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# Software Development and the Research Credit

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# SOFTWARE DEVELOPMENT AND THE RESEARCH CREDIT

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**With proper planning, the R&D tax credit can provide substantial benefits for software companies.**

The software industry is vast and constantly expanding, touching every aspect of our lives in the process. Software now encompasses everything from personal computer operating systems to embedded code in smart devices to enterprise software platforms and network management tools to highly customized programs and applications designed specifically for businesses, organizations, and individuals. At the most basic level, software may be defined as coded programming intended to carry instructions for computers and devices on how they should operate. Software can be written in numerous different languages, many designed to most effectively perform specific objectives, and to potentially operate across multiple platforms. For example, JavaScript is a client and server-side scripting language that can be used across competing web browsers and is widely considered essential for developing interactive or animated web functions. The definition of software here is meant only to identify the most narrow and most applicable common denominator among a broad and diverse population of potentially disruptive and ever evolving technologies.

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Products and services derived from the software space have essentially transformed the way most organizations, businesses, and people communicate, coordinate, and function on a daily basis. The U.S. boasts the most advanced software industry in the world. According to Forbes' 2016 list of the world's largest companies (by revenue) in the "software and programming" industry, U.S. companies dominate—holding seven of the top ten spots.[1] The three largest U.S. companies (Microsoft, Oracle, and VMware) account for 70% of the revenue in that top ten group. Surprisingly, at the smaller end of the spectrum, the U.S. also dominates, home to more than 100,000 independent software companies, a staggering 99% of which have fewer than 500 employees. This high level of fragmentation reflects the lightning fast pace of technological change, which presents infinite opportunities for entrepreneurs to create startup companies and develop software for new strategic products, to customize existing applications, or to create innovative operating platforms for virtually any industry.

Rapid adoption and expansion of computing power and internet technologies over the past two decades has led to significant structural change in the software industry, most notably a shift from traditional commercial prod-

uct releases toward agile and customized software related services. The most evident recent examples of the trend include:

**Internet of Things (IoT).** Software has been designed to create or access a network of physical objects embedded with electronics, software, sensors, and network connectivity, which enables them to be sensed and controlled remotely from a mobile device or over the internet. Objects in the network can often collect and exchange data, empowering them to make intelligent decisions. IoT includes emerging technologies associated with smart grids, smart homes, intelligent transportation, and smart cities. Each "thing" is uniquely identifiable through its embedded computing system but is able to interoperate within the existing internet infrastructure. According to a recent report from BI Intelligence, nearly $6 trillion will be spent on IoT solutions over the next five years.[2]

**Cloud computing.** Internet based sharing of resources enables consumption of computer services and storage at a granular level, allowing users to pay for only the resources and workloads they use, rather than having to build and maintain in-house infrastructures. It allows companies to cost-effectively scale their usage up or down as demand for their services increases or decreases. Cloud computing is also referred to as "XaaS," which stands for "anything as a service" or "everything as a service." The global cloud computing services market is predicted to reach $127 billion by 2017.[3]

**Health monitoring and diagnostic wearables.** Embedded software is key to the accuracy, performance, and functionality of medical and fitness wearables. Wearable technology mainly incorporates devices and apparel (wrist wear, jewelry, arm wear, glasses, etc.). This is an already large global market with revenue of $24 billion in 2016. It is also a rapidly growing market, predicted to reach $70 billion by 2025,[4] driven by aging populations and their desire to independently manage exercise programs and to be more aware of caloric and other vital information related to their health.

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1 Schaefer, "The World's Largest Companies 2016," Forbes, 5/25/16, www.forbes.com/sites/steveschaefer/2016/05/25/the-worlds-largest-companies-2016/.

2 Greenough and Camhi, "The Internet of Things Report: Examining How the IoT Will Affect the World," Business Insider November 2015.

3 Global Industry Analysts, Inc,"Cloud Computing Services—A Global Strategic Business Report," April 2015.

4 Harrop, Hayward, Das, and Holland, "Wearable Technology 2015-2025: Technologies, Markets, Forecasts," 1/18/16.

**Mobile payment processing.** Financial software encompasses numerous types of transactions, usually provided by banks or other financial institutions. This technology allows customers to pay for goods or services at the point of sale (POS) with a mobile device or conduct other financial transactions remotely, either from a mobile device or over the internet. This also includes near-field communications (NFC), a short range wireless technology that allows an end user to pay for goods by simply swiping a device.

**Cyber security.** Software designed to protect information systems from theft or damage to hardware, software, or information and against disruption or misdirection of services being provided. It also includes protection from harm potentially caused through unauthorized network access, unauthorized data and code injection, intentional or accidental malpractice by system operators, or any deviation from authorized procedures.

**The final regulations state that whether software is or is not developed primarily for internal use depends on the taxpayer's facts and circumstances at the beginning of the software development.**

Rapid evolution in the industry forces companies to constantly innovate, or risk falling behind their competition and potentially even being made obsolete. During the innovation process, companies frequently encounter technical challenges related to developing new products and applications. Some of these challenges include determining the appropriate requirements and design, allowing for efficient integration with other applications, and code complexity that causes multiple points of failure and bugs in the software. Addressing and overcoming these issues is critical to running a successful software business.

However, these efforts are often time consuming and expensive. Fortunately, the federal government as well as certain state and local governments provide economic incentives to counter and help companies overcome such technical uncertainties and risks that they take on. Importantly, the ultimate success of a project is not required in order to qualify for and claim these incentives, since employee activities related to projects that ultimately fail are equally rewarded as projects that succeed.

Many employee activities associated with business initiatives undertaken in each of these growing areas and many others will qualify for the research and development (R&D) tax credit, also known as the research and experimentation (R&E) tax credit.

The purpose of this article is to help software industry executives and decision makers obtain a better understanding of the federal R&D tax credit and its applicability to their particular business. The information covered in this article is based on the authors' knowledge, experience, and expertise. The content is aimed at taxpayers who may be involved in qualified research activities and want to minimize their tax liability. This article discusses the definition, workings, recent history/developments, and calculation methodologies for the R&D tax credit. It then offers specific examples of qualifying and nonqualifying activities in the software industry and presents specific case studies of commercial software products and internal use software initiatives that will satisfy IRS guidelines for R&D tax credit claims.

## What is the R&D tax credit?

The federal R&D tax credit was first introduced by Congress in 1981. The purpose of the credit is to reward U.S. companies for increasing spending on research and development within the U.S. On 12/18/15, President Obama signed into law The Protecting Americans from Tax Hikes Act of 2015 (PATH Act). This legislation retroactively renewed and made the R&D tax credit permanent. The R&D tax credit is available to businesses that uncover new, improved, or technologically advanced products, processes, principles, methodologies, or materials. In addition to "revolutionary" activities, in some cases, the credit may be available if the company has performed "evolutionary" activities such as investing time, money, and resources toward improving its products and processes. Correctly calculating the R&D tax credit is critical—for maximizing the taxpayer benefit, which will ulti-

[5] Wages are defined to include amounts considered to be wages for federal income tax withholding purposes. Sections 41(b)(2)(D)(i) and 3401(a).

[6] Supplies are defined as any tangible property other than land or improvements to land, and property subject to depreciation. Section 41(b)(2)(C).

[7] Section 41(b)(3).

[8] Section 41(b)(3)(C).

[9] Reg. 1.41-2(e)(2).

[10] Reg. 1.41-2(e)(3); see also, *Lockheed Martin Corp.*, 210 F.3d 1366, 85 AFTR2d 2000-1495 (CA-F.C., 2000).

mately lower the taxpayer's effective tax rate and potentially generate cash flow, and for achieving sustainability in case of IRS examination.

## How does the R&D tax credit work?

The R&D tax credit is available to taxpayers who incur incremental expenses for qualified research activities (QRAs) conducted within the U.S.

The credit is comprised primarily of the following qualified research expenses (QREs):

1. Internal wages paid to employees for qualified services.[5]
2. Supplies used and consumed in the R&D process.[6]
3. Contract research expenses (when someone other than an employee of the taxpayer performs QRAs on behalf of the taxpayer, regardless of the success of the research).[7]
4. Basic research payments made to qualified educational institutions and various scientific research organizations.[8]

For an activity to qualify for the research credit, the taxpayer must show that it meets the following four tests:

1. The activity must rely on a hard science, such as engineering, computer science, biological science, or physical science.
2. The activities must relate to the development of new or improved functionality, performance, reliability, or quality features of a structure or component of a structure, including product or process designs that a firm develops.
3. Technological uncertainty must exist at the outset of the activities. Uncertainty exists if the information available at the outset of the project does not establish the capability or methodology for developing or improving the business component, or the appropriate design of the business component.
4. A process of experimentation (e.g., an iterative testing process) must be conducted to eliminate the technological uncertainty. This includes assessing a design through modeling, computational analysis or trial and error testing.

In addition to these four tests, if development is conducted related to internal use software (IUS), there are an additional three tests that must be satisfied (see below for additional discussion). The additional three tests are:

1. The software must be innovative. (It results in a reduction in cost or an improvement in speed that is substantial and economically significant.)
2. Developing the software involves significant economic risk. (The taxpayer commits substantial resources to software development and, due to technical risk, there is substantial uncertainty that it will recover the resources in a reasonable period.)
3. The software is not commercially available. (The taxpayer cannot purchase, lease, or license and use the software for the intended purpose without modifications that satisfy the first two requirements.)

Once it is established that the activities qualify, a thorough analysis must be performed to determine that the taxpayer has assumed the financial risk associated with,[9] and will have substantial rights to,[10] the products or processes that are developed through the work completed. The next step is to develop a methodology for identifying, quantifying, and documenting project costs that may be eligible for the R&D credit. Costs that qualify for the credit include wages of employees involved in developing new or improved products or processes, supplies used or consumed during the research process, and 65% of fees paid to outside contractors who provide qualifying R&D services on behalf of the taxpayer.

Determining the true cost of R&D is often difficult because few companies have a project accounting system that captures many of the costs for support provided by the various personnel who collaborate on R&D. The typical project tracking system would not include contractor fees, direct support costs, and salaries of high-level personnel who participate in the research effort.

Appropriate documentation may require changes to the company's recordkeeping processes because the burden of proof regarding all R&D expenses claimed is on the taxpayer. The company must maintain documentation to illustrate nexus between QREs and QRAs. According to the IRS Audit Techniques Guide for the R&D credit, the documentation must be contemporaneous, meaning that it was created in the ordinary course of conducting the QRAs. Furthermore, a careful analysis should take place to evaluate whether expenses associated with eligible activities performed in the company outside of the R&D department may have been missed and can be included in the R&D tax credit calculation. This is accomplished by interviewing personnel directly involved in R&D or those who support or supervise R&D efforts.

## Recent developments

On 12/18/15, President Obama signed the PATH Act into law. This legislation retroactively renewed and made permanent a collection of expired tax provisions for both businesses and individuals, commonly referred to as "tax extenders." The R&D tax credit was the single largest item in the package with an estimated price tag of $113 billion over ten years. In addition to making the R&D tax credit permanent, the PATH Act also made two important changes effective for tax years beginning after 12/31/15, which serve to greatly expand the credit by making it available to taxpayers who had been previously unable to use it.

First, the legislation allows small businesses to take the R&D tax credit against their alternative minimum tax (AMT). The AMT restriction has long prevented qualified companies from taking advantage of the R&D tax credit, so this new legislation will remove that hurdle for any qualified business with less than $50 million in gross receipts. Second, the PATH Act allows startup businesses with no federal tax liability and gross receipts of less than $5 million to take the R&D tax credit against their payroll taxes (essentially making it a refundable credit capped at $250,000 for up to five years). Taxpayers would need to file their 2016 federal income tax returns by 3/30/17, to apply the credit against the payroll tax for the second quarter.

**Government officials, knowing that innovation is critical to any company's success and to overall U.S. economic growth, have legislated alternative calculation options over the years to encourage U.S. companies to invest in research and development and to make the credit more valuable and obtainable.**

On 10/3/16, the Treasury and IRS released final regulations regarding IUS expenditures as related to the R&D tax credit. These final regulations contain several important changes related to the definition of IUS, the definition of "high threshold of innovation," and offer additional guidance for claiming the R&D tax credit for IUS expenditures. Overall, these regulations provide welcomed clarity to a long controversial area, which should encourage taxpayers to explore the opportunity of claiming R&D tax credits.

The regulations clarify the definition of IUS, which is now defined as software developed by the taxpayer for general and administrative functions that facilitate or support the conduct of the taxpayer's trade or business. These general and administrative functions are limited to human resource management, financial management, and support services functions. This is to be distinguished from commercial software, which is developed to be commercially sold, leased, licensed, or otherwise marketed to third parties, and software that is developed to enable a taxpayer to interact with third parties or to allow third parties to initiate functions or review data on the taxpayer's system. This updated definition of IUS removes a significant amount of ambiguity that existed for taxpayers, particularly software as a service and online retailer companies. This distinction is important because software developed by the taxpayer that is considered to be IUS must meet the additional three-part high threshold of innovation test in addition to the four-part test to qualify for the R&D tax credit.

The final regulations clarify that internally developed software is considered innovative if the development would result in a substantial and economically significant reduction in cost, improvement in speed, or other measurable improvement. The regulations also reiterate that significant economic risk exists only if the taxpayer commits substantial resources to the development and the likelihood that such resources will be recovered within a reasonable period is substantially uncertain. In defining substantial uncertainty, the final regulations note that the uncertainty must relate to the capability or methodology, but not the appropriate design of the business component to create a higher threshold for eligibility than Congress originally intended for IUS.

The final regulations state that whether software is or is not developed primarily for internal use depends on the taxpayer's facts and circumstances at the beginning of the software development. If a taxpayer originally develops software primarily intended for internal use but later makes improvements to the software with the intent to hold the improved software for commercial sale, lease, or license, or to allow third parties to initiate functions or review data on the taxpayer's system, the improvements will be considered separate from the existing software and will not be considered developed primarily for internal use. Additionally, the regulations provide a safe harbor

for expenditures related to the development of such dual-purpose software.

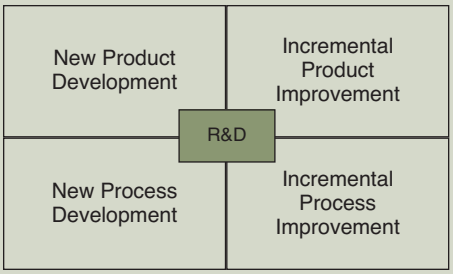
Finally, the new regulations provide examples that illustrate their applicability to computer software. Specifically, the examples address the process of experimentation and high threshold of innovation tests, as well as the application of the new dual function computer software rules.

## Other developments

In September 2013, the Treasury Department and the IRS proposed taxpayer-friendly regulations to amend the Section 174 definition of "research and experimentation" (also known as R&D) expenditures. Under the guidance provided in Section 174, taxpayers are allowed to either currently deduct R&D expenditures as they are paid or incurred, or to treat them as deferred expenses, amortizable over a period not less than 60 months. The existing regulations provide that a determination of whether costs qualify as R&D expenditures depends on whether the costs are required R&D expenses critical to activities intended to discover information that would eliminate uncertainty. If expenditures do qualify as R&D expenditures during the course of the development effort, it will no longer matter if the resulting product is ultimately sold or is used in the taxpayer's trade or business.

Earlier in 2013, President Obama signed into law The American Taxpayer Relief Act of 2012 (The Act). This legislation included two significant modifications to the R&D tax credit. First, The Act modified treatment of acquisitions and dispositions. Under The Act, a taxpayer acquiring a trade or business prorates the target's QREs, gross receipts, and related base-period impact based on the number of days from the time of acquisition through the end of the controlled group's tax year. The Act provides for similar treatment in the event of the disposition of a trade or business. Second, The Act modified the method by which the R&D credit is allocated to the members of a controlled group of corporations (any two or more corporations connected through a common stock ownership percentage of at least 80%). Prior to The Act, there were two different allocation methods based on the ratio of the stand-alone credit to the group credit, and the ratio of stand-alone QREs to group QREs. The proper method to

**EXHIBIT 1 Qualifying R&D activities**




New to the company, does not need to be new to the industry

use depended on the amount of the group credit as compared to the sum of the stand-alone credits. Under The Act, regardless of the amount of the group credit as compared to the sum of the stand-alone credits, the R&D credit allocable to the members of a controlled group is the proportionate basis to its share of the aggregate of the QREs.

In another taxpayer beneficial development prior to The Act, the IRS announced in August 2012 that it would no longer use the "tiered issue process" to determine exam priorities and to address corporate tax issues, freeing the R&D tax credit from its historical designation as a Tier I audit issue. Tier I designation has long discouraged companies from using the R&D credit for fear of increased audit scrutiny. Now the level of compliance risk should be less of a concern for qualified companies wanting to pursue R&D tax credits. Additionally, a taxpayer can submit a pre-filing agreement application to the IRS to request consideration of an R&D tax credit issue before the tax return is filed, and thus, resolve potential disputes and controversy earlier in the examination process. The effect of the program is to reduce the cost and burden associated with the post-filing examination, to provide a desired level of certainty regarding a transaction, and to make better use of taxpayer and IRS resources. Detailed information about the pre-filing agreement application process can be found in Rev. Proc. 2001-22.[11]

Government officials, knowing that innovation is critical to any company's success and to overall U.S. economic growth, have legislated alternative calculation options over the years to encourage U.S. companies to invest in research and development and to make the credit more valuable and obtainable. The alternative simplified credit (ASC) is the most recent example, removing complications inherent in prior calculation methods and easing the documentation burden of the R&D tax credit significantly. Legislators have also expanded the definition of what qualifies as R&D to include "process improvements" making the credit available to many previously excluded industries such as energy exploration, software development, and financial services.

## Software industry examples of qualifying and nonqualifying R&D activities

Qualifying R&D activities as they apply to the software industry generally fall within four general buckets (see Exhibit 1): (1) new product development; (2) incremental product improvement; (3) new process development; and (4) incremental process improvement.

Examples of qualifying activities include:

1. Design or development of any new software or technology products for commercial sale, lease, or license.
2. Development of software that provides a computer service for customers using taxpayer computer or software technology.
3. Software developed as part of a hardware/software product (embedded software).
4. Modification or improvement of existing software or technology platform that significantly enhances performance, functionality, reliability, or quality.
5. New architecture design.
6. Design of database management systems.
7. IUS development.
8. Programming software source code.
9. Research of specifications and requirements, domain, software elements, including definition of scope and feasibility analysis for development or functional enhancements.
10. Beta testing—logic, data integrity, performance, regression, integration, or compatibility testing.
11. Optimization of software source code for better performance, new functionality, or integration with new platforms or operating systems.
12. Research for development of applications for technology patents.

[11] 2001-1 CB 745.

Examples of activities that will not qualify for purposes of the R&D credit include:

1. Routine testing or inspection activities for quality control.
2. Developments related entirely to aesthetic properties of a software package.
3. Routine bug fixes.
4. Market research for advertising or promotions.
5. Routine data collections.
6. Research conducted outside of the U.S., Puerto Rico, or any possession of the U.S.
7. Research that is funded by a third party other than the taxpayer.
8. Any other activities that do not meet all of the four tests as previously outlined.

## Case studies: Software industry client examples

The following are case studies that further illustrate the types of projects and activities that will potentially qualify for the R&D tax credit in the software industry. The eligibility of specific activities and expenditures will depend on a closer examination of the facts and circumstances in relation to applicable guidance.

**Case study one: Commercial software—New product development.** Company developed a new software platform for commercial sale to the financial services industry. The platform was meant to support the issuance of fixed income securities, particularly municipal securities. The company researched existing offerings in the marketplace and spoke with potential end users to define their wants, needs, and to identify deficiencies within current processes. They further researched user interfaces, database designs, required features, functions, and optimal technologies for the design and implementation of the platform in advance of actually coding the software.

Significant technical uncertainty was encountered in every stage of development, as the company had no prior experience with this type of industry specific software. Midway through the project the development team discovered that the technologies being used to code the software were preventing them from creating advanced functionality and were becoming outdated. As a result, the team began researching and experimenting with newer technologies, leading them to rewrite the entire code in an emerging "language" that was identified as being superior for its speed, efficiency, and maintenance advantages. An entirely new design of system architecture was also required as a result of using this new software language. All of the activities in this project were technical, involving software design and development, computer science, and mathematics. Extensive design iterations and testing were required throughout the initiative. After extensive analysis of all expenditures and activities involved in this project, it was determined to qualify for purposes of the R&D tax credit.

**Case study two: Commercial software—Incremental product improvement.** Company sells an existing software package that serves as an operating platform for healthcare providers. It significantly improved on this offering by designing and developing an enhancement to expedite pharmacy authorizations. The enhancement essentially allows managed care organizations to authorize certain medications that exceed a specified cost threshold directly within the operating platform, rather than having to rely on and use staff to manually perform this function.

Development of this pharmacy authorization enhancement had uncertainties throughout, including software design and code optimization, logic engine design, regulatory compliance issue resolution, and optimal user interface design. Extensive non-routine quality assurance and beta testing was required in order to prove the enhancement 100% error free. If the enhancement failed to operate properly after release, the company could potentially be held liable. Employee activities were entirely technical, relying primarily on computer science and medicine. After extensive analysis of all expenditures and activities involved in this project, it was determined to qualify for purposes of the R&D tax credit.

**Case study three: Commercial software–Incremental product improvement.** Company significantly upgraded its client facing e-commerce system and improved it by allowing users dynamic content creation and digital asset management functionality. The software developed on this project is used by the company's clients to access the company's systems, allowing them to create or upload original content and order highly customized products, such as training or other materials for immediate distribution to employees or customers.

This project had many uncertainties from the outset as the company had no prior experience designing and delivering a cutting edge web portal with advanced features and

capabilities. The company had to experiment extensively with various technologies and programming languages to determine the best and most secure architecture and design. This project involved software development, computer science, and mathematics. After extensive analysis of all expenditures and activities involved in this project, it was determined to qualify for purposes of the R&D tax credit.

**Case study four: IUS—New process development.** Company undertook a software project to develop a new ad hoc reporting solution. Prior to development of this application, data and analysis components were contained in a web of files that were difficult to manage and maintain. Within the new application, data and analysis components are separated, with data stored in a structured manner that the analysis component can pull from automatically.

The most challenging part of the development process was researching the existing web of files and formulas to determine the general optimized theory that could be coded by the programmers. The development process went through multiple iterations until the solution provided accurate results in all instances. Substantially all of the activities involved in this project were technological in nature and relied on principles of computer science. The software developed was innovative, was not available commercially, and required significant economic commitment from the company. After extensive analysis of the expenditures and activities involved in this project, the development was determined to qualify for purposes of the R&D tax credit.

**The R&D tax credit is an important incentive for U.S. companies that develop or improve products or processes.**

**Case study five: IUS—New product development.** Company sought to create a wholly new set of software tools to fully replace an existing set of applications that were purchased at a significant cost; these tools were meant to manage the company's production process through each stage of the manufacturing process including labeling, packaging, and fulfillment. The existing software was a major disappointment as it never performed well, often broke down, and sometimes completely stopped functioning, causing a lot of wasted time and confusion to the company's employees. The company's IT team was unsure if it had the capability to design a component architecture that would connect project engineers to production line employees and enable them to share data in a useful way.

There was a continuous process of trial and error experimentation and testing to determine the appropriate methodologies and technologies to employ as well as to optimize the code. As part of the effort, the team also researched and experimented with integrating certain existing tools into its wholly custom-built solution, in order to overcome issues it was facing related to calendaring, scheduling, and status tracking. The activities in the development were all technical, primarily application programming, and database design. The software ultimately developed by the company was innovative, was not available commercially, and required significant time and investment to complete. After extensive analysis of the expenditures and activities involved in this project, the development was determined to qualify for purposes of the R&D tax credit.

**Case study six: IUS—Incremental process improvement.** Company undertook a project to increase the performance and scale of an internal trading application. The goal of the project was to support greater volumes of trades at faster speeds than previously possible. In addition, the developers sought to increase the application's functionality by adding new asset classes. At the beginning of the project, the team was uncertain of the methodology to make these improvements possible.

The development team was ultimately able to increase volume and processing speeds through design and implementation of a new tiered processing architecture. In addition, the developers adapted open source technologies to further scale the application. Substantially all of the activities involved in this project were technological in nature and relied on principles of computer science. The software developed was innovative, was not available commercially, and required significant economic commitment from the company. After extensive analysis of the expenditures and activities involved in this project, the development was determined to qualify for purposes of the R&D tax credit.

## Calculating the R&D tax credit

There are two standard methods of calculating the R&D tax credit, which is reported on Form

**EXHIBIT 2 Alternative simplified credit**

Credit Amount = (QREs in Tax Credit Year – Average of Previous 3 Years QREs X 50%) X 14%

**EXHIBIT 3 Regular (traditional) credit method**

Credit Amount = 20% x (QREs in Tax Credit Year – Base Period Amount)
Base Period Amount = Fixed Base Percentage X Average of the Prior Four Years Gross Receipts

6765, Credit for Increasing Research Activities, and included with the tax return. The two methods are: (1) a traditional "regular credit" method, and (2) the ASC method.[12] Under the traditional method, the credit is 20% of the current-year QREs in excess of a base amount. One of the factors used in the calculation of the base amount is historical QREs. Using the traditional method, some taxpayers are required to determine their QREs for years as far back as 1984.[13]

The ASC credit equals 14% of the current-year QREs in excess of half of the average QREs for the three tax years preceding the tax credit year. Companies that have not claimed the research credit in the past or that may have difficulty determining their historical QREs will find the ASC to be more practical.

Effective for tax years beginning after 12/31/88, the tax deduction available under Section 174 for R&D expenditures may be claimed in addition to the tax credit. Section 280C allows the taxpayer to elect a reduced credit amount, thereby eliminating the requirement to subtract QREs claimed for the R&D tax credit from their Section 174 deductions. This election can be made only on a timely return. However, this election effectively reduces the allowable R&D tax credit amount by 35% percent.

## Conclusion

The R&D tax credit is an important incentive for U.S. companies that develop or improve products or processes. Now that it has been made a permanent part of the Code, much of the uncertainty related to claiming federal R&D tax credits has been removed. There can be no doubt that these powerful credits provide permanent benefits to qualified companies by driving down effective tax rates, generating cash flow, and reducing the cost of research and development. While properly claiming the credit still requires time, resources, and expertise, it clearly provides significant monetary and operational benefits to qualified businesses. Even companies currently operating at a loss may benefit because federal R&D credits generated but not used can be carried back one year and forward up to 20 years creating an opportunity when the company becomes profitable. Additionally, for tax years beginning in 2016, startup companies with less than $5 million in revenue can use the R&D credits against their payroll tax if they have no income tax liability and taxpayers in AMT situations can use R&D credits against their AMT. Furthermore, if the company is acquired, the credits can be considered a valuable future asset in negotiating a selling price for the business.

Properly calculating and substantiating the R&D tax credit is critical for maximizing financial benefits and sustainability. Detailed employee and project time tracking data will help facilitate nexus considerations. Documentation in the software industry is usually abundant, as projects are generally closely tracked and monitored from start to finish. Records are normally kept contemporaneously within the system. These are key ingredients for a successful R&D tax credit claim.

Qualified companies doing a cost-benefit analysis on claiming R&D tax credits should consider the fact that most states also offer their own R&D tax credits which require similar documentation to the federal credit, thereby potentially increasing the benefits side of the equation. ■

[12] Section 41(c)(5).
[13] Section 41(c)(3).