Creating Reference Data

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# Introduction

This document describes the processes needed to load reference data into the Tariff Application and downstream systems. By reference data we understand the following:

* Additional code types
* Base regulations
* Certificate types
* Commodity code descriptions
* Footnote types
* Footnotes
* Geographical areas and memberships
* Measure types

# Overall process

In order to accelerate the process for loading data, reference data is initially created off-system and loaded to TAP, CDS and Gems / Caesar effectively concurrently (once the check has been done that it does not break any business rules in CDS). Reference data is generally the least troublesome to load – there are few business rules provided that no validity end dates are supplied: these can cause problems with Taric business rules and are generally not required, especially for new data (end dates not required for any data in this document).

The generic process involves:

* Creating an Excel spreadsheet of the required data in the prescribed format (specific to each data type)
* Creating a Python script to convert to XML
* Running the script
* Testing and loading the data

# Creating and updating measure types

The UK tariff needs some measure types to be renamed and other measure types to be created from scratch, as described below:

The following measure types are to be created from scratch:

|  |  |  |
| --- | --- | --- |
| ID | Description | Reason |
| 130 | Registered aircraft relief | The UK Tariff will not be using suspensions from Day One – instead a number of suspensions will be ported to "reliefs"; this list includes brand new reliefs to distinguish specific relief types |
| 131 | Pharmaceutical relief |
| 132 | Vessels / platform relief |
| 133 | Autonomous release relief |
| 134 | Relief for certain types of aircraft |
| 350 | Animal Health Certificate | All of these measure types are used to port the measures previously referred to as "National Prohibitions and Restrictions" from their current management in CHIEF into TAP – the CHIEF measure types use 3-alphabetical character descriptions, whereas the TAP equivalents will use 3 numeric digits.  The greyed out line illustrates that we will not be porting the CVED measure type from CHIEF as it is a direct replica of the Common Veterinary Document which is already supplied by the EU – CVED will just close.  It is HMRC's task to close these measures in CHIEF, so they are not duplicated. |
| 351 | Health and Safety Executive Import Licensing Firearms and Ammunition |
| 352 | Attestation Document (horticulture and potatoes) |
| 353 | DCMS Open General Export Licence |
| 354 | Home Office Controlled Drugs (export) |
| 355 | HMI Conformity Certificate (fruit and veg) issued in UK |
| 356 | Common Veterinary Entry Document (CVED) |
| 357 | Certificate of Conformity |
| 358 | Home Office pre-cursor chemical authorisation |
| 359 | Health and Safety Executive (imports) |
| 360 | Phytosanitary Certificate (import) |
| 361 | Home Office Pre-cursor chemicals |
| 362 | Home Office Controlled Drugs (import) |
| 363 | Quarantine Release Certificate |
| 780 | Export control | These are required as placeholders in case the UK needs to develop new import and export controls in the initial period of running the UK tariff – there is no capability yet to manage measure types in the tariff application. |
| 781 | Export control |
| 782 | Export control |
| 783 | Export control |
| 784 | Export control |
| 785 | Import control |
| 786 | Import control |
| 787 | Import control |
| 788 | Import control |
| 789 | Import control |

The following measure types are to be renamed - these are labelling changes only: they have zero effect on the applicability of the measures.

|  |  |  |
| --- | --- | --- |
| ID | Description | Reason |
| 105 | Third country duty under authorised use | In the UK, the term "end use", which is used in the EU measure equivalents is being replaced by the term "authorised use" |
| 123 | Non-preferential tariff quota under authorised use |
| 145 | Tariff preference under authorised use |
| 146 | Preferential tariff quota under authorised use |
| 552 | Final anti-dumping duty | All of these changes are to represent a requirement from the Trade Remedies Authority (currently TRID) to refer to "Final" rather than "Definitive" duties and to refer to "Anti-subsidy" rather than "Countervailing" duties. |
| 553 | Provisional anti-subsidy duty |
| 554 | Final anti-subsidy duty |
| 555 | Anti-dumping / anti-subsidy duty - Pending collection |
| 561 | Notice of initiation of an anti-dumping or anti-subsidy proceeding |
| 562 | Suspended anti-dumping or anti-subsidy duty |
| 564 | Anti-dumping or anti-subsidy registration |
| 565 | Anti-dumping / anti-subsidy review |
| 566 | Anti-dumping / anti-subsidy statistic |
| 570 | Anti-dumping / anti-subsidy duty – Control |

## Measure types – source Excel sheet fields

The following fields are required to fully support the creation of new measure types:

| Field | Description |
| --- | --- |
| MEASURE.TYPE.ID | 3 numeric digits that uniquely identify the measure type |
| DESCRIPTION | The words that describe what the measure type means |
| VALIDITY.START.DATE | The date from which the measure type can be used – always use 2019-10-31 for Brexit ready measures |
| TRADE.MOVEMENT.CODE | 0 means import  1 means export  2 means import or export |
| PRIORITY.CODE | This field is mandatory but appears to have no impact. In general, we are using priority 1 for all measure types are come from the EU and 5 for those that have been ported from CHIEF (these were the existing values) |
| MEASURE.COMPONENT.APPLICABLE.CODE | Determines if duties are to be assigned to the code. The options are:  0 Permitted  1 Mandatory  2 Not permitted  We use 1 for the new reliefs, but 2 for all other measure types (which are all P&R) |
| ORIGIN.DEST.CODE | Similar to the Trade Movement Code, this indicates if the good is being imported or exported – any export controls are "1"; any import controls are "0". Options are:  0 Origin  1 Destination |
| ORDER.NUMBER.CAPTURE.CODE | Indicates if a quota order number is to be captured when a declaration is made – this is only needed for quota type measures. We are not creating any quota measure types. Options are:  1 Mandatory  2 Not permitted |
| MEASURE.EXPLOSION.LEVEL | Indicates how far down the tree a measure can be inherited: Always use "10" for import measures; always use "8" for export measures |
| MEASURE.TYPE.SERIES.ID | The series to which the measure belongs – this is critical, as there are parameters around measure types that are set in the series and we cannot fiddle with these. Key options are:  B - Entry into free circulation or exportation subject to conditions (used for all import / export control measure types)  C - Applicable duty (used for all reliefs) |

The data required for updating existing measure type descriptions is vastly simpler, as follows:

| Field | Description |
| --- | --- |
| MEASURE.TYPE.ID | 3 numeric digits that uniquely identify the measure type |
| DESCRIPTION | The words that describe what the measure type means |

When updating the description, we are not altering any of the other key properties of the measure type.

## Running the script

### Prerequisites

* The source Excel file is saved as "**measure\_types.xlsx**" in the subfolder "**source**"
* Templates **measure.type.description.update.xml** and **measure.type.insert.xml** are located in the "**templates**" subfolder.
* Machine with Python 3.x installed

### Steps

* Ensure that the data is correct in the "Updated" tab for measure types where the description is to be updated.
* Ensure that the data is correct in the "New" tab for new measures. The names of these two tabs and the precise usage of columns within them is critical.
* Navigate to the folder "/projects/tariffs/create-data/create\_reference\_data"[[1]](#footnote-1)
* Run the following script at the command line:

python3 measure\_types.py (on a Mac) *or*

py measure\_types.py (on a PC)

* This generates an XML file called **measure\_types.xml** in the folder  
  "**/projects/tariffs/create-data/convert\_and\_import\_taric/xml\_in/custom**". It includes both new and updated objects.
* The data must then be combined with an EU incremental file for load to HMRC – please see separate document in the folder "99. EU Data merge" for an explanation of this process.

# Creating and updating certificate types

There are very few new certificate types to create: in fact, there is just one. Certificate type "9" does not exist in the European Taric database as it is used solely to manage national certification requirements – indeed the type is referred to as "National document".

As we are going to be taking a seed data load from HMRC's CDS system, we believe that we will not need to recreate this certificate type, however this will need to be confirmed.

# Creating and updating additional code types

Additional code types have historically been used for many things in the EU, however the UK tariff will make vastly less varied use of them: for instance, Meursing codes, which use additional code type 7, will be abandoned.

The only likely reason for us to continue to use additional codes is to support Trade Remedies. Anti-dumping and anti-subsidy measures are set up against individual companies. These companies are identified using additional codes. Initially, when the EU set up additional code types, type 8 was used to represent these companies. It is defined as "Anti-dumping/countervailing".

Each additional code (not type) is a three-digit numeric code, which, when appended to the additional code type, defines the company impacted by the Trade Remedy measure. For example, additional code 8223 (type 8 and code 223) represents Samsung. The EU quickly ran out of additional codes – there are only 999 possibilities in this 8 additional code type range. Therefore, they have, over the years, created more additional code types to represent these companies. Now, the following additional code type exist, again with 999 options within them:

* 8 Anti-dumping/countervailing
* A Anti-dumping/countervailing
* B Anti-dumping/countervailing
* C Anti-dumping/countervailing

C is the latest type but is also approaching the point where it will run out. Therefore, we will create a number of additional code types to support the future expansion of the Trade Remedies requirement. We will create the following additional code types, that should last for a number of years:

* E Anti-dumping / anti-subsidy
* F Anti-dumping / anti-subsidy
* G Anti-dumping / anti-subsidy

Please note – we will also rename the additional code types 8, A, B and C to cover the requirement to refer to countervailing as anti-subsidy as described above.

## Additional code types – source Excel sheet fields

As per measure types, there are two sheets in the Additional code types Excel document, which is called **additional\_code\_types.xlsx** and is located in the "source" subfolder.

For creating new additional code types, the following data fields are required:

| Field | Description |
| --- | --- |
| ADDITIONAL\_CODE\_TYPE\_ID | Unique identifier – single alphanumeric character |
| DESCRIPTION | Description |
| APPLICATION\_CODE | These are the options:  0 Export refund nomenclature  1 Additional codes  3 Meursing additional codes  4 Export refund for processed agricultural goods  We always use "1" – the rest are effectively defunct. |

For updating additional code types' descriptions, we do not need the application code: the other fields are the same.

## Process

The process for creating this data is broadly the same as per measure types (described above).

### Prerequisites

* The source Excel file is saved as "**additional\_code\_types.xlsx**" in the subfolder "**source**"
* Templates **additional.code.type.insert.xml** and **additional.code.type.description.update.xml** are located in the "**templates**" subfolder.
* Machine with Python 3.x installed

### Steps

* Ensure that the data is correct in the "**Updated**" tab for types where the description is to be updated.
* Ensure that the data is correct in the "**New**" tab for new types. The names of these two tabs and the precise usage of columns within them is critical.
* Navigate to the folder "/projects/tariffs/create-data/create\_reference\_data"[[2]](#footnote-2)
* Run the following script at the command line:

python3 additional\_code\_types.py (on a Mac) *or*

py additional\_code\_types.py (on a PC)

* This generates an XML file called **additional\_code\_types.xml** in the folder  
  "**/projects/tariffs/create-data/convert\_and\_import\_taric/xml\_in/custom**". It includes both new and updated objects.
* The data must then be combined with an EU incremental file for load to HMRC – please see separate document in the folder "99. EU Data merge" for an explanation of this process.

# Creating and updating footnote types

There are many and varied footnote types on the system, however their usage has grown organically and therefore appears to be a bit of a hotch-potch. We aim to simplify the future usage of footnotes by rationalising this into fewer, broader types.

There is no intention however to modify the footnote types of any of the existing footnotes.

We are intending to create three new footnote types, as follows:

|  |  |  |
| --- | --- | --- |
| Type | Description | Notes |
| FC | Footnote to be applied to goods classification | Any future footnote that will be applied to goods classification (nomenclature) |
| FM | Footnote to be applied to measures | Any future footnote that will be applied to measures |
| JG | Footnote applicable specifically to Jersey / Guernsey | Specifically reserved for Jersey / Guernsey footnotes – no immediate need |

## Footnote types – source Excel sheet fields

As to be expected, there are two sheets in the Footnote types Excel document, which is called footnote\_types\_types.xlsx and is located in the "source" subfolder.

For creating new footnote types, the following data fields are required:

|  |  |
| --- | --- |
| Field | Description |
| FOOTNOTE\_TYPE\_ID | The unique identifier of the type. This can be 2 or 3 alphabetical characters or 2 numeric digits. We will always use 2 alphabetical digits. |
| DESCRIPTION | The description |
| APPLICATION\_CODE | There are a number of options here, as follows:  1 CN nomenclature  2 TARIC nomenclature  3 Export refund nomenclature  4 Wine reference nomenclature  5 Additional codes  6 CN measures  7 Other measures  8 Meursing Heading  9 Dynamic footnote  We use options 2 and 7 for our new types:  7 effectively means that the code can be applied to any measure.  2 means that the code can be applied to any commodity code. |
| VALIDITY\_START\_DATE | The date on which this comes into effect – we actually set these to 1st Jan 1970 to map to all others in the database |

For updating footnote types' descriptions, we do not need the application code or start date: the other fields are the same. We are not updating any footnote type descriptions.

## Process

The process for creating this data is broadly the same as per the previously noted reference data objects (described above).

### Prerequisites

* The source Excel file is saved as "**footnote\_types.xlsx**" in the subfolder "**source**"
* Templates **footnote.type.insert.xml** and **footnote.type.description.update.xml** are located in the "**templates**" subfolder.
* Machine with Python 3.x installed

### Steps

* Ensure that the data is correct in the "**Updated**" tab for types where the description is to be updated.
* Ensure that the data is correct in the "**New**" tab for new types. The names of these two tabs and the precise usage of columns within them is critical.
* Navigate to the folder "/projects/tariffs/create-data/create\_reference\_data"[[3]](#footnote-3)
* Run the following script at the command line:

python3 footnote\_types.py (on a Mac) *or*

py footnote\_types.py (on a PC)

* This generates an XML file called **footnote\_types.xml** in the folder  
  "**/projects/tariffs/create-data/convert\_and\_import\_taric/xml\_in/custom**". It includes both new and updated objects.
* The data must then be combined with an EU incremental file for load to HMRC – please see separate document in the folder "99. EU Data merge" for an explanation of this process.

# Creating and updating geographical areas

There is very little requirement to update geographical areas, as there are no new countries that will spring up between now and EU Exit date. However, we do need to manage this data for three circumstances:

* the creation of new country groups (Transitional Protection Measure), though this is actually just a renaming of an existing one:
* updates to country names to map to the UK register of country names, based on ISO Alpha-2 codes (as per <https://www.iso.org/obp/ui/#search>)
* updated to country groups to make sense to the UK market & trade agreements (e.g. the renaming of the re-import zones for the Swiss and Canada [[4]](#footnote-4)Trade Agreements).

The Transaction Protection Measure (or TPM) is to be put in place to preserve broad free trade with a number of African States with whom our Trade Agreements will probably not have transitioned in time for 1st November 2019.

| ID | DESCRIPTION |
| --- | --- |
| 1006 | UK-Canada agreement: re-imported goods |
| 1007 | UK-Switzerland agreement: re-imported goods |
| 1032 | Transitional Protection Measure |
| 2005 | GSP - LDC Framework |
| 2020 | GSP - General Framework |
| 2027 | GSP - Enhanced Framework |
| BN | Brunei Darussalam |
| BU | Myanmar |
| CC | Cocos (Keeling) Islands |
| CG | Congo (Brazzaville) |
| CI | Côte d'Ivoire |
| CZ | Czechia |
| ES | Spain |
| GF | French Guiana |
| GS | South Georgia and the South Sandwich Islands |
| GW | Guinea-Bissau |
| HK | Hong Kong, Special Administrative Region of China |
| KH | Cambodia |
| KM | Comoros |
| KN | Saint Kitts and Nevis |
| KP | Korea, Democratic People's Republic of |
| KR | Korea, Republic of |
| LA | Lao PDR |
| LC | Saint Lucia |
| MD | Moldova |
| MK | Republic of North Macedonia |
| NC | New Caledonia |
| NU | Niue |
| PS | Palestinian Territory, Occupied |
| RE | Réunion |
| SC | Seychelles |
| SH | Saint Helena |
| SJ | Svalbard and Jan Mayen Islands |
| ST | Sao Tome and Principe |
| SY | Syrian Arab Republic (Syria) |
| SZ | Eswatini |
| VC | Saint Vincent and Grenadines |
| VG | British Virgin Islands |
| VI | Virgin Islands, US |
| VN | Vietnam |

## Geographical areas – source Excel sheet fields

As always, there are two sheets in the Geographical areas Excel document, which is called **geographical\_areas.xlsx** and is located in the "**source**" subfolder.

There is a difference to geo. areas however compared to the previously described reference data types. With this script, it is possible to parameterise the script to use an alternative Excel source. This was initially necessary as the geo. areas were evolving over time for the March / April attempt at Brexit, especially re: the TPM. By default, if a parameter is not specified, the script will use **geographical\_areas.xlsx**. If you need to use an alternative Excel sheet (structured the same of course), the command line script in Python is as follows:

python3 geographical\_areas.py myfile[[5]](#footnote-5)

but by default, the script can be called as follows:

python3 geographical\_areas.py

For creating new geographical areas, the following data fields are required – please note: we are not creating any new geographical areas, but info included anyway should this be required.

| Field |  |
| --- | --- |
| GEOGRAPHICAL\_AREA\_SID | Unique identifier (numeric) of the area |
| GEOGRAPHICAL\_AREA\_ID | Unique identifier (2-digit ISO) of the area |
| DESCRIPTION | Country / area name |
| GEOGRAPHICAL\_AREA\_CODE | Options are:  0 Country  1 Geographical area group  2 Region (*don't ever use this one*) |

For updating geographical areas' descriptions, we do not need the geographical area code: the other fields are the same.

## Process

The process for creating this data is broadly the same as per all others.

### Prerequisites

* The source Excel file is saved as "**geographical\_areas.xlsx**" in the subfolder "**source**"[[6]](#footnote-6)
* Templates **geographical.area.insert.xml** and **geographical.area.description.update.xml** are located in the "**templates**" subfolder.
* Machine with Python 3.x installed

### Steps

* Ensure that the data is correct in the "**Updated**" tab for types where the description is to be updated.
* Ensure that the data is correct in the "**New**" tab for new types. The names of these two tabs and the precise usage of columns within them is critical.
* Navigate to the folder "/projects/tariffs/create-data/create\_reference\_data"[[7]](#footnote-7)
* Run the following script at the command line:

python3 geographical\_areas.py (on a Mac) *or*

py geographical\_areas.py (on a PC)[[8]](#footnote-8)

* This generates an XML file called **geographical\_areas.xml** in the folder  
  "**/projects/tariffs/create-data/convert\_and\_import\_taric/xml\_in/custom**". It includes both new and updated objects.

The data must then be combined with an EU incremental file for load to HMRC – please see separate document in the folder "99. EU Data merge" for an explanation of this process.

# Creating and updating geographical area memberships

This function is to add or remove member states to country groups. There are a number of reasons as to why this might be required:

* **Overseas territories** take on a new meaning: after November 1st we will only care about the UK overseas territories. Not the French. Therefore, we will need to remove these from the OCTs (Overseas Countries and Territories) group
* The UK is no longer a **part of the EU** (sad face)
* **Liechtenstein** is not to be treated as part of the EEA anymore (it's lumped in with Switzerland)
* **Re-import** groups associated with the Swiss and Canadian Trade Agreements
* The **Transitional Protection Measure** and members thereof

At the point of writing (July 19), the following membership need to be ended / created:

| Parent SID | Parent ID | Child SID | Child ID | Start date | End date | Update type | Notes |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 349 | 1013 | 331 | GB | 01/07/2007 | 31/10/2019 | 1 | Remove GB from the EU |
| 114 | 1010 | 331 | GB | 01/01/1988 | 31/10/2019 | 1 | Remove GB from the EU |
| 445 | 2080 | 378 | AW | 01/03/1985 | 31/10/2019 | 1 | Remove Aruba from the Overseas Countries and Territories |
| 445 | 2080 | 458 | BQ | 01/01/2013 | 31/10/2019 | 1 | Remove Bonaire from the Overseas Countries and Territories |
| 445 | 2080 | 459 | CW | 01/01/2013 | 31/10/2019 | 1 | Remove Curacao from the Overseas Countries and Territories |
| 445 | 2080 | 197 | PF | 01/03/1985 | 31/10/2019 | 1 | Remove French Polynesia from the Overseas Countries and Territories |
| 445 | 2080 | 370 | TF | 01/01/2001 | 31/10/2019 | 1 | Remove French Southern Territories from the Overseas Countries and Territories |
| 445 | 2080 | 49 | GL | 01/03/1985 | 31/10/2019 | 1 | Remove Greenland from the Overseas Countries and Territories |
| 445 | 2080 | 342 | NC | 01/03/1985 | 31/10/2019 | 1 | Remove New Caledonia from the Overseas Countries and Territories |
| 445 | 2080 | 456 | BL | 01/01/2013 | 31/10/2019 | 1 | Remove Saint Barthelemy from the Overseas Countries and Territories |
| 445 | 2080 | 460 | SX | 01/01/2013 | 31/10/2019 | 1 | Remove Sint Maarten from the Overseas Countries and Territories |
| 445 | 2080 | 427 | PM | 01/03/1985 | 31/10/2019 | 1 | Remove St Pierre and Miquelon from the Overseas Countries and Territories |
| 445 | 2080 | 393 | WF | 01/03/1985 | 31/10/2019 | 1 | Remove Wallis and Futuna from the Overseas Countries and Territories |
| 349 | 1013 | 378 | AW | 01/11/2019 |  | 3 | Add Aruba to the EU |
| 349 | 1013 | 458 | BQ | 01/11/2019 |  | 3 | Add Bonaire to the EU |
| 349 | 1013 | 459 | CW | 01/11/2019 |  | 3 | Add Curacao to the EU |
| 349 | 1013 | 197 | PF | 01/11/2019 |  | 3 | Add French Polynesia to the EU |
| 349 | 1013 | 370 | TF | 01/11/2019 |  | 3 | Add French Southern Territories to the EU |
| 349 | 1013 | 49 | GL | 01/11/2019 |  | 3 | Add Greenland to the EU |
| 349 | 1013 | 342 | NC | 01/11/2019 |  | 3 | Add New Caledonia to the EU |
| 349 | 1013 | 456 | BL | 01/11/2019 |  | 3 | Add Saint Barthelemy to the EU |
| 349 | 1013 | 460 | SX | 01/11/2019 |  | 3 | Add Sint Maarten to the EU |
| 349 | 1013 | 427 | PM | 01/11/2019 |  | 3 | Add St Pierre and Miquelon to the EU |
| 349 | 1013 | 393 | WF | 01/11/2019 |  | 3 | Add Wallis and Futuna to the EU |
| 68 | 1008 | 169 | EU | 01/11/2019 |  | 3 | Add EU to All third countries |
| 56 | 2012 | 286 | LI | 01/05/1995 | 31/10/2019 | 1 | Remove Liechtenstein from EEA |
| 485 | 1006 | 331 | GB | 01/11/2019 |  | 3 | Add GB to Canada re-imports |
| 485 | 1006 | 169 | EU | 21/09/2017 | 31/10/2019 | 1 | Remove EU from Canada re-imports |
| 232 | 1007 | 331 | GB | 01/11/2019 |  | 3 | Add GB to Switzerland re-imports |
| 232 | 1007 | 169 | EU | 01/01/2007 | 31/10/2019 | 1 | Remove EU from Switzerland re-imports |
| 234 | 1032 | 76 | SZ | 01/11/2019 |  | 1 | Adding Eswatini (formerly Swaziland) to the TPM (Transitional Protection Measure) |
| 234 | 1032 | 260 | CM | 01/11/2019 |  | 1 | Adding Cameroon to the TPM (Transitional Protection Measure) |
| 234 | 1032 | 333 | ZW | 01/11/2019 |  | 1 | Adding Zimbabwe to the TPM (Transitional Protection Measure) |
| 234 | 1032 | 211 | GH | 01/11/2019 |  | 1 | Adding Ghana to the TPM (Transitional Protection Measure) |

## Geographical area memberships – source Excel sheet fields

In a change compared to all previous types, there is only a single sheet in this Excel document, which is called **memberships.xlsx** and is located in the "**source**" subfolder.

This single sheet is used to **assign new members** to geographical area groups and to **remove existing members** from groups. The Excel sheet is relatively complex and contains more fields than usual, so additional care is needed in managing the data.

| Field |  |
| --- | --- |
| Parent SID | Unique SID of the parent geographical area |
| Parent ID | Unique ID (4-digit code) of the parent geographical area |
| Child SID | Unique SID of the child geographical area |
| Child ID | Unique ID (4-digit code) of the child geographical area |
| Start date[[9]](#footnote-9) | The date on which the memberships began / begins. This is required even for rows in which we are removing members from groups.  Take the existing data from the database. |
| End date | This is only to be populated when memberships are being ended – please leave entirely blank when memberships are being started |
| Update type | Enter 1 for updates to a membership, which basically means end-dating a membership (leaving a group)  Enter 3 for creating new memberships (an insert command) |
| Notes | This describes the reason for the change – there is no impact on the file created, it's for informational purposes only |

## Process

The process for creating this data is broadly the same as per all others.

### Prerequisites

* The source Excel file is saved as "**memberships.xlsx**" in the subfolder "**source**"[[10]](#footnote-10)
* Template **membership.xml** is located in the "**templates**" subfolder.
* Machine with Python 3.x installed

### Steps

* Ensure that the data is correct in the "**Updated**" tab for types where the description is to be updated.
* Ensure that the data is correct in the "**Memberships**" tab for new types. The names of these two tabs and the precise usage of columns within them is critical.
* Navigate to the folder "/projects/tariffs/create-data/create\_reference\_data"[[11]](#footnote-11)
* Run the following script at the command line:

python3 memberships.py (on a Mac) *or*

py memberships.py (on a PC)[[12]](#footnote-12)

* This generates an XML file called **memberships.xml** in the folder  
  "**/projects/tariffs/create-data/convert\_and\_import\_taric/xml\_in/custom**". It includes both new and updated objects.

The data must then be combined with an EU incremental file for load to HMRC – please see separate document in the folder "99. EU Data merge" for an explanation of this process.

# Creating and updating footnotes

There are a lot of footnotes that are very much EU-centric and not suitable for an independent UK tariff. These need to be changed even if just cosmetically. In addition, a commission has gone out to sectional and departmental leads to request input into new footnotes, for example with the Export Control Joint Unit.

There are too many to list here.

## Measure types – source Excel sheet fields

The following fields are required to fully support the creation of **new** footnotes – footnotes are simple data objects: there are few fields that are used to describe these data objects. Please note that this feature does not associate footnotes with measures or with commodity codes.

| Field | Description |
| --- | --- |
| FOOTNOTE\_TYPE\_ID | Grouping type |
| FOOTNOTE\_ID | Unique identifier (when appended to the type ID) |
| DESCRIPTION | The textual content of the footnote |

The data required for updating existing footnote descriptions is precisely the same. The presumption, and this is built into the script's code that the new footnotes will be created for Brexit day (01/11/19).

## Running the script

### Prerequisites

* The source Excel file is saved as "**footnotes.xlsx**" in the subfolder "**source**"
* Templates **footnote.description.update.xml** and **footnote.insert.xml** are located in the "**templates**" subfolder.
* Machine with Python 3.x installed

### Steps

* Ensure that the data is correct in the "Updated" tab for footnotes where the description is to be updated.
* Ensure that the data is correct in the "New" tab for new footnotes. The names of these two tabs and the precise usage of columns within them is critical.
* Navigate to the folder "/projects/tariffs/create-data/create\_reference\_data"[[13]](#footnote-13)
* Run the following script at the command line:

python3 footnotes.py (on a Mac) *or*

py footnotes.py (on a PC)

* This generates an XML file called **footnotes.xml** in the folder  
  "**/projects/tariffs/create-data/convert\_and\_import\_taric/xml\_in/custom**". It includes both new and updated objects.
* The data must then be combined with an EU incremental file for load to HMRC – please see separate document in the folder "99. EU Data merge" for an explanation of this process.

# Creating and updating base regulations

Every UK measure requires a UK regulation to be put in place first – it is a crucial part of the data model and if we try and load a measure without there being a "measure generating regulation" in place first, then the data load will fail.

In terms of the regulation database tables that we use, we will only be using the "base\_regulations" table – all other tables such as modification, prorogation and abrogation tables are not to be used.

Therefore, all offline data creation will be to support the creation of base regulations only. As base regulations are required to support all future measures, there are hundreds – too many to list in this document.

## Base regulations – source Excel sheet fields

As always, there are two sheets in the base regulations Excel document, which is (by default) called **geographical\_areas.xlsx** and is located in the "**source**" subfolder. As per geographical areas, it is possible to parameterise the script by appending a filename to the script, in case the script needs to be run multiple times (which is likely).

It is anticipated that, at the outset, not everything will be understood about regulations – not all of the required data fields will be known, therefore there is likely to be a requirement to revisit the data first provided at a later date.

If you need to use an alternative Excel sheet (structured the same of course), the command line script in Python is as follows:

python3 base\_regulations.py myfile[[14]](#footnote-14)

but by default, the script can be called as follows:

python3 base\_regulations.py

For creating new base regulations, the following data fields are required – we will be creating very many of these. These should be amongst the first data objects to be loaded, as they are a dependency for all measures.

These fields are identical for both new and updated regulations.

| Field | Description |
| --- | --- |
| BASE\_REGULATION\_ID | This is the unique internal ID of the regulation.  Internal IDs must be precisely 8 digits long (mixture of alpha-numeric characters).  These will always be structured according to the pattern **NYYnnnn0**, where:  N is a letter determining the type of regulation  YY is a 2-digit representation of the year in which the regulation came into force (e.g. 19)  nnnn is the sequential number of that regulation, pre-pended with zeroes  0 is reserved for document parts if there is a need to split a regulation into multiple parts  In terms of the regulation types (indicated by N), the following options are feasible:  **I** is for Informational regulations, such as credibility checks and supplementary units  **M** is for MFN duties  **S** is for Suspensions and reliefs  **Q** is for WTO quotas and ATQs  **F** is for safeguards  **P** is for preferential trade agreements  **N** is for public notices to support trade remedies  **X** is for Import & export control regulations |
| VALIDITY\_START\_DATE | The date upon which the regulation comes into force – this should be 1/11/19 in all cases: the proposed date of EU Exit |
| REGULATION\_GROUP\_ID | Regulation groups are quite arcane, specialised data objects. While it was initially attractive to modify these regulation groups, it became clear that the values stored in this field have deep and meaningful impact on the workings of the Tariff product in CDS – any changes from the norm would result in potentially unintended results, which we are keen to avoid.  The following 3-digit codes are possible options (not exhaustive, but the only ones that are foreseen as being required for D1ND).  **UTS** - Supplementary unit – all supplementary units are grouped together into a single regulation  SUR - Posterior surveillance – all credibility checks, though it is likely that we will not maintain these measures in TAP  DIV – Various – we use this solely to create a single UK regulation to abrogate regulations – this may not be used  DNC - Duties coming from the CN – despite the very EU-centric name, this refers to MFN duties  SUS - Erga Omnes Suspensions – to be used for suspensions and reliefs  KON - Non preferential tariff quotas – to be used for WTO quotas and ATQs  FTA - Free Trade Agreement – to be used for all Trade Agreements: can cover quotas and tariff preferences  PRF - Preferential duty – used for preferential duties outside of Trade Agreements (only used for Overseas Territories)  DUM - Anti-dumping duties, countervailing duties – for all Trade Remedies  MLA - Entry into free circulation, Export authorization – for all import / export control regulations |
| LEGISLATION\_ID | This is the public-facing ID of the legislation – an example being **2019 No. 0001** |
| URL | The URL that is linked to from the Trade Tariff Service |
| INFORMATION TEXT | The description of the regulation |

The very strict data schema employed in the Taric defines how we need to treat this data, especially the fields LEGISLATION\_ID, URL and INFORMATION\_TEXT. There is a single field in the Taric schema entitled **information\_text**. We are using this to house all three of the afore-mentioned fields.

The data that is captured in these three fields is concatenated into a single field, each part separated by a vertical pipe. As an example, the fields below:

| Field | Content |
| --- | --- |
| LEGISLATION\_ID | 2019 No. 0001 |
| URL | <https://www.google.com> |
| INFORMATION TEXT | This is an excellent regulation |

would result in content being saved to the **information\_text** field as follows:

2019 No. 0001|https://www.google.com|This is an excellent regulation

If there are any pipe characters in any of these fields (rare), these characters will be purged from the data.

## Process

The process for creating this data is broadly the same as per all others.

### Prerequisites

* The source Excel file is saved as "**base\_regulations.xlsx**" in the subfolder "**source**"[[15]](#footnote-15)
* Templates **base.regulation.insert.xml** and **base.regulation.update.xml** are located in the "**templates**" subfolder.
* Machine with Python 3.x installed

### Steps

* Ensure that the data is correct in the "**Updated**" tab for types where the description is to be updated.
* Ensure that the data is correct in the "**New**" tab for new types. The names of these two tabs and the precise usage of columns within them is critical.
* Navigate to the folder "/projects/tariffs/create-data/create\_reference\_data"[[16]](#footnote-16)
* Run the following script at the command line:

python3 base\_regulations.py (on a Mac) *or*

py base\_regulations.py (on a PC)[[17]](#footnote-17)

* This generates an XML file called **base\_regulations.xml** in the folder  
  "**/projects/tariffs/create-data/convert\_and\_import\_taric/xml\_in/custom**". It includes both new and updated objects.

The data must then be combined with an EU incremental file for load to HMRC – please see separate document in the folder "99. EU Data merge" for an explanation of this process.

# Creating and updating certificates

There is no requirement to update certificate off-system yet expressed.

# Creating and updating regulation groups

We do not believe there is a requirement to update any existing or create any new regulation groups. Functionality had existed for this when the data source was EU data: we are using CDS data which contains national data – the previous requirement had been to create a regulation with the regulation group UKR to support the transition of national P&R – this data should already exist.

1. Absolute path will depend on where the base folder is located [↑](#footnote-ref-1)
2. Absolute path will depend on where the base folder is located [↑](#footnote-ref-2)
3. Absolute path will depend on where the base folder is located [↑](#footnote-ref-3)
4. Canada's trade agreement will not go ahead in time for D1ND, therefore this is of little value [↑](#footnote-ref-4)
5. Please note the omission of the .xlsx filename extension, which is not required [↑](#footnote-ref-5)
6. Though other filenames may be used and called in as arguments to the script. [↑](#footnote-ref-6)
7. Absolute path will depend on where the base folder is located [↑](#footnote-ref-7)
8. A filename may be appended as an argument if a file other than geographical\_areas.xlsx is to be used [↑](#footnote-ref-8)
9. Dates are translated to the correct format yyyy-mm-dd in the scripting process [↑](#footnote-ref-9)
10. Though other filenames may be used and called in as arguments to the script. [↑](#footnote-ref-10)
11. Absolute path will depend on where the base folder is located [↑](#footnote-ref-11)
12. A filename may be appended as an argument if a file other than geographical\_areas.xlsx is to be used [↑](#footnote-ref-12)
13. Absolute path will depend on where the base folder is located [↑](#footnote-ref-13)
14. Please note the omission of the .xlsx filename extension, which is not required [↑](#footnote-ref-14)
15. Though other filenames may be used and called in as arguments to the script. [↑](#footnote-ref-15)
16. Absolute path will depend on where the base folder is located [↑](#footnote-ref-16)
17. A filename may be appended as an argument if a file other than geographical\_areas.xlsx is to be used [↑](#footnote-ref-17)