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## Scantron's Response to:

California Board of Forestry & Fire Protection

February 14, 2020

#### **Dan Stapleton**

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#### **\Project Scope:**

The California Board of Forestry & Fire Protection has requested a proposal for a new test scoring software to use to create and score exams for their Certification & Licensure testing. They would like the option to administer tests via paper and online.

The new scan application will be replacing a current Hand-Scoring process.

#### **Current Process:**

- Administer tests via paper at proctored test site.
- Issue one (1) exam per test group.
- Test is 2 parts, 3.5 hours per
- Certification & Licensure testing
- 50 test-takers per session/ 2 sessions per year
- Tests are mostly short answer or Essay style questions
- Few multiple choice questions
- Two people read and score each question of the test

#### **Recommendation:**

Scantron is recommending EvaExam to capture the assessment data for Paper Based and Online testing in the future.

EvaExam will:

- Create an output file to allow for easy import into other systems.
- Print both Question Sheet and Answer Sheet
- Create multiple test versions
- Capture an image of the entire answer sheet
- Allow for on-screen test answer verification
- Provide a question library to store test questions
- Create multiple levels of reports
- Provide test question validity by providing item statistics from past exams

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	(Client Install) Softwa	re, Tra	ining, Install	ation, & Maintena	ance	
Item	Description		Measure	Price	Total	
EVX-SPO	EvaExam 1,000 Exams per Year. Includes 1 <sup>st</sup> Year Software Assurance, Paper & Online Testing, and One (1) Scan station. Five (5) Examiner accounts included.	1	Each	\$ 4,990.00	\$	4,990.00
EVX-SP-SA	Annual Software Assurance Four (4) Year Extension (*13% Pre-Payment Discount Applied) [ <b>Optional</b> ]	4	Each	\$ 995.00	\$	*3,462.60
EVX-WEB- INSTALL	Installation Service (MySQL or MS- SQL) [REQUIRED] includes up to Two (2) Scan stations	1	Each	\$ 1,125.00	\$	1,125.00
	Training Option	S. 19		1 A A		$\sim$
EVX-TRN	EvaExam - OnSite Training Live with an Instructor [1.5 Days] Recommended and included in total	1	Each	\$ 3,450.00	\$	3,450.00
	INITIAL COST (without options)		. <del>.</del> .	TOTAL	\$	9,565.00

#### PRICING: State and Local Government

(SAAS Model) Software, Training, Installation, & Maintenance								
Item	Description		Measure	Price	Total			
EVX-C1L	EvaExam Cloud Premium Annual Subscription, 2,500/Year. Includes Software Assurance, 1 Scan station	. 1	Each	\$ 3,495.00	\$	3,495.00		
EVX-HWEB- INSTALL	Installation Service (MySQL) [REQUIRED] includes up to Two (2) Scan stations (one time cost)	1	Each	\$ 675.00	\$	675.00		
	Training Option				1.5			
EVX-TRN	EvaExam - Onsite Training Live with an Instructor [1.5 Days] Recommended and included in total	1	Each	\$ 3,450.00	\$	3,450.00		
	INITIAL COST (without options)		5 V	TOTAL	\$	7,620.00		

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Additional Quote Terms:

- Pricing is valid for 30 days from date on this quote, unless extended in writing by Scantron.
- Pricing does not include sales tax or shipping, if applicable.
- Payment terms are net 30 with a valid purchase order (on approved credit), or pre-paid with a credit card.
- All products will be shipped F.O.B. Origin.
- If Customer requests changes to the scope of the project, Scantron reserves the right to make related changes to price, hardware, software or services, and to adjust deliverable dates.
- Fees for services not scheduled within 9 months of invoice date will be forfeited, unless extended in writing by Scantron.
- In addition to the terms set forth herein, all sales in this quote shall be governed by Scantron Corporation's Terms and Conditions of Sale located at http://www.scantron.com/legal/terms ("Terms and Conditions").
- Scantron provides a limited warranty for Scantron products and services as further detailed in the Terms and Conditions. Independent third party products are supplied by Scantron "AS-IS". The third party may have a separate warranty and support terms that apply (e.g., ABBYY's Flexicapture software is subject to an end user license agreement, a copy of which is located at http://www.scantron.com/legal/terms, and Turning Technologies provides a one year warranty and support for its student response systems, details of which are included in its product packaging).
- THE LIMITATIONS OF LIABILITY CONTAINED IN THE TERMS AND CONDITIONS APPLY TO THIS QUOTE AND STATE IN PART THAT SCANTRON SHALL NOT BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, AND THAT SCANTRON'S ENTIRE LIABILITY FOR ANY CLAIM ARISING FROM OR RELATED TO THIS QUOTE WILL NOT EXCEED THE LESSER OF (i) THE FEES PAID TO SCANTRON FOR THE APPLICABLE ITEM WHICH IS THE BASIS FOR THE CLAIM, OR (ii) THE FEES PAID TO SCANTRON FOR THE APPLICABLE ITEM WHICH IS THE BASIS FOR THE CLAIM DURING THE TWELVE (12) MONTH PERIOD IMMEDIATELY PRECEDING THE OCCURRENCE OF THE EVENT GIVING RISE TO THE CAUSE OF ACTION.
- The terms of any Customer issued purchase order or any other communication which are additional to or inconsistent with this quote are not binding unless expressly agreed to in writing by Scantron.
- Customer's agreement with the terms of this quote shall be indicated by either a signature hereon, or by issuance of a purchase order confirming Customer's intent to purchase the products and/or services included on this quote.

Once accepted by Scantron, all sales in this quote are final.

Accepted by:

Customer's Authorized Signature

Date

**Company Name** 

Title of Person Who Signed

Print Name of Person Who Signed

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#### Import and Export of the Question Library

Where necessary, the entire content of the question library can be exported as a CSV file. Furthermore, question groups and questions can be imported with the help of the CSV format. Both functions and a "Print View" are available below the editing view in the menu "Question Library".

Print view			Show
the second s			
Export			Export
Import	No file selected	Browse	Import

With the help of the CSV import you have to possibility to import a question library already existing outside the EvaExam system. The import file can be prepared in Excel and then be converted to CSV format.

When importing a question library as a CSV file, you must maintain the following structure:

Column A	Question group title
Column B	Question types *
Column C	Amount of options
Column D	Question text
Column E	Answer options/Lines
Column F	Blank
Column G	Blank
Column H	Points for exam questions
Column I	Exam question true / false(1/0)
Column J	Level of difficulty
Column K	Max. numbers of characters (online)
Column L	Additional options
Column M	Short name
Column N	Explanation
Column O	References
Column P et. sq.	Item analysis

Table 6: CSV Import Question Library - Composition

**Column B – Question Types**: The **question types** are assigned numbers, the following schema is valid:

2 – Open Question

8 – Multiple Choice Question (also used for Kprim Questions with correspondent additive)

10 – Single Choice Extended Question (also used for True/False and Matching Questions with correspondent additive)

Column C – Number of options: In single choice, multiple choice, true/false and Kprim questions, the number of response options is recorded here. For open questions and matching

questions this field remains empty.

**Column E – Answer options/Lines:** In open questions you can enter the number of lines available to the exam participant for his response here. In single choice, multiple choice, true/false and Kprim questions, the response options are recorded here. Please note that the different response options must be separated by a vertical line (Pipe) "|". In matching questions the pairs are recorded. They are assigned by the symbol <=>.

**Column F – Blank column:** For exam questions this field remains empty. Nevertheless the column has to be contained in the CSV file.

**Column G – Blank column:** For all exam questions except matching questions this field remains empty. For matching questions the order of the horizontal and vertical answer options is defined here (numeric value from 0 to X, separated by Pipe symbol "|").

**Column H – Points for exam questions:** For all questions except Kprim questions. the points for the response option are defined here. Please note that the order of the points must correspond to order of the response options. The different points must also be separated by a vertical line (Pipe) "|". For Kprim questions you define here, which statement is true (1) and which is false (0). The four values are separated by the Pipe symbol "|".

**Column I – Exam questions:** A "1" entry stands for an exam question, i.e. a question for the examination tool EvaExam exists. A "0" entry denotes no exam question, i.e. a study course question exists.

**Column J – Degree of Difficulty:** The assigned degree of difficulty of a question is entered here. Values between "1" and "5" are possible. The value "0" means that no degree of difficulty has been assigned.

**Column K – Maximum Number of Characters for Open Questions (Online):** To answer open questions in online exams, a maximum permitted number of characters can be specified here. This means a participant cannot type in more characters than predefined. When the value is "0", the participant can type in as many characters as desired. This column remains empty for all other questions. For matching questions, the IDs of the answer options are defined here.

#### Column L – Optional values for additional question functions

This value provides some additional information on the question. You should not change values that you find in this space, unless you know exactly what you are doing. Never remove the column; simply leave it blank if necessary. If you want to create new questions in the CSV file, you can use the following values:

"128" means a Multiple Choice question in which only the correct answer combination is considered a correct result.

"256" means a Single Choice question with only two options (True/False question).

"512" means a Single Choice question that is part of a Matching question. Matching questions are technically composed of extended pole texts and a Single Choice question per row.

"2048" means a Kprim question. Technically, Kprim questions are multiple choice questions with a fixed set of answer options.

#### Column M – Short name

At the moment, this information has no further use in EvaExam.

#### Column N – Explanation

The explanation contains information on the correct answer (e.g. how to find the solution) and is displayed in the individual report. This text is also displayed when checking an online practice.

#### **Column O – Reference**

The reference helps to provide additional information, such as web links. It is displayed in the individual report and when checking an online practice.

#### Column P et sq. – Item Analysis Values

These values are required to create a calculation for the degree of difficulty and the index of discrimination (point-biserial correlation coefficient). You should not alter this information. Please remember that if you change question content for questions with item analysis turned on, the values may no longer be consistent. If you do this, delete the values in columns 16 to 32.

The following example should clarify the structure of a CSV file for you:

General Knowledge	8	6	Name the three main components of air.	Nitrogen Argon  Carbon dioxide  Hydrogen  Helium  Oxygen		1 0 1 0 0 1	1	1	
General Knowledge	2		Please describe the structure of a water molecule.	8			1	3	800
General Knowledge	10	3	What is a NiMh-battery made of?	Cadmium-Sele- nium  Nickel- metal hydride  Uranium-Iron alloy		-1 1 -1,5	1	1	

Table 7: An Example of the CSV File Structure when Importing and Exporting the Question Library

This structure is also valid for the export of the question library as a CSV file. To import a question library, click on [Browse] and select an EvaExam question library file. To start the import process, click on [Import].

To export click on [Export]. A "Save as..." dialog appears. Select a folder and click on [Save].

To add question groups and questions from the library to the exam sheet, examiners can use the question library in the VividForms Editor. For more information please refer to the EvaExam Examiner Manual.

#### Hint:

If you already have an extensive item database in a third system which you would like to include in your EvaExam system, there is the possibility to have it imported as a service. If you are interested, please contact your vendor.

#### ASSESSMENT SOLUTIONS

#### Scan Stations:

- An individual scan station is included with the base system; additional Scan stations from one site or from multiple sites can be added and connected.
- Your local scan station(s) will be setup to transfer images to the EvaExam software.

#### Minimum System Requirements for Scanning Stations:

- Supported OS: Windows 8.x and Windows 10
- Intel® compatible processor with a minimum of 1.5 GHz
- 40 GB Hard Disk
- 2 GB Memory
- 100 MBit/s Network
- USB port
- Monitor with XGA resolution (1024x768)

#### **Printer and Scanner Requirements**

#### **Printer Requirements:**

- Laser Printer
- Plain White Paper
- Paper weight (24 to 39# Bond)
- We recommend printing the PDF document direct to the printer.
- Making photocopies may result in non-scannable forms.
- Do not use printer economy modes; they produce grey values
- Duplex printing preferred

#### Scanner (TWAIN) Requirements:

A scanner with a document feeder is required; flatbed scanners are not supported.

- TWAIN devices may work if they meet the following requirements:
  - Duplex scanning in black and white with 200 dpi resolution
    - Multiple TIFF files with group IV compression

#### Multifunction Printer Devices are not recommended:

Multifunction devices must be able to create flawless multi-page TIF files and automatically write them to a predefined directory, from which the Scan station automatically triggers further processing and passes the documents to the VividForms Reader.

- These devices must be tested prior to using them to print or scan forms to ensure quality control, brightness, contrast, color depth and resolution.
- Some Multifunction printer devices do not have the TWAIN drivers that are required to operate directly with the Scan station.