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TO COUNTY ASSESSORS AND INTERESTED PARTIES:

***EVALUATING EMBEDDED SOFTWARE STUDIES FOR
 STATE-ASSESSED PROPERTY***

The Board's State-Assessed Properties Division (SAPD) is responsible for administering the assessment program of California state assessees. The California Constitution requires the Board to annually assess property, except franchises, owned or used by regulated railway, telegraph or telephone companies, car companies operating on railways in California, and companies transmitting or selling gas or electricity. It also requires the Board to annually assess pipelines, flumes, canals, ditches, and aqueducts lying within two or more counties.

Application software is widespread in telecommunications equipment, gas and electric industry equipment, and set-top boxes used by state-assessed cable companies. While the range of equipment containing application software for state assessees is greatly limited compared to that of the multitude of equipment types assessed by county assessors, the segregation and assessment of any application software is an appraisal challenge as the Legislature enacted Revenue and Taxation Code¹ section 995 in 1972 to essentially exempt all computer software except basic operational programs from property taxation. A basic operational program is defined in section 995.2 as a computer program that is "fundamental and necessary to the functioning of a computer."

SAPD provides the following information to state assessees regarding exempt software:²

"Pursuant to Revenue and Taxation Code section 995, storage media for computer programs, such as hard drives, shall be valued for property tax purposes as if there were no computer programs on such media other than basic operational programs. In other words, computer programs other than basic operational programs are not subject to property tax. Revenue and Taxation Code section 995.2 defines the term 'basic operational program.' All software programs not considered 'basic operational programs' may be referred to as 'exempt software programs' or 'nontaxable programs.' It is the assessee's responsibility to identify and remove all exempt software program costs from taxable accounts and report these costs separately to the

¹ All statutory references are to the Revenue and Taxation Code unless specified otherwise.

² *Instructions for Reporting State-Assessed Property, Telephone Companies—Local Exchange Carriers* (for lien date 2014), p. 13.

State-Assessed Properties Division on the Schedule B and Summary Control portions of the Property Statement.

"All reported costs of exempt software programs are subject to audit. In support of an assessee's claimed software exemption, Property Tax Rule 152 (f) states, 'A person claiming that a single-price sale or lease includes charges for nontaxable programs and services should be required to identify the nontaxable property and services and supply sale prices, costs or other information that will enable the assessor to make an informed judgment concerning the proper value to be ascribed to taxable and nontaxable components of the contract.' Other information can include, but is not limited to, a detailed study from the manufacturer of the equipment. Property Tax Rule 152 (e) also states, in part, 'the assessor, lacking evidence to the contrary, may regard the total amount charged as indicative of the value of taxable tangible property.'"

Accordingly, basic operational programs are not exempt, while an application program is exempt. In the application of these provisions, SAPD has developed, with input from state assessees, the following working definitions for *operating software* and *application software*:

Operating software is typically a low level program that interacts with the equipment on a basic level and is not removable without terminating the operation of the equipment. This software typically provides basic common services for the application software.

Application software is typically any customized information, program, or routine used or intended for use to convey information or to cause one or more pieces of equipment to perform a specific task or sets of tasks.³

To aid with the identification of application software that is considered *customized*, SAPD analyzes whether the software has been customized to a state assessee's systems and specifications. In that context, *customized software* is viewed as:

- Software that is designed to a state assessee's specifications that decreases the time it takes to provide new services;
- Software that is unique and optimized to solve problems specific to individual clients; or
- Software otherwise designed specifically for or by the state assessee and used by the state assessee.

However, application software does not include software that resides permanently in the internal memory or software that is not removable without terminating the operation of the computer or equipment—both of these types are considered *operating software*.

³ Application software is not limited to customized software, but would also include all over-the-counter software, e.g., Microsoft Word, Excel, etc.

Over the past two years, a number of studies have been provided by state assessees in an effort to substantiate the amount of exempt software claimed on Property Statements. Generally, the studies use one of four methodologies:

1. ***Residual cost method*** – This method compares the cost of equipment that contains software with the cost of equipment without software. This method is the most commonly submitted in studies, and the data is generally verifiable by SAPD staff.
2. ***Cost build-up method*** – This method is based on a manufacturer's cost estimates or their own costs. Generally, it is a replacement cost estimate whereby all parts are summed and entrepreneurial profit is then added. This method is generally time-consuming to audit and to validate the costs.
3. ***Vendor representation method*** – This method encompasses discussions with vendors regarding their estimate of percentages of application software contained in specific equipment. A vendor's understanding of the *definition of application software* and its overall tax law knowledge is critical in this method.
4. ***Market based interpolation method*** – This method is where the software amount is based on indications of relative revenue split, profitability or return of the software component relative to the hardware component as implied by financial data from publicly traded guideline companies. This method of attempting to interpolate software costs and profit margins is difficult for state assessees to document. To date, SAPD has received few of these studies, and none have been accepted as reliable in determining the segregated value of application software.

Upon receipt of a study, SAPD staff will:

1. Determine if a valid methodology has been used in the study to determine the value of exempt software. If the residual cost method, the cost build-up method, or the vendor representation method is used, generally, SAPD staff will accept the study and proceed with further verification.
2. Verify the formulas, calculations and assumptions used in the study. SAPD staff will determine the trending and depreciation factors and ensure that they match valuing and trending data. If problems such as questionable assumptions are identified in the study, SAPD staff will have discussions with the state assessee and provide direction on how to "cure" any deficiencies.
3. Test and verify data provided in the study. SAPD staff will talk with manufacturers, vendors, engineers, and cost accountants to validate the data provided in the study. A sampling of invoices may be conducted to test the data.
4. Check the application of percentages to the appropriate equipment that is the subject of the study. SAPD staff will test samples of the data provided to determine the reasonableness of the data provided. It is critical that the percentages be applied to the appropriate equipment that is the subject of the study and not to all costs within an

account. For example, equipment installation labor costs should not be included in the cost of the equipment when the percentage is being applied.

Studies can provide helpful information in the process of determining the value of exempt software. SAPD has used information from the state assessee provided studies to value exempt software. However, the analysis of studies provided by state assessees to quantify application software is extremely labor intensive and time-consuming—both for the state assessees and SAPD staff. Unfortunately, equipment containing application software frequently undergoes rapid changes in technology and, therefore, limits the span of time that any specific study will be useful. It should also be noted that acceptable studies are, by nature, fact driven and specific to the particular state assessee's subject equipment and currently provides little applicable data for other state assessees or other types of equipment.

If you have questions regarding the valuation of application software for equipment owned by state assesses, you may contact the State-Assessed Properties Division at 1-916-274-3270.

Sincerely,

/s/ David J. Gau

David J. Gau
Deputy Director
Property and Special Taxes Department

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