



PRESENTATION

Software Intellectual Property Training

Computer Based Training

Last Updated: 11th January 2008

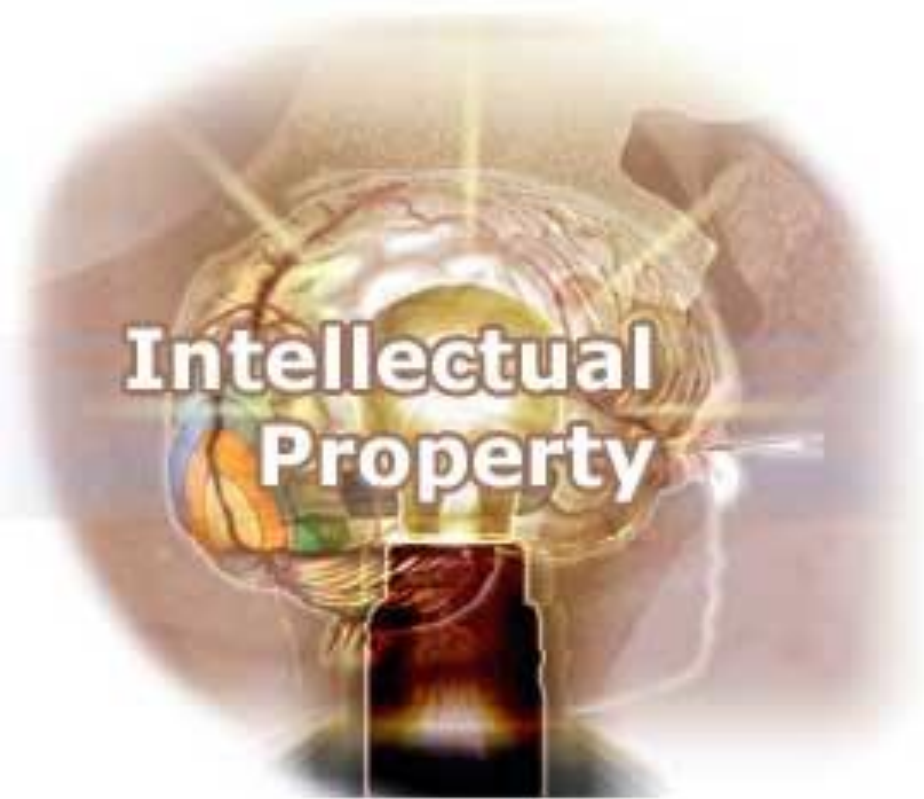
Virtusa Internal Only

Global Technology Office

Chamindra de Silva, Anudi Nanayakkara

VirtusaTM
Conceive. Transform. Optimize.

Intellectual Property (IP)



Module 1: IP 101

- What is Intellectual Property
- Background of IP Law

Module 2: Software Licensing

- Software Copyright, Licenses
- Open Source Licenses
- Digital Media Rights

Module 3: The Virtusa IP Process

- Business Case
- Virtusa Process (GIP) updates
- Scenarios & Do's and Don'ts

The Virtusa Context

- Intellectual Property violation threats
 - **Consequential Damages** to mitigate violations
 - **Unlimited Liability** and **Indemnification** on IP
 - Court cases, re-engineering costs, client impact
 - Loss of **Reputation**
 - Loss of **Repeat Business**
 - Perception of **respect for IPR** in S. Asia
- Importance to Virtusans
 - A **Serious Offence**
 - Contractual Obligation on **IP Compliance**
 - Considered **intentional misconduct**

Protection of Works and Ideas



What is Intellectual Property?

Intellectual Property is an Umbrella term for Subject Matter that is the **Product of the Mind (Intellect)**

Method of Acquiring	Publishing of Creative Works		Reputation and Confidentiality
Formalities required (Industrial Property)	Industrial Design (Blueprint)	Patents (Idea)	Trademarks (Brand)
Formalities not required	Copyright (Instance)	Design right (Blueprint)	Trade Secret (NDA)

Copyright



© Toycamera

<http://talks.blogs.com/phototalk/images/copyright.jpg>

- Set of **exclusive rights** regulating the use of a particular expression of an idea or information
- Origins in the **Publishing Industry** can be traced back to the time before the invention of printing in the late fifteenth century (1709: Statute of Anne)
- Copyright law protects “**original forms of expression**” - be it a book, a song, a sculpture, etc.
- Multi-lateral: **Berne Copyright Convention** & **Universal Copyright Convention (UN)**

Which Material is under Copyright?

- A work, in whatever medium, is **protected by copyright law** unless it has been placed in the public domain
- Work **does not need** to have a **copyright notice** or the copyright symbol to be copyright protected
- It only needs to be fixed in a **tangible medium of expression**
- Cannot be copyrighted
 - Ideas, facts, names, short phrases, mathematical formulae



What does Copyright give the holder?

Exclusive Rights Given to Holder

- to produce **copies** or **reproductions** of the work
- to create **derivative works**
- to **perform** or **display** the work publicly
- to **sell** or **assign these rights** to others
- to **transmit** or display by means of digital medium

Fair-Use Clause

- According to Title 17 of the U.S. Code, fair use originated "for purposes such as **criticism, comment, news reporting, teaching or research.**"
 - To **cite** but not to **supersede (derivative)**
 - Based on Rights of Free Speech

Patents

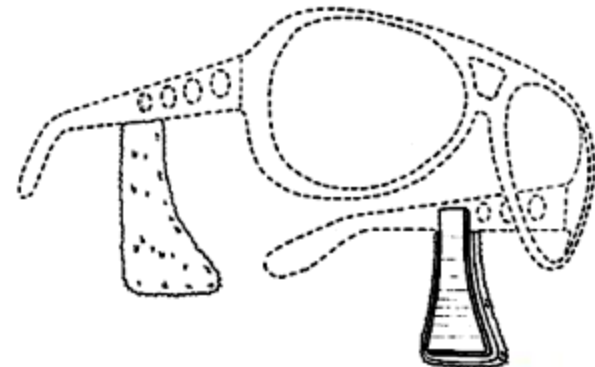
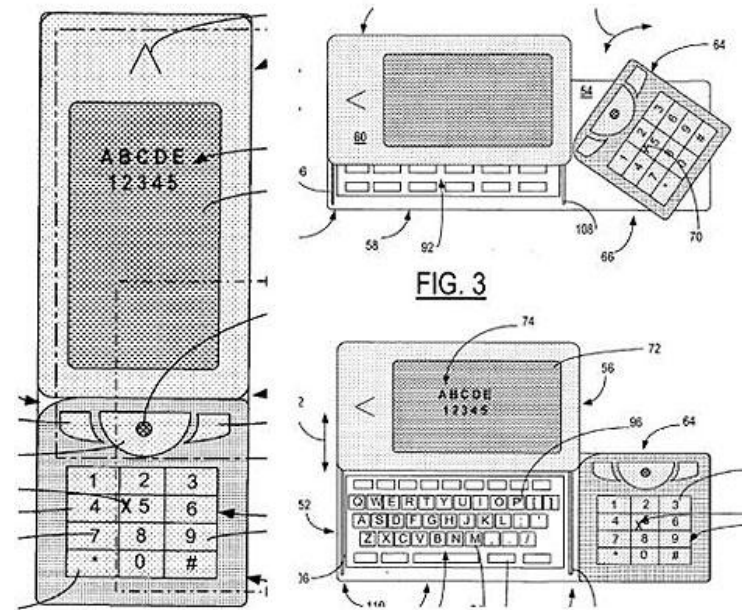
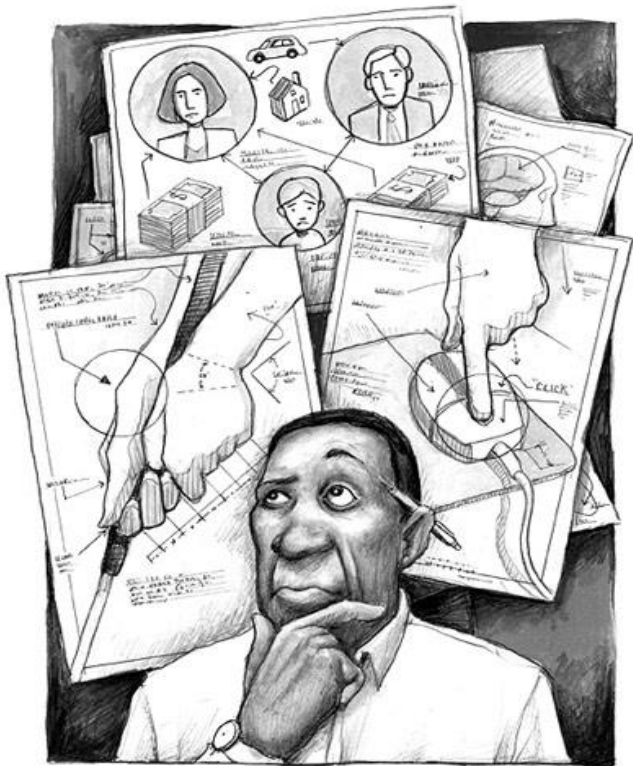
- Protects any new and **useful process, machine, article of manufacture, or composition of matter**
 - Chemical (e.g. Pharmaceutical)
 - Industrial Machine
 - A business Process
- Granted by the state, for a **certain period of time** in exchange for the **disclosure** of the invention
- Excludes others from **manufacturing, using, selling, importing**, etc for a fixed number of years
- Invention must be,
 - Satisfy high standards of **novelty** and **inventiveness**
 - Industrially applicable



<http://jaguar.fiboy.com/images/Patents.jpg>

Patent Examples

Many interesting patents including from serious stuff like the Nokia N60 patent to certain way to hold a golf club, Sunglasses which have Elvis-sideburns



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Trademarks



- Protects **words** and **symbols** that identify goods and services of a manufacturer.
- A company's **reputation** is closely tied with its trademark
Closely related to business image, goodwill
- Consumers rely on trademarks in order to **recognize quality** or origin of goods or services.
- To receive protection, a logo must be “disclosed to the consumers”

Trade Secrets



<http://www.axioslaw.com/pgimg/topSecret.jpg>

- A **trade secret** is a formula, practice, process, design, instrument, pattern, or compilation of information used by a business to obtain an advantage over competitors or customers (e.g. formula for Coke)
- A company can protect its confidential information through **non-compete clauses**, **non-disclosure** contracts with its employees.

Public Domain



- If there are no laws that restrict it's use and it is available to the public at large it is **public domain**
- This provides the freedom for anyone to use the work for any purpose within that **Jurisdiction**
- When patents (usually 20 years), copyright **expire** they go into public domain
- Examples of public Domain
 - Mathematical formulae, name, short phrase, works before copyright law (e.g. classical)
- **Ambiguity** of public domain
 - Jurisdiction abuse
 - Abuse due to ambiguity

<http://rights.jinbo.net/english/images/public-domain.jpg>

Giving Permission (aka Licensing)



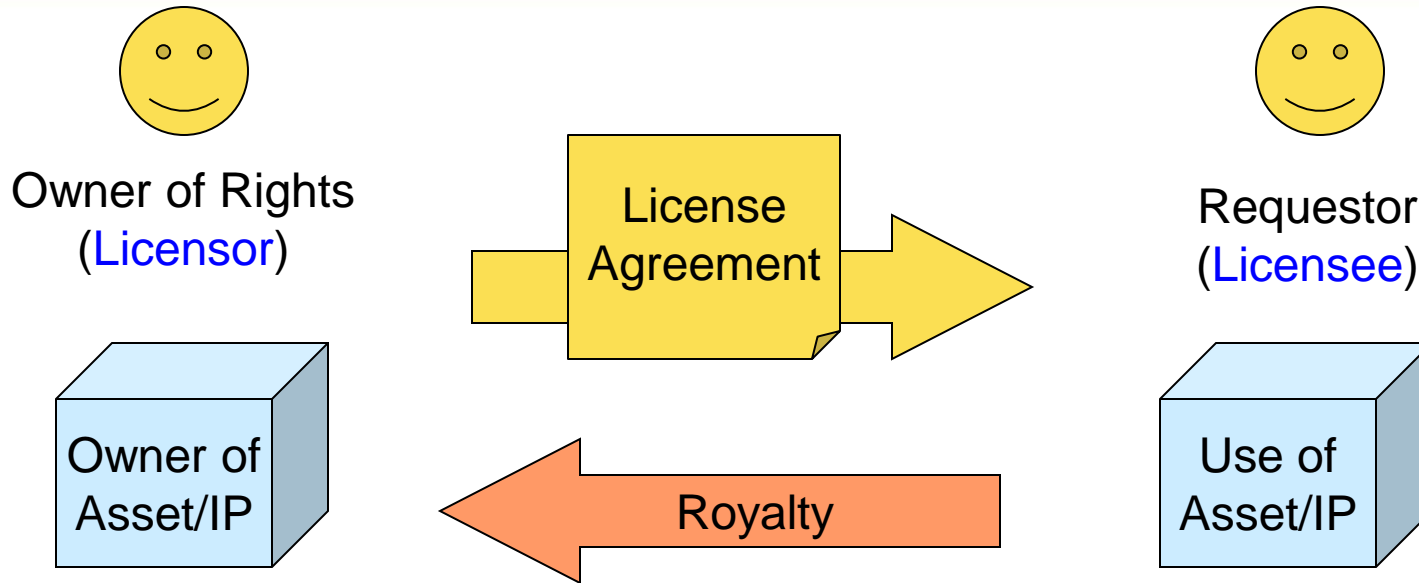
A License comprises the **permissions**, rights and restrictions given to use assets or Intellectual Property

Use of assets / Intellectual Property without a license could constitute **infringement**

Use of some one else's assets and claiming it as your own is **plagiarism**

In both instance above the owner can **sue** the infringer

Licensing Concepts



A license is the document demonstrating a **permission** given. A shorthand definition of a license is "**a promise not to sue**"

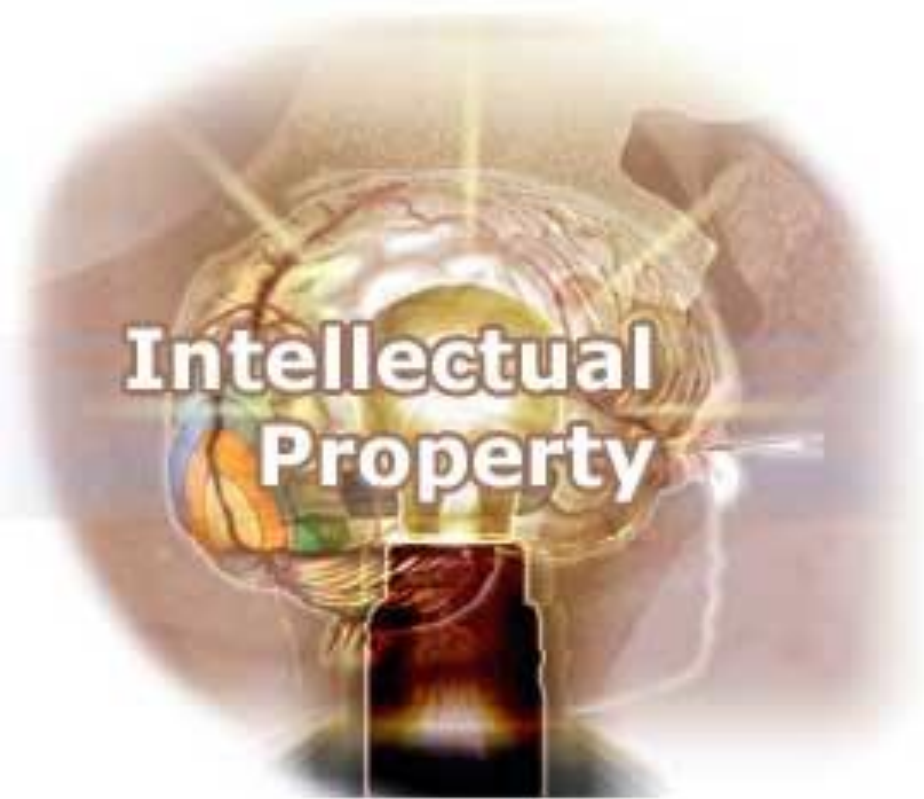


Copyright, Patents,
Trademarks, etc

Jurisdiction: Not all laws are equal

- **USA:**
United States Patent and Trademark Office (**USPTO**)
- **United Kingdom:**
The **UK Intellectual Property Office** ensure the protection of Intellectual property in the United Kingdom
- **Sri Lanka:**
National Intellectual Property Office of Sri Lanka (**NIPO**)
- **India:**
The protection of intellectual property in India is done by the **Office of Controller General of Patents, Designs, and Trade Marks**
- **World Intellectual Property Agency**

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Legal Definition of a Computer/ Computer Program

Computer

An electronic or other device having capability of storing and processing Information

Act 40 of 2000 - SL

Computer Program

A set of instructions expressed in words, codes, schemes or in Any other form, which is capable, when incorporated in a medium that a computer can read, of causing the computer to perform a particular task or result

Act 40 of 2000 – Sri Lanka

Copyright and New Technology



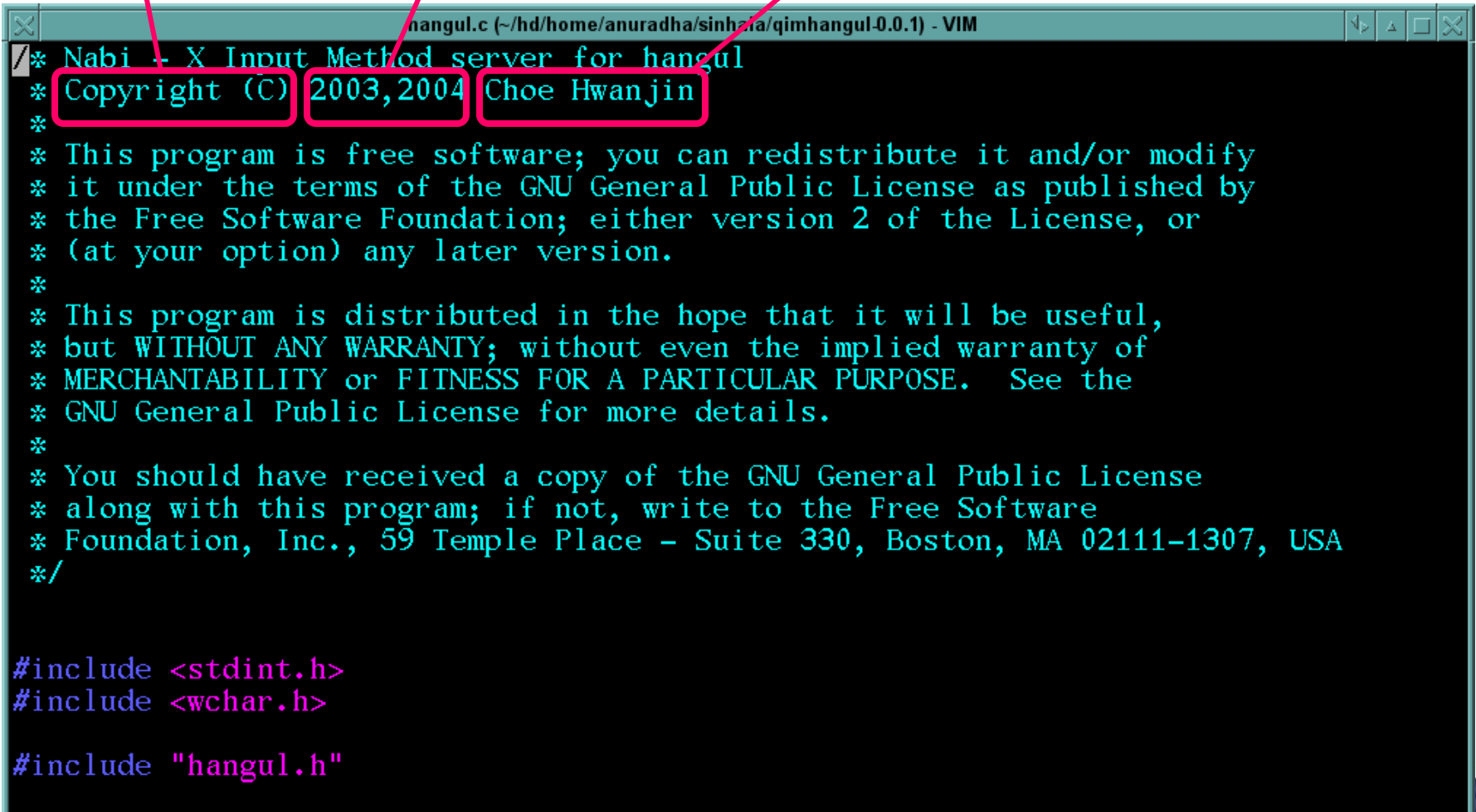
- With the development in **information technology**, copyright infringement has become a serious problem.
- Illegal downloading happens frequently as there is absolutely **no cost of reproduction**
- **Computer Software Copyright Act of 1980** makes it clear that there are exclusive property rights in software

Copyright Notice in Code

Copyright Mark

Year(s) of Creation

Owner of Copyright



```
hangul.c (~/.hd/home/anuradha/sinhala/qimhangul-0.0.1) - VIM
/* Nabi - X Input Method server for hangul
 * Copyright (C) 2003,2004 Choe Hwanjin
 *
 * This program is free software; you can redistribute it and/or modify
 * it under the terms of the GNU General Public License as published by
 * the Free Software Foundation; either version 2 of the License, or
 * (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
 * GNU General Public License for more details.
 *
 * You should have received a copy of the GNU General Public License
 * along with this program; if not, write to the Free Software
 * Foundation, Inc., 59 Temple Place - Suite 330, Boston, MA 02111-1307, USA
 */

#include <stdint.h>
#include <wchar.h>

#include "hangul.h"
```

Infringement of Software Copyright

Some Examples without consent of copyright holder:

- Create a copy and share it with others
 - CD copies for selling it (aka Piracy)
 - Hard disk loading
 - OEM Unbundling
 - Softlifting
 - Renting Software Out
- Any translation, adaptations or other alterations of program
 - Reverse Engineering and Modification
- Public display and public performance
- Unrestricted Client Access
- Creating Backup copies

Ultimately depends on the **Contract / License Terms**

Software License

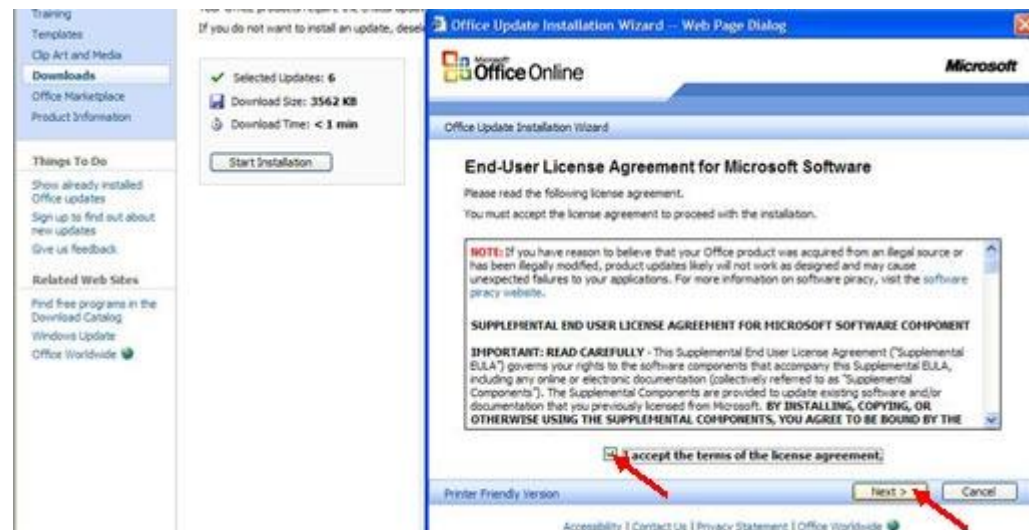
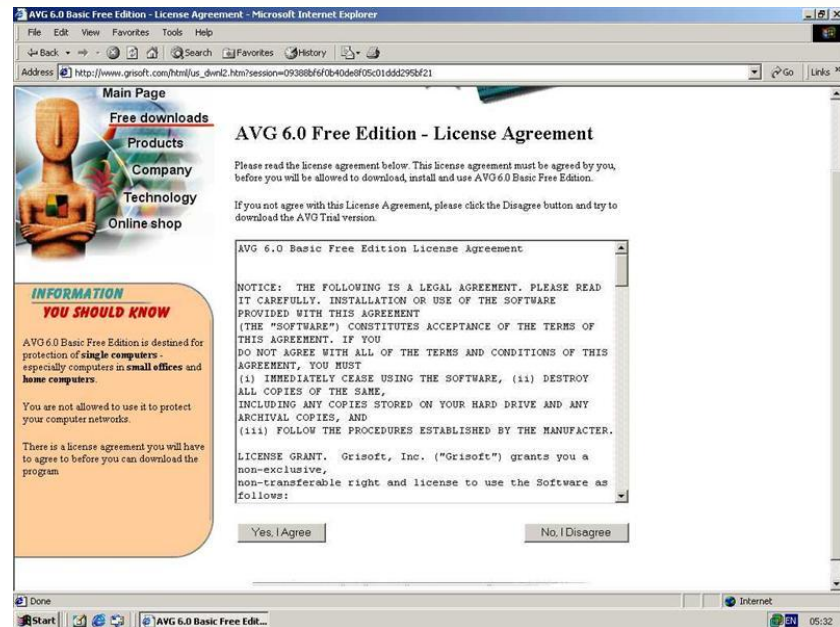
Defn: A software license is a **contract** between a software publisher and an end-user of software. A software license grants an end-user **permission** to use one or more copies of software in ways which would otherwise be prohibited by law

- A Software License is similar to a lease
- It is generally not bought and you never own it
- Main types are **Proprietary** and **Open Source**

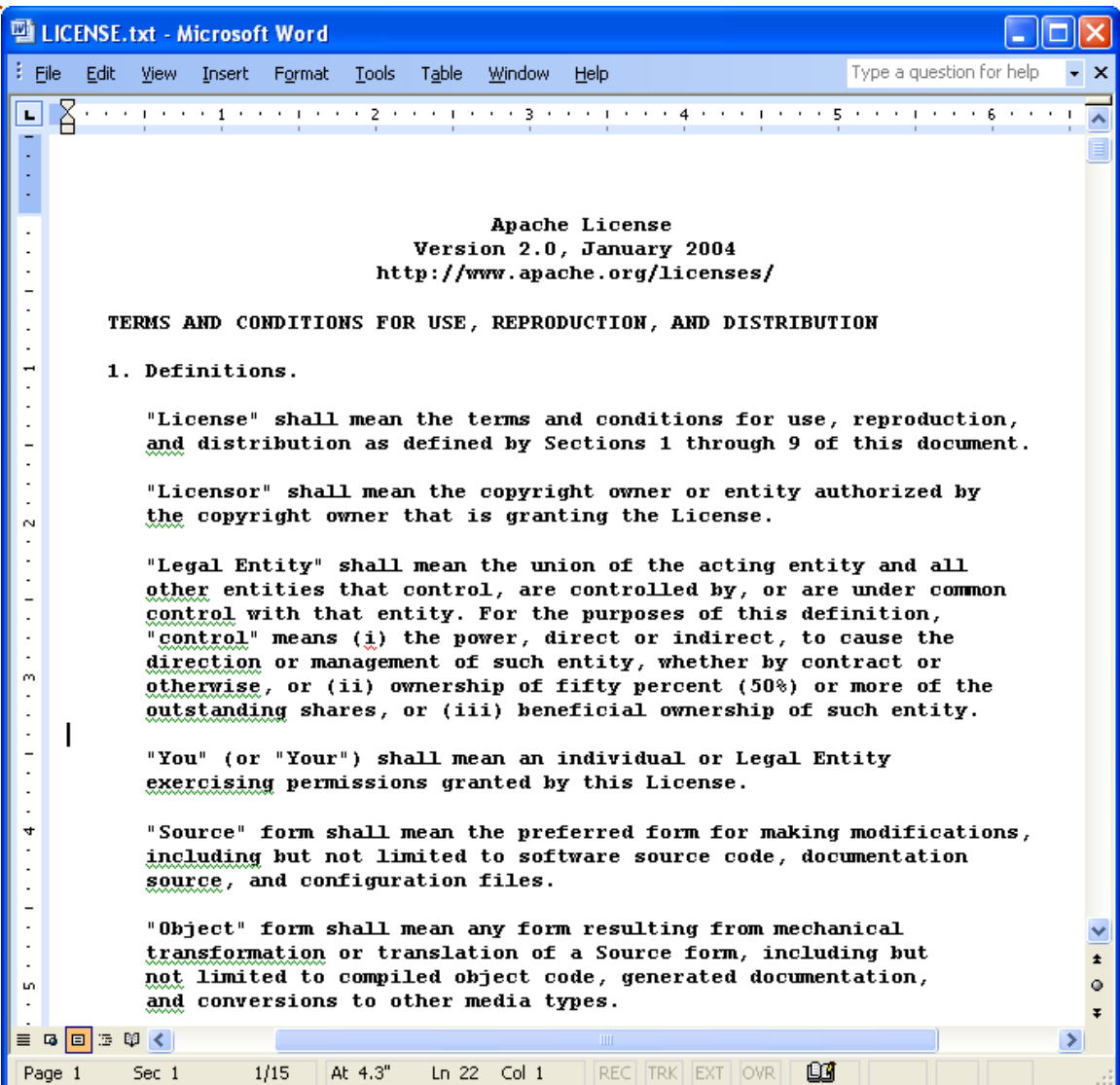
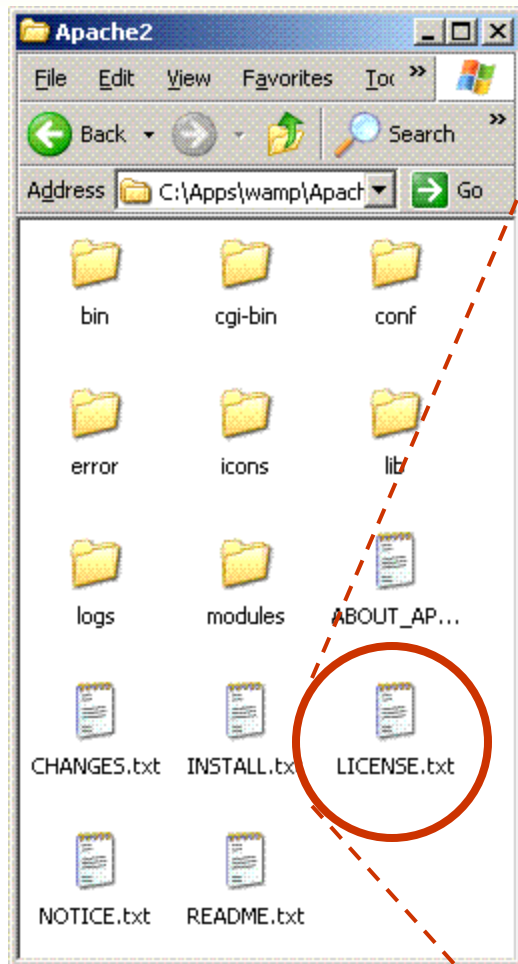
Software License Acceptance

- Written **Contractual License**
 - Ability to use work in return for certain royalties
- **Shrink wrap** license or COTS
 - Purchase it from a shop
 - By breaking of the seal you accept the license
- **Click wrap** license
 - Agree to the license on click of a button
- **Browse wrap** license
 - User is made aware of the existence of a license but he does not have to click it
- **Bare or Implied License**
 - Implied by usage

Software License Distribution: Online, Web



Software License Distribution: Text File



Proprietary Software License

- Proprietary Software is software with restrictions on **using**, **copying** and **modifying** as enforced by the right holder
- Also known as **non-free** or **closed-source** software
- Control is placed by
 - Technical Means
 - Releasing only Binaries, Dongles, DRM
 - Legal Means
 - Copyright, patents and licensing
- Examples of proprietary licenses:
 - Microsoft EULA, Oracle, Adobe, SAP
 - Includes **Freeware**, **Shareware**

Proprietary License Models

The Proprietary Revenue Model

- Related to the type of restriction applied
- Proportional to the restriction

Criteria	Restriction Type
Software	Copies (e.g. electronically / shrink wrapped) Functionality (e.g. versioning)
Hardware	Configuration (e.g. number of processors) Computing Power (e.g. transactions per sec)
Users	Number of Users (e.g. floating or fixed) Status of Users (e.g. personal or educational)
Usage	Transactions (e.g. by MB scanned) Time (e.g. annual, subscription)

- Revenue is balance between License and Professional Services

Typical Clauses Found In A Software License

Scope of License

Exclusive or Non-Exclusive, Restrictions, Quantity limitations

Re-Distribution

Transferable or All Rights reserved

Term & Termination

When a license will end and termination conditions

Limitation of Liability and Indemnification

Extent to which vendor will take responsibility for damages caused by Software

Confidentiality and Property Information

Definition of Confidential Information, Disclosure of vendor details (e.g. trademark), Attribution

Territory

Conditions by jurisdiction (e.g. export regulations)

Warranties

Quality of Software, Performance, Breach of Warranty

Source Code Escrow

Escrow agent and timing of deposits

Sub-Licensing

Conditions placed on derivative works. Terms of Distribution (Inclusion of Notice)

Example: Windows XP Home EULA

- Bound to terms by Installing
 - Activation within 30 days
- Scope
 - One License for One CPU only
 - Maximum 5 network connections
- Redistribution
 - Can transfer copy to another
 - Allowed to store software
- Territory
 - Export restriction in alignment with US law
- Revocation of media violating DRM
- Confidentiality
 - Limitations on reverse engineering, decompiling
 - Microsoft allowed to gather technical data on system
- Sub-licensing
 - You may not rent or commercially host
 - Reserve all rights not granted
- Warranty
 - 90 days for software obtained from US and Canada
 - Limitation of Liability to cost of software paid or \$5.00



G:\Virtual
Windows XP
Home EULA

Free and Open Source Software

Defn: Free and Open Source Software (FOSS) is software which is **liberally licensed** to grant the right of users to **study**, **change**, and **improve** its design through the availability of its source code.

- Use the Law of Copyright to defend the rights for end-users of the software
- F/OSS = **Free** and **Open Source** Software Camps

Free vs Open Source



Free as in “**Freedom of use**”

Freedom 0: The freedom to **run the program** for any purpose.

Freedom 1: The freedom to **study** and **modify** the program.

Freedom 2: The freedom to **copy** the program

Freedom 3: The freedom to **improve** the program, and release your improvements to the public

An **open-source license** is

1. Non-discriminatory freedom **to Use**
2. Copying and **distribution** with out any royalties
3. **Modification** without any royalties
4. Open and Easily available **source code**



Different **Philosophy**, but the same in **Practice**



The Spectrum of Free Software Licenses

Freedom Provided by License

Proprietary (Freeware, Shareware)

- Traditional Proprietary Licenses, which prevent free redistribution and access to the source code

“Restricted Access” Source (Microsoft MS-PL, MS-CL)

- Restricted access to certain parties only or closed groups

(Strong) Copyleft (GPL)

- Maintains copyright, but releases rights to certain things
- Promotes Free and Open Source code as it propagates it's license to derivative works/software that utilizes it (“reciprocal” or “viral” license)

Weak Copyleft (LGPL, Mozilla PL)

- Derivative works only extends to the modification of the original work (e.g. mostly used in Libraries), but not to linked software

Permissive / Copycenter (BSD, Apache, MIT, CPL, etc)

- Maintains copyright, and allows right to do almost anything with the code

Public Domain

- No copyright maintained and free to use as you wish

Examples FOSS Licenses

License	Functionality	Origin	Popularity
GNU GPL	Strong reciprocity	GNU	66.5 %
GNU LGPL	Standard reciprocity	GNU	10.6 %
BSD	Permissive	Academic	6.9 %
Public domain	Permissive	Community	2.7 %
Artistic	Permissive	Community	2.0 %
Apache	Permissive	Community	1.9 %
MIT	Permissive	Academic	1.7 %
Mozilla	Standard reciprocity	Corporate	1.5 %
Common Public License	Strong reciprocity	Corporate	0.6 %
Zlib	Permissive	Community	0.5 %
QPL	Strong reciprocity	Corporate	0.4 %
Open Software License	Strong reciprocity	Community	0.4 %
Python License	Permissive	Community	0.4 %
Academic Free License	Permissive	Community	0.3 %

Sourceforge Stats

Recent Problems with using FOSS

D-Link vs FSF

- Infringement of network embedded product
- GPL code msdosfs, initrd and mtd was used in device
- Ruling was given for D-Link to release all their code under GPL and pay damages
- http://www.jbb.de/judgment_dc_frankfurt_gpl.pdf

BT vs FSF

- BT accused of GPL violation in Home Hub Product (developed by Telecoms Manufacturer Thompson)
 - ZDNet: “BT accused of GPL violation” - Jan 2007
 - <http://news.zdnet.co.uk/software/0,1000000121,39285585,00.htm>
 - The Register: “BT Says enough on GPL” - Jan 2007
 - http://www.theregister.co.uk/2007/01/29/bt_says_enough_gpl

Problem: Reciprocal Nature of Copyleft for Products

GNU General Public License (GNU GPL)



- Father of **Copyleft** licenses
- Objective
 - Maintain the Freedom of Software
- Maintained by FSF
- Reciprocal or Viral License
 - **Derivative** works have to be **distributed** under same terms
- Recent GPL v3
 - DRM Issue
- One way out of GPL
 - Dual Licensing by Copyright Holder
 - E.g. MySQL



GPL License

Functional License Classification

- **Standard Reciprocity** Obligation License
 - If source code is developed further license obligation must be maintained and propagated to enhanced version
 - Also know as **Weak Copyleft**
- **Strong Reciprocity** Obligation License
 - Extends Standard Reciprocity to **adaptations** and **derivative** works
 - Sometimes even extends to **network** use
 - Also know as **Strong Copyleft**
- **Permissive** License
 - No propagation of license required in modifications/enhancements, adaptations or derivative works
 - Some are known as **Copy Center**

Defining Derivative Work

- In the United States, "derivative work" is defined in 17 U.S.C. § 101:

A “derivative work” is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications which, as a whole, represent an original work of authorship, is a “derivative work”.

- The following should thus only be taken as rules of thumb for software:
 - If the original software is *modified to create the new program*, a derived work is created.
 - If the original software was designed to accept **plug-ins** or **drivers** using a defined mechanism, such a driver or plug-in **does not** form a derived work.
 - In the same sense linking to a **library** in the way it was designed to be interfaced with, does not constitute deriving a work. **(not for GPL)**

Distribution in GPL

When the “distribution” is valid

- dependant source code has to be made available to **those it is distributed to**
- Including the code dependant on the GPL

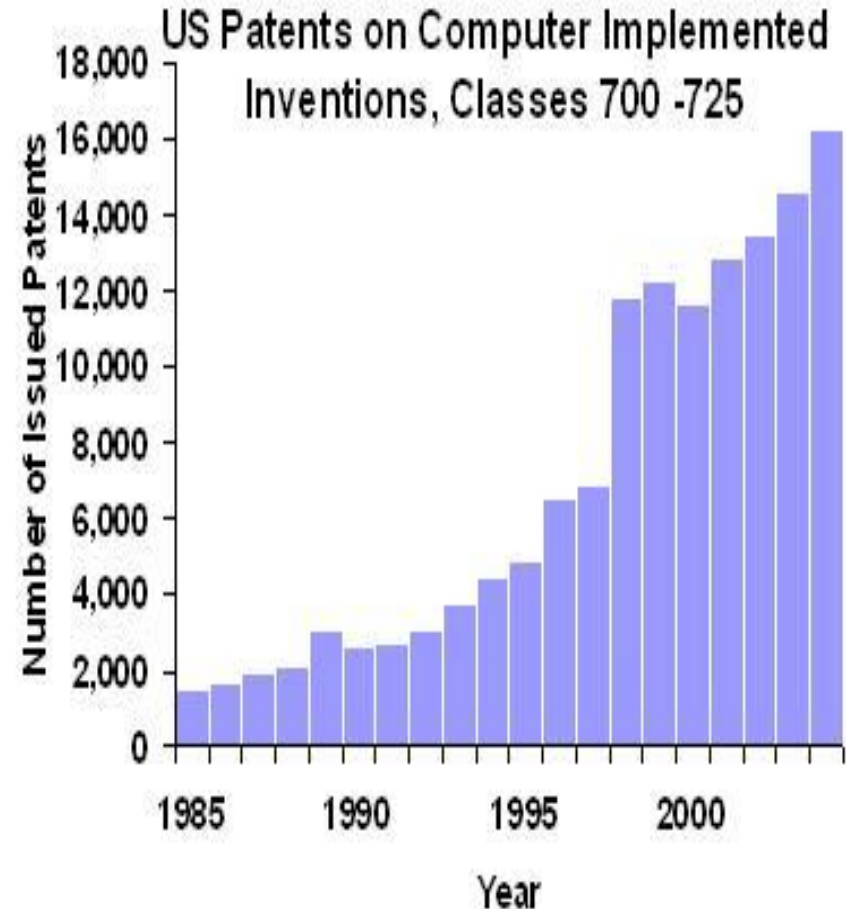


Private Use

- **Individual private use** of GPL based code does not have to be distributed
- Deploying GPL software **within a company** (the entity) is classified private use and they can even prevent their employees using it
- In some jurisdictions (e.g. US) use of code **within a subsidiary** is also considered private use

Software Patents

- It is a patent granted on any performance of a computer realized by means of a computer program
- After the **Diamond v. Diehr** case: “process for molding raw, uncured synthetic rubber into cured precision products” in 1981
- A machine controlled by a computer program was patentable
- The recent expansion of the Internet and e-commerce has led to many patents being applied for and being granted for business methods implemented in software.



The Great Debate On Software Patenting

- The debate surrounds around:
 - Whether **software is patentable** and
 - Whether the **inventive step and non-obviousness requirement** is too easily satisfied for software
- The argument is that Software Patents stifle innovation and kill competition in favor of a few
 - Cold war on patents
- When a software program is written, it is automatically covered by copyright law



Popular Electronic Media Licenses

- **GNU Document Public License (GDPL)**
 - Documentation version of GPL
- **FreeBSD Document License**
 - Copycenter document license
- **Creative Commons**
 - Licenses for Artistic works
 - Documentation, multimedia, etc
 - Can be used for software, but not as relevant

Creative Commons

- Makes Creating a License Much **Simpler**
- When you've made your choices, you'll get the appropriate license expressed in three ways:
 - **Commons Deed:**
A simple, plain-language summary of the license, complete with the relevant icons.
 - **Legal Code:**
The fine print that you need to be sure the license will stand up in court.
 - **Digital Code:**
A machine-readable translation of the license that helps search engines and other applications identify your work by its terms of use.

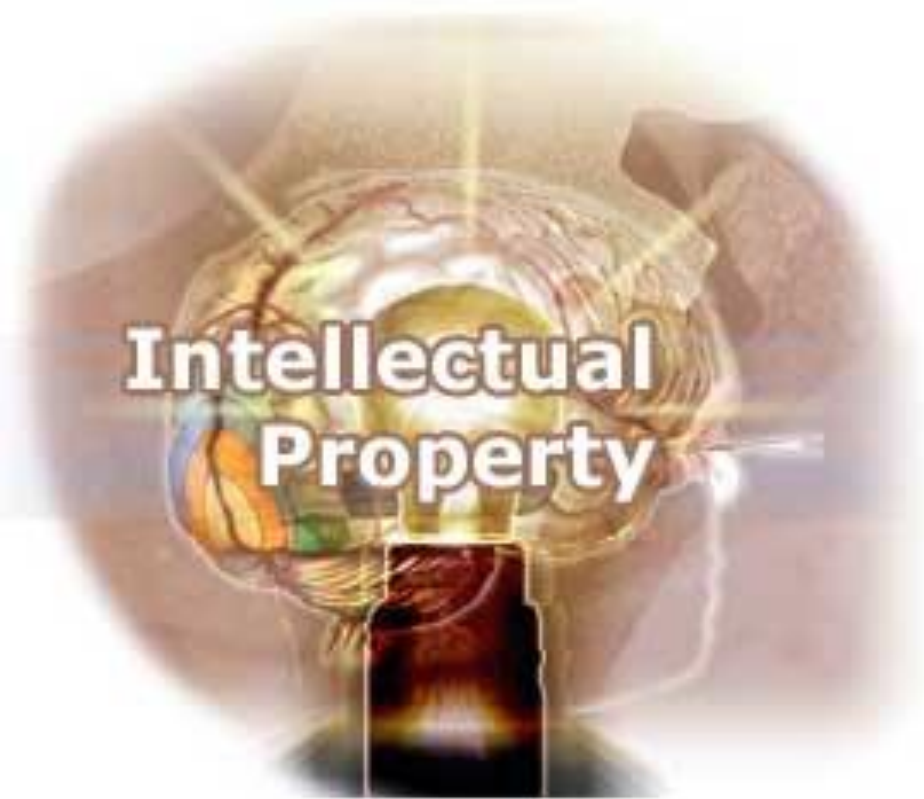
“Baseline Rights”

- **Attribution (by):** Licensees may copy, distribute, display and perform the work and make derivative works based upon it only if they give the **author or licensor the credits** in the manner specified by these.
- **NonCommercial (nc):** Licensees may copy, distribute, display, and perform the work and make derivative works based upon it only for **noncommercial purposes**.
- **No Derivative Works or NoDerivs (nd):** Licensees may copy, distribute, display and perform only verbatim copies of the work, **not derivative** works based upon it.
- **ShareAlike (sa):** Licensees may distribute derivative works only under a **license identical** to the license that governs the original work.

Web Site Content, Email and Blogging

- Liabilities on Email, Blogging and Web Sites
 - Serves a legal evidence for
 - Defamation
 - Violation of NDAs
 - Violation of Contractual terms with clients
- Web Sites
 - OCT-1998: Digital Millennium Copyright Act (DMCA) and MAY-2001: EU Copyright Directive (EUCD)
 - Heightens penalties for copyright infringement on the web
 - First the copyright holder can negotiate with the offender
 - On failure can address a DCMA to the hosting provider
 - Hosting provider will take down your entire site
 - Similar to DMCA

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Virtusa's Business Context

- We build software for clients and **deliver source code, etc**
- We **do not own** the delivered code or digital media
 - We assign all rights to all the code (by default) to clients
 - Copyright, Trademarks, Patents, Trade Secrets
- Anything else has to be stated in **legal documentation**
 - 3rd party assets, FOSS components, Freeware, Virtusa Components
 - Valid Legal documents
 - Master Service Agreement (MSA)
 - Change Request
 - Statement of Work (SOW)
- We have **unlimited liability** to resolve client IP issues
 - **Product risk is greater** than enterprise risk

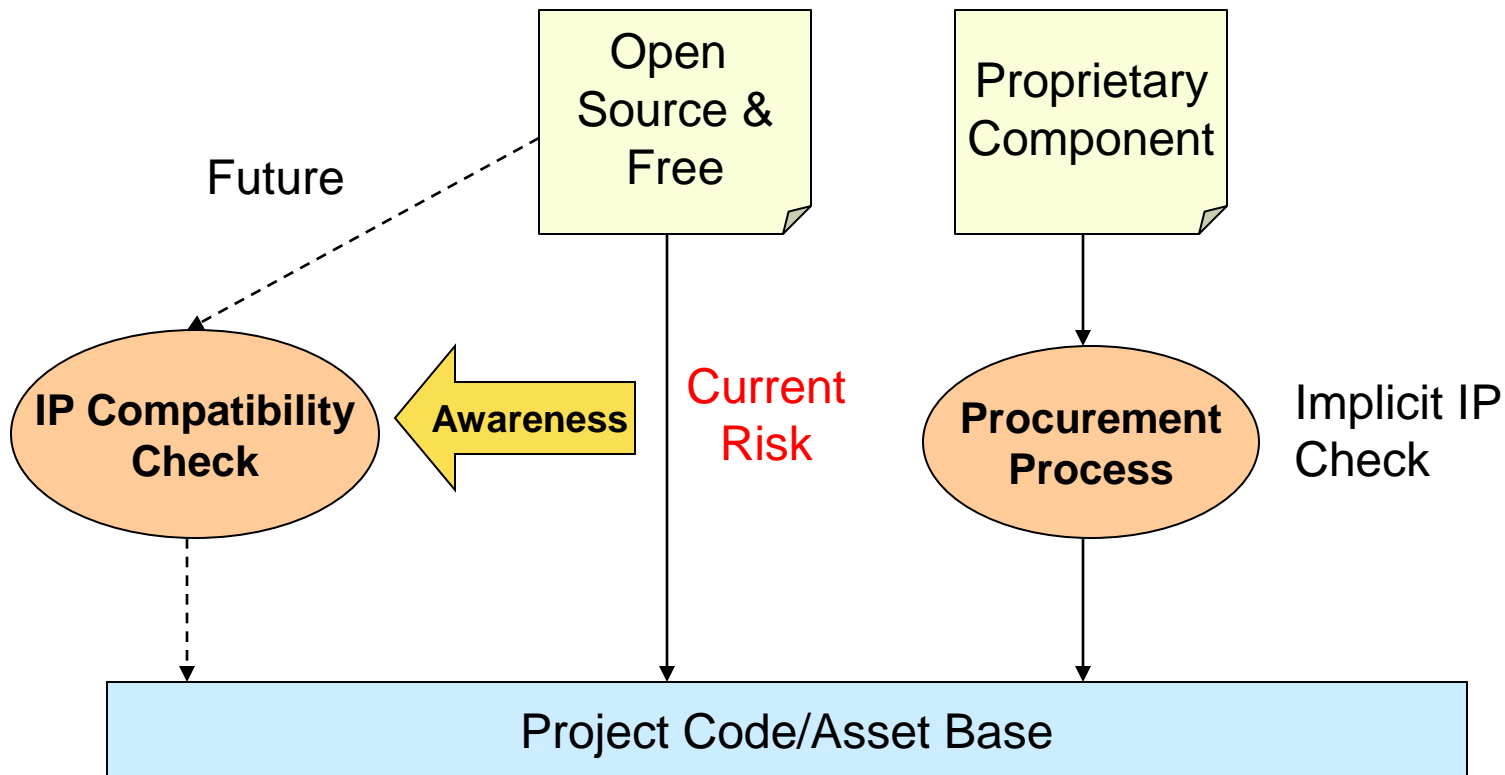
If it is **not** stated in a **Legal documents do not** put it in the **deliverable!**

Typical IP Scenarios for Virtusa

- When **Releasing Code** to Clients
 - Ensure that all code is compatible with client's IP policy
- When **Accepting Code** from Clients to the code base
 - Ensure there are no vendor or 3rd party code the client could black list us for.
- When Moving across Account/**Project Boundaries**
 - Moving code from one project to another in Virtusa is illegal, as we do not own the code. The client does.
- When Researching for Components / Code Snippets on the **Internet**
 - Just because it is freely available does not mean you can use it, especially with client code
- When Utilizing of 3rd party **COTS** Components
 - Ensure license is compatible and you can re-distribute
- Managing the licenses of **software tools** used on your machines
 - Ensure you have a valid license and it is not a client license

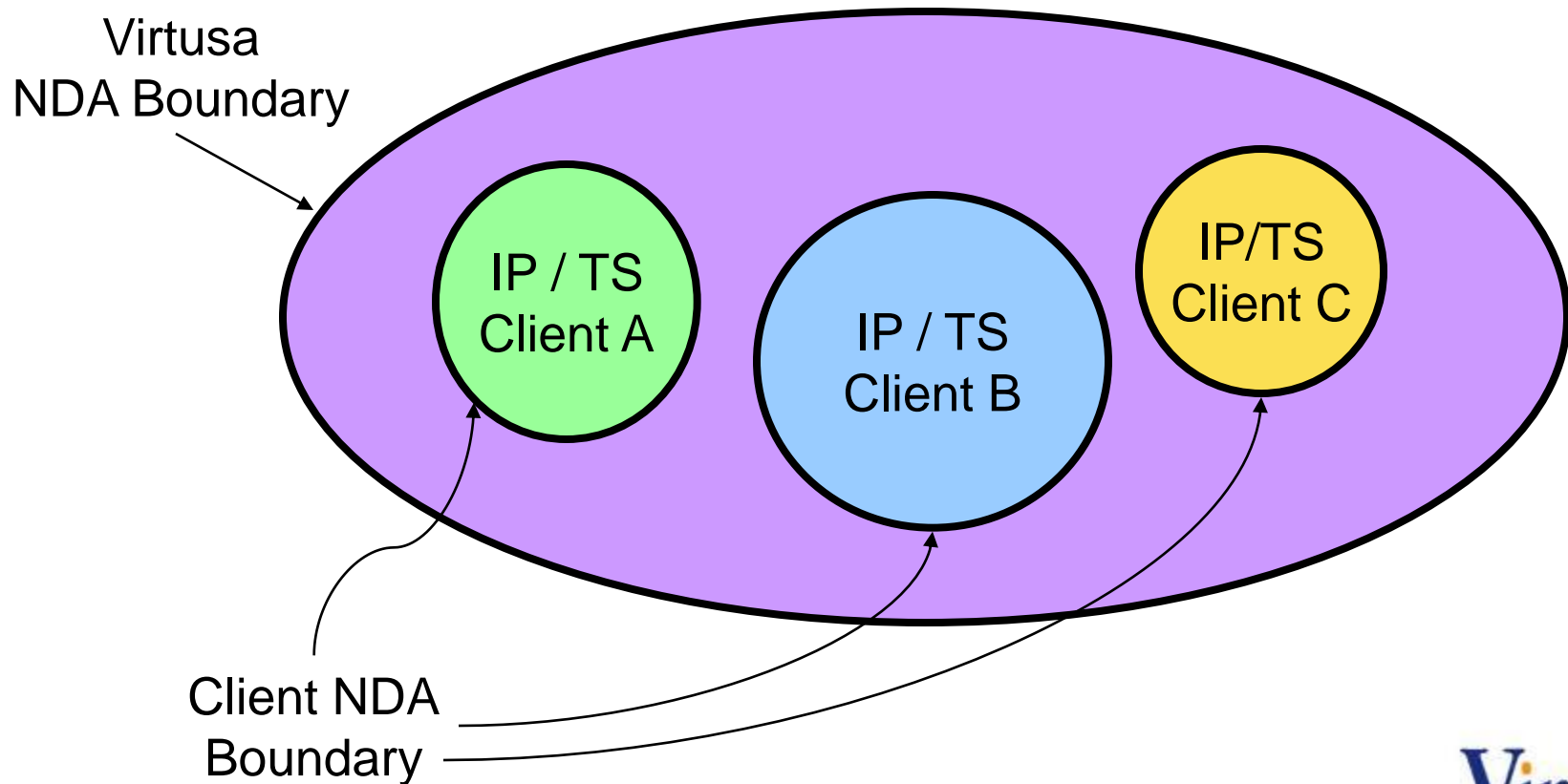
Free and Open Source Problem

- Developers downloading and utilizing software, digital media and documentation without due diligence checks on license
- No IP compatibility check when downloading open source content


















Virtusa NDA Boundaries

- In Virtusa we have 2 types of **NDA boundaries**
 - No leakage of IP should happen across these boundaries either way
 - Unless explicitly provided by an agreement or license



Intellectual Awareness Perception of Asia

		Piracy Rates				Losses (\$M)			
		2006	2005	2004	2003	2006	2005	2004	2003
ASIA/PACIFIC									
	Australia	29%	31%	32%	31%	\$515	\$361	\$409	\$341
	China	82%	86%	90%	92%	\$5,429	\$3,884	\$3,565	\$3,823
	Hong Kong	53%	54%	52%	52%	\$180	\$112	\$116	\$102
	India	71%	72%	74%	73%	\$1,275	\$566	\$519	\$367
	Indonesia	85%	87%	87%	88%	\$350	\$280	\$183	\$158
	Japan	25%	28%	28%	29%	\$1,781	\$1,621	\$1,787	\$1,633
	Malaysia	60%	60%	61%	63%	\$289	\$149	\$134	\$129
	New Zealand	22%	23%	23%	23%	\$49	\$30	\$25	\$21
	Pakistan	86%	86%	82%	83%	\$143	\$48	\$26	\$16
	Philippines	71%	71%	71%	72%	\$119	\$76	\$69	\$55
	Singapore	39%	40%	42%	43%	\$125	\$86	\$96	\$90
	South Korea	45%	46%	46%	48%	\$440	\$400	\$506	\$462
	Taiwan	41%	43%	43%	43%	\$182	\$111	\$161	\$139
	Thailand	80%	80%	79%	80%	\$421	\$259	\$183	\$141
	Vietnam	88%	90%	92%	92%	\$96	\$38	\$55	\$41
	Other AP	86%	82%	76%	76%	\$202	\$29	\$63	\$37
REGIONAL AVERAGE		55%	54%	53%	53%	\$11,596	\$8,050	\$7,897	\$7,555

<http://www.bsa.org/globalstudy/upload/2007-Losses-Global.pdf>

- Fight the Perception
- Differentiate Virtusans by their comprehension of Software Intellectual Property Laws

The “Mixed Code” Initiative

- Introduce **Process, Training, Awareness** programs to greatly reduce the risk of intellectual property violations in the Virtusa customer code base
- Improve **Legal Rigor** and **Customer Signoff** to provide indemnify Virtusa against Intellectual Property issues
- Introduce **Automation** to improve productivity and coverage of software Intellectual Property Audits
- Home: <http://hs-corporalab/process/spi/ip/>

Scope: Software License & Copyright Only (not Software Patents)

IP Related Process (GIP) Updates

- IP Usage Register
 - Project specific approved license list (within 30 days)
 - Tracking 3rd party asset usage by project team
 - Indemnification by approval/signoff by PM, Client
 - IPM level 1 integration
- Client Release Notes (amendment)
 - Signoff on Bill of materials in compliance with SOX
i.e. include IP encumbrances and 3rd party asset costs
- IP Compliance Coverage Report
 - Measure Progress on IP Compliance Coverage
- IP Audit Process
 - Spot checks on compliance
 - Part of the assurance discipline

Process (GIP) IP Updates

- Activity/Artifact: **IP Usage Register** (new)
 - Capture information on 3rd party software/images/design
 - Name and source of component
 - Relevant information on it's usage
 - Name of the license and it's details
 - Names of approver and Client approval notes



Owner:
PM/Architect

Sample



Microsoft Excel
Worksheet

IP Usage Register					
Project		Last Update Date			
Bair Geneva		4-Sep-07			
Third party IP usage (software/images/design and others)					
No	Component	Source of Component	Usage Details	License Details	Virtusa Approve
1	Spring Framework	http://www.springframework.org/about	Used for Database access layer and wiring the POJOs	Apache License Version 2.0 (http://www.apache.org/licenses/LICENSE-2.0.html)	Guru Rao / NMVPrasad
2	SLF4j	http://www.slf4j.org/	Used as wrapper for logging framework	Compatible with Apache Software License and LGPL (http://www.slf4j.org/license.html)	Guru Rao / NMVPrasad
3	Log4j	http://logging.apache.org/log4j/1.2/known/	Logging framework	Apache License Version 2.0 (http://www.apache.org/licenses/LICENSE-2.0.html)	Guru Rao / NMVPrasad
4	JUnit	http://www.junit.org/	For unit testing java code	Common Public License - v1.0 (http://www.junit.org/licenses/COMMON-PUBLIC-LICENSE.html)	Guru Rao / NMVPrasad
5	File Poller	http://poller.sourceforge.net/	For polling files from the directory	GNU GPL (http://www.gnu.org/copyleft/lesser.html)	Guru Rao / NMVPrasad
6	mplaces	http://myfaces.apache.org/	JSP Implementation	Apache License Version 2.0 (http://www.apache.org/licenses/LICENSE-2.0.html)	Guru Rao / NMVPrasad
7	Apache Commons	http://commons.apache.org/	For reading the configuration and for other	Apache License Version 2.0 (http://www.apache.org/licenses/LICENSE-2.0.html)	Guru Rao / NMVPrasad
8	Data Sift	http://sourceforge.net/projects/datasift/	For transformation validation	Apache License Version 2.0 (http://www.apache.org/licenses/LICENSE-2.0.html)	Guru Rao / NMVPrasad

Process (GIP) IP Updates

- Artifact: **Client Release Note** (Amended)
 - Features and dependences of a specific version of the software
 - Includes net changes since the last release
 - Include a **new section** on 3rd Party IP Utilization / Dependency
 - A reaffirmation and signoff of what was provided by the IP Usage Register upon release

2.4 Third Party IP Usage (software/images/design and others)

Name of the component, library, images, design etc	Usage Details	Special licensing or IP usage clearances	Client Approval (Name of the person from client organization who has authorized the use of third party IP components and date)
	<i>[Give short description of the where these are used in the system and purpose]</i>	<i>[Give details of the applicable license (e.g. GPL)]</i>	

Sample



Microsoft Word Document



Owner:
PM / Leads

http://dashboard/Process/GIP/GIP50/process/artifact/ar_crn.htm

Process (GIP) IP Updates

- Activity: Perform Architecture Review

Identify and Analyze Open Source and COTS

The Implementor shall identify the applicable open source code / component for re-use. Usage details of the component, including its licensing details are provided to the Project Manager. The Project Manager shall coordinate with the Client Services Manager and obtain explicit approval from the authorized client representative(s) for usage of the Open Source IP. Details of usage and approval are maintained in the IP Usage Register



Owner:
Architect / SARB

Legal Obligations vs License Matrix

Microsoft Excel - Licenses Vs Legal Obligations - v0 1 DRAFT.xls [Read-Only]

Type a question for help

Verdana 10

D16 No

	A	B	C	D	E	F	G
1							
2		Classification	Virtusa Internal				
3		Version / Updated	0.1 / 21-SEP-2007				
4							
5							
6				4.4BSD	GPL 3.0	LGPL 3.0	Apache
16		Trademark		No	No	No	Not allowed
17		Copyright		All rights reserved	All rights reserved	All rights reserved	All rights reserved
18		Patent		No			No
19		Should notice of modified files be issued?			Yes		Yes
20		Disclaimer of warranty		Yes	Yes	Yes	Yes
21		Sub-licensing/dual-licensing					Yes
22		Derivative works		Allowed	Allowed	Allowed	Allowed
23		Attribution To Original Author		Yes	No		
24		Is software licensed 'as is'?		Yes	Yes	Yes	Yes
25		Limitation of liability		Yes	Yes	Yes	Yes
26		Commercial Redistribution		Allowed	Allowed	Allowed	Allowed
27		Commercial	Provide copyright notice	Yes	Yes	Yes	Yes
28		Redistribution of	Provide disclaimer	Yes	Yes	Yes	
29		source code	Provide a copy of the license	Yes	Yes	Yes	Yes
30			Display notices for modified code		Yes	Yes	Yes
31		Commercial	Provide copyright notice	Yes	Yes	Yes	
32		Redistribution In	Provide Disclaimer	Yes	Yes	Yes	
33		Binary Form	Provide a copy of the license	Yes	Yes	Yes	
34			Copyrights	No		Yes	No
35		Passing on of	Copyright notice				
36		copyrights,	Trademarks	No			No
37		trademarks and	Trademark notice				
38		patents	Patents	No			No
39			Patents notice				

Sheet1 Sheet2 Sheet3

Ready

Sample



Microsoft Excel
Worksheet

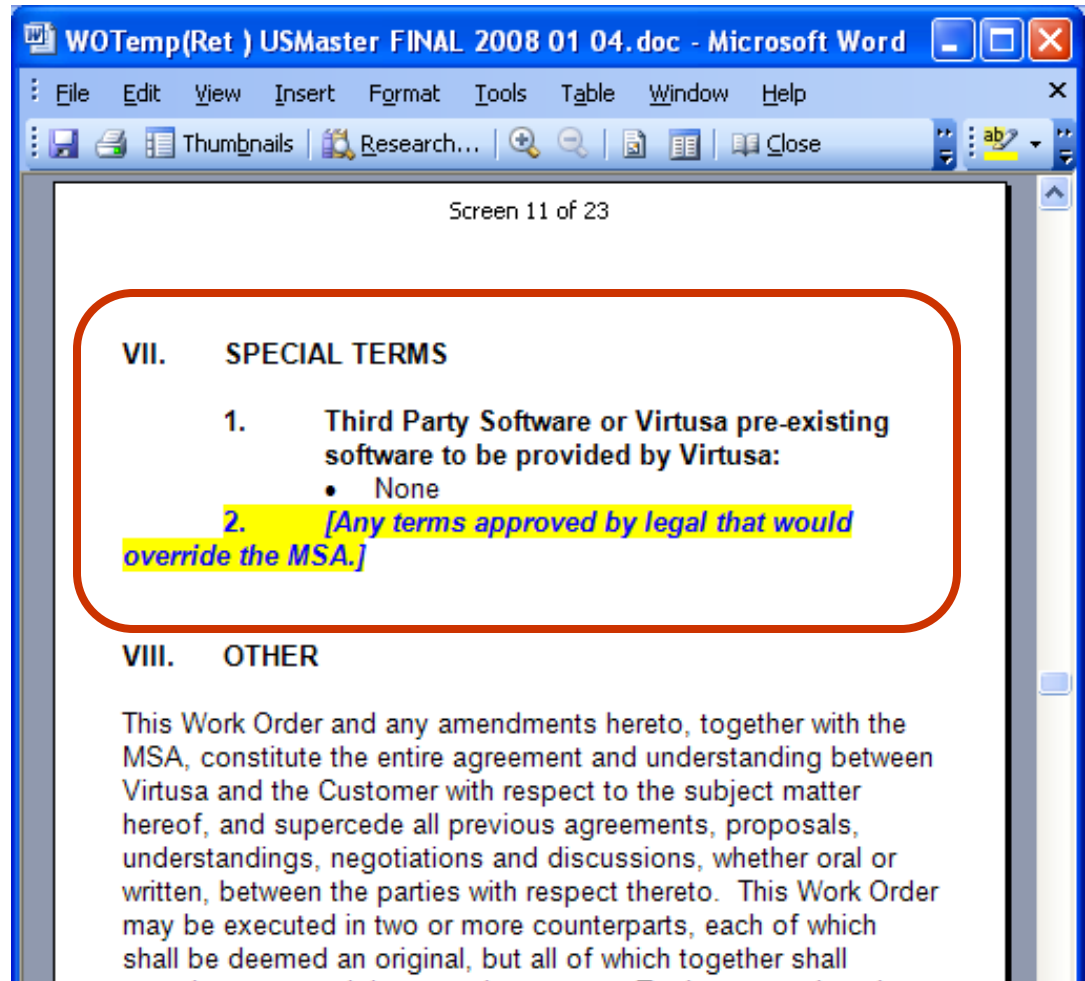
Location: <http://hs-corporalab/process/spi/ip/>

Legal Documents

- **Master Service Agreement**
 - A legal agreement stipulates the general relationship between the client and the service provider
- **Work Order / Change Request**
 - A legal document for a change to the requirements of a work effort that has been signed-off by the client
- **Statement Of Work (SOW)**
 - A legal statement outlining the specific services a contractor is expected to perform, generally indicating the type, level and quality of service, as well as the time schedule required
- **Employee NDA**
 - A legal agreement between employee and employer on confidentiality

Work Order

- Work Order Amendments
- Declare Components
 - 3rd Party Components
 - COTS
 - Open Source
 - Virtusa Components
- Declare Distributed Tools
 - 3rd Party Tools
 - Virtusa Tools

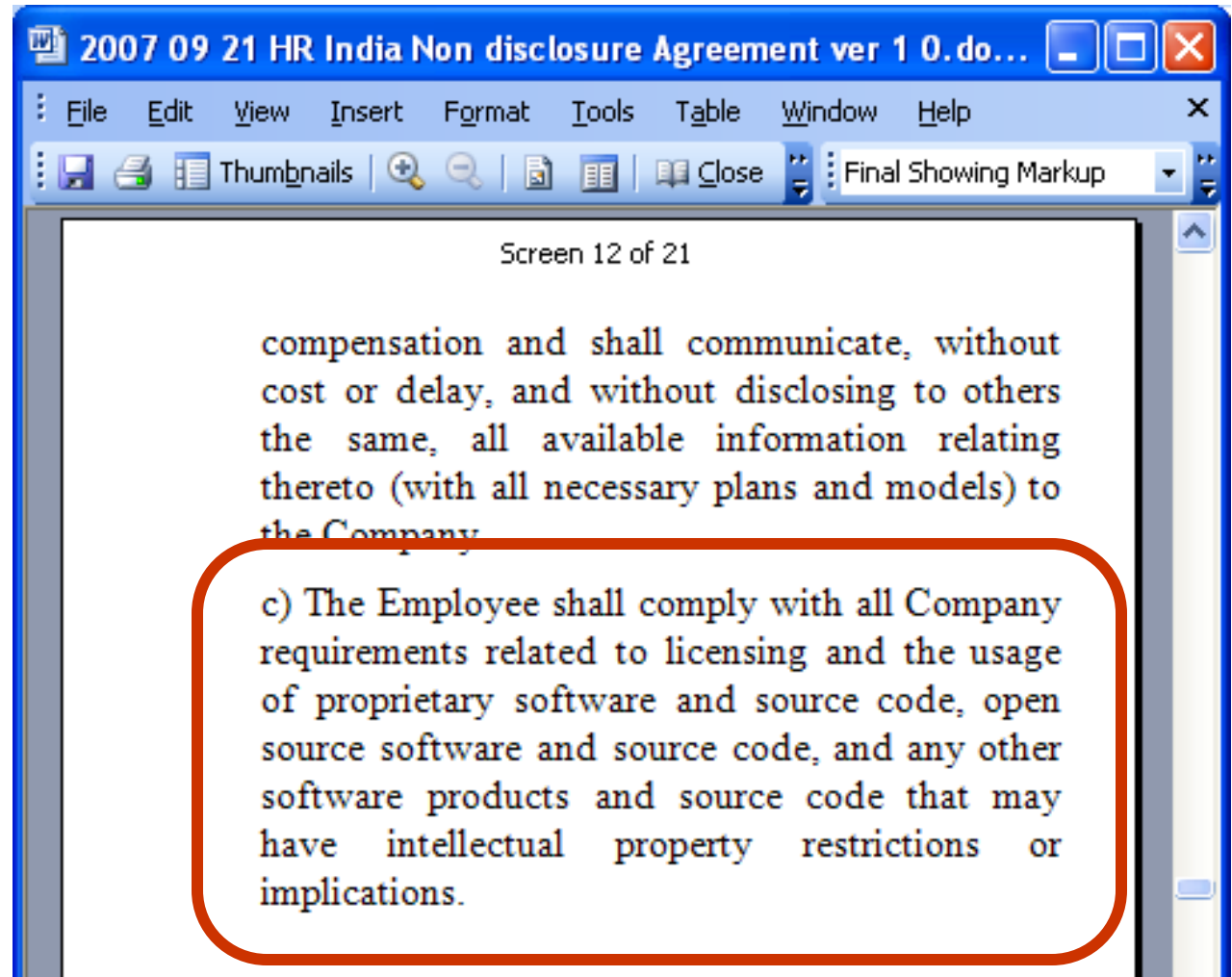


Consequence: Contractual Liability, or Loss of Virtusa IP

Employee Contracts

Employment NDA

- Professional
 - Responsibility
 - Accountability



Consequence: Removal from Project or Possibly Company

Automation

Requirement (Priority H, M, L)	BlackDuck	Palamida	OSRM
FOSS Component License Scan	Yes	Yes	PS
Proprietary Component Scan	Yes	Partial	PS
Public Code CPD Audit	Yes	Yes	PS*
License Compatibility Check (Policy)	Best	No	PS
Indemnification (Insurance)	No	No	Yes
Patent Infringement Check / Protection	No	No	PS
Audit with other Virtusa client code	Yes	Yes	No
Handles Binary Files (e.g freeware)	Yes	No	PS
Client IPR Policy Definition	No	No	PS
Training and Support	Yes	Yes	Yes
Scalability through Eclipse Plugin	Yes	No	No
Report on SOX Bill of Materials	Yes	No	PS
Team based IP Management	Yes	Yes	No

PS: Professional Services

License Audit Tool Analysis

- Best **IPR Audit** and Most **Productive** Tool
 - **Black Duck** is the best tool in terms of IPR audit coverage
 - Includes a legal analysis of licenses vs 27 attributes of client policy
 - **No indemnification** against license violation or patents
- Best **Indemnification**
 - **OSRM** has the best indemnification with a Insurance cover \$12 million for **only** FOSS code base used for 3 years
 - Professional Service includes IP Policy, Process definition
 - **Patents** not covered

The Benefit of FOSS and Open Content

- Benefits
 - Improve **productivity** by utilizing FOSS components
 - Reduce **license costs** for the client
 - **Learn** good coding practices
 - Improve Your's and Virtusa's **visibility** and page rank
- FOSS will become an increasing part of Software Engineering Practices
 - Reducing TCO
 - Transparency and Trust
 - Security
 - Latest Innovation

Software Tool Intellectual Property

- Software **Tools** vs 3rd Party **Components**
 - That which is not included in the delivery to the client
- Virtusa liability on illegal tool usage
 - Using **pirate copies** of software on your machine
 - Using Virtusa license key on **illegal downloads**
 - **Exceeding** the number of licenses available to Virtusa utilization
 - Utilizing **client provided software** after end of project allocation
- Responsibility
 - Do not bring or download any **pirate software**
 - Check if your **project** has enough **approved licenses** for software before you install it
 - Uninstall **unwanted** / **unutilized** tools (free capacity and seats)
 - Check Freeware / Free and Open Source tools use with PM / Architect
 - Approved FOSS / Freeware repository will be provided

Some Dos and Don'ts

- Always pass the decision of what 3rd party assets to use to the **client**
 - At Virtusa it is the client's **copyright** and **liability** we are protecting
 - Ensure client signs off on all 3rd party assets
- Always check the copyright and license of things you get from the web
 - Ensure you **report usage** of 3rd party assets to the Project Manager
- For a product company GPL (Copy Left) is a problem
 - For an enterprise it is less so, but watch **distribution channels**
- Recommend not to use **Freeware**, **Shareware** in your code
 - Unless explicitly stated by client
 - No awareness of what product contains and how it works
- Ensure you copy and maintain copyright / license notices
 - Even in permissive licenses you need to maintain the copyright / license info intact even for permissive licenses

Some Dos and Don'ts

- Don't use **digital media** from the web in your code
 - Unless you have a license or permission from the copyright holder
- Never copy code from another **project** or **account (customer)** code base
 - Only within account if express permission is given
- Make sure you know the bounds of **permissible use**
 - And even then report it to the project manager

FAQ

Q: Can I use Open Source Tools?

- You do not need to worry about **FOSS SE tools** as long as they do not end up in the deliverable to the client

Q: I need component A badly but it is an incompatible license

- See if you can obtain an alternative license from the copyright holder possibly through royalty

Q: The client wants us to use a tool which we believe is violating IP. What should we do?

- It is the client's decision what happens in his code base, but make sure you warn them and ensure he signs off the utilization of the tool on the IP usage register

Q: I still have some tools installed on my machine from the last client project, (where the client gave us the tool)

- Ensure you remove any software tools which was given to you by the client as part of the project. No IP should move across NDA boundaries

More Information

- Intellectual Property Dashboard Home page
 - Off <http://dashboard/ip>
- Discussion Forum for **Non-sensitive** IP Queries and Help
 - Virtusa Intellectual Property Initiative Portal
 - <http://hs-corporalab/process/spi/ip/>
- For **Client Sensitive** IP Help
 - Contact Paul Tuton, Marjorie Summers (US) or Chamindra de Silva (Asia)
- Send your feedback on the initiative to:
 - Chamindra de Silva, GTO
 - Navneeth Nayagam, Head Process
 - Chandika Mendis, Head GTO
- Content Authors
 - Anudi Nanayakkara
 - Chamindra de Silva



PRESENTATION

The End

Questions?

VirtusaTM
Conceive. Transform. Optimize.

References and Citations Taken From

- [1] Understanding software license and services agreements - J. Riely, P. McGuigan
- [2] Software License Agreements, Ignore at your own risk - Edward Desautels
- [3] The Rise of Open Source Licensing - M. Valimaki
- [4] Primer on Intellectual Property - Foley Lardner
- [5] Wikipedia references on Intellectual Property
- [6] Virtusa GIP Process

The Inception of Software Licensing

- 1950: Software Contractors
 - Working on mainframes to build instance specific software
- 1969: IBM's Unbundling decision
 - Generally an evolution due to the demand for software, programmers, anti-trust issues with IBM
 - Mass market Software Industry Took off
 - Software Licensing Really Starts
- 1981: IBM's Introduces the PC
 - Based on an Open Architecture
 - Software becomes decoupled from hardware



Free and Open Source License Inception

- 1975: **Berkley Software Distribution (BSD)** of AT&T Unix
 - AT&T Gives Unix to educational Institutions with source code for educational purposes
 - Users send patches and Fixes especially in academic circles
 - It is redistributed at cost though
- 1983: **GNU** Manifesto by Richard Stallman
 - Objective to write a completely free Unix
- 1988: Emacs/**GNU General Public License** (Copy left)
 - After a dispute on Emacs
- 1989: BSD Network Release 1
 - Liberal license and redistribution terms of source code
 - Dispute with AT&T and settled in 1993 when Novel bought rights
- 1991: GNU GPL version 2 released
- 1992: **Linux** released under GPL and GPL takes off