Re: Country of Origin of imported software; substantial transformation

Dear Mr. Lavallee:

This is in response to your letter dated June 9, 2011 and your supplemental submission dated November 4, 2011, requesting an advisory ruling on behalf of Talend Inc., concerning the country of origin for purposes of government procurement of two categories of imported software products, database management software products ("DM") and application integration ("AI") software products. Under the pertinent regulations, which implement Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. 2511 et seq.), CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for purposes of granting waivers of certain "Buy American" restrictions in U.S. law or practice or products offered for sale to the U.S. Government.

An advisory ruling is a non-binding and non-reviewable written statement issued by... CBP, which does no more than call attention to a well established interpretation or principal of law relating to the country of origin, without applying it to a particular set of facts.

A database management system is a software package with computer programs that control the creation, maintenance, and use of a database. It is a system that stores all realtime data in tabular format.

Application integration software is a large ongoing process between two incompatible systems.

**DM Software**

The following processing of the DM software occurs:

Step 1 is the research for DM software which entails developing a roadmap for the next release of the software product. This involves collecting ideas and a list of features and functionalities to include in the software and prioritizing the ideas, and framing critical research questions. Teams of software engineers
are formed and team leaders assign workloads, adjusting the priorities for the inclusion of features and functionalities in the software release. You state that step 1 accounts for an estimated 20% of the workload involved in the overall manufacturing process.

Step 2 is the development of a Graphical User Interface ("GUI"). A prototype GUI is designed and made. A GUI is a type of software user interface that allows the user of software to interact with the computer through images rather than text commands. A GUI represents the information and actions available to the software user through graphical icons and visual indicators, such as visual cues like color, position, indentation, and symmetry as opposed to text-based interfaces, typed command labels or text navigation. An example would be using a computer mouse and clicking on an icon or dragging and dropping an icon. This stage involves taking the list of features and functions that were determined to be included in the software and designing all of the elements for a functional and visually attractive and comfortable desktop or screen. This stage includes extensive and methodical testing of the GUI. Step 2 is labor intensive because it involves a trial-and-error process. You state that step 2 accounts for an estimated 20% of the workload involved in the overall manufacturing process.

Step 3 is where the specification and architecture for the software product is developed and written. A specification is a mathematical description of the software that is used to develop an implementation. A specification describes what the system should do, not how the system should do it. You state that step 3 accounts for an estimated 10% of the workload involved in the overall manufacturing process.

Step 4 is the programming of the source code. The programming constitutes components which will be used to build the machine-executable software, but it is not the final software product and in fact is not executable computer software code. You state that step 4 accounts for an estimated 15% of the workload involved in the overall manufacturing process.

Step 5 is the software build, the process of methodically converting source code files into standalone lines, routines and subroutines of software object code files into standalone lines, routines and subroutines of software object code that can be run by a computer. Step 5 includes compiling the programming that was done in step 4. The software engineers reunite code that was developed by different teams and work out incompatibilities or bugs by re-writing or correcting programming and object code. In step 5, software engineers create every line of code, make all the executable software files in all their various versions, languages, and combinations, create the installation package that the end-user will be able to easily install, and create the final media such as a CD-ROM or files for a download website. You state that step 5
accounts for an estimated 20% of the workload involved in the overall manufacturing process.

Step 6 is the testing and validation of the software product; you estimate that step 6 accounts for 10% of the workload involved in the overall manufacturing process.

Step 7 is the burning of the software product onto the server media from which it will be downloaded when purchased; you estimate that step 7 accounts for 5% of the workload involved in the overall manufacturing process.

We note that while estimated percentages of workload involved in overall manufacturing process were provided, there were no underlying documents provided and we do not know how these percentages were calculated or whether they are correct. We assume for the purposes of this ruling that the estimated percentages are correct.

Steps 1, 2 and 3 of the above work occurs in France. Step 4, the source code components used in the manufacture of the object code for the DM software is written in China. Step 5 occurs in France. Step 6 occurs in China. Step 7 occurs in either France or the United States.

To summarize, the research and development, the software build and sometimes the burning of the software onto the servers occurs in France. The writing of the source code and the testing occur in China. In some cases, the burning of the software product occurs in the U.S.

**AI Software**

- Step (1) Research for the AI software (estimated 20% of workload involved in overall manufacturing process);
- Step (2) Development of Graphical User Interface ("GUI") (estimated 20% of workload involved in overall manufacturing process);
- Step (3) Specifications, and architecture, is developed and written (estimated 10% of workload involved in overall manufacturing process);
- Step (4) Programming of the source code (estimated 15% of workload involved in overall manufacturing process);
- Step (5) Software build (estimated 20% of workload involved in overall manufacturing process);
- Step (6) Testing and validation (estimated 10% of workload involved in overall manufacturing process); and
• Step (7) Burning the software product onto the server media from which it will be downloaded when purchased (estimated 5% of workload involved in overall manufacturing process).

Similarly since no underlying documents were provided, we will assume for the purposes of this letter that the estimated percentages are correct.

For the AI software, step 1 is performed in the United States, Ireland, France and/or Germany. Steps 2 and 3 of the above work, occurs in France or Germany. For step 4, you state that “some” of the source code components used in the manufacture of the object code for the AI software is written in China, while “most” of the work is performed in France and Germany. The source code programming is saved on a computer server that is located in France. Step 5, which is the software build, occurs in France or Germany. Step 6 occurs in Germany. Step 7, which occurs in either France or the United States, involves burning the software product onto the server media from which it will be downloaded when purchased.

To summarize, step 1 occurs in the U.S., Ireland, France and/or Germany. Steps 2, 3, and 5 occur in France or Germany. Step 4 occurs in China, France, or Germany. Step 6 occurs in Germany. Step 7, the burning of the software product occurs in France or the U.S. There is no indication whether steps 1, 2, 3, and 5 would all occur in the same country (ex. Steps 1, 2, 3, and 5 occurring in France alone).

It is your view that the AI software products are substantially transformed in the U.S., France or Germany.

Pursuant to Subpart B of Part 177, 19 CFR § 177.21 et seq., which implements Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. § 2511 et seq.), CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain “Buy American” restrictions in U.S. law or practice for products offered for sale to the U.S. Government.


An article is a product of a country or instrumentality only if (i) it is wholly the growth, product, or manufacture of that country or instrumentality, or (ii) in the case of an article which consists in whole or in part of materials from another country or instrumentality, it has been substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed.

See also 19 CFR § 177.22(a).
In Data General v. United States, 4 CIT 182 (1982), the court determined that for purposes of determining eligibility under item 807, Tariff Schedule of the United States (predecessor to subheading 9802.00, HTSUS), the programming of a foreign PROM (Programmable Read-Only Memory chip) in the United States substantially transformed the PROM into a U.S. article. The PROM's had no capacity to store and retrieve information until they were programmed in the U.S. by interconnecting the discrete components in a defined logical pattern by experienced production engineers. The court noted that programming alters the character of a PROM by changing the pattern of interconnections within the PROM. A distinct physical change is effected in the PROM by the opening or closing of the fuses, depending on the method of programming. This physical alteration, not visible to the naked eye, may be discerned by electronic testing of the PROM. The essence of the article, its interconnections or stored memory, is established by programming. The court concluded that altering the non-functioning circuitry comprising a PROM through technological expertise in order to produce a functioning read only memory device possessing a desired distinctive circuit pattern, is no less a "substantial transformation" than the manual interconnection of transistors, resistors, and diodes upon a circuit board creating a similar pattern.

In regard to the DM software, we find that it is substantially transformed in France into a new article with a new name, character and use as the primary design and software build occurs in France. The country of origin of the DM software would be France for government procurement purposes. Based on the reasoning in Data General, we find that the AI software is substantially transformed into a new article with a new name, character and use in the country where the software build is performed (France or Germany). The country of origin of the AI software for government procurement purposes would be the country where the software build is performed (France or Germany).

Sincerely,

Monika R. Brenner, Chief
Valuation & Special Programs Branch