TMCH - TREx manual for the RO and RSP

in the List track

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1. **Introduction**

This manual provides instructions on the available functionalities for the Registry Operator (RO) and the Registry Service Provider (RSP) for the new TREx service in the list track.

Please note that this document concerns only the list track. For the registration track, we kindly refer to the “TMCH - TREx manual for the RO and RSP in the Registration track” manual.

The following sections are available for the Registry Operator on the Web User Interface:

- Administration
- Lists
- Financials
- Reporting

**Note that the Registry Service Provider only has an account upon request of the Registry Operator and can only access the Lists section with limited functionalities which can be altered by the RO. These functionalities are described under paragraph “2.3. RSP Account Details”**.

In case of any further questions, do not hesitate to reach out to our support team via email: trex@clearinghouse.org
2. Administration section

The following paragraph will provide you with the necessary guidance on the Administration section of the Registry Operator Web User Interface.

Note that the Registry Service Provider does not have an Administration section available.

The Administration section for the RO will provide details on:

- The TLD Details
- RO Account Details
- RSP Account Details
- API Account Details
- Support information

Via the Administration section, the Registry Operator will have the ability to activate and change the account rights of the Registry Service Provider and activate and fill in the API setting.

Note that most of the information that is presented in the Administration section is not directly changeable for the Registry Operator, except for the permissions in the RSP account details and API account details. In case other changes are necessary, please contact the TMCH as described in the “Support Information” tab below.

The Administration section looks as follows:
2.1. TLD Details

This overview provides details on the Top Level Domain for the specific account.

In the TLD details overview, the following is available:

- The applicable TLD
- The TREx Track, either List or Registration.
- The activation date of the account.
2.2. RO Account Details

The RO account details provide further insight on the personal information of the RO account:

- Name: Name of the person or organization managing the specific TLD.
- Email: The email address related to the account.
- Phone: The phone number related to the person or organization.

RO Account Details

<table>
<thead>
<tr>
<th>Name</th>
<th>RO Blue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td><a href="mailto:tmchtroro@gmail.com">tmchtroro@gmail.com</a></td>
</tr>
<tr>
<td>Phone</td>
<td>+31.4910.880</td>
</tr>
</tbody>
</table>

2.3. RSP Account Details

This overview provides details on the Registry Service Provider account related to the specific TLD. In addition to the RSP account details, the Registry Operator has the possibility to manage the RSP profile and the available rights.

The RSP account details provide further insight on the personal information of the RSP account linked to the TLD:

- Name: Name of the RSP managing the specific TLD.
- Email: The email address linked to the RSP account.
- Phone: The phone number linked to the RSP account.

Furthermore, the Registry Operator has the possibility to manage the RSP account. The following details can be changed:

- Status: This will activate or deactivate the RSP account. In case the account is deactivated (by default), the RSP is able to log in, but not to download or upload anything. In case the
RO toggles the “Status” button to the right, it will activate the RSP account and the RSP will be able to:
- Download the TREx List.
- Download the TREx List Checksum.
- Download the Exempt List.
- Download the Control List.
- Insert Exempt List: By activating this function, the RSP will be able to insert the exempt list.
- Upload Control List: By activating this function, the RSP will be able to upload the control list.

Note that the selection button will need to be toggled left or right and the RO will need to click the “Save Changes” button to confirm the changes. Without clicking the “Save Changes” button the adjustments will not apply.

2.4. API Account Details

This overview provides details on the API account settings. By default the API is switched off.

By switching the toggle, RO accounts can manage and configure the associated API account.
The following details need to be filled in:

- IPv4 address: IP address to be whitelisted for API usage.
- ‘API password’ & ‘Retype password’: Here the RO can choose the API password and confirm this. The password needs to comply with the TMCH password policy. Please note that the API password never expires.

Furthermore, the UserID field is also visible. The UserID is system-generated and based on the TLD name in a-label format (trexapi<tld>). This field is not editable.

After modifying the toggle and values, don’t forget to click the ‘Save Changes’ button. You will be redirected to the registry dashboard.

2.5. Support information

The support information provides details on whom to contact in case of technical, administrative, contractual or financial questions or issues.
3. Lists section

This section will offer the possibility for the Registry Operator and Registry Service Provider (if applicable) to:

- Download the TREx List and TREx List checksum.
- Download and insert the Exempt List.
- Download and upload the Control List.

Note that the Registry Service Provider only has access to the above functionalities in case these are enabled by the Registry Operator. For further details, we kindly refer to “2. Administration section”.

The Lists section looks as follows:
3.1. TREx List

This paragraph provides you with an overview on how to download the TREx list and TREx List checksum.

The TREx list is the list of TREx labels for which the agents/holders have requested TREx protection. It is up to the Registry Operator or Registry Service Provider to ensure the necessary measurements are in place to TREx protect the labels, or to report otherwise via the control list.

Further details on how to report not TREx protected labels can be found in the paragraph below “3.3 Control List”.

Note that the RO or RSP will need to download this TREx list every 24 hours.

By clicking on the “Download current TREx list”, the latest list of labels where TREx protection was requested will be downloaded. The latest version of the TREx list will be presented in a .csv format and you will have the ability to open or save the file.

The .csv file contains the header “labels” and a list of all labels (one per line) that requested TREx protection.

The TREx List checksum on the other hand is available to ensure that the Registry Operator or Registry Service Provider have the latest version of the TREx List.
Click the “Download TREx List checksum” link and the latest version of the TREx list checksum will be presented in a .md5 format. The TREx List checksum can be either opened or saved locally.

3.2. Exempt List

The exempt list contains all labels for a specific TLD that cannot be TREx protected. The reason for this can be various; for example, in case the label is a premium name. If a label is listed on the exempt list and an agent/holder has requested a TREx protection for this label, the RO or RSP can report via the control list that TREx protection is not possible. Further details on how to report not TREx protected labels can be found in the paragraph below “3.3 Control List”.

The RO and RSP can download the current exempt list by clicking on “Download current Exempt Labels List”.

The exempt list will be presented in a .csv format and can be either opened or stored locally.

The exempt list contains a header that specifies:

- The label that is on the exempt list.
- The TLD for which the specific label will be exempted from TREx protection.

The exempted labels will be listed below the header. One label per line.
The exempt list can be updated an unlimited amount of times and the first exempt list will be uploaded by the TMCH based on the feedback from the Registry Operator or Registry Service Provider, before the go-live of the applicable TLD.

To insert the latest version of the exempt list, the RO or RSP will need to put all exempted labels in the “Exempt List insert” box.

Note that inserting a newer version of the exempt list means that this will replace the previous version. Hence it is not sufficient to only insert the additional labels that need to be exempted from TREx protection. The Registry Operator or RSP will need to insert all labels, including the previously exempted labels.

This will allow the RO or RSP to also remove labels from the exempt list. In case labels need to be excluded from the current exempt list, these labels can be left out of the insertion box when inserting a newer version of the exempt list.

Once the labels are entered into the “Exempt List box”, the RO or RSP will need to click “Insert”.

The RO or RSP will be redirected to the “Exempt List Insert” page.
The “Exempt List Insert” page will give an overview on the number of labels that:

- Will be added to the exempt list.
- Will be removed from the exempt list.
- Are rejected from the exempt list. For example because they are already TREx protected.
- Labels that remain unchanged.

A detailed summary is also available where the RO or RSP can verify each label that is either:

- Added
- Removed
- Rejected
- Unchanged

By clicking each above section, the RO or RSP will be able to see the labels that are either added, removed, rejected or remain unchanged (labels that were already on the exempt list and remain there upon RO or RSP’s request).
To confirm the latest exempt list the RO or RSP will need to click “confirm”\(^1\).

The agent/holder will be redirected to the Lists section by clicking either on “confirm” or “cancel”.

### 3.3. Control List

Via the control list, the Registry Operator or Registry Service Provider will need to report the labels that are not TREx protected but were requested to be TREx protected by the agents/holders via the TREx list. The reason why these labels are not TREx protected can be various. Examples:

- The label is on the exempt list, for example because it is a premium name.
- The label is already registered.
- The label appears in the Escrow.
- An override occurred
- Etc...

\(^1\) In case the exempt list does not meet the RO or RSP’s requirements, you can revoke the changes by clicking on “Cancel”.
Note that in case an override occurs the RO or RSP must report this via the control list. The RO and RSP are not obligated to report the labels that are registered or occurred in the exempt list, but we do urge to include these. In case there are any other reasons than described above to why the label was not TREx protected, it is also mandatory to provide additional feedback.

We further urge the RO and RSP to provide a clear description on the cause of not TREx protecting certain labels.

Note that when uploading a newer version of the control list, this will replace the previous version. Hence it is not sufficient to only upload the feedback on the newly refused labels for TREx protection. The registry operator or RSP will need to upload the entire control list lifespan, including the previously refused labels.

3.3.1. Downloading the Control List

The RO and RSP have the ability to download the latest version of the control list. This file can be downloaded by clicking the “Download Control List on file” link. Note that the timestamp is also available to validate when the control list was last uploaded.

The control list will be presented in a .csv format and you will have the ability to open or save the file locally.
The control list will contain the following fields:

- The header containing: “label”, “comment” and “Override-ID”
- The labels that were requested to be TREx protected by the agents HOLDERS but are not.
- A comment section for the RO and RSP to specify why the label was not TREx protected.
- Override-ID: In case an override has occurred this will also need to be specified in the control list by reporting the override-ID. Only when an override is applicable will an Override-ID need to be reported.
- The report will contain one label per line.

3.3.2. Uploading the Control List

The upload function of the control list can be found under the “Download Control List on file” link. Click on the “Choose File” button and go to the destination folder where you store the daily control list.

Note that the content of the file is subject to specific requirements which are outlined in the appendix.

Once the file is selected, the filename will appear next to the “Choose File” button. Click the “upload” button to complete the upload. If the file was successfully uploaded the following
message will appear: “File upload OK” and the upload timestamp is updated to reflect the current upload. Note that the timestamp is reflected in UTC.

As explained before, the RO or RSP is obligated to report all reasons why a label was not TREx protected, except when the label is already registered or when it is on the exempt list.
4. **Financials section**

The Financials section provides details on the current financial status under the specified TLD.

The Registry Operator will have access to two different financial reports:

- Virtual counter: a day to day overview of the points earned by TREx protecting labels under the specified TLD.
- The Invoice Reference Overview: an overview of all invoices that have been created based on the points deriving from the virtual counter.

Note that the Registry Service Provider does not have and cannot be granted access to the Financials section.

4.1. **Virtual Counter**

To get an overview of the current status of the virtual counter, click in the Financials section on the “Virtual Counter” link.

On this page, the RO will be able to identify the number of points allocated per day, as well as the timestamp. Moreover, a balance of “Total points collected” and “Total of not-converted points” are available.
The “Total points collected” gives an overview of all points that have been collected since the start of the TREx protection for the specific label.

The “Total of not-converted points” gives an overview of all points for which no invoice has been generated yet.

Note that points can only be converted into an invoice reference if:

- The benchmark of 300,000 non-converted points has been reached.
- 6 months have passed since the last invoice reference was generated.

Once one of the above conditions are met, the “convert points so they can be invoiced” button will be clickable and the Registry Operator will be able to generate an invoice reference.

The invoice reference will be available in the “Invoice Reference Overview” page which is explained in the below paragraph.

### 4.2. Invoice Reference Overview

To access to the “Invoice Reference overview” page, click on the “Invoice Reference overview” link in the Financials section or on the “Convert points so they can be invoiced” button in the “Virtual Counter” overview.

The “Invoice Reference overview” page will give an overview of the invoice references that have been created, if available.
The following details are visualized:

- **ID**: The invoice reference identification number.
- **Day of conversion**: The date the virtual points from the virtual counter page were converted into an invoice reference.
- **# of points converted**: The number of points that were converted and should correspond to the number of points on the invoice reference.
- **Corresponding amount to be invoiced**: The amount of converted points expressed in USD. This amount will be invoiced.
- **Invoice reference**: The invoice reference name, containing the TLD and reference ID.

Furthermore relevant invoicing details such as the CHIP company name, address, etc... are displayed below the table.

As soon as the points on the virtual counter page have been converted, an invoice reference will be available.
5. **Reporting section**

The Reporting section is only visible for RO accounts. It is collapsed by default. After expanding the section by clicking on the ‘plus sign’, RO accounts can consult relevant reports with regards to the TREx service.

The following reports are available:

- **Label report**: Provides the Registry Operator with a list of all labels that requested TREx protection and the protection status of that label.
- **Quality Assurance report**: Provides details
  - When the exempt list was uploaded.
  - When the control list was uploaded.
- **Virtual Counter report**: The Virtual Counter report will provide a day-to-day overview on the number of points allocated to that specific TLD and the total points that were converted.
- **Invoice Reference report**: The Invoice reference report will provide the Registry Operator when there was an invoice reference created.

The reports are available in .csv and excel format.
6. Interaction via Web Calls

The interaction with the different lists is also possible via web calls against the RO portal "secure.trademark-clearinghouse.com"

6.1. Authentication

The interaction via web calls requires prior authentication using the RO portal credentials (that follow the default TMCH password policy, including expiration after 3 months):

```
curl https://<SERVER>/tmch/public/login -c cookiejar.txt -X POST -d
"username=<USERNAME>&password=<PASSWORD>"
```

Upon successful login, a session cookie is set, and the following message is returned:

"Logged in"

There is no need to issue a logout command after the interactions since the session (auto-)expires after 15 minutes.

6.2. Interactions

6.2.1. Download of the TREx List

The current TREx List can be downloaded via the following web call:

```
curl https://<SERVER>/tmch/registry/trex.csv -b cookiejar.txt -o trex.csv
```

6.2.2. Upload Control List

The Control List can be uploaded via the following web call:

```
curl https://<SERVER>/tmch/registry/update/control -b cookiejar.txt -F
control=control.csv
```

After the upload, an empty webpage is returned with a 302 redirect in the headers (.../?error=X), where the X provides you with additional information:

1 : file processed OK2.0 : a-label contains invalid characters, is too long or to short
2.1 : comment field contains invalid characters or is too long
2.2: Override-ID is invalid
3: internal error
4: invalid headers
5: missing EOF (incomplete or corrupt file)

6.2.3. Upload Exempt List

The Exempt List can be uploaded via the following web call:

```
curl https://<SERVER>/tmch/registry/update/exempt -b cookiejar.txt -X POST -d apply=1 -d exempt=@exempt.txt
```
7. Interaction via API

In addition to the RO portal (web interface and automated web calls), the interactions with the different lists are also possible via a separate API interface. The API interface facilitates automated communication over the HTTPS protocol after basic authentication.

7.1. Account Configuration

Before using the API, the RO has to activate and configure his API account in the RO web portal. The RO can subsequently share the credentials with his RSP if needed. Please note that the usage of the API account bypasses all restrictions set via the RO webportal: API users have read/write access on all different lists, with respect to their TREx implementation track.

7.2. API Calls

API calls enable interaction with the different lists against the RO+RSP API server:

`trexapi.trademark-clearinghouse.com`

7.2.1. TREx List

The following API call facilitates the download of the TREx List (List Track TLDs only), and returns a CSV file that contains a list of TREx labels:

`curl https://<user>:<pw>@<server>/trexlist`

7.2.2. Exempt List

The following API call facilitates the download of the exempt list (both List and Registration Track TLDs) and returns a CSV file that contains the list of exempt labels for the respective TLD:

`curl https://<user>:<pw>@<server>/exemptlist`

The following API call facilitates the upload of a new exempt list (both List and Registration Track TLDs) and expects a CSV file that contains the list of a-labels to be included on the exempt list for the respective TLD:

`curl -X POST -F file=@filename https://<user>:<pw>@<server>/exemptlist`
This call returns the following:

- 201 ‘CREATED’ if the upload succeeds
- 400 ‘Error[N]:<error text>’ if the upload fails due to a client-side error
  - 'Error[1]: Zero length a-label detected'
  - 'Error[2]: Invalid a-label format'
  - 'Error[3]: Invalid punycode format'
  - 'Error[4]: Label should not start/end with a dash'
  - 'Error[5]: Label is already TREx protected'

7.2.3. Control List

The following API call facilitates the download of the control list (List Track TLDs only) and returns a CSV file that contains a copy of the current control list in the database for the respective TLD:

```
curl https://<user>:<pw>@<server>/controllist
```

The following API call facilitates the upload of a new control list (List Track TLDs only) and expects a CSV file that contains the control list to be uploaded for the respective TLD:

```
curl -X POST -F file=@filename https://<user>:<pw>@<server>/controllist
```

This call returns the following:

- 201 ‘CREATED’ if the upload succeeds
- 400 ‘Error[N]:<error text>’ if the upload fails due to a client-side error
  - 'Error[1]: Missing file'
  - 'Error[2]: Not a valid aLabel'
  - 'Error[3]: Invalid characters in comment'
  - 'Error[4]: Invalid SMDid'
  - 'Error[5]: Internal database error'
  - 'Error[6]: Invalid or incomplete header'
  - 'Error[7]: Missing footer line (EOF)’
8. **Appendix**

In this appendix you can find the specifications on the different lists that are available for download/upload:

- TREx List
- Exempt List
- Control List

### 8.1. TREx List

#### 8.1.1. TREx List

- **Filename**: trex-YYYYMMDD.csv
- **Specifications**:
  - Comma Separated Values file (.csv)
  - Line separator is ASCII “0x0A” NL
  - Field separator is ASCII “0x2C” COMMA
- **Layout**: Header containing version (1), date (YYYYMMDD)
  - Example: 1,20171023
- **Header line containing field name**: label
- **Content lines containing labels (one per line)** in a-label format
  - Example: trex-test
- **Footer line containing EOF followed by the line separator**

#### 8.1.2. Checksum

- **Filename**: trex-YYYYMMDD.md5
- **Specifications**
  - MD5 hash on the content of the entire TREx List file
  - Information separated by spaces
- **Layout**
8.2. Exempt List

8.2.1. Upload

- Method: Textfield in Registry Dashboard, where a list of labels can be inserted
- Format: List of a-labels (one per line)

8.2.2. Download

- Filename: exempt-YYYYMMDDhhmmss.csv (UTC Timestamp)
- Specifications
  - Comma Separated Values file (.csv)
  - Line separator is ASCII “0x0A” NL
  - Field separator is ASCII “0x2C” COMMA
- Layout
  - Header line containing field names: a-label,tld_name
  - Content lines containing labels (one per line) and TLD name
    - Example: label1,tld9

8.3. Control List

8.3.1. Upload
• Format: .csv file

• Specifications
  o Comma Separated Values file (.csv)
  o Line separator is ASCII “0x0D 0x0A” CRLF, as specified in RFC4180
  o Field separator is ASCII “0x2C” COMMA
  o Comment field:
    • Max 255 Characters
    • Allowed Characters:
      • a-z as defined in ASCII,
      • A-Z as defined in ASCII,
      • 0-9 as defined in ASCII,
      • ASCII “0x2D” (hyphen),
      • ASCII “0x5F” (underscore),
      • ASCII “0x20” (space)
  o Comment and Override-Id fields may be left blank

• Layout:
  o Header containing version (1), TREx List date (YYYYMMDD), TLD
    Example: 1,20171023, tld9
  o Header line containing field names: label, comment, Override-ID
  o Content lines containing:
    • labels (one per line) in a-label format
    • comment
    • Override ID
  o Footer line containing EOF followed by the line separator

8.3.2. Download

• Filename: control-YYYYMMDDhhmmss.csv (UTC Timestamp)

• Specifications
- Comma Separated Values file (.csv)
- Line separator is ASCII “0x0A” NL
- Field separator is ASCII “0x2C” COMMA

• Layout
  - Header line containing field names: label, comment, Override-ID
  - Content lines containing labels (one per line) in a-label format, comment and Override ID