

WHITE PAPER



# CUSTOMS HANDLING IN THE 21ST CENTURY

WHY TECHNOLOGY IS CRUCIAL  
IN SUCCESSFUL GLOBAL TRADE

## HISTORY OF CUSTOMS

Customs enforcement began more than 5,000 years ago. In the high cultures of Egypt and the Orient, customs was widely used to generate tax revenue and contribute to the financing of public expenditures.

While initially conceived as a tariff or toll for using roads, bridges, and harbour facilities to fund their upkeep, imposing duties developed into an instrument for protecting the domestic economy. Unwanted competitors from other countries were charged high fees to do business, keeping domestic products competitive.

With the growth of industrialization and crossborder marketing of products and raw materials, these protectionist duties began to be seen as a trade barrier. Nonetheless, methods and measures to protect the domestic economy continued to be developed in individual countries.

In the 20th century, standardized customs regulations were developed. The cornerstone for this was the United Nations' General Agreement on Tariffs and Trade (GATT) in 1947. The GATT was replaced by the World Trade Organization (WTO) in 1995. Furthermore, the World Customs Organization was founded in 1995 to harmonize international trade, standardize customs formalities, and fight smuggling.

To further reduce obstacles in international trade, countries also work amongst themselves on agreements that regulate trade, goods, travel, and tariffs. The underlying principle of most economic agreements is reciprocity.

In Europe, a unified economic area has evolved since 1958 as part of the European Union. In the EU, all goods can move freely between the 28 member states regardless of their origin. Once imported to the EU, goods can be transported to other member nations without further controls or duties.

An essential step in the standardization of customs in the EU was the introduction of a standardized customs declaration – the so-called Single Administrative Document – in 1988. It replaced 150 different documents that had been used by the customs administrations of the member states. The principles of this Single Administrative Document have been adopted elsewhere and the document has become the standard in many countries outside of the EU.

In addition, free trade agreements are currently in place between the EU and about 30 countries.

Through simplified and standardized customs clearance, the function of customs has changed considerably over the course of centuries. Charging import duties has not been the sole purpose for some time now. Depending on the country and structure of the administrative authorities, multi-layered tasks have been added to customs. Among them, for example, is control over the export of sensitive technology that might be used to manufacture nuclear or chemicals weapons. Another area of customs responsibility nowadays is the fight against fraud. This concerns tracing forged certificates of origin allegedly proving the goods originate from a country with a lower tariff rate. Forged value added tax returns and payments in pretence of trade transactions, the evasion of excise taxes, or uncovering illicit employment are equally important. Besides the direct fight against crime, customs also serves to record statistical data and prepare risk analyses concerning the threats of international terrorism.





## CUSTOMS HANDLING IN THE 21ST CENTURY

Besides its function, other areas of customs have changed as well, such as the timing of processes and technical possibilities. Through electronic data processing, relevant information pertaining to the transported goods can be sent to customs authorities much faster.



THE INTERNET  
HAS CREATED  
**A CONTINUOUS  
EXCHANGE  
OF DATA**

In the 21st century, the internet has created the conditions for a continuous exchange of data throughout the supply chain. The utilization of these possibilities requires a future-oriented customs management suite that provides the features described in more detail on the following pages. Current customs software tends to emulate an electronic typewriter and can even hinder proper customs management.

Meanwhile, all parties involved benefit from standardized customs management: Trading partners profit in the form of expedited processes and optimized cash flow, while public authorities receive complete transparency and thereby new flexibility for effective control. The automated data exchange between customs authorities worldwide remains a utopian ideal. But each step in this direction helps in the fight against global customs fraud, which causes millions in losses across the globe each year. The security initiatives and legal framework of the Union Customs Code therefore require increasingly close cooperation between customs authorities in the countries of origin, transit, and destination. The countries involved should be able to exchange data promptly with each other – or have access to the same database.

**THE AUTOMATED DATA EXCHANGE BETWEEN CUSTOMS  
AUTHORITIES WORLDWIDE REMAINS A UTOPIAN IDEAL.**

## CHALLENGES FOR A MODERN CUSTOMS MANAGEMENT SUITE

Electronic customs procedures undoubtedly offer clear advantages, but the parties involved should be aware of the risks of digitalization. Without a suitable customs management suite, a customs clearance process can quickly come to a halt. This becomes clear from the examples of the Union Customs Code (UCC) of the EU or the U.S. Customs and Border Protection agency (CBP). Data that is recorded incompletely or incorrectly and transmitted to the customs office lead to serious consequences. Typical errors include:



Contacting the incorrect customs clearance office.



Providing false information regarding tariff rates and the type of goods, their value, and their weight.



Providing incomplete information regarding security-sensitive data.

These errors result in the declaration being rejected, the inspection of the shipment, or other actions that delay transport. In addition, these errors have negative effects on relations among the supplier, the customer, and the customs office. Furthermore, companies could be faced with fines or have process simplification privileges revoked.

The flow of goods proceeds uninterrupted only when you have an electronic export declaration that is filled out completely, correctly, and plausibly and contains no risk parameters that cause alarm. While errors cannot be avoided with traditional systems, obvious false input – which must be checked and, if applicable, corrected before sending to the customs office – can be highlighted by means of automated check algorithms of a customs management suite.



## FEATURES OF A FUTURE-ORIENTED CUSTOMS MANAGEMENT SUITE

A future-oriented customs management suite should have features that go far beyond the mere customs declaration. Besides the actual features, the system architecture itself is crucial, and the software should be integrated, automated, and flexible to truly ease the user's workload and reduce errors.



### INTEGRATED

In an increasingly networked world, data is exchanged in ever greater volumes – among business partners, with customers, and not least with machines via the internet of things. While various interface standards have been used to date, a CMS will have interfaces with existing systems like an enterprise resource planning system (ERP), a transportation management system (TMS), or a warehouse management system (WMS). This way a customs management suite can directly access the data stored at the company or with partners so that all the user needs to do is add any missing information (see Functions of a Modern Customs Management Suite below). A future-oriented IT solution requires a universal adapter for the data exchange with authorities, via which data can be exchanged in all directions and all formats.



### AUTOMATED

While business intelligence systems and analysis instruments have helped merely with decision making and suggesting options for action, in the future, algorithms will have the ability to make decisions autonomously. Business rules will be set specific to customers or users and the rest will be done by the application. This will take place at ever higher speeds in spite of larger data volumes. The potential of intelligent software solutions is founded on automating routine tasks, mastering one's own management tasks better, and improving and simplifying business and IT processes through integrated analysis.



### FLEXIBLE

Modern customs management systems will also have to operate more flexibly than they have in the past. Besides the business rules mentioned above, the standardized graphical user interface (GUI) should adjust quickly to the user's needs – regarding the relevant data fields displayed on the screen, the selection of countries, or the required customs clearance procedures, for example. The CMS should therefore keep all customary procedures available and charge for their use on a transactional basis.

## SPECIAL FUNCTIONS OF A MODERN CUSTOMS MANAGEMENT SUITE

In addition to the features mentioned above, modern customs management systems will have to fulfill the following requirements to anticipate future developments in the customs sector:

**Integrated knowledge database:** In light of globally diverse and dynamically changing regulations, laws, and tariffs, customs systems should have constantly updated knowledge databases. These include databases covering all free trade and preferential duties agreements, drawback prohibitions, and rules regarding origin. In addition, modules for determining the status of origin will be offered in accordance with the rules regarding origin. The system should offer all information and point out all relevant changes. The goal is to make it so users no longer even have to think about recent regulation changes that might have materialized around the world. A modern customs management suite handles those kinds of updates automatically.

**Limitations and preferences:** It should be recognizable prior to import whether goods are subject to any import restrictions, what the underlying tariffs are and whether a tariff preference can be applied. In addition, an innovative customs management suite can check automatically before every export whether the good is subject to an approval requirement or export control.

### **Interfaces with the existing IT environment:**

One key to success is how the customs management suite integrates with the existing IT environment – including systems like the ERP, TMS and WMS. Through integration, all solutions can work with one central database. In the process, the ERP, TMS and WMS serve as pre-processing system and data supplier for the CMS, which reports back the processing results from the customs declaration at the end of the clearance process. This saves time, avoids transmission errors, and ensures a standardized and consistent database.

**Integrated workflow management:** This functionality allows companies to automatically define the proper individual customs clearance processes and assign them to the right employees for handling. The assignments can be made based on work area or on the current workload of the administrators. These automated assignments greatly speed up the processing of orders.

**Document management:** With an integrated document management system (DMS), all documents that are part of a customs clearance process are filed in a digital folder so they can be found quickly and in such a way that audit requirements are met – regardless of document type (email, PDF, fax, etc.). Documents in paper format are scanned in and automatically linked to the relevant process.

**Classification of goods:** Fully or semi-automatic classification of goods is another significant simplification. Classifying means attributing the right commodity number to one's own goods. Finding the right commodity number within 21 sections, 96 chapters, and more than 5,000 sub-items is an elaborate process in most cases, which requires specialized expertise.



**Automatic tariff assessment:** The attribution of the correct customs tariff to a commodity is the basis of all import and export processes. Care is warranted here because a false attribution can have far-reaching consequences. An intelligent customs management suite can automate the attribution process to the furthest extent, which greatly reduces the risk of error.

In addition, integrated logging of all changes relating to attribution or classification makes it completely traceable who has made what changes and at what time. The entire process thereby also becomes transparent in a company audit.

**Backup:** Customs clearances involve large volumes of data, and the relevant data must be available and stored reliably at all times. One's own organization, customers, and authorities all demand fast, safe, and simple access to data. Having integrated data backup therefore goes without saying for a modern customs system. Applicable principles of archiving result from the legal requirements of the individual countries, which are considered automatically by the system. For example, the Principles on Data Access and Verifiability of Digital Documents (GDPdU) published by the German Ministry of Finance have applied to German companies since January 2002.

### **Correct handling of the Anti-Terrorism**

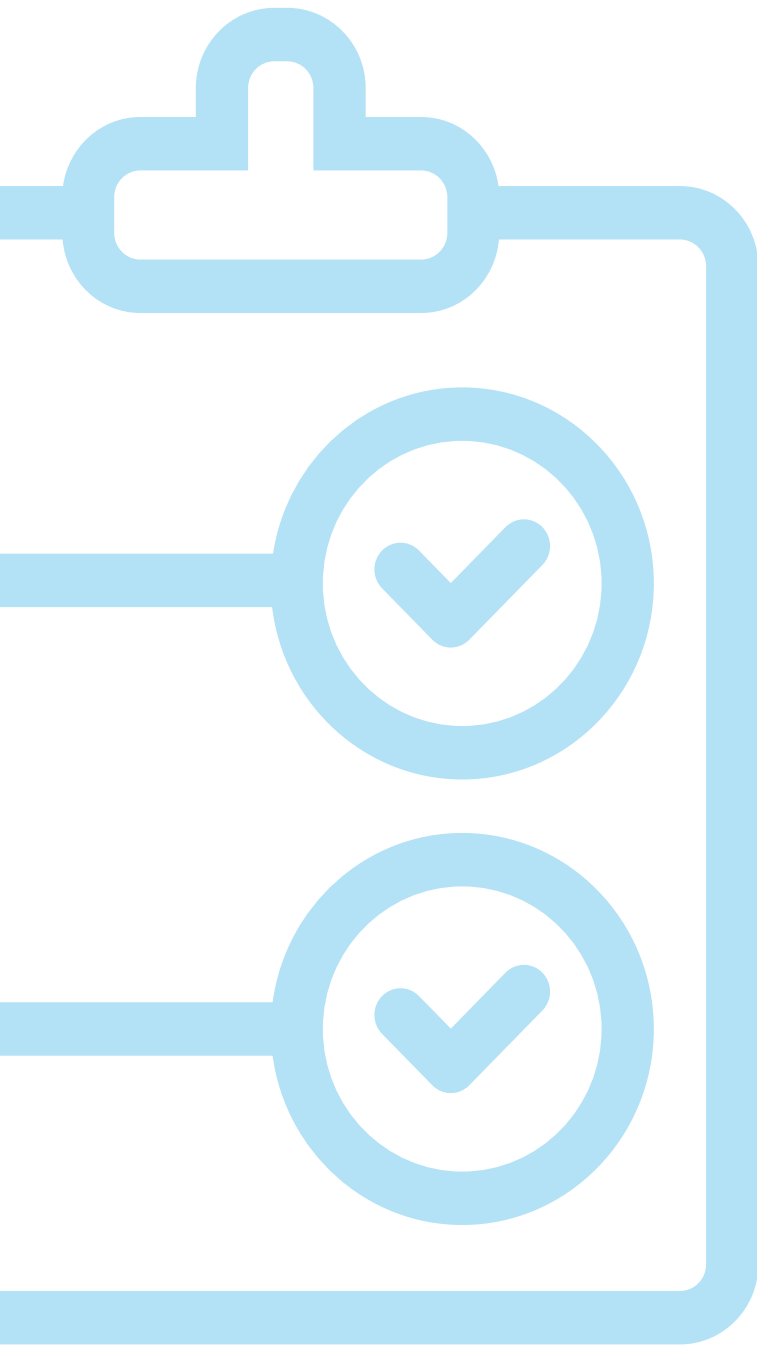
**Directive:** Failing to comply with the anti-terrorism regulations of the EU and the US can bring severe consequences. Regulations often center around embargo measures in the fight against terrorism, which are not aimed at particular countries or groups of commodities, but at persons, organizations, and affiliations. This has introduced a completely new dimension to foreign trade law.

The regulations include different lists of persons, organizations, and affiliations with which business contact is prohibited. Overall, the directories of the UN, the US and the EU list about 20,000 entries, which are updated on average once or twice a week. It is impossible for an enterprise to manually track these changes and compare them against its own addresses. This notion is absurd when you consider a freight forwarder's order book with hundreds of delivery slips.

The "black lists" change constantly, and the penalties in the EU range from exclusion from the simplified declaration procedure with customs authorities to 15 years imprisonment and monetary fines of €500,000. Profit seizure or freezing of bank accounts can lead to ruin for the affected enterprise in the end.

A customs management suite should therefore check each address within seconds in a background process and instantly alert the user if there is a "hit." This requires a reliable "matching algorithm" that also takes different spellings and typos into account. This is different in a manual screening process, where only a 1:1 comparison of the entered name is made. That's much too unreliable in practice and leads to significant risk.





**Simplified manual input:** Despite the automation, manual input will not be completely eliminated. So it is important to simplify the input activities. This is accomplished, for example, by displaying only the relevant input fields to the employee from the outset – with any non-relevant fields hidden automatically. For this reason, a flexible, standardized GUI is important. Interfaces with external systems additionally simplify the error-free data import.

**Reporting:** Reporting tools are another feature of a modern customs management system. After all, mid-sized businesses also require corresponding analysis and reporting solutions to collect, compile, and analyze data quickly. These solutions supply relevant information on a continuous basis and provide ad-hoc support regarding important business questions – for example, summaries of data and parameters that enable managers to always keep an eye on key performance indicators. For presentation, report templates and various export formats such as CSV, TXT or XML are available. Thus the user is able to automatically prepare analyses and reports without the need for help from the IT department.

**Automatic customs value assessment:** The customs value assessment is one of the more complex topics and should be supported by a high-performance IT system. The customs value serves as the assessment basis for the calculation of duties and the importation VAT and is of central importance. If it is not assessed correctly, it can lead to serious customs duties. In daily practice, many erroneous inputs are made in this regard, which can result in proceedings for tax offenses. Good, reliable software is required here, which will lead employees safely through the process.



## CONCLUSION

The software technology available for customs declarations has developed rapidly in recent years and opens up substantially expanded possibilities for the public authorities as well as importers and exporters – as can be seen in the increasing digitalization of the global customs clearance processes. Therefore when choosing a suitable customs management suite, it is imperative to decide on an open, web-based solution that can be expanded, updated, and adjusted.



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BluJay Solutions delivers supply chain software and services to the world's most progressive retailers, distributors, freight forwarders, manufacturers, and logistics service providers. Transforming supply chain logistics with the BluJay Global Trade Network, we enable customers to unlock the power of more than 40,000 universally connected partners. With BluJay, companies can achieve greater trade velocity, transform their supply chain economics for disruptive advantage, and see beyond the horizon to optimize their future in the global economy.





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