

## **Global Supply Chain Perspective: Automated Foreign Trade Zone Compliance**

### *Software Support is Tricky, and Key to Maximizing the Opportunity*

Foreign trade zones (FTZs) are specific locales that the U.S. Customs and Border Patrol (CBP) considers outside its jurisdiction for the purpose of customs duty payment. Companies operating in FTZs pay no duties on imported goods until they actually enter CBP territory. FTZs therefore allow U.S. manufacturers, particularly firms producing goods abroad and then finishing them domestically, to bring items into the United States for processing and then export them abroad duty-free. Similarly, firms can bring goods into an FTZ and store them indefinitely for subsequent sale in the United States without becoming subject to duty payments until they enter U.S. markets. Certain goods may even be exempt from state and local inventory taxes during the period of storage.

Beyond the clear financial benefits of shipping duty-free or delaying duty payments, FTZs also provide U.S. firms a strategic means to deal with quota restrictions.

### **Importance of Compliance**

To capitalize on the benefits that FTZs confer, importers must comply with CBP regulations governing their creation and use. Otherwise, fines and penalties will soon erase any financial advantage. The bad news is that a plethora of regulations oversee the creation and operation of FTZs. The good news is that these standards are clearly defined and can easily be formalized as rules, making them readily amenable to automation.

A system designer can easily approach FTZ software development as a specialized form of a Warehouse Management System (WMS). After all, from an importer's point of view, foreign trade zone/subzone management is all about properly controlling inventory and creating audit trails of goods movement in, out, and within zones, subzones, and business sites. Of course, portions of the ultimate FTZ system will relate exclusively to CBP compliance issues, setting it apart from a traditional, inventory-driven WMS.

Compliance-related controls can be achieved by (1) adding rules to an importer's existing WMS or enterprise resource planning (ERP) system or (2) creating a virtual FTZ warehouse developed explicitly to conform to CBP import and export rules and regulations, as well as standards specific to the company's unique industry. The first approach minimizes systems integration requirements, but creates a whole series of challenges that can increase corporate costs. For example, adding the necessary compliance-related controls and associated features can clutter the legacy system. Moreover, such an approach requires ongoing in-house maintenance to keep the system content current with ever-changing CBP policies. It also necessitates development and maintenance of interfaces with CBP programs, customhouse brokers and freight forwarders. By definition, these system-related requirements demand that an importer create a specialized knowledge base within the company to

address these issues and perform a well-above-average level of legacy WMS maintenance. Both can be quite costly.

A bolt-on (that is, a third-party or vendor-supplied software product that provides specialized functionality) virtual FTZ system relieves importers of the aforementioned concerns. However, it adds a one-time expense for software purchase and the cost of integration between the virtual and legacy systems.

The deployment model selected for an integrated Web-based system—whether in-house (behind a firewall) or software-as-a-service (SaaS)—is irrelevant to the degree of automation possible. However, one limitation associated with the SaaS delivery method should be noted; SaaS often involves transaction fees. To control costs, importers may have to alter their business practices to minimize incurring exorbitant fees. An alternative option is to negotiate subscription terms that place no limits on the number of transactions allowed. Regardless, one basic rule-of-thumb still applies: Over the long run, a SaaS system will be more expensive than purchased software.

## **Special Requirements**

The manufacturing and manipulation processes performed in FTZs impose additional industry-specific requirements that must be taken into account relative to inventory management and compliance. Importers must trace bill of material (BOM) components; account for manufacturing costs such as assists, labor, packaging, etc.; generate and file additional forms; and report on extra-, inter- and intra-zone transfers. Further, all of the preceding tasks are subject to CBP audit. So, while automating these requirements adds to the overall workload and complexity related to FTZ system development and maintenance, computerization does offer importers significant cost-saving opportunities by eliminating the labor costs associated with manually performing these tasks, which can be quite time-consuming.

To successfully automate FTZ management and fully realize the cost-saving opportunities they offer, importers must satisfy three mandatory prerequisites. The first involves achieving seamless integrations between (1) virtual and legacy systems and between (2) virtual and CBP-related systems (customs clearance, automated export system, etc.). The second pertains to achieving intervention-free automation, whereby importers can manage compliance by exception (that is, transactions are totally automated and human intervention is only needed when an activity falls outside predefined system parameters). The third is the need for the system to possess audit-proof functionality (that is, the system must create audit trails, advise the user of potential non-compliance issues, allow on-demand verifications, and offer comprehensive analytical and reporting features).

A number of key integration points are necessary between the FTZ and WMS systems. A basic one brings material master data from the WMS into the virtual FTZ to make other interface points more automated. In so doing, warehouse receipts can be integrated into electronic admissions; integrated balance reconciliation procedures can be fully automated with overages and shortages of products adjusted by the system into additional admissions; and compliant FTZ consumption movements can be tracked, including import entries. Another integration point involves product manipulation, manufacturing, exhibit, and destruction requests with or without BOMs. This point should automatically generate the application for foreign-trade zone

activity permit (CF 216). Last, export and domestic consumption packing lists must interface with freight forwarders and customhouse brokers.

Additional compliance and financial benefits can be realized by integrating the FTZ with CBP import-export systems. These integration points include: import shipments (bills of lading data, automated manifest system [AMS], or importer security filing [ISF] from overseas freight forwarders) into admissions; automated in-bonds integrated into admissions or transfers; export packing lists integrated directly into automated in-bonds and automated export system (AES); domestic consumption lists and balance adjustments integrated directly into CBP automated broker interface [ABI] or automated commercial environment [ACE]; and automatic compliance notifications from CBP to importers.

The third prerequisite, audit-proof functionality must ensure adherence to compliance regulations and provide the capability to produce mandatory and analytical reports in the event of an audit. It also should warn importers of possible violations, thereby reducing the chance of an audit by CBP.

### **How Automation helps Prevent Focused Assessments**

CBP uses a Focused Assessment Program to assess risk and enforce import compliance. As part of this program, CBP uses technical information for pre-assessment surveys (TIPS), which contains a set of red flags that may indicate a potential compliance problem within FTZ operations. TIPS documentation also presents best practices importers should emulate. Predictably, they comprise direct opposites of the red flags.

Some of the listed red-flag situations, such as "Company does not do an annual reconciliation of inventory," failure to file appropriate documentation, and other direct violations of FTZ rules by zone operators, importers and clerks cannot be overcome by the implementation of any computerized system. Others, for example, "The company has quota/visa, restricted or antidumping/countervailing duty merchandise in the FTZ," "Inventory control does not account for domestic merchandise," "Company inventory control and recordkeeping system procedures manual is inadequate or inaccurate," and "Company does not have control procedures for zone-to-zone transfer" can simply be eliminated by catching the violations during manual data entry or during verification of interfaced data.

Most red flags fall within a category where FTZ software can actually help solve or even prevent a compliance problem. Of course, the quality and reliability of the FTZ software, the sophistication of its design and the integration interfaces offered are major elements here. Two good examples of red-flag issues that automation can assist are: "Company fails to cooperate or respond to Customs" and "Company is unable to explain or provide records supporting adjustments on the annual reconciliation."

Disregarding the unlikely situation where an importer refuses to cooperate with CBP, problems can arise when an FTZ system lacks a data-mining tool, the capability to store relevant supporting information or the ability to produce supporting records on demand. The red flags "Merchandise is not removed from the zone within 5 days after the permit/entry is accepted by Customs" and "Company uses an inventory method not authorized by Customs and did not obtain approval" demonstrate two

conditions where software functionality that actually warns importers of potentially damaging situations can be invaluable.

The full list of red flags is quite comprehensive (see [www.cbp.gov](http://www.cbp.gov) for "Foreign Trade Zones – Manufacturing Technical Information for Pre-Assessment Survey"). While there is no reason to address each one individually here, it is worth noting that one of them— "The company does not have records to support value of merchandise when exported"—illustrates how critical software functionality is.

Buying software that only offers FTZ inventory management functionality without offering (1) integration with import and export operations (including purchase orders, commercial invoices, accounts payables), (2) a centralized database and (3) features providing total visibility, is insufficient in today's global trading and manufacturing environment.