomy-API).
 - **Requested URL** – Select the **Matches the Pattern** option.
 - **Using** – Select the **Wildcards** option.

- **Pattern** – Enter the pattern, for example, proxycode/maconomy-api/*.
 - **Ignore case** – Select this option.
 - **Conditions** – Do not change anything.
 - **Server Variables** – Add the HTTP_X_FORWARDED_PROTO with an https value if the Touch server is setup with https. Otherwise, use http. Checked the 'Replace the existing value.'
 - **Action**
 - **Action type** – Select the **Rewrite** option.
 - **Action Properties**
 - **Rewrite URL** – Enter the URL for the RESTful API, for example, http://10.2.6.131:8082/{R:1}.
 - **Append query string** – Select this option.
 - **Log rewritten URL** – Do not select this option.
 - **Stop processing of subsequent rules** – Do not select this option.
6. On the right pane, click **Apply**.

Add Rules to the Logging API

To add the rules to the logging API, complete the following steps:

1. Open the **URL Rewrite** applet.
2. In the Actions pane, click **Add Rule(s)**.
3. On the Add Rule(s) dialog box, select the **Blank Rule** option in the **Inbound rules** section.
4. Click **OK**.
5. On the Edit Inbound Rules window, enter or select the appropriate values:
 - **Name** – Set the rule name (for example, Logging).
 - **Requested URL** – Select the **Matches the Pattern** option.
 - **Using** – Select the **Wildcards** option.
 - **Pattern** – Enter the pattern, for example, proxycode/logging/*.
 - **Ignore case** – Select this option.
 - **Conditions** – Do not change anything.
 - **Server Variables** – Add the HTTP_X_FORWARDED_PROTO with an https value if the Touch server is setup with https. Otherwise, use http. Checked the 'Replace the existing value.'
 - **Action**
 - **Action type** – Select the **Rewrite** option.
 - **Action Properties**
 - **Rewrite URL** – Enter the URL for the RESTful API, for example, http://10.2.6.131:8082/logging/{R:1}.
 - **Append query string** – Select this option.

- **Log rewritten URL** – Do not select this option.
 - **Stop processing of subsequent rules** – Do not select this option.
6. On the right pane, click **Apply**.

Preserve Host Header

1. Open a console with Administrative privileges, and navigate to the following folder:
C:\Windows\System32\inetsrv
2. Enable **preserveHostHeader** by running the following command:

```
cd C:\Windows\System32\inetsrv
appcmd.exe set config -section:system.webServer/proxy
/preserveHostHeader:"True" /commit:apphost
```
3. Restart the Web server.

Update configuration.ini

This procedure allows you to update the configuration.ini file.

To update the configuration.ini file, complete the following steps:

1. Make sure that the [REST_PROXY_DATA] section has the correct information.
For example:

```
REST_PROXY_DATA]
REST_HTTP_PROTOCOL="https"
REST_DOMAIN_NAME="<yourdomain>.com"
REST_HTTP_PORT=""
REST_CONTAINER_NAME="containers"
REST_FILEDROP_NAME="filedrop"
REST_AUTH_NAME="auth"
REST_VERSION="v1" REST_DATABASE="m19rs1"
REST_LANGUAGE="en-US"
REST_AUTHENTICATION_TYPE="BASICAUTH "
```
2. Change the settings in the [REST_MODULE_SETUP] section according to your need:
 - Set USERESTFORTIME="true" if you want to use the RESTful Web services for time registration
 - Set USERESTFOREXPENSE="true" if you want to use the RESTful Web services for expense and mileage registration
 - Set USERESTFORAPPROVALS="false" if you want the approvals to work the way it did in the previous version using MScript (and REST 1, where absolutely needed).
 - Set USERESTFORAPPROVALS="true" if you want to display the new, enhanced, approvals using REST 2 (all Maconomy calls, including long text, are via REST 2). If REST 2 is not available, it uses the old approvals (same as if USERESTFORAPPROVALS = "false"). By default, it is set to true.

configuration.ini

The configuration.ini is a setting file utilized by Deltek Touch to provide environment information to the Touch application.

```
; *****
; Maconomy Touch Configuration File
; *****

[SERVER_DATA]
URL="http://10.1.1.1111:1111/cgi-bin/Maconomy/MaconomyTouch.w190p100.en_US.exe/Standard/DeltekTouchWS.ms"
CHARSET="UTF-8"
DYNAMICSCRIPT="false"
DEBUGGERFL="false"
TOUCHSERVERVER="2.0.0.0"
HELPODOCURL="http://clientsite.deltek.com/deltektouchdownloads/docs/DeltekMaconomyTouchTimeUserGuide.pdf"
CLIENTURL="https://clientsite.deltek.com/20_23Rest"

[REST_PROXY_DATA]
REST_HTTP_PROTOCOL="http"
REST_DOMAIN_NAME="localhost"
REST_HTTP_PORT=""
REST_PROXYPASS_CLIENT_CODE="tenantcode"
REST_CONTAINER_NAME="containers"
REST_FILEDROP_NAME="filedrop"
REST_VERSION="v1"
REST_DATABASE="w190p100"
REST_LANGUAGE="en-US"
REST_IIS_TOUCH_FOLDER_NAME=""
REST_AUTHENTICATION_TYPE="BASICAUTH"

[REST_MODULE_SETUP]
USERESTFORTIME="true"
USERESTFOREXPENSE="true"
USERESTFORAPPROVALS="false"
```

Existing Parameters

```
; *****
; Maconomy Touch Configuration File
; *****

[SERVER_DATA]
URL=""
CHARSET=""
DYNAMICSCRIPT=""
DEBUGGERFL=""
TOUCHSERVERVER=""
HELPODOCURL = ""
CLIENTURL=""
```

New Parameters for Deltek Touch 3.5

In **Deltek Touch 3.5**, the following parameter has been added to cover the SSL certificate pinning and the Performance monitoring:

```
REST_LOGGING_ENABLED="false"
REST_LOGGING_NAME="logging"
```



```
SSL_CERT_FP1 = ""
SSL_CERT_FP2 = ""
```

Description of the New Parameters

- **REST_LOGGING_ENABLED** – This parameter is used to enable performance monitoring in Touch. The Touch Installer sets this parameter to **false**. If you would like to do performance monitoring in Touch, set this parameter to **true**. When the parameter is set to **true**, Touch will log all Maconomy requests in the maconomy-monitor log file on the Maconomy server. Performance monitoring might cause some performance penalties. Only use this functionality when needed.
- **REST_LOGGING_NAME** – This parameter is required for performance monitoring in Touch. The value is set automatically by the Touch Installer, and should not be changed.
- **SSL_CERT_FP1** – This parameter is used for enhancing the security of your Touch connection. The parameter represents the fingerprint of the SSL certificate used for the Touch URL. The Touch Installer sets this parameter as an empty string. It is recommended to set this when you are enabling HTTPS for the Touch URL.
- **SSL_CERT_FP2** – This parameter is used for enhancing the security of your Touch connection. It represents the fingerprint of the SSL certificate used for the Touch URL. The Touch Installer sets this parameter as an empty string. It is recommended to set this if the fingerprint provided in SSL_CERT_FP1 is about to expire, and you want to smoothly transition to a new certificate.

New Parameters for Deltek Touch 3.3

In **Deltek Touch 3.3**, the following parameter has been added to cover the Google Maps functionality enhancement:

```
[SERVER_DATA]
MAPSKEY=""
```

Description of the New Parameters

```
[SERVER_DATA]
```

- **MAPSKEY** – This parameter is used for access to Google Maps API and is automatically set by the Touch Installer. The key should be used only for Deltek applications.

New Parameters for Deltek Touch 3.0

In **Deltek Touch 3.0**, the following parameters have been added to enhance security:

```
[SERVER_DATA]
REQUIREDDEVICEPASSCODE=""
ALLOW_BIOMETRICS=""
```

Description of the New Parameters

```
[SERVER_DATA]
```

- **REQUIREDDEVICEPASSCODE** – Controls how Touch handles users who don't have a passcode on their device. By default is true, which means that if a user does not have a passcode set on his/her mobile device, then the user will not be able to use Touch. You can change it to false, to make device passcode use optional for Touch, which means that if a user does not have a passcode set on his/her mobile device, the user will still be able to use Touch.

- **ALLOW_BIOMETRICS** – This parameter determines if users are allowed to use biometric authentication (fingerprint or facial recognition) as alternative to PIN. By default it is false, meaning biometric authentication is not allowed; users will authenticate using PIN. If you set it to true, users will have the option in the app, to choose between authenticating using PIN, fingerprint and facial recognition. Note: This setting will be used when you upgrade to Maconomy 2.4.3.

New Parameters for Deltek Touch 2.2

In **Deltek Touch 2.2**, the following parameters have been added to support the enhanced PIN security.

The new parameters are divided into two sections: **REST_PROXY_DATA** (which contains connection details parameters) and **REST_MODULE_SETUP** (contains parameters responsible for enabling the REST functionality in the time, expense, and approvals modules).

```
[SERVER_DATA]
```

```
ANALYTICSKEY=""
```

```
[PIN_SETTINGS]
```

```
MIN_LENGTH=""
```

```
COMPLEXITY=""
```

```
UNIQUE_HISTORY=""
```

```
PIN_EXPIRATION=""
```

```
REST_PROXY_DATA
```

Description of the New Parameters

```
[SERVER_DATA]
```

- **ANALYTICSKEY** – This parameter is used for customer specific statistics based on Google Analytics

```
[PIN_SETTINGS]
```

- **MIN_LENGTH** – This parameter represents the minimum PIN length, which is set to 6 by default and allows 4-12 characters.
- **COMPLEXITY** – This parameter represents the PIN complexity feature. It prevents you from using all the same numbers or a sequence of numbers in your PIN. It is set to true by default.
- **UNIQUE_HISTORY** – This parameter represents the limit PIN reuse. It does not allow you to use the same PIN over and over. By default, it is set to "0," which means you can reuse PIN. It accepts values from 0 to 6.
- **PIN_EXPIRATION** – This parameter represents the limit on how long a PIN is valid before requiring you to change it. By default, it is set to 90 days. It accepts values from 0 (which means no limit) to 90.

In **Deltek Touch 2.0**, the following parameters have been added to support the Maconomy RESTful Web service and multi-tenant setup. These parameters are divided into two sections: **REST_PROXY_DATA** (which contains connection details parameters) and **REST_MODULE_SETUP** (contains parameters responsible for enabling the REST functionality in the time, expense, and approvals modules).

```
[REST_PROXY_DATA]
```

```
REST_HTTP_PROTOCOL=""
```

```
REST_DOMAIN_NAME=""
```

```
REST_HTTP_PORT=""
```

Deltek Touch for Maconomy Setup

```
REST_PROXYPASS_CLIENT_CODE=""
REST_CONTAINER_NAME=""
REST_FILEDROP_NAME=""
REST_VERSION=""
REST_DATABASE=""
REST_LANGUAGE=""
REST_IIS_TOUCH_FOLDER_NAME=""
REST_AUTHENTICATION_TYPE=""
```

```
[REST_MODULE_SETUP]
```

```
USERESTFORTIME=""
```

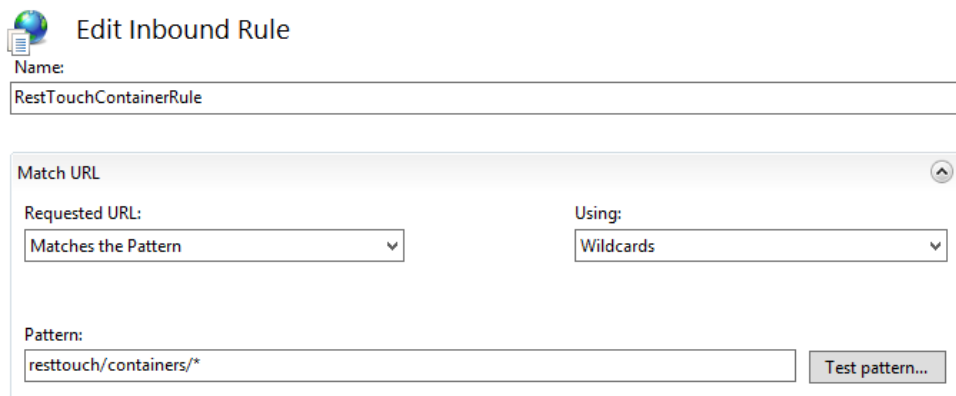
```
USERESTFOREXPENSE=""
```

```
USERESTFORAPPROVALS=""
```

REST_PROXY_DATA

- **REST_HTTP_PROTOCOL** – This parameter is set by the Touch Installer to "https." It represents the protocol (HTTP/HTTPS) used on the REST requests initiated from the Touch client. You can change it in the configuration.ini to "http," if you are in an early phase of the Touch installation and you do not have an SSL certificate yet. However, you can test Deltek Touch only using the Web application. Before you complete the Deltek Touch installation, you must have this parameter set to "https," else the Touch native apps will not work.
- **REST_DOMAIN_NAME** – This is the host name of the Touch Server. It refers to the computer name or the IP address of the Touch Server.
- **REST_HTTP_PORT** – This is the associated port number from the host name of the Touch Server. If the REST Web service is running in a secured layer, it should be in 443. Otherwise, leave this field blank or set it to the appropriate value.
- **REST_PROXYPASS_CLIENT_CODE**– Enter the first pattern from REST API set in the rewrite rules. For example, in *resttouch/containers/**, the value on this parameter should be "resttouch".

Note: The first pattern from container rule should be the same with filedrop rule (or vice-versa), for example, *resttouch/filedrop/**.



Edit Inbound Rule

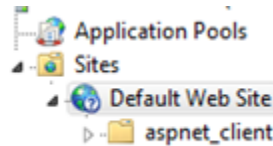
Name: RestTouchContainerRule

Match URL

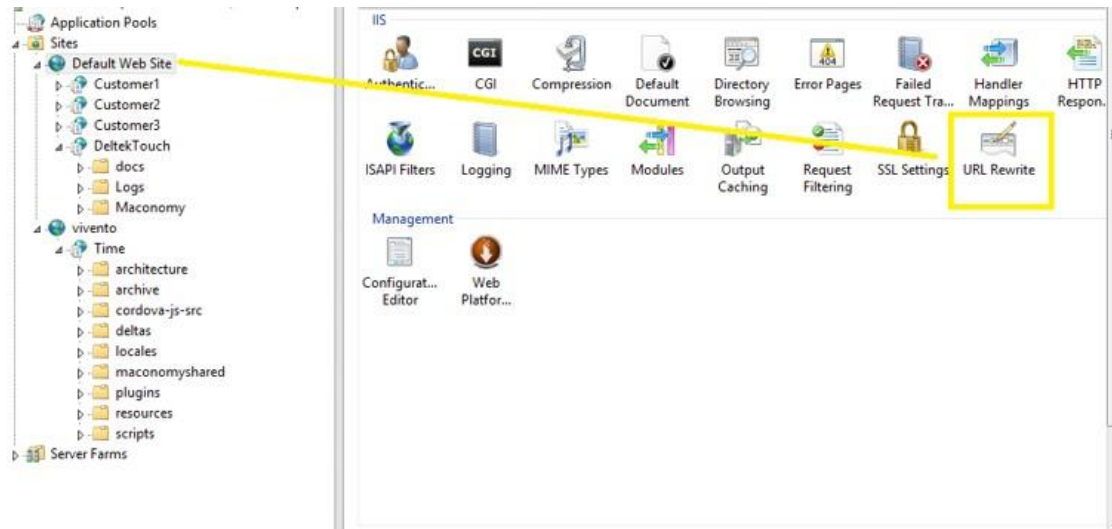
Requested URL: Matches the Pattern Using: Wildcards

Pattern: resttouch/containers/* Test pattern...

- **REST_CONTAINER_NAME** – Enter containers.
- **REST_FILEDROP_NAME** – Enter filedrop.
- **REST_AUTH_NAME** – Enter auth.
- **REST_VERSION** – Enter v1.
- **REST_DATABASE** – This is the database name of the RESTful Web service.
- **REST_LANGUAGE** – This is the locale code. Typically, this parameter is the same value as the language being set up for Msript.
- **REST_IIS_TOUCH_FOLDER_NAME** – This is only used if the Deltek Touch is hosted using IIS and the rewrite rules to access the REST API have not been configured in the IIS Site Level (for example, Default Web Site).



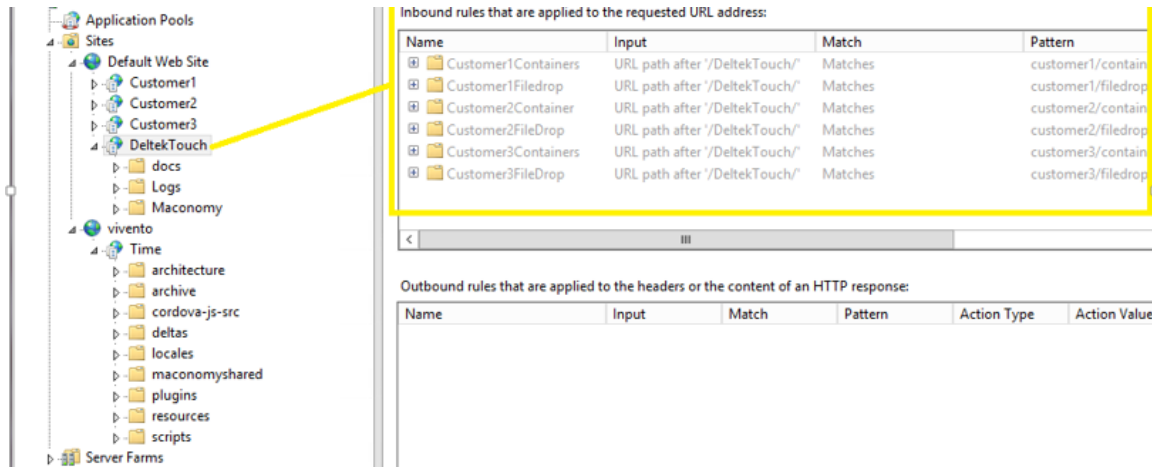
To determine if the rewrite rules have been configured in the root Web site, you need to open the IIS URL Rewrite.



In the event that you need to add the rewrite rules (REST API) on the IIS Site Level, leave this parameter blank.

How to set the value of REST_IIS_TOUCH_FOLDER_NAME?

If the rewrite rules for accessing the REST_API have not been placed in the root Web site, set the value of this parameter using the name of the Web site where the rewrite rules were configured.



For example, in the screenshot, the rewrite rules are in the Deltek Touch web site. In the **Input** column, the **URL path after '/DeltekTouch/'** value displays. In this case, use **DeltekTouch** as the value for the parameter.

- **REST_AUTHENTICATION_TYPE** – The value for this parameter is “BASICAUTH.”

REST_MODULE_SETUP

- **USERESTFORTIME** – Valid values are true or false. True means the time registration functionality uses the REST API. False means it uses MScript.
- **USERESTFOREXPENSE** – Valid values are true or false. True means the expense and mileage sheet functionality uses the REST API. False means it uses MScript.
- **USERESTFOREXPENSE** – Deltek Touch 2.0 must use the false value.

Server Side Configuration Settings

This section is optional. You can modify the following configuration options that are included in the MaconomyMScript\Standard\DeltekTouch.I.

Note: Before you change any of these settings, Deltek recommends that you make a copy of the DeltekTouch.I file in the MaconomyMScript\Standard folder, and place it in the MaconomyMScript\Custom folder. Then change the file in the Custom folder instead of the original file. Remember to remove the licensing information from the top when changing the .I files. To apply your changes, you need to log on again to Touch; there is no need to restart anything else.

Attention: For more information about customization, see *Deltek Touch for Maconomy Layout Configuration Guide*.

Key	Valid Options	Default Value	Description
ShowSettingOpenIn	True or False	True	This option allows you to hide the Open In field on the Settings screen.

Key	Valid Options	Default Value	Description
			<ul style="list-style-type: none"> If it is set to true, users can see Open In on Settings. If false, Open In does not display.
DefaultValueForSettingOpenIn	<ul style="list-style-type: none"> Timesheet Approvals Expense Sheets Quick Capture Mileage Sheets Summary 	Timesheet	This option represents the default value of the Open In field on the Settings screen.
CanChangeSettingOpenIn	True or False	True	<p>This option allows you to control if users can change the Open In setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the value of Open In on Settings. If false, users cannot change the Open In value.
ShowSettingUseWeekNumbers	True or False	True	<p>This option allows you to hide the Use Week Number toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Use Week Number on Settings. If false, Use Week Number does not display.
DefaultValueForSettingUseWeekNumbers	True or False	False	<p>This option represents the default setting of the Use Week Number toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Use Week Number is ON on Settings. If false, it is OFF.
CanChangeSettingUseWeekNumbers	True or False	True	This option allows you to control if users can change the Use Week Number toggle switch setting on the Settings screen.

Key	Valid Options	Default Value	Description
			<ul style="list-style-type: none"> If it is set to true, users can change the value of Use Week Number on Settings. If false, users cannot change the Use Week Number value.
ShowSettingWeekStart	True or False	True	<p>This option allows you to control if users can change the Week Start setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Week Start on Settings. If false, Week Start does not display.
DefaultValueForSettingWeekStart	<ul style="list-style-type: none"> 0 1 	1	<p>This option represents the value of the Week Start setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to 0, the assigned day is Sunday. If 1, the assigned day is Monday.
DefaultValueForSettingWeekStart	True or False	True	<p>This option allows you to control if users can change the value of the Week Start setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the value of Week Start on Settings. If false, users cannot change the Week Start value.
ShowSettingKeepOnTimesheetAsDefault	True or False	True	<p>This option allows you to hide the Keep on timesheet as default toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Keep on timesheet as default on Settings. If false, Keep on timesheet as default does not display.
DefaultValueForSettingKeepOnTimesheetAsDefault	True or False	True	<p>This option represents the default setting of the Keep on timesheet as default toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Keep on timesheet as default is ON on Settings.

Key	Valid Options	Default Value	Description
			<ul style="list-style-type: none"> If false, it is OFF.
CanChangeSettingKeepOnTimesheetAsDefault	True or False	True	<p>This option allows you to control if users can change the Keep on timesheet as default toggle switch setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the value of Keep on timesheet as default on Settings. If false, users cannot change the Keep on timesheet as default value.
ShowSettingRefreshTimeSheetOnOpen	True or False	True	<p>This option allows you to hide the Refresh When Opening toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Refresh When Opening on Settings. If false, Refresh When Opening does not display.
DefaultValueForSettingRefreshTimeSheetOnOpen	True or False	False	<p>This option represents the default setting of the Refresh When Opening toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Refresh When Opening is ON on Settings. If false, it is OFF.
CanChangeSettingRefreshTimeSheetOnOpen	True or False	True	<p>This option allows you to control if users can change the Refresh When Opening toggle switch setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the value of Refresh When Opening on Settings. If false, users cannot change the Refresh When Opening value.
ShowSettingRegistrationUnit	True or False	True	<p>This option allows you to hide the Registration Unit field on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Registration Unit on Settings.

Key	Valid Options	Default Value	Description
			<ul style="list-style-type: none"> If false, Registration Unit does not display.
DefaultValueForSettingRegistrationUnitMinutes	<ul style="list-style-type: none"> 1 minute (0-59) 2 minutes 5 minutes 10 minutes 15 minutes 	15 minutes	This option represents the default setting of the Registration Unit toggle switch on the Settings screen. It is used if time registration is in hours and minutes.
DefaultValueForSettingRegistrationUnitDays	<ul style="list-style-type: none"> Half day Quarter day Fifths Tenths 	Half day	This option represents the default value of the Registration Unit setting for time registration in days on the Settings screen.
CanChangeSettingRegistrationUnit	True or False	True	<p>This option allows you to control if users can change the Registration Unit setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the Registration Unit on Settings. If false, users cannot change the Registration Unit value.
ShowSettingExpenseSheet	True or False	True	<p>This option allows you to hide the Expense Sheet toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Expense Sheet on Settings. If false, Expense Sheet does not display.
DefaultValueForSettingExpenseSheet	True or False	True	<p>This option represents the default setting of the Expense Sheet toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Expense Sheet is ON on Settings. If false, it is OFF.
CanChangeSettingExpenseSheet	True or False	True	This option allows you to control if users can change the Expense Sheet toggle switch setting on the Settings screen.

Key	Valid Options	Default Value	Description
			<ul style="list-style-type: none"> If it is set to true, users can change the value of Expense Sheet on Settings. If false, users cannot change the Expense Sheet value.
ShowSettingICR	True or False	True	<p>This option allows you to hide the Use ICR for Expenses toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Use ICR for Expenses on Settings. If false, Use ICR for Expenses does not display.
DefaultValueForSettingICR	True or False	False	<p>This option represents the default setting of the Use ICR for Expenses toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Use ICR for Expenses is ON on Settings. If false, it is OFF.
CanChangeSettingICR	True or False	False	<p>This option allows you to control if users can change the Use ICR for Expenses toggle switch setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the value of Use ICR for Expenses on Settings. If false, users cannot change the Use ICR for Expenses value.
ShowSettingMileageSheet	True or False	True	<p>This option allows you to hide the Mileage Sheet toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Mileage Sheet on Settings. If false, Mileage Sheet does not display.
DefaultValueForSettingMileageSheet	True or False	True	<p>This option represents the default setting of the Mileage Sheet toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Mileage Sheet is ON on Settings.

Key	Valid Options	Default Value	Description
			<ul style="list-style-type: none"> If false, it is OFF.
CanChangeSettingMileageSheet	True or False	True	<p>This option allows you to control if users can change the Mileage Sheet toggle switch setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the setting of Mileage Sheet on Settings. If false, users cannot change the Mileage Sheet setting.
ShowSettingPurchaseOrder	True or False	True	<p>This option allows you to hide the Purchase Order toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Purchase Order on Settings. If false, Purchase Order does not display.
DefaultValueForSettingPurchaseOrder	True or False	True	<p>This option represents the default setting of the Purchase Order toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Purchase Order is ON on Settings. If false, it is OFF.
CanChangeSettingPurchaseOrder	True or False	True	<p>This option allows you to control if users can change the Purchase Order toggle switch setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the setting of Purchase Order on Settings. If false, users cannot change the Purchase Order setting.
ShowSettingAbsenceRequests	True or False	True	<p>This option allows you to hide the Absence Requests toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Absence Requests on Settings. If false, Absence Requests does not display.

Key	Valid Options	Default Value	Description
DefaultValueForSettingAbsenceRequests	True or False	True	<p>This option represents the default setting of the Absence Requests toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Absence Requests is ON on Settings. If false, it is OFF.
CanChangeSettingAbsenceRequests	True or False	True	<p>This option allows you to control if users can change the Absences Requests toggle switch setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the setting of Absence Requests on Settings. If false, users cannot change the Absence Requests setting.
ShowSettingAllowanceRequests	True or False	True	<p>This option allows you to hide the Allowance Requests toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Allowance Requests on Settings. If false, Allowance Requests does not display.
DefaultValueForSettingAllowanceRequests	True or False	True	<p>This option represents the default setting of the Allowance Requests toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Allowance Request is ON on Settings. If false, it is OFF.
CanChangeSettingAllowanceRequests	True or False	True	<p>This option allows you to control if users can change the Allowance Requests toggle switch setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the setting of Allowance Requests on Settings. If false, users cannot change the Allowance Requests setting.

Key	Valid Options	Default Value	Description
ShowSettingRejections	True or False	True	<p>This option allows you to hide the Rejections toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Rejections on Settings. If false, Rejections does not display.
DefaultValueForSettingRejections	True or False	True	<p>This option represents the default setting of the Rejections toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Rejections is ON on Settings. If false, it is OFF.
CanChangeSettingRejections	True or False	True	<p>This option allows you to control if users can change the Rejections toggle switch setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the setting of Rejections on Settings. If false, users cannot change the Rejections setting.
ShowSettingApprovals	True or False	True	<p>This option allows you to hide the Approvals toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Approvals on Settings. If false, Approvals does not display.
DefaultValueForSettingApprovals	True or False	False	<p>This option represents the default setting of the Approvals toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Approvals is ON on Settings. If false, it is OFF.
CanChangeSettingApprovals	True or False	True	<p>This option allows you to control if users can change the Approvals toggle switch setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the setting of Approvals on Settings.

Key	Valid Options	Default Value	Description
			<ul style="list-style-type: none"> If false, users cannot change the Approvals setting.
IncludeTimeSheetApproval	True or False	True	<p>This option allows you to control timesheet approval in REST Touch.</p> <ul style="list-style-type: none"> If it is set to true, you can approve timesheets (headers and lines). If false, you cannot approve timesheets (headers and line).
IncludeExpenseSheetApproval	True or False	True	<p>This option allows you to control expense and mileage sheet approval in REST Touch.</p> <ul style="list-style-type: none"> If it is set to true, you can approve expense sheets (headers and lines). If false, you cannot approve expense sheets (headers and line).
IncludePurchaseOrderApproval	True or False	True	<p>This option allows you to control purchase order approval in REST Touch.</p> <ul style="list-style-type: none"> If it is set to true, you can approve purchase orders (headers and lines). If false, you cannot approve purchase orders (headers and line).
IncludeVendorInvoiceApproval	True or False	True	<p>This option allows you to control vendor invoice approval in REST Touch.</p> <ul style="list-style-type: none"> If it is set to true, you can approve vendor invoices (headers and lines). If false, you cannot approve vendor invoices (headers and line).
IncludeJobInvoiceApproval	True or False	True	<p>This option allows you to control job draft invoice approval in REST Touch.</p> <ul style="list-style-type: none"> If it is set to true, you can approve job invoices (headers and lines). If false, you cannot approve job invoices (headers and line).
IncludeJobQuoteApproval	True or False	True	<p>This option allows you to control job quote approval in REST Touch.</p> <ul style="list-style-type: none"> If it is set to true, you can approve job quotes (headers and lines).

Key	Valid Options	Default Value	Description
			<ul style="list-style-type: none"> If false, you cannot approve job quotes (headers and line).
IncludeAbsenceApproval	True or False	True	<p>This option allows you to control absence request approval in REST Touch.</p> <ul style="list-style-type: none"> If it is set to true, you can approve absence requests (headers and lines). If false, you cannot approve absence requests (headers and line).
IncludeAllowanceApproval	True or False	True	<p>This option allows you to control allowance request approval in REST Touch.</p> <ul style="list-style-type: none"> If it is set to true, you can approve allowance requests (headers and lines). If false, you cannot approve allowance requests (headers and line).
ShowSettingInvoiceAllocationLines	True or False	True	<p>This option allows you to hide the Invoice Allocation Lines toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Invoice Allocation Lines on Settings. If false, Invoice Allocation Lines does not display.
DefaultValueForSettingInvoiceAllocationLines	<ul style="list-style-type: none"> Job invoice allocation lines only All invoice allocation lines Job and All default 	Job and All default	<p>This option represents the default setting of the Invoice Allocation Lines toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Invoice Allocation Lines is ON on Settings. If false, it is OFF. <p>Note: This is used only in MScript approvals</p>
CanChangeSettingInvoiceAllocationLines	True or False	True	<p>This option allows you to control if users can change the Invoice Allocation Lines toggle switch setting on the Settings screen.</p>

Key	Valid Options	Default Value	Description
			<ul style="list-style-type: none"> If it is set to true, users can change the setting of Invoice Allocation Lines on Settings. If false, users cannot change the Invoice Allocation Lines setting.
ShowSettingSubstituteApproval	True or False	True	<p>This option allows you to hide the Substitute Approval toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Substitute Approval on Settings. If false, Substitute Approval does not display.
DefaultValueForSettingSubstituteApproval	True or False	True	<p>This option represents the default setting of the Substitute Approval toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, Substitute Approval is ON on Settings. If false, it is OFF.
CanChangeSettingsSubstituteApproval	True or False	True	<p>This option allows you to control if users can change the Substitute Approval toggle switch setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the setting of Substitute Approval on Settings. If false, users cannot change the Substitute Approval setting.
ShowSettingIncludeSubstituteApprovalsInCounters	True or False	True	<p>This option allows you to hide the Include Substitute Approvals in Counters toggle switch on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can see Include Substitute Approvals in Counters on Settings. If false, Include Substitute Approvals in Counters does not display.
DefaultValueForSettingIncludeSubstituteApprovalsInCounters	True or False	True	<p>This option represents the default setting of the Include Substitute Approvals in Counters toggle switch on the Settings screen.</p>

Key	Valid Options	Default Value	Description
			<ul style="list-style-type: none"> If it is set to true, Include Substitute Approvals in Counters is ON on Settings. If false, it is OFF.
CanChangeSettingIncludeSubstituteApprovalsInCounters	True or False	True	<p>This option allows you to control if users can change the Include Substitute Approvals in Counters toggle switch setting on the Settings screen.</p> <ul style="list-style-type: none"> If it is set to true, users can change the setting of Include Substitute Approvals in Counters on Settings. If false, users cannot change the Include Substitute Approvals in Counters setting.
AllowMaconomyLoginWhenUsingExternalCredentials	True or False	False	<p>This option allows you to hide the Maconomy login from users in an SSO environment for Kerberos, Azure, or OneLogin. To use this functionality, users should have Maconomy 2.2/2.3/2.4 (or higher) and API 2.3 or higher.</p> <ul style="list-style-type: none"> If it is set to true, users can use either external credentials or Maconomy credentials to log on. If false, users can only use their external credentials. <p>This setting, however, only works if the UseExternalCredentials server setting is set to true.</p>
AllowNegativeDaysInTimeSheets	True or False	False	<p>This option is available to all supported Maconomy versions.</p> <p>Determines if you are allowed to enter negative days on timesheet lines on the Timesheet and Timesheet Line screens</p> <ul style="list-style-type: none"> If this is set to true, you are allowed to enter both positive and negative days on timesheet lines. If false (default), you are allowed to enter only positive days on timesheet lines.
AllowNegativeHoursInTimeSheets	True or False	False	<p>This option is available in all supported Maconomy versions.</p>

Key	Valid Options	Default Value	Description
			<p>Determines if you are allowed to enter negative hours on time sheet lines in Timesheet and Timesheet Line screens</p> <ul style="list-style-type: none"> If true, you are allowed to enter both positive and negative hours on timesheet lines If false (default), you are allowed to enter only positive hours on timesheet lines
AzureNativeClientID	String	Empty	<p>This setting is relevant only for Azure.</p> <p>Represents the ClientID of the Azure native application, to be used by the Deltek Touch native application.</p>
AzureRedirectURI	String	Empty	<p>This setting is relevant only for Azure.</p> <p>Represents the Redirect URI of the Azure native application to be used by the Deltek Touch native application.</p>
AzureResponseType	String	Empty	<p>This setting is relevant only for Azure.</p> <p>Indicates which Azure login method is used.</p> <p>By default, it is empty, which means the Web service tries to calculate this based on the information it gets from Maconomy. You should explicitly set this, only if the default functionality fails, in which case the possible values are "code" and "token":</p> <ul style="list-style-type: none"> If the value is "code," Maconomy uses the AzureOpenID login method. If the value is "token," Maconomy uses the AzureAD login method.
AzureServerID	String	Empty	<p>This setting is relevant only for Azure.</p> <p>It represents the ID of the Azure application used for the Maconomy server.</p> <p>By default, it is empty, which means the Web service tries to calculate this based on the information it gets from Maconomy. You should explicitly set this, only if the default functionality fails.</p>
AzureTenantID	String	Empty	<p>This setting is relevant only for Azure.</p>

Key	Valid Options	Default Value	Description
			<p>It represents the ID of the Azure tenant.</p> <p>By default, it is empty, which means the Web service tries to calculate this based on the information it gets from Maconomy. You should explicitly set this, only if the default functionality fails.</p>
AzureWebClientID	String	Empty	<p>This setting is relevant only for Azure.</p> <p>It represents the ID of the Azure application used for the Touch Web application</p> <p>By default, it is empty, which means the Web service tries to calculate this based on the information it gets from Maconomy. You should explicitly set this, only if the default functionality fails.</p>
CopyRemarkFromTimeSheetLineToFavorite	True or False	False	<p>This option is available only in Maconomy 2.0 and higher.</p> <p>This setting controls if the Remark field should be copied from the time sheet line to the favorite when creating a new favorite based on a time sheet line</p> <ul style="list-style-type: none"> ▪ If true, the Remark field value is copied from the timesheet line into the favorite (which is created from the time sheet line) ▪ If false, the Remark field value is NOT copied from the timesheet line into the favorite (which is created from the time sheet line)
CustomSubmitTimesheetAction	String	Empty string	<p><i>This does not apply to REST.</i></p> <p>The name of the custom action used for submitting time sheets, if any</p>
debug	True or False	False	<p><i>This does not apply to REST.</i></p> <p>This options works in Touch 1.x, and MScript Touch 2.0. If you set debug = true, it logs some of the error messages occurring when using the MScript Web service.</p>
ExpenseAttachmentType	string	"header and line"	<p>This option is available only in Maconomy 2.0 and higher.</p>

Key	Valid Options	Default Value	Description
			<p>This setting controls where can you attach receipts to expenses, and use the ICR functionality to scan the receipts. It can have one of the following values:</p> <ul style="list-style-type: none"> ▪ "none" = This value indicates that it is not possible to attach receipts to expenses at all, and the ICR functionality is not available. ▪ "header" = This value indicates that it is possible to attach receipts only to the expense sheet header, and the ICR functionality is not available. ▪ "line" = This value indicates that it is possible to attach receipts only to the expense sheet line. The ICR functionality is available. ▪ "header and line" = This value indicates that it is possible to attach receipts to both the expense sheet header and line. The ICR functionality is available. ▪ "header in quick capture, line in expense" = This value indicates that it is possible to attach receipts using Quick Capture on the Expense Sheet screen and, subsequently, attach the receipt from the Expense Sheet screen to the Expense Sheet Line screen. The ICR functionality is not available. <div> <p>Note: When the ICR functionality is not available, the following conditions apply:</p> <ul style="list-style-type: none"> ▪ The server settings for ICR are not applicable. ▪ The Use ICR for Expenses toggle switch is not displayed on the Settings screen. ▪ There is no Verifyfi plugin. You can use Quick Capture if enabled, but you cannot utilize it to scan receipts. </div>

Key	Valid Options	Default Value	Description
ExternalCredentialsCharset	UTF-8 ISO-8859-1	UTF-8	<p>Specifies which charset should be used for the external login credentials (user name, password, and domain when using Kerberos SSO).</p> <p>If you experience issues with Danish characters in domain password, try changing it to iso-8859-1.</p>
ExternalCredentialsType	Kerberos, Azure, OneLogin, Okta	Kerberos	<p>Specifies the kind of external credentials we support in Deltek Touch. Considered only if UseExternalCredentials = true, otherwise the setting is ignored.</p> <p>Use "Kerberos" to authenticate you're your domain/network credentials.</p> <p>Use "Azure" to authenticate with your Azure credentials.</p> <p>If you use any other values than "", "Azure", "Kerberos", it will try to authenticate using the OIDC link provided by Maconomy. The value will be used as the label of the toggle shown on the Login screen, if AllowMaconomyLoginWhenUsingExternalCredentials is set to true.</p> <p>We recommend "OneLogin" to authenticate with OneLogin credentials.</p> <p>We recommend "Okta" to authenticate with Okta credentials.</p>
MaxAttachmentFileSize	Integer	1000	<p>Determines the maximum file size (in KB) of the pictures attached to expense sheets in Deltek Touch.</p> <ul style="list-style-type: none"> If set to 0, it generates the smallest file size possible, but the quality might be low. This is recommended only if you experience performance penalties when attaching documents. If set to non-zero value, the functionality is unchanged; it generates the highest quality possible for the given maximum file size. <p>This setting is disregarded when the ICR feature is enabled.</p>

Key	Valid Options	Default Value	Description
NotificationRecalculationInterval	Integer	1800	<p>This option is available only in Maconomy 2.1.1 and higher.</p> <p>This setting controls the frequency (in seconds) of recalculating the notification (approval and rejected time) counters in the background.</p> <ul style="list-style-type: none"> For disabling the background recalculation, use -1. Setting under 5 min (300 sec) may lead to performance penalties on the Maconomy server.
OIDCAuthorizationURL	URL	Empty	This URL is used to open the native login screen of the OIDC provider (for example, the OneLogin Authentication screen).
searchMaxRowcount	0-100	30	This is used to restrict the number of rows that a search returns.
searchtext	Search	Search	This option is NOT used in this release.
ShowDefaultExpenseReceiptName	Boolean	false	<p>It allows you to see and use a default expense receipt name, when taking a picture to attach to an expense sheet, both in quick capture and expense sheets flow.</p> <ul style="list-style-type: none"> If true, a default receipt name will be shown. You might accept it or replace it. If false, there is no default receipt name, you must enter the receipt name yourself. <p>This setting is disregarded when the ICR feature is enabled.</p>
ShowJobsWithEmployeeControl	True or False	False	<p>This option is available only in Maconomy 2.0 and higher.</p> <p>It allows you to see the employee's jobs (based on Employee Control) on the Find Job screen when creating a time sheet line using a job</p> <ul style="list-style-type: none"> If true, the All tab displays the Recently used projects and My Job list (jobs the user has access to via Employee Control)

Key	Valid Options	Default Value	Description
			<ul style="list-style-type: none"> If false, the All tab displays the Recently used projects only list.
ShowMissingTimesheetsDue	True or False	True	<p><i>This does not apply to REST.</i></p> <p>This option controls the status of missing (not created before the current date) daily timesheets. If true, the status is Due, else the status is New.</p>
ShowOnlyFavoritesInJobSearch	Boolean	false	<p>It determines the content of the job search (Find Job) screen, invoked from the Time, Expense and Mileage Sheet Line screens.</p> <ul style="list-style-type: none"> If true, the job search (Find Job) screen shows only favorites. When creating a time, expense or mileage sheet line, you can only select a favorite, not a job. If false, the job search (Find Job) screen shows jobs and favorites (All and Favorites tabs). When creating a time, expense or mileage sheet line, you can select a favorite or a job.
ShowOnlyInvoiceAllocationLinesToApprove	True or False	True	<p>This option is available only in Maconomy 2.1.1 and higher.</p> <p>When approving invoice allocation lines, you see the vendor invoice and its allocation.</p> <p>This setting controls which of the lines you want to see when approving invoice allocation lines.</p> <ul style="list-style-type: none"> If true (default), it only displays invoice allocation lines you can approve. If false, it only displays all invoice allocation lines for the given vendor invoice, including the lines you can approve.
ShowOnlyPOLinesToApprove	True or False	True	<p>This option is available only in Maconomy 2.1.1 and higher.</p> <p>When approving purchase order lines, you see the entire purchase order.</p> <p>This setting controls which of the lines you want to see when approving PO lines</p>

Key	Valid Options	Default Value	Description
			<ul style="list-style-type: none"> If true (default), it only displays PO lines you can approve. If false, it displays all PO lines in the given PO, including the lines you can approve.
ShowZeroHourJobsInSummary	True or False	True	<p>This option is available in all supported Maconomy versions.</p> <p>It controls the Summary screen, Job tab content.</p> <ul style="list-style-type: none"> If true (default), the timesheet summary will show all job/task/activity combinations, used in the selected weekly time sheet If false, the timesheet summary will show only job/task/activity combinations, used in the selected weekly time sheet, which are having hours registered
Submit	Daily, Weekly	Weekly	This option specifies whether you register and submit time on a daily or weekly basis.

Touch Authentication Setup

Deltek Touch with Single Sign-On Setup

If Touch is using SSO, unicode characters are not allowed in the domain user name and/or password

If Maconomy is set up with Kerberos SSO and you prefer Touch to use SSO, you need to perform the following tasks:

1. In DeltekTouch.I, set **useExternalCredentials=true**. By default, it is set to **false**.
2. Copy KerberosSSOClientLib folder and KerberosSSOClient.jar file from the related TPU to cgi-bin/Maconomy.
3. Make sure that Java is installed on the Maconomy Web server, since during Single Sign-On, Deltek Touch executes Java code on the Maconomy Web server. This Java should be the same as the Java embedded in your Maconomy product (delivered as part of TPU); otherwise, there is a risk that newer Java versions are not certified for the Kerberos SSO used by Maconomy.
4. Make sure there is only one Java version installed on the machine
5. Add the Java path to environment variables on the machine.
6. In some cases you need to run some applications as administrator (for example, MaconomyMscript.exe, Run as Administrator).

7. Deltek Touch uses the Kerberos Java client for getting the Kerberos ticket while other Maconomy clients (Workspace Client, Java Client, Portal) are using the native API for the same purpose. Therefore, even if SSO works properly in other Maconomy clients (Workspace Client, Java Client, Portal), there is no guaranty that it works in Deltek Touch as well. You may need additional steps for making the Touch SSO work.

One possible difference is that, for Deltek Touch, the TSG request sent by the Maconomy Web server to the domain controller uses UDP instead of TCP. Since UDP is not as reliable as TCP, in case of bigger requests, this could lead to segmented packages, which may be dropped by the network. This leads to a situation when the request just hangs, the domain controller does not send back a response to the Maconomy Web server, and thereby causing an unsuccessful domain (SSO) login in Deltek Touch. If this is your case, you need to force the usage of TCP by creating a custom Kerberos configuration file (krb5.local.conf), as a copy of the standard Kerberos configuration file (krb5.conf) with one additional line: **udp_preference_limit = 1**.

Note: For example:

- **C:\maconomy\webserver\w_15_0.sp2\MaconomyMScript\Custom\DeltekTouch.I (useExternalCredentials=true)**
- **Copy KerberosSSOClientLib folder and KerberosSSOClient.jar from C:\maconomy\tpu.NTx86.15_0.p2b6.dir\bin to C:\maconomy\webserver\w_15_0.sp2\cgi-bin\Maconomy**
- **Install Java 7**
- **Add C:\Program Files (x86)\Java\jre6\bin to Path in Environment Variables**

8. In some cases, the MaconomyTouch CGI program does not recognize the correct Java path. This can be enforced by setting the Java path explicitly in the CGI setup file. For example, change MaconomyTouch.test1.en_US.I as follows:

```
// Scriptmode definitions Environment=Path=C:\Program Files  
(x86)\Java\jre\win32\x86\bin"
```

Debug Deltek Touch Single Sign-On

If you need to debug Deltek Touch Single Sign-On (SSO), complete the following steps:

1. Make sure that SSO works in Java client and Portal.
2. Check the Web server error logs (for example, C:\Program Files (x86)\Apache Software Foundation\Apache2.2\logs\error.txt).

Touch with Azure Setup

History of Azure setups supported by Maconomy and Touch

- Maconomy 2.4 LA 1 and Touch 2.1 supports only the Azure OAuth setup.
- Maconomy 2.4 LA 2 and Touch 2.1 supports only the Azure OAuth setup.
- Maconomy 2.4 LA 2 and Touch 2.2 supports both the Azure OAuth and Azure OpenID setup.

Note: Touch 3.0 only supports the Azure OpenID setup. Therefore, to be able to use Azure in Touch 3.0 (or later), you must have Maconomy 2.4 LA 2 (or later).

Azure Setup for Maconomy

For your reference, the following is a comparison of the previous and new protocol setups in Azure.

Azure OAuth (Previous Setup) <i>No longer supported in Touch 3.0</i>	Azure OpenID (New Setup) <i>Supported in Touch 3.0</i>
<p>Requires three applications to be set up in Azure:</p> <ol style="list-style-type: none"> 1. Maconomy – Azure Web application for Maconomy Server 2. Touchapp – Azure native application for the Touch native application 3. Maconomy Client – Azure Web application for Touch Web application and Maconomy clients <p>Note: The Touch apps gets an access token from Azure which is sent to Maconomy to authenticate the user.</p>	<p>Requires two applications to be set up in Azure:</p> <ol style="list-style-type: none"> 1. Maconomy – Azure Web application for Maconomy Server, Maconomy clients, and Touch Web application 2. Touchapp – Azure native application for the Touch native application <p>Note: The Touch app gets an authentication code from Azure which is sent to Maconomy to authenticate the user.</p>

MConfig Setup for Azure

For your reference, the following is a comparison of the previous and new protocol setups in MConfig.

MConfig Azure OAuth (Previous Setup)	MConfig Azure OpenID (New Setup)
<ol style="list-style-type: none"> 1. Domain Login Method: Azure AD 2. Azure Tenant ID 3. Azure Client ID 4. Azure Server ID 	<ol style="list-style-type: none"> 1. Domain Login Method: Azure OpenID 2. Azure Tenant ID 3. Azure Client ID 4. Azure Client Secret

If Maconomy is set up with Azure OpenID and you prefer your Deltek Touch installation to use Azure, you need to complete additional setup.

Attention: It is a prerequisite that Azure is set up for Maconomy as described in the Maconomy documentation. Prior to enabling the Azure setup in Deltek Touch, Deltek recommends to test Azure in Workspace Client. For more information, see the *Deltek Maconomy Azure SSO Guide*.

Register an Azure Native Application for Touch Native Application

This can be done using the new Azure Portal (<https://portal.azure.com>),

To register an application for Touch, using the *new Azure Portal*, complete the following steps:

1. Open the Azure Active Directory (AAD) in the Azure management portal.
2. Click the App registrations tab.
3. On the App registrations tab, click **New application registration**
4. Enter **Maconomy Touch** as name, select **Native Client Application** as type, and enter `https://deltekmaconomyclient` for the **REDIRECT URI**.

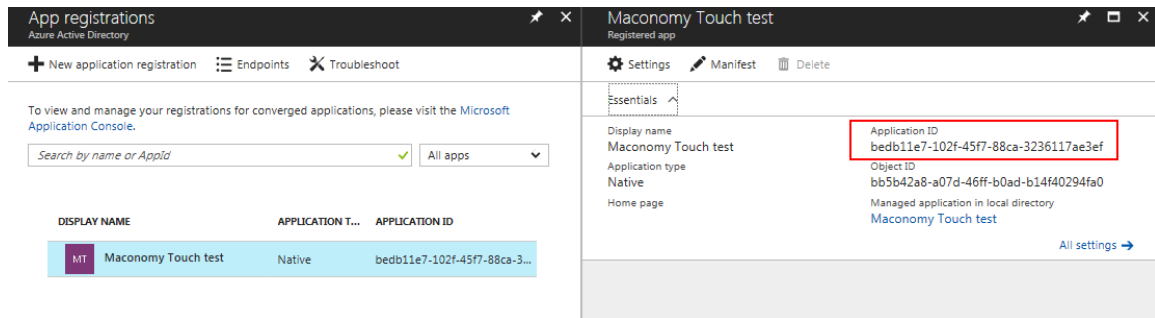
Note: This will be the AzureRedirectURI.

The screenshot shows the Azure Portal interface. On the left, the 'Azure Active Directory' link is highlighted with a red box. In the center, the 'App registrations' page is visible, with the 'New application registration' button highlighted by a red box. On the right, the 'Create' dialog is open, and its fields are highlighted by a red box: 'Name' is 'Maconomy Touch test', 'Application type' is 'Native', and 'Redirect URI' is 'https://deltekmaconomyclient'. At the bottom right, the 'Create' button is also highlighted with a red box.

5. Under the **properties** section of the newly created application, find the read-only field labeled **Application ID** and note its value. This is the **Touch Client ID**.

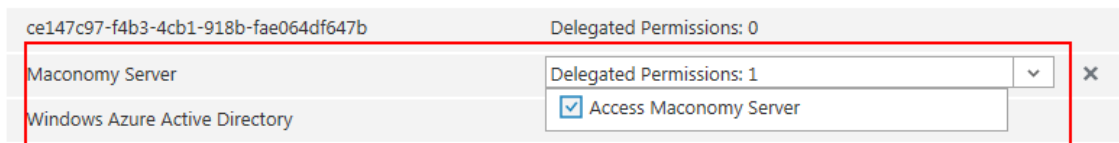
Note: This will be the AzureNativeClientID.

Deltek Touch for Maconomy Setup



- Set the permissions on the application to give access to the Maconomy Server Azure application, using **All settings » Required Permissions**.

permissions to other applications



Update the Maconomy Azure Application to Support the Deltek Touch Web and Native Applications

The Deltek Touch Web application uses the same Azure application as the Workspace Client. If you follow the Maconomy documentation for Azure, this Azure Web app is called Maconomy.

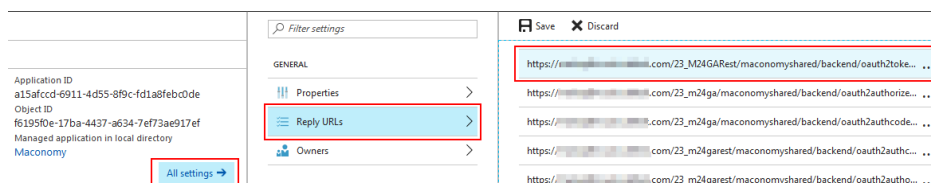
To make sure that Deltek Touch can use the Maconomy Azure application, add the Touch URL to the Reply URL on the Azure application.

To add the Touch URL to the Reply URL, complete the following steps:

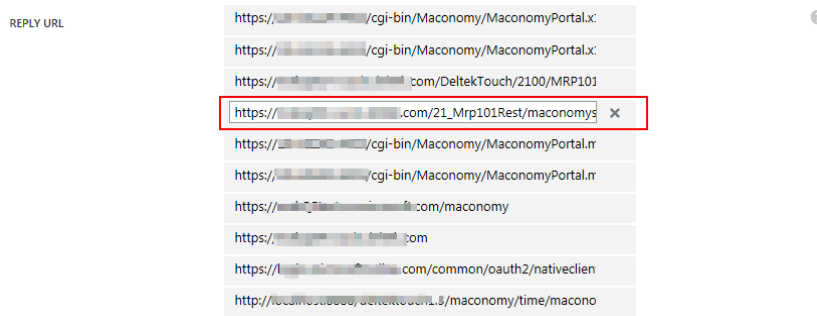
- Open AAD in the Azure management portal.
- Click the App registrations tab.
- On the App registrations tab, find the Maconomy application.



- Click **All Settings » Reply URLs**.



- Add the Touch URL (for example, `https://<yourdomain>.com/23_M24GARest/maconomyshared/backend/oauth2tokenreturn.php`) to the Reply URL.



Depending whether your Maconomy system is set up with AzureAD or AzureOpenID domain login method, the Reply URLs to be set on the **Maconomy** Azure application (corresponding to the Maconomy server) differ as follows:

- <https://login.microsoftonline.com/common/oauth2/nativeclient> - This is needed for the Maconomy Workspace Client and Coupling Service, in general. It should be part of the Maconomy setup.
- [../maconomyshared/backend/oauth2authorizereturn.php](https://[redacted].com/22_M20SP1/maconomyshared/backend/oauth2authorizereturn.php) (for example, https://<yourdomain>.com/22_M20SP1/maconomyshared/backend/oauth2authorizereturn.php.) - This is for Azure OpenID, for the Touch Web application.
- [../maconomyshared/backend/oauth2authcodereturn.php](https://[redacted].com/maconomyshared/backend/oauth2authcodereturn.php) - This is for the Azure OpenID, for Touch native application.

Turn on Azure Login in the Web Service

The following changes are needed in the custom **DeltekTouch.I** file:

1. Set **UseExternalCredentials** to **true**. By default, it is set to **false**.
2. Set **ExternalCredentialsType**: **#K"Azure"**. By default, it is empty.
3. Set **AzureNativeClientID** to the Touch Client ID (step 5 of the **Register an Azure Native Application for Touch Native Application** procedure). For example, **AzureNativeClientID: #K"347bbd9d-15da-4564-b58f-1dfcad7e2bf"**. By default, it is empty.
4. Set **AzureRedirectURI** to the REDIRECT URI (step 4 of the **Register an Azure Native Application for Touch Native Application** procedure). For example, **AzureRedirectURI: #Khttps://deltekmaconomyclient**. By default, it is empty.
5. If Maconomy is set up to use AzureOpenID, you can specify the new server settings: **AzureResponseType**, **AzureWebClientID**, **AzureServerID**, **AzureTenantID**. By default these are empty, meaning the Web service tries to calculate these based on the information it gets from Maconomy. You should explicitly set this only if the default functionality fails. For **AzureResponseType**, the only value allowed is "code".

Touch with OneLogin Setup

Register a OneLogin Application for the Touch Native Application

To make sure that Deltek Touch can use the Maconomy OneLogin application, add the Touch URL to the **Redirect URI's** field in the OneLogin application.

To add the Touch URL to the Redirect URI:

1. Open the OneLogin management portal.
2. Tap the Apps tab.
3. On the Apps tab, select the Maconomy application.
4. Tap **Configuration**.
5. In the **Redirect URI's** field, add the Touch URL (using the format `<yourTouchURL>/maconomyshared/backend/oauth2authcodereturn.php`). For example, <https://mactouchcph2.deltek.com/DeltekMaconomyTouchTime/maconomyshared/backend/oauth2authcodereturn.php>.

Turn on OneLogin in the Web Service

The following changes are needed in the custom DeltekTouch.I file:

1. Set **UseExternalCredentials** to **true** to use non-Maconomy credentials in Touch. By default, it is set to **false**.
2. Set **ExternalCredentialsType** to **#K"OneLogin"**. By default, it is empty.

Attention: For more information on the OneLogin setup, see the Deltek Maconomy System Administrator Guide.

Touch with Okta Setup

Note: This functionality is available in REST Touch on Maconomy 2.4.7 and 2.5, and succeeding versions. You can log in with Okta on your iOS and Android native applications, and Chrome and Safari web applications.

When you are using Maconomy 2.4.7, 2.5.1 or later versions, enable Okta in the Maconomy Core product. However, when you are using the Maconomy 2.5 version, install the 2.5 C.U. 11 patch prior to enabling Okta in the Maconomy Core product.

Register an Okta Application for the Touch Native Application

When you add the Touch URL to the **Redirect URI's** field in the Okta application, you enable the integration of Deltek Touch with the Maconomy Okta application.

To add the Touch URL to the Redirect URI:

1. Open the Okta management portal.
2. Tap the Apps tab.
3. On the Apps tab, select the Maconomy application.
4. Tap **Configuration**.
5. In the **Redirect URI's** field, add the Touch URL (using the format `<yourTouchURL>/maconomyshared/backend/oauth2authcodereturn.php`). For example, <https://mactouchcph2.deltek.com/DeltekMaconomyTouchTime/maconomyshared/backend/oauth2authcodereturn.php>.

Turn on Okta in the Web Service

When you change specific external credential values in the custom DeltekTouch.I file, you enable Okta in the Web Service.

To turn on Okta in the Web Service:

1. Set **UseExternalCredentials** to **true** to use non-Maconomy credentials in Touch. **UseExternalCredentials** is set to **false** by default.
2. Set **ExternalCredentialsType**: **#K"Okta"**. **ExternalCredentialsType** is empty by default.

Touch with OIDC Setup

In addition to Azure, OneLogin, and Okta, Touch generically supports other OIDC login providers.

Note: This functionality is available in REST Touch on Maconomy 2.4.7 and 2.5, and succeeding versions. You can log in using your OIDC provider on your iOS and Android native applications, and Chrome and Safari web applications.

When you are using Maconomy 2.4.7, 2.5.1 or later versions, enable OIDC in the Maconomy Core product. However, when you are using the Maconomy 2.5 version, install the 2.5 C.U. 9 patch prior to enabling OIDC in the Maconomy Core product.

Attention: When you log in the Touch app using your OIDC credentials, you might have to enter your username both on the Touch Login screen, and on the OIDC Login screen.

Register an OIDC Application for the Touch Native Application

When you add the Touch URL to the **Redirect URI's** field in the OIDC application, you enable the integration of Deltek Touch with the OIDC application.

To add the Touch URL to the Redirect URI:

1. Open the OIDC management portal.
2. Tap the Apps tab.
3. On the Apps tab, select the Maconomy application.
4. Tap **Configuration**.
5. In the **Redirect URI's** field, add the Touch URL (using the format `<yourTouchURL>/maconomyshared/backend/oauth2authcodereturn.php`). For example, <https://mactouchcph2.deltek.com/DeltekMaconomyTouchTime/maconomyshared/backend/oauth2authcodereturn.php>.

Turn on OIDC in the Web Service

When you change specific external credential values in the custom DeltekTouch.I file, you enable OIDC in the Web Service.

To turn on OIDC in the Web Service:

1. Set **UseExternalCredentials** to **true** to use non-Maconomy credentials in Touch. **UseExternalCredentials** is set to **false** by default.

2. Enter a specific description for **ExternalCredentialsType**. For example, use **ExternalCredentialsType: #K“My OIDC Login Type”**, where the string you specified becomes the toggle switch label displayed on the **Login** screen.

Deltek Touch with Load Balancing

One of the questions raised, especially in a hosted (cloud) environments, is whether Deltek Touch supports load balancing. The answer is that it depends on your architecture and the purpose of the load balancing.

The Touch Server supports load balancing. You can set up multiple Touch Servers behind a load balancer (for example, ELB or ALB). This allows you to route the requests from the Deltek Touch clients running on various mobile devices through multiple Touch Servers.

The Touch Servers forward the requests to a Maconomy Web server. Deltek Touch, however does not support load balancing on this level in the sense that you cannot apply a load balancer using several Maconomy Web servers. The reason is that Deltek Touch does not support sticky sessions in the MScript Web service nor cookies in Deltek Touch.

For each user, the MScript Web service uses a session, which is a physical file located on the Maconomy Web server. All requests from a user must reach the Maconomy Web server hosting the session file that corresponds to the user's session. Therefore, in case you have a load balancer in front of the Maconomy Web servers (for example, for security reasons), you need to make sure all requests coming from the Touch Servers are routed to the same (one) Maconomy Web server. In case you have a setup wherein you use, for example, ELB/ALB for dynamic IP addresses, but you have one Maconomy Web server, this is supported if you disable the session IP validation (in the CGI setup .I file, set SessionIPCheck = 0).

Appendix A: Localization

Starting with Touch 1.2.3, you can translate Deltek Touch for Maconomy to other languages. Everything in Deltek Touch for Maconomy is translated using the dictionaries in Maconomy core product.

By default, Deltek Touch for Maconomy 2.4.5 and higher come in the following languages:

- English
- Danish
- Dutch
- Chinese (Simplified)
- French
- German
- Italian
- Norwegian
- Portuguese
- Spanish
- Swedish

When you install FPU 1.2.3 - 2.1, you get the translations automatically through the standard dictionaries installed on the Maconomy server. After this, you need to set “(Re)install CGI programs” to “Install unconditionally”, in MConfig if you want to apply the dictionaries to the Web server, and thereby making the translations available in Deltek Touch for Maconomy.

When you install Touch FPU 2.2 or later, it no longer contains Maconomy dictionaries. You need to install the latest translations FPU to get the dictionaries.

If you need Deltek Touch for Maconomy in a different language, you need to create your own dictionary and apply it.

For example: You would like to translate Deltek Touch for Maconomy to French. Assuming that you already have a French dictionary, you need to add the Touch translations to it:

1. In **Translations.<shortname>.DK** search for “{Touch}”. This actions gives you the list of terms to be translated.
2. You must translate all strings postfixed with {Touch} and add the translations to your French dictionary. For example:

Yes{Touch} Oui

Appendix B: Touch Server URL in Email

Logging on for the first time no longer requires users to enter the complete URL of the Touch Server. You now send them an email message containing a link that directs them to a page that displays one link or two separate links, depending on their mobile operating system.

- *For iOS:* When users tap the first link, it directs them to the mobile application in the App Store, allowing them to download it into their device. When they tap the second link, the **Touch Server URL** field in the downloaded application is automatically populated
- *For Android:* When users tap the link, it either automatically populates the **Touch Server URL** field (if the application is already installed) or directs them to download the application from Google Play (if the application is not yet installed).

ProductApplication.php

The Touch Server has been updated with the ProductApplication.php file that performs the linking and passes the **Touch Server URL** value to the application or redirects you to the appropriate app store.

Link for Customers

The link that you send to users is a hyperlink. When users click the hyperlink, the following scenarios occur:

1. If Deltek Touch is not installed, it takes them to the appropriate app store to download the application.
 - a. Users then download the application from the app store.
 - b. They click the link again (and proceed to step 2).
2. If the application is installed, it populates the **Touch Server URL** field with their company URL.
3. They tap the **Connect** button to connect to the Touch Server.

How to Create the Link to Email Users

Attention: Prior to using this functionality for Touch 3.5, set the CLIENTURL to the Touch URL. When starting Touch from email, the Touch URL in the connection screen is automatically set to the CLIENTURL specified in configuration.ini.

Each application may have specific steps required to create a hyperlink. This section describes the steps that apply to Microsoft Outlook. For other applications, see the documentation on creating a hyperlink.

1. Use the following format for the hyperlink:

https://<yourdomain>/deltektouch/maconomy/time/maconomyshared/backend/maconomytimeurl.php
2. Replace **<yourdomain>** with the company's domain information. The domain must be externally accessible to devices on the Internet. The following part of the hyperlink, however, is fixed:

deltektouch/maconomy/time/maconomyshared/backend/maconomytimeurl.php

If Deltek Touch is being hosted in a multitenant environment, you need to append a set of strings to the link you will be sending to users. Typically, it is the Web site directory name (for example, deltektouch). For example, in the URL below, you should append "deltektouch":

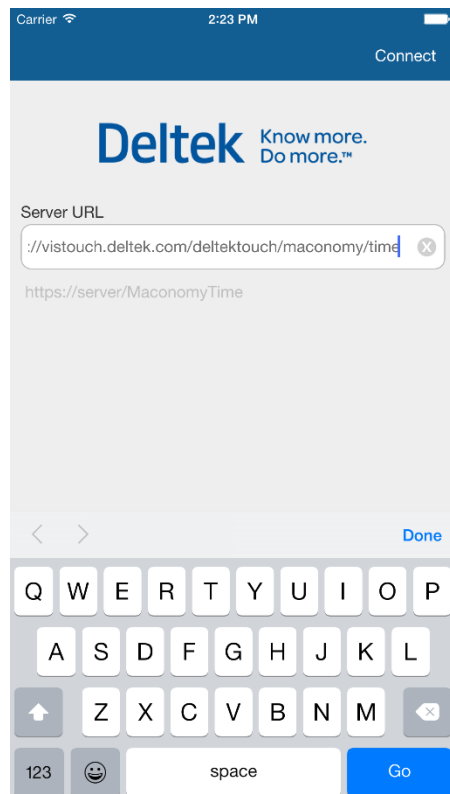
`https://<yourdomain>/deltektouch/maconomy/time/maconomyshared/backend/maconomytimeurl.php?custcd=deltektouch`

3. Create the instructional text in the email message where you will embed the link.
4. Highlight the word “here,” right-click, and select **Hyperlink** from the menu (alternatively, click the Insert tab, and click the **Hyperlink** button).
5. Paste the hyperlink into the **Address** field of the dialog box, and click **OK**.

For example: Click [here](#) to initialize your Touch application with the proper URL to access the Touch Server. If you have not installed the application, clicking the link will take you to the appropriate app store to install the application. Once you’ve installed the application, clicking the link will properly initialize the URL in your application. Should you not be able to click the link, you can copy and paste the following into your default device browser:

<https://yourdomain.com/deltektouch/maconomy/time/maconomyshared/backend/maconomytimeurl.php>

When users receive the email, click the link, and the application is installed, the following screen displays.



Appendix C: Logging Capability

If you want to gather some statistics about your Deltek Touch users and their usage pattern, enable logging on the Maconomy MScript based Web service.

Note: Enabling logging always cause some performance overhead. If you use, however, the options recommended in this section, this overhead becomes unnoticeable.

How to Enable Logging?

To turn on logging, you need to change the setup file for the MaconomyTouch CGI program.

To change the change the setup file, complete the following steps:

1. In the Maconomy Web server, locate the **/cgi-bin/Maconomy** folder.
2. Find the CGI program used by Deltek Touch by checking the URL in the configuration.ini file on the Touch Server. In most cases, the CGI program should be **MaconomyTouch*.exe**.
3. Find the setup file for the CGI program. If the CGI program is **MaconomyTouch*.exe**, then the setup file is **MaconomyTouch*.I**.
4. Add the Log parameter.

Where is the Log File?

By default, the log file can be found in the same place as your CGI program and its setup file, which is in the **/cgi-bin/Maconomy** folder.

The file name is the same as the CGI program name: **MaconomyTouch*.log**. You can open the log file in any text editor.

How to Determine Who are Using Deltek Touch?

If you want to know who are using Deltek Touch and how often they use it, the recommended setting is as follows:

Log = login

As a result, the log file includes all Deltek Touch logins and the corresponding user names.

Example

```
[2015-11-25 11:48:28.171] [PID = 00018576] ) [/Standard/DeltekTouchWS.ms]
[I286yaavF1] [3135] [192.168.43.102] [Administrator]
maconomy::login("Administrator") (7 elapsed msec.

[2015-11-25 11:49:15.749] [PID = 00002744] ) [/Standard/DeltekTouchWS.ms]
[MNW33zWfr4] [32138] [192.168.43.102] [Administrator]
maconomy::login("Administrator") (10 elapsed msec.

[2015-11-25 11:54:59.823] [PID = 00018476] ) [/Standard/DeltekTouchWS.ms]
[JDN9ASvjG2] [20598] [192.168.43.102] [Anders Hansen] maconomy::login("Anders
Hansen") (19 elapsed msec.
```

- If you want the total number or none-unique logins, count the lines. You could conduct more elaborated analysis, by example, in Excel.
- If you want the total number or none-unique logins, count the lines. You could conduct more elaborated analysis, by example, in Excel.
- If you use Maconomy 2.2.6, 2.3.2 and 2.4 GA or later, then this logging capability will allow you to track also users signing in using SSO, not only the users logging in to Touch with Maconomy credentials.

How to Determine Which Deltek Touch Functionality is Used?

This does not apply to RESTful Web services.

If you want to know which Deltek Touch functionality is used, the recommended setting is as follows:

`Log = query`

This setting logs all requests coming from the Deltek Touch application.

Example

[2015-11-25 12:10:29.293] [PID = 00020192] [/Standard/DeltekTouchWS.ms] [192.168.43.102] Incoming query values:

```
{
  values:{
  },
  files:{
  },
  status:{ ok:true, message:""
  },
  method:"POST",
  rawPost:"{"inpObj":{"username":"Administrator","password":"123456","operation":"login","clean":false,"calfocus":false,"impersonate":false,"maccharset":"UTF-8","lang":"W","locale":"en_US"}}",
  raw:"{"inpObj":{"username":"Administrator","password":"123456","operation":"login","clean":false,"calfocus":false,"impersonate":false,"maccharset":"UTF-8","lang":"W","locale":"en_US"}}"
```

[2015-11-25 12:11:19.098] [PID = 00018644] [/Standard/DeltekTouchWS.ms] [K1MW26xr68] [192.168.43.102] Incoming query values:

```
{
  values:{
  },
  files:{
  },
```

Appendix C: Logging Capability

```
status:{ ok:true, message:""
},
method:"POST",
rawPost:{"inpObj":{"theDate":"2015.11.25","startDate":"2015.11.23","endDate":"2015.11.29","operation":"submittimesheet","clean":false,"calfocus":false,"impersonate":false,"maccharset":"UTF-8","lang":"W","locale":"en_US","sessionid":"K1MW26xr68"}}},
```

Appendix C: Logging Capability

Touch 2.2 Technical Installation Guide 61

```
raw:{"inpObj":{"theDate":"2015.11.25","startDate":"2015.11.23","endDate":"2015.11.29","operation":"submittimesheet","clean":false,"calfocus":false,"impersonate":false,"maccharset":"UTF-8","lang":"W","locale":"en_US","sessionid":"K1MW26xr68"}}&sessionid=K1MW26xr68"
}
```

Although this is more technical, if you search for the term “operation,” you can see what the user is trying to do.

If you want to see how many time sheets have been submitted, search for "operation":"submittimesheet".

Appendix D: Google Analytics

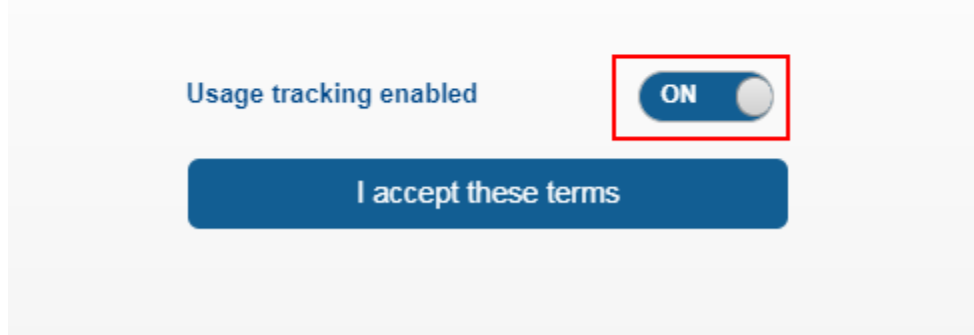
If you want to gather some statistics about your Deltek Touch users and their usage pattern, another solution besides the logging is to use Google Analytics.

Prerequisites:

- You (as the customer) need to have a Google Analytics account
- You (as the customer) need to make sure your end-users are accepting the Usage Tracking in the Deltek Touch application:

Usage Statistics Tracking

If you do not want usage tracking enabled in the software/application, toggle the toggle switch below to off. Usage tracking can be enabled/disabled at any time from within the application settings.



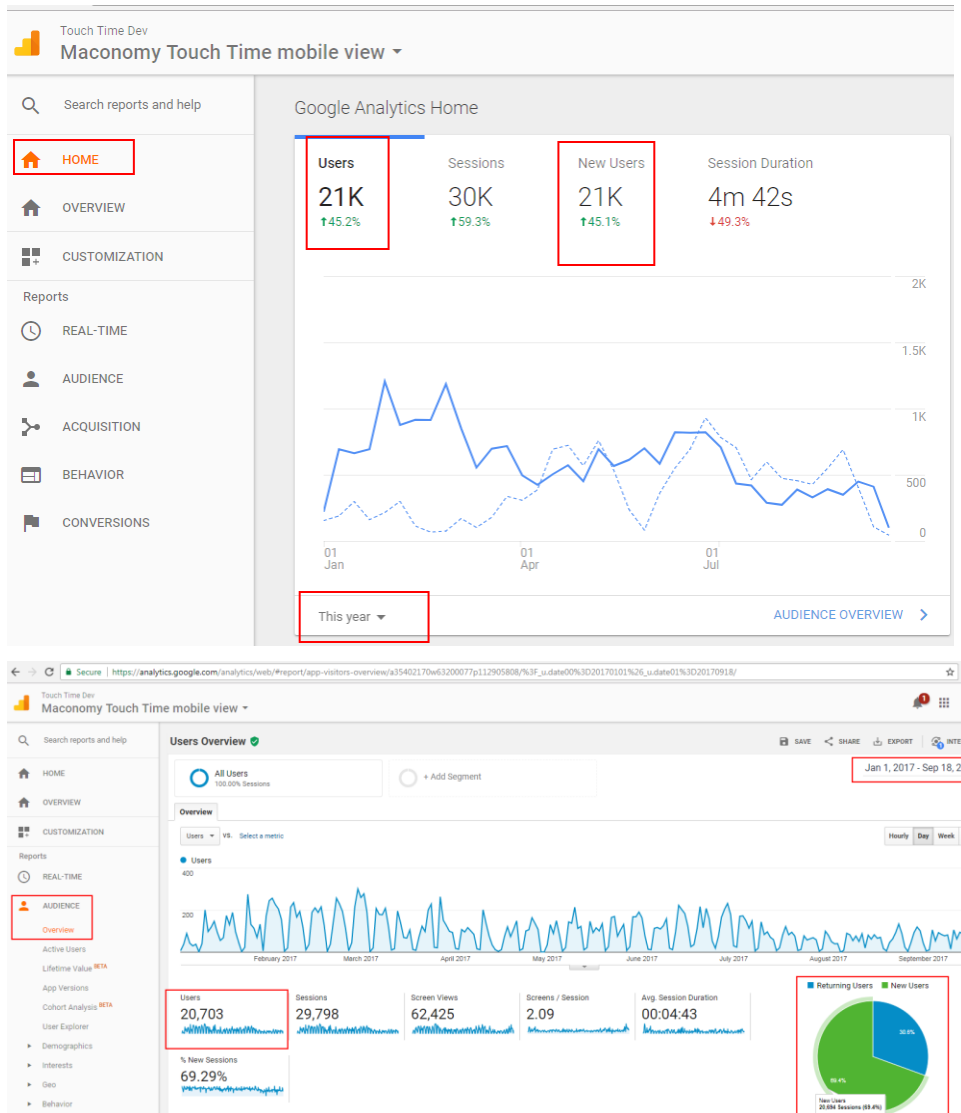
- The Touch URL, for which you would like to get statistics, needs to be linked to your Google Analytics account. On the Touch Server, change the configuration.ini and set ANALYTICSKEY

For example: ANALYTICSKEY="UA-704595989-5"

You can now log on to your Google Account (<https://analytics.google.com/analytics/web/>).

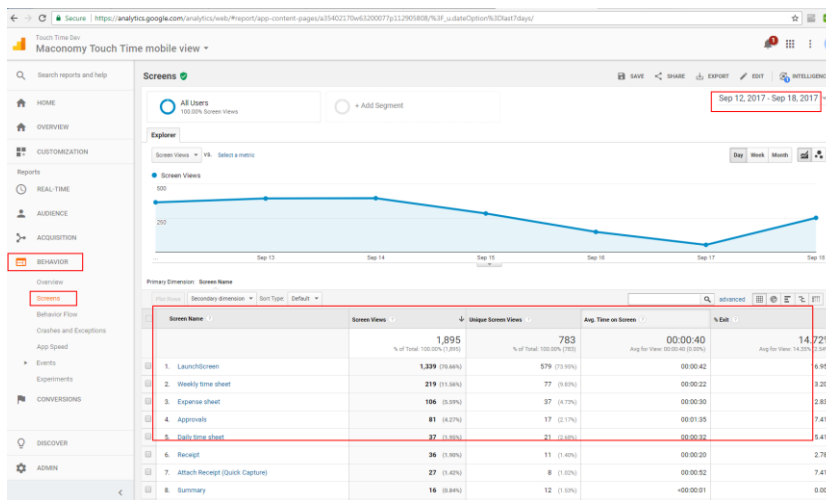
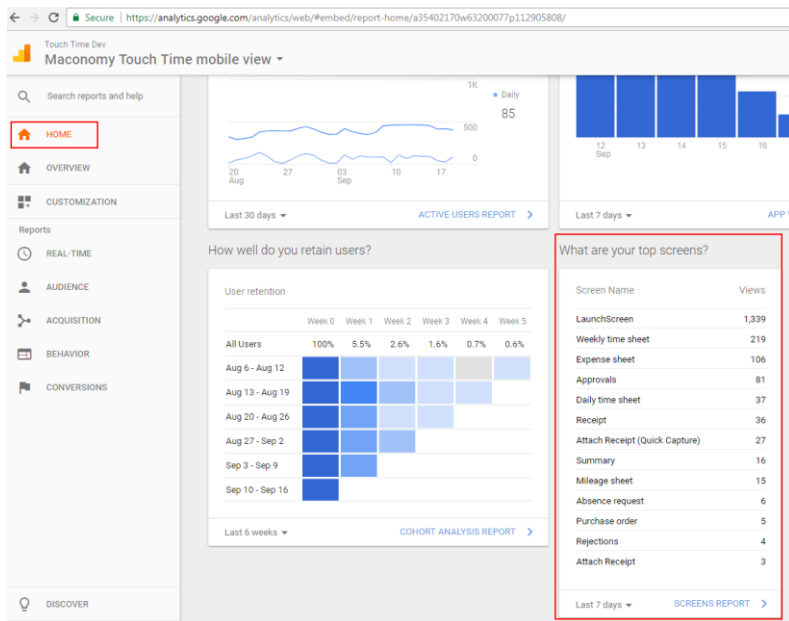
Using the built-in reports provided by Google Analytics, you can easily track the number of users, respectively new users, in a given period.

Appendix D: Google Analytics



You can also track which screens (functionality) are used:

Appendix D: Google Analytics



For more advanced settings (like version numbers and login types), you should create your own custom reports. For this purpose, you need to add six custom dimensions, which must be in the order described below:

- *Touch App Version*: the native/web app version (e.g. 2.3.0)
- *Touch Server Version*: see below
- *Web Service Version*: see below
- *Web Service Type*: "REST" or "MScript"
- *Maconomy Version*: see below
- *Touch Login Type*: "Maconomy" or "Azure" or "Kerberos"

Appendix D: Google Analytics

Email Info	
Device Type	Desktop
Operating System	Windows
User Agent	Mozilla/5.0 (Windows NT 6.1; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/60.0.3112.113 Safari/537.36
Web App	2.3.0
Touch Server	2.3.0 Touch Server Version
Web Service	2.2.0.24.20 Web Service Version
Maconomy	20.100 Maconomy Version
Touch Server Build	2.3.0.0
Web App Build	2.3.0.29

Search reports and help

HOME

CUSTOMIZATION

Reports

REAL-TIME

AUDIENCE

ACQUISITION

BEHAVIOR

CONVERSIONS

DISCOVER

ADMIN

ADMIN

USER

TOUCH TIME DEV

Property Settings

User Management

Tracking Info

PRODUCT LINKING

Adwords Linking

AdSense Linking

Ad Exchange Linking

All Products

Postbacks

Audience Definitions

Custom Definitions

Custom Dimensions

Custom Metrics

Data Import

+ NEW CUSTOM DIMENSION

Search

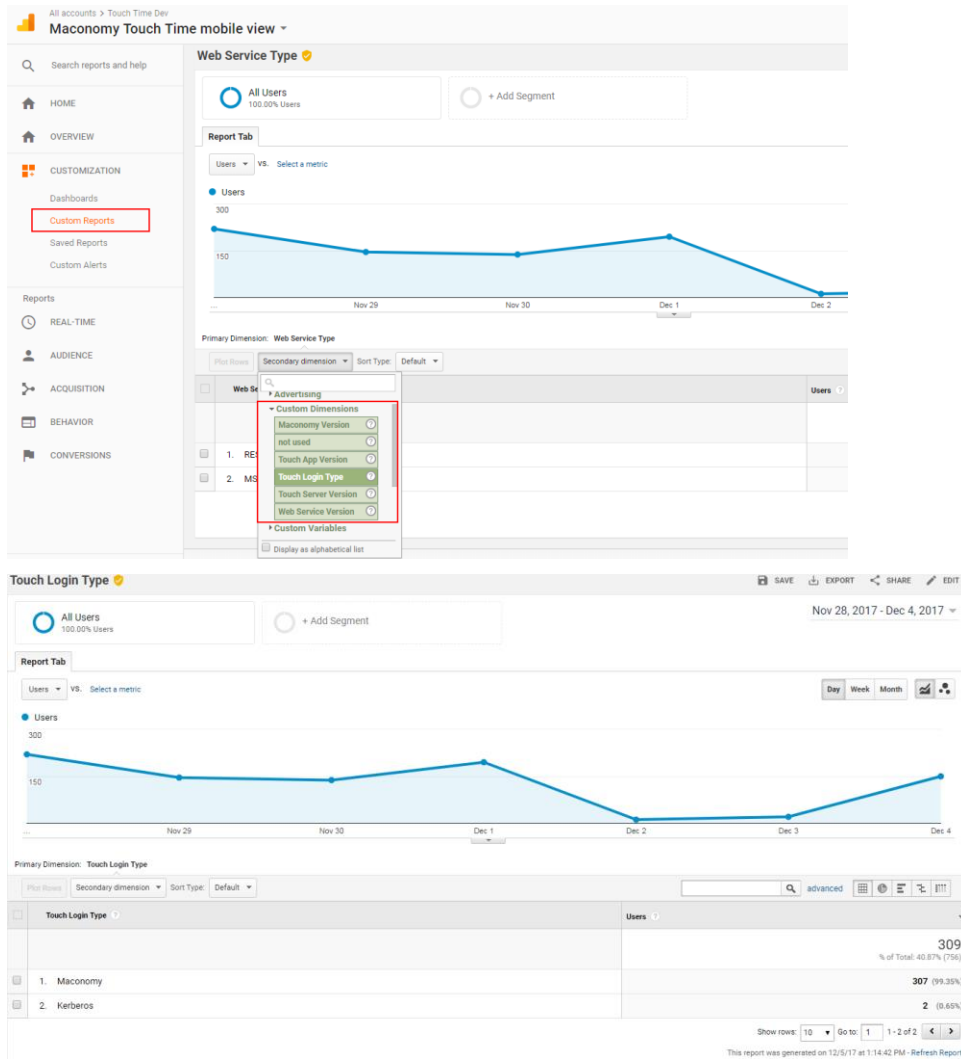
Custom Dimension Name	Index	Scope	Last Changed	State
Touch App Version	1	Hit	Sep 20, 2017	Active
Touch Server Version	2	Hit	Sep 21, 2017	Active
Web Service Version	3	Hit	Sep 21, 2017	Active
Web Service Type	4	Hit	Sep 21, 2017	Active
Maconomy Version	5	Hit	Sep 21, 2017	Active
Touch Login Type	6	Hit	Sep 21, 2017	Active
not used	7	Hit	Sep 21, 2017	Active

Show rows 10 1-7 of 7

13 custom dimensions left.

You can then include the custom dimensions in your custom reports:

Appendix D: Google Analytics



Appendix E: Old MScript Web Service Installation

On newer Maconomy versions (2.4.3 and higher), the MScript Web service is included in the Maconomy APU.

On older Maconomy versions (2.4.2 and lower), the MScript Web service was installed, primarily, as a Maconomy hot fix (FPU). This process is described below.

MConfig

Deltak recommends that you use the latest MConfig version, which you can download from DSM, under the release corresponding to your Maconomy version. Your MConfig version must be at least **8.17**.

Maconomy Service Pack

If you are using Maconomy 2.2 LA, you must upgrade to 2.2 GA or higher, which you can download from DSM.

Note: If you are using Maconomy 2.2 (GA) or higher, you do not have to do anything in this step.

Maconomy Hot Fix

For older Maconomy versions, the Maconomy Web services for Touch 3.5 is NOT available. For these Maconomy versions we recommend that you install the latest available FPU (in case it is not already installed), as follows:

Maconomy	Touch Web Service
2.2, 2.2.1, 2.2.3, 2.2.4, 2.2.5	fpu.w1700.touchapi_2_3_0_0.zip
2.2.6	fpu.w1700.touchapi_3_0_0_0.zip
2.3 GA, 2.3.1, 2.3.2, 2.3.3	fpu.w1900.touchapi_2_3_0_0.zip
2.4 GA, 2.4.1, 2.4.2	fpu.w2000.touchapi_2_3_0_0.zip
2.4.3, 2.4.4, 2.4.5, 2.4.6	APU
2.5, 2.5.1	APU

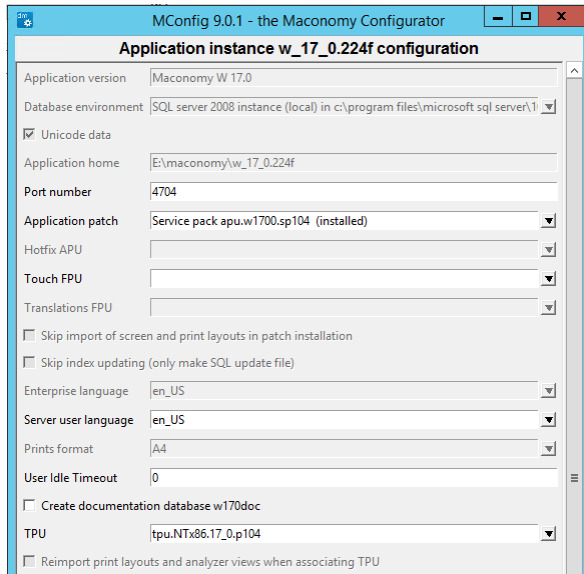
You need to install the Hot Fix containing the latest Maconomy Web services for Touch.

Note: The hot fix contains only the files needed for Touch Time, and no dictionaries.

The hot fix will no longer be installed the same way as an application patch.

Appendix E: Old MScript Web Service Installation

To install the hot fix, in **MConfig** (8.17 or later), please select the hot fix in the Touch FPU field, instead of the Application patch field, as illustrated. It is recommended that you select and install the translations FPU at the same time as the Touch FPU.

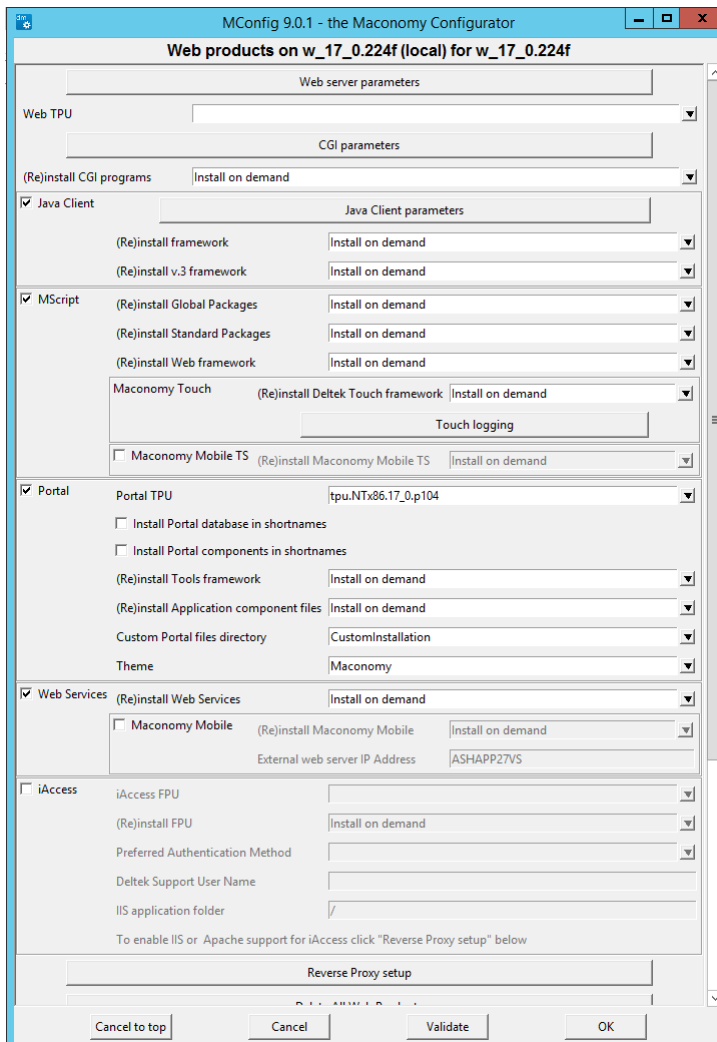


Install MScript Web Services

If the Maconomy system has already had Touch installed, **when installing the FPU, you are prompted to apply it to the Web server. Click Yes.** This action installs the Touch Web service on the Maconomy Web server, so you do NOT need to do it manually.

If you do not get this message, you need to apply the Web service using **MConfig** on the Maconomy Web server manually:

1. On the **Web** product, select the **MScript** option.
2. From the **(Re)install Deltek Touch framework** drop-down list, select the **Install unconditionally** option.



Note: Check if the Web services are customized and notify the relevant parties to update the customizations manually. The Web service is customized if there is a Custom or Solution folder in MaconomyMScript folder on the Web server. If these folders contain files (for example, **DeltekTouch.I**), the person who created the file must be notified to update it manually based on the changes to the file with the same name in the Standard folder. The hot fix contains only the files needed for Touch Time, and no dictionaries.

Update configuration.ini

Make sure that configuration.ini is using the **MaconomyTouch** CGI program, instead of MaconomyMScript, in **URL**.

The configuration.ini structure has been changed. It contains only the URL (instead of URL, MSCRIPTNAME and LANGUAGE). Make sure that the URL is containing the full path (for example, URL='http://myhost:20003/cgi-bin/Maconomy/MaconomyTouch.w16de.en_US.exe/Standard/DeltekTouchWS.ms').

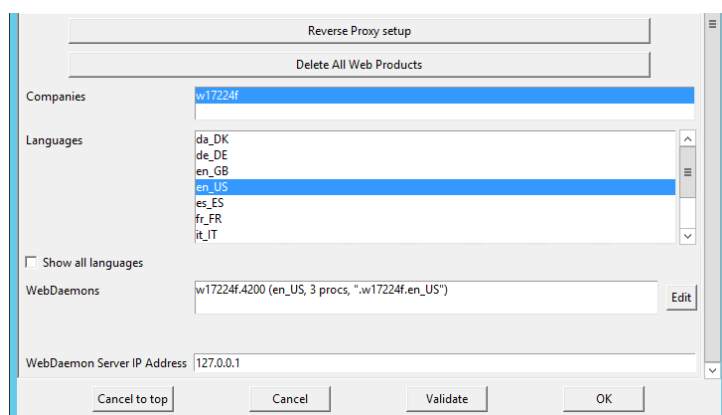
Install Dictionaries

This section is optional. It is only needed if you want to localize Deltek Touch.

For translating Touch to Danish, Swedish, Norwegian or Dutch, you have to install the dictionaries using **MConfig**. On the Application page, select the latest translations FPU available for your Maconomy version in the **Translation FPU** field under the **Touch FPU** field.

Note: Dictionaries are no longer included in the Touch FPU, but instead they are in a separate translations FPU.

To install additional dictionaries, select the languages you want to install from the **Language** drop-down list.



Maconomy RESTful Web Services

This section is optional. It is only needed if you want to use the RESTful Web services in Deltek Touch.

One of the major changes in Touch 2.2 is that it allows you to use the Maconomy RESTful Web services in certain functional areas.

Functional Area	RESTful Web Services	MScript Web Services
Time Registration	X	X
Expense Registration	X	X
Mileage Registration	X	X
Approvals	-	X
Purchase Orders	X	-
Absence and Allowance	X	-

The main prerequisite for using RESTful Web services is **Maconomy 2.2.4 / 2.3 GA / 2.4 GA** or later.

If you meet this prerequisite:

- **For new installations:** Deltek highly recommends that you use RESTful Web services, wherever possible because of the new functionality is available only on this Web service The Deltek Touch Installer also recommends that you the use of RESTful Web services.

Attention: For more information, see the *Deltek Touch for Maconomy MScript and RESTful Web Services Comparison Guide*.

- **For upgrades:** Deltek recommends that you use RESTful Web services. If the customer prefers to stay on MScript Touch, you can turn of the RESTful Web services after the upgrade. There are other important aspects that you should be taking into account when deciding which web service you would like to use.

Appendix F: If You Need Assistance

If you need assistance installing, implementing, or using Deltek Touch for Maconomy, Deltek makes a wealth of information and expertise readily available to you.

Customer Services

For over 30 years, Deltek has maintained close relationships with client firms, helping with their problems, listening to their needs, and getting to know their individual business environments. A full range of customer services has grown out of this close contact, including the following:

- Extensive self-support options through the Deltek Support Center.
- Phone and email support from Customer Care analysts
- Technical services
- Consulting services
- Custom programming
- Classroom, on-site, and Web-based training

Attention: Find out more about these and other services from the Deltek Support Center.

Deltek Support Center

The Deltek Support Center is a support Web site for Deltek customers who purchase an Ongoing Support Plan (OSP).

The following are some of the many options that the Deltek Support Center provides:

- Search for product documentation, such as release notes, install guides, technical information, online help topics, and white papers
- Ask questions, exchange ideas, and share knowledge with other Deltek customers through the Deltek Support Center Community
- Access Cloud-specific documents and forums
- Download the latest versions of your Deltek products
- Search Deltek's knowledge base
- Submit a support case and check on its progress
- Transfer requested files to a Customer Care analyst
- Subscribe to Deltek communications about your products and services
- Receive alerts of new Deltek releases and hot fixes
- Initiate a Chat to submit a question to a Customer Care analyst online

Attention: For more information regarding Deltek Support Center, refer to the online help available from the Web site.

Access Deltek Support Center

To access the Deltek Support Center:

1. Go to <https://deltek.custhelp.com>.
2. Enter your Deltek Support Center **Username** and **Password**.
3. Click **Login**.

Note: If you forget your username or password, you can click the **Need Help?** button on the login screen for help.

Additional Documentation

The following table lists the Deltek documentation available for this release. Except where noted, all the user guides and quick reference guides listed in this table are available for download from the Deltek Support Center.

Document Name	Description
Deltek Touch for Maconomy User Guide	This document contains detailed information and instructions on how to use various features of the application.
Deltek Touch for Maconomy Release Notes	This document contains a summary of the technical considerations, major features, and known issues of the application.
Deltek Touch for Maconomy Upgrade Guide	<i>This document is only intended for Technical Consultants.</i> It describes necessary steps to upgrade to the latest Touch system.
Deltek Touch for Maconomy Layout Customization Guide	<i>This document is only intended for Technical Consultants.</i> It describes tasks necessary for the customization of layouts of the Deltek Touch for Maconomy application.
Deltek Touch for Maconomy MScript and REST Web Services Comparison Guide	This document describes the differences between MScript and Representational State Transfer (REST) Web services to help technical consultants prepare for implementing Deltek Touch for new users or migrate their current Touch installation to REST.



About Deltek

Better software means better projects. Deltek is the leading global provider of enterprise software and information solutions for project-based businesses. More than 23,000 organizations and millions of users in over 80 countries around the world rely on Deltek for superior levels of project intelligence, management and collaboration. Our industry-focused expertise powers project success by helping firms achieve performance that maximizes productivity and revenue. www.deltek.com