

Technical Documentation

gorelate Time Tracking

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Introduction

This document contains technical information about:

- network traffic contacting other servers than your Dynamics CRM instance, which we do to manage your license, and to update your solution upon request
- the solutions installed
- the customization possibilities of your Time Tracking app

Network Requests

When using **gorelate Time Tracking**, the client only communicates with your Dynamics CRM instance utilizing its Microsoft REST SDK based on the clients roles and rights, so your data is safe and cannot be sent to third party servers.

However, for licensing purposes (that is, obtaining/managing your license, and updating your gorelate solutions) some information is sent to our server **gorelate.net**.

As required – and technically reviewed – by Microsoft, this chapter lists which information is sent to our servers and when.

Remark: it is possible to extend all Flex Grid solutions to also access data from other servers than your Dynamics CRM instance (and then requiring further third-party network requests), but none are implemented in our out-of-the-box solution, and they would only be implemented according to specific add-on requests from you.

Network Requests to gorelate.net during Installation

During installation a trial license is automatically obtained from our **gorelate.net** server. The following – technically necessary - information from your instance will be sent to our server for obtaining – and maintaining – your license:

- The unique id of your org
- The org friendly name
- The actual org name
- The Guid of the systemuser installing the package

We would be glad if you would provide us your contact information when starting your trial directly in AppSource.

Network Requests to gorelate.net during License Management

The gorelate Licensing solution is responsible for managing your gorelate licenses. To do this, license information with references to your users are stored in custom entities – but just in your Dynamics instance. No user information is transferred to our servers.

To check for updated licenses, and to update your gorelate solutions, our gorelate.net server is contacted by the gorelate Licensing Solution – again sending the same minimal information that was sent during initialization:

Update license Info: This request sends the id of your org to our server, and returns the current license information (license type, end date, user count).

Download updated solution: This request sends the unique id of your org, the product (**gorelate Licensing, FlexGrid** or **Time Tracking**) and your current version number is sent to your server.

Installed Solutions

Your Time Tracking product consists of three managed solutions installed on your Dynamics instance:

The gorelateLicensing solution

The **goLicensing** solution manages all your gorelate licenses and updates.

By installing a trial version of **Time Tracking** you get a fully functional license for up to 999 users for the trial period of one month. Please contact gorelate for license models and extending your license.

On the configuration view of the **gorelate Licensing** solution you may see your gorelate licenses, including the license type and its expiration:

Licensed Products											
Load Licenses		License-User		License-Teams		License-Processes					
Product ↓	Productde...	Licensetype	Licenses	Data limit	Startdate	Enddate	Invoicing	Price(EUR)	Version	Available V...	Col Load
go - Time Tracking		per user	26		5/1/2019		monthly		1.0.06.017	1.0.06.017	
go - Planning		per user	100		4/20/2021	6/10/2022	annually		1.0.00.022	1.0.00.022	
go - Licensing									1.0.06.012	1.0.06.012	
go - FlexGrid pro		per process	5		9/26/2018		annually		1.0.10.047	1.0.10.047	
go - FlexGrid		per user	33	0	7/12/2018	7/12/2029	annually		1.0.10.047	1.0.10.047	
go - DataTransport		per process	2		7/16/2018	7/16/2029			1.0.0.3	1.0.0.4	Load
go - DataProtect		per organization	300		7/30/2018	10/5/2022	annually		1.0.1.3	1.0.1.3	

You may also update to the latest available version of each managed solution by just pressing the load button (which is only displayed if there is a newer version available).

It is recommended to update to the latest version after installing the Time Tracking package from Microsoft AppSource.

The gorelateFlexGrid solution

gorelate FlexGrid is a process engine with flexible customizable user interfaces. The solution can be licensed separately from the Time Tracking application to implement custom processes, but no separate license is needed for use cases implemented in Time Tracking.

Please visit <https://www.gorelate.com/en/crm/add-ons/flexible-grid/> for further information about available products based on the Flex Grid technology, and the possibilities to improve productivity of your own Dynamics 365 processes.

The gorelateTimeTracking solution

The Time Tracking Solution consists of:

- gorelateTT (Client Extension + App)
- Extensions to standard Entities (systemuser)
- New entities (gore_hr_user, gore_tt_costcenter, gore_tt_month, gore_tt_day, gore_tt_activity, gore_tt_favoritecostcenter)
- A new optionset (gore_costcentertype)
- Security Roles (*gorelate TT* and *gorelate TT – HR*)
- Web Ressources defining this Flex Grid App (gore_/xml/go_tt.xml, go_tt_hr.xml and go_tt_lib.xml)
- Supporting Web Ressources (gore_/html/tt_help.html, gore_/html/tt_hr_help.html, gore_/img/tt.png, gore_/img_tt_hr.png)
- A plugin (gorelate.solutions.bl) with 8 SDK messages

Each user using the **Time Tracking** app needs a license that is attached to a security role - there are two roles that may be attached to users

- **gorelate TT (Standard)**: The user may add his work times
- **gorelate TT – HR (Admin)**: The user may view work times others have entered

License management can be done using the gorelate Licensing solution:

The screenshot shows the 'gorelate Licensing' interface. On the left, a table lists licensed products. On the right, a detailed view shows the license assignment for a user named 'Alexander Holzer'.

Produkt	Produktde...	Lizensieru...	Lizenanz...
go - FlexGrid		pro User	999
go - Licensing			
go - Planning		pro User	999
go - Time Tracking		pro User	999

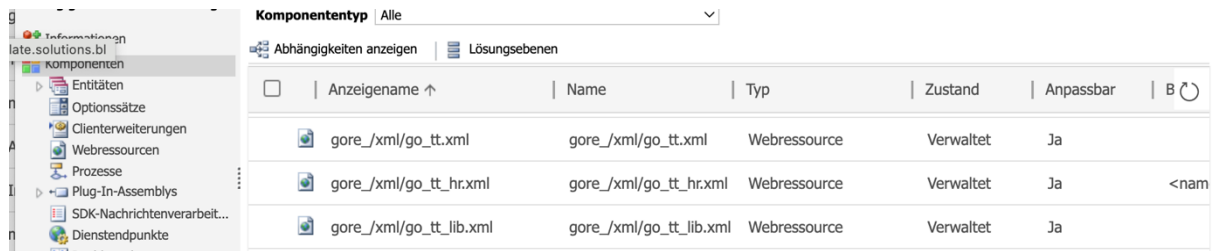
Suche	Rollen	Unterneh...	AdminLizenz	Lizenz	Roll
< Unternehmenseh...	User 2 ↑	Unterneh...	AdminLizenz	Lizenz	Roll
org546faac8 (3)			2	1	
org546faac8 (3)			2	1	
Alexander Holzer	org546faac8	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Mona Market	org546faac8	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Simon Saller	org546faac8	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Summe			2	1	

Customizing Options

With **Time Tracking** and your trial version you get a fully functional ready to use solution for tracking and managing work times within Dynamics CRM 365. However, maybe you want to adapt the implemented processes – like having just 2 instead of 3 time slices per day, changing colors or texts, or more

This chapter shows how you can apply simple customizations on your own – for questions and more complex customizations goretel is ready to help you.

The business logic and layout of the TimeTracking processes is defined in XMLs that are part of the managed solution and therefore cannot be changed:



The screenshot shows a Dynamics CRM interface with a component list. The 'Komponententyp' is set to 'Alle'. The list contains three XML components:

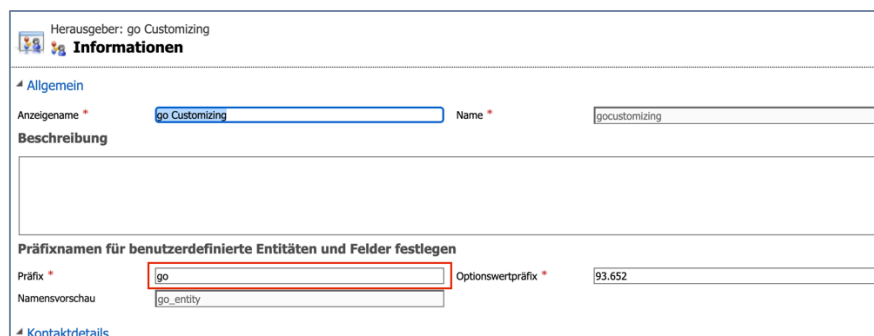
Anzeigename ↑	Name	Typ	Zustand	Anpassbar	B
gore._xml/go_tt.xml	gore._xml/go_tt.xml	Webressource	Verwaltet	Ja	
gore._xml/go_tt_hr.xml	gore._xml/go_tt_hr.xml	Webressource	Verwaltet	Ja	<nam
gore._xml/go_tt_lib.xml	gore._xml/go_tt_lib.xml	Webressource	Verwaltet	Ja	

However, those xmls include another XML that may exist and change the standard functionality:

```
<xml resource='go._xml/cu_tt.xml' />
```

To add this XML file, you need to

(1) create a publisher with prefix "go"



The screenshot shows the 'Informationen' section of a Dynamics CRM publisher configuration form. The publisher is named 'go Customizing'. The 'Präfix' field is set to 'go' and is highlighted with a red box. The 'Optionswertpräfix' field is set to '93.652'.

Herausgeber: go Customizing	
Informationen	
Allgemein	
Anzeigename *	go Customizing
Name *	gocustomizing
Beschreibung	
Präfixnamen für benutzerdefinierte Entitäten und Felder festlegen	
Präfix *	go
Optionswertpräfix *	93.652
Namensvorschau	go_entity
Kontaktdetails	

(2) create a solution for that publisher

The screenshot shows the 'Lösung: Lösung erstellen' (Solution: Create Solution) dialog box in SAP Solution Manager. The 'Allgemein' (General) tab is active. The 'Anzeigename' (Display Name) is 'goCustomizing', the 'Name' is 'goCustomizing', and the 'Version' is '1.0.0.0'. The 'Herausgeber' (Publisher) is 'go Customizing'. The 'Beschreibung' (Description) tab is also visible but empty.

(3) create the cu tt.xml file and populate it with the changes to the standard behaviour you want to apply

You may contact gorelate GmbH to help you implement your customizations in this xml file – or do it yourself using the description in the next section.

(4) upload it and publish as webresource

The screenshot shows the 'Webressource: /xml/cu_tt.xml' configuration dialog box in SAP Solution Manager. The 'Allgemein' (General) tab is active. The 'Name' is 'go_ /xml/cu_tt.xml', the 'Anzeigename' (Display Name) is '/xml/cu_tt.xml', and the 'Beschreibung' (Description) field is empty. The 'Inhalt' (Content) section shows 'Typ' (Type) as 'Daten (XML)', 'Sprache' (Language) as an empty dropdown, and 'Datei hochladen' (Upload File) as 'cu_tt.xml'. The 'URL' section shows the URL 'https://org546faac8.crm4.dynamics.com/WebResources/go_/xml/cu_tt.xml'.

XML Customization possibilities

Structure of the custom XML

The time tracking grids are defined in two webresources contained in the time tracking managed solution [...]

Available Time Slots

By default, the user may set up to three uninterrupted work time intervals. If you want to have just one or two, you may hide columns you don't need:

```
<gogrid>
  <cugrids>
    <cugrid id='dayList'>
      <parameters>
        <!--timeSlot3 ausblenden-->
        <parameter name='TimeSlot3' type='boolean' value='false' />
      </parameters>
    </cugrid>

    <!--ttHr -->
    <cugrid id='days'>
      <parameters>
        <!--timeSlot3 ausblenden-->
        <parameter name='TimeSlot3' type='boolean' value='false' />
      </parameters>
    </cugrid>
  </cugrids>
</gogrid>
```

Changing Text Labels

You may override texts from the standard xml:

```
<gogrid>
<strings>
  <string name='Beginn1'>
    <text lang='1031'>Kommt</text>
    <text lang='1033'>Start</text>
  </string>
  <string name='Beginn2'>
    <text lang='1031'>Pause aus</text>
    <text lang='1033'>End of Break</text>
  </string>
  <string name='Ende1'>
    <text lang='1031'>Pause</text>
    <text lang='1033'>Break</text>
  </string>
  <string name='Ende2'>
    <text lang='1031'>Geht</text>
    <text lang='1033'>End</text>
  </string>
</strings>
</gogrid>
```

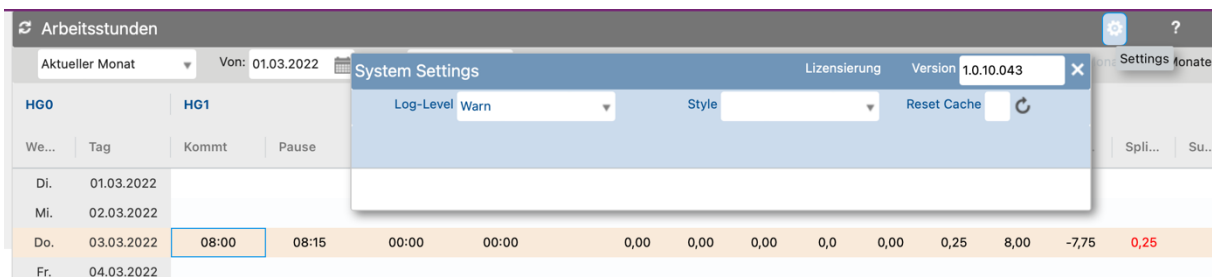
We...	Tag	Kommt	Pause	Pause aus	Geht	Reis...	Kr
Mi.	09.03.2022	07:45	13:30	14:45	16:00		0
Do.	10.03.2022	08:30	11:00	13:00	18:00		0
Fr.	11.03.2022						
Sa.	12.03.2022						
So.	13.03.2022						
Mo.	14.03.2022	15:00	15:15	00:00	00:00		0
Di.	15.03.2022						

Add a button to the parameter grid

All grids support some predefined parameter buttons, and one of it is the settings button which – beside some other settings – allow changing the layout colors of the grid. To add the button to the grid, you need to:

- (1) extend the parameter grid with one extra column
- (2) add the settings button to the 2nd column
- (3) move the help button to the 3rd column (you may change the help page also here by providing a different resource to the help button)

```
<gogrid>
  <cugrids>
    <cugrid id='dayList'>
      <parameters>
        <grid id='0'>
          <column x='3' width='24' />
        </grid>
        <parameter id='0' name='btn_systemsetting' class='input' type='button' label='Settings' x_Label='0'
y_Label='1' x='2' y='1' icon_only='true' />
        <parameter id='0' name='btn_help' class='input' type='button' x='3' y='1' label='Hilfe' icon_only='true'
resource='gore_/html/tt_help.html' />
      </parameters>
    </cugrid>
  </cugrids>
</gogrid>
```



Change the style of a column

To change the style of a column

(1) add the styles you need:

```
<styles>
```

```
  <style name='greenStyle'>
```

```
    <![CDATA[{ "background-color": "green", "color": "red", "border-radius": "20px", "background-image":"linear-gradient(to bottom, rgb(255,255,255) 0%, rgb(211,211,211) 100%"}]]>
```

```
  </style>
```

```
  <style name='yellowStyle'>
```

```
    <![CDATA[{ "background-color": "yellow", "color": "blue", "border-radius": "20px", "background-image":"linear-gradient(to bottom, rgb(255,255,255) 0%, rgb(211,211,211) 100%"}]]>
```

```
  </style>
```

```
</styles>
```

(2) add the column(s) to the cuGrid with the same name or id, and set header_style and/or the style (for the data columns):

```
<columns>
```

```
  <column parentname='HG1' name='Begin1' type='datetime' width='60' align='center' label='Beginn1' editselect='true' header_style='greenStyle' style='yellowStyle'>
```

```
    <edit>
```

```
      <!--<type>time</type>-->
```

```
      <onChange action='insert' entity='e2' calculation='EditDay' />
```

```
      <onChange action='update' entity='e2' rowCondition='isOpen' calculation='EditDay' />
```

```
    </edit>
```

```
  </column>
```

```
</columns>
```

HG0		HG1		
We...	Tag	Kommt	Pause	Pa...
Di.	01.03.2022			
Mi.	02.03.2022			
Do.	03.03.2022	08:00	08:15	00:
Fr.	04.03.2022			
Sa.	05.03.2022			

If you instead want to change the style of a parameter element, like a button in the parameter grid, you need to change the styles – **labelstyle** and **style** - directly in the parameter node within the xml:

```

<parameters>
  <grid id='0'>
    <column x='3' width='50' />
    <column x='4' width='24' />
  </grid>
  <parameter id='0' name='btn_systemsetting' class='input' type='button' label='Settings' x_Label='3'
y_Label='1' x='2' y='1' labelstyle='greenStyle' style='yellowStyle' />
</parameters>

```



Please note, that as a difference to the button example above with the icon_only attribute set, this parameter button has set both a label (with its position in column x_Label/y_Label and optional style labelstyle) and the control itself.