Export Control Program

Software & Computer Training

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Topics

- ✓ **Export Control 101**

- ✓ **Definitions**

- ✓ **Publicly Available Software**

- ✓ **Encryption Software**

- ✓ **External Software**

- ✓ **Internal Software**

- ✓ **Restricted End Uses**

- ✓ **Computers** – Exports, Reexports & Deemed Exports

What is Export Control?

- **Export control consists of federal laws and regulations that control certain commodities, technologies, information and data including dual use products**
  - Dual use: commercial items that could have a military use such as software, sensors, lasers

- **Limits what can be shipped out of the country and who it can be shipped to**

- **Can limit access to information for certain foreign nations and/or organizations**

- **Determines when a license is required to ship items or information abroad**

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Export-Definition:

- **Physical Export: Sending or taking anything out of the Unites States in any manner, except a person traveling whose personal knowledge includes technical data**
  - Includes: computers, equipment, biologicals
  - Information via e-mail, fax, over the phone etc.

- **Deemed Export: Transfer(via oral or visual disclosure) of technology, items, information and data to a foreign national within the United States.**
  - Deemed exports are treated in the same manner as a physical export.
  - Examples:
    - Foreign collaborators working at the UW on controlled technology
    - Taking foreign visitors on a lab tour with controlled technology
    - Discussions regarding controlled technology with foreign person at conferences

- **Foreign persons do not include permanent resident green card holders.**

Current Regulations

Parameter	ITAR	EAR	FACR
Name of Regulation	International Traffic in Arms Regulations	Export Administration Regulations	Foreign Asset Control Regulations
Agency	State	Commerce	Treasury
What Does Regulation Control?	Military equipment and information	Dual use items & information	Foreign assets
Control Listing	USML(United States Munitions List)	CCL(Commerce Control List)	Specially Designated Nationals List
Comments	Treats all foreign destinations the same	Need for license depends on commodity, destination, country, reason for control & exemptions; classified as ECCN	Depends on who(person or origination) you are communicating with

Results of Non-Compliance

- **Civil & criminal penalties levied against individuals & organizations**

Case of J. Reece Roth-U of Tenn(Sept 2008)

- **Retired professor of plasma physics**
- **Gave 2 grad students from China & Iran access to sensitive information**
- **Convicted on 18 counts of conspiracy, fraud & violating ITAR**
- **Sentence-48 months in prison**
  - Worst case: 175 yrs in prision; $15.5 mil fine

Exemptions

- **Fundamental Research Exemption (ITAR, EAR)**
  - No licenses is required for basic or applied research in science or engineering at an accredited institution of higher learning in the U.S. and resulting in information that is ordinarily published and shared broadly in the scientific community

- **Public Domain Exemption (ITAR, EAR)**
  - No license is required to export information or research that are generally available in the public domain. This does not apply to physical equipment.

- **Education Exemption (ITAR, EAR)**
  - No license is required to transfer information to students concerning general scientific, mathematical or engineering principles commonly taught in schools, colleges or universities.

Definitions (from 15CFR 772)

Software - A collection of one or more "programs" or "microprograms" fixed in any tangible medium of expression

Source Code (or source language) - A convenient expression of one or more processes that may be turned by a programming system into equipment executable form ("object code" (or object language))-humans can read this

Object Code (or object language) - An equipment executable form of a convenient expression of one or more processes ("source code" (or source language)) that has been compiled by a programming system. Machines can read this

Publicly Available Software

o **Publicly Available Software**

   o Available for general distribution

      o For free or,

      o At a price not exceeding the cost of reproduction and distribution

   o Is not export controlled; freely used by all persons

o **Open Source Software**

   o Provided for free

   o Source code provided with a license

o **Mass Market Software**

   o Mass Market = Software available to public

      o Via retail outlets, and

      o Designed for installation by user without substantial support from supplier

   o Available for export to all destinations except E:1 countries
   (Cuba?, Iran, N. Korea, Sudan, Syria)

   o Exclusions – Encryption Code under the Commerce Control List

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Encryption Software

o **Several Commerce Control List entries for encryption have restrictions.**
  o Different entries are restricted to different countries
  o Most encryption cannot be shipped to the E:1 countries
  o Several other countries have restrictions either in exporting or importing encryption
    o Ex. China, Vietnam, Russia, India
o The ENC exception allows export/reexport to <u>certain</u> countries
  o Shipment to eligible end-users in EU+ countries for development or production of new products
  o Encryption registration, classification requests or reports may be required to authorize exports/reexports to non-EU+ countries, other end-users or other end-uses
o Regulations regarding encryption are very complex
  o Contact the Export Control Office if you are exporting encryption items to determine if a license, registration or report is required

Encryption Software

- Development of encryption software should be limited to US persons to ensure compliance w/ federal regulations

External Software (from sources outside UW)-Not encryption-specific

o **Things to consider when procuring software from outside sources**
  o **Open Source** – Typically not restricted, except to E:1 countries
  o **Mass Market** – Typically not restricted, except to E:1 countries
  o **Contains Encryption Software**
    o Check with the supplier regarding the classification of the encryption software
    o Use could be restricted depending upon the classification
  o **Source Code Received** – Receiving the source code allows staff to "use", not just "operate" the software
  o **"Restricted End-Use" of the Software**
  o **Software that may be controlled**
    o Nuclear-related
    o Modeling/simulation software
    o Navigation/avionics
    o Weapons-related
    o Command and control software for space equipment
  o **Source of Software** – Proprietary software is more likely to be controlled than software developed as fundamental research
  o **Who is working with the software?**

Internal Software (developed at UW)-not encryption-specific

o **Is an export license required to develop / distribute the software?**

o **Things to consider when developing software at the UW**

- o **Result of fundamental research?**

  - o Fundamental research intended to be published does not have restrictions on it, but be careful, not everything done at a university is automatically fundamental research

- o **Restrictions on the publication of the software**
  - o Publication restrictions or NDAs

- o **Does the software contain Encryption Software?**

- o **Does the software include other controlled code or libraries?**

- o **"End-Use"**
  - o Database – Typically not an issue
  - o Data analysis – Typically not an issue
  - o Modeling/simulation – May or may not depending on what is being modeled
  - o Command and control – Likely controlled, particularly w/ controlled devices
  - o Restricted end-use – Will be controlled

o **Who is working with the software?**

Internal Software (developed at the UW)-non-encryption specific

Open Source

- o You may distribute open source software as long as it is free.

- o However, if you gather any data about who is downloading the software you have created an obligation to screen those people.

- o Even if it is basic data, it if includes where they are downloading it from(including country, city, university, name etc)., you have to screen these people to ensure that no one from an unauthorized country can get the software.

- o If you do not track this data then the obligation to screen does not exist.

Restricted End Uses (15CFR 744)

- **End uses that require a license or may be prohibited**
  - Nuclear
  - Design, development, production or use of rockets or unmanned air vehicles (UAV) w/ a range of at least 300 km
  - Rockets or UAV of unspecified range capability
  - Design, development, production, stockpiling or use of chemical or biological weapons
  - To or for a foreign vessel or aircraft
  - To proliferators of WMDs, designated terrorists, persons acting contrary to U.S. interests or persons designated on gov't restricted party lists or executive orders
  - Certain cameras
  - Certain general purpose microprocessors for military end uses
    - Military missile, aircraft, radar, command/control/comm/nav systems, UAVs, electronic warfare and intelligence/surveillance systems
  - Certain end uses in China, Russia or Venezuela

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Computers – Exports, Reexport, Deemed Export

❑ **Adjusted Peak Performance (APP) - An adjusted peak rate at which "digital computers" perform 64-bit or larger floating point additions and multiplications**

❑ **License Exception APP**

- **Available for certain computer equipment**

- **Export of technology and software for computers to Western Europe, Australia, Canada, Greece, Japan, New Zealand and Turkey**

- **Development and production technology and source code for computers w/ APP ≤ 25 WT eligible for deemed export to Tier 1 countries (including Americas, EU, some of Africa, most of Oceania)**

- **Use technology and source code for computers w/ APP ≤ 120 WT eligible for deemed export to Tier 1 countries**

- **Can be used for deemed exports to persons from Tier 3(old Soviet Union countries, Middle East, some of Africa, southeastern Asia) countries at lower APP**
    - **Foreign National Review request needed**
    - **Cannot be used for E:1 countries**

- **Cannot be used to enhance APP beyond eligibility limit of destination country**

- **Cannot be used for nuclear, chemical, biological or missile end-uses**

Contact Information

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References:

- **UW Export Control Website:**
  http://research.wisc.edu/respolcomp/exportcontrol/