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Recommendations, standards, and deliverables supporting implementation:

Deliverables in support of implementation:

Reports and executive guides

Executive Guide on United Nations Code for Trade and Transport Locations Maintenance

Submitted by the secretariat

Summary

In 2016, the twenty-second session of the Plenary endorsed the development of a new form of deliverable called an “executive guide” to better disseminate the deliverables and increase adoption of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) to high-level decision makers and policymakers (Plenary decision 16-08, document ECE/TRADE/C/CEFACT/2016/11).

In 2019, the UN/LOCODE Maintenance Team was established under the UN/LOCODE Advisory Group to validate data maintenance requests for the United Nations Code for Trade and Transport Locations (UN/LOCODE) with support of the United Nations Economic Commission for Europe (ECE) secretariat. This document contains the text of the executive guide on UN/LOCODE maintenance.

Document ECE/TRADE/C/CEFACT/2023/14 is submitted to the twenty-ninth session of the UN/CEFACT Plenary for noting.



I. Introduction

1. In 1981, the United Nations Code for Trade and Transport Locations (UN/LOCODE) was established as a standard for identifying and referencing specific geographic locations used in international trade and transportation. This coding system was introduced as part of the ECE Recommendation 16, aiming to facilitate efficient communication, data exchange, and logistics coordination among various parties involved in global commerce and transportation networks. A UN/LOCODE is a five-character code system that provides a unique coded representation for the names of ports, airports, inland clearance depots, inland freight terminals and other transport-related locations that are used for the movement of goods in international trade. The structure of the geographic coding scheme comprises of five characters, which are used to represent specific locations or areas in a standardized manner. The first two letters code a country by the table defined in ISO 3166-1 alpha-2. The three remaining characters code a location within that country. Letters are preferred, but if necessary digits 2 through 9 may be used, excluding "0" and "1" to avoid confusion with the letters "O" and "I" respectively.

Figure 1

Example UN/LOCODE data elements - UNLOCODE (BB) - BARBADOS.
UNECE, August, 2023, service.unece.org/trade/locode/bb.htm

 United Nations
Code for Trade and Transport Locations (UN/LOCODE)

(BB) BARBADOS

| Cl. | LOCODE | Name | NameWithDiacritics | SubDir. | Function | Status | Date | IATA | Coordinates | Remarks |
|-----|--------|------------------|--------------------|---------|----------|--------|------|------|--------------|---------|
| BB | BGI | Bridgetown | Bridgetown | | 1-45--- | AI | 9601 | | | |
| BB | G5B | Brighton | Brighton | 10 | --3---- | RL | 1607 | | 1307N 05931W | |
| BB | CCH | Christ Church | Christ Church | 01 | --3---- | RL | 1301 | | 1305N 05932W | |
| BB | H9G | Edge Hill | Edge Hill | 08 | --3---- | RL | 1701 | | 1309N 05936W | |
| BB | HLT | Holetown | Holetown | 04 | --3---- | RL | 1601 | | 1311N 05938W | |
| BB | JCK | Jackson | Jackson | 08 | ----6-- | RL | 1801 | | 1309N 05936W | |
| BB | NES | Nesfield | Nesfield | 07 | --3---- | RL | 1501 | | 1317N 05937W | |
| BB | OST | Oistins | Oistins | | --3---- | RL | 1101 | | 1304N 05932W | |
| BB | STM | Saint Michael | Saint Michael | 08 | 1---6-- | RL | 1101 | | 1307N 05936W | |
| BB | SPR | Saint Peter | Saint Peter | 09 | -23---- | RL | 1307 | | 1315N 05937W | |
| BB | SAP | Saint Philip | Saint Philip | 10 | ----6-- | RL | 1107 | | | |
| BB | SLC | San Lords Castle | San Lords Castle | | --3---- | RL | 0901 | | 1307N 05936W | |
| BB | SPT | Speightstown | Speightstown | | --3---- | RQ | 0907 | | 1315N 05939W | |

2. Today UN/LOCODE is widely used by government agencies and private sector entities around the world. The latest release of the UN/LOCODE (2023-1) contains over 115,000 entries in 249 countries, territories, and special areas; and is accessible free of charge on the internet (<https://unece.org/trade/uncefact/unlocode>). Any international trade transaction that is conducted today will use UN/LOCODE data elements either in paper documents and/or for the electronic exchange of information. It is UN/LOCODE that provides the trade location, the same way as the clock provides the local time. The UN/LOCODE global user community includes the following: logistics (shipping and freight forwarders, universal postal union, and international mail processing centres), the manufacturing industry, the e-business industry, governmental bodies in their respective member states, the EU (EUROSTAT), and other international organizations such as IMO, IATA, UPU, etc. The UN/LOCODE is the most frequently visited page on the ECE website and is one of ECE's flagship products; the UN/LOCODE accounts for over 80% of the total visits to the ECE website.

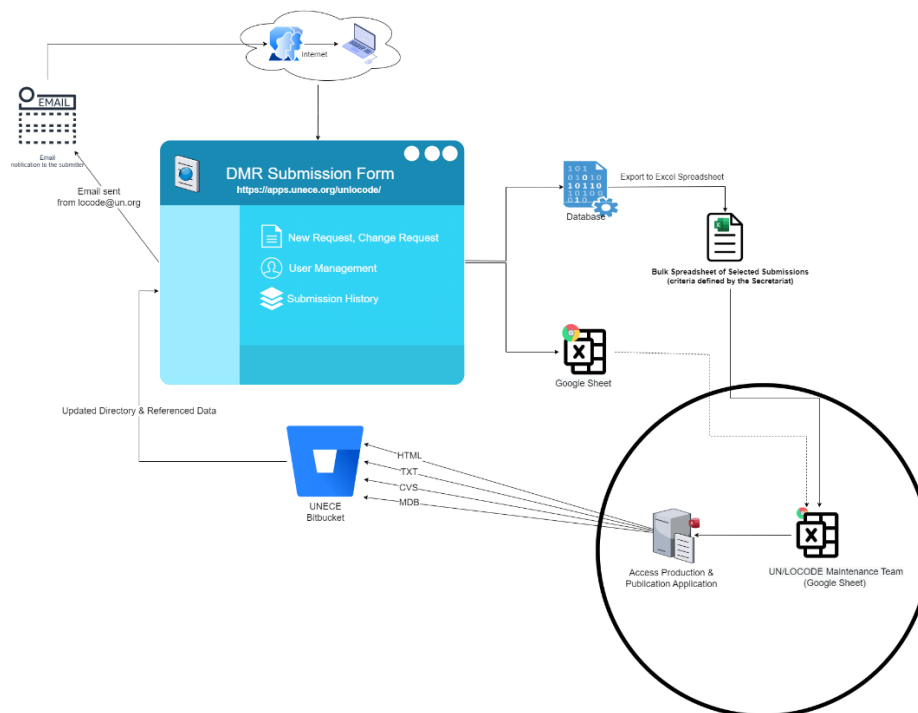
3. The current UN/LOCODE application was developed in 2007 to manage Data Maintenance Requests (DMR) submissions, production, and publication of the UN/LOCODE directory more than fifteen years ago. It uses Microsoft Access (backend system) with a planned volume of 10,000 entries and automatic generation of the UN/LOCODE directories.

The (current) UN/LOCODE system comprises of three (3) sub-systems:

- **Subsystem 1** – DMR Submission (Entry Portal)
- **Subsystem 2** – DMR Validation
- **Subsystem 3** – Directory Publication

4. Subsystem 1 is uncompliant with UN OICT Security Standards and is the only ECE system that poses a cybersecurity threat to the UN. Subsystems 1 and 2 are pending audit by OICT. It is the recommendation of UN Office of Information and Communications Technology (OICT) that the application (all subsystems) should be migrated to today's secure software development standards.

Figure 2:
UN/LOCODE System Workflow, UNECE, December, 2022



5. UN/LOCODE is managed, maintained and published by the ECE with the support of the UN/LOCODE Maintenance Team under the UN/LOCODE Advisory Group. The maintenance team consists of the UN/LOCODE focal points¹, nominated by governments and institutions and other key stakeholders of the UN/LOCODE user community, such as representatives of industries and UN/CEFACT experts. The team members are from both the public and private sectors.

6. The UN/LOCODE directory is published on the ECE website² and updated every six months. There are two maintenance cycles for each release per year. The first release is published at the beginning of July with a cut-off date of 31 March and the second release is published at the end of December with a cut-off date of 30 September.

II. Management and Oversight of the UN/LOCODE System

7. The UN/LOCODE is maintained through data maintenance requests. A UN/LOCODE Data Maintenance Request (DMR) refers to a formal submission made by a UN/LOCODE focal point or an authorized entity to request changes, updates, corrections, or additions to the United Nations Code for Trade and Transport Locations (UN/LOCODE) database. The purpose of such requests is to ensure that the UN/LOCODE database remains accurate, up-to-date, and reflective of real-world changes in locations used for trade, transport, and

¹ A UN/LOCODE focal point refers to an individual or an entity within a country or organization that serves as the central contact and coordinator for matters related to the United Nations Code for Trade and Transport Locations (UN/LOCODE) system. The focal point is responsible for various tasks related to the management, maintenance, and dissemination of UN/LOCODE data within their respective jurisdiction or organization. (<https://unece.org/trade/unecefact/unlocode/NFPs>)

² <https://unece.org/trade/unecefact/unlocode> .

logistics. The public may submit DMRs through the online UN/LOCODE DMR Frontend System - Subsystem 1³. Submitters are encouraged to read the latest version of ECE Recommendation No. 16 before making submissions.

Figure 3:
 “UN/LOCODE DMR Entry System.”, apps.unece.org/unlocode. Accessed 30 Aug. 2023.

8. The UN/LOCODE Maintenance Team, led by the Convener and supported by the ECE secretariat, validates DMRs collaboratively via a weekly virtual meeting.

9. The secretariat sends a newsletter to the UN/LOCODE user community which includes an invitation and a link to the maintenance meeting. The DMR submitters are invited to the maintenance meeting to justify their requests and to facilitate the validation. Their absence will cause a delay in processing their DMRs.

10. The maintenance meeting is chaired by the Convener and starts with an information-sharing session delivered by the secretariat. If a DMR is approved, it will be included in the next UN/LOCODE release.

11. The existing system falls short of providing the necessary support and automation. It imposes an excessive workload burden on the secretariat due to the manual processes. This underscores the urgent requirement for a more streamlined, modern, and efficient solution.

III. Benefits

12. The UN/LOCODE maintenance process leverages public-private partnerships (PPPs) to meet the interests and needs of both the public and private sectors.

13. The data quality is improved through the teamwork of the UN/LOCODE Maintenance Team in validating DMRs and through consistent application of ECE Recommendation 16.

14. The maintenance meeting provides a platform to raise issues and make recommendations related to maintenance policy, and these will be discussed for resolution at the ad-hoc meeting on the UN/LOCODE maintenance policy. The resulting recommendations will be submitted to the annual meeting of the UN/LOCODE Advisory Group for decision.

³ <https://apps.unece.org/unlocode> (The current UN/LOCODE DMR Frontend System - Subsystem 1 will be re-engineered to fix the cybersecurity vulnerability highlighted in the UN Office of Information and Communications Technology (OICT) audit during Q3 – Q4 of 2023.) ***

IV. Call for extra-budgetary support

15. Extra-budgetary support is of paramount importance in the endeavour to re-engineer the UN/LOCODE system. As the current system, established over a decade ago, faces limitations in accommodating the evolving demands of the modern trade and transport landscape, a comprehensive overhaul becomes an urgent necessity. The infusion of extra-budgetary resources will empower the UN/LOCODE system to undergo a transformative reengineering process, fostering enhanced functionality, scalability, and adaptability. This, in turn, will equip the system to effectively meet the dynamic needs of today's global trade and logistics ecosystem, enabling seamless management of DMRs, improved data quality, and streamlined collaboration among stakeholders. Allocating an amount between USD 250,000 to 500,000 will be necessary to facilitate the re-engineering process.

V. More information

16. ECE Recommendation 16 on UN/LCOODE, Fourth Edition (ECE/TRADE/459).
 17. Guidelines on the UN/LOCODE Maintenance.
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