ON-LINE, OFF BASE: THE COMPUTER PROGRAM FINAL REGULATIONS MISS AN OPPORTUNITY

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By distinguishing between copyright rights and copyrighted articles, the regulations provide a useful analytical framework. But they are unnecessarily narrow in scope, give little guidance on the treatment of services, and are deliberately vague on whether copyrighted articles are to be treated as tangible property. By failing to follow up the good start made by the proposed regulations two years ago, the final regulations miss the base.

Proposed regulations published by the IRS and Treasury on November 7, 1996, regarding the classification, for certain federal income tax purposes, of cross-border transactions involving computer programs[1] were a good start, but left many issues unresolved.[2] On September 30, 1998, the IRS issued the long-awaited final regulations.[3] Predictably, they retain the core principles illustrated by the 16 examples in the proposed regulations. In addition, they explicitly state the source rules that apply to the transactions classified under the regulations—guidance noticeably absent from the proposed regulations. However, the regulations offer little additional guidance and minimal clarification in such important areas as the intended scope of the rules and the treatment of mixed transactions, e.g., the provision of bundled services. After an impressive albeit cautious beginning, and almost two years of hearings and study, the IRS has missed (or deliberately rejected) the opportunity to provide clarity in an increasingly important area of taxation.[4]

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1 Prop. Reg. 1.861-18, 61 Fed. Reg. 58,152 (1996), REG-251520-96, 1996-2 CB 511, as corrected by Ann. 97-31, 1997-14 IRB 16. The 16 examples in Prop. Reg. 1.861-18(h) are referred to herein as "Prop. Ex. x."

2 See Karlin, "Computer Program Prop. Regs. Are a Good but Cautious Start," 8 JOIT 64 (1997); Levenson, Shapiro, and Maguire, "Proposed Software Regs Raise New Questions," 13 Tax Notes Int'l 1903 (1996).

3 TD 8785, 63 Fed. Reg. 52,971 (1998), 98 TNT 190-5, as corrected at 63 Fed. Reg. 64,868 (1998), 98 TNT 228-13 ("the final regulations," "the software regulations," or "the regulations"). The 18 examples in Reg. 1.861-18(h) are referred to herein as "Example x." The remainder of TD 8785 is referred to as "Supplementary Information."

4 The IRS received written comments on the proposed regulations and held a public hearing on March 19, 1997. See Unofficial Transcript of IRS Hearing on Computer Program Classification Regs, 97 TNT 57-22 (March 25, 1997). Messrs. Nilesh Shah of KPMG LLP, Mike Boyle, Chief Tax Counsel and General Auditor for Microsoft Corporation (appearing on behalf of the Software Publishers Association), and Gary Sprague of Baker & McKenzie (appearing on

Overview

The final regulations deal with cross-border transactions involving computer programs. Guided by principles of copyright law, the regulations classify software transfers as sales and licenses of copyright rights, sales and leases of copyrighted articles, the provision of services for the development or modification of a computer program, and the provision of know-how relating to computer programming techniques. The distinction between copyright rights and copyrighted articles—the core of the software regulations—provides a very effective analytical tool with which to analyze software transfers.

The software regulations apply only with respect to certain "international" provisions of the Code and, even then, only to transfers of a "computer program" as that term is defined in the regulations. Unfortunately, the definition of a "computer program" remains unnecessarily narrow and "computer" is not defined at all. The regulations will undoubtedly be applied much more broadly in practice.

The regulations confirm the insignificance of the means of software delivery so that, for example, software provided on a disk and software delivered by download from a remote computer are treated the same. Similarly, when multiple copies of a computer program are transferred, it makes no difference whether they are provided in the form of disks or other media, or whether the transferee acquires the right to make the copies for itself. These principles are timely in light of the explosive growth of e-commerce and delivery of software and other products over the Internet.

Unlike the proposed regulations, the final regulations explicitly state the source rules that apply to computer program transfers classified under the regulations. This guidance is particularly welcome given the Service's exclusion of the tangible vs. intangible property paradigm from the software regulations and the continued vitality of such distinctions in the source rules and the transfer pricing regulations.

In contrast to the commercial exploitation approach adopted by the OECD, the software regulations apply a "distribution to the public" standard for determining whether a transferee of the right to make copies of a computer program has acquired a copyright right subject to classification under the regulations. Moreover, the "distribution to the public" requirement applies only to the right to make copies of a computer program—there is no such requirement (nor any other commercial exploitation requirement) in connection with the right to prepare a derivative computer program, or the rights to publicly perform or display the program. As a result, the regulations rely heavily on the de minimis rule, which is illustrated in two new examples.

The regulations apply to the provision of services for the development or modification of a computer program. Other services, such as installation, technical support, training, and

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behalf of the Software Coalition) were among those who submitted comments and testified at the hearing. Mr. Sprague is a member of The Journal's Board of Advisors.

consulting, are not covered by the regulations unless the services result in the transfer of a computer program. Nevertheless, the same source rules that apply to income derived from programming services covered by the regulations apply to income derived from non-covered services. The principal issue is one of allocation, since non-covered services such as technical support are often addressed in software transfer documentation without a specific allocation of consideration. The IRS has not provided any guidance regarding such allocation issues.

The regulations do not provide any solace to taxpayers faced with inconsistent treatment of software transfers under U.S. and foreign law, beyond the usual recourse to competent authority proceedings where the foreign country is a tax treaty partner. Until such inconsistencies are eliminated globally, the possibility of excess foreign tax credits (and, thus, double taxation) will remain an economic threat to U.S. software exporters competing in foreign markets.

The software regulations apply prospectively, but include limited transition rules. They generally apply to transactions occurring under contracts entered into after 1997. However, taxpayers may elect, subject to certain change-of-accounting-method limitations, to apply the regulations to current transactions occurring pursuant to earlier executed contracts.

Scope

As with many other aspects of the final regulations, their scope is largely unchanged from that of the proposed regulations. While not surprising, the decision to retain the limited scope without a discussion of the reasoning for, or the expected consequences of, that decision represents the first in a series of disappointing refusals by the Service to address adequately issues raised by taxpayers and practitioners in written comments. The scope issues presented to the Service involved (1) the relationship between the regulations and the Code; (2) the relationship of the regulations to income tax treaties to which the U.S. is (or will be) a party; and (3) the types of transactions that qualify as transactions in "computer programs" within the meaning of the regulations.

Relevant Code sections. The final regulations classify transactions in computer programs for certain international provisions of the Code.[5] Thus, the regulations apply only to cross-border

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[5] Reg. 1.861-18(a)(1). Specifically, the final regulations apply for purposes of Section 367 (certain outbound, inbound, and foreign-to-foreign transfers of property involving foreign corporations); Section 404A (foreign compensation plans), Section 482 (transfer pricing); Section 551 (foreign personal holding companies); Section 679 (foreign trusts having one or more U.S. beneficiaries); Section 842 (foreign companies carrying on insurance business); Section 845 (allocation in reinsurance agreements involving tax avoidance or evasion or having significant tax-avoidance effect); Subchapter N, i.e., Sections 861-999 (source of income, taxation of foreign persons, foreign tax credit, foreign sales corporations, taxation of possessions corporations, controlled foreign corporation, and foreign currency rules); Section 1059A (limitation on taxpayer's basis or inventory cost in property imported from related persons); Chapter 3, i.e., Sections 1441- 1464 (withholding on payments to foreign persons); and Chapter 5, i.e., Sections 1491-1494 (excise tax on outbound transfers to foreign partnerships and trusts).

transactions: domestic-to-foreign transfers, foreign-to-domestic transfers, and foreign-to-foreign transfers. For reasons left unexplained, the regulations do not apply for purposes of all international provisions of the Code. For example, they make no direct reference to the passive foreign investment company (PFIC) rules and, although Section 551 is included in the list of referenced Code sections, there is no mention of Section 552 (which defines "foreign personal holding company") or Section 553 (which defines "foreign personal holding company income"). It is not clear whether the Service considered the internal cross-referencing within the Code a sufficient substitute for a broader scope provision or whether some other purpose was intended.[6] With respect to its decision not to apply the regulations to other provisions of the Code, or to the Code generally, the Service mentions cautionary remarks received from commenters and states that "Treasury and the IRS are considering whether the principles of these regulations should apply to other tax provisions of the Code."

Income tax treaties. In response to comments requesting clarification of how the principles of the software regulations apply in determining the consequences of computer program transactions under tax treaties, the Service confirmed in the Supplementary Information that the regulations are intended to apply for purposes of applying and interpreting U.S. income tax treaties. Since terms not defined in U.S. treaties are defined by reference to domestic law, the regulations (as a component of domestic law) are potentially applicable.[7] As a practical matter, however, most U.S. tax treaties include definitions of key terms.[8] The more important question may be whether the U.S. competent authority and treaty negotiators are implementing the principles of the regulations in competent authority negotiations and income tax treaties to which the U.S. is or

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The final regulations also apply to transfers to foreign trusts not covered by Section 679. Interestingly, the Service deleted Section 1057 from the preceding list of Code sections as included in the proposed regulations, but retained Chapter 5. Section 1057 may have been deleted because it was repealed by TRA '97 after the proposed regulations were published. However, Chapter 5, i.e., Sections 1491-1494, was repealed at the same time, but remains on the list. If intentional, an explanation of this disparate treatment would have been helpful.

[6] See, e.g., Section 1297, which cross-references certain Subpart F provisions for purposes of defining a PFIC. (Subpart F is included in the scope paragraph of the regulations.)

[7] See, e.g., 1996 U.S. model income tax treaty, Article 3(2). The treaty and supporting documents are available on the OnPoint International Tax System CD-ROM (WG&L/RIA, 1996, updated monthly), and on CHECKPOINT at http://checkpoint/riag.com.

[8] Id., Article 12(1), which defines "royalties" as used in the treaty. See also Treasury's Technical Explanation of the 1996 U.S. model income tax treaty, Article 12, which states in part: "Computer software generally is protected by copyright laws around the world. Under the Convention consideration received for the use or the right to use computer software is treated either as royalties or as income from the alienation of tangible personal property, depending on the facts and circumstances of the transaction giving rise to the payment. It is also understood that payments received in connection with the transfer of so-called "shrink-wrap" computer software are treated as business profits."

will be a party. The Service has represented that continuing efforts are being made in that regard.[9]

Computers and computer programs. The purpose of the regulations is only to classify cross-border transactions involving "computer programs."[10] Thus, the definition of "computer program" determines the subset of international transactions to which the final regulations apply. The regulations define "computer program" in part as "a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result."[11] There are two problems with this definition. First, it attributes an historical meaning to "program." Second, it assumes that the reader knows what is and is not a "computer." Consequently, taxpayers are left to speculate about the intended scope of the new software regulations.

The regulations' definition of "program" was perhaps apt in the days when most, if not all, computer programs were designed to process mathematical computations at speeds not previously considered possible. Such programs were almost entirely (if not entirely) comprised of statements or instructions to the device on which they ran. Thus, the definition. However, it does not accurately describe many of today's computer programs. As technology has developed, programs have changed, and most programs today contain large amounts of data or content, in addition to the instructions directed to the device on which the program runs. The definition of "computer program" supplied by the Service will constantly present the issue of whether what is clearly a computer program in conventional terms is a "computer program" within the meaning of the regulations. For example, is software that consists of 95% content and 5% instructions a

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[9] See Unofficial Transcript of IRS Hearing on Computer Program Classification Regs., 97 TNT 57-22 at ¶ ¶ 88-91 (March 25, 1997).

[10] Reg. 1.861-18(a)(1). The Service emphasized this point repeatedly in its discussion of comments. See, e.g., Supplementary Information, Part II, sections 8 and 9.

[11] Reg. 1.861-18(a)(3). The definition adopted in the final regulations includes any media, user manuals, documentation, database, or similar item if it is incidental to the operation of the computer program. "Media, user manuals, documentation" is an addition to Prop. Reg. 1.861-18(a)(3), which included only "database or similar item." See also paragraph 12 of the commentary to Article 12 of the 1997 OECD model income tax treaty; "OECD Will Revise Commentary on Royalties to Cover Software Payments," 98 TNT 195-8 (October 8, 1998); Section 197(e)(3)(B) (definition of "computer software" for purposes of exclusion from definition of "section 197 intangible"): "The term `computer software' means any program designed to cause a computer to perform a desired function. [It does] not include any data base or similar item unless the data base or item is in the public domain and is incidental to the operation of otherwise qualifying computer software."; Section 543(a) (definition of personal holding company income excludes "active computer software royalties," the definition of which in Section 543(d) does not further define "computer software"; the regulations under Section 543 long predate the active computer software royalties exception and are equally silent); Section 1202(e)(8) (for purposes of 50% exclusion of gain from certain small business stock, property used in a trade or business includes rights to computer software that produces "active business computer software royalties" as defined in Section 543(d)); similarly, Reg. 1.1362-2(c)(5)(ii)(A)(3) (termination of S election by reason of excess passive investment income).

"computer program" for purposes of the regulations? What if 99.9% of the value of the software is attributable to the instructions?

Computer. With respect to "computer," if a definition is borrowed from the Code and applied for purposes of the software regulations, the scope of the term may be quite limited. For example, Section 168(i)(2)(B)(ii) defines "computer" for purposes of the definition of five-year property as "a programmable electronically activated device which (I) is capable of accepting information, applying prescribed processes to the information, and supplying the results of these processes with or without human intervention, and (II) consists of a central processing unit containing extensive storage, logic, arithmetic, and control capabilities." It excludes any equipment that is an integral part of other property if that other property is not itself a computer. Therefore, typewriters, calculators, adding and accounting machines, copiers, duplicating equipment, and similar equipment, and equipment of a kind used primarily for amusement or entertainment would all be excluded from the definition.[12]

To the extent that the software regulations are applied based on an outdated definition of "computer," they fail to take into account the ubiquity of the silicon chip (and chips made of other materials) and the very high growth rates in the capacity of chips that are relentlessly contracting in size and cost. Devices ranging from individual chips to much more elaborate control devices, all controlled by increasingly complex and multifunctional software, are now found in a huge variety of everyday items, some of which (washing machines, for example) are a long way away from what are traditionally thought of as computers or computerized devices.[13] Even more problematic would be the failure to include software-controlled devices used for computing or communications, such as telephones, cash registers, automated teller machines, and even televisions. In short, there is a continuing convergence in technology that the Service should have recognized.[14] The software that drives these new developments and devices is no more or

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[12] Section 168(i)(2)(B)(ii). Cf. Temp. Reg. 1.927(a)-1T(f)(3) (definition of "export property" for purposes of FSC rules) which provides that a copyright on a book or computer software is not export property, but a copyrighted article (such as a book or standardized, mass-marketed computer software) if not accompanied by a right to reproduce for external use can qualify as export property. The Regulation makes clear that computer software may be on any medium, including, but not limited to, magnetic tape, punched cards, disks, semiconductor chips, and circuit boards and is, therefore, apparently not limited to software installed on computers.

[13] It has long been forgotten that the first 8000 series chip made by Intel was originally designed as a control device for equipment, especially electric motors. Intel's genius was the (somewhat fortuitous) recognition that the chip could be used to operate computers.

[14] Recent products demonstrate this convergence of technology: an Internet application that enables fully duplexed telephone calls to be made from a computer, through the Internet, to a telephone (Net2Phone, http://www.net2phone.com); an Internet service that enables the user to browse the Internet on a television set without a computer (at least without what is conventionally thought of as a computer) (WebTV, http://webtv.net); high quality real time audio and video (Real Player, http://www.realplayer.com); very rapid advances in real time video; a large portion of a leading computing magazine devoted to video conferencing through the Internet (15 PC Magazine 102 et seq.).

less an appropriate subject for the regulations than software used on what is more traditionally thought of as a computer.

Not surprisingly, most of the comments received by the IRS suggested that the scope of the final regulations should be expanded. Some proposed applying the regulations to digitized information in general. Others suggested expanding the definition of "computer program" and adopting a broad definition of "computer." For example, in its initial comments, the Software Publishers Association (SPA) recommended that the Service consider an expanded definition of "computer program" that would include data and content. Like other commenters, the SPA suggested adoption of a broad definition similar to that developed by the authors of new UCC article 2B regarding computer software.[15]

Moreover, in answer to specific questions regarding the content/data debate posed at the IRS hearing, the SPA suggested a two-step approach to distinguishing between computer programs that would be covered by the regulations and other products that would be outside their scope. The SPA referred to the first step of its suggested approach as a spectrum endpoint test, under which non-digital products (e.g., analog video cassette tapes) would be excluded from the definition of "computer program" (forming one endpoint of a spectrum), while digital products designed primarily to run on a general purpose computer or similar device would be included in the definition (forming the other endpoint). Digital products falling between the two endpoints would be classified under a second step based, for example, on the extent of microprocessor instructions included in the product.

The SPA also included the following statement regarding the term "computer" in its answers to questions posed by the IRS at the hearing:

In addition, we urge Treasury to adopt a flexible definition of the term "computer" that is broad enough to accommodate the many technological advances that are harnessing the power of software and computer chips to perform a variety of functions in a variety of forms (e.g., set-top Internet boxes, personal digital assistants, network computers, and other similar devices that may be developed in the future). If the definition of a computer program must be tied to the device it is used in, the definition of the device must be able to accommodate rapid technological innovations to avoid severe scope limitations on the applicability of these regulations. [16]

Despite all of the requests for a broader application, with virtually no explanation, the IRS rejected the idea of expanding the scope of the regulations, either by defining "computer," broadening the definition of "computer program," or applying the regulations to other digitized information. Instead, the Service generally retained the definition of "computer program" in the proposed regulations and invited further comments on whether its failure to expand the definition

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[15] Article 2B is discussed in detail in Selman, "Asset-Based Financing of Software Licenses: Exploring the Conflict Between Developers and Lenders, 10 JOIT 20 (January 1999).

[16] "Software Group Answers Questions on Computer Program Regs," 97 TNT 187-30, ¶ 8 (September 26, 1997).

would lead to inappropriate consequences.[17] The authors question whether the software industry will be so easily engaged after the summary rejection of the many cogent comments made prior to and following the issuance of the proposed regulations.

Beyond the comments made in response to the proposed regulations, some of which tacitly accept the distinction between programs and other forms of software, is the question of why the final regulations could not indeed apply to any type of software. The copyright law principles on which the regulations are built apply comfortably to any kind of property in which intellectual content is paramount. The authors challenge the IRS to examine the applicability of the regulations to, for example, a master recording or an individual copy of a song, and explain why the results would not be every bit as appropriate as when the regulations are applied to a right to reproduce a computer program or to use the program on a single computer. The failure to address this represents a failure of imagination and a lost opportunity.

Copyright Rights Under the Software Regulations

The software regulations are guided by U.S. copyright law principles and precedent.[18] The regulations recognize that the protection afforded by copyright law is the principal source of value of a computer program to the owner of the copyright. Conversely, for the purchaser of a copy of the program, the principal source of value is the right to use or sell the copy. The regulations, therefore, distinguish between transactions in copyright rights and transactions in the subject of a copyright ("copyrighted articles").

The regulations describe four copyright rights:

1. The right to make copies of the computer program for purposes of distribution to the public by sale or other transfer of ownership, or by rental, lease, or lending.

2. The right to prepare derivative computer programs based on the copyrighted computer program.

3. The right to make a public performance of the computer program.

4. The right to publicly display the computer program.[19]

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[17] The IRS did indicate that it may consider whether to apply the principles of the software regulations to all transactions in digitized information as part of a separate guidance project.

[18] In the Supplementary Information, Part II, section 2, the Service stated that "[i]n certain cases, terms taken from copyright law are specifically defined in the regulations so as to properly implement the regulations' underlying policy. Unless specifically defined in the regulations, legal standards taken from copyright law are intended to be given the same interpretation as under U.S. copyright law."

[19] Regs. 1.861-18(c)(2)(i)-(iv). The four copyright rights described in the software regulations are derived from U.S. copyright law. Cf. 17 U.S.C. section 106 (1998), which provides that "[s]ubject to section 107 through 120, the owner of a copyright under this title has

If a transfer of a computer program results in a transferee acquiring any one or more of these four copyright rights (and the copyright right or rights so acquired are not de minimis[20]), the regulations classify the transfer (in part, if not solely) as a sale or license of a copyright right depending on whether all substantial rights in the copyright right have passed to the transferee.[21]

The right to make copies for distribution to the public. A comparison of the right to make copies for distribution to the public described in Reg. 1.861-18(c)(2)(i) with the rights identified in 17 U.S.C. section 106 shows that the right in the regulations is a combination of two rights in 17 U.S.C. sections 106(1) and (3). The regulations thereby specifically depart from copyright law by requiring that the right to make copies be coupled with the right to distribute to the public. This ensures that a transaction will not be classified as a paragraph (c)(2)(i) transfer of a copyright right unless the potential for commercial exploitation exists.[22]

However, the inclusion of the "distribution to the public" requirement presents the issue of what types of distribution constitute "distribution to the public" within the meaning of the regulations. If the meaning of "distribution to the public" for purposes of the software regulations narrowly followed copyright law, the result would likely conflict with the regulations' underlying policy. In response to comments, the IRS added paragraph (g)(3) to the final regulations to harmonize the regulations with industry practice, which is to ignore the existence of separate legal entities in the granting of "enterprise licenses" to corporate groups for use across the group's network.

The regulations provide in new paragraph (g)(3) that, for purposes of applying paragraph (c)(2)(i), "distribution to the public" does not include distribution to a "related person," which is defined as a person who bears a relationship to the transferee specified in Sections 267(b)(3),

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the exclusive rights to do and to authorize any of the following: (1) to reproduce the copyrighted work in copies or phonorecords; (2) to prepare derivative works based upon the copyrighted work; (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending; (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly; (5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly; and (6) in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.

[20] The final regulations contemplate the transfer of de minimis copyright rights, which may be ignored in classifying transactions. See Regs. 1.861-18(c)(1)(i) (second sentence) and (ii) (parenthetical phrase). Cf. Prop. Regs. 1.861-18(c)(1)(i) and (ii).

[21] Reg. 1.861-18(f)(1). The regulations apply the "all substantial rights" test as established in existing authorities. See discussion of Examples 5 and 6, infra, text accompanying notes 28-30.

[22] Cf. paragraph 13 of the Commentary to Article 12 of the 1997 OECD model income tax treaty. See also "OECD Will Revise Commentary on Royalties to Cover Software Payments," 98 TNT 195-8 (October 8, 1998).

(10), (11), or (12), or 707(b)(1)(B), with "10 percent" substituted for "50 percent." "Distribution to the public" also excludes distribution to persons identified by name or legal relationship to the original transferee. Moreover, the number of employees permitted to use the program in connection with their employment by the transferee is irrelevant, as is the number of independent contractors permitted to use the program in connection with the performance of services for the transferee. The Service amended the examples accordingly to clarify this point and to illustrate the application of new paragraph (g)(3).[23]

The three other copyright rights. In contrast to the paragraph (c)(2)(i) right to make copies for distribution to the public, the final regulations include the three other copyright rights (i.e., the rights to (1) prepare derivative computer programs based on the copyrighted computer program; (2) make a public performance of the computer program; and (3) publicly display the computer program)[24] in substantially the same form as those rights appear in 17 U.S.C. section 106, and without any reference to commercial exploitation. Thus, existing copyright law principles will apply for purposes of determining whether a transaction involves the transfer of one or more of these three rights.

The possibility that U.S. copyright law would be applied for purposes of interpreting the paragraph (c)(2)(ii)-(iv) rights, and that no commercial exploitation purpose or intent would be required as a condition to classifying a transaction as involving the transfer of such a right, caused substantial concern among commenters because the paragraph (c)(2)(ii)-(iv) rights are neither well understood by industry (or the IRS) nor uniformly addressed in common software transfer documents. Commenters feared that application of copyright law would result in many software transactions being inappropriately classified as involving the transfer of one or more such copyright rights. They also expressed particular concern with regard to the right to prepare derivative computer programs. For example, since off-the-shelf software development programs and similar tools permit users to incorporate portions of the product in programs created with the product, concern arose as to whether the transfer of a copy of such a development program would be classified as a transfer of a copyright right to prepare derivative programs, rather than a transfer of a copyrighted article.

Partly in response to the many comments regarding the right to prepare derivative programs, and particularly in response to comments regarding software development programs, the final regulations provide in paragraph (c)(1)(ii) that the de minimis transfer of a copyright right will not be taken into account in determining whether a transaction is considered the transfer solely of a copyrighted article.[25] Furthermore, the IRS included new Examples 17 and 18 in the final

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[23] See, e.g., Examples 10 and 11.

[24] See Regs. 1.861-18(c)(2)(ii)-(iv).

[25] The language added to paragraph (c)(1)(ii) ("or only acquires a de minimis grant of such rights") seems to be inconsistent with the first sentence of paragraph (c)(1)(i), as well as with some of the examples illustrating the application of paragraph (c)(1)(i). See Examples 5 and 6. However, the added reference to paragraphs (b)(1) and (2) in the second sentence of paragraph (c)(1)(i), together with the existing reference to a non-de minimis right in the third sentence of that paragraph, confirm that the regulations contemplate de minimis transfers of copyright rights.

regulations to address the commenters' concerns. Example 17 clarifies that the right to use software development tools to create an insubstantial component of a new program constitutes a de minimis copyright right, as does the right to modify the source code to correct minor errors and make minor adaptations to a program (Example 18).

With respect to the rights to publicly perform and display a computer program, the Service decided to continue to follow copyright law. Thus, no commercial exploitation requirement is coupled with the right to publicly perform or display a program. However, the Service acknowledged that the definition of the public performance and display rights in the context of computer programs is still developing and that it may be necessary to revisit the issue. The Service further indicated that, in many instances, the transfer of a right to publicly perform or display a program (e.g., for marketing or advertising purposes) would be considered a de minimis grant of a copyright right within the meaning of paragraph (b)(2) and the parenthetical reference in paragraph (c)(1)(ii), such that the transaction would not result in the transfer of a copyright right.

In short, the IRS has relied heavily on the paragraph (b)(2) de minimis rule to prevent the inappropriate classification of transactions as transfers of paragraph (c)(2)(ii)-(iv) copyright rights. Given the vagueness and inherent subjectivity of the de minimis rule, this reliance may produce increased controversy between affected taxpayers and the IRS.

Classification of Transactions—The Examples

As a general rule, the software regulations classify any transaction involving the transfer of a computer program as includable in one, and only one, of four categories: (1) a transfer of a copyright right; (2) a transfer of a copyrighted article; (3) the provision of services for the development or modification of the computer program; or (4) the provision of know-how relating to computer programming techniques.[26] This general rule is subject to exception when two or more of the preceding four types of transfers are present, provided, however, that any de minimis transaction is ignored and treated as part of another.[27] Thus, de minimis transfers are ignored, but if two or more non-de minimis transfers are involved, the result is a mixed transaction. This analytical framework is illustrated by the 18 examples in paragraph (h) of the final regulations.

Transfer of a copyright right in the computer program. The transfer of a copyright right is treated either as a sale or exchange, or as a license, depending on whether (taking into account all the facts and circumstances), there has been a transfer of all substantial rights in the copyright. This determination may be made in accordance with the principles of Sections 1222 (terms relating to capital gains and losses) and 1235 (sale or exchange of patents), as well as other "all substantial rights" authorities.[28]

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[26] Regs. 1.861-18(b)(1)(i)-(iv).

[27] Reg. 1.861-18(b)(2).

[28] Reg. 1.861-18(f)(1). Cf. Prop. Reg. 1.861-18(f)(1), which provided that the principles of Sections 1222 and 1235 "shall" apply. The Service replaced the mandatory "shall" with "may" in response to comments indicating that Section 1235 does not directly apply to copyright transfers.

Examples 5 and 6 illustrate the transfer of copyright rights and the application of the "all substantial rights" test. In Example 5, a U.S. seller transfers a disk containing Program X to a foreign buyer. The seller grants to the buyer (1) the exclusive right for the remaining term of the copyright to copy and distribute an unlimited number of copies of Program X in a defined geographic area; (2) the right to prepare derivative computer programs based on Program X; (3) the right to make public performances of Program X; and (4) the right to publicly display Program X. The foreign buyer agrees to pay $y a year for three years, which is the expected period during which Program X will have commercially exploitable value. The grant of rights is characterized by the parties as a license and documented in the form of a license agreement. Similarly, the payments to be made by the buyer are characterized in the license agreement as royalties.

The facts of Example 5 describe the transfer of a copyrighted article (i.e., the disk containing Program X), as well as the transfer of each of the four copyright rights identified in paragraph (c)(2) of the regulations. Initially, the transaction may be considered a mixed transaction because two categories of transfers are involved. However, the transfer of the copyrighted article is de minimis within the meaning of paragraph (b)(2) and, therefore, is treated as part of the other four paragraph (b)(1)(i) transfers. Accordingly, the transaction is classified solely as a transfer of copyright rights.

The second step in the analysis is to further classify the transaction as either a sale or license of copyright rights. As provided by paragraph (g)(1) of the regulations, the form adopted by the parties (i.e., the characterization/documentation of the grant of rights as a "license" and the labeling of payments as "royalties") is not determinative. Rather, the determination is made pursuant to the "all substantial rights" test, which is easily applied to the extreme facts of Example 5. Since the buyer acquires an exclusive territorial grant of all of the rights in Program X for the remaining life of those rights, there is a transfer of all substantial rights and the transaction is classified as a sale of copyright rights.[29]

In Example 6, a U.S. transferor delivers a disk containing Program X to a foreign transferee (or delivers the software electronically—it makes no difference) and grants to the transferee the non-exclusive right to reproduce and distribute to the public copies of Program X over a two-year period, which is less than the remaining life of the copyright in Program X. As in Example 5, the transfer of the software by disk or download is considered de minimis and the transaction is initially classified solely as the transfer of a copyright right. However, unlike Example 5, the U.S. transferor retains the right to transfer the same copyright right to others. Therefore, the foreign

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But see Rev. Rul. 60-226, 1960-1 CB 26, wherein the IRS reasoned that the property rights of patents and copyrights are similar in substance and, therefore, applied Rev. Rul. 58-353, 1958-2 CB 408, which concerned a patent, to distinguish between gain and royalty income.

[29] Example 5 includes a statement not included in Prop. Ex. 5, which is intended to clarify that, on the facts of the example, the limited three-year payment term is irrelevant.

transferee receives less than all substantial rights in Program X and the transaction is classified as a license of a copyright right.[30]

Transfer of a copy of the computer program (a copyrighted article). The transfer of a copy of a computer program is classified as either a sale or exchange, or a lease, depending on whether, taking into account all the facts and circumstances, the benefits and burdens of ownership have been transferred such that the transferee is properly treated as the owner of the copyrighted article.[31] This vague rule is easier to understand in the context of Examples 1-4 and 10-13. However, the lease Examples (3, 4, and 12), although helpful from an analytical perspective, are unrealistic and, therefore, of limited value because the facts and circumstances are rarely encountered in practice.

Examples 1 and 2 describe common shrink-wrap license transfers of computer programs to the general public. In Example 1, the subject of the transfer, Program X, is delivered in the form of a physical disk packaged in a shrink-wrapped box. In Example 2, Program X is delivered by download from a World Wide Web home page. In neither example does the transferee acquire a copyright right, and no provision of service or know-how is mentioned. Therefore, each transaction is initially classified as the transfer of a copyrighted article.[32] In the second step of the analysis, both transfers are classified as sales, notwithstanding the "license" documentation used to transfer legal rights for intellectual property law purposes, because the benefits and burdens of ownership pass to the transferees.[33]

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30 The Service added parenthetical language to Example 6 to clarify that the foreign transferee could (1) reproduce the copies of Program X itself, (2) contract with the U.S. transferor to reproduce the copies on behalf of the foreign transferee, or (3) contract with another party to make the copies, without affecting the transfer classification.

31 Reg. 1.861-18(f)(2).

32 The means of transfer, i.e., delivery of a physical disk or electronic transmission, is irrelevant to the initial classification. See Reg. 1.861-18(g)(2).

33 In Example 2, the seller makes its product available, for a fee, on a "World Wide Web home page" on the Internet. Properly speaking, "home page" refers to the first page that a visitor encounters on a web site. The home page's content is determined by the code written in an electronic file (often denominated "index.html"), which, when viewed with a web browser and in conjunction with images and script referred to by the page, produces the image seen by the web site visitor. The electronic file resides on a server connected to the Internet, but the server may be located in any geographical location. Internet downloads are effected using the file transfer protocol to transfer files that may be stored on the same server as the home page file, or on some other server, which in turn may be located anywhere in the world. The IRS should have referred to an Internet download site, as opposed to a "World Wide Web home page," because, for most purposes, the location of the server on which files for download are stored is irrelevant to the taxation of the transaction. Although this was pointed out to the Service, the only change made to Examples 1-4 was a single revision in the facts of Example 1, which provides that decompilation and disassembly, in addition to reverse engineering, are prohibited under the shrink-wrap license.

Examples 3 and 4 are substantially the same as Examples 1 and 2, respectively, except that the period during which the transferees may use the software is limited to one week. Thus, the transfer of Program X by physical delivery of a disk or by electronic download for use during a term that is, presumably, substantially shorter than the remaining useful life of the software does not transfer the benefits and burdens of ownership to the user. In Example 3, the program remains on the transferee's computer, but the transferee is required to destroy the disk and any copies of the program. In Example 4, the user cannot use the program without obtaining an electronic key from the copyright owner. These facts do not change the analysis. In each example, the transferee no longer has the legal right to use the software without entering into a new agreement. Therefore, each transaction is treated as the lease of a copyrighted article.[34]

Examples 10 through 13 further address the benefits-and-burdens issue in the context of the supply, for internal use only, of multiple copies of a computer program under a site license or enterprise license.[35] In Example 10, Corp A transfers to Corp E a disk containing Program X, as well as the right to copy Program X onto 50 workstations, in exchange for a one-time per-user fee.[36] The site license provides that the term of use is perpetual, and that new users may be added for one-time per-user fees, but that Corp E has no right to sell any of its copies of Program X. Since the right to copy Program X is not accompanied by the right to distribute the copies to the public, the bare right to copy is not a copyright right within the meaning of the regulations.[37] Moreover, despite the restriction on alienation, the regulations conclude that, under all of the facts and circumstances, Corp E is properly treated as the owner of the 50 copyrighted articles transferred to it (i.e., that the benefits and burdens of ownership passed from Corp A to Corp E) and that the transaction is, therefore, a sale of 50 copyrighted articles.[38]

The same result is obtained in Example 11, where Program X is distributed and used by the customer on a local area network (LAN) (one wonders why the IRS chose not to refer to a private network, local or wide area) on the condition that no more than 50 users are able to use the program at any one time. Thus, Example 11 provides that the means of internal customer

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34 Again, the means of transfer is irrelevant. See note 32, supra.

35 The IRS parenthetically referred to a "site license" in Prop. Ex. 10. Apparently in response to a comment regarding enterprise licenses, the Service revised Example 10 of the final regulations to read "site license or enterprise license."

36 The business enterprise that purchases the software in Example 10 is referred to as "P" in part A of the analysis and as "Corp E" in the remainder of the example. It is assumed that this typographical error will be corrected as it was in the proposed regulations. See Ann. 97-31, 1997-14 IRB 16. Moreover, the authors suggest the following additional technical corrections: a reference to the 16 examples (as opposed to 18 examples) contained in the proposed regulations (see Supplementary Information, Part I) and use of "characteristics" instead of "circumstances" in the heading of Reg. 1.861-18(f)(3).

37 See Reg. 1.861-18(c)(2)(i). (This is not an example of the de minimis rule.)

38 Example 10, as adopted in the final regulations, was corrected to reflect the acquisition of copyrighted articles (plural). Cf. Prop. Ex. 10(B) ("the owner of a copyrighted article") with Example 10(B) ("the owner of copyrighted articles").

distribution or use, like the means of transfer, is irrelevant to resolution of the classification issues.[39]

Language added to Examples 10 and 11 in the final regulations clarifies that the results would be the same if the customer acquired the right to load Program X onto an unlimited number of workstations (Example 10(ii)(C)) or to distribute it to an unlimited number of employees (Example 11(ii)). The workstations or employees, as relevant, could be those of the customer or a 10%-related person. This is an example of the "to the public" clarification added by the final regulations.[40]

In contrast to Examples 10 and 11, the customer in Example 12 pays a monthly fee for the right to make Program X available over the LAN. The fee is calculated by reference to the power of the business' server and the maximum number of permissible users, which can be changed. Upgrades are included, with a requirement that the business delete or destroy all copies of superseded versions. The agreement is terminable by either party at the end of any month. Moreover, if the agreement is terminated, the customer must delete (or otherwise destroy) the current version of the software in its possession.[41] Such a transaction is treated as a lease. In Example 13, the user may retain the current version of the software on termination of the agreement. In that situation, the transfer passes the benefits-and-burdens test and is, therefore, treated as a sale.

Provision of services for development/modification of a program. A transaction involving the transfer of a newly developed or modified computer program may be classified in whole or in part as the provision of services.[42] The classification is determined based on all facts and circumstances of the transaction. Typically, the most relevant facts will include the parties' intent (as evidenced by their agreement and conduct) as to whether the transferor or the transferee will own the copyright rights in the newly developed or modified program and how the risks of loss are allocated between the parties.[43] The regulations follow existing law in this regard.[44]

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[39] The means of transfer, e.g., from seller to buyer, and the means of customer use, e.g., multiple employee use on a private network, are governed by Reg. 1.861-18(g)(2). The IRS replaced "transmission" in Prop. Ex. 11 with "utilization" in Example 11.

[40] See Reg. 1.861-18(g)(3).

[41] This is not a requirement to which any business user would agree, assuming the software is mission-critical or even of marginal importance to the user's business. However unrealistic, the fact is included as an example of a transfer that fails to pass the benefits-and-burdens test.

[42] Regs. 1.861-18(b)(1)(iii) and (2).

[43] Reg. 1.861-18(d).

[44] See, e.g., Boulez, 83 TC 584 (1984) (payments documented as "royalties" held compensation for personal services when conductor contracted to make recordings and contract provided that all recordings would be property of record company); Carnegie Productions, 59 TC 642 (1973) (taxpayer had no amortizable or depreciable property interest in motion picture when it agreed to produce the picture with funds supplied by another corporation pursuant to an agreement under which, following completion and delivery, all rights except the taxpayer's share in income from distribution vested in financier).

Examples 12, 14, and 15 provide guidance on whether a transaction includes the provision of services within the meaning of paragraphs (b)(1)(iii) and (d) of the regulations. The Service included each of the examples in the proposed regulations, but all three were revised in response to industry comments.

The three examples illustrate the principle that a provision of services classified as such under the regulations results in, or is made in connection with, the transfer of one or more copyright rights. Thus, at least two of the four paragraph (b)(1) transactions will be present in every analysis that produces a provision-of-services classification within the meaning of paragraphs (b)(1)(iii) and (d), and every such services analysis must include a determination of whether the provision of services is dominant or de minimis, or whether there is a mixed transaction. Moreover, as illustrated by Examples 12 and 14, a provision of services relating to a computer program transfer is not necessarily a provision of services within the meaning of paragraphs (b)(1)(iii) and (d) of the regulations.

Technical support services—Example 12. The Service received numerous comments requesting guidance regarding application of the final regulations to technical support, training, consulting, installation, and customization services—services that produce substantial revenue for the software industry. Since the provision of these types of services is typically a matter addressed in the software transfer documentation, e.g., in a maintenance, subscription, or software license agreement, the industry sought relevant guidance. The comments included concise, cogent draft examples that could have been adopted to illustrate the treatment of, for instance, technical support provided under the terms of a maintenance agreement. The IRS did not adopt any of these comments or examples. Instead, it responded by stating:

These regulations are limited to characterizing transactions relating to computer programs, and are not intended to provide rules for allocating income arising from mixed transactions. Mixed transactions occur in many circumstances outside of transactions involving computer programs. Whether income arising from a mixed transaction, involving computer programs or otherwise, must be allocated to its separate components under generally applicable principles of taxation, and the method by which such income is allocated to the transaction's components, must be determined under other Code sections.[45]

However, with respect to software maintenance agreements, the Service also stated:

Some commentators suggested adding examples to illustrate so-called software maintenance or subscription agreements. Paragraph (h), Examples 12 and 13 of the proposed regulations, however, were intended to illustrate such agreements, and, in response to comments, these examples have been modified in the final regulations. Generally, the provision of an updated program pursuant to a maintenance agreement is intended to be treated as the transfer of a

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45 See Supplementary Information, Part II, section 9, paragraph 2.

copyrighted article. However, this may not always be the case, and maintenance agreements must be analyzed in the same way as other transactions under the regulations.[46]

The Service substantially revised Example 12 to address the treatment of maintenance or subscription agreements. As modified, Example 12 describes a site license under which the customer pays a monthly fee in exchange for (1) the right to make Program X available over a LAN; (2) the right to receive upgrades of Program X as they become available; and (3) the right to receive technical support services. However, the parties' agreement does not allocate the monthly fee between the upgrades and the technical support. The Service further added that "[t]he amount of technical support that Corp A will provide to Corp E is not foreseeable at the time the contract is entered into but is expected to be de minimis."

The Service reaches four conclusions on the preceding facts. First, it recognizes that the customer has received no copyright rights. Thus, as will be seen in the discussion of Example 14 below, even if the transferor had performed software development or modification services, those services would not be classified as such under the regulations because there is no transfer of copyright rights on the facts of the example.[47]

Second, the Service indicates that Corp A (the transferor) has not provided any services described in paragraph (d) of the regulations. This is simply an observation that the services provided are not services for the development or modification of a computer program, i.e., technical support services are not described in paragraph (d) and are not within the scope of the regulations.

Third, the Service concludes that, based on all the facts and circumstances of the transaction, the transferor has provided de minimis technical support services to the customer. Since the provision of technical support services is not within the scope of the regulations (including the paragraph (b)(2) de minimis rule), and since the Service has explicitly stated its intention not to address the allocation issues presented by the bundling of such non-covered services with software transfers, the authors find this conclusion somewhat anomalous. Nevertheless, by characterizing the services as de minimis, the Service has ducked the question of how to allocate the monthly fees. Thus, it has complied with the spirit, if not the letter, of its ban of such allocation issues from the regulations.

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[46] Id., Part II, section 16, subsection f. The reference to Examples 12 and 13 is somewhat misleading. Although both examples address the provision of services in the context of a maintenance agreement, Example 13 adds nothing to the services analysis. See also TAM 9231002 for a discussion of maintenance agreements prior to issuance of the proposed or final regulations.

[47] See text accompanying note 51, infra.

Finally, the Service classifies the transaction as a transfer solely of a copyrighted article under paragraph (c)(1)(ii).[48] As discussed previously, the transfer is further classified as a lease based on application of the benefits-and-burdens test.[49]

Modification and development services—Examples 14 and 15. In contrast to the non-covered technical support services addressed in Examples 12 and 13, Examples 14 and 15 each involve a provision of services that is potentially covered by the regulations, i.e., computer program modification and development services, respectively. The examples illustrate the application of paragraph (d) of the regulations in two extreme contexts: in Example 14, none of the copyright rights are transferred to the customer; in Example 15, all of the copyright rights are transferred to the customer.

The facts of Example 14 are similar to those in Example 10. Pursuant to a site license, the customer acquires a disk containing a copy of Program X and the perpetual right to use the program on 5,000 individual workstations. However, in Example 14, the Service gives two additional facts. First, the seller agrees to modify Program X so that the software will conform to the foreign country accounting standards applicable to the customer. Second, the seller retains all copyright rights in the modified software. Is this a provision of services? If so, is it a provision of services within the meaning of paragraphs (b)(1)(iii) and (d) of the regulations (i.e., services for the development or modification of a computer program)?

Before examining what the Service did, two analogies may be in order. If an individual buys a car for use in California, it may have to be modified to meet state exhaust emission standards. The manufacturer or dealer makes the necessary modifications before the buyer takes delivery. In these circumstances, no one would seriously argue that there is a provision of services to the buyer (try arguing this to the dealer to eliminate sales tax on the portion of the price attributable to "services"). Similarly, when buying a suit off the rack and alterations are provided as part of the sale, no part of the purchase price is allocated to the tailoring services for tax purposes. Although it is conceptually possible to analyze any sale of goods as the provision of a collection of services, modifications to products in conjunction with their sale (whether to meet regulatory or customer requirements) generally are not treated as services for tax purposes. Rather, it is much simpler administratively to treat the sale of a car or a suit as a single transaction and any

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[48] Reg. 1.861-18(c)(1)(ii) provides that a transfer of a copy of a computer program is classified solely as a transfer of a copyrighted article if the transferee does not acquire any of the copyright rights described in paragraph (c)(2)(i) through (iv) (or acquires only a de minimis grant of such rights) and the transaction does not involve, or involves only a de minimis, provision of services described in paragraph (d) or of know-how described in paragraph (e). Paragraph (c)(1)(ii) does not refer to a de minimis provision of non-covered services such as the technical support services discussed in Example 12.

[49] See text accompanying note 41, supra. Example 13 provides the same result with respect to technical support services, but the transaction is classified as a sale of copyrighted articles rather than a lease.

services as having been rendered by the seller's employees and agents to the seller rather than to the buyer.[50]

Not surprisingly, the IRS concludes in Example 14 that the transfer of the modified computer program does not involve a provision of services within the meaning of paragraphs (b)(1)(iii) and (d), because the seller retains all copyright rights in the modified program. As in the analogies above, the services are provided by the seller's agents to the seller, not to the customer. Therefore, in revising Example 14, the Service deleted a statement of fact and a corresponding conclusion regarding the de minimis character of the modification services. The deletions were correct in the authors' judgment, because the modification services (whether de minimis or non-de minimis) are not rendered to the customer for tax purposes.[51]

In Example 15, the Service takes the facts to the other extreme. The customer contracts for the development of a new computer program, gives instructions to the programmers regarding program specifications, and pays a fixed monthly fee during the development process. The development contract specifically provides that the customer will bear all risks of loss associated with development of the program and will own all copyright rights in the newly developed software. On these facts, the Service applies paragraph (d) and classifies the transaction as the provision of services. Therefore, as revised, Example 15 clearly describes circumstances under which the development and transfer of a new computer program are classified solely as the provision of services under paragraphs (b)(1)(iii) and (d) of the regulations.[52]

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[50] Consider the classification of a transaction in which an individual contracts with a tailor to produce a suit of clothes from whole cloth. Should the transaction be classified as a provision of services? What if the cloth is and remains the individual's throughout the transaction?

[51] Cf. Prop. Ex. 14, paragraph (i), third and fourth sentences, with Example 14, paragraph (i), third sentence: "The contract requires Corp A to rewrite elements of Program X so that it will conform to Country Z accounting standards and states that Corp A retains all copyright rights in the modified Program X. The services required to perform this task are de minimis taking into account the facts and circumstances of this transaction." See also Prop. Ex. 14, paragraph (ii)(A), in comparison to Example 14, paragraph (ii)(A): "As in Example 10, no copyright rights are being transferred under paragraph (c)(2) of this section. Under paragraph (b)(2) of this section, the services provided are de minimis. In addition, since no copyright rights are being transferred to Corp G, this transaction does not involve the provision of services by Corp A under paragraph (d) of this section. This transaction will be classified, therefore, as a transfer of copyrighted articles under paragraph (c)(1)(ii) of this section." (In the quotations above, the de minimis characterizations stricken in the revision process are indicated in italics; language added in the revision process is underlined.)

[52] Prop. Ex. 15 involved a contract for the development of a derivative computer program. Although the facts described a transfer of all copyright rights, the deliberate inclusion of the fact that the product of the development contract would be a derivative computer program (as opposed to a new computer program) was thought to create the potential for confusion. Questions were raised regarding whether, by contracting with the software developer to prepare a derivative program, the customer was exercising a separately granted right to prepare a derivative computer program and, if so, whether the separate transfer of that right should be treated as de minimis. If

Provision of know-how relating to programming techniques. Under the proposed regulations, the provision of information could not be treated as the provision of "know-how" unless the information was "[n]ot capable itself of being copyrighted".[53] Since any writing containing information is capable of being copyrighted, some readers apparently concluded that only oral communications could be treated as the provision of know-how under the proposed regulations. Of course, the Service did not intend that result. Rather, it was trying to say that know-how, which is concerned with ideas and techniques, is not capable of being copyrighted, because copyright protection extends only to the expression of ideas, not the ideas themselves. Therefore, being written or otherwise rendered in some fixed medium does not protect the knowledge or experience. The final regulations eliminate this confusion by modifying the second prong of the three-prong test in the proposed regulations.[54]

Under the final regulations, the provision of information is treated as the provision of know-how if the information (1) relates to computer programming techniques; (2) is furnished under conditions preventing unauthorized disclosure, specifically contracted for between the parties; and (3) is considered property subject to trade secret protection.[55] Thus, the second prong of the three-prong test now requires a contractual confidentiality provision, but does not refer to whether the information may be copyrighted.

In applying the three-prong test included in the final regulations, it is not clear how broadly "computer programming techniques" is to be interpreted. For example, does it cover techniques that use computer programming, or is it limited to techniques used to develop, improve, modify, or correct a computer program? In Example 16, the only example to address the subject, a development engineer provides know-how that will enable the customer to create computer programs more efficiently. However, there seems no reason to limit the scope of the term.

Finally, the Service revised the third prong of the test as adopted in the final regulations to refer to information that is "considered" property subject to trade secret protection.[56] The purpose of this revision is not at all clear and no explanation is provided. In response to the proposed regulations, it was suggested that "subject to trade secret protection" should not be interpreted to mean information capable of being protected even though the holder of the knowledge or information in fact takes no steps or insufficient steps to protect it. The Service may have added "considered" to indicate that the parties to the contract must have some rational basis for concluding that the property is protected, not only that it may be protected if the requisite steps

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such a transfer were not treated as de minimis, the "solely services" conclusion would be incorrect (assuming there had been a separate transfer of the right to prepare a derivative computer program in the first instance). The Service adopted a commenter's suggestion that these complexities be avoided. It revised the example to illustrate a contract for the development of a new computer program and thereby eliminated any reference to a derivative program.

53 Prop. Reg. 1.861-18(e)(2).

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55 Reg. 1.861-18(e)(1)-(3).

56 Cf. Prop. Reg. 1.861-18(e)(3) ("Subject to trade secret protection") with Reg. 1.861-18(e)(3) ("Considered property subject to trade secret protection").

are taken to achieve that result. The Service's position in Rev. Rul. 64-56, 1964-1 CB 133, is that know-how will be treated as property for purposes of tax-free incorporations under Section 351 if it is afforded substantial legal protection. There seems to be no obvious reason to depart from this standard in the particular situation of computer programming techniques.[57]

The Analytical Framework Under Pressure

The analytical framework of the regulations relies very heavily on the distinction between copyright rights and copyrighted articles. This reliance is taken to the limit in two pairs of examples: Examples 6 and 7, and 8 and 9. Each pair demonstrates how the regulations may produce different tax consequences from the same set of economic circumstances, and emphasizes the limited application of the paragraph (f)(3) special-characteristics rule that functionally equivalent transactions will be treated the same. (The facts below are used to illustrate the two pairs of examples but are not taken verbatim from the regulations.)

Examples 6 and 7. In Example 6, US Parent, a domestic software developer, grants a non-exclusive right to its CFC to copy and distribute to the public Program X on disks in return for payments contingent on the number of disks copied and sold. US Parent and CFC enter into a contract pursuant to which US Parent copies Program X onto disks on behalf of CFC, packages those disks in shrink-wrapped boxes, and ships the packaged disks to CFC. Under the regulations, the payments by CFC to US Parent in exchange for the right to reproduce and distribute Program X are royalties. In Example 7, CFC contracts for the purchase of disks, which US Parent packages and ships to CFC.

In each example, CFC takes delivery of the same number of shrink-wrapped disks and resells them to the public. Moreover, the aggregate consideration paid for the disks and packaging is the same in each example. However, in Example 7, because CFC has not acquired a copyright right, the consideration paid is the purchase price for the sale of goods. Thus, US Parent may, in effect, choose between two economically identical transactions to produce royalty income or business profits.

Examples 8 and 9. In Example 8, Micro, a domestic software developer, grants a non-exclusive right to OEM, a foreign computer manufacturer, to copy and distribute to the public Program X on the hard drives of OEM's computers in return for payments contingent on the number of copies installed and sold. OEM includes a disk pack with each of the computers that it sells containing an archival copy of Program X. OEM contracts with Micro to produce the disk packs on behalf of OEM. Under the regulations, the payments by OEM to Micro in exchange for the right to reproduce and distribute Program X are royalties. In Example 9, OEM contracts for the purchase of disks, which Micro packages and ships to OEM.

In each example, OEM installs Program X on the same number of computers, takes delivery of the same number of disks, and sells the same number of computers (with disks) to the public.

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[57] See also Rev. Proc. 69-19, 1969-2 CB 301, amplified by Rev. Proc. 74-36, 1974-2 CB 491.

Moreover, the aggregate consideration paid for the software is, again, the same in each example. However, in Example 9, because OEM has not acquired a copyright right, the consideration paid is the purchase price for the sale of goods. As above, Micro may choose between two economically identical transactions to produce royalty income or business profits.

Thus, the regulations clearly provide well-advised taxpayers the flexibility to choose the type of gross income to be derived from software transfers and, consequently, the tax treatment of that income. This flexibility should prove valuable in many different planning arenas, including transfer pricing and Subpart F management.

The Final Regulations and the Source Rules

The proposed regulations did not include specific guidance with respect to source rules. The final regulations provide the missing guidance by expressly stating which source rules apply to the transactions classified under the regulations. As is generally so with sales of personal property, the source rules applicable to sales of copyrighted articles permit the seller to choose the location where the transfer of "rights, title and interest" occurs and, therefore, the source of the income derived from such sales.[58] This will undoubtedly lead to the inclusion in software transfer documentation of language specifically addressing the transfer of rights (e.g., when and where the parties intend those rights to pass from the transferor to the transferee). Exhibit 1 summarizes the source rules for copyright rights and copyrighted articles.

Although the Service does not expressly state the rules for sourcing services or know-how in the text of the regulations, it refers to most of the applicable rules in the Supplementary Information.[59] If a transaction is treated as a provision of services, whether under paragraphs (b)(1)(iii) and (d) of the regulations or otherwise, the source is the place of performance.[60] A transfer of know-how is sourced according to the general rules relating to the sale and licensing of intangible property.[61]

Continuing Issues

The software regulations cannot be expected to resolve all issues raised in the context of software transfers. Not surprisingly, therefore, several interesting subjects are not addressed or are addressed very briefly in the final regulations.

Tangible vs. intangible property. The final regulations classify computer program transfers as, for example, sales, licenses, or leases, for purposes of specific Code sections, including Section 482. However, they do not classify or characterize copyright rights or copyrighted articles as tangible or intangible property. To the contrary, the Service deliberately excluded the tangible vs. intangible property paradigm from the regulations.

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58 See Supplementary Information, Part II, section 1, subsection c.

59 Id., Part II, section 8, paragraph 1.

60 Sections 861(a)(3) and 862(a)(3).

61 Sections 861(a)(4), 862(a)(4), and 865(d).

For example, commenters asked for clarification regarding the application of the software regulations for purposes of Section 482. The key issue is whether the "commensurate with income" rules of Sections 482 and 367(d), which, by their terms apply only to transfers of intangible property, can apply to transfers of copyrighted articles. Specifically, the comments requested confirmation that copyright rights will be treated as intangible property and that copyrighted articles will be treated as tangible property, even if delivered electronically. The Service did not oblige, but expressed its intent to consider the issue further.[62] The authors question whether this reluctance indicates an intent to apply the transfer pricing regulations covering intangible property transfers to the transfer of copyrighted articles under certain circumstances.

Even though the regulations make no express reference to the tangible vs. intangible property distinction, copyrighted articles will be treated as tangible property for most purposes and copyright rights are clearly intangible property. For example, the sale of a copyrighted article held as inventory will be treated as a sale of inventory property subject to the title-passage rules. Moreover, a sale of produced inventory property will be subject to the title-passage and mixed-source rules.[63] In contrast, a license of a copyright, whether for a fixed or contingent royalty, or a sale of the copyright in which the consideration is contingent on use, will be sourced under the rules for intangibles.

The application of the title-passage rules to software is plainly not as clear-cut as in sales of physical goods, especially when, for legal purposes, the transaction is often structured as a license. When software is delivered using some physical medium such as a disk or CD-ROM, title to which does pass to the buyer, it may be presumed that title to the copyrighted article passes when title to the physical medium passes, something that the parties can usually specify by contract. But when delivery occurs by download from a web site, no physical object is being delivered and the starting point for the delivery may be a computer the location of which may be unknown to the buyer or even the seller. In the Supplementary Information, the Service indicates that the parties often can agree on where title passes for sales of inventory property generally.[64] This gives taxpayers quite a lot of leeway in structuring their transactions, but it does not really explain how to draft a contract for passage of title in a license pursuant to which no title to anything is in fact passing.

Inconsistent classifications and double taxation. Cross-border transactions are, at least potentially, subject to the tax laws of two different countries. Even if the countries have entered

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62 See Supplemental Information, Part II, section 1, subsection b. With respect to Section 482, the Service included the following statement in the introduction to the 16 examples in the proposed regulations: "All of the following examples assume that all parties are unrelated to each other." The Service deleted the assumption in the final regulations. Thus, the parties in the 18 examples in the final regulations are not assumed to be unrelated; rather, the examples are intended to apply equally to related and unrelated parties.

63 See Sections 861(a)(6), 862(a)(6), 863(b)(2), 864(a), 865(b), and 865(i)(1).

64 Supplementary Information II, section 1, subsection c. See Reg. 1.861-7(c).

into a bilateral income tax treaty, each tax authority may interpret and apply the treaty provisions differently. Thus, the potential for double taxation exists with respect to transactions subject to classification under the software regulations if the foreign country does not follow a broadly similar approach. If a foreign country taxes income derived by a U.S. person from the sale of software in the foreign country, whether in the form of an income or withholding tax, the U.S. person may receive a foreign tax credit for the taxes paid to the foreign tax authority. However, in many instances, Section 904 limits the ability of U.S. persons to use foreign tax credits. This will be exacerbated for U.S. software companies by the mixed-source rules of Section 863(b), which require part of the income from inventory property produced in the U.S. and sold outside the U.S. to be treated as U.S.-source income.

Example. A U.S. software exporter (Micro) develops software in the U.S. and sells it in Country X. No treaty is in force between the U.S. and Country X, which treats all payments for software as royalties subject to a 30% withholding tax. If Micro derives $100,000 of taxable income from the sale of copyrighted articles to a Country X customer, and the customer withholds $30,000 of tax, Micro should have a $30,000 foreign tax credit to apply against the $35,000 pre-credit U.S. tax on the sale. However, if only 50% of the taxable income from the Country X sale is foreign-source taxable income under Sections 863(b)(2) and 862(a)(6), the U.S. foreign tax credit available to Micro may be limited to $15,000 of the $30,000 foreign tax paid. Thus, Micro will have a 50% worldwide effective tax rate (the sum of the $30,000 foreign tax plus post-foreign tax credit U.S. tax of $20,000, divided by $100,000 of taxable income).

A similar result may occur even if a treaty is in force between the U.S. and Country X. Although treaties typically require the U.S. to grant a foreign tax credit, the U.S. is permitted to apply domestic law limitations for the purpose of limiting the credit to U.S. tax on foreign-source income.[65] With respect to double taxation resulting from inconsistent classification of the transaction, Micro will therefore be left to pursue relief through competent authority proceedings. The Service confirmed this in the Supplementary Information.[66] The regulations make no effort to relieve the taxpayer on a unilateral basis.

Effective Dates

The regulations generally apply to transactions executed pursuant to contracts entered into after November 30, 1998. Taxpayers may elect to apply the regulations to transactions occurring pursuant to contracts entered into in tax years ending after October 1, 1998. Those that make such an election must apply the regulations to all contracts entered into in tax years ending after October 1, 1998. In addition, a taxpayer may elect to apply the regulations to transactions occurring in tax years ending after October 1, 1998, pursuant to contracts entered into before October 2, 1998, provided the taxpayer would not be required to change its method of accounting as a result of such election (or would be required to change its method of accounting, but the resulting Section 481(a) adjustment would be zero). A taxpayer that makes such an election must

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65 E.g., 1980 Canada-U.S. income tax treaty, Article XXIV(1).

66 See Supplementary Information, Part II, section 11, third paragraph.

apply the regulations to all transactions occurring in tax years ending after October 1, 1998, pursuant to contracts entered into before October 2, 1998.

Conclusion

The proposed regulations were well thought out, well organized, and helpful, and the final regulations do a certain amount of valuable clean up. The analytical framework used to classify and source transactions, according to whether a copyrighted article or a copyright right is transferred, works well.

But, when all is said and done, the IRS has missed an opportunity. It refused to define what is meant by a computer. It retained a narrow definition of computer program. It failed to confront whether the regulations should apply to all or at least most forms of software, regardless of whether programming instructions or data are paramount. It declined to give more specific guidance on the distinction between the provision of services and technical know-how. It limited the scope of the regulations to the international provisions of the Code (most of them). It rejected an opportunity to provide additional guidance on the service element in software transactions. It refused to state explicitly that transfers of copyrighted articles are to be treated as transactions in tangible property and deliberately left vague whether the commensurate-with-income provisions of Sections 367(d) and 482 can apply to such transactions and, if so, in what circumstances. It ignored or dismissed numerous well-reasoned and public-spirited comments from industry and tax professionals, throwing into question whether the time spent preparing such comments is worthwhile.

Worst of all, the Service took nearly two years to accomplish so very little beyond some housekeeping. Its promises of further consideration of some of the issues ring hollow. The contrast between the pace of change in technology and the reaction time of the Service is pretty stark. The result is one of the more elegant sets of regulations that have been propounded in recent years, artificially and unnecessarily limited in scope. It can only be hoped that the compelling simplicity and logic of the regulations will spread to many of the areas into which the Service did not venture.

	Copyrighted Article	Copyright Right
Inventory		
Sale - fixed or contingent price	Title passage rule for property purchased and sold (§§ 861(a)(6) and 862(a)(6)); *see* § 863 mixed source apportionment rules for property manufactured in and sold outside the U.S. or vice versa. U.S. source if sale by nonresident seller attributable to U.S. office or other fixed place of business - *see* § 865(e)(2)(A); *but see* § 865(e)(2)(B) foreign use/foreign office exception. *See also* § 865(h) elective foreign source treaty override.	The Regulations do not contemplate the possibility that a copyright right may be sold as inventory. However, a reading of § 865(d)(1)(A) would suggest that the inventory exception of § 865(b) can apply to the fixed price component of a sale of intangible property held as inventory.
Non-inventory		
Sale - fixed price	Residence of taxpayer (§ 865(a)), except for gain not in excess of depreciation adjustments where U.S. source gain is the portion of such gain which U.S. depreciation adjustments bear to all such adjustments (§ 865(c)). Foreign source if sale by U.S. resident seller attributable to foreign office or other fixed place of business - *see* § 865(e)(1). U.S. source if sale by nonresident seller attributable to U.S. office or other fixed place of business - *see* § 865(e)(2)(A). *See also* § 865(h) elective foreign source treaty override.	Same - *see* §§ 865(d)(1)(A) and (d)(4).
Sale - contingent price	Residence of taxpayer (§ 865(a)). Foreign source if sale by U.S. resident seller attributable to foreign office or other fixed place of business - *see* § 865(e)(1). U.S. source if sale by nonresident seller attributable to U.S. office or other fixed place of business - *see* § 865(e)(2). *See also* § 865(h) elective foreign source treaty override.	Deemed royalty - Place of use (§ 861(a)(4) and 862(a)(4)) - *see* § 865(d)(1)(B) - requires further classification of copyright right as "intangible" under § 865(d)(2).
Lease/License	Rent - sourced by place of use (§ 861(a)(4) and 862(a)(4)).	Royalty - sourced by place of use (§ 861(a)(4) and 862(a)(4)).