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July 24, 2024

Internal Revenue Service, CC:PA:LPD:PR (Notice 2023-63)
Room 5203
P.O. Box 7604
Ben Franklin Station
Washington, D.C., 20044

Via electronic submission

Re: TEI Comments on Section 174 and Notice 2023-63 with respect to the Treatment of Computer Software Development

Dear Sir or Madam:

The 2017 Tax Cuts and Jobs Act ("TCJA")[1] amended section 174[2] to require the capitalization and subsequent amortization of specified research or experimental expenditures ("SREs"), including any amounts paid or incurred in connection with computer software development ("software development costs"). Further, under the TCJA, the amortization of SREs which are paid or incurred with respect to any property that is disposed, retired, or abandoned during the amortization period is not accelerated on account of such disposition, retirement, or abandonment, but must continue over the prescribed period. On September 8, 2023, the Internal Revenue Service (the "Service") in conjunction with the Department of the Treasury ("Treasury" and, together with the Service, the "Government") issued initial guidance under section 174 as amended by the TCJA in Notice 2023-63 (the "Notice"). The Government noted its intent to issue proposed regulations in line with the guidance provided in the Notice. On behalf of Tax Executives, Inc. ("TEI"), we are pleased to provide comments on section 174 and the Notice.

[1] Pub. L. 115-97.

[2] Unless otherwise stated, all "section" references herein are to the Internal Revenue Code of 1986, as amended (the "Code") and all "§" references are to the Treasury regulations promulgated thereunder.

About TEI

TEI was founded in 1944 to serve the needs of business tax professionals.[3] Today, the organization has 56 chapters in North and South America, Europe, and Asia. As the preeminent association of in-house tax professionals worldwide, TEI has a significant interest in promoting sound tax policy, as well as the fair and efficient administration of the tax laws, at all levels of government. Our nearly 6,000 individual members represent over 2,900 of the leading companies around the world.
TEI is dedicated to the development of sound tax policy, compliance with and uniform enforcement of tax laws, and minimization of administration and compliance costs to the benefit of both government and taxpayers. These goals can be attained only through the members' voluntary actions and their adherence to the highest standards of professional competence and integrity. TEI is committed to fostering a tax system that works—one that is administrable and with which taxpayers can comply in a cost-efficient manner. The diversity, professional training, and global viewpoints of our members enable TEI to bring a balanced and practical perspective to section 174.

TEI Comments

TEI appreciates the opportunity to provide comments on section 174 and the Notice. Our comments and recommendations herein respond to some of the questions raised in the Notice and highlight areas and issues requiring further guidance, particularly with respect to delineating activities that do, and do not, constitute software development within the meaning of section 174. In this regard, we recommend the Government address the following in the forthcoming proposed regulations as summarized below:

1. Specify the Proper Unit of Account. We recommend that the proposed regulations provide rules for determining the proper unit of account with respect to SREs. We recommend that the Government provide a general rule that maintaining a global pool of SREs incurred by year, rather than tracking individual assets, is an appropriate manner of determining the unit of account for purposes of section 174. We also suggest that the proposed regulations offer elections for alternative determinations of the unit of account.

2. Clarify the Scope of Software Development Costs.

   a. Clarify the definition of software development costs. Particularly, we recommend that proposed regulations provide examples that clearly delineate routine maintenance activities, the costs of which are deductible under the Notice, from upgrades and enhancements, the costs of which must be capitalized as SREs.

[3] TEI is organized under the not-for-profit corporation law of the State of New York. TEI is exempt from U.S. federal income tax under section 501(c)(6) of the Code.

b. The proposed regulations should also specify that software development costs are generally SREs under section 174 regardless of whether the development efforts are successful (i.e., result in a new feature or a successful upgrade or enhancement to existing functionality). However, as discussed in more detail below, we recommend the regulations specify that SREs related to failed research, that is SREs with respect to which no property or successful product is developed and for which an identifiable event marks the cessation and abandonment of such research, may be claimed as a business loss under section 165(a).

3. Specify the End of Development Period. We recommend that the proposed regulations identify the point at which development ends for purposes of section 174. Specifically, the Government should explain that the development period ends when the functional specifications set out at the beginning of the development project are met and, in all cases, no later than the date the software is demonstrated to work properly and ready for production.

4. Provide Guidance Regarding Terminated Research. We suggest that the proposed regulations establish rules for determining whether software development SREs that do not result in a new feature or a successful upgrade or enhancement to existing functionality must be amortized. Specifically, the Government should explain that SREs related to terminated research for which there has been an affirmative act of abandonment prior to the end of the development period (i.e., prior to the successful completion of research objectives or prior to any production using such research) may be deducted as a loss under section 165.

5. Examples. We suggest that the regulations include numerous examples illustrating application of each of these proposals.

Complete TEI Comments

A. Specify the Proper Unit of Account

We recommend that the Government set forth rules for determining the proper unit of account with respect to SREs in the proposed regulations. As a threshold matter, we suggest that the Government provide a general rule whereby taxpayers maintain a global pool of SREs by year, which are amortized beginning with the midpoint of the year in which such SREs are paid or incurred. Maintaining a global pool of SREs incurred by year, rather than tracking individual assets, aligns with the statutory language of section 174(a)(2)(b), which provides that taxpayers are "allowed an amortization deduction of such expenditures ratably over the 5-year period (15-year period in the case of any specified research or experimental expenditures which are attributable to foreign research (within the meaning of section 41(d)(4)(F))) beginning with the midpoint of the taxable year in which such expenditures are paid or incurred."

We recommend, however, that the Government also allow election to opt out of the general rule and instead account for SREs separately. We believe that such an approach will promote taxpayer compliance with the new provisions and reduce controversy.

- An election should be made available for separate development projects, establishing SRE cost pools for incurred costs based on clearly defined development outcomes (i.e., functionality of the code for its intended purpose). Under this option, the software's readiness for production should provide a strong presumption for the creation of an SRE unit of account that is ready for amortization under section 174, but should not be determinative. Instead, the proper timing of the creation of a complete unit of account and which costs should be included in that pool of costs should be based upon the totality of the facts and circumstances.

- An election should also be made available to determine SRE cost pools at the business component level, consistent with its determination of business components under section 41, even if the business component is not yet ready for production without additional SREs.

- An election should further be made available to determine SRE cost pools consistent with their internal business systems (i.e., project tracking applications) or consistent with how assets are defined for Generally Accepted Accounting Principles (GAAP) or other business reporting.

We recommend the Government specifically address how to account for the costs of upgrades and enhancements, clarifying that SREs attributable to an upgrade or enhancement are accounted for separate from the preexisting software. Requiring costs of upgrades and enhancements to be added to the preexisting software's pool of SREs would unnecessarily complicate compliance.

The determination of an SRE unit of account should be designated as a method of accounting, requiring consistent treatment from year to year for each separate pool of costs. By setting out a general rule and also allowing a taxpayer to elect treatment that more closely aligns with how such information is otherwise maintained, the rules will offer enhanced administrability while also fostering compliance. Moreover, such an approach will facilitate IRS Examining Agents' review of a taxpayer's treatment of section 174.

B. <u>Scope of Software Development Costs</u>

Section 5.02(2) of the Notice defines "upgrades and enhancements" to mean "modifications to existing computer software that result in additional functionality (enabling the software to perform tasks that it was previously incapable of performing), or materially increase speed or efficiency of the software." Section 5.05 of the Notice provides that maintenance activities that do not give rise to upgrades and enhancements are not considered "software development" for purposes of section 174. The definition of "upgrades and enhancements" lacks clarity and, because maintenance activities are defined by negative reference to upgrades and enhancements, creates difficulty for taxpayers trying to delineate between maintenance activities and activities that give rise to upgrades and enhancements.

The Notice provides one example of maintenance activities that do not give rise to an upgrade or enhancement – corrective maintenance to debug, diagnose, and fix programming errors. However, the Notice neither defines nor further clarifies how to determine whether activities constitute mere maintenance that is not software development as compared to upgrades and enhancements that do qualify as software development. The distinction between maintenance activities and development activities that result in an upgrade or enhancement is even more muddled when considering that software development often layers on existing code that resulted from prior successful development efforts. Consequently, it is important that the proposed regulations clearly delineate the distinction between these categories.

To clarify the definition of upgrades and enhancements, and to promote ease of compliance, we recommend the Government modify the definition to refer to modifications that are "reasonably expected" to increase speed or efficiency. The addition of the words "reasonably expected" will simplify the determination for taxpayers because it is a forward-looking test that is not dependent on results. Additionally, we recommend the Government specify that upgrades or enhancements include integration of software developed to allow for utilization of third-party technology (e.g., open source code or an application programming interface).

We further recommend the Government establish an objective measurement of "additional functionality" and of "material increases" to help taxpayers as well as IRS Examining Agents to determine whether a modification to computer software should be characterized as a capitalizable upgrade or enhancement or deductible maintenance cost. The Government should consider including a safe harbor under which adjustments to keep abreast of technological advances such that software remains at status quo do not result in additional functionality and do not materially increase speed or efficiency.

Additionally, to promote administrability, the Government should offer the following de minimis elections for taxpayers that elect to determine section 174 units of account on a project-by-project basis:

- In the case of any unit of account for which more than 80% of the costs are not SREs within the meaning of section 174, a taxpayer may elect to treat the entire unit of account as routine maintenance.[4]

[4] This 80% threshold is consistent with the "substantially all" requirement under section 41(d)(1)(C) and Treas. Reg. § 1.41-4(a)(6) (permitting all activities to be treated as qualified research if at least 80% of the taxpayer's research activities constitute a process of experimentation).

- In the case of any development project for which 10% or less of the project's total costs are SREs, or 10% or less of the project's total hours relate to SRE activities, a taxpayer may elect to treat the entire project as routine maintenance.

Pursuant to the consistency requirement in section 4.04 of the Notice, a taxpayer that elects not to treat costs as SREs under these de minimis rules may not treat such costs as qualified research expenses for purposes of the research credit under section 41. Such elections should constitute a method of accounting, requiring consistent treatment from year to year with respect to each unit of account.

With regard to maintenance activities, we recommend that the Government identify activities that constitute software maintenance as distinguished from upgrades and enhancements, and provide examples demonstrating the distinction, consistent with the examples we offer below. For example, the regulations should clarify that the costs of the following activities constitute deductible maintenance:

- Correction of faults or errors that currently or may in the future impede the performance of a feature or function that was contemplated as part of the original software implementation, whether initiated in reaction to user errors or as part of routine testing (i.e., correcting latent and effective faults).

- Adaptation of software to comply with operating system changes or other changing technologies or policies that impact software functionality.

- Removal of irrelevant, obsolete, or ineffective features of the originally implemented software.

- Regularly scheduled and routine maintenance activities (e.g., operating system upgrades, regularly recurring maintenance activities).

We recommend that the Government clarify in the forthcoming regulations that maintenance activities do not include the following:

- Development of new features or requirements that were not contemplated as part of the original functionality of the software.

- Wholesale updates or new iterations of existing software.

- Any software development with respect to a feature or function that occurs prior to the end of the development period.

Finally, the Government should explain that generally the costs of software development are SREs under section 174 regardless of whether the development efforts are successful (i.e., result in a new feature or a successful upgrade or enhancement to existing functionality). Because the test under section 174 looks to the nature of activities, rather than the end result, software development costs are considered SREs and must be capitalized regardless of the result of development activities.

C. Specify the End of Development Period

In the case of computer software developed for sale and licensing to others, section 5.03(5)(b) of the Notice provides that software development activities include testing of computer software, as well as making necessary modifications to address identified defects, up until the point in time that the software's technological feasibility has been established, product master(s) have been produced, and the computer software is ready for sale and licensing to others.

We recommend the Government clarify in the forthcoming proposed regulations that the development period ends, and thus capitalization of costs is no longer required, as of the date the functional specifications set out at the beginning of the development project are satisfied and, in all cases, no later than the date the software is demonstrated to work properly and ready for production. While software is not required to be error-free to mark the end of the development period, the software should be functional. To the extent future development with respect to the software is reasonably expected to provide additional functionality or materially increase the speed or efficiency of the software, such additional development would be assessed as a new development project.

D. Provide Guidance Regarding Terminated Research

Section 174(d) provides that if any property with respect to which SREs are paid or incurred is disposed of, retired, or abandoned during the amortization period for such expenditures, no deduction is allowed with respect to the expenditures on account of such disposition, retirement, or abandonment. Rather, amortization deductions shall continue with respect to the expenditures over the prescribed amortization period.

Understanding that companies often terminate research before any product is fully developed and available for release, the Government should clarify in proposed regulations that the section 174(d) prohibition on accelerated amortization of SREs that were paid with respect to property which is disposed of, retired, or abandoned does not apply to the costs of abandoned research. Specifically, the Government should indicate in proposed regulations that SREs are accounted for as a separate intangible subject to amortization under section 174 in which the taxpayer has basis. Because software development costs are SREs regardless of whether the efforts are abandoned, a component of such basis may be attributable to unsuccessful software development. The Government should provide in proposed regulations that taxpayers may claim a section 165 loss with respect to the costs of research that is terminated prior to the development of any product and for which the taxpayer establishes that an abandonment has occurred (i.e., the taxpayer makes an affirmative act to abandon the research). Because such terminated research does not result in any product, feature, or additional functionality, there is no "property" with respect to which the allocable SREs were paid or incurred, and thus section

174(d) should not apply. Such an abandonment loss requires that a taxpayer identify the failed research and thus, would not generally be available to a taxpayer using the global pool of costs as its unit of account.

Permitting a section 165 loss for failed research SREs is consistent with the treatment of fees or expenses incurred in relation to other failed ventures, projects, or transactions. For example, abandoned transaction costs under Treas. Reg. § 1.263(a)-5 are not property, but are permitted a deduction under section 165(a).[5] As another example, in Rev. Rul. 56-520, the Service determined the costs incurred by a radio station related to an application to operate a television broadcasting station were deductible under section 165 in the year in which the Federal Communications Commission denied such permission.[6] The costs recoverable under section 165 included legal, engineering and accounting fees, travel expenses, and other expenses incident to trial preparation. In each of these situations, the taxpayer's efforts fail to result in the desired property. Regardless of the fact that the costs do not attach to any property that is sold, abandoned, or otherwise disposed of, a section 165 loss is allowed for the expenses that are properly attributable to a failed effort.

The alternative is requiring taxpayers to maintain a pool of failed software development costs to be amortized over a five or fifteen year period. However, in light of the realities of rapidly-changing software, permitting a section 165 loss for failed research is the only option that would result in the clear reflection of income. Unlike in the manufacturing context, in which failed development efforts may be put to some other future use, unsuccessful software development efforts become obsolete before they can be put to further or different use in a taxpayer's business. Thus, requiring amortization of such failed research costs creates a distortion of income by spreading the recovery period over a number of years during which the taxpayer will receive no benefit. Because unsuccessful software development efforts have no residual value, section 165 is the proper treatment for unsuccessful software development that is accompanied by an affirmative act of abandonment prior to production. Permitting a section 165 loss for failed research expenses is consistent with the canons of statutory construction. Pursuant to the canon of harmonious construction, the provisions of a statute must be

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[5] *See* Treas. Reg. § 1.263(a)-5(c)(8); *see also Doernbecher Mfg. Co. v. Comm'r*, 30 B.T.A. 973 (1934), *acq.*, 1935-1 C.B. 6 (expenses incurred to investigate the possibilities of merger deductible in year the plan of merger was abandoned); *Domenie v. Comm'r*, T.C. Memo. 1975-94 ("Upon the development of facts which compelled the petitioner to abandon his plans for the purchase of [a business], the petitioner is entitled to deduct the expenses incurred in connection therewith as a loss under section 165(c)(2)."); Rev. Rul. 67-125, 1967-1 C.B. 31 (expenses incurred in connection with a transaction are not deductible as ordinary and necessary business expenses, but are deductible in the year the transaction is abandoned); Rev. Rul. 71-191, 1971-1 C.B. 77 ("[T]he amounts the taxpayer paid in connection with the attempted acquisition of the noncompetitive government oil and gas leases are deductible as a loss under section 165(a) of the Code."); Rev. Rul. 77-254, 1972-2 C.B. 63 ("[T]he individual may deduct as losses incurred in a transaction entered into for profit the expenses incurred in the unsuccessful attempt to acquire a specific business.").

[6] 1956-2 C.B. 170.

interpreted in a way that renders them compatible, and not contradictory.[7] Specifically, under this canon of construction, statutes must be interpreted so as to be entirely harmonious with all laws as a whole.[8] The pursuit of this harmony is often the best method of determining the meaning of specific words or provisions that might otherwise appear ambiguous.[9] Further, the canon of prior construction prescribes that a statute that has already received authoritative construction is to be understood according to that construction.[10] Here, disallowing a section 165 loss with respect to SREs that do not result in any property or useable product is inconsistent with section 165 and its prior construction.[11] Further, such a disallowance lacks harmony with the existence of section 165. The language of section 174(d) may be interpreted harmoniously with section 165, and consistent with prior construction by the Service and by the courts, by permitting a business loss under section 165 with respect to SREs that fail to result in a successful product while also denying such a deduction for SREs that result in a functional product that is later abandoned.

E. Examples

We request that the Government include the following examples in the forthcoming proposed regulations:

1. Facts: Company A is a bank that plans to develop a new mobile banking application. In Year 1, Company A's software engineers begin researching which features to build and how the features should operate. Allowing customers to review his or her bank account information and making payments are two features as set out in the functional specifications. The software engineers then begin the iterative process of writing and testing code, which includes activities to eliminate uncertainty regarding the design of the application. Once the software engineers are internally satisfied with the application (e.g., customers can access their bank account information and can make payments), they begin collecting and cataloging user feedback. In

[7] *United States v. Cleveland Indians Baseball Co.*, 532 U.S. 200, 220 (2001) ("It is, of course, true that statutory construction 'is a holistic endeavor' and that the meaning of a provision is 'clarified by the remainder of the statutory scheme . . . [when] only one of the permissible meanings produces a substantive effect that is compatible with the rest of the law.") *citing United Say. Assn. of Tex. v Timbers of Inwood Forest Associates, Ltd.*, 484 U.S. 365, 371 (1988).

[8] *Id.*

[9] *Id.*

[10] *Neal v. United States*, 516 U.S. 284, 295 (1996) (It is because "Congress is free to change this Court's interpretation of its legislation," that the Court adheres more strictly to the doctrine of *stare decisis*, or adherence to judicial precedents, in the area of statutory construction than in the area of constitutional interpretation, where amendment is much more difficult) *quoting Illinois Brick Co. v. Illinois*, 431 U.S. 720, 736 (1977); *Shepard v. United States*, 544 U.S. 13, 23 (2005). *See also Burnet v. Coronado Oil & Gas Co.*, 285 U.S. 393, 406 (1932) ("Stare decisis is usually the wise policy [for statutes], because in most matters it is more important that the applicable rule of law be settled than that it be settled right.") (Justice Brandeis, dissenting).

[11] *See* note 5, *supra*.

Year 2, the software engineers implement changes to the code based on user feedback and test the updates. Once they are satisfied with the application, the software engineers write documentation with respect to the new application. Company A then launches the application, making it generally available to the public.

Analysis: Capitalizable Year 1 SREs include the costs incurred with respect to the research, writing code, testing code, and collecting and cataloguing user feedback. Capitalizable Year 2 SREs include the incurred costs of implementing changes to the initial application design, testing the changes, and writing documentation. The costs associated with the launch of the application are not subject to section 174.
Under the general rule, amortization of the Year 1 SREs will begin at the midpoint of Year 1, and amortization of the Year 2 SREs will begin at the midpoint of Year 2. If the combined Year 1 and Year 2 SREs are grouped together in a manner consistent with Company A's internal project tracking software, Company A may establish the completed new application as a separate unit of account under section 174, with amortization of its Year 1 and Year 2 SREs beginning at the midpoint of Year 2.

2. Facts: The facts are the same as example 1, except Company A elects to treat the mobile banking application as a separate unit of account, consistent with its internal project tracking software, for purposes of section 174. Further, in Year 1, Company A realizes the application failed to meet its desired functionality, and the operating system Company A's engineers had been using for the product development environment reaches end of life. Because Company A does not want to risk continuing development using an unsupported operating system, and also does not want to incur quality assurance and regression testing costs that would result from adopting a new operating system, Company A decides to abandon development of the mobile banking application in Year 1. Specifically, Company A announces its intent to abandon the development, requires its software engineers to archive the existing code or other documents related to the mobile banking application, and removes all such files from its production servers. The decision to abandon the software occurs prior to moving software into production and before releasing the software.

Analysis: Capitalizable Year 1 SREs include the costs incurred with respect to the research, writing code, testing code, and collecting and cataloguing user feedback and would create an asset under section 174. These costs are tracked, consistent with Company A's internal project tracking, as a separate account for section 174. Because Company A made affirmative acts to abandon the research, and no product was developed for general availability with respect to the mobile banking application, nor is such a product expected to be developed in the future, Company A may claim the mobile banking application SREs as a loss under section 165, provided all other requirements under section 165 are satisfied.

3. Facts: The facts are the same as example 2, except Company A's engineers determine that while the computer code written for the mobile banking application in Year 1 is functional, it should be retained for future use rather than further developed in Year 2. There is no affirmative decision to permanently terminate development, but merely to delay further development until Year 3. Company A anticipates completing the Year 2 activities described in example 1 to bring the mobile banking application to "production ready" in Year 3.

Analysis: Capitalizable Year 1 SREs include the costs incurred with respect to the research, writing code, testing code, and collecting and cataloguing user feedback. Because the Year 1 and anticipated Year 3 development activities are grouped together in a manner consistent with Company A's internal project tracking software, Company A may wait until the Year 3 activities are completed to establish the completed mobile banking application as a separate unit of account for section 174 purposes, with amortization of the Year 1 and Year 3 SREs beginning at the midpoint of Year 3.

4. Facts: Company B, a food delivery company that runs its application on Operating System A, identified a security vulnerability in its software. In order to fix the security vulnerability, the food delivery application must be updated to run on a new version of Operating System A. Company B's software engineers upgrade the software to the latest version of Operating System A. However, none of the food delivery application's functions are changed or modified by the upgrade (e.g., being able to take delivery orders, process payments, and notify customers of status updates). Performing this upgrade does not involve an iterative process or involve the elimination of technical uncertainty.

Analysis: Because the Operating System A upgrade does not add a new feature or functionality, and is a part of routine maintenance activities, the costs incurred with respect to the Operating System A upgrade are maintenance costs and are not subject to capitalization under section 174.

5. Facts: The facts are the same as in example 4, except, in addition to fixing the security vulnerability, Company B also decides to add an additional payment method to its application. The addition of a new payment method involves activities intended to eliminate uncertainty. Under Company B's method of accounting, the operating system upgrade and the addition of a new payment method are grouped together as one development project for purposes of section 174. Time spent to add the new payment function is less than 10% of the total project hours.

Analysis: The costs of adding a new payment method are SREs under section 174. However, because less than 10% of total project hours relate to SRE activities, Company B may elect under the de minimis rules not to capitalize any portion of the project costs. If Company B elects not to treat the costs of adding the new payment method as SREs under section 174, such costs also are not eligible for treatment under section 41.

6. Facts: As a part of routine "keeping the lights on" maintenance, Company C, a data software company, has its engineers save the current state of a database every seven days so that it can be restored at a later date in case of data loss. This maintenance activity does not involve an iterative process or eliminate technical uncertainty.

Analysis: The costs incurred with respect to the database backup are maintenance costs that are not subject to capitalization under section 174.

7. Facts: Company D, a company that produces word processing software, decides to add a new feature whereby two people may edit a document simultaneously. The software engineers engage in the iterative process of writing and testing code for the new feature, which includes activities to eliminate uncertainty regarding the design of the feature. While writing the code to implement the new feature, software engineers at Company D discover a "bug" in the existing software that produces an error code when users attempt to save certain documents. In addition to implementing the new feature, the software engineers write code to resolve the bug. Company D launches a new iteration of its software with the new multi-author document feature as well as the bug fix.

Analysis: The new feature is an upgrade or enhancement of the word processing software, and the costs incurred in relation to implementing the new feature are capitalizable SREs under section 174. The costs incurred in relation to the bug fix are maintenance costs that are not subject to capitalization under section 174.

8. Facts: Company F purchases a web-based application that tracks spending. Company F receives feedback from customers that (1) the application would be more relevant if it connected and automatically updated spending based on banking mobile apps, and (2) adding more than one budget category per login session causes an error code to appear. In response to this feedback, Company F decides to add a new feature that can link user bank accounts to automate spending updates in the application. The software engineers engage in the iterative process of writing and testing code for the new feature, which includes activities to eliminate uncertainty regarding the design of the feature. Company F's software engineers also fix the error code so that users may enter as many budget categories as they desire within a login session, as was the original intent of the application. Fixing the error in the code does not involve an iterative process or eliminate technical uncertainty.

Analysis: The new feature that links a user's bank account to the spending tracker is an upgrade or enhancement, the costs of which must be capitalized under section 174. The costs incurred to fix the error code are maintenance costs that are not subject to capitalization under section 174.

9. Facts: Company G decides to integrate a third-party application programming interface (API) with its database that will allow Company G's customers to sort its datasets via Company H's data processing software. To implement this integration, Company G's employees develop software to integrate the API with its database. The software development activities include research, writing code, testing code, and documentation, which includes activities to eliminate uncertainty regarding the design of the API. At the end of the integration process, Company G releases the API integration feature for use by its customers.

Analysis: The API integration is an upgrade or enhancement, and the costs of the software development activities are capitalizable SREs. However, any costs merely associated with the purchase or acquisition of the API (e.g., license fee to Company H, including the cost of external research as to the functionality of available third-party APIs) are not capitalizable SREs.

10. Facts: In Year 1, Company J purchases customer-facing software. Prior to releasing the software to the public, Company J employees test and improve certain features, including adding an additional functionality that permits customers to share screens. This involves the iterative process of writing and testing code for the new features, which includes activities to eliminate uncertainty regarding the design of the feature. In year 2, Company J launches the software for use by customers.

Analysis: The costs of testing, improving, and adding functionality to the software are capitalizable SREs because they are costs intended to enhance the existing software.

11. Facts: Company K is a software company that is contracted by a government agency. For security purposes, the agency requires Company K to establish and adhere to a continuous maintenance program, which requires a variety of periodic maintenance at various intervals. For example, Company K must perform a data backup every six days. Once a month, Company K must scrub certain information from its dataset. Once a quarter, Company K must update its operating system. As a result of its quarterly operating system update, Company K was required to update its software to comply with the update. These activities do not involve an iterative process or eliminate technical uncertainty.

Analysis: The costs of the operating system update, as well as the corresponding software update, are routine maintenance costs that are not subject to capitalization under section 174.

12. Facts: Company L is a manufacturing company. It is implementing a new enterprise resource planning (ERP) system which consists of a general ledger (G/L) system and various integrated modules to manage inventories, the accounts receivables, accounts payables, etc. The ERP system also connects to other applications licensed by Company L, such as customer relationship management (CRM) software and cloud-based enterprise management platform, to

manage Company L's customers and employee processes, respectively.

Company L hires external consultants to work with its employees in the accounting, finance, and IT functions to manage the ERP implementation project as well as to configure, customize and test the ERP system, its modules and/or other related applications. Specifically, Company L plans to customize its A/P module to make it suitable for the manufacturing environment. Company L must also re-configure its CRM application to work with the new ERP system. Finally, as part of the ERP implementation project, Company L has to backup the data in its existing ERP system, transfer and convert selected data into the new ERP system, run the systems in parallel during a test period, and ensure there are safeguards against cybersecurity risks as Company L's employees work in a hybrid environment to enable employees access to remote sensitive financial data.

The costs of planning the project, implementing the G/L System, and customizing the A/P module involve the iterative process of writing and testing code which includes activities to eliminate technical uncertainty.

Analysis: Company L incurs employee time as well as external consultant time for the ERP implementation project. The costs of planning the project, implementing the G/L System, and customizing the A/P module are SREs. However, costs incurred to modify existing applications, e.g., the CRM software, to ensure it works with the new ERP system are deductible because they do not enhance functionality. Activities including backing up data, converting data into the new ERP system, and ensuring the new ERP system is secured from cybersecurity risks are maintenance activities that do not result in SREs.

13. Facts: Company M is a manufacturer of motors and motor components. Company M designs and develops software in conjunction with its products to allow them to run on its customer's platform. Company M does not separately sell, license, or lease any software. In Year 1, Company M develops a new motor and the software necessary for it to operate on its customer's platform. In Year 2, Company M's customer B requires changes to the software due to changes in customer B's operating environment for security vulnerability purposes. Company M implements the software changes and makes no changes to the motor.

Analysis: Company M determines that the new motor and software developed for that motor are one unit of property in Year 1. All costs to develop the motor and software are SREs under section 174 and are subject to capitalization. However, in Year 2, because the software changes do not add a new feature or functionality and constitute a part of routine maintenance activities, the costs incurred with respect to the software upgrade are maintenance costs and are not SREs, which are therefore not subject to capitalization under section 174.

14. Facts: The facts are the same as example 13, except that in Year 2, Company M's

customer requires changes to the software due to a need to limit the range of steering to reduce torqueing of the motor. Company M makes implements the software changes and makes no changes to the motor itself.

Analysis: The costs of Company M's activities in Year 2 are SREs under section because the software changes relate to a new feature or functionality.

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TEI appreciates the opportunity to comment on section 174 and Notice 2023-63. TEI's comments were prepared by members of its IRS Administrative Affairs Committee and Federal Tax Committee. Should you have any questions regarding TEI's comments, please do not hesitate to contact IRS Administrative Affairs Committee Chair Brian Kaufman at brian.kaufman@capitalone.com, Federal Tax Committee Chair Betty Mak at Betty.Mak@Maxar.com, or TEI tax counsel Kelly Madigan at kmadigan@tei.org.

Respectfully submitted,

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