OAC – Online AEO Compendium
FRS Outline

Contents

Vision

OAC stands for Online AEO Compendium.

The WCO currently manually gathers four data types and produces an annual AEO Compendium in English and French of the data gathered.

- AEO : Authorised Economic Operator
- CCP : Customs Compliance Programme
- MRA : Mutual Recognition Arrangements/Agreements
- CMAA : Customs Mutual Administrative Assistance

The OAC project is intended to create a standalone website (aeo.wcoomd.org) where WCO members will be able to input this same data, and the WCO can easily validate and translate the input.

In phase I – the scope of this specification – simple input, edit, view and search mechanisms of the data will be provided, and basically formatted html data tables provide the admins with cut and paste content for creating the annual AEO Compendium.

We already have definitive plans for adding some basic statistics, and possibly additional graphing features. We do not have time to include them in this initial specification, but anticipate using change requests to add these additional features. This would be pending suitable change request cost quotes, and business agreement within the WCO on what additional features should be added.

Further phases are being considered should the website be successful with the WCO members. These would add further data input functionality, such as lists of AEO companies, and with the extra data further reporting.

Further updates beyond this initial specification are not in any way guaranteed.

Website language requirements

General

The website should be available in EN / FR versions. The option to switch language is provided in the menu options (see screens layout).

The choice of EN / FR should be remembered using cookies, and all pages / dialogs should be shown using the selected language unless otherwise specified. The default language should be EN, and if an FR user switches browser / clears cookies etc they will be expected to re-select FR.

The technical mechanisms to provide EN / FR support should be designed so that adding additional languages doesn't require a complete rewrite of the language support code.

Unicode character sets should be supported throughout, so Arabic, Russian scripts etc can be used in language files or in user free text input. Though we don't expect this to initially be used, it will mean the website is developed ready for other interface languages to be added in further phases of the project.

Dynamic data - Admin managed

Some data elements are admin managed, with dynamic input within the admin interface of the website. For these values, the interface should allow separate input of EN and FR text, to be used for correct language display.

Where indicated in the specification, the admin should have a rich text input mechanism to input dynamic data (e.g. FAQ answers). The rich text should have a minimum markup options of colour, font attributes (size, underline bold etc), hyperlinks.

Dynamic data - User input

Users only input single language data, using either a single line or multi-line interface, but as simple text without any rich text formatting. A translation export / import mechanism is defined for translating user data input.

Static language files

All text label / paragraph items on the OAC websites, where not part of admin managed dynamic lists, should have text taken from language files, one each for EN / FR that can be easily edited and configured by the WCO.

The text file and display of static paragraphs should allow simple html markup to be added to the language file, e.g.
 tags for new line, <u></u> for under line, <li> tags for lists etc. The text is still static text, and edited by the WCO, but there will be the possibility for the WCO to add html formatting for display of the paragraphs.

If the supplier feels this is best served by two language mechanisms, one for single line text (e.g. page title), one for markup text (e.g. about page paragraphs), then this is fine, so long as they are both easily editable.

Also, if the supplier feels this is best served by online editing mechanisms for the language resources this is fine. So long as there simple text labels with easy editing, and rich text (html markup) text paragraphs with easy editing the mechanism isn't important.

The "go live" for the website is required to occur in several phases

> 1. Prototype with only homepage + about page
> 2. Data input with login and user data editing
> 2.5 Translation and workflow released when ready
> 3. Full go live of search + dynamic homepage)

As production releases will occur in these different phases, the static language mechanisms (simple and rich text) should allow easy merging of new production releases (which will contain example label data), with the production language files (which will contain labels tidied by the WCO for production use).

Email templates

All emails should have text taken from adjustable email templates which will be bilingual (i.e. a single common template for EN / FR). Thus all recipients of an email receive the same email whatever their language preference. The templates should include placeholders for inserted elements, allowing the WCO to update email text without requiring supplier intervention. See annex for an example template.

Where appropriate there should be language specific inserted elements (i.e. EN button insertion placeholder and a separate FR button insertion placeholder). This is at the discretion of the supplier

For ease of development / modification, it is suggested hard coded files are used with one email template per file. The template should contain clear placeholders, and allow html formatting. An example email template from a different project is listed in an annex. This is stored in a standalone file, and has html markup and placeholders of the sort we need for the OAC.

Again, when installing application updates, edits the WCO have made to live email templates should not be overwritten.

User access / roles / profile

The OAC should keep a list of user account profiles, with basic information on the account.

The following fields should be kept as part of the user profiles.

- Account type ("local", "external")
- Email (also used as "local" type account username)
- Password (must be stored encrypted, only used for "local" type accounts)
- First name

- Last name
- Country ISO2 code
- Roles (two roles used "admin", "country editor", users can be both, so multi-select list)
- Status (active / inactive)

Users do not have access to any profile page, and cannot modify any of this data. Users can only change their password using the "I have forgotten my password" mechanism.

External vs Local Authentication

An external database of users is the primary source for authentication, with a local OAC database of users for anyone who will have access to the OAC, but cannot be added to the external database.

The external database of users provides two web services to support this requirement, one is a password authentication, the other for retrieving user details. Details of the web services will provided for development, however for purposes of cost quotes, they are simple http Soap requests (not even https).

On user login request, login authentication should be first tried using the external database web service, and if that fails the local profiles should be checked for valid username (email) / password with account type "local".

If the authenticated profile is marked as inactive then authentication should fail.

No reason should be given for failed logins, only that the username / password combination is not recognized.

Creating user profiles

Users are included on the list of user profiles for both local and external types, with the "Account type" set accordingly to one of "local" or "external".

1. Created via external login
   a. If a user authenticates against the external database, then their external user details should be retrieved, and their local profile updated / created
   b. A user profile is created if no profile yet exists for the email, no roles should be assigned, and the "Account type" set to "external"

2. Created by admin
   a. The admin should have an option to create user profiles
   b. Values for Email, First name, Last name, Country, Roles fields are mandatory to input and the "Account type" set to "local"
   c. If the Email already exists then an error is shown to the admin and the account not created
   d. If the Email does not exist, a profile is created and a link sent to the email to create a password. The email content will be provided in a bilingual (EN/FR) format, however a

template should be used which includes a pictorial button link, and a cut and paste html link

A super user "admin" account should be preloaded with strong password, to allow WCO to create regular admin accounts.

Editing user profiles

All user accounts should be editable by OAC admins. For this a list page of all accounts, searchable on surname / email should be provided. The list page should show all profile fields.

For "external" accounts, only the roles and status are editable by admins. The other information fields are all updated on user authentication accesses from the retrieved external details (email is key field).

For "local" accounts all fields are editable except the email address.

NOTE : local accounts can also authenticate against the external database, they should remain local though, and not have the information fields linked to the email updated

Login dialog

The login link on the public homepage should show a login dialog in the same language (EN/FR) as the public homepage was being viewed in.

An example login dialog is included in the screens file of this specification. The dialog includes brief instructions for users on using external authentication accounts.

Reset password

When the forgotten password link is clicked on the login dialog, a reset password dialog should appear in a similar design to the login dialog, and prompt for the users email, with a "Send Password Reset Link".

If the email input corresponds to an "external" account profile, a message should be shown to "The password associated with this email should be reset on the WCO Members' website".

If the email input corresponds to a "local" account, a password reset email should be sent, with similar format to the local account creation email.

New password input
User input of passwords should prompt for a new password, and new password confirmation. New passwords should meet a minimum complexity of 8 characters, must contain at least one digit, one lower case letter and one uppercase letter. These complexity instructions should be shown on the input password dialog. Once all these criteria are met, the password of local account linked to the email should be updated.

Website settings and master data

Several data lists are used for DDL selection, reporting etc. These will need options for the admin adding / removing items, text for EN and FR versions, and the option to set the ordering of the list.

As future versions of the OAC website may add more lists, it is suggested that a generic mechanism is used for managing these lists.

The list types should be presented in a table of list types as follows. The statistics on active / archived are not important, but maybe nice to include.

Name	Type	Active	Archived	Option
Reference name of list	One level / Two level	Qty of active items on list	Qty of archived items on list	Link to edit the list

Clicking the link to edit the list should open the relevant configuration options.

One level list configuration

There are three one level lists :

- Scope
- Operator_type
- Further_plans

Clicking the edit link should show an edit table for the list, sorted by status (so that active items appear above archived items), then the user input ordering values, then alphabetical EN value.

The usage field should show the number of "latest records" that are using the item. This is for both active and archived list items, and allows the admin to see if an item can be safely archived or not.

To note archived items are not available for user input, or structured search, but should still display correctly on view pages.

All fields other than usage should be editable.

EN	FR	Ordering	Usage	Status
Editable field of the display value in English (250 chars)	Editable field of the display value in French (250 chars)	Editable numeric value	Number of "latest records" which use the value	Radio select : Active / Archived

When viewing an edit table there should be a "save" button, which should save any edits to the table.

An "Add code" button should allow adding a new element, with blank EN and FR values, ordering value of 1, and a status "Archived".

It should not be possible to save blank values for EN / FR text.

When using a single level list in the record edit pages, only active codes are used, and the sort order presented to the users is first by the ordering value, and then alphabetical by users display language (EN or FR).

Other mechanisms to provide this same functionality can be suggested by the supplier.

Two level list configuration

There are three two level lists :

- Criteria
- General_benefits
- Operator_benefits

This needs essentially the same options as the one level list, only with the addition of the extra grouping first level.

The order of the first level, and order of second level within the first level should be configurable.

There should be separate options to add first level items, and add second level items within each first level item.

There should also be an option for second level items to move to a different first level item.

First level items should only be able to be archived when there are no active second level items (i.e. all moved or archived).

Only second level items have the usage statistics.

Regions data table

Regions are never input for user records, but implied from the country, as each country has a region.

The regions list mechanism should easily allow three different region names for different contexts.

- Abbreviation
  - Used for graphs
  - FR values are to be defined
- Basic name
  - Used for DDL selection / online data display
  - EN / FR values are in table below
- Official name
  - Used in data listings of compendium download file
  - EN / FR values are in example compendium files

Order	EN DDL name	EN Abbrev	FR DDL name
1	South, North, Central America and the Caribbean	AMS	Amérique du Sud, du Nord, centrale et Caraïbes
3	Europe	EUR	Europe
2	Far East, South and South East Asia, Australasia and the Pacific Islands	AP	Extrême-Orient, Asie du Sud et du Sud-Est, Australasie et Iles du Pacifique
6	West and Central Africa	WCA	Afrique occidentale et centrale
4	East and Southern Africa	ESA	Afrique orientale et australe
5	North of Africa, Near and Middle East	MENA	Afrique du Nord, Proche- et Moyen-Orient

The regions should have standard order as indicated above. This ordering should be configurable, though it won't change often, so doesn't need an easy way to configure.

Country data table

For the purposes of this spec, "**COUNTRY**", or just "countries" refers to the contents of the country data table.

The country master data table will contain not only countries, but also some political unions. The "**COUNTRY**" reference is still used for ease of description in this specification.

An excel of country data will be provided (ISO code, country name in EN and FR) using EN Abbrev region codes (AMS, EUR, AP, WCA, ESA, MENA). The supplier will then need to import the country data excel as part of the blank DB.

Field	Type	Notes
ISO2 code	Two character alphanumeric	ISO2 codes will be used for the countries
Type	Radio button	3 x values : Customs Union / Economic Union / Country
Name EN	Free text (150 chars)	Name of the country, or customs union
Name FR	Free text (150 chars)	Name only in FR
Region	DDL select	Values from "**REGIONS**" DDL values
Customs name	Free text (150 chars)	The official customs name, default is blank
Data input language	Radio button	3 x values : EN, FR, Not specified (default)
Active	Radio button	2 x values : Active / Inactive Only entities marked as active should appear on any website pages / reports / DDL etc

All columns are editable except the "ISO2 Code" column. The table should be shown sorted by active (active before inactive), then type (in order Customs Union => Economic Union => Country), then "Name EN".

When viewing the country edit table there should be a "save" button, which should save any edits to the table, and an "Add code" button which adds a new code, with type "Customs Union", Region EUR, input

language "Not specified", all text values blank, and a status of "Archived". The values for added "codes" can only contain letters and numbers, no spaces or special characters.

When using a country list, only active codes are used, and unless otherwise stated the sort order is always type (in order Customs Union => Economic Union => Country), and then alphabetical order following the users display language (EN or FR).

Overview of OAC data records

Records of four type will be input by users into the OAC. The field definitions of these record types are in the separate Excel data fields file.

- AEO – Each country can only have a single AEO Programme
- CCP – Each country can only have a single CCP Programme
- MRA – Each country can be part of several MRA. Each MRA has a list of countries, and is equally shared amongst the countries listed (i.e. no single country owner)
- CMAA – Each country can be part of several CMAA. Each CMAA has a list of countries, and is equally shared amongst the countries listed (i.e. no single country owner)

Throughout this specification these four "record" types are referred to using these acronyms "AEO / CCP / MRA / CMAA". Within each record type there are "fields" defined by the excel data sheets. There will be a history of "versions" of each record stored.

So the structure is essentially Records => Versions => Fields.

The input and editing of these records by users is via the "Edit data overview" page – see screens layout document.

Workflow of user input data

Creating records

The "Edit data overview" page has links for how editors can create each of the four record types.

Upon creation some record meta-data, and a first draft version should be created, ready for further editing, or, following the workflow outlined below, submitting a version for publication.

To note each country has a maximum one AEO / CCP record, but can have any number of MRA / CMAA records.

Also to note, the MRA / CMAA records contain a list of countries (the "parties"). These countries equally share the MRA / CMAA record. The country that inputs an MRA / CMAA record is not in any way the owner of the record. So once created, an MRA / CMAA record appears the same on the "Edit data overview" page of each country listed, email alerts of edits / publishing etc are sent equally to all editors of all the countries listed. The only reference to the original country that created the record is in the history of versions.

Workflow for AEO / CCP records

After a record is created, a workflow is followed which takes the record through submitting to the WCO, approval, translation, publication etc. During this process workflow there are various options to edit the record, and a history of versions of all workflow steps is kept, to track each step in the process. Emails are also sent on completion of some workflow steps.

The screen layouts document covers the basic presentation of the edit overview page / view page / edit page / history of versions page. The linkage between pages is fairly simple though.

Technical outline of records meta-data

To facilitate the Records => Versions structure, a brief technical outline is provided below. This is representative, and used to provide clarity on the structure, and how the records / versions are expected to work.

AEO / CCP / MRA / CMAA Administrative meta data – stored once for each record

- Record ID – unique ID for each record allows grouping of different versions of the record
- Country – the ISO2 code of country for which record applies
    - Not used for MRA / CMAA, as they don't have a single country owner
- Latest published version – a technical "foreign key" link to the latest published version – if zero then not in any of the published compendium / search tools / statistics
    - To speed up pages list / search pages, some latest version indicator should be used

AEO / CCP Administrative version data - stored for each version in addition to the business data

- Record ID – linking the various database records to the meta data
- Version - a simple index number, incremented as edits occur, every edit save creates an incremented version number 1, 2, 3 etc
- Status – symbolic code should be used, with EN and FR display values taken language files
    - Suggested symbolic codes are used in the tables below
- Create reason – a free text of the workflow step which created the version. The text to use for this field is fixed, see the "workflow triggers" outlines for when new versions should be created, and the text to use, but it is essentially on every edit save, and on every change of status.
- Created date – a timestamp of date and time (to minutes precision) of the version creation
- Create user – the user ID of user that created the version

This meta data facilitates a full history of versions, so we can track users input, for if users say the OAC has lost their data. When hundreds of records editors across the globe, this detailed tracking is a required feature.

Records status options

This list is the status options that records can have following the workflow.

The code listed is representative used within this specification as users will never see the code.

The "option buttons" listed below are the options an admin / country editor (if record is for their country) sees when viewing the "latest version" of the record. This is not the same as the latest published version. This is just the latest version (i.e. newest), which might be a draft of updates to the latest published version.

Code	English label	Country Option Buttons	WCO Option Buttons
PREP	Draft in preparation	Edit draft in preparation Submit for WCO review	Edit draft in preparation Submit for WCO review
SUBM	Submitted for WCO review	Return to draft in preparation	Edit draft submitted Return to draft in preparation Accept for publication
ACCT	Accepted – pending translation	Return to draft in preparation	Return to draft in preparation
TRAN	Under translation		Return to draft in preparation
REDY	Ready for publishing		Return to draft in preparation Publish to compendium
PUBL	Published	Create new draft version	Create new draft version Mark for translation review Delete from compendium
UPDT	Published (translation review)		Cancel translation review
DELT	Deleted from compendium	Create new draft version	Create new draft version

Workflow triggers

This list is the action of the various screen option buttons and other record processes such as upload translation file.

If there is a value in the "**Create reason text for version of record created**" column, then a new record version should be created, with the "reason" as the indicated text, when the trigger occurs.

If there is a value in the "**Email sent**" column, then the email outlined should be sent when the trigger occurs.

Trigger for action	Action that occurs.	Create reason text for version of record created	Email sent
Button "Edit draft in preparation" on view screen	Open edit screen		*MRA / CMAA Only* : All edit saves cause an email to be sent to all country editors of record and WCO. Use "MRA edited" or "CMAA edited" email

Button "Edit draft submitted" on view screen			template with placeholders for record title, editor name + editor country. This is to inform all countries of edits to the "shared data" of MRA / CMAA
Button "Save" on edit screen	Save edits if no data input errors, return to view screen If there are input errors inform user	Record edits saved	
Button "Cancel" on edit screen	Return to view screen, no other action		
Button "Submit for WCO review" on view screen after "Are you sure"	Change status to SUBM	Submitted for WCO review	Email to all country editors of record and WCO. Use "Submitted record" email template with placeholders for record title, record type, submitter name + country
Button "Return to draft in preparation" on view screen after "Are you sure"	Change status to PREP	Returned to draft mode	Email to all country editors of record and WCO. Use "Returned to draft" email template has placeholders for record title, record type, previous status, by who name + country
Button "Accept for publication" on view screen after "Are you sure"	Change status to ACCT	Accepted by WCO	Email to all country editors of record and WCO. Use "Accepted record" email template with placeholders for record title, record type
WCO admin creates an ACCT translation file that includes the record	Change status to TRAN	Translation started	
WCO admin uploads a translation file that includes the record, and the record has status ACCT	Change status to REDY	Translation completed	
Button "Publish to compendium" after "Are you sure"	Change status to PUBL, update meta date "Latest published	Published to compendium	Email to all country editors of record and WCO. Use "Published

	version" with the foreign key of the saved PUBL record		record" email template with placeholders for record title, record type
Mark for translation update	Change status to UPDT. Admin has to type a "reason" why the record needs a translation update		
WCO admin uploads a translation file that includes the record, and the record has status UPDT	Change status to PUBL	Translation reviewed	Email to all country editors of record and WCO. Use "Translation reviewed" email template with placeholders for record title, record type
Cancel translation update	Change status to PUBL		
Button "Delete from compendium" after "Are you sure"	Change status to DELT, update meta date "Latest published version" to delete the foreign key value, so there is no latest published version	Deleted from compendium	Email to all country editors of record and WCO. Use "Deleted record" email template with placeholders for record title, record type

NOTE : All triggers marked as after "Are you sure" should have an "Are you sure you wish to XYZ" confirmation, with yes / no response options, where XYZ should be replaced with the text of the button. If the user clicks "no" then no action is taken. If the user clicks "yes" the trigger action is applied.

NOTE : "all country editors of record" means all users with role country editor for the country the record applies to. For AEO / CCP records this is a single country, for MRA / CMAA this is the list of countries which are MRA / CMAA parties

NOTE : The email template record type placeholder is one of AEO / CCP / MRA / CMAA. For AEO and CCP the country name should be included too, e.g. AEO (Japan). For MRA / CMAA, the list of signatories should be included, e.g. MRA (Japan, Peru, Chile).

NOTE : The workflow for MRA / CMAA means that after it is created, it is effectively a single shared MRA / CMAA editable by all countries (i.e. like a wikipedia article), and every edit causes an email notification of the edit event to all countries listed for the latest version of the record.

Admin overview of records

The admins would need a list of records submitted for acceptance of publishing. This provides them with easy access to the technical view page, where the options for accept / edit etc are available.

This should be a list of country submitter + record type + date submitted, grouped by record type, then ordered by date submitted.

However this list of SUBM records could easily be abstracted for all record status options (PREP, SUBM, ACCT, TRAN, REDY, PUBL, UPDT, DELT).

It should also be simple to provide the admin with a couple of other filters, on record type (AEO / CCP / MRA / CMAA) as radio options with no filter by default, and country (again no filter by default). Changing any of the filters should auto refresh the page.

The list for PUBL would be the same list as on the standard authenticated user's homepage, but with the extra filters and auto refresh it gives the admin an easy way to navigate around the records.

So though the admin only processes submitted records, a few simple options should allow the admin to easily see the status of records across all four record types, and all status options.

A summary table could also help the admin have a dashboard overview of the data.

The supplier is invited to build a suitable admin records overview page.

Translation of user input data

Translation of the free text input by users editing the four record types is needed, as the users input only original data in EN or FR (according to their country's chosen edit language), and then this free text input needs translating to the other language of the OAC website.

Besides editing of original text, feedback from the countries may be received that they are not happy with translations, in which case the OAC admin needs to be able to mark a record as needing translation, and provide a comment to the translator on what needs changing about the translation.

Workflow translation records

There are two workflow steps which require translation.

- ACCT
    - This is the standard workflow of users creating new records / editing records
    - For a new record there is no previous translated (REDY) version and all free text fields will need translating
    - For an edit record, the ACCT version should be compared to the previous REDY version
        - The edits may not have changed any of the free text – for example maybe the edits were only on the Benefits DDL list
    - If the text compare shows no free text fields have changed then the status should be moved directly to REDY (translation completed)
    - If the text compare shows some fields have changed since the last translation, then the record should be on the list for ACCT translation, and the list of fields that have changed is used in the export of a translation file (depending on if a field has changed, it can be included / not included, and if included marked as changed / unchanged)
- UPDT
    - This is a translation review workflow, where there are no user edits, but the admin requests the translation is reviewed
    - The admin should be required to input instructions for the translator at the time of requesting UPDT translation using a free text field with max 500 chars

Exporting a translation file

The admin menu should have a section covering export of translation files.

This should include statistics information so the admin can see an overview of the pending translations.

- ACCT type translations
  - Last date / time there was an export
  - Table of pending translations quantity by
    - EN / FR original
    - AEO / CCP / MRA / CMAA
- UPDT type translations
  - Last date / time there was an export
  - Table of pending translations quantity by
    - By EN / FR original
    - AEO / CCP / MRA / CMAA

It should also offer translation file export options.

- For user edit translations (ACCT type)
  - Export has sub-options
    - Include all fields
    - Only changed fields
  - This is whether to include or not unchanged fields from the ACCT <-> REDY compare described earlier
- Review translations (UPDT type)
  - Always has all fields

These should be three radio options, so the admin selects one, and can then export a word file of the selected type.

- Translation language
  - EN => FR
  - FR => EN

These are two radio options, as translators are generally specialized in only one of these, so separate translation files are always used for the different original language (EN / FR).

The translation file should still use fully English text for the labels, but the translation table should have the correct labels for FR Source / EN Translation (when type is FR => EN) and EN Source / FR Translation (when type is EN => FR).

Note the status update of ACCT to TRAN for export of ACCT type translation files.

Other interface permutations can be considered, but the interface described covers the options required.

Translation file format

An example export word file is provided, the format of which should be followed as much as possible. The export file should be in .docx format.

Technically, some framework like PHP Word is expected to be used, which can support tables, and the basic formatting of the example (text colours / tables / table shading).

The example includes an introductory explanation for the translators on the different file contents.

Each record included in the file has a **header table** with green shaded title cells. This gives some basic information for the translator, and links the header to the contents table.

ID	Country	Type	Title	Reason	Link
This should be a master record ID, which will show the linkage to the item IDs	Algeria	MRA	MRA for Maghreb states	Reason input by admins where applicable	view

The "view" link should be an html link which opens the technical view page of the record, allowing the translator to see the full data of the record (requires that the translator has a login).

After the header table each record included in the file has a **content table** with grey shaded title cells.

ID	Field name	XX Source	YY Translation	Work
This should be a unique technical ID for the record, and the field within the record, so that on import of the translated file the translated text can be saved.	This should be the field label matching the XX source (EN / FR).	This will be the record EN / FR source text from the OAC database the translator will have to translate.	This will be blank, or contain any existing FR / EN translation for the translator to update.	This will define if the XX Source is edited or unchanged since the last translation.

This format applies to the fields for translation, as well as other field types as detailed below.

Both the two tables above include ID fields, which should uniquely identify the records for import and update of the data base records.

Field types in translation file

The work for translators can be new translations, as well as translation updates and reviews. The following field types are used within the translation file to facilitate this work.

- Items marked "New"
  - These are items from "ACCT translation" and are any fields with no previous translation text
- Items marked "Update"

- o These are items from "ACCT translation" and are any fields with previous translation text, and where the **original text is changed** as indicated by the ACCT <-> REDY compare (described above)
- Items marked "Previous"
  - o Where there is an "Update" line, then immediately after there should be a "Previous" line
  - o This line is the previous version of the text field, and is the text from the REDY version of the compare (described above)
  - o This allows the translator to do a human comparison of the changes to the text, and speeds up the editing of the translated version
- Items marked "Info"
  - o These are items from "ACCT translation", and are included in the export file when "Include all" is selected. So these are the unchanged fields from the ACCT <-> REDY compare. They don't need translation, though any edits by translators will still be saved
- Items marked "Review"
  - o These are items from "UPDT translation", where the "Reason" field in the header gives information to the translator on what work to do.

Following the export options, files will only include some of these options (e.g. "Admin translation" exports only include "Review" items, which are never included in "Workflow translation" files). It would be nice if the introduction text for the translator only had the description lines relevant to the contents of the file.

Importing a translation file

The importation of a translation file should read the tables of the word file, and update the records of any work done.

The records to update are defined by the ID values of the import file. For a record to be updated it must have status ACCT or status UPDT. For any other status the translations are discarded as it would mean the workflow has restarted.

If the record status is ok to update, then the import file should update the translation for all fields of the translation file except the field type "previous" which cannot cause updates.

If after update any free text fields are blank then the status is not changed, as this means the translation file was incomplete in some way.

If a record is updated, with no blank free text fields, the status should be updated to complete translation.

- o ACCT is moved to REDY
- o UPDT is moved to PUBL (email alert sent)

Translation file anomalies

It could be that two translation files exist in parallel with the same record, but this can only occur if admins intervene to change the status, and so it is up to admins to manage this eventuality.

It could be that the countries editing "original language" is changed, but admins should be careful to only do this when there is no translation files pending upload for the country.

FAQ page contents editing

This should be an admin only function to add entries into the FAQ. All data is input and stored in EN / FR.

The FAQ is at two levels, level 1 of categories, and level 2 of questions/ answers.

The level 1 categories are a simple free text of the category title, with the following options :

- Text - simple plain text input / editable in EN / FR
- Delete – only possible if there are no questions / answers in the category
- Ordering – sets the display order of the categories
- Visibility – Public users / Authenticated users / both

The level 2 questions are simple text, with answers as rich text, with the following options :

- Category – which category does the answer belong to
- Question Text - simple plain text input / editable in EN / FR
- Answer Text - basic rich text input / editable in EN / FR
- Delete – check with an "are you sure" dialog
- Ordering – sets the display order of the questions within the category
- Visibility – Public users / Authenticated users / both

This rich text editing should allow basic formatting, e.g. newlines / font / links etc.

All fields should be editable after initial input. Any suitable admin interface can be provided for managing this data.

Library page contents editing

This is an admin function to add entries into the Library. All data is input and stored in EN / FR.

The library is at two levels, level 1 of categories, and level 2 of entries.

The level 1 categories are a simple free text of the category title, with the following options :

- Text - simple plain text input / editable in EN / FR
- Delete – only possible if there are no entries in the category
- Ordering – sets the display order of the categories
- Visibility – Public users / Authenticated users / both

The level 2 entries are links with the following options :

- Category – which category does the entry belong to
- Link display text - simple plain text input / editable in EN / FR
- Link type – radio button of HTML / Document
  - For HTML type, there is a simple text input of the URL editable in EN / FR
  - For Document, there should be an upload link of the EN document. For the FR there should be an option, use EN document, or to upload an FR document.
- Link description – simple plain text input / editable in EN / FR
- Delete – check with an are you sure dialog
- Ordering – sets the display order of the entries within the category
- Visibility – Public users / Authenticated users / both

All fields should be editable after initial input. Any suitable admin interface can be provided for managing this data.

Download compendium

Examples of the 2020 AEO Compendium in EN / FR are included as a supporting document to this specification. Export of an EN data version and of an FR data version are needed.

Though the supplier is free to suggest other mechanisms, the following defines what is required for the compendium download, and one possible direction of implementation.

An example Word .docx blank EN compendium template is included in the supporting documents. This has the static structure that the download should have, and uses placeholders as to where data should be added.

- An _year_ placeholder is used in 3 places, though further places could be added if the template introduction text is modified
  - These should be replaced a year value that is admin editable before downloading a compendium, default to current calendar year
- There are 7 data placeholders _data1_ to _data7_, which each exist in two places
  - These should be replaced by the relevant numeric total from the published record data
- A single example data placeholder is included _AEO_DEV_ALL_REGIONS_
  - This should be replaced by sections for each region, using the compendium region name in the standard region order, and then the relevant countries data for the section.
  - The first section shows some example regions (to be added by placeholder replacement)
  - Most sections don't have the single placeholder

The export file should be in .docx format, and follow the general format of the example file, though as the data is structurally different identical format is not expected.

The supplier is invited to propose a mockup / first version of the compendium download, and then as with the website screens, the WCO will have the option for a single round of substantial format changes, after which only minor adjustments would be possible.

The .docx export file will need to follow the correct format markup of header levels 1 / 2 / 3 / 4, so the table of contents is correctly auto-completed.

Data sections

Using the example template, the following are the main data sections which should be added.

- Table of Contents
  - This will auto fill from the header levels 1 / 2 / 3 / 4.
- OPERATIONAL AEO PROGRAMMES
  - Region, using the long compendium name for the region, in the region sort order
    - Countries in alphabetical order
      - AEO data for country
- AEO PROGRAMMES UNDER DEVELOPMENT
  - Region, using the long compendium name for the region, in the region sort order
    - Countries in alphabetical order
      - AEO data for country
- OPERATIONAL CCP PROGRAMMES
  - Region, using the long compendium name for the region, in the region sort order
    - Countries in alphabetical order
      - CCP data for country
- CCP PROGRAMMES UNDER DEVELOPMENT
  - Region, using the long compendium name for the region, in the region sort order
    - Countries in alphabetical order
      - AEO data for country
- MUTUAL RECOGNITION ARRANGEMENTS/ AGREEMENTS (MRAs): BILATERAL/PLURILATERAL
  - Region, using the long compendium name for the region, in the region sort order
    - Countries in alphabetical order
      - MRA data for country
- Annexes
  - OPERATIONAL AEO PROGRAMMES: statistical number needed
    - Table grouped by region with some statistical numbers and basic AEO information
  - AEO PROGRAMMES UNDER DEVELOPMENT: statistical number needed
    - Table grouped by region with some statistical numbers and basic AEO information
  - OPERATIONAL CUSTOMS COMPLIANCE PROGRAMMES: statistical number needed
    - Table grouped by region with some statistical numbers and basic CCP information
  - CUSTOMS COMPLIANCE PROGRAMMES TO BE LAUNCHED: statistical number needed
    - Table grouped by region with some statistical numbers and basic CCP information
  - BI-LATERAL MRAs CONCLUDED: statistical number needed

- Two column table sorted by date signed, with two countries sorted alphabetically
    - o PLURI-LATERAL MRAs CONCLUDED: statistical number needed
        - Two column table sorted by date signed, with all countries sorted alphabetically
    - o MRAs BEING NEGOTIATED : statistical number needed
        - Two column table sorted by country, but each MRA only listed once, so the "A" countries like Algeria are listed first, e.g. Algeria – Tunisia, and once you get to the "T" countries, Tunisia – Algeria is not repeated

Country data listings

Again this is open for suggestion and discussion, but the initial outline discussed at the WCO involves using a portrait page, to keep the entire compendium as a portrait document, and use different formats for different field types to minimize the white space, and thus overall document length (currently over 250 pages).

Country name

Field label : Data value where simple value   **Field label** : Data value where simple value

Field label : Data value where simple value   **Field label** : Data value where simple value

Field label
- Data values where long textual values such as criteria / benefits
- Data values where long textual values such as criteria / benefits
- Data values where long textual values such as criteria / benefits

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Email alerts

Each email alert indicated in the workflow should have a template which allows basic html formatting, and with clear placeholders.

Email alerts should be sent by the account aeo@wcoomd.org with aeo@wcoomd.org as a bcc recipient.

All email alerts sent by the pre-prod system should have '* test *' prefixed to the subject.

Raw contents of template file

- Below is an example of a bilingual email template from a different WCO project. The placeholders use a simple format, in the example below have been _highlighted_.

<p>Dear _salutation_, </p>
<p>Please find attached your letter of appointment _details_en_.</p>
<p><u>To confirm your appointment, please reply directly to this message</u> : all replies will constitute full acceptance of the conditions and terms of

employment laid out in the attached letter. In the absence of confirmation by way of a reply, the letter of appointment will be considered null and void and no payment will be made.</p>
<p>For any questions, please contact WCO at wco.interpretation@wcoomd.org.</p>
<p>With best regards,</p>
<p>The WCO Interpretation Service</p>
<p>Veuillez trouver ci-joint votre lettre d’engagement _details_fr_.</p>
<p><u>Afin de confirmer votre engagement, nous vous saurions gré de répondre directement à ce courriel</u> ; toute réponse sera alors considérée comme une acceptation pleine et entière des conditions et modalités d’emploi présentées dans la lettre d’engagement jointe au présent courriel. En l’absence de réponse à ce courriel, la lettre d’engagement sera considérée comme nulle et non avenue et aucun paiement ne sera effectué.</p>
<p>Pour toute question éventuelle, veuillez prendre contact avec WCO (wco.interpretation@wcoomd.org)</p>
<p>Cordialement</p>
<p>Le service interprétation de l’OMD</p>
<p> </p>

Email sent from template

- Below is the email content that is sent from the above email template, with html codes interpreted, and placeholders converted

Dear Monsieur EPREUVE,

Please find attached your letter of appointment 20/213 for 02/03/2021.

To confirm your appointment, please reply directly to this message : all replies will constitute full acceptance of the conditions and terms of employment laid out in the attached letter. In the absence of confirmation by way of a reply, the letter of appointment will be considered null and void and no payment will be made.

For any questions, please contact WCO at wco.interpretation@wcoomd.org.

With best regards,

The WCO Interpretation Service

Veuillez trouver ci-joint votre lettre d'engagement 20/213 le 02/03/2021.

Afin de confirmer votre engagement, nous vous saurions gré de répondre directement à ce courriel ; toute réponse sera alors considérée comme une acceptation pleine et entière des conditions et modalités d'emploi présentées dans la lettre d'engagement jointe au présent courriel. En l'absence de réponse à ce courriel, la lettre d'engagement sera considérée comme nulle et non avenue et aucun paiement ne sera effectué.

Pour toute question éventuelle, veuillez prendre contact avec WCO (wco.interpretation@wcoomd.org)

Cordialement

Le service interprétation de l'OMD

General business interface and screens required

The website homepage layout, and navigation of website links are defined in the screens file.

The basic functionality of pages is also defined within the screens definitions file.

This main FRS file covers more complex and foundational functionality of the OAC website.

The requirements described in the OAC project FRS documentation intend to cover a complete description of the requirements, but minor adjustments should be anticipated to meet the business intent defined in the FRS.

Where a business feature is not defined in the FRS, or a substantially different interface to the outline is needed, then this is expected to be via a separately costed change request.

Annex : Non-functional requirements

Technologies should target the LAMP stack (Linux, Apache, MySQL, PHP).

The Linux flavour should be neutral, as the production hosting may be on CentOS or some other flavour.

The application should use the SMTP server that is part of the WCO infrastructure.

All technologies used should be the latest LTS / stable releases.

The application should implement the website access as https secure URLs throughout.

Frameworks

Frameworks / modules / plugins can only be used after confirmation with WCO that the technology matches with WCO requirements of future proofing, security, and standardization.

Pre-eminent standard frameworks such as PHP Laravel, PHP Word, JQuery, Bootstrap etc are the sort of frameworks the WCO is happy to use. For purposes of tendering a quote, these types of mature technologies are likely to be accepted, so no need for prior approval.

Recently developed and fringe technologies, while they may neatly solve a development issue, can present maintenance issues of long term compatibility, security, and unanticipated bugs. For purposes of tendering a quote, and during acceptance testing, these types of emerging / fringe technologies are not likely to be accepted, and the supplier would have to find a replacement.

While the WCO will seek to be flexible on the use of frameworks, any frameworks not pre-eminent industry standard should be checked with the WCO prior to submitting tendered quotes.

Servers and installation

The supplier will be provided with administrative access to separate pre-prod and production servers. Each server will host the entire application (i.e. web application and database).

The application should be delivered by the supplier to a pre-prod server for acceptance testing, with the completed code / all supporting files for production use provide by way of a GIT repository on the pre-prod server.

Full instructions to install the production server from the GIT repository should be provided. The tested pre-prod installation will be installed to the production server by either the WCO or the supplier, depending on circumstances.

The WCO will undertake some of the production installation iterations to confirm the instructions, but due to the required phased release, the WCO staff may not be available for all production installations, so the supplier should anticipate to cover some of the production installations.

Logging

As the application includes a detailed edit history of user edits as part of the functional requirements, no additional functional logging is required.

Apache logging should provide a history of user requests (e.g. IP, date, page requested etc).

System errors (PHP, MySQL etc) should be logged for consultation and fixing of technical errors.

Performance

Performance is difficult to measure but under a user load of 100 concurrent users, average page load time should not exceed 1 second.

The functional requirements already covers where complex pages may have different solutions (load complex page + navigate by javascript, or load section by section, so several load sequences).

In general the design should allow performant pages, and an easy modularization of complex pages into sub-loading segments, should the complex page exceed acceptable load times.

Browser support

The application should work with all major browsers (more than 2% market share), and all versions of major browsers released in the last 5 years.

Documentation

The application should be delivered with full installation documentation, so the WCO has a reliable disaster recovery solution in the event of complete loss of the application server.

The basics of configuring the application should be provided, for example how to modify email templates, language resource files, and any other application configuration files.

Annex : Bids, timescales and phased releases

The development of the OAC website should have a presence ready for the 5th AEO conference which starts on the 25th May 2021. This is a flagship annual conference for the AEO programmes, so the new AEO website should have a marketable presence for this conference?

There will also need to be a significant "data input" phase, where countries input their current AEO data into the website, before the full website goes live.

The timescales for this phased roll out of releases are thus an important part of the OAC website development project.

Due to the importance of these timescales, a penalty clause will be included as part of the contract.

The contract initiation phases are :

- Friday 2nd April – Tender closes
    - Bids must be received by this time
- End of April – Contract signed
    - The WCO aims to have the contract signed by both parties before the end of April
- End of April – Work starts
    - Once the supplier has confirmation of being selected preparations can already start while the legal documents are processed. The selected service provider should be ready to start the works during the end of April. There are then some weeks available for development of the prototype launch.

The delays indicated in the above schedule are provisional. Should there be a delay in the signing of the contract, then it is understood the required delivery timescales will be equivalently moved back, and the prototype launch dropped as it would not be ready for the AEO conference.

The required rollout phases are :

- Friday 21st May – Prototype launch
    - Homepage should be fully functional
    - Homepage graphs should be taken from static data (can be hard coded in anyway)
    - Homepage has only single menu link for the "About" page
    - About page should be fully functional
    - English / French language selection should be fully functional

- o No login or other pages are needed
- Friday 2nd July – Data input launch
  - o The full login functionality should work, but only for users with a role (admin or country editor)
  - o The records view and edit pages should work
- Intermediate July release – these items would be part of the full launch anyway, but are useful to be brought forward for earlier release to production
  - o The list page and associated functionality
  - o TBD – It might be that the list page is added to the public homepage
  - o TBD – It might be that the login is opened to all authenticated users, not just those with roles
- Friday 3rd September – Full launch
  - o The full website functionality should be available for production release

Annex : Security auditing

The WCO will undertake a basic anti-hacking security audit of the OAC website on full completion, and all issues discovered by the auditing company which compromise the security (unless where they were specifically approved / requested by the WCO) should be fixed without additional cost.

This since there is nothing financial to steal, or confidential data stored, the security of the OAC represents the reputation of the WCO.

Annex : List of documents in the OAC requirements package

- FRS Functional Requirements Specification : *AEO Compendium - FRS Skeleton.docx*
- Website screens layout : *AEO Compendium - FRS Layout.docx*
- AEO / CCP / MRA / CMAA data definitions file : *Online AEO Compendium - Data Table v1.0.xlsx*
- Example translators files : *OAC Example translation file.docx*
- Example compendium download template : *AEO Compendium Template Edition EN.docx*
- Full 2020 EN compendium : *FINAL_AEO_Compendium_2020 Edition_EN.docx*
- Full 2020 FR compendium : *FINAL_RECUEIL-OEA_Edition 2020_FR.docx*

Annex : Legal terms and conditions

The submission to the WCO, by any supplier, of a quotation for the provision of goods and/or service entails the supplier's acceptance, without reservation, of the WCO's standard terms and conditions and of WCO Decision No. 331 on settlement of disputes which are fully accessible for consultation on the WCO website (http://www.wcoomd.org/en/about-us/legalinstruments/wco-standard-terms-and-conditions_council-decision-n331.aspx) and shall supersede any contrary clause in any other contractual document provided (or not) to the WCO, including the supplier's own terms and conditions.