

ARTICLE 2B AND QUALITY/COST ANALYSIS

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This summarizes *Bad Software—Who is Liable?*, provided in your conference materials.

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Businesses spend fortunes on quality-related costs. Traditionally, quality engineers categorize these:

- **Prevention costs:** costs of avoiding making defects, e.g. worker training.
- **Appraisal costs:** costs of finding defects pre-sale, e.g. inspections.
- **Internal failure costs:** costs caused pre-sale by defects, e.g. scrap and rework.
- **External failure costs:** costs caused by defects in products that have reached the customer, e.g. cost of handling customer complaint calls.

Note that these are all costs of the seller. There are also **externalized** costs, costs paid by the customer and not by the seller. Customer costs are partially and indirectly reflected when they bounce back as external failure costs.

External failure costs include:

- **Customer support costs**
- **Lost sales**
- **Legal costs.**

Article 2B is a multi-pronged assault on external failure costs. It drives these costs way down in mass-market cases, and keeps them low even when quality declines. This reduces the economic pressure on software publishers to improve their products, resulting, I believe, in a weaker domestic industry over the long term. And, of course, in crummier products. The table on the next page provides examples of the costs that are driven down. Article 2B authorizes these measures, and in this world of you-can't-see-the-terms-until-after-you-buy-it contracting, we should expect to routinely see terms like these.

For more details on 2B and mass-market customers:

- Kaner, C. (1997a). What is a Serious Bug? Defining a "Material Breach" of a Software License Agreement. (unpublished.) *Meeting of the NCCUSL Article 2B Drafting Committee*, Redwood City, CA, January 10-12, 1997. (abbreviated version, *Software QA*, 3, #6.) Available at www.badsoftware.com/uccdefect.htm.
- Kaner, C. (1997b). Remedies Provisions of Article 2B. (unpublished.) *Meeting of the NCCUSL Article 2B Drafting Committee*, Redwood City, CA, January 10-12, 1997. Available at www.badsoftware.com/uccrem.htm.
- Kaner, C. (1997j) Restricting Competition in the Software Industry: Impact of the Pending Revisions to the Uniform Commercial Code. Proceedings of Ralph Nader's conference, *Appraising Microsoft*, Washington, DC, November, 14, 1997. Available at www.badsoftware.com/nader.htm.
- Kaner, C. & T. Paglia, (1997) Letter to American Law Institute outlining the consumer community's priorities for its Executive Council meeting, December, 1997. (unpublished.)
- Kaner, C. & D. Pels (1997). Article 2B and Software Customer Dissatisfaction. (unpublished.) *Meeting of the National Conference of Commissioners on Uniform State Laws' Article 2B Drafting Committee*, Cincinnati, OH, May 30, 1997. A shorter version of this paper, for the software community, was published as Software Customer Dissatisfaction, *Software QA*, 4, #3, 24. Available at www.badsoftware.com/stats.htm.

CUSTOMER SUPPORT	LOST SALES	LEGAL RISKS
<i>Reduce net support costs and obligations</i>	<i>Reduce effects of competition</i>	<i>Reduce probability and cost of lawsuits</i>
<ul style="list-style-type: none"> ▪ Charge customers for all calls for support, even for defects. No refund for these calls even if the customer returns the software. <i>2B-703(a)(2) allows refund of purchase price after return of the software as the sole remedy.</i> ▪ No implied warranties. <i>2B-406 allows post-sale disclaimer with no opportunity pre-sale for customer to discover the disclaimer. CAPS make the post-sale disclaimer “conspicuous.”</i> ▪ Goods-based consumer protection laws (such as Magnuson-Moss and California’s Song-Beverly Act) become inapplicable because their scope is goods and 2B transactions are transactions in an intangible (a license to use IP). ▪ No duty to mass-market customers or consumers (only to big customers) to cure defects. <i>2B-605.</i> ▪ Lesser right to a refund. <i>(Perfect tender rule available only to mass market. 2B material breach definition is much more publisher-friendly than Restatement’s. 2B-109.)</i> 	<ul style="list-style-type: none"> ▪ No pre-sale disclosure of terms, so there’s no competition on quality-related promises. <i>2B-208.</i> ▪ License agreements prohibit disclosure of details of the product, including banning writing magazine reviews without publisher’s permission. <i>Some publishers already have such terms, though they probably don’t work in mass-market today. 2B-102(12) includes nondisclosure in “contractual use restrictions”, which are deemed as OK in contracts.</i> ▪ No reverse engineering (harder to compete, and harder to do 3rd party maintenance). <i>(Use restriction.)</i> ▪ No reverse engineering for interoperability, to make two products compatible. <i>(Use restriction.)</i> 	<ul style="list-style-type: none"> ▪ Seller chooses its favorite state or country, for its choice of law. <i>2B-107.</i> ▪ Seller chooses its favorite forum. <i>2B-108 (but choice can’t be “unfair & unjust” as term is used in Carnival Cruise Lines.)</i> ▪ No damages. Rescission is the only remedy, and rescission doesn’t include repayment of fees for “support” (such as the call to ask for a refund.) <i>2B-703(a)(2)</i> ▪ Eliminates the concept of the “minimum adequate remedy” which was an influential comment in Article 2. ▪ Eliminates the Article 2 policy section saying that aggrieved party should be entitled to full recovery. ▪ There are, of course, no damage limitations available to mass market customer with respect to vendor’s recovery from the customer. Vendor is exclusive definer of what constitutes a breach on the customer’s part.