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CITES electronic permitting toolkit

Version 1.0



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1 Introduction

At its 13th meeting (CoP13, Bangkok, 2004), the Conference of the Parties discussed issues related to the use of computerized systems to meet obligations set out in the Convention and related Resolutions and Decisions. Some Parties expressed the view that the development of an electronic licensing system would greatly assist in the handling and processing of CITES applications, the issuance of electronic permits and the collation and dissemination of CITES trade information.

Electronic permitting was further discussed by the Conference of the Parties at its 14th meeting (CoP14, The Hague, 2007), where Parties adopted Decision 14.55, extending the mandate of the Working Group on Information Technologies and Electronic Systems, and Decision 14.56 directing the Secretariat to prepare a CD-ROM and Web-based toolkit on electronic permitting systems for consideration at the 57th meeting of the Standing Committee. The toolkit on electronic permitting systems would include:

- a) advice on the use of common information exchange formats, protocols and standards for use with electronic permitting systems;*
- b) advice on the use of electronic signatures and other electronic security measures;*
- c) advice on the development and implementation of interoperable information exchange pilot projects on electronic permitting systems;*
- d) a list of Parties willing to assist less developed countries in developing electronic permitting systems;*
- e) a list of Parties currently using electronic permitting systems; and*
- f) information on new developments in the use of electronic documents by relevant organizations.*

The present toolkit provides advice on the use of common information exchange formats, protocols and standards, advice on signatures and other electronic security measures, and information on new developments in the use of electronic documents by relevant organizations, for Parties implementing CITES electronic permitting systems, or for Parties developing and implementing interoperable information exchange pilot projects on electronic permitting systems.

The toolkit is a work in progress; it will need to be updated with new developments related to electronic commerce and documentation and incorporate new standards and norms. It must also continue to be tightly integrated with the norms pertaining to other documentation accompanying specimens of CITES-listed species in trade.

In the planning and design phase of the toolkit, the Secretariat and the Working Group were presented with three primary challenges. First, the toolkit had to be harmonized and compliant with paper-based permitting procedures, so that Parties would have the choice of using new electronic permitting systems or existing paper-based systems. Second, harmonization with international standards and norms, particularly those developed by UN/CEFACT and the WCO was necessary to allow integration with national projects establishing single-window initiatives. Last, the toolkit had to be designed with sufficient flexibility to accommodate future developments and updates to international standards and norms.

Work achieved in the drafting of the CITES electronic permitting toolkit met a need expressed by Parties that have developed or are developing electronic permitting systems.

This need refers to the lack of guidance on how to ensure interoperability among national electronic permitting systems and compliance with international standards and norms, which results in a duplication of effort and an inability to exchange electronic permit data easily and in a timely manner.

Parties can use the advice provided herein in order to exchange permit data electronically should they wish to do so.

The toolkit promotes the use of standards and norms that are needed when implementing electronic exchange procedures. At the international level, Parties can integrate CITES electronic permits in single window initiatives, thereby contributing to more efficient trade procedures.

The toolkit also represents a new level of cooperation with organizations and initiatives aiming to facilitate trade, ensuring greater security and less fraud, and harmonizing documentation in international commerce. As more Parties establish single windows and require electronic documentation as pre-requisites for international trade, CITES will be well poised to adapt and contribute to these new initiatives.

Moving towards CITES electronic permitting systems

An important initial implementation step in the move towards establishing an electronic permitting system is to describe the existing paper-based and/or electronic CITES data management system and the current technical environment. This is commonly called the 'as-is' description, and this step will help to clarify and determine the future tasks to be considered during the development and implementation of the electronic permitting systems. Describing the current CITES data management process is essential for an understanding of who is involved, how they are connected to one another, and whether the current data exchanges are paper-based, electronic or a combination of both. For example, the relationships between the Management Authority and other bodies and agencies should be documented in order to obtain a picture of who may be affected when a process undergoes a modification or major change, and after identifying all the parties involved, the specific processes relative to each can be described.

The description of the current CITES data management process should include the processes related to the exchange of data and information between CITES Parties. The type, structure and format of the data and information exchange should be detailed and may be documented as case studies, activity diagrams, or process chains. Close scrutiny should be paid to data security and legal issues, and security restrictions may be set by the Management Authorities or by higher-level government agencies, or result from past procedures and existing restrictions. Legal restrictions and requirements which may affect the way CITES data or other data is reported may be set by appropriate regulatory bodies. Technical or security related legal requirements (e.g. electronic signature requirements) may be set by national governments, regional organizations or other legal authorities, and these may have an impact on planned CITES electronic permitting systems.

The description of the 'as-is' situation should include a description of currently used software applications and supporting hardware. Existing software and/or hardware may be capable of supporting future technical requirements and documenting these possibilities may help with planning and budgeting.

When analysing existing e-permitting systems, it may be necessary to identify legacy-related issues such as whether there is a national legal requirement in force that mandates paper certificates or permits and, if so, can the requirement be changed and when might the change occur. Other considerations concern contractual constraints related to the currently installed software or hardware, and whether there is an internal canonical data model for CITES data. If the latter is the case, the model could be affected by any decisions to adhere to an international data model standard.

Any review of existing e-permitting systems should identify, prioritize and fully describe any current problems related to its implementation. A careful analysis of the strengths and weaknesses of the

current e-permitting systems should be completed, taking into account the different experiences of CITES Authorities, Customs, and commercial and private users.

After the review, it is possible to move on to developing implementation scenarios for an e-permitting system, and two steps should be considered.

- Defining the proposed data exchange between CITES Authorities, and between Management Authorities and businesses (these interaction levels are often referred to as Government-to-Government (G2G) or Business-to-Government (B2G) interactions).
- Defining the types of application or interface that are proposed for the exchange of data. Examples of these include Web services, electronic forms (e-forms) or file transfers exchanged directly between agencies/users or through a Web-based application.

Key decisions affecting implementation of electronic permitting systems include define the interaction level at which the system will operate (e.g. only between selected government agencies, between Management Authorities and selected commercial traders, or between Management Authorities and all users of the system), how data will be exchanged, and what kind of interface will be used¹.

The next major step in the process towards establishing an electronic permitting system is to describe the long-term objectives of the national e-permitting system, also known as the 'to-be' description. The topics to be considered are similar to those described in the 'as-is' documentation, and it is important that stakeholders are consulted actively in defining the objectives of the electronic permitting system.

The 'to-be' description should consider the vision and goals to be achieved, including any restrictions or requirements which will need to be addressed. These will typically be motivated by factors such as security concerns, technical issues as well as CITES requirements. The description should include any anticipated future data exchange initiatives between internal or external parties and their processes, including an indication of timeframes, such as when a data exchange initiative is to start; future developments that will or may affect the plan; and relevant technical specifications of these initiatives.

The 'to-be' description should consider the feasibility of converting all current paper-based processes to a fully electronic system, or to support a paper and an electronic system in parallel. For either scenario, a predicted timetable will be necessary. The conversion scenario will need to consider any requirements for supporting computer-to-computer, computer-to-human (human-to-computer) and/or human-to-human data exchange processes, as necessary. The 'to-be' description will also need to consider security requirements for data exchange, all known planned requirements of related partner agencies (e.g. if a Customs inspection system requires real-time access to CITES permit data via Web services) and what the anticipated impacts on CITES processes would be.

Finally, the 'to-be' description should estimate any benefits in terms of resource optimization or reduction of staff costs that may result from an electronic permitting system.

¹ The CITES e-permit XML schema which is presented in the toolkit (see Annex X) has been designed to support all implementation scenarios regardless of the technical interface used. However, an existing environment or the desired environment may have impacts or restrictions that will affect the implementation scenarios.

2 CITES toolkit

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2.1 CITES toolkit technical introduction

This chapter will analyze and describe trade scenarios and processes for trade of CITES-listed species.

Analysis of these questions may be useful to Parties implementing (to-be) or further developing (as-is) national electronic permitting systems. The resultant process description can assist in answering the following questions:

- Who is involved in the exchange of import/export authorizations?
- Which processes have been defined and implemented? Which processes must remain as is and which may be changed?
- Are optimizations possible?
- What are the benefits of a new solution?
- Who will benefit from a new solution?

The main groups involved in the CITES e-permit process are traders (B = business level) and Customs, CITES Management Authorities or other governmental bodies (G = governmental level). These groups can interact with each other in specified ways.

Relationships or interactions among those groups can take place on different levels. The level of interaction (B2B, B2G and G2G²) within the scope of a particular e-permit implementation will influence the technical and security aspects of that CITES implementation.

The international trade process in regard to the CITES Convention can be summarized in two main directional processes: the import and export (or re-export) of CITES-listed species.

Currently, in the B2B and B2G scenarios most of the data exchange processes in many CITES implementation environments are paper based.

The introduction of electronic data exchanges will create opportunities for more sophisticated solutions and higher level interactions such as G2G or inclusion in the Single Window concept as supported through G2G data exchanges.

Furthermore, in the following description of the technical process, attention is given to potential impacts of implementation on the different process scenarios. Attention is also given to how a choice of a solution for a particular environment may be dependent on compatibility and security needs.

The process diagrams assist in visualizing and clarifying issues related to implementation of e-permit systems of the current situation of an existing implementation. It also assists in identifying potential optimizations by enhancing current paper-based processes with electronic data exchange in different scenarios.

² B2B: Business-to-Business, B2G: Business-to-Government, G2G: Government-to-Government

Every CITES electronic permitting system requires first and foremost the unambiguous definition of, and the structural relationships between, the pieces of information which are used across the CITES trade and administrative processes. These definitions and structural relationships are provided by an ebXML compliant CITES payload syntax neutral data model. Such a CITES e-permit data model offers the blueprint for the implementation of compliant and interoperable systems of CITES-permit-related information

To be able to exchange CITES data between CITES Authorities and other bodies/agencies nationally and internationally, it is necessary to define a technical exchange format for the data. This is provided by a World Wide Web Consortium (W3C) compliant and ebXML conformant CITES XML schema.

The relationship between the CITES payload syntax neutral data model and the CITES XML schema is that the CITES XML schema has been fully auto-generated from the CITES data model. The key reason for this standard approach is that, by keeping the underlying CITES data model consistent and free of technical errors, and by generating the CITES XML schema automatically from it, maintenance becomes easier and cheaper than if the XML schema were generated and maintained manually.

Maintaining the distinction between the payload syntax neutral data model and the XML exchange format allows the use of the CITES data model as a canonical format for the mapping to (or even the generation of) other payload grammars, such as other W3C compliant schemas, other XML schemas, ISO XML, comma-delimited exchange formats (CSV) or classic EDI formats such as EDIFACT. Another reason is that the innovation cycles related to the Internet and XML environments are very short and the use of a payload neutral model is more likely to be adaptable to technological change.

The CITES data model is based on the UN/CEFACT Core Component Library (CCL) which is compliant with ISO 15000 ebXML Core Component Technical Specification (CCTS). The UN/CEFACT Core Component Library (CCL) has been set up as a library of reusable data structures by harmonizing submissions from trade, transport, insurance, tendering, tourism, government agencies like Customs or phytosanitary and many others. Its reuse provides for greater interoperability across all the sectors, parties and boundaries of Cross Border Trade. Furthermore it is aligned as much as possible with the WCO Data Model version 2. Moreover, the WCO Data Model version 3 will be aligned with the UN/CEFACT Core Component Library.

The CITES model presented in this toolkit uses a restricted subset of this generic CCL and it contains only the data structures and elements which will be needed for the exchange of CITES data.

The CITES XML schema presented in this toolkit is conformant to the UN/CEFACT XML naming and design rules. It is recognized that some implementers may prefer to be able to choose to use the schema without code lists and or without particular annotation documentation. As a result all of these variations are provided in the toolkit with the differences between them clearly described.

The CITES and related Customs and other governmental agency scenarios are exchanging nearly identical data structures, which are basically consignment based. In other words, both the electronic and paper documents are subsets of the same basic structure. The CITES e-permit XML schema covers all data needed to describe the exchange of CITES relevant information referring to the processes of an import, export, re-export or other types of CITES permit processes and for all cases in regard to the CITES appendices.

The CITES XML schema cannot describe all possible specific national requirements where they may differ from the CITES standard because of the variety of national rules and regulations. However, where known, some specific requirements for national or regional implementations have also been included.

Future more advanced scenarios with extended data requirements may be developed, such as providing XML schemas for Web services to include queries to the CITES Trade Database or other

relevant databases. The CITES data model and consequently the CITES schemas may then be the subject of further development to include these new requirements.

By design, the CITES XML schema supports Single Window environments and international trade-related data interoperability. It is thereby designed to support any future data exchange requirements.

However, the scope of this project is defined pursuant to Decision 14.55. The CITES XML schema described in this toolkit therefore concentrates on providing the necessary interoperability of data in B2G and G2G interactions..

In practice, XML schemas are commonly developed for two usages which can be human-related and application-related. From a human-related perspective, XML schemas offer a human-readable presentation of exchangeable data structures and its documentation. Furthermore, applications can be supported by document structures which are expressed in XML schemas.

The CITES XML schema has been developed to meet as many of the above criteria as possible. In the opinion of the Secretariat the chosen combination of the reuse of the UN/CEFACT Core Component Library (CCL) and the UN/CEFACT XML rules offers a flexible and future looking way forward.

Additional information:

[WCO SAFE framework](#)

[UN/CEFACT and other UN projects](#)

[Information of single window approach](#)

[Description of the CITES reference data model](#)

[Description of Schematron](#)

2.1.1 General description of CITES business processes

2.1.1.1 Involved parties

Applying a new technical CITES (e-)permit system may have impacts on processes of other parties such as Customs authorities. Business procedures or technical implementations may have to be changed and the readiness of other parties to adopt the new solutions has to be checked before.

From the view of the CITES Management Authority the following parties may have specific interests in communicating to the authority:

- Trade parties (e.g. importer, exporter, carrier)
- Governmental administrations (e.g. customs, health, environment)
- Other CITES executing bodies (e.g. scientific agencies)
- CITES Management Authorities of other countries

Generally, all parties need to be able to:

- Access the CITES Management Authority's offered interface solution
- Be granted the appropriate access/edit rights in order to process the information

Additional features and options for exchanging and processing CITES data more efficiently may be offered to participating partner agencies. Some important options which could be available include:

Trade parties

- Track and Trace functionalities whereby the status of CITES permits or the movement of CITES specimens (“passed-the-checkpoint-successfully” type of feedback) can be kept up-to-date by and exchanged between involved parties
- Efficient collaborative master data management via a secure Web application
- One stop data input of required trade data when applying for a CITES permit or certificate.

Customs

- Ability to request detailed up-to-date information from the CITES Management Authority about the status of a CITES permit at the time when the goods need to be examined at a border checkpoint. This requirement may include the development of a new user front-end where the CITES permit reference number can be entered and referenced to the CITES Management Authorities database
- Access to CITES species information stored in a CITES database which may be made possible via Web services
- Ability to recall an existing CITES permit when required
- Ability to adjust the certified quantity of the imported CITES goods to match the inspected quantity as ascertained at a border crossing point.

Other CITES Management Authorities

- Facility to exchange e-permits between agencies
- Ability to forward the necessary data of a request submitted by a trader, customs or other institution via Web services to the appropriate authority for further automated processing and immediate feedback
- Ability to automatically respond to any received request from a CITES Management Authority in another country.

2.1.1.2 Business levels of data interaction among the involved parties

It is possible to identify the following data exchange scenarios all of which may be relevant to CITES e-permit system requirements:

- **Business-to-Government (B2G)**

B2G in the context of CITES data exchange means a business party (e.g. exporter/importer)

- **Government-to-Government (G2G)**

G2G in the context of CITES data exchange can have two connotations which can be referred to as the 'external' G2G and the 'internal' G2G.

The 'external' case is when there is an interaction between a CITES Management Authority of one country (e.g. the exporter country) and the CITES Management Authority (e.g. the importer country) of another country.

The 'internal' case is when there occurs data exchange internally in a country between its CITES Management Authority and related national governmental agencies.

2.1.1.3 Issues related to implementation

Applications, interfaces and possible data exchange technologies are factors which may define the implementation of a CITES e-permitting system. All typical components of data exchange must be defined including the data exchange format, the chosen data transfer protocol and the data input and output application, among others.

- **Electronic forms and documents**

The development of an electronic CITES permit form involves the conversion of the data fields present in the paper document into a suitable electronic format which provides a more convenient way for a user to insert his/her data values. The required conversions include the implementation of 'tick boxes' into radio buttons and the addition of drop-down code lists. Business rules can also be integrated into the e-form definition so that data validation can be built in to increase the accuracy of the submitted data and for increased ease of use. The data may have to be inserted manually into the resultant interactive document (e.g. PDF e-form) or, alternatively, there may be direct linkages to the data through the use of an application.

However completed, an XML file can be created easily and transferred electronically as an e-mail (SMTP) or more directly via the Internet (HTTP, HTTPS).

The secure transfer of the XML file or an interactive document should be carefully considered and all necessary security methods employed such as https, digital signature or smart card. The security method will determine the choice of the transport protocol.

The implementation of an e-form solution has only low-level, readily available and reasonably low-cost technical requirements such as PDF reader software, an Internet connection and an Internet browser.

- **Web Application**

A Web application provides an efficient way of implementing e-permit procedures. The user has easy access to his/her e-permit status information via a Web application using a login name and password. All data entry can be done using one online application which is accessible via an Internet browser.

Master user data could be submitted once, saved and maintained in a database and reused several times. An interaction between different documents and e-permit tasks could be created and a history logged to provide statistics and traceability.

The technical requirements are the Web application, an Internet connection and an Internet browser.

The usage of a Web application can generate some drawbacks such as the need for access to the Internet or an intranet. Another disadvantage may be that if there media breaks occur between two data exchanging parties, it may be necessary to re-enter the data a second time.

- **Web Service**

Web service technology allows the connection of applications by communicating via a network. A Web service can be used to transfer and process CITES data automatically without a manually initiated user request or response actions.

A good example of a CITES Web service would be the automated lookup of CITES scientific names of species directly from a drop-down menu of an e-form.

Again security aspects and data transfer protocols should be considered carefully.

The requirements of the usage of Web services are: to be online and to have real time database access not only on the side of the data provider but for the data retriever, too.

Single Window enhancements

There are possibilities for significant improvements of the CITES e-permitting processes through the implementation of a Single Window approach.

A Single Window in an international trade regulatory environment can be described as a facility that allows all traders to submit their regulatory required information electronically with each piece of information submitted once and only once through a single entry point.

From a CITES perspective a Single Window can either be a single CITES Management Authority or a wider national or regional Single Window covering Customs and other related regulatory bodies.

If a CITES Single Window is in place an importer or exporter can use the Single Window as an entry point for submitting e-permit requests and for receiving responses from the MA. The submitted data will be processed directly by the Management Authority. Depending on the available technical solution this data can be exchanged with other Management Authorities as required.

If a national or regional Single Window is in place then submitted CITES data will be routed to the Management Authority through the Single Window and responses from the Management Authority to the trader will also be routed through the Single Window.

Whichever Single Window is available, the trader and the Management Authority should benefit from lower costs and greater efficiencies.

2.2 Common information exchange standards

This chapter presents guidelines on the use of common information exchange formats, protocols and standards for use with CITES e-permitting systems.

Some standards are described briefly, but as it is not within the scope of this toolkit to offer a comprehensive explanation to all possible standards, references are provided in these cases for accessing further information if required.

2.2.1 Guidance on relevant cross-border data exchange related standards

2.2.1.1 WCO SAFE framework³

In 2005 166 members of WCO accepted the Framework of Standards to Secure and Facilitate Global Trade (SAFE Framework). The goal of this instrument is to enforce a closer relationship between international business and Customs highlighting the security and efficiency aspects in international trade.

To achieve the goals set by the WCO Framework some elements of the framework are considered to be essential.

One aspect of the framework, referring to the acceleration of electronic trade, is the development of a WCO data model which will be established to cover all governmental requirements, relevant trade processes from a customs point of view and also commercial issues relating to border clearances.

The currently available WCO data model is version 2.0 which includes a range of data elements and data structures explicitly defined by WCO covering goods import and export declarations, cargo declarations and conveyance reports.

Version 3.0 of the data model is under development and is due for publication early in 2010. This version widens the data model to include some of the regulatory border release requirements of Partner Governmental Agencies (PGAs) such as Phyto-Sanitary regulatory requirements at the border.

2.2.1.2 United Nations/ Centre for Trade Facilitation and Electronic Business and other United Nations projects⁴

The mission statement of the United Nations/ Centre for Trade Facilitation and Electronic Business (UN/CEFACT) is defined as:

“The United Nations, through its Centre for Trade Facilitation and Electronic Business, supports activities dedicated to improving the ability of business, trade and administrative organizations, from developed, developing and transitional economies, to exchange products and relevant services effectively. Its principal focus is on facilitating national and international transactions, through the simplification and harmonisation of processes, procedures and information flows, and so contribute to the growth of global commerce.”

³ World Customs organization: <http://www.wcoomd.org>

⁴ UN/CEFACT: www.uncefactforum.org or www.unece.org/cefact

UN/CEFACT International Supply Chain Reference Model (ISCRM)

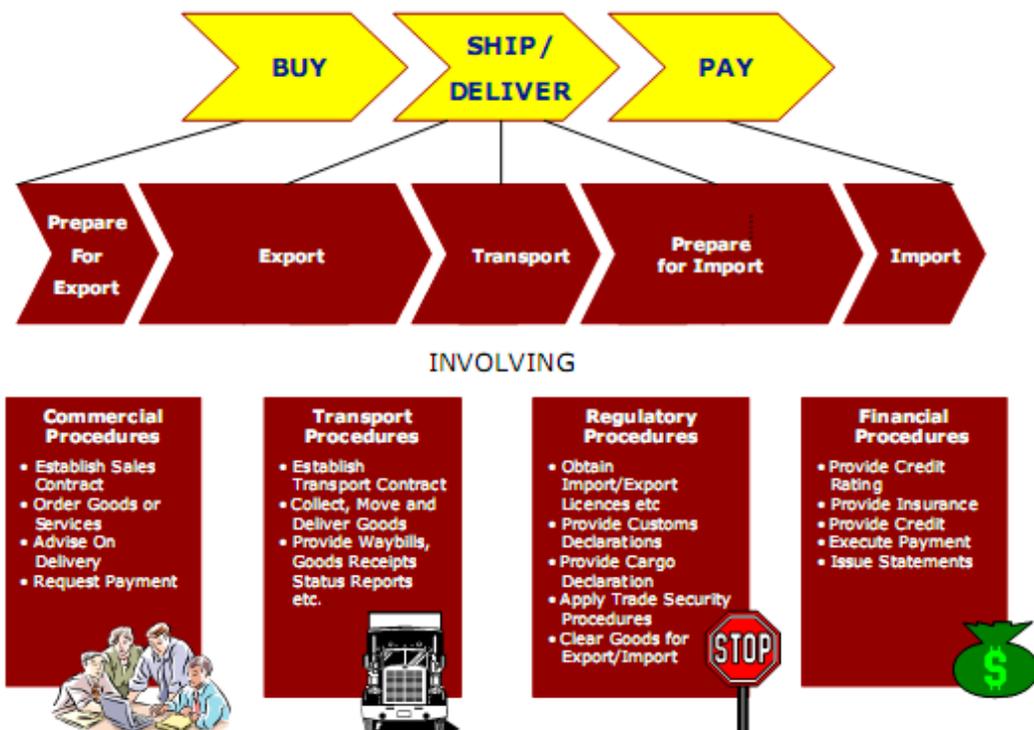
UN/CEFACT is developing a business process model which reflects supply chain processes from an international trade perspective which is known as the ISCRM. The scope of the ISCRM project is to covers commercial, logistics, regulatory and financial processes.

UN/CEFACT BUY-SHIP-PAY (BSP) data model

The UN/CEFACT BSP data model consists of data structures used across the processes defined in the UN/CEFACT International Supply Chain Reference Model (ISCRM). These data structures are a subset of the UN/CEFACT Core Component Library (CCL) which means that they are compliant with the UN/CEFACT Core Components Technical Specification v2.01 (CCTS) which is also known as ISO TS15000-5 and ebXML Part 8. The full BSP data model covers data requirements to support the commercial (BUY), transport and regulatory (SHIP) and financial (PAY) procedures of cross border trade processes.

The BSP data model is especially in line with the requirements of the cross-border transport sector and therefore covers the core of the CITES regulatory requirements in an international trade environment.

INTERNATIONAL TRADE TRANSACTION PROCESSES



Source: UN/CEFACT

Figure 1

The UN/CEFACT BSP data model and its derived components have been chosen as the basis from which to derive the subset CITES Standard e-Permit data model structure which will be introduced as an implementable solution in the CITES reference data model chapter of this toolkit. The CITES data model subset is therefore reusing the naming and data structure of an already existing sophisticated library which is approved as a UN/CEFACT Business Standard.

Because this data model conforms to the UN/CEFACT Core Component Library (CCL) and is based on the Core Components Technical Specification (CCTS), it is well placed to support future Single Window approaches and is extendable to fulfil future needs through submissions to the UN/CEFACT CCL Management Group (TBG17).

UN/CEFACT Core Components Technical Specification (CCTS)

CCTS provides rules for the definition of context neutral and context specific information in reusable building blocks which are called core components. UN/CEFACT has developed a library of CCTS core components covering the international supply chain (B2B, B2G and G2G) and this library is maintained and published by UN/CEFACT. It is called the UN/CEFACT Core Component Library (CCL) and it is available from the UN/CEFACT website free of charge.

The UN/CEFACT BSP Data Model is based on the UN/CEFACT Core Component Library.

UN/CEFACT XML

UN/CEFACT has defined a set of naming and design rules which are based on the W3C schema definition language (XSD) and can be used to express Core Component message assemblies as XML schemas. The specification of the UN/CEFACT XML Naming and Design Rules (NDR) Technical Specification can be downloaded from the UN/CEFACT website.

To be conformant to UN/CEFACT XML, the XML Schemas must follow the UN/CEFACT XML NDR.

UNECE recommendations⁵

UN/CEFACT has published a set of trade facilitation recommendations which are available free of charge from the UN/CEFACT website. For example, there are recommendation on code lists including ISO Country and Currency code lists, the UNLOCODE, INCOTERMS, Package Type codes etc. together with recommendations on how to use them.

Recommendation 1 describes how to align the layout of trade documents to the UN Layout Key (see also below) which is followed by thousands of paper forms related to cross-border trading worldwide. Recommendation 33 describes how to prepare for a Single Window approach.

⁵ Recommendations of UN/CEFACT: http://www.unece.org/cefact/recommendations/rec_index.htm

United Nations Layout Key

As one of the first recommendations made by UNECE in 1973, the United Nations Layout Key for trade documents (UNLK) still plays a very important role for facilitating international trade. The main function of the UNLK is to present a standard and universal design for any paper document which can be exchanged by parties in the international supply chain. The UNLK is a joint standard developed with ISO where it is referred to as ISO 6422.

Because of the broad acceptance of this recommendation thousands of documents have been aligned to the UNLK and time and costs of document processing have over the years been decreased for many administrative processes significantly.

ISO is currently considering to adopt a new work item to develop an equivalent standard for electronic international trade documents to be called the eUNLK or ISO 6422 Part 2.

United Nations Trade Data Elements Directory

The United Nations Trade Data Elements Directory (UNTDDED) offers a standard list for trade elements which can be used for data exchange in international trade. UNTDED version 2005 is another joint standard with ISO which is known as the official ISO Standard ISO7372.

2.3 Description of the CITES reference data model

2.3.1 Reference standards and methodologies used by the CITES data model

The CITES reference data model has been developed as a subset of the UN/CEFACT BSP data model which in turn is a subset of the UN/CEFACT Core Component Library (CCL). This subset contains all relevant structures to cover the international trade processes, including commercial, transport, regulatory and financial procedures as described in the UN/CEFACT International Supply Chain Reference Model (ISCRM). The UN/CEFACT CCL is based on the Core Components Technical Specification (CCTS) methodology, which is also developed and maintained by UN/CEFACT and published as not only a CEFACT Standard but also as ISO 15000-5 and ebXML Part 8. This means that the XML-Schemas exported out from the model also have full compatibility to the UN/CEFACT ebXML and message standards.

CITES related data elements which are semantically used in other data models and standards such as UNLK, WCO, EU SAD and ASYCUDA SAD have been mapped and documented into the CITES reference data model from which the CITES XML schemas, described in this toolkit, have been derived.

The development of International Trade Single Window solutions are a part of the concept of UN/CEFACT data modelling methods. The establishing of a national or even an international single window data exchange solution requires a high level of coordination work between all participating regulatory parties. This essential data harmonisation preparation can be achieved significantly easier by reusing the UN/CEFACT Core Component Library of common IT defined data structures. By adopting the chosen data modelling approach the CITES reference data model and schemas will be already harmonised to support future Single Window implementation projects.

2.3.2 Structure of the CITES reference data model⁶

The CITES reference data model is a subset of the UN/CEFACT BSP core component data model for international trade which is an open and international standard published as the UN/CEFACT Core Component Library (CCL).

The CCL offers a broad range of data elements and data structures which can be contextualized to suit specific business and or regulatory documentary requirements. The CITES reference data model is contextualized to cover the documentary requirements for the CITES e-permit as defined in the CITES international regulation.

This toolkit and the CITES reference data model on which it is based do not reflect any additionally defined national or regional specific documentary requirements.

Every box of the CITES standard permit form⁷ has been mapped to one or more data elements in the CITES reference data model. For example the issue date of the permit form can be found in box number 13 and has the CCTS Dictionary Entry Name "*Exchanged_ Document. Issue. Date Time*" in the CITES reference data model⁸.

⁶ Annex: [UML class diagram](#)

⁷ Annex: [CITES Standard Permit Form](#)

⁸ Annex: [CITES Reference Data Model structure report](#)

Another benefit offered as a result of using the UN/CEFACT data model as the basis for the CITES reference data model is that this offers the opportunity to broaden the future scope of the CITES reference data model to support future emerging requirements particularly those linked with related regulatory conventions such as eCustoms and eCERT for sanitary certifications . Each of these conventions requires common data to be provided by traders and the rationalisation of these data elements will offer benefits to traders and regulatory bodies alike. As CITES is not the only institution or convention which requires trader transaction data, the need for a data model which is sufficiently flexible to be able to offer interoperable data exchange is increasing.

Using the CITES reference data model and its derived XML schemas for CITES e-permit processing can therefore be considered to be an important milestone in preparation for future challenges such as data interoperability with other related electronic data exchange systems.

The current lack of interoperability between national CITES systems has been recognised as having a detrimental impact on the efficiency of executing the CITES Convention. For example, in a chain of exporting and re-exporting CITES relevant goods throughout several countries all the data needed for the application of the CITES permits has to be entered into the affected countries CITES individual systems over and over again.

International CITES reference data exchange could be improved significantly if there were electronic data connections between the CITES Management Authorities but in order to avoid a repeated input of the same data an information exchange concept has to be defined which is valid for all participants.

Therefore, whilst the introduction of electronic data exchange between CITES systems offers major improvements in efficiency and data accuracy, for maximum benefits to be achieved the use of a commonly agreed international CITES XML Schema as described in this toolkit will be needed.

2.3.3 Expandability of the CITES reference data model

The proposed CITES reference data model offers a data exchange structure for CITES permit purposes. To cover further regulations or conventions which may set new data requirements, the CITES reference data model could, in the future, be extended. Following such extensions to the CITES reference data model, the CITES XML Schema can be automatically regenerated from the data model and the new schema will then have the ability to cover the new requirements.

The characteristic of the applied CCTS methodology is that a data element (e.g. issue date) which can be found in many different documents is mapped only once to the data model because it can be reused and then expressed in the context of a specific document type (e.g. issue date of the CITES permit document).

This speciality of the CCTS methodology allows the exchange of several documents with the same overall message structure but each restricted down to its own specific set of data elements. Thereby from the very beginning of the process a harmonization of all documents and contents will be established.

Harmonising all data elements extensively across all required message exchanges before creating a combined data model, individual XML schemas or further specifications is therefore a very important step.

An example of a national data harmonisation exercise is the Australian Government SDS (Single Data Set) project which, in preparation, for the development of the Australian International Trade Single Window, harmonised the data elements across 118 existing documents. The results have clearly shown the opportunity for rationalisation whereby further processes could reuse a harmonised, condensed set of data elements.

The creation and definition of the scope of a reference data model should therefore be one of the first steps. It has to be done very carefully and in coordination with all other parties which participate in the defined data exchange processes.

The resultant comprehensive data model must be available for all implementing parties and obviously it will be important for all trading partners to agree to use the same CITES reference data model structures and its derived XML schema definitions by accepting them as their data exchange standards. These standards can then be applied by several CITES Management Authorities of different countries to exchange their data internationally without any further necessity for the setting up and maintenance of multiple bilateral Government-to-Government (G2G) data exchange relationships.

Additional benefits will accrue if the CITES reference data model standard can also be used as the basis for B2G data exchange. For example this will facilitate the sending of a trader's data directly to the foreign CITES Management Authority.

2.4 CITES XML schema⁹

2.4.1 Introduction to the CITES XML schema

This toolkit presents a set of information and recommendations for solutions related to the electronic exchange of (CITES) data. The recommended electronic format of this data exchange system is the human-readable Extensible Mark-up Language (XML). XML is a commonly accepted format for the use of exchanging electronic data. Data which are CITES related can be transferred using XML as a data carrier.

To transfer CITES related information, the structure of the exchanged XML file has to be defined for that purpose. The W3C XML schema language was used to achieve this goal.

The resulting XML Schema presented in this toolkit only covers the data structure needed to issue a permit to export, import or re-export CITES listed species. The CITES Schema must be extended with several data elements to accommodate data exchange among two CITES Management Authorities, among a Management Authority and a database and/or among a Management Authority and business related organizations.

It is important to note that the CITES XML Schema is based on a data model created for the purpose of transferring CITES relevant data. CITES XML Schemas will be generated directly from this CITES reference data model. Therefore, the data model has to be enhanced by further definitions of the data structure to cover more data and/or documents than those required for CITES documents or permits. The XML Schemas generated from the base model will then contain the extended structure automatically.

The model is based on and is a restriction of the UN/CEFACT Buy-Ship-Pay data model. The CITES XML Schemas are compliant to W3C and conformant to UN/CEFACT XML because the production process follows the naming and design rules of UN/CEFACT XML.

The generated CITES XML documents have to be valid and well-formed. The syntactical correctness of CITES XML documents can be validated against the CITES XML schema by using a XML validation tool. Further semantic checks can be realized by using a technique called Schematron which helps to define certain rules of how the XML document should be expressed. The methodology of Schematron and how it has to be used is explained in a separate section.

To ensure the secure exchange of the CITES XML documents, security mechanisms as XML Signature and XML Encryption should be applied. Those technical instruments of considering the aspects of data integrity and security are further specified in the technical chapters of document security and digital signatures.

Some of the existing national CITES e-permit solutions already use XML documents to transfer CITES data between traders (B2B), CITES authorities (G2G) or between both of them (G2B). The status quo is that almost every CITES implementation has its focus on a national level and doesn't allow CITES data to "cross the border" electronically.

⁹ Annex: [CITES XML Schema structure report](#) / [CITES XML Schema guideline report](#) / [CITES XML Schema code lists](#)

2.4.2 Implementing CITES XML schema

Whilst business experts are often asked by programmers and technologists to provide XML schema definitions, the awareness of the wide range of possible usages of an XML schema is sometimes limited. In reality XML schemas are often used in the following ways:

1) Human related

XML schemas are used for the documentation and human readable presentation of exchangeable data structures.

Note: Unfortunately, it is very often assumed that self-defined 'human-readable' tags and names of XML elements are self explanatory and sufficiently defined as to be unambiguous. This view can cause serious misunderstandings between trading partners, especially when they are from differing cultures and languages. Even if the names of tags and elements are based on the official terms published by a particular global Convention such as the CITES Convention, it cannot be assumed that these terms will be unambiguously aligned with those of related Conventions or regulations such as Customs terms. Thus it is very important to reuse the globally harmonised names and definitions published in the appropriate international standards i.e. the UN/CEFACT CCL and the WCO Data Model.

2) Application related

- A) The development of applications can be supported through reusable data and document structures of XML schemas to define database tables of applications.
- B) Mapping tools use XML schemas to do a logical and technical mapping of the XML schema elements to 1) internal applications and 2) canonical files of middleware.
- C) The programming of e-forms for on-screen editing or for the presentation of exchanged data for example by developing XSLT style sheets in combination with XML schema
- D) The validation of the syntactical correctness of exchange documents against an XML schema.

Note: for data recipients with middleware the criteria of the correctness of an XML file is whether or not the content of the file can be processed into the canonical format of the middleware. For such users the incorporation of business rules and dependencies or the integration of code lists in XML schema is usually not required for this purpose, and often even identified as a burden that increases technical mapping and programming work costs.

- E) The validation of the semantic correctness of exchange documents by validation against a XML schema.

Note: Only in exceptional cases is a complete semantic validation of the content of an XML file against a XML schema possible.

Note: XML schema is not the W3C standard to express dependencies within an XML file. Other standards like the schematron standard in combination with XSLT style sheets have been developed for this purpose. CITES provides the schematron files for the CITES toolkit document.

2.4.3 XML validation and Schematron

2.4.3.1 Description of Schematron validation technology

What is Schematron?

Schematron is a language for making assertions about the presence or absence of patterns in XML documents. It is a simple and powerful structural schema language expressed in XML using a small number of elements and XPath. The Schematron schema XML is then processed into normal XSLT code for deployment anywhere that XSLT can be used.

What is Schematron used for?

Schematron can be used for business rules validation, data reporting, general validation, quality control, quality assurance, firewalling, constraint checking.

Who uses Schematron?

Schematron is an ISO standard which has uptake in many industries, for instance in the financial (especially insurance) and healthcare sectors, and technical and reference publishing. It is used as the basis of the OASIS UBL Code list and Value Valuation methodology.

2.4.3.2 Validating an XML File using Schematron technology¹⁰

When the Schematron technique is used, the XML instance is tested in two passes: In the first pass, the XML document is validated against the XML schema using a XSD Parser. In the second pass, the instance is tested against additional rules that are defined in the Schematron.

A Schematron validates an instance based on user-defined rules. In order for the instance to be valid, these rules must be fulfilled in addition to the requirements of the XML schema. The Schematron schema tests only elements and attributes for which a rule is present.

¹⁰ Official website of Schematron: <http://www.schematron.com/>.

2.5 Development of a migration strategy

A key factor in the development of a migration strategy and its implementation plan is that they must always start from the existing as-is situation. This means that one of the dependencies will be the minimisation of any negative impacts on existing system structures and the current data exchange techniques during the implementation stages.

Below are some general issues, which may be considered when drafting a project plan for implementation:

- Assessment of the benefits of an iterative approach
- Re-evaluation of long term goals as identified in the to-be situation to address any changes or emerging changes in relevant external and/or internal environments. These could include legislative constraints, etc.
- Comparison of the as-is situation with the to-be situation from different perspectives such as technical, business and security
- Making use of experience and adoption of proven best practises learned from other successful implementations
- Consideration of the impact of the developments of other related parties i.e. trading partners – consideration of where they could help and how they might affect the project plan
- Assessment of which steps are feasible at which stage considering the dependencies of all relevant factors such as time, costs and prerequisites?
- Wherever possible, include a plan for a beta environment to run in parallel to the implemented solution and also consideration of how to introduce a beta environment in parallel with the as-is i.e. current processes.
- In order to encourage migration to the new environment, the development of an incentive plan which could be offered to trading partners could be considered.

2.5.1 Analysis of the situation and identification of requirements

To gain a concise picture of the current (as-is) situation, implemented systems, their processes and compatibilities should be analysed. This exercise should include aspects of technologies used and security and business issues. This collated information about the current situation will assist to identify strengths, weaknesses and requirements for improvements in any future solutions.

Which of the three general types of permit systems does/will exist?

- Fully paper-based permission process
- Parallel e-permission: Supports both paper-based or electronic e-permission processes in parallel
- Fully electronic e-permission process using interactive online forms, Web services or direct XML exchanges

What can be improved and which possible improvements depend on implementing new technologies?

- Which parts of the existing system can remain in place and be integrated with the future system, which parts will have to be modified or extended and will there be new processes which will need to be to be integrated?
- Could the adoption of an existing solution used by a Party offer the required functionalities?
- Which open, interoperable and international Standards could or should be followed for defining required data exchange formats?
- Which data exchange model(s) will be adopted, i.e. PULL or PUSH?
- Which technologies (e.g. Web service, e-form or application) will be needed for implementation?
- If plans are to build common data exchange structures and techniques between Parties, then jointly designed technical building blocks will need to be developed, implemented and maintained collaboratively between all the participating parties (e.g. building a Web service driven single window solution between CITES Management Authorities)

Which security issues have to be considered?

▪ Basic security:

Confidentiality, integrity, authenticity and availability

▪ Document security:

Electronic data exchange employing encryption techniques, (XML) digital signatures, electronic certificates and certification authorities

▪ Application security:

User access controls (Registration with username and password, Smart Card etc.)

▪ Data Transfer:

Electronic protocols and digital security mechanisms (https, SSL),

2.5.2 Development of a project plan

Developing a migration strategy leading from the as-is to the to-be situation requires the determination of several factors which will potentially influence the process of implementation. These variable factors can be fixed in a project plan and some of them are listed below:

- What is the implementation time schedule?
- What are the costs?
- What is the technical implementation plan?
- How will testing, e.g. maintaining parallel systems, be planned?
- Creation of a test environment to check the functionality and stability of the new, modified or alternative system

2.5.3 Benefits and risks

What will be the quantifiable and qualitative benefits? These may include items such as:

- Preparation and capacity for future requirements (Single window support, XML schema techniques, electronic forms support etc.)
- Higher efficiency (savings of time and costs)
- Error reduction

2.6 Implementations of CITES e-permitting systems

2.6.1 A list of Parties which have implemented CITES e-permitting systems

Below is a selective list of Parties which have implemented CITES e-permitting systems. Owing to the difficulty in keeping this list up-to-date, it will be moved to a Web-based systems where Parties are able to submit information related to their e-permitting systems.

Country	CITES Management Authority	Single Window Solution (G2G or Cites2Cites)	Status tracking and data management	Business data input		Data processing	Links
				Online (E-form, Web app.)	Static Forms (Print)	Automatically (e.g. Web service)	
Switzerland	BVET	X		X			http://www.cites.ch/e-cites/
UK	DEFRA				X		http://www.defra.gov.uk/animalhealth/CITES/
Germany	BfN	X		X			https://www.cites-online.de
France	Ministry of Ecology	X		X			http://www.ecologie.gouv.fr
Singapore	Agri-Food and Veterinary Authority (AVA)	X X	X X				http://www.ava.gov.sg
UAE	Ministry of Environment and Water				X		Management Authority for Abu Dhabi Emirate: https://eservices.ead.ae/portal/page/portal/ead-portal/services/Introduction/CitesPermitIntroduction Management Authority for the Northern Emirates: http://www.moew.gov.ae/En/onlineservice/cites/Pages/default.aspx
Thailand	National Park, Wildlife and Plant Conservation Department	X X	X X			X	http://www.dnp.go.th/
Brazil	Ministry of External Relations / IBAMA	X X	X			X	http://www.mre.gov.br http://www.ibama.gov.br
Italy	Ministero dell'Ambiente e della Tutela del Territorio e del Mare			X			http://www.minambiente.it/
Spain	Ministerio de Industria, Turismo y Comercio Secretaría General de Comercio Exterior			X			http://www.cites.es
Canada	Canadian Wildlife Service				X		http://www.cites.ca

Figure 2

2.7 Single Windows

2.7.1 Introduction

The UNECE has developed a Single Window Trade Facilitation Recommendation (UN Recommendation 33) which includes the following definition:

“Within the context of this Recommendation, a Single Window is defined as a facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfil all import, export, and transit-related regulatory requirements. If information is electronic, then individual data elements should only be submitted once”.

The WCO has further refined the UNECE definition as follows:

“A Single Window Environment is a cross border, ‘intelligent’, facility that allows parties involved in trade and transport to lodge standardized information, mainly electronic, with a single entry point to fulfil all import, export and transit related regulatory requirements.”

An International Trade Single Window environment is designed to increase efficiency for traders and governmental agencies alike for all activities around import/export clearance procedures including permits and certificates. Users are provided with a single, coordinated interface to many different government agencies. Required data will be automatically and electronically exchanged between all market partners and government bodies through one interface. The primary objective is that each element of required data should only have to be submitted once thereby reducing the considerable data redundancy caused by today’s separated regulatory interfaces and functions.

Additional information on Single Windows and practical steps for their implementation can be found in Recommendation No. 33 of UN/CEFACT (*“Recommendation and Guidelines on establishing a Single Window to enhance the efficient exchange of information between trade and government”*).¹¹

¹¹ Link to recommendation No. 33:

http://www.unece.org/cefact/recommendations/rec33/rec33_trd352e.pdf

2.7.1.1 Overall benefits of a Single Window approach

The Single Window concept describes how a Single Window can provide improved services to businesses, increased national or regional competitiveness by offering reductions in documentary burdens on traders as well as delivering improved coordination and streamlining of government operations.

Harmonised networking between Single Windows across the globe offers further increases in the benefits when complemented by compliance goals and mutual recognition of secure trading frameworks between countries.

Additionally, the recognised benefits in speed of data exchange, increased security and increased process efficiencies of electronic data transfers will be available to any Single Window environment. As a result further benefits such as the secure exchange of pre-approval data and permits before physical goods are going to be transported may be accrued.

2.7.1.2 Single Window initiatives

It will probably be helpful to have information on current Single Window developments which can give an orientation about the possibilities of implementation. Such relevant reference projects would include:

Single Window frameworks such as WCO (Global Customs based), APEC (Asia-Pacific Economic Cooperation), ASEAN (Association of Southeast Asian Nations) and, ITAIDE (Information Technology for Adoption and Intelligent Design for EGovernment)¹²

Country governmental Single Window projects such as those implemented or being implemented in Canada, France, Singapore, United Kingdom of Great Britain and Northern Ireland, and United States of America

2.7.2 Specifics for the implementation of a CITES Single Window

2.7.2.1 Requirements

CITES Management Authorities wishing to offer services through a Single Window system should consider the following steps:

- Data structures and data elements exchanged must be defined clearly, unambiguously, transparently and based on global semantic standards as much as possible. These definitions should be made freely and easily accessible to all possible trading partners
- All defined interfaces, exchange standards and formats should be harmonized and their design should be optimised for maximum interoperability
- The underlying data model and exchanged data should be designed to support possible future enhancements related to CITES processes, border release procedures (e.g. Customs

¹² ITAIDE aims to integrate and strengthen European research for innovative government by enhancing service offerings and disseminating good governance practice through increased security and controls, while employing intelligent software tools to reduce administrative load burden. ITAIDE addresses the issue of eCustoms: How can customs documents and procedures be digitized and redesigned, and what business and administrative challenges may be encountered?

inspections etc.) and other related documentary requirements (e.g. Phyto-Sanitary certificate, certificate of origin etc.)

- Use an existing Single Window environment as appropriate.. Naturally, this will require alignment of CITES data requirements with those of the existing Single Window

2.7.2.2 Benefits of a CITES Single Window approach

Benefits from a trader perspective

- Lower costs in meeting CITES requirements
- Faster clearance of goods resulting in increased efficiencies and, in the case of live animal transport, an increase in animal health protection
- Increased security and increased compliance with obligations under the Convention
- More effective and efficient use of resources
- Increased transparency of regulatory processes

Benefits from a Management Authority perspective

- Increased risk control , security and supervision management
- Faster and less costly processing of CITES data
- Easier collation and exchange of CITES statistical data
- Simplified reporting requirements

2.8 Technical Specifications

2.8.1 Interoperability and application integration

Interoperability is the capacity of heterogeneous systems to be able to work together.

To establish or improve interoperability between applications and organisations, an understanding of the following conceptual levels of interoperability is useful:

Business Process level

The business process level defines when and why certain data is exchanged between organizations or organizational units. Interoperability is achieved by aligning distinct business processes with one another.

Data Semantic level

This level is related to the content of the data transmitted. This content is often described as the semantic content or the meaning of the data. When two systems exchange data, full semantic interoperability can only be achieved when all of the data exchanged is interpreted in exactly the same way by both communication partners thereby eliminating misunderstandings

The basic pre-requisites for semantic interoperability are shared names and definitions for data elements plus commonly agreed to codes. Whilst bilateral semantic agreements between individual pairs of trading partners may be simpler to arrange, the wider that such commonly defined semantics can be adopted across trading communities the greater semantic interoperability benefits can be achieved.

Global semantic standards in the form of internationally maintained libraries such as the UN/CEFACT Core Component Library (ebXML) are important as they can provide a trustable and well maintained foundation on which trading communities can build semantic interoperability platforms.

Message Structural level

This level concerns shared data structures and the relationships between them. When data is exchanged in the form of electronic messages, it is important that the exchanged data follows a pre-defined structure so that the receiver can understand the relationships between the pieces of data received.

Message structures are developed as representations of data models can be: a) bilaterally agreed, b) community agreed such as GS1 EANCOM messages, or c) globally standardised such as the UN/EDIFACT (United Nations/Electronic Data Interchange For Administration, Commerce and Transport) Standard Messages (UNSMs) and UN/CEFACT XML Messages.

Message structures define cardinalities as well as business entity relationships which are linked together to form a message assembly. They can be thought of as a UML class diagram expressed in a chosen message syntax.

Syntax level

This level specifies the syntax in which electronic document interchanges (EDI) are conducted and in which the document structures are defined as described above. The most common EDI syntaxes are XML or UN/EDIFACT. However, in the case of XML there are several different dialects and the recommended version for international e-business is the W3C XML Schema Definition Language commonly referred to as XML schemas.

The syntax level consists of two or three distinct parts: a) the message structure definition, b) instances of actual data exchanges which comply with the message structure, and c) an optional message implementation guideline which defines agreed business rules to be applied to the processing of received instances such as an EDIFACT MIG or an XML Schematron file.

Communication protocol level

This final level defines the handshaking communication protocols which enable two exchange systems to talk successfully with each other in order to exchange electronic information.

Recommendations

The Convention is a legal framework that – together with its requisite national implementation - lays the ground for *business process interoperability*.

With regards to the *semantic level*, the syntax and meaning of electronic CITES documents will need to be carefully described in order to enable cross-border cooperation when using such documents (permits and applications for permits). In this toolkit, this is achieved by the uniform XSD-representations of permits and the concepts involved. Cf. CITES Reference Data Model and CITES XML Schema.

Recommendation

(R1) Use internationally agreed to and established open standards when describing and mapping CITES documents for use in e-permitting systems

2.9 IT-Security & Secure Data Communication

2.9.1 Information security management

The establishment of an information technology (IT) security system requires the creation of an IT security management system which must designate, co-ordinate and monitor IT security related tasks (in conformity with ISO 27001).

In addition, continuous and effective IT security processes involve the following recurrent actions:

- analysis and documentation of the structure of existing information technology assets
- assessment of the security requirements to ascertain the level of protection needed
- undertaking of regular security checks to obtain an overview of the existing IT security environment, i.e., does it meet the specified and required security level
- implementation of security measures that are absent or are not adequately implemented

Recommendation

(R2) Establish a management system in conformity with ISO 27001 to designate, co-ordinate and monitor IT security related tasks.

2.9.2 Protection Aims & Secure Data Communication

Protection aims define the security needs related to communication including :

- Confidentiality – protection against disclosure to unauthorized parties: No data is made available or disclosed to unauthorized individuals, entities or processes. Confidentiality is ensured by encrypting the information.
- Integrity – protection against manipulation. Unauthorized modification or destruction of data is not possible. This includes information concerning the origin or time of creation. Integrity is ensured by the use of electronic signatures.
- Authenticity – protection against identity fraud: Unauthorized sending of messages is not possible. Authenticity is ensured by the use of electronic signatures.

Secure Data Communication comes in two different forms: a) the network connection between the communication nodes is private (e.g. using a virtual private network (VPN)), and b), the partners communicate encrypted and signed documents via an open network (secure communication via insecure channels).

With regards to CITES, the latter method may be more suitable. The almost universal membership to the Convention and the need to use the Internet as the basic communication channel favour the use of encrypted and digitally signed documents exchanged via the Internet. The security of CITES processes (application for permits, sending of permits, securing permits against forgery etc.) must be assured a high priority. The solutions to achieve interoperability must in no way compromise technical cooperation among Parties.

Recommendation

(R3) , Identify and use appropriate technologies when communicating via or using open/insecure networks (i.e. the Internet) to ensure confidentiality, integrity and authenticity of the data being exchanged. .

2.10 Web Services and Web Service Security

2.10.1 Basic information about Web services

Web Service technology is a means to integrate applications by having them communicate via a network. The application establishing and offering the service is called the *server*, the one accessing or using the service the *client*.

Web services are accessible over the HTTP (Hyper-Text Transfer Protocol) protocol. XML is used as the message format as defined by the Simple Object Access Protocol (SOAP) standard. Machine-readable description (also accessible via the network) related to the operations of the Web service consists of the service specified through the Web Services Description Language (WSDL).

Web Services can be and are being used for application integration within an organisation. However, as a result of its capacity to provide interoperability for applications across platforms and vendor origins, they can be used –across organizations.

By being independent of technology, operation systems or programming languages, the Web service standards facilitate the interoperability among different systems and platforms

Both SMTP (Simple Mail Transfer Protocol) and HTTP are valid application layer protocols used as transport for SOAP. HTTP has gained wide acceptance as it works well with today's Internet infrastructure, specifically, with network firewalls (SOAP may also be used over HTTPS, which is the same protocol as HTTP, but uses an encrypted transport protocol underneath).

XML (Extensible Mark-up Language) should serve as the universal and primary standard for exchanging data between information systems. The data shown to the user can be presented in Extensible Style sheet Language (XSL), providing much flexibility on the presentation layer.

Recommendation

(R4) Use Web service technology among different systems to exchange CITES-related data.

(R5) Use Web service communication such as., SOAP via HTTP / HTTPS),or, where appropriate,. SOAP via SMTP (E-Mail) as an alternative systems .

2.10.2 Web service technology

Currently, Web service technology is used to access an application by other applications via SOAP to retrieve data represented as XML documents. In brief, Web service technology offers the best means to connect applications located in different countries and using different platforms.

For example, a SOAP message could be sent to a Web service enabled website (e.g. a job opportunity database) with the parameters needed for a search. The site would then return an XML-formatted document with the resulting data (companies, jobs, features, etc). Since the data is returned in a standardized machine-parseable format, it can then be integrated directly into a third-party site.

When applied to CITES processes, Web service technology may be suitable to

- communicate permit (and other) documents (or permit data) between the Management Authorities of importing and exporting countries, or to

- collect data (applications for permits) produced by a system (Web server or other) administered by a management authority.

Recommendation

(R6) Use Web services to facilitate exchange of CITES-permit data between applications (coupling)..

2.10.3 Secure Web Services

WS-Security is an OASIS standard¹³ for secure Web services. It defines upgrades of the SOAP protocol in order to provide and ensure confidentiality, integrity and the binding effect of SOAP messages for securing Web services. WS-Security supports the signing and encryption of SOAP messages based on *XML Signature* and *XML Encryption*. The use of different security models and different cryptographic method must be possible.

WS-Security also enables different "security tokens", i.e. data formats which warrant specific identities or properties, e.g. X.509 certificates, Kerberos Tickets, SAML tokens or encrypted keys.

The specification of WS-Security consists of the "WS-Security Core Specification 1.1" and certain profiles that specify how a certain kind of the tokens mentioned can be used in SOAP:

Recommendation

(R7) Use Secure Web Services for data communication made through open/insecure networks (i.e., the Internet).

2.10.4 Securing data content

The standards XML Signature and XML Encryption are crucial for the secure exchange of XML documents.

The joint W3C and IETF standard *XML Signature* (XML Signature Syntax and Processing, W3C Recommendation and IETF RFC 3275) describes digital signatures for all kinds of data (usually XML) by providing an XML schema and a set of processing rules for generating and validating the signature. The signature can cover one or more documents and/or different kinds of data (pictures, text, etc.).

One central feature of XML Signatures is that it is possible to sign specific parts of an XML document rather than the entire document. This flexibility makes it possible to secure the integrity of certain elements of an XML document whilst other parts can be edited. For instance, a user can fill in certain parts of a signed XML form without violating the integrity of the document. This was not possible with conventional signatures because the complete document was always signed, so that any change / addition would have meant a violation of its integrity.

¹³ OASIS (Organization for the Advancement of Structured Information Standards) is a not-for-profit consortium that drives the development, convergence and adoption of open standards for the global information society. The consortium produces more Web services standards than any other organization along with standards for security, e-business, and standardization efforts in the public sector and for application-specific markets.

The W3C standard *XML Encryption* (XML Encryption Syntax and Processing, W3C Recommendation) provides an XML schema and a set of processing rules which support the encryption / decryption of entire documents, including XML documents, XML elements and contents of XML elements.

Together with XML Signature, XML Encryption is the foundation for several standards accepted in the industry for secure XML-based document exchange.

Recommendation

(R8) Use standards based on XML Digital Signature and XML Encryption when implementing Secure Web services for the exchange of CITES-related information.

2.10.5 Deployment and implementation of Web services

The Web Service Interoperability Organization (WS-I) offers guidance with regard to implementation of Web services. It comprises a diverse community of companies and standards development organizations (SDOs) interested in the development and the application of Web service technology.

WS-I committees and working groups create Profiles, Testing Tools and Sample Applications published on the Internet under an open and public license.¹⁴

- A WS-I Profile is a specification that selects suitable standards from the various Web service standards that are compatible with each other.
- Sample Applications are Web services applications that are compliant with WS-I guidelines and exhibit Web services Best Practices. These implementations use multiple platforms, languages and programming tools, to demonstrate interoperability in action and provide readily usable resources for Web services developers.
- Testing Tools help determine whether a Web service conforms to WS-I guidelines. Tests are self administered and aim to improve interoperability among applications and across platforms.

Currently the most important WS-I Profiles are:

- The WS-I Basic Profile (BP) establishes core Web services specifications (SOAP, WSDL, UDDI, XML Schema, HTTPS) that should be used together to develop interoperable Web services. To date (May 2009), WS-I has produced the Basic Profile 1.0 and 1.1.
- The WS-I Basic Security Profile 1.0 is an interoperability Profile that addresses transport security, SOAP message security and other security considerations, and composes with other WS-I Profiles. It references existing specifications and standards, including the OASIS Web Services Security 1.0 and SOAP Message Security 1.0 specifications, and provides clarification and guidance designed to promote interoperability of Web services created according to those specifications

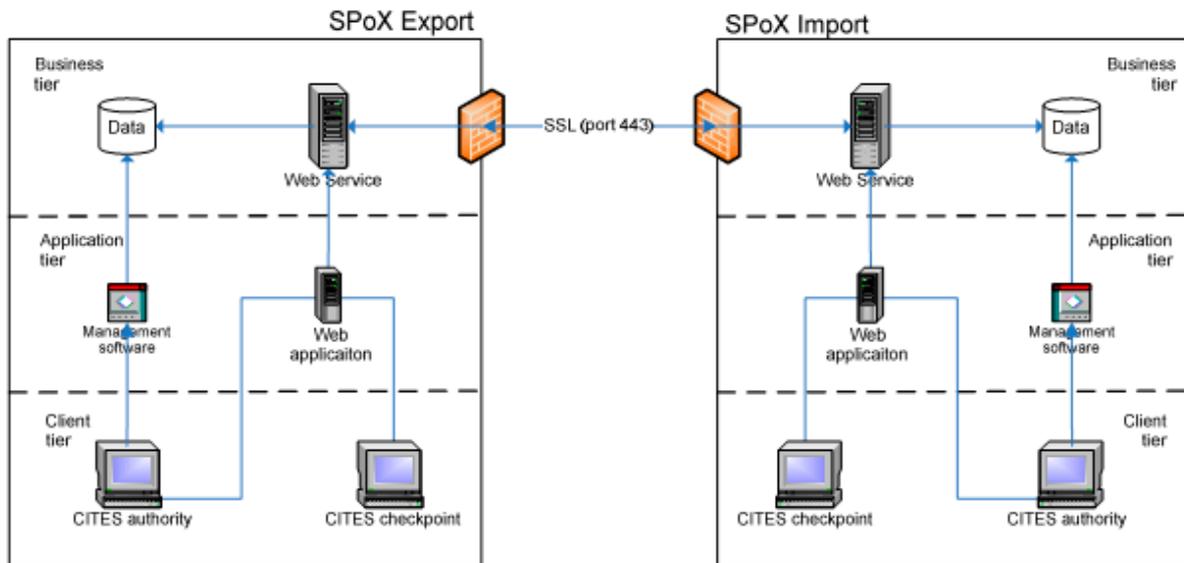
Recommendation

(R9) Use WS-I profiles as guidelines to implement Web service communication and to ensure interoperability of the resulting service.

¹⁴ Link to WS-I: <http://www.ws-i.org/>

2.10.6 Example of a technical architecture using Web services

Exchanging CITES relevant data between two CITES Management Authorities can be described from a business perspective as a single window solution. Technically, the data exchange processes uses two servers as single points of exchange (SPoX) one on the import side and one for the exporter.



Source: CITES Data Exchange pilot project (Switzerland-UK)
Figure 3

There are some important prerequisites which are necessary to transfer CITES data via Web service technology:

- Firewall protection and 7/24 available server
- A server certificate issued by a trusted third party certificate authority
- A client certificate for authentication of the client
- Secure and common Web service protocol (e.g. SOAP)
- Clear definition of the functionality of the Web service
 - Which data should/can be requested for?
 - Which data should/can be sent as the response?
- Choice of the data exchange format (e.g. XML)
- How the integrity and validity of the data to be sent can be proofed? (Syntactically and contextualized checks)
- How the security of the data can be ensured? (Encryption, Digital Signature)

2.11 Guidelines on document security and digital signatures

Electronic signatures are common, proven and reliable tools to secure contents (e.g. export and import permits) and interpersonal communications.

This section will describe briefly the technical and organizational requirements that should be taken into consideration in order to secure e-permits by electronic signatures.

2.11.1 Understanding electronic signatures and digital signatures

"Electronic signature" is a rather broad term referring to any electronic data that carries the intent of a signature. Not all electronic signatures use digital signatures.

A digital signature is a type of asymmetric cryptography involving application of private and public keys by sender and receiver (or author and reader) to messages or documents. Digital signatures have the potential to provide for authenticity and integrity (see [Protection Aims & Secure Data Communication](#)).

An asymmetric signature method consists of a signing and a verification algorithm. The signature method is dependent on the key pair: the private (i.e. secret) key is used for signing (generating) and the pertinent public key for verifying (checking) the signature.

2.11.2 Application of digital signatures

For messages sent through an insecure channel, a properly implemented digital signature gives the receiver assurance that the message was sent by the claimed sender (*authenticity*) and that it was sent consisting of exactly the content having been received (*integrity*).

Digital signatures can also provide the property of *non-repudiation* of a message or a document, meaning that the signer (sender or author) cannot successfully claim he did not sign a message, while also claiming his private key remains secret.

Digitally signed messages may be anything representable as a bitstring: examples include electronic mail, contracts, or a message sent via some other cryptographic protocol.

Recommendation

(R10) Use digital signatures to provide authenticity and integrity when exchanging CITES-related permit information.

In the context of Web services XML Digital Signature and XML Encryption are recommended as the suitable technologies to implement digital signatures applied to data and document communication.

2.11.3 Other issues related to digital signatures

Digital signatures are equivalent to traditional handwritten signatures in many respects. Properly implemented digital signatures are more difficult to forge than the handwritten type. In some countries, electronic signatures – properly applied - have legal significance as a binding declaration of will.

The legally binding nature of electronic communications is a crucial success factor for the implementation of e-Government. Contrary to a simple or advanced electronic signature, a qualified electronic signature offers the highest degree of electronic replication of a handwritten signature.

The legal adjustments required to enable the use of electronic signatures and to place these on the same standing as a hand-written signature depends on the regulations in the respective countries.

In many countries, as a prerequisite for the legal equivalence of electronic signatures with a handwritten signature, the private key used in the algorithm to create the signature has to be stored on a smartcard, connected to the signing computer by a card reader machine equipped with a key pad of its own.

Smartcards are chip cards with an integrated processor; they are also referred to as microprocessor cards. In contrast to chip cards which are used to only save data (memory cards), smartcards can also process data. Smartcards can serve as a Personal Security Environment (PSE), in order to safely store trustworthy certificates and keys, and also as a (secure) signature generation unit.

2.11.4 Algorithms and Security

The security of an electronic signature is primarily dependent upon the strength of the underlying cryptographic algorithms.

SHA-256 (Secure Hash Algorithm), as a further development of SHA-1 (160-bit long hash value), is a cryptographic hash function that generates a 256-bit long hash value.

SHA-224, SHA-384 und SHA-512 (Secure Hash Algorithm) are further developments of SHA-1 (160-bit long hash value) and constitute cryptographic hash functions that generate longer hash values (the length corresponds to the number stated).

Furthermore, RSA¹⁵, should be used as the asymmetric signature method.

The level of security the mentioned algorithms provide for is dependent on a given technological context. For any given period an IT service is operated in there will have to be an assessment about the adequacy of the chosen Algorithm relative to security requirements.

In conclusion, applications exchanging data related to CITES permits should use digital signatures to protect against identity fraud and data manipulation.

Recommendation

(R11) Use RSA as the asymmetric signature method and choose an appropriate algorithm based on recommendations of experts responsible for IT security .

¹⁵ RSA algorithm was publicly described in 1978 by Ron Rivest, Adi Shamir, and Leonard Adleman at MIT; the letters RSA are the initials of their surnames.

3 CITES Toolkit Annex

- 3.1 CITES Standard permit form
- 3.2 CITES reference data model UML class diagram
- 3.3 CITES Reference Data Model structure report
- 3.4 CITES XML Schema structure report
- 3.5 CITES XML Schema Guideline
- 3.6 CITES Schema code lists report

3.1 Standard permit/certificate form

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA		PERMIT/CERTIFICATE No. <input type="checkbox"/> EXPORT <input type="checkbox"/> RE-EXPORT <input type="checkbox"/> IMPORT <input type="checkbox"/> OTHER:		Original
		2. Valid until _____ _____ Signature of the applicant		
3. Importer (name and address)		4. Exporter/re-exporter (name, address and country)		
3a. Country of import		6. Name, address, national seal/stamp and country of Management Authority <i>For live animals, this permit or certificate is only valid if the transport conditions conform to the CITES Guidelines for transport or, in the case of air transport, to the IATA Live Animals Regulations</i>		
5. Special conditions				
5a. Purpose of the transaction (see reverse)	5b. Security stamp no.			
7./8. Scientific name (genus and species) and common name of animal or plant	9. Description of specimens, including identifying marks or numbers (age/sex if live)	10. Appendix no. and source (see reverse)	11. Quantity (including unit)	11a. Total exported/Quota
A	7./8.	9.	10.	11.
	12. Country of origin * Permit no. Date	12a. Country of last re-export Certificate no. Date	12b. No. of the operation ** or date of acquisition ***	
B	7./8.	9.	10.	11.
	12. Country of origin * Permit no. Date	12a. Country of last re-export Certificate no. Date	12b. No. of the operation ** or date of acquisition ***	
C	7./8.	9.	10.	11.
	12. Country of origin * Permit no. Date	12a. Country of last re-export Certificate no. Date	12b. No. of the operation ** or date of acquisition ***	
D	7./8.	9.	10.	11.
	12. Country of origin * Permit no. Date	12a. Country of last re-export Certificate no. Date	12b. No. of the operation ** or date of acquisition ***	
* Country in which the specimens were taken from the wild, bred in captivity or artificially propagated (only in case of re-export) ** Only for specimens of Appendix I species bred in captivity or artificially propagated for commercial purposes *** For pre-Convention specimens				
13. This permit/certificate is issued by: _____ Place Date Security stamp, signature and official seal				
14. Export endorsement:		15. Bill of Lading/Air waybill number:		
Block	Quantity			
A				
B				
C				
D		Port of export	Date	Signature Official stamp and title

CITES PERMIT/CERTIFICATE No.

(as amended at CoP14)

Instructions and explanations

(These correspond to block numbers on the form)

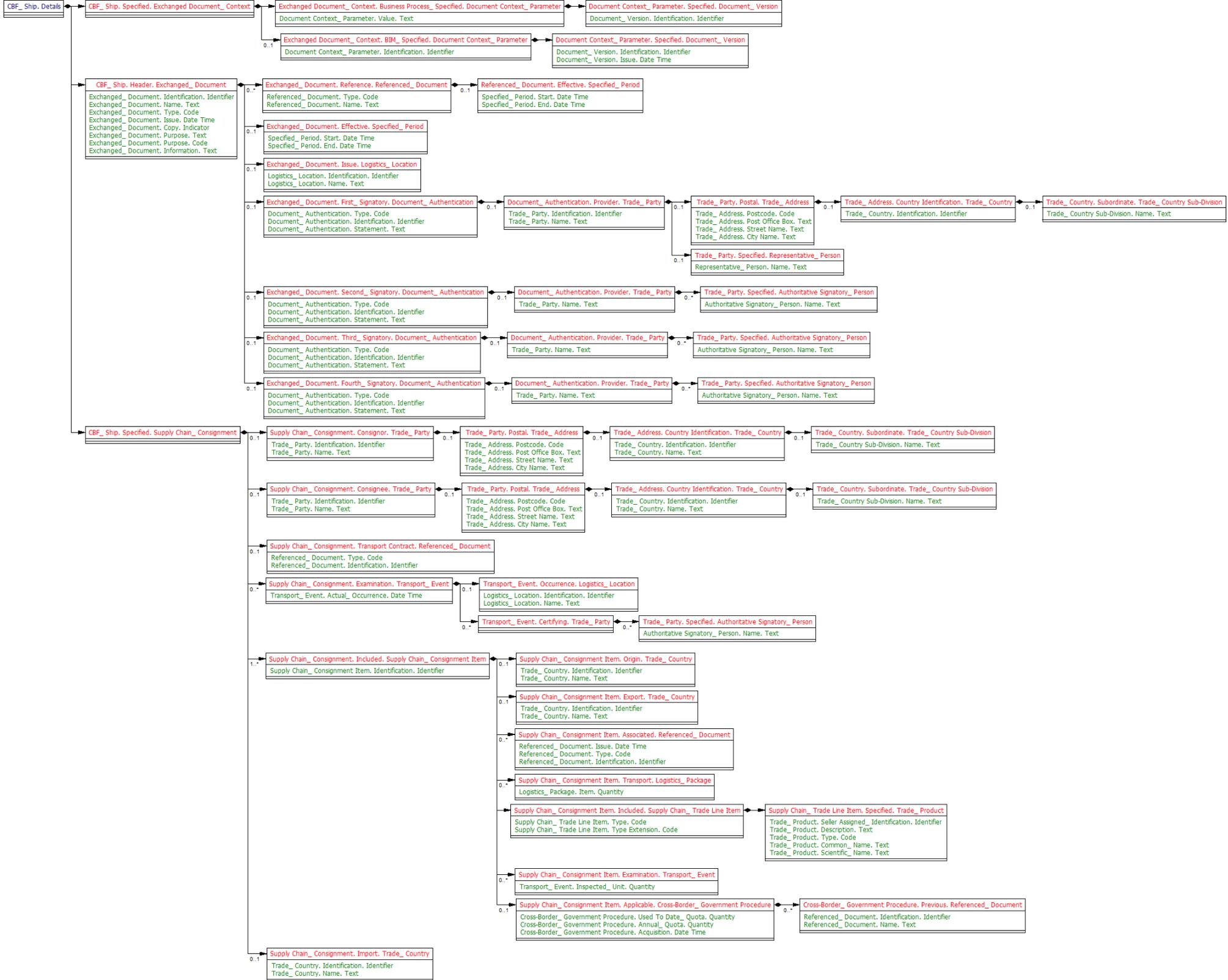
1. Tick the square which corresponds to the type of document issued (export permit, re-export certificate, import permit or other). If the box "other" has been ticked, the type of document must be indicated. The original number is a unique number allocated to each document by the Management Authority.
2. For export permits and re-export certificates, the date of expiry of the document may not be more than six months after the date of issuance (one year for import permits).
3. **Complete** name and address of the importer.
- 3a. The name of the country must be written in full.
4. **Complete** name and address of the exporter/re-exporter. The name of the country must be stated. The absence of the signature of the applicant renders the permit or certificate invalid.
5. Special conditions may refer to national legislation or special conditions placed on the shipment by the issuing Management Authority. This block can also be used to justify the omission of certain information.
- 5a. The following codes should be used: **T** for commercial, **Z** for zoos, **G** for botanical gardens, **Q** for circuses and travelling exhibitions, **S** for scientific purposes, **H** for hunting trophies, **P** for personal, **M** for medical, **E** for education, **N** for reintroduction or introduction into the wild, and **B** for breeding in captivity or artificial propagation, **L** for law enforcement / judicial / forensic.
- 5b. Indicate the number of the security stamp affixed in block 13.
6. The name, address and country of the issuing Management Authority should already be printed on the form.
- 7-8. Indicate the scientific name (genus and species, where appropriate subspecies) of the animal or plant as it appears in the Convention Appendices or the reference lists approved by the Conference of the Parties, and the common name of the animal or plant as known in the country issuing the permit.
9. Describe, as precisely as possible, the specimens entering trade (live animals, skins, flanks, wallets, shoes, etc.). If a specimen is marked (tags, identifying marks, rings, etc.), whether or not this is required by a Resolution of the Conference of the Parties (specimens originating in a ranching operation, specimens subject to quotas approved by the Conference of the Parties, specimens of Appendix-I species bred in captivity for commercial purposes, etc.), indicate the number and type of mark. The sex and age of the live animals should be recorded, if possible.
10. Enter the number of the Appendix of the Convention (I, II or III) in which the species is listed.
Use the following codes to indicate the source:
 - W** Specimens taken from the wild
 - R** Specimens originating from a ranching operation
 - D** Appendix-I animals bred in captivity for commercial purposes and Appendix-I plants artificially propagated for commercial purposes, as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 4, of the Convention
 - A** Plants that are artificially propagated in accordance with Resolution Conf. 11.11 (Rev. CoP14), paragraph a), as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5 (specimens of species included in Appendix I that have been propagated artificially for non-commercial purposes and specimens of species included in Appendices II and III)
 - C** Animals bred in captivity in accordance with Resolution Conf. 10.16 (Rev.), as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5 (specimens of species included in Appendix I that have been bred in captivity for non-commercial purposes and specimens of species included in Appendices II and III)
 - F** Animals born in captivity (F1 or subsequent generations) that do not fulfil the definition of 'bred in captivity' in Resolution Conf. 10.16 (Rev.), as well as parts and derivatives thereof
 - U** Source unknown (**must be justified**)
 - I** Confiscated or seized specimens
 - O** Pre-Convention (may be used with other source codes).
11. The quantity and units indicated should conform to the most recent version of the *Guidelines for the preparation and submission of CITES annual reports*.
- 11a. Indicate the total number of specimens exported in the current calendar year (1 January to 31 December) (including those covered by the present permit) and the current annual quota for the species concerned (for example 500/1000). This should be done for the national quotas as well as for those determined by the Conference of the Parties.
12. The country of origin is the country in which the specimens were taken from the wild, bred in captivity or artificially propagated, except in the case of plant specimens that cease to qualify for an exemption from the provisions of CITES. In such instances, the country of origin is deemed to be the country in which the specimens ceased to qualify for the exemption. Indicate the number of the permit or certificate of the exporting country and the date of issuance. If all or part of the information is not known, this should be justified in block 5. This block must only be completed in case of re-exports;
- 12a. The country of last re-export is the country from which the specimens were re-exported before entering the country in which the present document is issued. Enter the number of the re-export certificate of the country of last re-export and its date of issuance. If all or part of the information is not known, this should be justified in block 5. This block must only be completed in case of re-export of specimens previously re-exported.
- 12b. The "No. of the operation" is the number of the registered captive-breeding or artificial propagation operation. The "date of acquisition" is defined in Resolution Conf. 13.6 and is required only for pre-Convention specimens.
13. To be completed by the official who issues the permit. The name of the official must be written in full. The security stamp must be affixed in this block and must be cancelled by the signature of the issuing official and a stamp or seal. The seal, signature and security-stamp number should be clearly legible.
14. To be completed by the official who inspects the shipment at the time of export or re-export. Enter the quantities of specimens actually exported or re-exported. Strike out the unused blocks.
15. Enter the number of the bill of lading or air way-bill if the method of transport used requires the use of such a document.

The document must be written in one of the three working languages of the Convention (English, Spanish or French) or must include a full translation into one of these three languages. Exported and re-exported specimens should not appear on the same document unless it is clearly indicated which specimens are being exported and which re-exported.

AFTER USE THIS DOCUMENT MUST BE RETURNED TO A MANAGEMENT AUTHORITY OF THE IMPORTING COUNTRY.

3.2 CITES reference data model UML class diagram

The UML class diagram on next page shows the structure of the CITES reference data model.



3.3. Data Model Structure Report



The CITES reference data model structure report documents the mapping to the CITES Standard Permit form and the WCO data model.

CITES Permit

Occurrence	WCO ID	Element/Attribute
1 .. 1		CBF_Ship_Specified_Exchanged Document_Context
1 .. 1		Exchanged Document_Context.Business Process_Specified.Document Context_Parameter
1 .. 1		<i>Document Context_Parameter.Value.Text</i>
1 .. 1		Document Context_Parameter.Specified.Document_Version
1 .. 1		<i>Document_Version.Identification.Identifier</i>
0 .. 1		Exchanged Document_Context.BIM_Specified.Document Context_Parameter
1 .. 1		<i>Document Context_Parameter.Identification.Identifier</i>
1 .. 1		Document Context_Parameter.Specified.Document_Version
1 .. 1		<i>Document_Version.Identification.Identifier</i>
0 .. 1		<i>Document_Version.Issue.Date Time</i>
1 .. 1		CBF_Ship_Header.Exchanged_Document
1 .. 1	002	<i>Exchanged_Document.Identification.Identifier</i>
0 .. 1		<i>Exchanged_Document.Name.Text</i>
1 .. 1	001	<i>Exchanged_Document.Type.Code</i>
1 .. 1	022	<i>Exchanged_Document.Issue.Date Time</i>
1 .. 1		<i>Exchanged_Document.Copy.Indicator</i>
0 .. 1	017	<i>Exchanged_Document.Purpose.Text</i>
1 .. 1		<i>Exchanged_Document.Purpose.Code</i>
0 .. 1	105	<i>Exchanged_Document.Information.Text</i>
0 .. unbounded		Exchanged_Document.Reference.Referenced_Document
0 .. 1		<i>Referenced_Document.Type.Code</i>
0 .. 1		<i>Referenced_Document.Name.Text</i>
0 .. 1		Referenced_Document.Effective.Specified_Period
0 .. 1		<i>Specified_Period.Start.Date Time</i>
0 .. 1		<i>Specified_Period.End.Date Time</i>
0 .. 1		Exchanged_Document.Effective.Specified_Period
0 .. 1		<i>Specified_Period.Start.Date Time</i>
0 .. 1		<i>Specified_Period.End.Date Time</i>
0 .. 1		Exchanged_Document.Issue.Logistics_Location
0 .. 1	082	<i>Logistics_Location.Identification.Identifier</i>
1 .. 1		<i>Logistics_Location.Name.Text</i>
0 .. 1		Exchanged_Document.First_Signatory.Document_Authentication
0 .. 1		<i>Document_Authentication.Type.Code</i>
0 .. 1	104	<i>Document_Authentication.Identification.Identifier</i>
0 .. 1	104	<i>Document_Authentication.Statement.Text</i>
0 .. 1		Document_Authentication.Provider.Trade_Party
0 .. 1		<i>Trade_Party.Identification.Identifier</i>
1 .. 1		<i>Trade_Party.Name.Text</i>



Bold = Simple Element, Bold on grey background = Complex Element, Italic = Attribute, Grey = Group

3.3. Data Model Structure Report



Occurrence	WCO ID	Element/Attribute
0 .. 1		Trade_Party. Postal. Trade_Address
0 .. 1	245	<i>Trade_Address. Postcode. Code</i>
0 .. 1	239	<i>Trade_Address. Post Office Box. Text</i>
0 .. 2	239	<i>Trade_Address. Street Name. Text</i>
0 .. 1	241	<i>Trade_Address. City Name. Text</i>
0 .. 1		Trade_Address. Country Identification. Trade_Country
0 .. 1	242	<i>Trade_Country. Identification. Identifier</i>
0 .. 1		Trade_Country. Subordinate. Trade_Country Sub-Division
0 .. 1	243	<i>Trade_Country Sub-Division. Name. Text</i>
0 .. 1		Trade_Party. Specified. Representative_Person
0 .. 1		<i>Representative_Person. Name. Text</i>
0 .. 1		Exchanged_Document. Second_Signatory. Document_Authentication
0 .. 1		<i>Document_Authentication. Type. Code</i>
0 .. 1	104	<i>Document_Authentication. Identification. Identifier</i>
0 .. 1		<i>Document_Authentication. Statement. Text</i>
0 .. 1		Document_Authentication. Provider. Trade_Party
0 .. 1		<i>Trade_Party. Name. Text</i>
0 .. unbounded		Trade_Party. Specified. Authoritative_Signatory_Person
0 .. 1		<i>Authoritative_Signatory_Person. Name. Text</i>
0 .. 1		Exchanged_Document. Third_Signatory. Document_Authentication
0 .. 1		<i>Document_Authentication. Type. Code</i>
0 .. 1	104	<i>Document_Authentication. Identification. Identifier</i>
0 .. 1		<i>Document_Authentication. Statement. Text</i>
0 .. 1		Document_Authentication. Provider. Trade_Party
0 .. 1		<i>Trade_Party. Name. Text</i>
0 .. unbounded		Trade_Party. Specified. Authoritative_Signatory_Person
0 .. 1		<i>Authoritative_Signatory_Person. Name. Text</i>
0 .. 1		Exchanged_Document. Fourth_Signatory. Document_Authentication
0 .. 1		<i>Document_Authentication. Type. Code</i>
0 .. 1	104	<i>Document_Authentication. Identification. Identifier</i>
0 .. 1		<i>Document_Authentication. Statement. Text</i>
0 .. 1		Document_Authentication. Provider. Trade_Party
0 .. 1		<i>Trade_Party. Name. Text</i>
0 .. unbounded		Trade_Party. Specified. Authoritative_Signatory_Person
0 .. 1		<i>Authoritative_Signatory_Person. Name. Text</i>
1 .. 1		CBF_Ship. Specified. Supply_Chain_Consignment
0 .. 1		Supply_Chain_Consignment. Consignor. Trade_Party
0 .. 1	072	<i>Trade_Party. Identification. Identifier</i>
0 .. 1	071	<i>Trade_Party. Name. Text</i>
0 .. 1		Trade_Party. Postal. Trade_Address
0 .. 1	245	<i>Trade_Address. Postcode. Code</i>
0 .. 1	239	<i>Trade_Address. Post Office Box. Text</i>
0 .. 2	239	<i>Trade_Address. Street Name. Text</i>
0 .. 1	241	<i>Trade_Address. City Name. Text</i>
0 .. 1		Trade_Address. Country Identification. Trade_Country
0 .. 1	242	<i>Trade_Country. Identification. Identifier</i>



Bold = Simple Element, Bold on grey background = Complex Element, Italic = Attribute, Grey = Group

3.3. Data Model Structure Report



Occurrence	WCO ID	Element/Attribute
0 .. 1		<i>Trade_Country. Name. Text</i>
0 .. 1		Trade_Country. Subordinate. Trade_Country Sub-Division
0 .. 1	243	<i>Trade_Country Sub-Division. Name. Text</i>
0 .. 1		Supply Chain_Consignment. Consignee. Trade_Party
0 .. 1	052	<i>Trade_Party. Identification. Identifier</i>
0 .. 1	051	<i>Trade_Party. Name. Text</i>
0 .. 1		Trade_Party. Postal. Trade_Address
0 .. 1	245	<i>Trade_Address. Postcode. Code</i>
0 .. 1	239	<i>Trade_Address. Post Office Box. Text</i>
0 .. 2	239	<i>Trade_Address. Street Name. Text</i>
0 .. 1	241	<i>Trade_Address. City Name. Text</i>
0 .. 1		Trade_Address. Country Identification. Trade_Country
0 .. 1	242	<i>Trade_Country. Identification. Identifier</i>
0 .. 1		<i>Trade_Country. Name. Text</i>
0 .. 1		Trade_Country. Subordinate. Trade_Country Sub-Division
0 .. 1	243	<i>Trade_Country Sub-Division. Name. Text</i>
0 .. 1		Supply Chain_Consignment. Transport Contract. Referenced_Document
1 .. 1	250	<i>Referenced_Document. Type. Code</i>
1 .. 1	015	<i>Referenced_Document. Identification. Identifier</i>
0 .. unbounded		Supply Chain_Consignment. Examination. Transport_Event
1 .. 1		<i>Transport_Event. Actual_Occurrence. Date Time</i>
0 .. 1		Transport_Event. Occurrence. Logistics_Location
0 .. 1	078	<i>Logistics_Location. Identification. Identifier</i>
1 .. 1	077	<i>Logistics_Location. Name. Text</i>
0 .. unbounded		Transport_Event. Certifying. Trade_Party
0 .. unbounded		Trade_Party. Specified. Authoritative Signatory_Person
0 .. 1		<i>Authoritative Signatory_Person. Name. Text</i>
1 .. unbounded		Supply Chain_Consignment. Included. Supply Chain_Consignment Item
1 .. 1		<i>Supply Chain_Consignment Item. Identification. Identifier</i>
0 .. 1		Supply Chain_Consignment Item. Origin. Trade_Country
0 .. 1	063	<i>Trade_Country. Identification. Identifier</i>
0 .. 1		<i>Trade_Country. Name. Text</i>
0 .. 1		Supply Chain_Consignment Item. Export. Trade_Country
0 .. 1		<i>Trade_Country. Identification. Identifier</i>
0 .. 1		<i>Trade_Country. Name. Text</i>
0 .. unbounded		Supply Chain_Consignment Item. Associated. Referenced_Document
0 .. 1	219	<i>Referenced_Document. Issue. Date Time</i>
0 .. 1	170	<i>Referenced_Document. Type. Code</i>
0 .. 1	003	<i>Referenced_Document. Identification. Identifier</i>
0 .. unbounded		Supply Chain_Consignment Item. Transport. Logistics_Package
0 .. 1	139	<i>Logistics_Package. Item. Quantity</i>
1 .. 1		Supply Chain_Consignment Item. Included. Supply Chain_Trade Line Item
0 .. 1	145	<i>Supply Chain_Trade Line Item. Type. Code</i>



Bold = Simple Element, Bold on grey background = Complex Element, Italic = Attribute, Grey = Group

3.3. Data Model Structure Report



Occurrence	WCO ID	Element/Attribute
0 .. 1		255 <i>Supply Chain_ Trade Line Item. Type Extension. Code</i>
1 .. 1		Supply Chain_ Trade Line Item. Specified. Trade_ Product
0 .. 1		14714 <i>Trade_ Product. Seller Assigned_ Identification. Identifier</i>
0 .. 1		<i>Trade_ Product. Description. Text</i>
0 .. 1		<i>Trade_ Product. Type. Code</i>
0 .. 1		<i>Trade_ Product. Common_ Name. Text</i>
0 .. 1		<i>Trade_ Product. Scientific_ Name. Text</i>
0 .. unbounded		Supply Chain_ Consignment Item. Examination. Transport_ Event
0 .. 1		<i>Transport_ Event. Inspected_ Unit. Quantity</i>
0 .. 1		Supply Chain_ Consignment Item. Applicable. Cross-Border_ Government Procedure
0 .. 1		<i>Cross-Border_ Government Procedure. Used To Date_ Quota. Quantity</i>
0 .. 1		<i>Cross-Border_ Government Procedure. Annual_ Quota. Quantity</i>
0 .. 1		<i>Cross-Border_ Government Procedure. Acquisition. Date Time</i>
0 .. unbounded		Cross-Border_ Government Procedure. Previous. Referenced_ Document
0 .. 1		012 <i>Referenced_ Document. Identification. Identifier</i>
0 .. 1		<i>Referenced_ Document. Name. Text</i>
0 .. 1		Supply Chain_ Consignment. Import. Trade_ Country
0 .. 1		<i>Trade_ Country. Identification. Identifier</i>
1 .. 1		<i>Trade_ Country. Name. Text</i>



Bold = Simple Element, Bold on grey background = Complex Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Guideline

Element/Attribute	Annotation
CBFShip	Type rsm:CBFShipTy pe
xsd:sequence	Occurrence 1 .. 1
SpecifiedExchangedDocumentContext	Occurrence 1 .. 1 Type ram:ExchangedDocumentContextTy pe
xsd:sequence	Occurrence 1 .. 1
BusinessProcessSpecifiedDocumentContextParameter	Occurrence 1 .. 1 Type ram:DocumentContextParameterTy pe
xsd:sequence	Occurrence 1 .. 1
Value	Occurrence 1 .. 1 Type udt:TextTy pe Fixed CITES PERMITTING CITES Permit Information Description This element shall be used with the indicated value "CITES PERMITTING". It is recommended to use this value as a trigger for the further processing of received data as required by the business or administrative process if neither the communication information nor the root element information nor the combination of both is be considered to be sufficient. This value should not be used to trigger the technical processing of received CITES permit data.
SpecifiedDocumentVersion	Occurrence 1 .. 1 Type ram:DocumentVersionTy pe
xsd:sequence	Occurrence 1 .. 1
ID	Occurrence 1 .. 1 Type udt:IDTy pe Fixed 1 WhiteSpace collapse CITES Permit Information Description This element shall be used with the indicated value (Currently 1). It is recommended to use this value together with parameter valua text as a trigger for the further processing of received data as required by the business or administrative process if neither the communication information nor the root element information nor the combination of both is be considered to be sufficient. This value will be changed whenever the eCITES data will incorporate more or other process capabilities. This value should not be used to trigger the technical processing of received CITES permit data.
BIMSpecifiedDocumentContextParameter	Occurrence 0 .. 1 Type ram:DocumentContextParameterTy pe
xsd:sequence	Occurrence 1 .. 1
ID	Occurrence 1 .. 1 Type udt:IDTy pe Fixed 09A WhiteSpace collapse CITES Permit Information Description If the element is used then it must contain the indicated value (currently '09A') in order to describe that the BIEs of this electronic document are based on indicated version of the UN/CEFACT Core Component Library. As long as there is no applicable Message Assembly standard that provides enough interoperability the following rules applies: Non backwards compatible changes are documented on Master level and result in an increment of

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
	the major version of a XML schema. A change of the base CCL does not indicate any non backwards compatible change for the CBF context, even if the CCL might have non backwards compatible changes.
SpecifiedDocumentVersion	Occurrence 1 .. 1 Type ram:DocumentVersionTy pe
xsd:sequence	Occurrence 1 .. 1
ID	Occurrence 1 .. 1 Type udt:IDTy pe Fixed 1 WhiteSpace collapse CITES Permit Information Description If the element is used then it must contain the indicated value (currently 1) in order to describe that the BIEs of this electronic document are based on this internal update number of the UN/CEFACT Core Component Library 09A. This update may be submitted to UN/CEFACT or not. A change of the internal update number does not indicate any non backwards compatible change for the CBF context, even if the CCL or the update might have non backwards compatible changes. This element changes whenever a) base CCL version changes and/or b) internal update number changes.
IssueDateTime	Occurrence 0 .. 1 Type udt:DateTimeTy pe CITES Permit Information Description If the element is used then it must contain the date 14 July 2009. This element changes whenever a) base CCL version changes, and/or internal update number changes and/or c) editorial changes were made.
HeaderExchangedDocument	Occurrence 1 .. 1 Type ram:ExchangedDocumentTy pe
xsd:sequence	Occurrence 1 .. 1
ID	Occurrence 1 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 1 Occurrence 1..1 Description The original number is a unique number allocated to each document by the relevant Management Authority.
Name	Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 1 (Text) Occurrence 0:1 Description Box Heading: Convention on International Trade in Endangered Species of Wild Fauna and Flora - Export, Re-export, Import, Other:
TypeCode	Occurrence 1 .. 1 Type qdt:DocumentCodeTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 1 (code) Occurrence 1:1 Description Box Heading: Convention on International Trade in Endangered Species of Wild Fauna and Flora - Export, Re-export, Import, Other:

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
IssueDateTime	<p>Occurrence 1 .. 1 Type udt:DateTimeTy pe CITES Permit Information Box/Field Box 13 Occurrence 1:1 Description Box Heading: This permit/certificate is issued by: Date</p>
CopyIndicator	<p>Occurrence 1 .. 1 Type udt:IndicatorTy pe Pattern false true CITES Permit Information Box/Field Box 1.2 Occurrence 1..1 Description Box Heading: Original - Value must be 'F'</p>
Purpose	<p>Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 5a.1 (Text) Occurrence 0:1 Description Purpose of the transaction</p>
PurposeCode	<p>Occurrence 1 .. 1 Type udt:CodeTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 5a (Code) Occurrence 1:1 Description Purpose of the transaction</p>
Information	<p>Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 5 Occurrence 0:1 Description Box Heading: Special Conditions</p>
ReferenceReferencedDocument	<p>Occurrence 0 .. unbounded Type ram:ReferencedDocumentTy pe</p>
xsd:sequence	<p>Occurrence 1 .. 1</p>
TypeCode	<p>Occurrence 0 .. 1 Type qdt:DocumentCodeTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 0 Occurrence 0:1 Description The type of the appropriate document in case of option 'Other' or the Import Permit ID for an Export Permit request etc.</p>
Name	<p>Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 0 Occurrence 0:1 Description The name of the appropriate document in case of option 'Other'</p>
EffectiveSpecifiedPeriod	<p>Occurrence 0 .. 1 Type ram:SpecifiedPeriodTy pe</p>
xsd:sequence	<p>Occurrence 1 .. 1</p>
StartDateTime	<p>Occurrence 0 .. 1 Type udt:DateTimeTy pe CITES Permit Information</p>

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
	Box/Field Box 0 Occurrence 0..1 Description The start date of the validity of the appropriate document in case of option 'Other'
└─ EndTime	Occurrence 0 .. 1 Type udt:DateTimeTy pe CITES Permit Information Box/Field Box 0 Occurrence 0..1 Description The end date of the validity of the appropriate document in case of option 'Other'
└─ EffectiveSpecifiedPeriod	Occurrence 0 .. 1 Type ram:SpecifiedPeriodTy pe CITES Permit Information Box/Field DOC0015 Occurrence 0..1 Description Validity Period
└─ xsd:sequence	Occurrence 1 .. 1
└─ StartTime	Occurrence 0 .. 1 Type udt:DateTimeTy pe CITES Permit Information Box/Field Box 2 Occurrence 0:1 Description Box Heading: Valid from
└─ EndTime	Occurrence 0 .. 1 Type udt:DateTimeTy pe CITES Permit Information Box/Field Box 2 Occurrence 1:1 Description Box Heading: Valid until
└─ IssueLogisticsLocation	Occurrence 0 .. 1 Type ram:LogisticsLocationTy pe
└─ xsd:sequence	Occurrence 1 .. 1
└─ ID	Occurrence 0 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 13 Place (code) Occurrence 0..1 Description Box Heading: This permit/certificate is issued by: Place (Code)
└─ Name	Occurrence 1 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 13 Place (text) Occurrence 1:1 Description Box Heading: This permit/certificate is issued by: Place (Code)
└─ FirstSignatoryDocumentAuthentication	Occurrence 0 .. 1 Type ram:DocumentAuthenticationTy pe
└─ xsd:sequence	Occurrence 1 .. 1
└─ TypeCode	Occurrence 0 .. 1 Type qdt:GovernmentActionCodeTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 6 Occurrence 0..1 Description Box Heading: Name, address, national seal/stamp and

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
<ul style="list-style-type: none"> - ID 	<p>country of Management Authority</p> <p>Occurrence 0 .. 1</p> <p>Type udt:IDTy pe</p> <p>WhiteSpace collapse</p> <p>CITES Permit Information</p> <p>Box/Field Box 5b</p> <p>Occurrence 0:1</p> <p>Description Box Heading: Security stamp no.</p>
<ul style="list-style-type: none"> - Statement 	<p>Occurrence 0 .. 1</p> <p>Type udt:TextTy pe</p> <p>CITES Permit Information</p> <p>Box/Field Box 6 - Management Authority Signature Authentication Text</p> <p>Occurrence 0..1</p> <p>Description Box Heading: Name, address, national seal/stamp and country of Management Authority</p>
<ul style="list-style-type: none"> - ProviderTradeParty 	<p>Occurrence 0 .. 1</p> <p>Type ram:TradeParty Type</p>
<ul style="list-style-type: none"> - xsd:sequence 	<p>Occurrence 1 .. 1</p>
<ul style="list-style-type: none"> - ID 	<p>Occurrence 0 .. 1</p> <p>Type udt:IDTy pe</p> <p>WhiteSpace collapse</p> <p>CITES Permit Information</p> <p>Box/Field Box 6 - Issuing Authority ID</p> <p>Occurrence 0:1</p> <p>Description Box Heading: Name, address, national seal,/stamp and Country of Management Authority</p>
<ul style="list-style-type: none"> - Name 	<p>Occurrence 1 .. 1</p> <p>Type udt:TextTy pe</p> <p>CITES Permit Information</p> <p>Box/Field Box 6 - Issuing Authority Name</p> <p>Occurrence 1:1</p> <p>Description Box Heading: Name, address, national seal,/stamp and Country of Management Authority</p>
<ul style="list-style-type: none"> - PostalTradeAddress 	<p>Occurrence 0 .. 1</p> <p>Type ram:TradeAddressTy pe</p>
<ul style="list-style-type: none"> - xsd:sequence 	<p>Occurrence 1 .. 1</p>
<ul style="list-style-type: none"> - PostcodeCode 	<p>Occurrence 0 .. 1</p> <p>Type udt:CodeTy pe</p> <p>WhiteSpace collapse</p> <p>CITES Permit Information</p> <p>Box/Field Box 6 - Issuing Authority Postcode</p> <p>Occurrence 0:1</p> <p>Description Box Heading: Name, address, national seal,/stamp and Country of Management Authority</p>
<ul style="list-style-type: none"> - PostOfficeBox 	<p>Occurrence 0 .. 1</p> <p>Type udt:TextTy pe</p> <p>CITES Permit Information</p> <p>Box/Field Box 6 - Issuing Authority Post Office Box</p> <p>Occurrence 0:1</p> <p>Description Box Heading: Name, address, national seal,/stamp and Country of Management Authority</p>
<ul style="list-style-type: none"> - StreetName 	<p>Occurrence 0 .. 2</p> <p>Type udt:TextTy pe</p> <p>CITES Permit Information</p> <p>Box/Field Box 6 - Street Name</p> <p>Occurrence 0:2</p> <p>Description Box Heading: Name, address, national seal,/stamp and</p>

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
<ul style="list-style-type: none"> CityName 	<p>Country of Management Authority</p> <p>Occurrence 0 .. 1</p> <p>Type udt:TextTy pe</p> <p>CITES Permit Information</p> <p>Box/Field Box 6 - Issuing Authority City Name</p> <p>Occurrence 0:1</p> <p>Description Box Heading: Name, address, national seal,/stamp and Country of Management Authority</p>
<ul style="list-style-type: none"> CountryIdentificationTradeCountry <ul style="list-style-type: none"> xsd:sequence ID 	<p>Occurrence 0 .. 1</p> <p>Type ram:TradeCountry Type</p> <p>Occurrence 1 .. 1</p> <p>Occurrence 0 .. 1</p> <p>Type udt:IDTy pe</p> <p>WhiteSpace collapse</p> <p>CITES Permit Information</p> <p>Box/Field Box 6 - Issuing Authority Country Code</p> <p>Occurrence 0:1</p> <p>Description Box Heading: Name, address, national seal,/stamp and Country of Management Authority</p>
<ul style="list-style-type: none"> SubordinateTradeCountrySubDivision <ul style="list-style-type: none"> xsd:sequence Name 	<p>Occurrence 0 .. 1</p> <p>Type ram:TradeCountry SubDivisionType</p> <p>Occurrence 1 .. 1</p> <p>Occurrence 0 .. 1</p> <p>Type udt:TextTy pe</p> <p>CITES Permit Information</p> <p>Box/Field Box 6 - Issuing Authority Country Sub-Division Name</p> <p>Occurrence 0:1</p> <p>Description Box Heading: Name, address, national seal,/stamp and Country of Management Authority</p>
<ul style="list-style-type: none"> SpecifiedRepresentativePerson <ul style="list-style-type: none"> xsd:sequence Name 	<p>Occurrence 0 .. 1</p> <p>Type ram:RepresentativePersonTy pe</p> <p>Occurrence 1 .. 1</p> <p>Occurrence 0 .. 1</p> <p>Type udt:TextTy pe</p> <p>CITES Permit Information</p> <p>Box/Field Box 13 Name of the official</p> <p>Occurrence 0:1</p> <p>Description Box Heading: This permit/certificate is issued by:</p>
<ul style="list-style-type: none"> SecondSignatoryDocumentAuthentication <ul style="list-style-type: none"> xsd:sequence TypeCode 	<p>Occurrence 0 .. 1</p> <p>Type ram:DocumentAuthenticationTy pe</p> <p>Occurrence 1 .. 1</p> <p>Occurrence 0 .. 1</p> <p>Type qdt:GovernmentActionCodeTy pe</p> <p>WhiteSpace collapse</p> <p>CITES Permit Information</p> <p>Box/Field Box 4</p> <p>Occurrence 0..1</p> <p>Description Box Heading: Exporter/re-exporter (name, address and country)</p>
<ul style="list-style-type: none"> ID 	<p>Occurrence 0 .. 1</p> <p>Type udt:IDTy pe</p> <p>WhiteSpace collapse</p> <p>CITES Permit Information</p> <p>Box/Field Digital signature ID</p> <p>Occurrence 0:1</p> <p>Description Box Heading: Exporter/re-exporter: Signature of the applicant</p>

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
Statement	<p>Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Exporter Signature Authentication Text Occurrence 0:1 Description Box Heading: Exporter/re-exporter: Signature of the applicant</p>
ProviderTradeParty	<p>Occurrence 0 .. 1 Type ram:TradeParty Type</p>
xsd:sequence	<p>Occurrence 1 .. 1</p>
Name	<p>Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Exporter name Occurrence 0:1 Description Box Heading: Exporter/re-exporter: Signature of the applicant</p>
SpecifiedAuthoritativeSignatoryPerson	<p>Occurrence 0 .. unbounded Type ram:AuthoritativeSignatory PersonType</p>
xsd:sequence	<p>Occurrence 1 .. 1</p>
Name	<p>Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 4 - Name of the signing Person of the Exporter party Occurrence 0..1 Description Box Heading: Exporter/re-exporter: Signature of the applicant</p>
ThirdSignatoryDocumentAuthentication	<p>Occurrence 0 .. 1 Type ram:DocumentAuthenticationTy pe</p>
xsd:sequence	<p>Occurrence 1 .. 1</p>
TypeCode	<p>Occurrence 0 .. 1 Type qdt:GovernmentActionCodeTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 13 Occurrence 0..1 Description Box Heading: This permit/certificate is issued by:</p>
ID	<p>Occurrence 0 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Digital signature ID Occurrence 0:1 Description Box Heading: This permit/certificate is issued by:</p>
Statement	<p>Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 13 - Issuer Signature Authentication Text Occurrence 0..1 Description Box Heading: This permit/certificate is issued by/Security stamp, signature and official seal</p>
ProviderTradeParty	<p>Occurrence 0 .. 1 Type ram:TradeParty Type</p>
xsd:sequence	<p>Occurrence 1 .. 1</p>
Name	<p>Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 13 - Issuing Authority Name</p>

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
SpecifiedAuthoritativeSignatoryPerson	Occurrence 0..1 Description Box Heading: This permit/certificate is issued by
xsd:sequence	Occurrence 0 .. unbounded
Name	Type ram:AuthoritativeSignatory PersonType
Name	Occurrence 1 .. 1
Name	Occurrence 0 .. 1
Name	Type udt:TextTy pe
Name	CITES Permit Information
Name	Box/Field Box 13 - Name of the signing person of the Issuing Authority
Name	Occurrence 0..1
Name	Description Box Heading: This permit/certificate is issued by
FourthSignatoryDocumentAuthentication	Occurrence 0 .. 1
xsd:sequence	Type ram:DocumentAuthenticationTy pe
TypeCode	Occurrence 1 .. 1
TypeCode	Occurrence 0 .. 1
TypeCode	Type qdt:GovernmentActionCodeTy pe
TypeCode	WhiteSpace collapse
TypeCode	CITES Permit Information
TypeCode	Box/Field Box 14/15
TypeCode	Occurrence 0..1
TypeCode	Description Box Heading: - (Examining authority)
TypeCode	Occurrence 0 .. 1
TypeCode	Type udt:IDTy pe
TypeCode	WhiteSpace collapse
TypeCode	CITES Permit Information
TypeCode	Box/Field Box 14/15 Digital signature ID
TypeCode	Occurrence 0..1
TypeCode	Description Box Heading: - (Examining authority)
TypeCode	Occurrence 0 .. 1
TypeCode	Type udt:TextTy pe
TypeCode	CITES Permit Information
TypeCode	Box/Field Box 14/15 - Examining authority Signature Authentication Text
TypeCode	Occurrence 0..1
TypeCode	Description Box Heading: - (Examining authority) Signature
ProviderTradeParty	Occurrence 0 .. 1
xsd:sequence	Type ram:TradeParty Type
Name	Occurrence 1 .. 1
Name	Occurrence 0 .. 1
Name	Type udt:TextTy pe
Name	CITES Permit Information
Name	Box/Field Box 14/15 - Examining authority Name
Name	Occurrence 0..1
Name	Description Box Heading: - (Examining authority)
Name	Occurrence 0 .. unbounded
Name	Type ram:AuthoritativeSignatory PersonType
xsd:sequence	Occurrence 1 .. 1
Name	Occurrence 0 .. 1
Name	Type udt:TextTy pe
Name	CITES Permit Information
Name	Box/Field Box 14/15 - Name of the signing person of the Examining authority party
Name	Occurrence 0..1
Name	Description Box Heading: - (Examining authority) - Signature
SpecifiedSupplyChainConsignment	Occurrence 1 .. 1
xsd:sequence	Type ram:Supply ChainConsignmentType
	Occurrence 1 .. 1

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
ConsignorTradeParty	Occurrence 0 .. 1 Type ram:TradeParty Type
xsd:sequence	Occurrence 1 .. 1
ID	Occurrence 0 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 4 (ID) Occurrence 0:1 Description Box Heading: Exporter/Re-exporter
Name	Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 4 (Name) Occurrence 0:1 Description Box Heading: Exporter/Re-exporter
PostalTradeAddress	Occurrence 0 .. 1 Type ram:TradeAddressTy pe
xsd:sequence	Occurrence 1 .. 1
PostcodeCode	Occurrence 0 .. 1 Type udt:CodeTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 4 (Postcode) Occurrence 0:1 Description Box Heading: Exporter/Re-exporter
PostOfficeBox	Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 4 (Post Office Box) Occurrence 0:1 Description Box Heading: Exporter/Re-exporter
StreetName	Occurrence 0 .. 2 Type udt:TextTy pe CITES Permit Information Box/Field Box 4 (Street name) Occurrence 0:2 Description Box Heading: Exporter/Re-exporter
CityName	Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 4 (City name) Occurrence 0:1 Description Box Heading: Exporter/Re-exporter
CountryIdentificationTradeCountry	Occurrence 0 .. 1 Type ram:TradeCountry Type
xsd:sequence	Occurrence 1 .. 1
ID	Occurrence 0 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 4 (Country Id) Occurrence 0:1 Description Box Heading: Exporter/Re-exporter
Name	Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 4 (Country Name)

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
	Occurrence 0:1 Description Box Heading: Exporter/Re-exporter
SubordinateTradeCountrySubDivision	Occurrence 0 .. 1 Type ram:TradeCountry SubDivisionType
xsd:sequence	
Name	Occurrence 1 .. 1 Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 4 (Country Sub-division name) Occurrence 0:1 Description Box Heading: Exporter/Re-exporter
ConsigneeTradeParty	Occurrence 0 .. 1 Type ram:TradeParty Type
xsd:sequence	
ID	Occurrence 1 .. 1 Occurrence 0 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 3 (ID) Occurrence 0:1 Description Box Heading: Importer
Name	Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 3 (Name) Occurrence 0:1 Description Box Heading: Importer
PostalTradeAddress	Occurrence 0 .. 1 Type ram:TradeAddressTy pe
xsd:sequence	
PostcodeCode	Occurrence 1 .. 1 Occurrence 0 .. 1 Type udt:CodeTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 3 (Postcode) Occurrence 0:1 Description Box Heading: Importer
PostOfficeBox	Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 3 (Post Office Box) Occurrence 0:1 Description Box Heading: Importer
StreetName	Occurrence 0 .. 2 Type udt:TextTy pe CITES Permit Information Box/Field Box 3 (Street name) Occurrence 0:2 Description Box Heading: Importer
CityName	Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 3 (City name) Occurrence 0:1 Description Box Heading: Importer
CountryIdentificationTradeCountry	Occurrence 0 .. 1 Type ram:TradeCountry Type
xsd:sequence	
	Occurrence 1 .. 1

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
<ul style="list-style-type: none"> — ID 	<p>Occurrence 0 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 3 (Country Id) Occurrence 0:1 Description Box Heading: Importer</p>
<ul style="list-style-type: none"> — Name 	<p>Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 3 (Country Name) Occurrence 0:1 Description Box Heading: Importer</p>
<ul style="list-style-type: none"> — SubordinateTradeCountrySubDivision 	<p>Occurrence 0 .. 1 Type ram:TradeCountry SubDivisionType</p>
<ul style="list-style-type: none"> — xsd:sequence — Name 	<p>Occurrence 1 .. 1 Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 3 (Country Sub-division name) Occurrence 0:1 Description Box Heading: Importer</p>
<ul style="list-style-type: none"> — TransportContractReferencedDocument 	<p>Occurrence 0 .. 1 Type ram:ReferencedDocumentTy pe</p>
<ul style="list-style-type: none"> — xsd:sequence — TypeCode 	<p>Occurrence 1 .. 1 Type qdt:DocumentCodeTy pe WhiteSpace collapse CITES Permit Information Box/Field Box No. 15 Occurrence 1:1 Description Box Heading: Bill of Lading/Air Waybill number</p>
<ul style="list-style-type: none"> — ID 	<p>Occurrence 1 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Box No. 15 Occurrence 1:1 Description Box Heading: Bill of Lading/Air Waybill number</p>
<ul style="list-style-type: none"> — ExaminationTransportEvent 	<p>Occurrence 0 .. unbounded Type ram:TransportEventTy pe</p>
<ul style="list-style-type: none"> — xsd:sequence — ActualOccurrenceDateTime 	<p>Occurrence 1 .. 1 Occurrence 1 .. 1 Type udt:DateTimeTy pe CITES Permit Information Box/Field Box 14 Date Occurrence 1:1 Description Box Heading: Date</p>
<ul style="list-style-type: none"> — OccurrenceLogisticsLocation 	<p>Occurrence 0 .. 1 Type ram:LogisticsLocationTy pe</p>
<ul style="list-style-type: none"> — xsd:sequence — ID 	<p>Occurrence 1 .. 1 Occurrence 0 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 14 Export Port (ID) Occurrence 0:1 Description Box Heading: Export Port</p>

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
<ul style="list-style-type: none"> └─ Name 	<p>Occurrence 1 .. 1 Type udt:TextType CITES Permit Information Box/Field Box 14 Export Port (Name) Occurrence 1:1 Description Box Heading: Export Port</p>
<ul style="list-style-type: none"> └─ CertifyingTradeParty 	<p>Occurrence 0 .. unbounded Type ram:TradeParty Type</p>
<ul style="list-style-type: none"> └─ xsd:sequence <ul style="list-style-type: none"> └─ SpecifiedAuthoritativeSignatoryPerson 	<p>Occurrence 1 .. 1 Occurrence 0 .. unbounded Type ram:AuthoritativeSignatory PersonType</p>
<ul style="list-style-type: none"> └─ xsd:sequence <ul style="list-style-type: none"> └─ Name 	<p>Occurrence 1 .. 1 Occurrence 0 .. 1 Type udt:TextType CITES Permit Information Box/Field Box (14) Signatory Name Occurrence 0:1 Description Name of the quantities certifying person</p>
<ul style="list-style-type: none"> └─ IncludedSupplyChainConsignmentItem 	<p>Occurrence 1 .. unbounded Type ram:Supply ChainConsignmentItemType</p>
<ul style="list-style-type: none"> └─ xsd:sequence <ul style="list-style-type: none"> └─ ID 	<p>Occurrence 1 .. 1 Occurrence 1 .. 1 Type udt:IDType WhiteSpace collapse CITES Permit Information Box/Field Box 7-12 Occurrence 1..1 Description Box Heading: A-D</p>
<ul style="list-style-type: none"> └─ OriginTradeCountry 	<p>Occurrence 0 .. 1 Type ram:TradeCountry Type</p>
<ul style="list-style-type: none"> └─ xsd:sequence <ul style="list-style-type: none"> └─ ID 	<p>Occurrence 1 .. 1 Occurrence 0 .. 1 Type udt:IDType WhiteSpace collapse CITES Permit Information Box/Field Box 12 (id) Occurrence 0:1 Description Box Heading: Country of origin</p>
<ul style="list-style-type: none"> └─ Name 	<p>Occurrence 0 .. 1 Type udt:TextType CITES Permit Information Box/Field Box 12 (name) Occurrence 0:1 Description Box Heading: Country of origin</p>
<ul style="list-style-type: none"> └─ ExportTradeCountry 	<p>Occurrence 0 .. 1 Type ram:TradeCountry Type</p>
<ul style="list-style-type: none"> └─ xsd:sequence <ul style="list-style-type: none"> └─ ID 	<p>Occurrence 1 .. 1 Occurrence 0 .. 1 Type udt:IDType WhiteSpace collapse CITES Permit Information Box/Field Box 12a (id) Occurrence 0:1 Description Box Heading: Country of last re-export</p>
<ul style="list-style-type: none"> └─ Name 	<p>Occurrence 0 .. 1 Type udt:TextType CITES Permit Information Box/Field Box 12a (name)</p>

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
AssociatedReferencedDocument	<p>Occurrence 0:1 Description Box Heading: Country of last re-export Occurrence 0 .. unbounded Type ram:ReferencedDocumentTy pe</p>
xsd:sequence	
IssueDateTime	<p>Occurrence 1 .. 1 Occurrence 0 .. 1 Type qdt:DateMandatory DateTimeType CITES Permit Information Box/Field Box 12 Occurrence 0:1 Description Box Heading: Issuing date for Origin reference Permit or Re-export reference Certificate</p>
TypeCode	<p>Occurrence 0 .. 1 Type qdt:DocumentCodeTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 12/12a Occurrence 0..1 Description Box Heading: identifier of Origin reference Permit or Re-export reference Certificate</p>
ID	<p>Occurrence 0 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 12 Occurrence 0:1 Description Box Heading: identifier of Origin reference Permit or Re-export reference Certificate</p>
TransportLogisticsPackage	<p>Occurrence 0 .. unbounded Type ram:LogisticsPackageTy pe</p>
xsd:sequence	
ItemQuantity	<p>Occurrence 1 .. 1 Occurrence 0 .. 1 Type udt:Quantity Type CITES Permit Information Box/Field Box 11 Occurrence 0:1 Description Box Heading: Quantity</p>
<i>unitCode</i>	<p>Type clm6Recommendation20: MeasurementUnitCommonCodeContentType Length 1 .. 3 Use optional WhiteSpace collapse</p>
IncludedSupplyChainTradeLineItem	<p>Occurrence 1 .. 1 Type ram:Supply ChainTradeLineItemType</p>
xsd:sequence	
TypeCode	<p>Occurrence 1 .. 1 Occurrence 0 .. 1 Type qdt:GoodsTy peCodeType WhiteSpace collapse CITES Permit Information Box/Field Box 10 (code) Occurrence 0..1 Description Box Heading: Appendix no. (see reverse)</p>
TypeExtensionCode	<p>Occurrence 0 .. 1 Type qdt:GoodsTy peExtensionCodeType WhiteSpace collapse CITES Permit Information Box/Field Box 10 (code) Occurrence 0..1</p>

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
SpecifiedTradeProduct	Description Box Heading: Source (see reverse) Occurrence 1 .. 1 Type ram:TradeProductTy pe
xsd:sequence	Occurrence 1 .. 1
SellerAssignedID	Occurrence 0 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 9 Occurrence 0:1
Description	Description Box Heading: identifying marks or numbers Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 9 Occurrence 0:1 Description Box Heading: Description of specimens including age/sex if alive
TypeCode	Occurrence 0 .. 1 Type udt:CodeTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 9 Occurrence 0:1 Description Box Heading: Description of specimens including age/sex if alive
CommonName	Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 8 Occurrence 0:1 Description Box Heading: Common Name
<i>languageID</i>	Type xsd:language Use optional Pattern ([a-z A-Z]{2}){1}([iI]-[a-zA-Z]+ [xX]-[a-zA-Z]{1,8}){1}(-[a-zA-Z]{1,8}) WhiteSpace collapse
ScientificName	Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 7 Occurrence 0:1 Description Box Heading: Scientific Name
ExaminationTransportEvent	Occurrence 0 .. unbounded Type ram:TransportEventTy pe
xsd:sequence	Occurrence 1 .. 1
InspectedUnitQuantity	Occurrence 0 .. 1 Type udt:Quantity Type CITES Permit Information Box/Field Box 14 - Quantity Occurrence 0..1 Description Box Heading: - Examining authority / Quantity
<i>unitCode</i>	Type clm6Recommendation20: MeasurementUnitCommonCodeContentType Length 1 .. 3 Use optional WhiteSpace collapse

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
ApplicableCrossBorderGovernmentProcedure	Occurrence 0 .. 1 Type ram:CrossBorderGovernmentProcedureTy pe
xsd:sequence	Occurrence 1 .. 1
UsedToDateQuotaQuantity	Occurrence 0 .. 1 Type udt:Quantity Type CITES Permit Information Box/Field Box 11a Occurrence 0:1 Description Box Heading: Total exported/Quota
<i>unitCode</i>	Type clm6Recommendation20: MeasurementUnitCommonCodeContentType Length 1 .. 3 Use optional WhiteSpace collapse
AnnualQuotaQuantity	Occurrence 0 .. 1 Type udt:Quantity Type CITES Permit Information Box/Field Box 11a Occurrence 0:1 Description Box Heading: Total exported/Quota
<i>unitCode</i>	Type clm6Recommendation20: MeasurementUnitCommonCodeContentType Length 1 .. 3 Use optional WhiteSpace collapse
AcquisitionDateTime	Occurrence 0 .. 1 Type udt:DateTimeTy pe CITES Permit Information Box/Field Box 12b Occurrence 0:1 Description Box Heading: Acquisition date 12b Box Heading: date of acquisition ***
PreviousReferencedDocument	Occurrence 0 .. unbounded Type ram:ReferencedDocumentTy pe
xsd:sequence	Occurrence 1 .. 1
ID	Occurrence 0 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 12b (code) Occurrence 0:1 Description Box Heading: No. of the operation**
Name	Occurrence 0 .. 1 Type udt:TextTy pe CITES Permit Information Box/Field Box 12b (text) Occurrence 0:1 Description Box Heading: No. of the operation**
ImportTradeCountry	Occurrence 0 .. 1 Type ram:TradeCountry Type
xsd:sequence	Occurrence 1 .. 1
ID	Occurrence 0 .. 1 Type udt:IDTy pe WhiteSpace collapse CITES Permit Information Box/Field Box 3a (code) Occurrence 0:1 Description Box Heading: Country of import

Bold = Element, Italic = Attribute, Grey = Group

3.4 CITES XML Schema Structure Report



Element/Attribute	Annotation
Name	Occurrence 1 .. 1 Type udt:TextType CITES Permit Information Box/Field Box 3a (text) Occurrence 1:1 Description Box Heading: Country of import

3.5 CITES XML Schema Guideline



Structure

Occurrence	Element/Attribute				
CBFShip					
1 .. 1	SpecifiedExchangedDocumentContext				
1 .. 1	BusinessProcessSpecifiedDocumentContextParameter				
1 .. 1	Value				
1 .. 1	SpecifiedDocumentVersion				
1 .. 1	ID				
0 .. 1	BIMSpecifiedDocumentContextParameter				
1 .. 1	ID				
1 .. 1	SpecifiedDocumentVersion				
1 .. 1	ID				
0 .. 1	IssueDateTime				
1 .. 1	HeaderExchangedDocument				
1 .. 1	ID	1..1	Box 1	WCO ID:	002
0 .. 1	Name	0:1	Box 1 (Text)		
1 .. 1	TypeCode	1:1	Box 1 (code)	WCO ID:	001
1 .. 1	IssueDateTime	1:1	Box 13	WCO ID:	022
1 .. 1	CopyIndicator	1..1	Box 1.2		
0 .. 1	Purpose	0:1	Box 5a.1 (Text)	WCO ID:	017
1 .. 1	PurposeCode	1:1	Box 5a (Code)		
0 .. 1	Information	0:1	Box 5	WCO ID:	105
0 .. unbounded	ReferenceReferencedDocument				
0 .. 1	TypeCode	0:1	Box 0		
0 .. 1	Name	0:1	Box 0		
0 .. 1	EffectiveSpecifiedPeriod				
0 .. 1	StartDateTime	0..1	Box 0		
0 .. 1	EndDateTime	0..1	Box 0		
0 .. 1	EffectiveSpecifiedPeriod				
0 .. 1	StartDateTime	0:1	Box 2		
0 .. 1	EndDateTime	1:1	Box 2		
0 .. 1	IssueLogisticsLocation				
0 .. 1	ID	0..1	Box 13 Place (code)	WCO ID:	082
1 .. 1	Name	1:1	Box 13 Place (text)		
0 .. 1	FirstSignatoryDocumentAuthentication				
0 .. 1	TypeCode	0..1	Box 6		
0 .. 1	ID	0:1	Box 5b	WCO ID:	104
0 .. 1	Statement	0..1	Box 6 - Management Authority Signature Authentication Text	WCO ID:	104
0 .. 1	ProviderTradeParty				
0 .. 1	ID	0:1	Box 6 - Issuing Authority ID		
1 .. 1	Name	1:1	Box 6 - Issuing Authority Name		
0 .. 1	PostalTradeAddress				
0 .. 1	PostcodeCode	0:1	Box 6 - Issuing Authority Postcode	WCO ID:	245
0 .. 1	PostOfficeBox	0:1	Box 6 - Issuing Authority Post Office Box	WCO ID:	239
0 .. 2	StreetName	0:2	Box 6 - Street Name	WCO ID:	239
0 .. 1	CityName	0:1	Box 6 - Issuing Authority City Name	WCO ID:	241
0 .. 1	CountryIdentificationTradeCountry				
0 .. 1	ID	0:1	Box 6 - Issuing Authority Country Code	WCO ID:	242
0 .. 1	SubordinateTradeCountrySubDivision				
0 .. 1	Name	0:1	Box 6 - Issuing Authority Country Sub-Division Name	WCO ID:	243
0 .. 1	SpecifiedRepresentativePerson				

3.5 CITES XML Schema Guideline



Structure

Occurrence	Element/Attribute			
0 .. 1	Name	0:1	Box 13 Name of the official	
0 .. 1	SecondSignatoryDocumentAuthentication			
0 .. 1	TypeCode	0..1	Box 4	
0 .. 1	ID	0:1	Digital signature ID	WCO ID: 104
0 .. 1	Statement	0:1	Exporter Signature Authentication Text	
0 .. 1	ProviderTradeParty			
0 .. 1	Name	0:1	Exporter name	
0 .. unbounded	SpecifiedAuthoritativeSignatoryPerson			
0 .. 1	Name	0..1	Box 4 - Name of the signing Person of the Exporter party	
0 .. 1	ThirdSignatoryDocumentAuthentication			
0 .. 1	TypeCode	0..1	Box 13	
0 .. 1	ID	0:1	Digital signature ID	WCO ID: 104
0 .. 1	Statement	0..1	Box 13 - Issuer Signature Authentication Text	
0 .. 1	ProviderTradeParty			
0 .. 1	Name	0..1	Box 13 - Issuing Authority Name	
0 .. unbounded	SpecifiedAuthoritativeSignatoryPerson			
0 .. 1	Name	0..1	Box 13 - Name of the signing person of the Issuing Authority	
0 .. 1	FourthSignatoryDocumentAuthentication			
0 .. 1	TypeCode	0..1	Box 14/15	
0 .. 1	ID	0..1	Box 14/15 Digital signature ID	WCO ID: 104
0 .. 1	Statement	0..1	Box 14/15 - Examining authority Signature Authentication Text	
0 .. 1	ProviderTradeParty			
0 .. 1	Name	0..1	Box 14/15 - Examining authority Name	
0 .. unbounded	SpecifiedAuthoritativeSignatoryPerson			
0 .. 1	Name	0..1	Box 14/15 - Name of the signing person of the Examining authority party	
1 .. 1	SpecifiedSupplyChainConsignment			
0 .. 1	ConsignorTradeParty			
0 .. 1	ID	0:1	Box 4 (ID)	WCO ID: 072
0 .. 1	Name	0:1	Box 4 (Name)	WCO ID: 071
0 .. 1	PostalTradeAddress			
0 .. 1	PostcodeCode	0:1	Box 4 (Postcode)	WCO ID: 245
0 .. 1	PostOfficeBox	0:1	Box 4 (Post Office Box)	WCO ID: 239
0 .. 2	StreetName	0:2	Box 4 (Street name)	WCO ID: 239
0 .. 1	CityName	0:1	Box 4 (City name)	WCO ID: 241
0 .. 1	CountryIdentificationTradeCountry			
0 .. 1	ID	0:1	Box 4 (Country Id)	WCO ID: 242
0 .. 1	Name	0:1	Box 4 (Country Name)	
0 .. 1	SubordinateTradeCountrySubDivision			
0 .. 1	Name	0:1	Box 4 (Country Sub-division name)	WCO ID: 243
0 .. 1	ConsigneeTradeParty			
0 .. 1	ID	0:1	Box 3 (ID)	WCO ID: 052
0 .. 1	Name	0:1	Box 3 (Name)	WCO ID: 051
0 .. 1	PostalTradeAddress			
0 .. 1	PostcodeCode	0:1	Box 3 (Postcode)	WCO ID: 245
0 .. 1	PostOfficeBox	0:1	Box 3 (Post Office Box)	WCO ID: 239
0 .. 2	StreetName	0:2	Box 3 (Street name)	WCO ID: 239
0 .. 1	CityName	0:1	Box 3 (City name)	WCO ID: 241

3.5 CITES XML Schema Guideline



Structure

Occurrence	Element/Attribute				
0 .. 1	CountryIdentificationTradeCountry				
0 .. 1	ID	0:1	Box 3 (Country Id)	WCO ID:	242
0 .. 1	Name	0:1	Box 3 (Country Name)		
0 .. 1	SubordinateTradeCountrySubDivision				
0 .. 1	Name	0:1	Box 3 (Country Sub-division name)	WCO ID:	243
0 .. 1	TransportContractReferencedDocument				
1 .. 1	TypeCode	1:1	Box No. 15	WCO ID:	250
1 .. 1	ID	1:1	Box No. 15	WCO ID:	015
0 .. unbounded	ExaminationTransportEvent				
1 .. 1	ActualOccurrenceDateTime	1:1	Box 14 Date		
0 .. 1	OccurrenceLogisticsLocation				
0 .. 1	ID	0:1	Box 14 Export Port (ID)	WCO ID:	078
1 .. 1	Name	1:1	Box 14 Export Port (Name)	WCO ID:	077
0 .. unbounded	CertifyingTradeParty				
0 .. unbounded	SpecifiedAuthoritativeSignatoryPerson				
0 .. 1	Name	0:1	Box (14) Signatory Name		
1 .. unbounded	IncludedSupplyChainConsignmentItem				
1 .. 1	ID	1..1	Box 7-12		
0 .. 1	OriginTradeCountry				
0 .. 1	ID	0:1	Box 12 (id)	WCO ID:	063
0 .. 1	Name	0:1	Box 12 (name)		
0 .. 1	ExportTradeCountry				
0 .. 1	ID	0:1	Box 12a (id)		
0 .. 1	Name	0:1	Box 12a (name)		
0 .. unbounded	AssociatedReferencedDocument				
0 .. 1	IssueDateTime	0:1	Box 12	WCO ID:	219
0 .. 1	TypeCode	0..1	Box 12/12a	WCO ID:	170
0 .. 1	ID	0:1	Box 12	WCO ID:	003
0 .. unbounded	TransportLogisticsPackage				
0 .. 1	ItemQuantity	0:1	Box 11	WCO ID:	139
1 .. 1	IncludedSupplyChainTradeLineItem				
0 .. 1	TypeCode	0..1	Box 10 (code)	WCO ID:	145
0 .. 1	TypeExtensionCode	0..1	Box 10 (code)	WCO ID:	255
1 .. 1	SpecifiedTradeProduct				
0 .. 1	SellerAssignedID	0:1	Box 9	WCO ID:	147147
0 .. 1	Description	0:1	Box 9		
0 .. 1	TypeCode	0:1	Box 9		
0 .. 1	CommonName	0:1	Box 8		
0 .. 1	ScientificName	0:1	Box 7		
0 .. unbounded	ExaminationTransportEvent				
0 .. 1	InspectedUnitQuantity	0..1	Box 14 - Quantity		
0 .. 1	ApplicableCrossBorderGovernmentProcedure				
0 .. 1	UsedToDateQuotaQuantity	0:1	Box 11a		
0 .. 1	AnnualQuotaQuantity	0:1	Box 11a		
0 .. 1	AcquisitionDateTime	0:1	Box 12b		
0 .. unbounded	PreviousReferencedDocument				
0 .. 1	ID	0:1	Box 12b (code)	WCO ID:	012
0 .. 1	Name	0:1	Box 12b (text)		
0 .. 1	ImportTradeCountry				
0 .. 1	ID	0:1	Box 3a (code)		
1 .. 1	Name	1:1	Box 3a (text)		

3.6 CITES Schema Code List Report



Guideline

Element/Attribute	Applicable Codes
CBFShip	
SpecifiedExchangedDocumentContext	
BusinessProcessSpecifiedDocumentContextParameter	
Value	
SpecifiedDocumentVersion	
ID	
BIMSpecifiedDocumentContextParameter	
ID	
SpecifiedDocumentVersion	
ID	
IssueDateTime	
HeaderExchangedDocument	
ID	
Name	
TypeCode	E Export I Import O Other R Re-Export
IssueDateTime	
CopyIndicator	
Purpose	
PurposeCode	B Breeding in captivity or artificial propagation E Educational G Botanical Gardens H Hunting trophies L Enforcement (e.g. evidence in court, specimen for training) M Bio-medical research N Reintroduction or introduction into the wild P Personal Q Circuses and travelling exhibitions S Scientific T Commercial Trade Z Zoos
Information	
ReferenceReferencedDocument	
TypeCode	
Name	
EffectiveSpecifiedPeriod	
StartDateTime	
EndDateTime	
EffectiveSpecifiedPeriod	
StartDateTime	
EndDateTime	
IssueLogisticsLocation	
ID	
Name	
FirstSignatoryDocumentAuthentication	
TypeCode	A CITES Management Authority
ID	
Statement	

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
ProviderTradeParty	
ID	
Name	
PostalTradeAddress	
PostcodeCode	
PostOfficeBox	
StreetName	
CityName	
CountryIdentificationTradeCountry	
ID	AD ANDORRA AE UNITED ARAB EMIRATES AF AFGHANISTAN AG ANTIGUA AND BARBUDA AI ANGUILLA AL ALBANIA AM ARMENIA AN NETHERLANDS ANTILLES AO ANGOLA AQ ANTARCTICA AR ARGENTINA AS AMERICAN SAMOA AT AUSTRIA AU AUSTRALIA AW ARUBA AX ÅLAND ISLANDS AZ AZERBAIJAN BA BOSNIA AND HERZEGOVINA BB BARBADOS BD BANGLADESH BE BELGIUM BF BURKINAFASO BG BULGARIA BH SAUDI ARABIA BI BURUNDI BJ BENIN BL SAINT BARTHELEMY BM BERMUDA BN BRUNEI DARUSSALAM BO BOLIVIA BR BRAZIL BS BAHAMAS BT BHUTAN BV BOUVET ISLAND BW BOTSWANA BY BELARUS BZ BELIZE CA CANADA CC COCOS (KEELING) ISLANDS CD CONGO, THE DEMOCRATIC REPUBLIC OF THE CF CENTRAL AFRICAN REPUBLIC CG CONGO CH SWITZERLAND CI COTE D'IVOIRE CK COOK ISLANDS CL CHILE CM CAMEROON CN CHINA

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
CO	COLOMBIA
CR	COSTA RICA
CU	CUBA
CV	CAPE VERDE
CX	CHRISTMAS ISLAND
CY	CY PRUS
CZ	CZECH REPUBLIC
DE	GE RMANY
DJ	DJIBOUTI
DK	DENMARK
DM	DOMINICA
DO	DOMINICAN REPUBLIC
DZ	ALG ERIA
EC	ECUADOR
EE	ESTO NIA
EG	EG YPT
EH	WESTERN SAHARA
ER	ERITREA
ES	SPAIN
ET	ETHIO PIA
FI	FINLAND
FJ	FIJ I
FK	FALKLAND ISLANDS (MALVINAS)
FM	MICRONESIA, FEDERATED STATES OF ISLANDS
FO	FAROE
FR	FRANCE
GA	G ABON
GB	UNITED KINGDOM
GD	G RENADA
GE	GE ORGIA
GF	FRENCH GUIANA
GG	G UERNSEY
GH	GHA NA
GI	G IBRALTAR
GL	G REENLAND
GM	GA MBIA
GN	GUINE A
GP	G UADELOUPE
GQ	EQ UATORIAL GUINEA
GR	G REECE
GS	SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS
GT	G UATEMALA
GU	GUA M
GW	G UINEA-BISSAU
GY	GUY ANA
HK	HONG KONG
HM	HEARD ISLAND AND MCDONALD ISLANDS
HN	HONDURAS
HR	CROATIA
HT	HAITI
HU	HUNGARY
ID	INDONESIA
IE	IRELAND
IL	ISRAEL
IM	ISLE OF MAN
IN	INDIA
IO	BRITISH INDIAN OCEAN TERRITORY
IQ	IRAQ

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
IR	IRAN, ISLAMIC REPUBLIC OF
IS	ICELAND
IT	ITALY
JE	JERSEY
JM	JAMAICA
JO	JORDAN
JP	JAPAN
KE	KENY A
KG	KY RGYZSTAN
KH	KAMBODIA
KI	KIRIBATI
KM	COMOROS
KN	SAINT KITTS AND NEVIS
KP	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
KR	KOREA, REPUBLIC OF
KW	KUWAIT
KY	CAY MAN ISLANDS
KZ	KAZAKHSTAN
LA	LAO PEOPLE'S DEMOCRATIC REPUBLIC
LB	LEBANO N
LC	SAINT LUCIA
LI	LIECHTENSTEIN
LK	SRI LANKA
LR	LIBERIA
LS	LESO THO
LT	LITHUANIA
LU	LUXEMBO URG
LV	LATVIA
LY	LIBYAN ARAB JAMAHIRIYA
MA	MOROCCO
MC	MONACO
MD	MOLDOVA, REPUBLIC OF
ME	MO NTENEGRO
MF	SAINT MARTIN
MG	MADAG ASCAR
MH	MARSHALL ISLANDS
MK	MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF
ML	MALI
MM	MY ANMAR
MN	MONGOLIA
MO	MACAO
MP	NORTHERN MARIANA ISLANDS
MQ	MARTINIQUE
MR	MAURITANIA
MS	MONTSERRAT
MT	MALTA
MU	MAURITIUS
MV	MALDIVES
MW	MALAWI
MX	MEXICO
MY	MALAY SIA
MZ	MOZAMBIQUE
NA	NAMIBIA
NC	NEW CALEDONIA
NE	NIGER
NF	NORFOLK ISLAND
NG	NIGERIA
NI	NICARAGUA

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	NL NETHERLANDS
	NO NORWAY
	NP NEPAL
	NR NAURU
	NU NIUE
	NZ NEW ZEALAND
	OM OMA N
	PA PANAMA
	PE PERU
	PF FRENCH POLYNESIA
	PG PAPUA NEW GUINEA
	PH PHILIPPINES
	PK PAKISTAN
	PL PO LAND
	PM SAINT PIERRE AND MIQUELON
	PN PITCAIRN
	PR PUERTO RICO
	PS PALESTINIAN TERRITORY, OCCUPIED
	PT PORTUGAL
	PW PALAU
	PY PARAG UAY
	QA QA TAR
	RE REUNION
	RO ROMANIA
	RS SERBIA
	RU RUSSIAN FEDERATION
	RW RWANDA
	SA SAUDI ARABIA
	SB SOLOMON ISLANDS
	SC SEY CHELLES
	SD SUDAN
	SE SWEDEN
	SG SINGAPORE
	SH SAINT HELENA
	SI SLOVENIA
	SJ SVALBARD AND JAN MAYEN
	SK SLOVAKIA
	SL SIERRA LEONE
	SM SAN MARINO
	SN SENEGAL
	SO SOMALIA
	SR SURINAME
	ST SAO TOME AND PRINCIPE
	SV EL SALVADOR
	SY SYRIAN ARAB REPUBLIC
	SZ SWAZILAND
	TC TURKS AND CAICOS ISLANDS
	TD CHAD
	TF FRENCH SOUTHERN TERRITORIES
	TG TOGO
	TH THAILAND
	TJ TAJIKISTAN
	TK TOKELAU
	TL TIMOR L-LESTE
	TM TURKMENISTAN
	TN TUNISIA
	TO TONGA
	TR TURKEY
	TT TRINIDAD AND TOBAGO

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	TV TUVALU
	TW TAIWAN, PROVINCE OF CHINA
	TZ TANZANIA, UNITED REPUBLIC OF
	UA UKRAINE
	UG UGANDA
	UM UNITED STATES MINOR OUTLYING ISLANDS
	US UNITED STATES
	UY URUGUAY
	UZ UZBEKISTAN
	VA HOLY SEE (VATICAN CITY STATE)
	VC SAINT VINCENT AND THE GRENADINES
	VE VENEZUELA
	VG VIRGIN ISLANDS, BRITISH
	VI VIRGIN ISLANDS, U.S.
	VN VIET NAM
	VU VANUATU
	WF WALLIS AND FUTUNA
	WS SAMOA
	YE YE MEN
	YT MAY OTTE
	ZA SOUTH AFRICA
	ZM ZAMBIA
	ZW ZIMBABWE
	CS Serbia and Montenegro
	DD former East Germany
	FX France, Metropolitan
	PC former Pacific Trust Territory
	SU former Soviet Union
	XA French Antilles
	XC Caribbean
	XE Europe
	XF Africa
	XM South America
	XS Asia
	XV Various
	XX Unknown
	YU former Yugoslavia/ Serbia & Montenegro
	ZC former Czechoslovakia
	ZZ Introduction of the sea
SubordinateTradeCountrySubDivision	
Name	
SpecifiedRepresentativePerson	
Name	
SecondSignatoryDocumentAuthentication	
TypeCode	B CITES Exporter/Re-Exporter
ID	
Statement	
ProviderTradeParty	
Name	
SpecifiedAuthoritativeSignatoryPerson	
Name	
ThirdSignatoryDocumentAuthentication	
TypeCode	C CITES Permit Issuer
ID	
Statement	
ProviderTradeParty	

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
Name	
SpecifiedAuthoritativeSignatoryPerson	
Name	
FourthSignatoryDocumentAuthentication	
TypeCode	D CITES Examining Party
ID	
Statement	
ProviderTradeParty	
Name	
SpecifiedAuthoritativeSignatoryPerson	
Name	
SpecifiedSupplyChainConsignment	
ConsignorTradeParty	
ID	
Name	
PostalTradeAddress	
PostcodeCode	
PostOfficeBox	
StreetName	
CityName	
CountryIdentificationTradeCountry	
ID	AD ANDORRA AE UNITED ARAB EMIRATES AF AFG HANISTAN AG ANTIGUA AND BARBUDA AI ANGUILLA AL ALBANIA AM ARMENIA AN NETHERLANDS ANTILLES AO A NGOLA AQ ANTARCTICA AR ARG ENTINA AS AMERICAN SAMOA AT AUSTRIA AU AUSTRALIA AW ARUBA AX ÅLAND ISLANDS AZ AZERBAIJAN BA BOSNIA AND HERZEGOVINA BB BARBADO S BD BANG LADESH BE BELG IUM BF BURKINA FASO BG BULG ARIA BH BAHRAIN BI BURUNDI BJ BENIN BL SAINT BARTHÉLEMY BM BERMUDA BN BRUNEI DARUSSALAM BO BO LIVIA BR BRAZIL BS BAHAMAS BT BHUTAN BV BO UVET ISLAND

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	BW BO TSWANA
	BY BELARUS
	BZ BELIZE
	CA CANADA
	CC COCOS (KEELING) ISLANDS
	CD CONGO, THE DEMOCRATIC REPUBLIC OF THE
	CF CENTRAL AFRICAN REPUBLIC
	CG CONGO
	CH SWITZERLAND
	CI COTE D'IVOIRE
	CK COOK ISLANDS
	CL CHILE
	CM CAMEROON
	CN CHINA
	CO COLOMBIA
	CR COSTA RICA
	CU CUBA
	CV CAPE VERDE
	CX CHRISTMAS ISLAND
	CY CYPRUS
	CZ CZECH REPUBLIC
	DE GERMANY
	DJ DJIBOUTI
	DK DENMARK
	DM DOMINICA
	DO DOMINICAN REPUBLIC
	DZ ALGERIA
	EC ECUADOR
	EE ESTONIA
	EG EGYPT
	EH WESTERN SAHARA
	ER ERITREA
	ES SPAIN
	ET ETHIOPIA
	FI FINLAND
	FJ FIJI
	FK FALKLAND ISLANDS (MALVINAS)
	FM MICRONESIA, FEDERATED STATES OF ISLANDS
	FO FAROE ISLANDS
	FR FRANCE
	GA GABON
	GB UNITED KINGDOM
	GD GRENADA
	GE GEORGIA
	GF FRENCH GUIANA
	GG GUERNSEY
	GH GHANA
	GI GIBRALTAR
	GL GREENLAND
	GM GAMBIA
	GN GUINEA
	GP GUADELOUPE
	GQ GUINEA-BISSAU
	GR GREECE
	GS SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS
	GT GUATEMALA
	GU GUAM
	GW GUINEA-BISSAU

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	GY GUY ANA
	HK HONG KONG
	HM HEARD ISLAND AND MCDONALD ISLANDS
	HN HONDURAS
	HR CROATIA
	HT HAITI
	HU HUNGARY
	ID INDONESIA
	IE IRELAND
	IL ISRAEL
	IM ISLE OF MAN
	IN INDIA
	IO BRITISH INDIAN OCEAN TERRITORY
	IQ IRAQ
	IR IRAN, ISLAMIC REPUBLIC OF
	IS ICELAND
	IT ITALY
	JE JERSEY
	JM JAMAICA
	JO JORDAN
	JP JAPAN
	KE KENY A
	KG KY RGYZSTAN
	KH CAMBODIA
	KI KIRIBATI
	KM COMOROS
	KN SAINT KITTS AND NEVIS
	KP KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
	KR KOREA, REPUBLIC OF
	KW KUWAIT
	KY CAY MAN ISLANDS
	KZ KAZAKHSTAN
	LA LAO PEOPLE'S DEMOCRATIC REPUBLIC
	LB LEBANO N
	LC SAINT LUCIA
	LI LIECHTENSTEIN
	LK SRI LANKA
	LR LIBERIA
	LS LESO THO
	LT LITHUANIA
	LU LUXEMBO URG
	LV LATVIA
	LY LIBYAN ARAB JAMAHIRIYA
	MA MOROCCO
	MC MONACO
	MD MOLDOVA, REPUBLIC OF
	ME MO NTENEGRO
	MF SAINT MARTIN
	MG MADAG ASCAR
	MH MARSHALL ISLANDS
	MK MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF
	ML MALI
	MM MY ANMAR
	MN MONGOLIA
	MO MACAO
	MP NORTHERN MARIANA ISLANDS
	MQ MARTINIQUE
	MR MAURITANIA

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	MS MONTSERRAT
	MT MALTA
	MU MAURITIUS
	MV MALDIVES
	MW MALAWI
	MX MEXICO
	MY MALAY SIA
	MZ MOZAMBIQUE
	NA NAMIBIA
	NC NEW CALEDONIA
	NE NIGER
	NF NORFOLK ISLAND
	NG NIGERIA
	NI NICARAGUA
	NL NETHERLANDS
	NO NORWAY
	NP NEPAL
	NR NAURU
	NU NIUE
	NZ NEW ZEALAND
	OM OMA N
	PA PANAMA
	PE PERU
	PF FRENCH POLYNESIA
	PG PAPUA NEW GUINEA
	PH PHILIPPINES
	PK PAKISTAN
	PL PO LAND
	PM SAINT PIERRE AND MIQUELON
	PN PITCAIRN
	PR PUERTO RICO
	PS PALESTINIAN TERRITORY, OCCUPIED
	PT PORTUGAL
	PW PALAU
	PY PARAG UAY
	QA QA TAR
	RE REUNION
	RO ROMANIA
	RS SERBIA
	RU RUSSIAN FEDERATION
	RW RWANDA
	SA SAUDI ARABIA
	SB SOLOMON ISLANDS
	SC SEY CHELLES
	SD SUDAN
	SE SWEDEN
	SG SINGAPORE
	SH SAINT HELENA
	SI SLOVENIA
	SJ SVALBARD AND JAN MAYEN
	SK SLOVAKIA
	SL SIERRA LEONE
	SM SAN MARINO
	SN SENEGAL
	SO SOMALIA
	SR SURINAME
	ST SAO TOME AND PRINCIPE
	SV EL SALVADOR
	SY SYRIAN ARAB REPUBLIC

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	SZ SWAZILAND
	TC TURKS AND CAICOS ISLANDS
	TD CHAD
	TF FRENCH SOUTHERN TERRITORIES
	TG TOGO
	TH THAILAND
	TJ TAJIKISTAN
	TK TO KELAU
	TL TIMO R-LESTE
	TM TURKMENISTAN
	TN TUNISIA
	TO TONGA
	TR TURKEY
	TT TRINIDAD AND TOBAGO
	TV TUVALU
	TW TAIWAN, PROVINCE OF CHINA
	TZ TANZANIA, UNITED REPUBLIC OF
	UA UKRAINE
	UG UGANDA
	UM UNITED STATES MINOR OUTLYING ISLANDS
	US UNITED STATES
	UY URUGUAY
	UZ UZBEKISTAN
	VA HOLY SEE (VATICAN CITY STATE)
	VC SAINT VINCENT AND THE GRENADINES
	VE VENEZUELA
	VG VIRGIN ISLANDS, BRITISH
	VI VIRGIN ISLANDS, U.S.
	VN VIET NAM
	VU VANUATU
	WF WALLIS AND FUTUNA
	WS SAMO A
	YE YE MEN
	YT MAY OTTE
	ZA SOUTH AFRICA
	ZM ZAMBIA
	ZW ZIMBABWE
	CS Serbia and Montenegro
	DD former East Germany
	FX France, Metropolitan
	PC former Pacific Trust Territory
	SU former Soviet Union
	XA F rench Antilles
	XC Caribbean
	XE Europe
	XF Africa
	XM South America
	XS Asia
	XV Various
	XX Unknow n
	YU former Yugoslavia/ Serbia & Montenegro
	ZC former Czechoslovakia
	ZZ Introduction of the sea
Name	
SubordinateTradeCountrySubDivision	
Name	
ConsigneeTradeParty	
ID	
Name	

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
PostalTradeAddress	
PostcodeCode	
PostOfficeBox	
StreetName	
CityName	
CountryIdentificationTradeCountry	
ID	AD ANDORRA AE UNITED ARAB EMIRATES AF AFGHANISTAN AG ANTIGUA AND BARBUDA AI ANGUILLA AL ALBANIA AM ARMENIA AN NETHERLANDS ANTILLES AO ANGOLO AQ ANTARCTICA AR ARGENTINA AS AMERICAN SAMOA AT AUSTRIA AU AUSTRALIA AW ARUBA AX ÅLAND ISLANDS AZ AZERBAIJAN BA BOSNIA AND HERZEGOVINA BB BARBADO BD BANGLADESH BE BELGIUM BF BURKINA FASO BG BULGARIA BH BAHRAIN BI BURUNDI BJ BENIN BL SAINT BARTHÉLEMY BM BERMUDA BN BRUNEI DARUSSALAM BO BOLIVIA BR BRAZIL BS BAHAMAS BT BHUTAN BV BOUVET ISLAND BW BOTSWANA BY BELARUS BZ BELIZE CA CANADA CC COCOS (KEELING) ISLANDS CD CONGO, THE DEMOCRATIC REPUBLIC OF THE CF CENTRAL AFRICAN REPUBLIC CG CONGO CH SWITZERLAND CI COTE D'IVOIRE CK COOK ISLANDS CL CHILE CM CAMEROON CN CHINA CO COLOMBIA CR COSTA RICA CU CUBA

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
CV	CAPE VERDE
CX	CHRISTMAS ISLAND
CY	CYPRUS
CZ	CZECH REPUBLIC
DE	GERMANY
DJ	DJIBOUTI
DK	DENMARK
DM	DOMINICA
DO	DOMINICAN REPUBLIC
DZ	ALGERIA
EC	ECUADOR
EE	ESTONIA
EG	EGYPT
EH	WESTERN SAHARA
ER	ERITREA
ES	SPAIN
ET	ETHIOPIA
FI	FINLAND
FJ	FIJI
FK	FALKLAND ISLANDS (MALVINAS)
FM	MICRONESIA, FEDERATED STATES OF
FO	FAROE ISLANDS
FR	FRANCE
GA	GABON
GB	UNITED KINGDOM
GD	GRENADA
GE	GEORGIA
GF	FRENCH GUIANA
GG	GUERNSEY
GH	GHANA
GI	GUERNSEY
GL	GREENLAND
GM	GUINEA-BISSAU
GN	GUINEA
GP	GUADALOUPE
GQ	EQUATORIAL GUINEA
GR	GREECE
GS	SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS
GT	GUATEMALA
GU	GUAM
GW	GUINEA-BISSAU
GY	GUYANA
HK	HONG KONG
HM	HEARD ISLAND AND MCDONALD ISLANDS
HN	HONDURAS
HR	CROATIA
HT	HAITI
HU	HUNGARY
ID	INDONESIA
IE	IRELAND
IL	ISRAEL
IM	ISLE OF MAN
IN	INDIA
IO	BRITISH INDIAN OCEAN TERRITORY
IQ	IRAQ
IR	IRAN, ISLAMIC REPUBLIC OF
IS	ICELAND
IT	ITALY

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	JE JERSEY
	JM JAMAICA
	JO JORDAN
	JP JAPAN
	KE KENY
	KG KY A RGYZSTAN
	KH CAMBODIA
	KI KIRIBATI
	KM COMOROS
	KN SAINT KITTS AND NEVIS
	KP KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
	KR KOREA, REPUBLIC OF
	KW KUWAIT
	KY CAY MAN ISLANDS
	KZ KAZAKHSTAN
	LA LAO PEOPLE'S DEMOCRATIC REPUBLIC
	LB LEBANO N
	LC SAINT LUCIA
	LI LIECHTENSTEIN
	LK SRI LANKA
	LR LIBERIA
	LS LESO THO
	LT LITHUANIA
	LU LUXEMBO URG
	LV LATVIA
	LY LIBYAN ARAB JAMAHIRIYA
	MA MOROCCO
	MC MONACO
	MD MOLDOVA, REPUBLIC OF
	ME MO NTENEGRO
	MF SAINT MARTIN
	MG MADAG ASCAR
	MH MARSHALL ISLANDS
	MK MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF
	ML MALI
	MM MY ANMAR
	MN MONGOLIA
	MO MACAO
	MP NORTHERN MARIANA ISLANDS
	MQ MARTINIQUE
	MR MAURITANIA
	MS MONTSERRAT
	MT MALTA
	MU MAURITIUS
	MV MALDIVES
	MW MALAWI
	MX MEXICO
	MY MALAY SIA
	MZ MOZAMBIQUE
	NA NAMIBIA
	NC NEW CALEDONIA
	NE NIGER
	NF NORFOLK ISLAND
	NG NIGERIA
	NI NICARAGUA
	NL NETHERLANDS
	NO NORWAY
	NP NEPAL

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	NR NAURU
	NU NIUE
	NZ NEW ZEALAND
	OM OMA N
	PA PANAMA
	PE PERU
	PF FRENCH POLYNESIA
	PG PAPUA NEW GUINEA
	PH PHILIPPINES
	PK PAKISTAN
	PL PO LAND
	PM SAINT PIERRE AND MIQUELON
	PN PITCAIRN
	PR PUERTO RICO
	PS PALESTINIAN TERRITORY, OCCUPIED
	PT PORTUGAL
	PW PALAU
	PY PARAG UAY
	QA QA TAR
	RE REUNION
	RO ROMANIA
	RS SERBIA
	RU RUSSIAN FEDERATION
	RW RWANDA
	SA SAUDI ARABIA
	SB SOLOMON ISLANDS
	SC SEY CHELLES
	SD SUDAN
	SE SWEDEN
	SG SINGAPORE
	SH SAINT HELENA
	SI SLOVENIA
	SJ SVALBARD AND JAN MAYEN
	SK SLOVAKIA
	SL SIERRA LEONE
	SM SAN MARINO
	SN SENEGAL
	SO SOMALIA
	SR SURINAME
	ST SAO TOME AND PRINCIPE
	SV EL SALVADOR
	SY SYRIAN ARAB REPUBLIC
	SZ SWAZILAND
	TC TURKS AND CAICOS ISLANDS
	TD CHAD
	TF FRENCH SOUTHERN TERRITORIES
	TG TOGO
	TH THAILAND
	TJ TAJIKISTAN
	TK TOKELAU
	TL TIMOR L-LESTE
	TM TURKMENISTAN
	TN TUNISIA
	TO TONGA
	TR TURKEY
	TT TRINIDAD AND TOBAGO
	TV TUVALU
	TW TAIWAN, PROVINCE OF CHINA
	TZ TANZANIA, UNITED REPUBLIC OF

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	UA UKRAINE UG UGANDA UM UNITED STATES MINOR OUTLYING ISLANDS US UNITED STATES UY URUGUAY UZ UZBEKISTAN VA HOLY SEE (VATICAN CITY STATE) VC SAINT VINCENT AND THE GRENADINES VE VENEZUELA VG VIRGIN ISLANDS, BRITISH VI VIRGIN ISLANDS, U.S. VN VIET NAM VU VANUATU WF WALLIS AND FUTUNA WS SAMOA YE YE MEN YT MAY OTTE ZA SOUTH AFRICA ZM ZAMBIA ZW ZIMBABWE CS Serbia and Montenegro DD former East Germany FX France, Metropolitan PC former Pacific Trust Territory SU former Soviet Union XA French Antilles XC Caribbean XE Europe XF Africa XM South America XS Asia XV Various XX Unknown YU former Yugoslavia/ Serbia & Montenegro ZC former Czechoslovakia ZZ Introduction of the sea
Name	
SubordinateTradeCountrySubDivision	
Name	
TransportContractReferencedDocument	
TypeCode	700 703 704 705 706 707 710 711 714 716 740 741 743
ID	
ExaminationTransportEvent	
ActualOccurrenceDateTime	
OccurrenceLogisticsLocation	

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
ID	
<i>Name</i>	
CertifyingTradeParty	
<i>SpecifiedAuthoritativeSignatoryPerson</i>	
<i>Name</i>	
IncludedSupplyChainConsignmentItem	
<i>ID</i>	A Consignment Item Row A B Consignment Item Row B C Consignment Item Row C D Consignment Item Row D
OriginTradeCountry	
<i>ID</i>	AD ANDORRA AE UNITED ARAB EMIRATES AF AFGHANISTAN AG ANTIGUA AND BARBUDA AI ANGUILLA AL ALBANIA AM ARMENIA AN NETHERLANDS ANTILLES AO ANGOLA AQ ANTARCTICA AR ARGENTINA AS AMERICAN SAMOA AT AUSTRIA AU AUSTRALIA AW ARUBA AX ÅLAND ISLANDS AZ AZERBAIJAN BA BOSNIA AND HERZEGOVINA BB BARBADOS BD BANGLADESH BE BELGIUM BF BURKINAFASO BG BULGARIA BH BAHRAIN BI BURUNDI BJ BENIN BL SAINT BARTHÉLEMY BM BERMUDA BN BRUNEI DARUSSALAM BO BOLIVIA BR BRAZIL BS BAHAMAS BT BHUTAN BV BOUVET ISLAND BW BOTSWANA BY BELARUS BZ BELIZE CA CANADA CC COCOS (KEELING) ISLANDS CD CONGO, THE DEMOCRATIC REPUBLIC OF THE CF CENTRAL AFRICAN REPUBLIC CG CONGO CH SWITZERLAND CI COTE D'IVOIRE CK COOK ISLANDS

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
CL	CHILE
CM	CAMEROON
CN	CHINA
CO	COLOMBIA
CR	COSTA RICA
CU	CUBA
CV	CAPE VERDE
CX	CHRISTMAS ISLAND
CY	CY PRUS
CZ	CZECH REPUBLIC
DE	GE RMANY
DJ	DJIBOUTI
DK	DENMARK
DM	DOMINICA
DO	DOMINICAN REPUBLIC
DZ	ALG ERIA
EC	ECUADOR
EE	ESTO NIA
EG	EG YPT
EH	WESTERN SAHARA
ER	ERITREA
ES	SPAIN
ET	ETHIO PIA
FI	FINLAND
FJ	FIJ I
FK	FALKLAND ISLANDS (MALVINAS)
FM	MICRONESIA, FEDERATED STATES OF ISLANDS
FO	FAROE ISLANDS
FR	FRANCE
GA	G ABON
GB	UNITED KINGDOM
GD	G RENADA
GE	GE ORGIA
GF	FRENCH GUIANA
GG	G UERNSEY
GH	GHA NA
GI	G IBRALTAR
GL	G REENLAND
GM	GA MBIA
GN	GUINE A
GP	G UADELOUPE
GQ	EQ UATORIAL GUINEA
GR	G REECE
GS	SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS
GT	G UATEMALA
GU	GUA M
GW	G UINEA-BISSAU
GY	GUY ANA
HK	HONG KONG
HM	HEARD ISLAND AND MCDONALD ISLANDS
HN	HONDURAS
HR	CROATIA
HT	HAITI
HU	HUNGARY
ID	INDONESIA
IE	IRELAND
IL	ISRAEL
IM	ISLE OF MAN

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
IN	INDIA
IO	BRITISH INDIAN OCEAN TERRITORY
IQ	IRAQ
IR	IRAN, ISLAMIC REPUBLIC OF
IS	ICELAND
IT	ITALY
JE	JERSEY
JM	JAMAICA
JO	JORDAN
JP	JAPAN
KE	KENY A
KG	KY RGYZSTAN
KH	CAMBODIA
KI	KIRIBATI
KM	COMOROS
KN	SAINT KITTS AND NEVIS
KP	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
KR	KOREA, REPUBLIC OF
KW	KUWAIT
KY	CAY MAN ISLANDS
KZ	KAZAKHSTAN
LA	LAO PEOPLE'S DEMOCRATIC REPUBLIC
LB	LEBANO N
LC	SAINT LUCIA
LI	LIECHTENSTEIN
LK	SRI LANKA
LR	LIBERIA
LS	LESO THO
LT	LITHUANIA
LU	LUXEMBO URG
LV	LATVIA
LY	LIBYAN ARAB JAMAHIRIYA
MA	MOROCCO
MC	MONACO
MD	MOLDOVA, REPUBLIC OF
ME	MO NTENEGRO
MF	SAINT MARTIN
MG	MADAG ASCAR
MH	MARSHALL ISLANDS
MK	MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF
ML	MALI
MM	MY ANMAR
MN	MONGOLIA
MO	MACAO
MP	NORTHERN MARIANA ISLANDS
MQ	MARTINIQUE
MR	MAURITANIA
MS	MONTSERRAT
MT	MALTA
MU	MAURITIUS
MV	MALDIVES
MW	MALAWI
MX	MEXICO
MY	MALAY SIA
MZ	MOZAMBIQUE
NA	NAMIBIA
NC	NEW CALEDONIA
NE	NIGER

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	NF NORFOLK ISLAND
	NG NIGERIA
	NI NICARAGUA
	NL NETHERLANDS
	NO NORWAY
	NP NEPAL
	NR NAURU
	NU NIUE
	NZ NEW ZEALAND
	OM OMAN
	PA PANAMA
	PE PERU
	PF FRENCH POLYNESIA
	PG PAPUA NEW GUINEA
	PH PHILIPPINES
	PK PAKISTAN
	PL POLAND
	PM SAINT PIERRE AND MIQUELON
	PN PITCAIRN
	PR PUERTO RICO
	PS PALESTINIAN TERRITORY, OCCUPIED
	PT PORTUGAL
	PW PALAU
	PY PARAGUAY
	QA QATAR
	RE REUNION
	RO ROMANIA
	RS SERBIA
	RU RUSSIAN FEDERATION
	RW RWANDA
	SA SAUDI ARABIA
	SB SOLOMON ISLANDS
	SC SEYCHELLES
	SD SUDAN
	SE SWEDEN
	SG SINGAPORE
	SH SAINT HELENA
	SI SLOVENIA
	SJ SVALBARD AND JAN MAYEN
	SK SLOVAKIA
	SL SIERRA LEONE
	SM SAN MARINO
	SN SENEGAL
	SO SOMALIA
	SR SURINAME
	ST SAO TOME AND PRINCIPE
	SV EL SALVADOR
	SY SYRIAN ARAB REPUBLIC
	SZ SWAZILAND
	TC TURKS AND CAICOS ISLANDS
	TD CHAD
	TF FRENCH SOUTHERN TERRITORIES
	TG TOGO
	TH THAILAND
	TJ TAJIKISTAN
	TK TOKELAU
	TL TIMOR-LESTE
	TM TURKMENISTAN
	TN TUNISIA

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	TO TONGA
	TR TURKEY
	TT TRINIDAD AND TOBAGO
	TV TUVALU
	TW TAIWAN, PROVINCE OF CHINA
	TZ TANZANIA, UNITED REPUBLIC OF
	UA UKRAINE
	UG UGANDA
	UM UNITED STATES MINOR OUTLYING ISLANDS
	US UNITED STATES
	UY URUGUAY
	UZ UZBEKISTAN
	VA HOLY SEE (VATICAN CITY STATE)
	VC SAINT VINCENT AND THE GRENADINES
	VE VENEZUELA
	VG VIRGIN ISLANDS, BRITISH
	VI VIRGIN ISLANDS, U.S.
	VN VIET NAM
	VU VANUATU
	WF WALLIS AND FUTUNA
	WS SAMOA
	YE YE MEN
	YT MAY OTTE
	ZA SOUTH AFRICA
	ZM ZAMBIA
	ZW ZIMBABWE
	CS Serbia and Montenegro
	DD former East Germany
	FX France, Metropolitan
	PC former Pacific Trust Territory
	SU former Soviet Union
	XA French Antilles
	XC Caribbean
	XE Europe
	XF Africa
	XM South America
	XS Asia
	XV Various
	XX Unknown
	YU former Yugoslavia/ Serbia & Montenegro
	ZC former Czechoslovakia
	ZZ Introduction of the sea
Name	
ExportTradeCountry	
ID	
	AD ANDORRA
	AE UNITED ARAB EMIRATES
	AF AFGHANISTAN
	AG ANTIGUA AND BARBUDA
	AI ANGUILLA
	AL ALBANIA
	AM ARMENIA
	AN NETHERLANDS ANTILLES
	AO ANGOLA
	AQ ANTARCTICA
	AR ARGENTINA
	AS AMERICAN SAMOA
	AT AUSTRIA
	AU AUSTRALIA

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	AW ARUBA
	AX ÅLAND ISLANDS
	AZ AZERBAIJAN
	BA BOSNIA AND HERZEGOVINA
	BB BARBADO S
	BD BANG LADESH
	BE BELG IUM
	BF BURKINA FASO
	BG BULG ARIA
	BH BAHRAIN
	BI BURUNDI
	BJ BENIN
	BL SAINT BARTHÉLEMY
	BM BERMUDA
	BN BRUNEI DARUSSALAM
	BO BO LIVIA
	BR BRAZIL
	BS BAHAMAS
	BT BHUTAN
	BV BO UVET ISLAND
	BW BO TSWANA
	BY BELARUS
	BZ BELIZE
	CA CANADA
	CC COCOS (KEELING) ISLANDS
	CD CONGO, THE DEMOCRATIC REPUBLIC OF THE
	CF CENTRAL AFRICAN REPUBLIC
	CG CONGO
	CH SWITZERLAND
	CI COTE D'IVOIRE
	CK COOK ISLANDS
	CL CHILE
	CM CAMEROON
	CN CHINA
	CO COLOMBIA
	CR COSTA RICA
	CU CUBA
	CV CAPE VERDE
	CX CHRISTMAS ISLAND
	CY CY PRUS
	CZ CZECH REPUBLIC
	DE GE RMANY
	DJ DJIBOUTI
	DK DENMARK
	DM DOMINICA
	DO DOMINICAN REPUBLIC
	DZ ALG ERIA
	EC ECUADOR
	EE ESTO NIA
	EG EG YPT
	EH WESTERN SAHARA
	ER ERITREA
	ES SPAIN
	ET ETHIO PIA
	FI FINLAND
	FJ FIJ I
	FK FALKLAND ISLANDS (MALVINAS)
	FM MICRONESIA, FEDERATED STATES OF
	FO FAROE ISLANDS

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
FR	FRANCE
GA	G ABON
GB	UNITED KINGDOM
GD	G RENADA
GE	GE ORGIA
GF	FRENCH GUIANA
GG	G UERNSEY
GH	GHA NA
GI	G IBRALTAR
GL	G REENLAND
GM	GA MBIA
GN	GUINE A
GP	G UADELOUPE
GQ	EQ UATORIAL GUINEA
GR	G REECE
GS	SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS
GT	G UATEMALA
GU	GUA M
GW	G UINEA-BISSAU
GY	GUY ANA
HK	HONG KONG
HM	HEARD ISLAND AND MCDONALD ISLANDS
HN	HONDURAS
HR	CROATIA
HT	HAITI
HU	HUNGARY
ID	INDONESIA
IE	IRELAND
IL	ISRAEL
IM	ISLE OF MAN
IN	INDIA
IO	BRITISH INDIAN OCEAN TERRITORY
IQ	IRAQ
IR	IRAN, ISLAMIC REPUBLIC OF
IS	ICELAND
IT	ITALY
JE	JERSEY
JM	JAMAICA
JO	JORDAN
JP	JAPAN
KE	KENY A
KG	KY RGYZSTAN
KH	CAMBODIA
KI	KIRIBATI
KM	COMOROS
KN	SAINT KITTS AND NEVIS
KP	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
KR	KOREA, REPUBLIC OF
KW	KUWAIT
KY	CAY MAN ISLANDS
KZ	KAZAKHSTAN
LA	LAO PEOPLE'S DEMOCRATIC REPUBLIC
LB	LEBANO N
LC	SAINT LUCIA
LI	LIECHTENSTEIN
LK	SRI LANKA
LR	LIBERIA
LS	LESO THO

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	LT LITHUANIA
	LU LUXEMBO URG
	LV LATVIA
	LY LIBYAN ARAB JAMAHIRIYA
	MA MOROCCO
	MC MONACO
	MD MOLDOVA, REPUBLIC OF
	ME MO NTENEGRO
	MF SAINT MARTIN
	MG MADAG ASCAR
	MH MARSHALL ISLANDS
	MK MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF
	ML MALI
	MM MY ANMAR
	MN MONGOLIA
	MO MACAO
	MP NORTHERN MARIANA ISLANDS
	MQ MARTINIQUE
	MR MAURITANIA
	MS MONTSERRAT
	MT MALTA
	MU MAURITIUS
	MV MALDIVES
	MW MALAWI
	MX MEXICO
	MY MALAY SIA
	MZ MOZAMBIQUE
	NA NAMIBIA
	NC NEW CALEDONIA
	NE NIGER
	NF NORFOLK ISLAND
	NG NIGERIA
	NI NICARAGUA
	NL NETHERLANDS
	NO NORWAY
	NP NEPAL
	NR NAURU
	NU NIUE
	NZ NEW ZEALAND
	OM OMA N
	PA PANAMA
	PE PERU
	PF FRENCH POLYNESIA
	PG PAPUA NEW GUINEA
	PH PHILIPPINES
	PK PAKISTAN
	PL PO LAND
	PM SAINT PIERRE AND MIQUELON
	PN PITCAIRN
	PR PUERTO RICO
	PS PALESTINIAN TERRITORY, OCCUPIED
	PT PORTUGAL
	PW PALAU
	PY PARAG UAY
	QA QA TAR
	RE REUNION
	RO ROMANIA
	RS SERBIA

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
RU	RUSSIAN FEDERATION
RW	RWANDA
SA	SAUDI ARABIA
SB	SOLOMON ISLANDS
SC	SEYCHELLES
SD	SUDAN
SE	SWEDEN
SG	SINGAPORE
SH	SAINT HELENA
SI	SLOVENIA
SJ	SVALBARD AND JAN MAYEN
SK	SLOVAKIA
SL	SIERRA LEONE
SM	SAN MARINO
SN	SENEGAL
SO	SOMALIA
SR	SURINAME
ST	SAO TOME AND PRINCIPE
SV	EL SALVADOR
SY	SYRIAN ARAB REPUBLIC
SZ	SWAZILAND
TC	TURKS AND CAICOS ISLANDS
TD	CHAD
TF	FRENCH SOUTHERN TERRITORIES
TG	TOGO
TH	THAILAND
TJ	TAJIKISTAN
TK	TOKELAU
TL	TIMOR-LESTE
TM	TURKMENISTAN
TN	TUNISIA
TO	TONGA
TR	TURKEY
TT	TRINIDAD AND TOBAGO
TV	TUVALU
TW	TAIWAN, PROVINCE OF CHINA
TZ	TANZANIA, UNITED REPUBLIC OF
UA	UKRAINE
UG	UGANDA
UM	UNITED STATES MINOR OUTLYING ISLANDS
US	UNITED STATES
UY	URUGUAY
UZ	UZBEKISTAN
VA	HOLY SEE (VATICAN CITY STATE)
VC	SAINT VINCENT AND THE GRENADINES
VE	VENEZUELA
VG	VIRGIN ISLANDS, BRITISH
VI	VIRGIN ISLANDS, U.S.
VN	VIETNAM
VU	VANUATU
WF	WALLIS AND FUTUNA
WS	SAMOA
YE	YEMEN
YT	MAYOTTE
ZA	SOUTH AFRICA
ZM	ZAMBIA
ZW	ZIMBABWE
CS	Serbia and Montenegro
DD	former East Germany

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	FX France, Metropolitan PC former Pacific Trust Territory SU former Soviet Union XA F French Antilles XC Caribbean XE Europe XF Africa XM South America XS Asia XV Various XX Unknown YU former Yugoslavia/ Serbia & Montenegro ZC former Czechoslovakia ZZ Introduction of the sea
Name	
AssociatedReferencedDocument	
IssueDateTime	
TypeCode	E Export R Re-Export
ID	
TransportLogisticsPackage	
ItemQuantity	
IncludedSupplyChainTradeLineItem	
TypeCode	
TypeExtensionCode	
SpecifiedTradeProduct	
SellerAssignedID	
Description	
TypeCode	BAR Bark BEL Belts BOC Bone carvings BOD Bodies BON Bones BOP Bone pieces BPR Bone products BUL Bulbs CAL Calipee CAP Carapaces CAR Carvings CHP Chips CLA Claw s CLO Cloth COR Raw corals COS Coral sand CST Chess sets CUL Cultures DER Der ivatives DPL Dried plants EAR Ears EGG Eggs EGL Eggs (live) EXT Ex tract FEA Feathers FIB Fibres FIN Fi n FLO Flow ers

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
FOO Feet	
FPT Flow	er pots
FRA Spectacle	frames
FRN	Items of furniture
FRU Frui	t
GAB Gall	bladder(s)
GAL Gal	l
GAR Garments	
GEN Genitalia	
GRS Graft	rootstocks
HAI Hair	
HAN Handbags	
HAP Hair	products
HEA Heads	
HOC Horn	carvings
HOP Horn	pieces
HOR Horns	
HOS Hor	n scraps
HPR Horn	products
IVC Ivory	carvings
IVP Ivory	pieces
IVS Ivory	scraps
LEA Leather	
LIV Live	
LOG Logs	
LPL	Large leather products
LPS	Small leather products
LVS Leaves	
MEA Meat	
MUS Musk	
OIL Oi	l
OTH Other	
PEA Pearls	
PIE Pieces	
PKY Piano	keys
PLA Plates	
POW Pow	der
QUI Q	uills
ROO Roots	
SAW S	awn wood
SCA Scales	
SCR Scraps	
SEE Seeds	
SHE Shells	
SHO	Pairs of shoes
SKD Skin	sides
SKE Skeletons	
SKI Skins	
SKO Leather	items
SKP Skin	pieces
SKS Skin	scraps
SKU Skulls	
SOU Soup	
SPE Specimens	
SPO Sponges	
STE Stems	
SWI Sw	im bladders
TAI T	ails
TEE Teeth	

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3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	TIC Timber carvings
	TIM Timber
	TIP Timber pieces
	TIS Tissue cultures
	TRO Trophies
	TUS T usks
	UNS Unspecified
	VEN Veneer
	VNM Venom
	WAL Wallets
	WAT Watchstraps
	WAX Wax
	WOO Wood products
CommonName	
ScientificName	
ExaminationTransportEvent	
InspectedUnitQuantity	
ApplicableCrossBorderGovernmentProcedure	
UsedToDateQuotaQuantity	
AnnualQuotaQuantity	
AcquisitionDateTime	
PreviousReferencedDocument	
ID	
Name	
ImportTradeCountry	
ID	AD ANDORRA AE UNITED ARAB EMIRATES AF AFGHANISTAN AG ANTIGUA AND BARBUDA AI ANGUILLA AL ALBANIA AM ARMENIA AN NETHERLANDS ANTILLES AO ANGOLA AQ ANTARCTICA AR ARGENTINA AS AMERICAN SAMOA AT AUSTRIA AU AUSTRALIA AW ARUBA AX ÅLAND ISLANDS AZ AZERBAIJAN BA BOSNIA AND HERZEGOVINA BB BARBADOS BD BANGLADESH BE BELGIUM BF BURKINAFASO BG BULGARIA BH BAHRAIN BI BURUNDI BJ BENIN BL SAINT BARTHÉLEMY BM BERMUDA BN BRUNEI DARUSSALAM BO BOLIVIA BR BRAZIL BS BAHAMAS

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3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
BT	BHUTAN
BV	BO UVET ISLAND
BW	BO TSWANA
BY	BELARUS
BZ	BELIZE
CA	CANADA
CC	COCOS (KEELING) ISLANDS
CD	CONGO, THE DEMOCRATIC REPUBLIC OF THE
CF	CENTRAL AFRICAN REPUBLIC
CG	CONGO
CH	SWITZERLAND
CI	COTE D'IVOIRE
CK	COOK ISLANDS
CL	CHILE
CM	CAMEROON
CN	CHINA
CO	COLOMBIA
CR	COSTA RICA
CU	CUBA
CV	CAPE VERDE
CX	CHRISTMAS ISLAND
CY	CY PRUS
CZ	CZECH REPUBLIC
DE	GE RMANY
DJ	DJIBOUTI
DK	DENMARK
DM	DOMINICA
DO	DOMINICAN REPUBLIC
DZ	ALG ERIA
EC	ECUADOR
EE	ESTO NIA
EG	EG YPT
EH	WESTERN SAHARA
ER	ERITREA
ES	SPAIN
ET	ETHIO PIA
FI	FINLAND
FJ	FIJ I
FK	FALKLAND ISLANDS (MALVINAS)
FM	MICRONESIA, FEDERATED STATES OF ISLANDS
FO	FAROE ISLANDS
FR	FRANCE
GA	G ABON
GB	UNITED KINGDOM
GD	G RENADA
GE	GE ORGIA
GF	FRENCH GUIANA
GG	G UERNSEY
GH	GHA NA
GI	G IBRALTAR
GL	G REENLAND
GM	GA MBIA
GN	GUINE A
GP	G UADELOUPE
GQ	EQ UATORIAL GUINEA
GR	G REECE
GS	SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS
GT	G UATEMALA

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3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
GU GUA	M
GW G	UINEA-BISSAU
GY GUY	ANA
HK HONG	KONG
HM	HEARD ISLAND AND MCDONALD ISLANDS
HN HONDURAS	
HR CROATIA	
HT HAITI	
HU HUNGARY	
ID INDONESIA	
IE IRELAND	
IL ISRAEL	
IM	ISLE OF MAN
IN INDIA	
IO	BRITISH INDIAN OCEAN TERRITORY
IQ IRAQ	
IR	IRAN, ISLAMIC REPUBLIC OF
IS ICELAND	
IT ITALY	
JE JERSEY	
JM JAMAICA	
JO JORDAN	
JP JAPAN	
KE KENY	A
KG KY	RGYZSTAN
KH CAMBODIA	
KI KIRIBATI	
KM COMOROS	
KN	SAINT KITTS AND NEVIS
KP	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
KR	KOREA, REPUBLIC OF
KW KUWAIT	
KY CAY	MAN ISLANDS
KZ KAZAKHSTAN	
LA	LAO PEOPLE'S DEMOCRATIC REPUBLIC
LB LEBANO	N
LC SAINT	LUCIA
LI LIECHTENSTEIN	
LK SRI	LANKA
LR LIBERIA	
LS LESO	THO
LT LITHUANIA	
LU LUXEMBO	URG
LV LATVIA	
LY	LIBYAN ARAB JAMAHIRIYA
MA MOROCCO	
MC MONACO	
MD	MOLDOVA, REPUBLIC OF
ME MO	NTENEGRO
MF SAINT	MARTIN
MG MADAG	ASCAR
MH MARSHALL	ISLANDS
MK	MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF
ML MALI	
MM MY	ANMAR
MN MONGOLIA	
MO MACAO	
MP	NORTHERN MARIANA ISLANDS

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3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
MQ	MARTINIQUE
MR	MAURITANIA
MS	MONTSERRAT
MT	MALTA
MU	MAURITIUS
MV	MALDIVES
MW	MALAWI
MX	MEXICO
MY	MALAY SIA
MZ	MOZAMBIQUE
NA	NAMIBIA
NC	NEW CALEDONIA
NE	NIGER
NF	NORFOLK ISLAND
NG	NIGERIA
NI	NICARAGUA
NL	NETHERLANDS
NO	NORWAY
NP	NEPAL
NR	NAURU
NU	NIUE
NZ	NEW ZEALAND
OM	OMA N
PA	PANAMA
PE	PERU
PF	FRENCH POLYNESIA
PG	PAPUA NEW GUINEA
PH	PHILIPPINES
PK	PAKISTAN
PL	PO LAND
PM	SAINT PIERRE AND MIQUELON
PN	PITCAIRN
PR	PUERTO RICO
PS	PALESTINIAN TERRITORY, OCCUPIED
PT	PORTUGAL
PW	PALAU
PY	PARAG UAY
QA	QA TAR
RE	REUNION
RO	ROMANIA
RS	SERBIA
RU	RUSSIAN FEDERATION
RW	RWANDA
SA	SAUDI ARABIA
SB	SOLOMON ISLANDS
SC	SEY CHELLES
SD	SUDAN
SE	SWEDEN
SG	SINGAPORE
SH	SAINT HELENA
SI	SLO VENIA
SJ	SVALBARD AND JAN MAYEN
SK	SLO VAKIA
SL	SIERRA LEONE
SM	SAN MARINO
SN	SENEGAL
SO	SO MALIA
SR	SURINAME
ST	SAO TOME AND PRINCIPE

Bold = Element, Italic = Attribute, Grey = Group

3.6 CITES Schema Code List Report



Element/Attribute	Applicable Codes
	SV EL SALVADOR
	SY SYRIAN ARAB REPUBLIC
	SZ SWAZILAND
	TC TURKS AND CAICOS ISLANDS
	TD CHAD
	TF FRENCH SOUTHERN TERRITORIES
	TG TOGO
	TH THAILAND
	TJ TAJIKISTAN
	TK TO KELAU
	TL TIMO R-LESTE
	TM TURKMENISTAN
	TN TUNISIA
	TO TONGA
	TR TURKEY
	TT TRINIDAD AND TOBAGO
	TV TUVALU
	TW TAIWAN, PROVINCE OF CHINA
	TZ TANZANIA, UNITED REPUBLIC OF
	UA UKRAINE
	UG UGANDA
	UM UNITED STATES MINOR OUTLYING ISLANDS
	US UNITED STATES
	UY URUGUAY
	UZ UZBEKISTAN
	VA HOLY SEE (VATICAN CITY STATE)
	VC SAINT VINCENT AND THE GRENADINES
	VE VENEZUELA
	VG VIRGIN ISLANDS, BRITISH
	VI VIRGIN ISLANDS, U.S.
	VN VIET NAM
	VU VANUATU
	WF WALLIS AND FUTUNA
	WS SAMO A
	YE YE MEN
	YT MAY OTTE
	ZA SOUTH AFRICA
	ZM ZAMBIA
	ZW ZIMBABWE
	CS Serbia and Montenegro
	DD former East Germany
	FX France, Metropolitan
	PC former Pacific Trust Territory
	SU former Soviet Union
	XA F rench Antilles
	XC Caribbean
	XE Europe
	XF Africa
	XM South America
	XS Asia
	XV Various
	XX Unknow n
	YU former Yugoslavia/ Serbia & Montenegro
	ZC former Czechoslovakia
	ZZ Introduction of the sea

Name