INTERNAL USE SOFTWARE

Qualified research activities are generally identified by satisfying all four requirements of the "four-part test":

Permitted purpose: The activity relates to a new or improved function, performance, reliability, or quality of a product, process, computer software, technique, formula, or invention, which is to be held for sale, lease, or license or used in the taxpayer's trade or business (Secs. 41(d)(1)(B)(ii) and (d)(2)(B)).

Technological in nature: The activity performed must fundamentally rely on principles of physical science, biological science, computer science, or engineering (Sec. 41(d)(1)(B)(i)).

Technical uncertainty: The activity must be intended to discover information to eliminate uncertainty concerning the capability or method for developing or improving a product or process or the appropriateness of the product design (Sec. 41(d)(1)(A)).

Process of experimentation: Substantially all of the activities must constitute elements of a process of experimentation involving (1) the identification of uncertainty concerning the development or improvement of a business component, (2) the identification of one or more alternatives intended to eliminate that uncertainty, and (3) the identification and the conduct of a process of evaluating the alternatives (through, for example, modeling, simulation, or a systematic trial-and-error methodology) (Sec. 41(d)(1)(C); Regs. Sec. 1.41-4(a)(5)(i)).

To be considered a qualified research activity eligible for the research credit, the development of software created by (or for the benefit of) the taxpayer primarily for the taxpayer's internal use must satisfy the three-prong, high-threshold-of-innovation test in addition to the standard four-part test. Whether software will be considered to be developed primarily for internal use depends on the intent of the taxpayer and the facts and circumstances at the beginning of software development.

The following types of internal-use software are not required to satisfy the high-threshold-of-innovation test: (1) software for use in an activity that constitutes qualified research; (2) software for use in a production process; or (3) software that is an integral part of a new or improved hardware and software package developed together by the taxpayer as a single product (or the costs to modify an acquired software and hardware package), of which the software is an integral part, used by the taxpayer in providing services in its trade or business (Regs. Sec. 1.41-4(c)(6)(ii)).

Software is developed by (or for the benefit of) the taxpayer primarily for internal use if the taxpayer develops the software for use in general and administrative functions that facilitate or support the conduct of the taxpayer's trade or business. The final regulations limit general and

administrative functions to (1) financial management functions, (2) human resource management functions, and (3) support service functions that support day-to-day operations such as data processing or facilities services (Regs. Sec. 1.41-4(c)(6)(iii)).

Non-internal-use software

Regs. Sec. 1.41-4(c)(6)(iv) clarifies and expands the exceptions to the definition of internal-use software by providing that software is not developed primarily for internal use by the taxpayer if it is not developed for use in general and administrative functions that facilitate or support the conduct of a taxpayer's trade or business. The final regulations provide two specific examples of software that is not internal-use software under this rule:

- Software developed to be sold, leased, licensed, or otherwise marketed to third parties; and
- Software 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.

The development of such software may be eligible for the Sec. 41 research credit if the development activities satisfy the four-part test under Sec. 41(d).

High-threshold-of-innovation test

Software that does not meet the definition of software not for internal use under Regs. Sec. 1.41-4(c)(6)(iv) or does not fall under one of the exemptions listed in Regs. Sec. 1.41-4(c)(6)(ii) must meet the high-threshold-of-innovation test (Regs. Sec. 1.41-4(c)(6)(i)(C)). The high-threshold-of-innovation test is defined in Regs. Sec. 1.41-4(c)(6)(vii) and has three parts:

1. The software is intended to be *innovative* as measured by a reduction in cost, improvement in speed, or other measurable improvement that is substantial and economically significant if the development is or would have been successful;

2. The software development has *significant economic risk* in that the taxpayer commits substantial resources to the development and there is substantial uncertainty because of technical risk as to whether the resources can be recovered within a reasonable time; and

3. The software is *not commercially available*, i.e., cannot be purchased, leased, or licensed and used for the intended purpose without modifications that would satisfy the innovation and significant economic risk requirements.

It is important to note that this regulation also provides that substantial uncertainty for purposes of the significant economic risk test requires a higher level of uncertainty and technical risk than required for business components that are not internal-use software.

Dual-function software

Similar to the proposed regulations, the final regulations retain the concept of dual-function software, i.e., software that was developed both for internal use and for interaction with third parties. The preamble to the regulations acknowledges that software developed for functions such as marketing or inventory management may also contain functions that enable a taxpayer to interact with third parties or to allow third parties to initiate functions or review data on the taxpayer's system.

The regulations provide a presumption that dual-function software is internal-use software; however, that presumption may be overcome if a subset of elements can be identified that only enables the taxpayer to interact with third parties or allows third parties to initiate functions or review data on the taxpayer's system ("third party subset"). This subset may be treated as non-internal-use software (Regs. Secs. 1.41-4(c)(6)(vi)(A) and (B)).

To the extent dual-function software or a subset of elements of dual-function software ("dual-function subset") remains, a safe harbor allows the taxpayer to include 25% of the qualified research expenditures of the remaining dual-function software or dual-function subset in computing the research credit, as long as the third-party functions are anticipated to account for at least 10% of the software's use (Regs. Sec. 1.41-4(c)(6)(vi)(C)).

Enterprise Resource Planning systems

Enterprise resource planning (ERP) systems have long been an area of IRS controversy with respect to the research credit. Regs. Sec. 1.41-4(a)(8) was amended to include additional examples, including Examples 9 and 10 relating to ERP systems. Under these examples, implementation of an ERP system that generally involves evaluating the taxpayer's business needs and technical requirements to configure the system, reengineering business processes, and transferring data through routine programming and one-to-one mapping of data to be exchanged between systems is not considered qualified research under Sec. 41(d).

One of the shortcomings of the final regulations is that they do not provide additional examples with different fact patterns to clearly illustrate how portions of ERP system software development could qualify. The new exception for software 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 may enable some ERP modules to be treated as non-internal-use software and, thus, qualify if the development meets the four-part test. Moreover, the new dual-use software rules apply to many of the areas of ERP system development that involve both back-office and customer-facing elements.