

The background features a light blue and white color scheme with a pattern of binary code (0s and 1s) scattered across it. A prominent blue chain with circular links is draped across the center, extending from the left side towards the right. The chain is set against a backdrop of overlapping, semi-transparent blue and white circular shapes that create a sense of depth and movement.

**OPEN SOURCE BUSINESS CONFERENCE**

Building Your Big Data Future with Open Source

**COMPUTERWORLD**  
**OSBC**  
SAN FRANCISCO



# Building Your Big Data Future with Open Source

KIRKLAND & ELLIS LLP

## Monetary Damages for Open Source Violations: A Practical Framework

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# Building Your Big Data Future with Open Source

## Overview

- Why the Numbers Matter
- Sources of Monetary Remedies for FOSS Violations
- Contract Damages
- Copyright Damages
- Copyright Infringement Case Studies
- Sample Calculation
- Questions?



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## WHY THE NUMBERS MATTER



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## Why the Numbers Matter

- M&A and Financing Transactions
  - Acquirer/Lender may require an estimate of risk associated with FOSS software
  - FOSS violations/non-compliance may trigger various reps and warranties if “material”
  - Determining materiality requires ability to approximate the range of risk exposure
  - Some Acquirers/Lenders require scheduling estimated exposure amounts



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## Why the Numbers Matter

- *Exemplary Language from Credit Agreement:*

Schedule 1 sets forth a complete and accurate description, with respect to each of the Actions or asserted liabilities in excess of \$1M, **or that could reasonably be expected to result in** liabilities in excess of \$1M, that is pending or, to the knowledge of **[Acquirer / Borrower]** threatened of: (i) the parties thereof, (ii) the nature of the dispute, and (iii) **a good faith estimate of the maximum liability.**



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## Why the Numbers Matter

- Settlement Discussions
  - Estimating exposure for client
  - Convincing opposing party on what damages may be recoverable
- Internal Risk Management
  - Governance policies
  - Audit requirements



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## Why the Numbers Matter

- Financial Reporting / Sarbanes-Oxley
  - Requirements to receive an unqualified auditor's opinion
  - SEC Filing requirements (*e.g.*, 10-K, 8-K)



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# SOURCES OF MONETARY REMEDIES FOR FOSS VIOLATIONS



# Sources of Monetary Remedies for FOSS Violations

- Copyright Infringement
- Breach of Contract



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## **CONTRACT DAMAGES**



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## Contract Damages

- Elements of Breach of Contract Claim
  - Valid Contract
  - Breach
  - Provable Damages
- Contract Damages
  - Direct Damages
  - Consequential Damages
    - May include loss of product and loss of profit or revenue
    - Must be foreseeable to recover
    - Must be sufficient nexus between damages and breach



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## Contract Damages (cont.)

- Contracts are Governed by State Law
- California law on breach of contract:

In an action for breach of contract, the measure of damages is “the amount which will compensate the party aggrieved for all the detriment proximately caused thereby, or which, in the ordinary course of things, would be likely to result therefrom” (Civ.Code, §3300), provided the damages are “**clearly ascertainable** in both their nature and origin.” (Civ.Code, §3301)

- New York law on breach of contract:

Plaintiff in a breach of contract action absent special circumstances is entitled only to **expectancy damages** (placing the non-breaching Plaintiff in the position he would have occupied had the contract been fulfilled) (see, *Rosen v. Equitable Paper Bag Co.*, 286 NY 410)

- General Contract Damage Principles
  - Damages generally must be reasonably foreseeable
  - Speculative damages are not available



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## Contract Damages (cont.)

- Issues with Contract Damage Remedies
  - Is there a contract (e.g., has there been acceptance of the FOSS License)?
  - Is a violation a breach of contract (e.g., is compliance with the license a condition to the license or a covenant)?
  - What monetary damages would a Plaintiff reasonably expect to receive when making software available under the FOSS License? A free FOSS License?
    - Had the contract been performed Plaintiff would be no richer
  - What damages would make Plaintiff whole?
  - Are any of the damages theories non-speculative?



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## **COPYRIGHT DAMAGES**



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## Copyright Infringement

- §504 of the U.S. Copyright Act
  - Governs remedies for copyright infringement
  - A copyright owner whose exclusive rights have been infringed may generally pursue equitable relief **and/or monetary damages**.
  - Copyright owner has choice of recovering:
    - Their actual damages **and** any additional profits of the Defendant; or
    - Statutory damages
  - Statutory damages and actual damages are mutually exclusive: only one can be awarded



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## Statutory Damages

- Statutory Damages Scheme
  - Calculated per work infringed
  - Only available for works registered with the USCO prior to infringement
  - Definition of “per work” in software context is complex
- Relevant Categories of Infringers:
  - Regular infringers (not willful, not innocent)
    - Occurs when defendant fails to meet burden of proving infringement and plaintiff fails to meet burden that infringement was willful
    - Burden to prove innocence and/or willfulness is by clear and convincing evidence
    - At least \$750 per work up to \$30,000 per work
  - Willful infringement
    - At least \$750 per work up to \$150,000 per work
  - Innocent infringers
    - \$200 per work



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## Actual Damages and Defendant's Profits

### The Statute (§504(b) U.S. Copyright Act):

- “The copyright owner is entitled to recover the **actual damages** suffered by him or her as a result of the infringement, and any **profits of the infringer that are attributable to the infringement** and are **not taken into account in computing the actual damages.**”
- In establishing the infringer's profits:
  - the **copyright owner** is required to present proof only of the infringer's gross revenue
  - The **infringer** is required to prove his or her deductible expenses and the elements of profit attributable to factors other than the copyrighted work.
- Assuming there is the same causal connection, actual damages and contract damages are not exactly the same, but are similar
- Burden of proof is by preponderance of the evidence



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## Actual Damages

- Elements of Actual Damages
  - Direct Expenses
  - Loss in Fair Market Value
  - Lost Revenue
- Establishing Actual Damages
  - Award must be reasonable in light of the evidence
  - Evidence must show a causal connection between the damages claimed and the infringement
  - Plaintiff must establish gross revenues reasonably related to the infringement, not unrelated revenues



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## Actual Damages (cont.)

- Are Actual Damages Available for FOSS Violations?
  - Open source software is generally provided for free - may be difficult to establish lost revenue
  - May argue that expenses exist (development, marketing)
  - Query: Damage to reputation?
  - Query: Maintenance fees?
  - Query: Hypothetical lost license fees?
  - Query: Up-sold license fees for dual-licensed programs?
- *Natl. Conference of Bar Examiners v. Multistate Legal Studies, Inc.* (458 F.Supp. 2d 252) (E.D. Pa. 2006)
  - Court holds that Plaintiff may not recover damages for “hypothetical” lost revenues absent evidence Plaintiff would’ve licensed copyrighted works for money in the future



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## Defendant's Profits

- Establishing Defendant's Profits
  - Burden on Plaintiff to establish Defendant's gross revenues reasonably related to the infringement
  - Burden then shifts to Defendant to establish its expenses
    - Production costs incurred in producing the gross revenue
    - Overhead
    - R&D
    - Marketing
  - Burden is also on Defendant to establish that a portion of the profit is attributable to factors other than the copyrighted work
  - Consider whether FOSS software at the platform level contributing to multiple products places profits from all such products at risk (compare system damage claims in patent cases)



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## Reputation

- Plaintiff's Reputation
  - Existing case law suggests that loss of Plaintiff's reputation due to infringement may be compensable
- Defendant's Reputation
  - Consider whether the improvements to the Defendant's reputation and goodwill that accrue due to the infringement are recoverable by Plaintiff
  - Consider situation where Defendant's reputation is buoyed by blockbuster sales of infringing product which leads to increased sales of other products sold by Defendant



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## Example Jury Instruction

If you find that Defendant infringed Plaintiff's copyrighted work, Plaintiff is entitled to any profits attributable to the infringement in addition to actual damages.

Profits are determined by deducting all expenses from gross revenue. Gross revenue is all of Defendants' receipts from the use or sale of a work containing or using the copyrighted work. Expenses are all production costs incurred in producing the gross revenue.

Unless you find that a portion of the profit from the use or sale of a product or work containing or using the copyrighted work is attributable to factors other than use of the copyrighted work, the **total profit is attributable to the infringement.**

Plaintiff has the burden of proving gross revenue by a preponderance of the evidence. Defendant has the burden of proving the expenses and the portion of the profits attributable to factors other than the copyrighted work by a preponderance of the evidence.

You may not include in any award of profits any amount that you took into account in determining actual damages.

*Technigraphics, Inc. v. Majestic Homes, Inc.* (2:02-cv-00923-TC) (2005)



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## Defendant's Profits in FOSS License Context

- Key Question: What percentage of a Defendant's profits from a software program that incorporates FOSS software are likely to be disgorged?
- Case Studies as Benchmarks



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# **COPYRIGHT INFRINGEMENT CASE STUDIES**



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## Data From Actual Cases

- Reviewed copyright infringement cases from January, 1991 to April, 2011<sup>1</sup>
  - Identified all cases where the Plaintiff was awarded damages for its own lost profits and for the Defendant's profits
  - Review identified:
    - 530 cases where a damage award was made
    - 45 cases in which an award of Defendant's profits was made
    - 17 cases where a lost profits award was made
    - Following table represents all cases where we had sufficient information to determine percentage of profits awarded
  - Four of the cases involved derivative works based on infringed copyrights
    - Only one of these cases involved software (*Softel* decision)
    - Three other cases not involving software, but still may be instructive
  - Disclaimer: Review limited to cases where helpful documents were publicly available

<sup>1</sup> Portions of data provided by LegalMetric, LLC



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## Percentage of Defendant's Profits Awarded

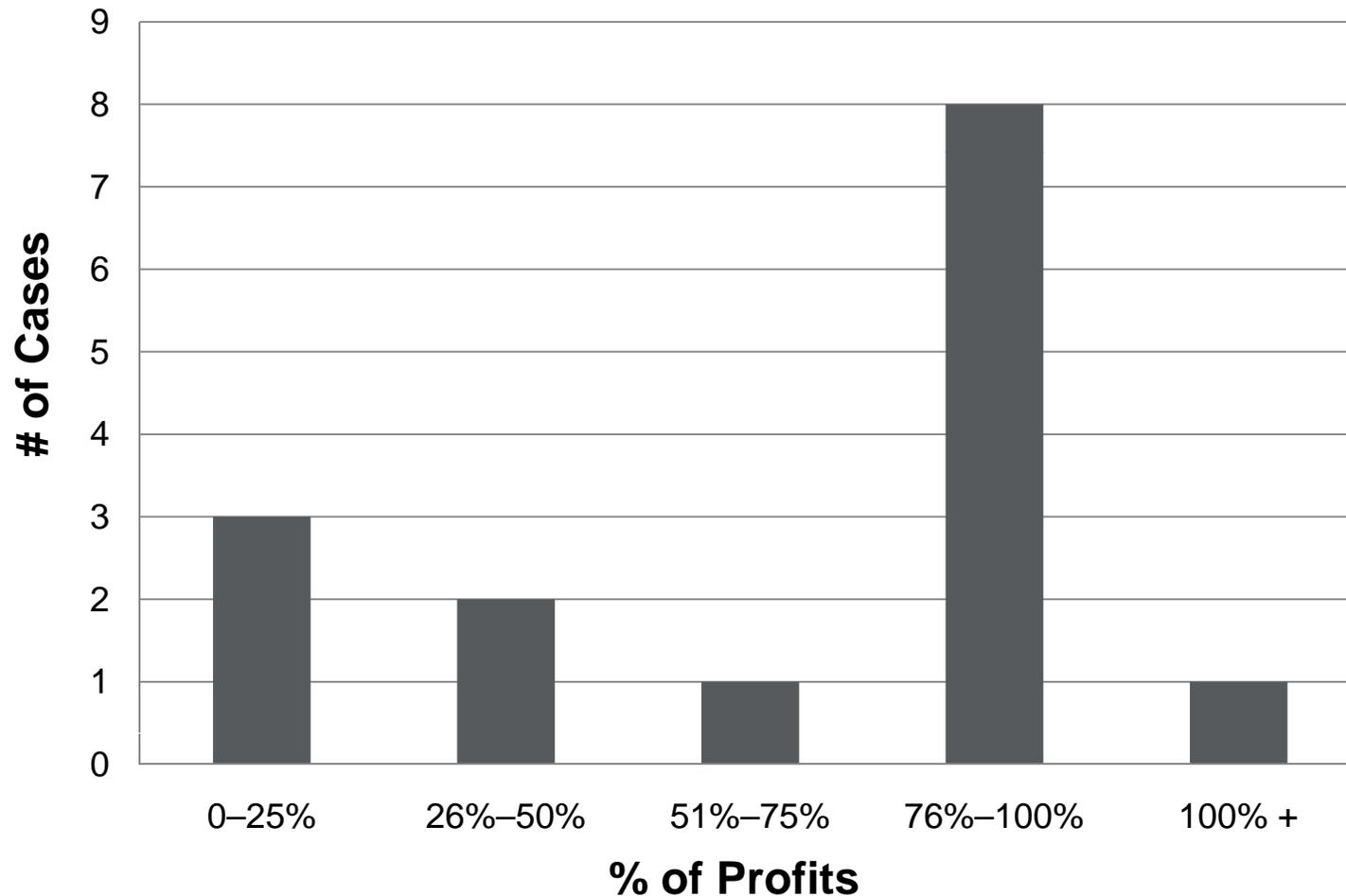
Case Name	Date of Award	% of Profits
Young v. Gillman Knitwear Co	12/16/1998	6%
Andreas v. Volkswagen America	9/4/2003	10%
William Hablinski v. Amir Construction	3/28/2007	25%
Lucky Break Wishbone Corporation v. Sears Roebuck & Co	10/28/2008	30%
Softel, Inc. v. Dragon Medical	7/7/1995	50%
Zervitz v. Hollywood Pictures	11/26/1996	70%
Gary P Biller v. Peter Rodgers Organization Ltd	8/18/2008	100%
Enterprise Tech v. Noveon Systems Inc	7/29/2008	100%
Eros, LLC et al v. Simon	1/3/2008	100%
With Love Designs v. Dressy Tessy Inc	10/13/1992	100%
Playboy Enterprises v. Dumas	8/22/1997	100%
Cambridge Institute v. Oxford Group Inc	4/28/1994	100%
X-It Products v. Walter Kidde Portable Equipment	6/25/2002	100%
Thomas M. Gilbert Architects v. Accent Builders & Developers	8/28/2008	100%
Data Mechanix v. Interdata Recovery Services	5/30/2008	159%

NOTE: For 5 of the 8 cases where Plaintiff was awarded 100% of Defendant's Profits, Defendant attempted to establish deductible expenses and/or profits not attributable to the infringement, but failed to meet its burden



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## Percentage of Defendant's Profits Awarded





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## Case Study 1

*Softel, Inc. v. Dragon Medical and Scientific Communications, Inc. (118 F.3d 955) (2<sup>nd</sup> Cir. 1997)*

- Background
  - Defendant hired Plaintiff to write software code to retrieve and display graphics images in Defendant's software program
  - Defendant used Plaintiff's code without permission in two additional software programs sold by Defendant
  - Plaintiff claimed all proceeds from Defendant's sale of the infringing products



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## Case Study 1 (cont.)

- Calculation of Damages
  - Court awarded Plaintiff lost profits in the amount of \$7000
    - Represented amount Plaintiff had proposed to charge Defendant for use of the software code in the additional programs
  - Court tasked with determining what percentage of the profits were attributable to Plaintiff's copyrighted works.
    - Court noted that Plaintiff's code comprised only 15.8% of the lines and 6.1% of the bytes in one of Defendant's programs and only 7.8% of the bytes of the other
    - "In determining the portion of the profits attributable to the [infringed code], it is necessary to examine **not only the quantity** of the infringed code in relation to the entire program, but also the **qualitative importance** of that code"



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## Case Study 1 (cont.)

- Calculation of Damages (cont.)
  - Court determined that while Plaintiff's code comprised only a small portion of Defendant's code, Plaintiff's code was an essential part of the program
  - Taking all factors together Court awarded Plaintiff **50%** of Defendant's profits from the two infringing programs

% of Derivative Work	Awarded
15.8% Lines 6.8% Bytes (Program 1) 7.8% Bytes (Program 2)	50% of Defendant's Profits



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## Case Study 2

*Andreas, et al v. Volkswagen America, et al (336 F.3d 789 (8th Cir. 2003))*

- Background
  - Plaintiff, an artist and author, created a drawing entitled “Angels of Mercy,” which he paired with the accompanying text he authored:  
*“Most people don't know that there are angels whose only job is to make sure you don't get too comfortable & fall asleep & miss your life.”*
  - Plaintiff alleged that Defendants ran a TV commercial for the Audi TT coupe that contained language from Plaintiff’s copyrighted work as a voiceover
  - Defendant ran two other commercials that did not include the voiceover



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## Case Study 2 (cont.)

- Calculation of Damages
  - Jury awarded Plaintiff **10%** of Defendant's profits from sales of the Audi TT
  - The court noted that for Defendant to reduce the award, Defendant had burden to prove that elements of profit were attributable to factors other than the copyrighted work, such as:
    - The two other commercials that did not incorporate the copyrighted phrase
    - Other parts of the commercial that did
    - Customer loyalty
    - Brand recognition
    - People visiting dealerships

% of Derivative Work	Awarded
Not Clear, but 1/3 of Commercials	10% of Defendant's Profits



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## Case Study 3

*National Conference of Bar Examiners v. Multistate Legal Studies, Inc. (458 F.Supp. 2d 252) (E.D. Pa. 2006)*

- Background
  - Plaintiff develops testing materials used by many jurisdictions to evaluate applicants seeking bar admission, including the Multistate Bar Examination (“MBE”)
  - Defendant ran a test preparation service that helped students study for the MBE
  - Defendant had employees sit for the bar exam in multiple jurisdictions in order to copy Plaintiff’s copyrighted questions for use in Defendant’s test-prep services
  - In advertising materials Defendant emphasized the similarities between its practice questions and those appearing on the MBE



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## Case Study 3 (Cont.)

- Calculation of Damages
  - Plaintiff awarded actual damages in the amount of \$59,000 (Costs incurred by Plaintiff to reprint a 2005 examination because Defendant's copyright infringement had compromised the initial version)
  - Court declined to award any damages for lost license revenue
    - No fair market value for the questions
    - No evidence that Plaintiff would have licensed released questions
    - Licensing current questions would undermine validity of MBE



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## Case Study 3 (cont.)

- Calculation of Damages (cont.)
  - Court awarded **33%** of Defendant's profits from the fees charged to students who took Defendant's class
  - Court noted that approximately 33% of Defendant's practice questions were infringing questions
  - Court placed special emphasis on Defendant's advertisements and marketing materials promoting the similarity between Defendant's questions and Plaintiff's questions
  - Established that question similarity was a major draw for Defendant's test prep service

% of Derivative Work	Awarded
33% of Questions	33% of Defendant's Profits



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## Case Study 4

*Hablinski v. Amir Construction, et al.* (2009 WL 1186206) (C.D. Cal. 2007)

- Background

- Plaintiff sued Defendant alleging that Defendant built a home based upon Plaintiff's copyrighted architectural drawings
- Jury found that Defendant took original elements from Plaintiff's design and modified and adopted them into a new architectural work

- Calculation of Damages

- Jury determined that **25%** of Defendant's profits were attributable to the infringed copyright

% of Derivative Work	Awarded
Not Clear	25% of Defendant's Profits



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## Comparison of Case Studies

Case	% of Derivative Work	Awarded
Softel, Inc. v. Dragon Medical and Scientific Communications	15.8% Lines 6.8% Bytes (Program 1) 7.8% Bytes (Program 2)	50% of Defendant's Profits
Andreas v. Volkswagen America	Not Clear, but 1/3 of Commercials	10% of Defendant's Profits
National Conference of Bar Examiners v. Multistate Legal Studies, Inc.	33% of Questions	33% of Defendant's Profits
Hablinski v. Amir Construction	Not Clear	25% of Defendant's Profits



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## **SAMPLE CALCULATION**



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## Useful Formulas

$$D = A + P + F$$

*D = Total Damages Award*

*A = Plaintiff's Actual Damages*

*P = Defendant's Profits*

*F = Attorney's fees (will only be awarded if infringement is willful)*

$$A = L_F + (N \times S_P) + M$$

*L<sub>F</sub> = Loss in fair market value*

*N = Number of products sold containing infringing code*

*S<sub>P</sub> = Sales/Licensing Fee charged by Plaintiff for copyrighted code (including displaced maintenance fees)*

*M = Miscellaneous (damage to reputation, loss of "up-sell" revenue, etc.)*

$$P = ((N \times S_D) - E) \times C$$

*S<sub>D</sub> = Sales/Licensing Fee charged by Defendant for infringing software product*

*C = Percentage of S<sub>D</sub> attributable to infringed code*

*E = Defendant's provable expenses (for all products N)*



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## Stating Assumptions

- Initial Assumptions
  - Plaintiff's FOSS software is distributed for free ( $S_P = 0$ )
  - Defendant sells its software products for \$50 per product ( $S_D = \$50$ )
  - Defendant sells 100,000 units ( $N = 100,000$ )
  - Defendant establishes expenses for all products N totaling \$10,000 ( $E = \$10,000$ )
  - Loss in fair market value is not being taken into account ( $L_F = 0$ )



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## Damages Calculation - Example 1 (No Actuals, Defendant's Strong Showing)

$$A = 0$$

$$P = ((N \times S_D) - E) \times C$$

- $S_D = \$50$
- $N = 100,000$
- $E = \$10,000$
- Assume jury concludes that Plaintiff's FOSS software represents 10% of the value of Defendant's software
  - Thus  $C = .1$

$$P = ((100,000 \times 50) - \$10,000) \times .1 = \$499,000$$

$$D = A + P + F$$

$$D = 0 + \$499,000 + 0 = \$499,000$$



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## Damages Calculation - Example 2 (No Actuals, Defendant's Weak Showing)

$$A = 0$$

$$P = ((N \times S_D) - E) \times C$$

- $S_D = \$50$
- $N = 100,000$
- $E = \$10,000$
- Assume jury concludes that Plaintiff's FOSS software represents 100% of the value of Defendant's software
  - Thus  $C = 1$

$$P = ((100,000 \times 50) - 10,000) \times 1 = \$4,990,000$$

$$D = A + P + F$$

$$D = 0 + \$4,990,000 = \$4,990,000$$



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## Damages Calculation - Example 3 (Actuals Based on Up-Sell Plus Defendant's Profits)

$D = \$4,990,000$  (see previous slide)

$$A = L_F + (N \times S_P) + M$$

- $L_F = 0$
- $S_P = 0$
- Assume Plaintiff sells an "up-sell" version of the FOSS software that it charges \$15 for
  - Jury determines that Defendant's use of the FOSS software would've necessitated purchasing the "up-sell" version
  - Thus  $M = \$15 \times N = \$15 \times 100,000 = \$1,500,000$

$$A = 0 + (100,000 \times 0) + \$1,500,000 = \$1,500,000$$

$$D = A + P + F$$

$$D = \$1,500,000 + \$4,990,000 = \$6,490,000$$



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## Damages Calculation - Example 4 (Actuals Based on Maintenance Plus Defendant's Profits)

$D = \$4,990,000$  (see previous slide)

$$A = L_F + (N \times S_P) + M$$

- $L_F = 0$
- $M = 0$
- Assume Plaintiff charges Maintenance Fees on its FOSS software equal to \$10/year for two years
  - Thus  $S_P = 2 \times \$10 = \$20$

$$A = 0 + (100,000 \times \$20) = \$2,000,000$$

$$D = A + P + F$$

$$D = \$2,000,000 + \$4,990,000 = \$6,990,000$$



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## Damages Calculation - Example 5 (Actuals Plus Defendant's Profits Based on Larger Product)

**$A = \$2,000,000$**  (see previous slide)

$$P = ((N \times S_D) - E) \times C$$

- $E = \$10,000$
- $C = 1$
- $N = 100,000$
- Assume that Defendant bundles software with a mobile device and the cost of the mobile device is \$300
  - Jury determines that Defendant's relevant profits are those from sales of the mobile device (rather than just Defendant's software)
  - Thus  $S_D = \$300$

$$P = ((100,000 \times 300) - 10,000) \times 1 = \$29,000,000$$

$$D = A + P + F$$

$$D = \$2,000,000 + \$29,000,000 = \$31,000,000$$



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## Damage Progression

	Defendant's Profits (P)	Actual Damages (A)	Total Damage Award (D)
No actual damages & FOSS Software deemed 10% of Defendant's software value	\$499,000	\$0	\$499,000
No actual damages & FOSS Software deemed 100% of Defendant's software value	\$4,990,000	\$0	\$4,990,000
FOSS Software deemed 100% of Defendant's software value and Plaintiff charges maintenance fees	\$4,990,000	\$1,500,000	\$6,490,000
FOSS Software deemed 100% of Defendant's software value and Plaintiff sells "up-sell" version of FOSS software	\$4,990,000	\$2,000,000	\$6,990,000
Plaintiff sells "up-sell" version of FOSS software and Defendant's profits measured by price of bundled mobile device	\$29,000,000	\$2,000,000	\$31,000,000



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## Communicating Damage Estimates Internally

- When a request arises, a business executive should submit a request for legal advice, in writing, to an in-house attorney (or outside counsel)
- Facts concerning damages or other liability issues should be gathered by having the attorney conduct an investigation of the company's legal rights and potential liability
- The investigation should be set up by the attorney, who will supervise any outsiders, and document their engagement and their purpose
- Put the "attorney-client privilege" label where it belongs, but with discretion (not on every document and email)
- Distribute attorney-client privileged documents only to those persons who have a legitimate business purpose in receiving advice or soliciting further advice on the matter



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## Communicating Damage Estimates Internally (cont.)

- General Disclaimer:

“In preparing this [memorandum], we have relied without any independent verification upon the [sales, expense, pedigree] assumptions recited herein. We have assumed without investigation that there has been no relevant change or development between the dates these assumptions were provided and the date of this [memorandum] and that the information upon which we relied and is accurate and does not omit disclosures necessary to prevent such information from being misleading. The damages assessment addressed in this [memorandum] represents our view as to how that issue would be resolved were it to be considered under prevailing views of calculating damages. The manner in which any particular damage calculation would be treated should a case arise would depend in facts and circumstances alleged and proven. Applying those facts and circumstances to the applicable copyright and other applicable statutes is a matter for interpretation and would also depend on how the court involved chose to exercise the wide discretionary authority generally available to it in such matters and how a jury followed the court's direction. All these factors are not well settled. This [memorandum] is not intended to guarantee the outcome of any legal dispute which may arise in the future.”



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## Questions?

### For More Information ...

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