

Speech Perception Assessment and Training System for ESL

# Administrator's Guide to SPATS-ESL

Includes procedures  
for  
*Proctored Tests*

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## Introduction

When a professional program elects to use SPATS-ESL, it accepts responsibility for correct administration of SPATS\_ESL training. The program must ensure that the software is readily available to its students and that earphones are of a quality that make speech sounds intelligible to native speakers of English. Basic use of the software is largely self-explanatory, and each student will receive the "Student's Guide to SPATS-ESL" for additional guidance. Nonetheless, at least one staff or faculty member who has had SPATS-ESL training should be available to assist students and monitor their progress. This need not require more than a small fraction of this persons time, but having a "resident expert" is essential for trouble-free use of SPATS.

The SPATS-ESL Administrator should be familiar with the "The Student's Guide to SPATS-ESL" which available at <http://www.comdistec.com>. Training provided by CDT and familiarity with "The Student's Guide to SPATS-ESL" will enable the Administrator answer student questions and help them use the program.

The SPATS-ESL Administrator will also need to become familiar with the procedures for the Enrollment of students, monitoring student progress, Proctored Testing, creation of Certificates that document the student's progress.

## Student Enrollment

Every SPATS-ESL program is assigned a group number. The Administrator's SPATS-ID are the letters "spsl" combined with the group number. For example, the Administrator for Group 36 would have the SPATS ID of "spsl36." Each student in the program will be sequentially numbered as c1, c2, c3..... etc. A student's SPATS-ID will be spsl(group #)c(client #). For example, the seventh student in program 36 would have the SPATS-ID of spsl36c7. CDT will supply the Administrator with a list of passwords to be used by each person in the group including the Administrator.

The first two client numbers, c1 & c2, are to be used by the Administrator and staff to familiarize themselves

| Role in Program | SPATS ID | Password | Comments                                                                                |
|-----------------|----------|----------|-----------------------------------------------------------------------------------------|
| Administrator   | spsl36   | 62c53gG  | Enrolls students, monitors student progress, gives Proctored Tests, Issues Certificates |
| Faux Student 1  | spsl36c1 | 2jW9p86  | For demonstration and staff familiarization                                             |
| Faux Student 2  | spsl36c2 | Hk472u8  | For demonstration and staff familiarization                                             |
| Student 3       | spsl36c3 | 5Xrj438  | Works default curriculum & Proctored Tests                                              |
| Student 4       | spsl36c4 | 62gyB53  | Works default curriculum & Proctored Tests                                              |
| Student 5       | spsl36c5 | gdW9347  | Works default curriculum & Proctored Tests                                              |
| Student 6       | spsl36c6 | W9q8p26  | Works default curriculum & Proctored Tests                                              |
| Student 7       | spsl36c7 | 874x6rJ  | Works default curriculum & Proctored Tests                                              |

with the program. There is no charge for these two "virtual" clients. Regularly enrolled student numbers begin with c3. The table shows an example of a hypothetical program, Group 36, with five regularly enrolled students.

## Administrator's Guide to SPATS-ESL and Proctored Tests

WELCOME TO SPATS  
Please enter the Administrator ID and password you received with the application.

ID:  Password:

[CLICK HERE to BEGIN USE](#)

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**SPATS - ESL v2.0**  
**Speech Perception Assessment & Training System**  
*- for students of English as a Second Language*

[Supervisor Options](#)

To get started the SPATS-ESL program must be installed on the computers to be used. Any PC with the Windows XP Operating System will work. Before SPATS-ESL is used by members of the group, the program Administrator must log on to SPATS-ESL and enter her/his SPATS ID and password as shown in the example to the left. Please Note: The Administrator must enroll before any students can be enrolled.

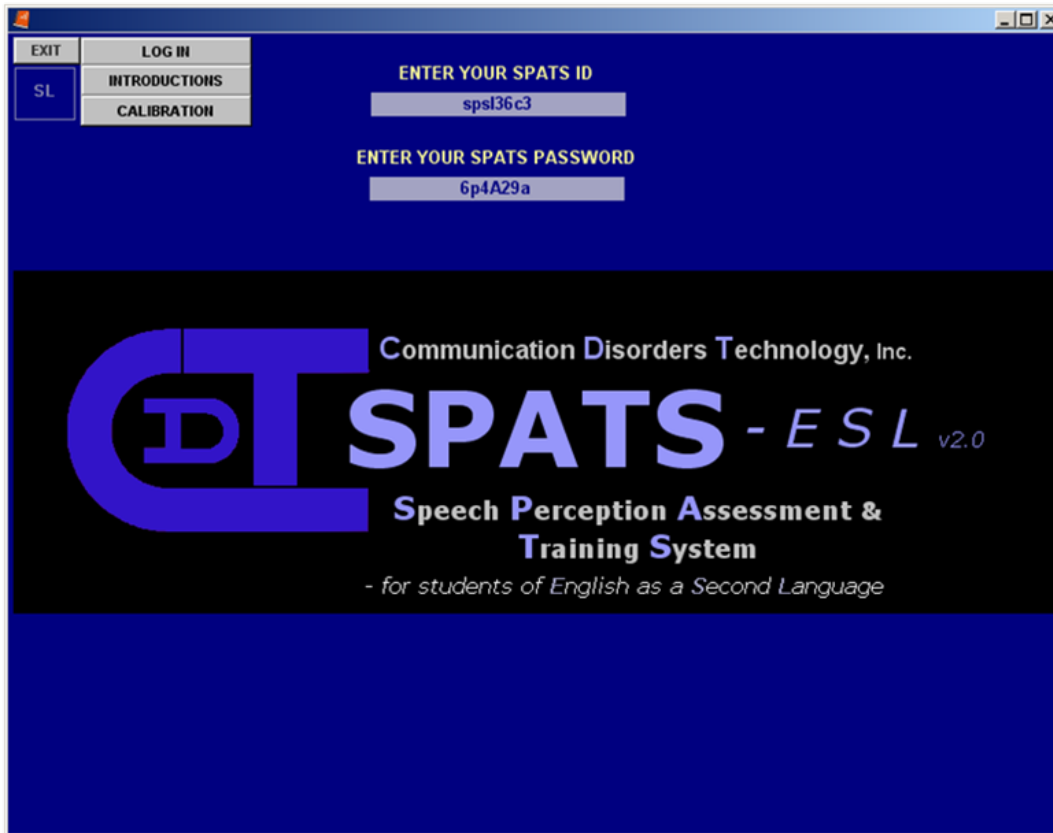
After the Administrator has been enrolled, students may be enrolled as shown on the next two screens.

EXIT LOG IN  
SL INTRODUCTIONS  
CALIBRATION

ENTER A SPATS ID

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To the left is a Student logon showing both the SPATS ID and the SPATS Password. See also, Student's Guide to SPTS-ESL available at [www.comdistec.com](http://www.comdistec.com).

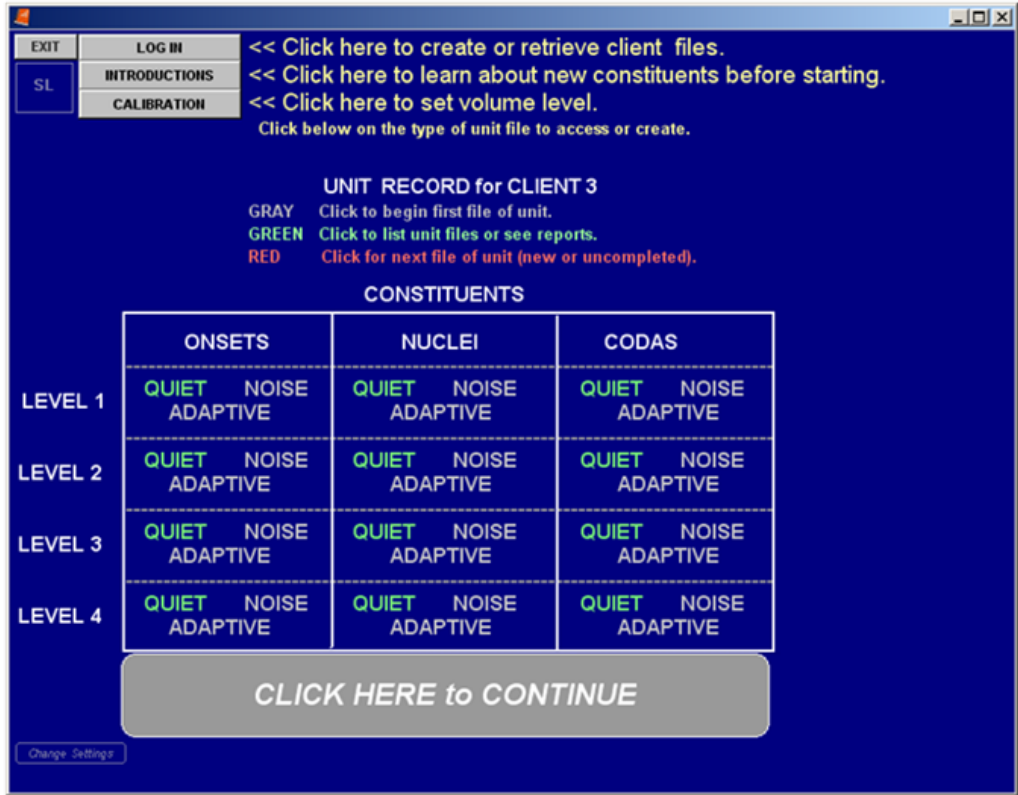
### SPATS-ESL Locations

Once the Program Administrator has logged in, an account for the group is established on CDT's virtual private server (VPS). This means that any member of the group can log in and use SPATS-ESL from any PC with XP, with the SPATS-ESL program installed, and internet access. All user generated files are kept on CDT's VPS, and may be accessed by any computer with the SPATS-ESL software; given the user has legal SPATS ID and Password. It is important, however, that the computer be equipped with adequate earphones or loudspeakers (see Student's Guide to SPATS-ESL, page 6).

### Monitoring Student's Progress

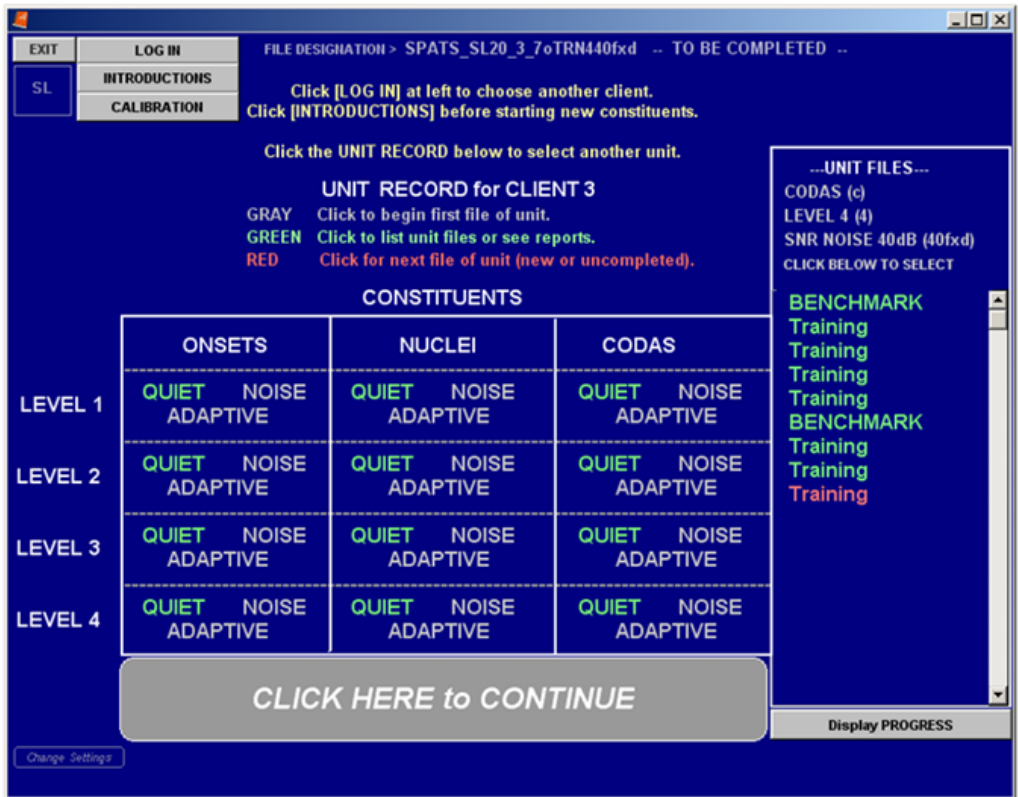
Since the Program Administrator has access to each student's ID and Password, he/she can log on as that student and review his or her progress. The simplest overview is provided by viewing the student's unit record, as shown in the example below. Those items in green have been completed and the student is working at Cumulative Level 4 on all three constituent types. By clicking on a green item it is possible to review the completed runs and access detailed reports which include the percent correct (called total score), the average Item Mastery Score (IMS) at the end of the run, percent information transmitted, percentages of correct usage, and confusion matrices. More details on how to monitor a student's training is provided in SPATS Training Workshops.

# Administrator's Guide to SPATS-ESL and Proctored Tests



The screen for client 3 shown to the left indicates that this student been promoted through cumulative levels 1, & 3, and is now working at cumulative level 4.

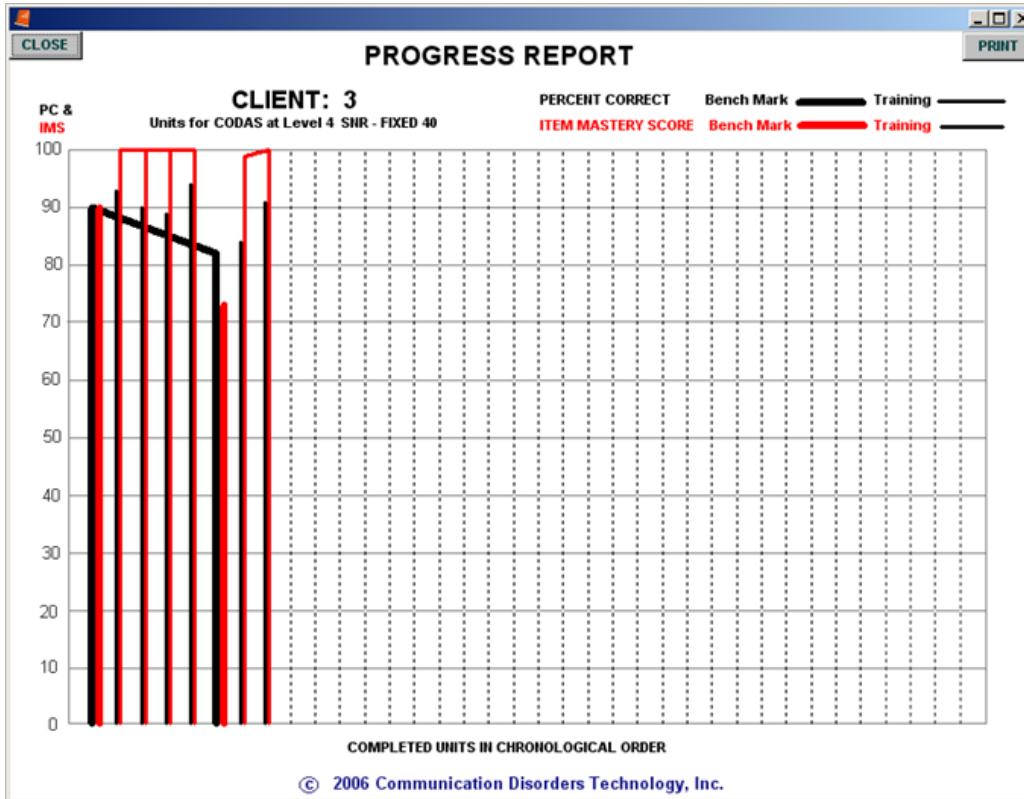
If it is desired to view progress at particular combinations of constituent type and cumulative level, say codas at Level 4, one needs to click on the appropriate green item, after which a screen like the one below will appear.



The insert screen to the right shows the sequence of runs completed by client 3 for codas at level 4. Clicking any item on this list will give the Administrator the opportunity to examine a report.

A click on the "Display PROGRESS" button at the bottom of the right-hand box, will display the student's progress as shown on the next page.

## Administrator's Guide to SPATS-ESL and Proctored Tests



This chart shows the percent correct (PC) (black bars) and the end-of-run average Item Mastery Score (IMS) (red bars) for completed benchmark (thick bars) and training runs (thin bars). The very high IMS's for training runs, along with the generally high PCs means that this student has mastered the perception of codas at a near native level. The native range of scores for codas at Level 4 is from 88 to 100.

## Proctored Tests

### *Why give Proctored tests?*

The chief reason for giving proctored tests is allow meaningful certification of a client's progress and abilities to be provided to teachers and potential or present employers. SPATS-ESL training is intended to be very client-driven. This is best achieved through easy access to SPATS equipped computers, so that the students can accumulate the necessary hours of training to achieve high-level recognition skills. Students have been known to let others use their accounts without regard to how this might distort the record of their own progress compiled during SPATS training. There also can be other unexpected conditions and occurrences in the unsupervised work environment that might interfere with proper assessment. The Benchmarks used to measure mastery and advance students to the next higher level in progressive instruction, though useful, are inadequate as indicators of certifiable achievement. For certification to convincingly attest the bearer's skills, it must guarantee assessment conducted under reliable conditions though credible procedures and endorsed by an appropriate authority. The proctored testing module in SPATS-ESL makes this form of accreditation possible.

### *When to take Proctored tests?*

# Administrator's Guide to SPATS-ESL and Proctored Tests

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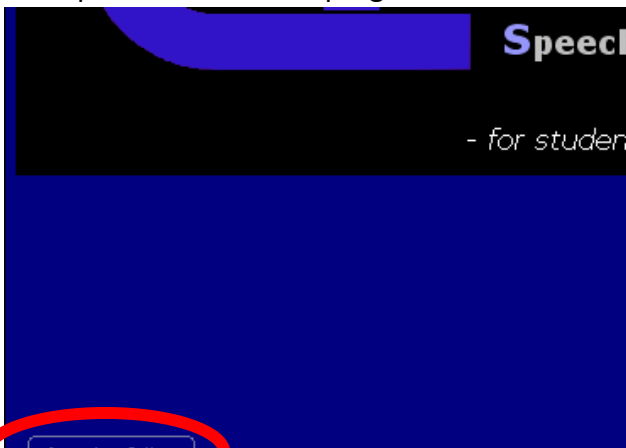
After spending several hours with SPATS-ESL, a student may wish to take a proctored test to evaluate and have documented her/his speech perception skills. With regard to syllable constituents, a student should usually take tests at one level below her/his current training level. This is because the program graduates the student to the next higher level before complete mastery of the previous level has been achieved. A student, who has recently been graduated from Level 2 to Level 3 for a particular constituent type, may reasonably try to pass a test at Level 2. A student, who has recently graduated from Level 3 to Level 4, should try to pass a test at Level 3. Tests at Level 4 should only be attempted after both Percent Correct and Item Mastery Scores have stabilized near or above the Minimum Native Speaker Score (MNS). At Level 4 these MNS scores are 94 for Onsets, 94 for Nuclei, and 88 for Codas. The MNS score for sentences is an effective percent correct (ePC) of 90.

## CONDUCTING SPATS-ESL PROCTORED TESTS

SPATS-ESL PROCTORED TESTING is designed to be administered to students by a proctor (manager or teacher). This guide is intended to get proctors started with SPATS testing and to provide a helpful reference. The students will come to you as determined by the policies of your program and request taking one or more tests for certification. You will check the student's identity, help them start each test, note their results and verify that the identified student took the tests.

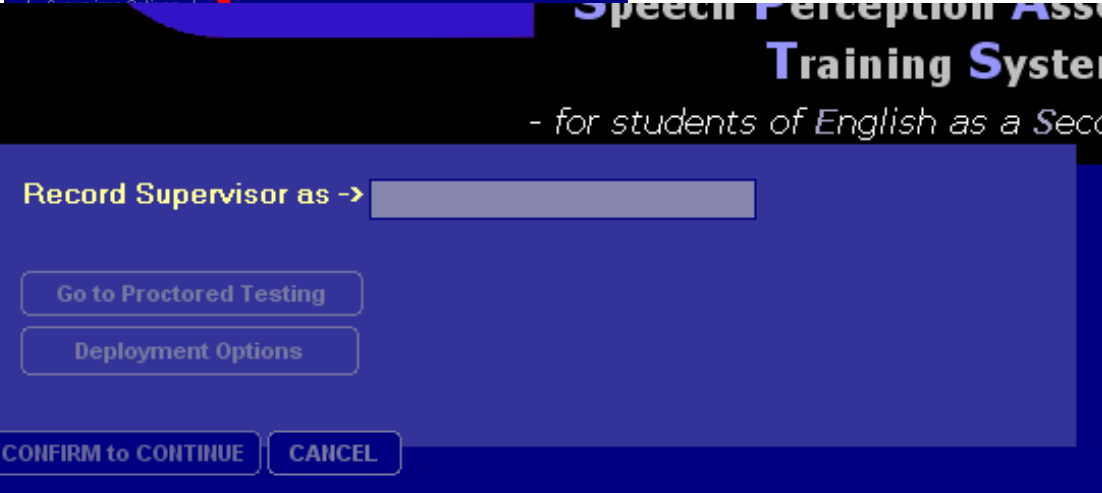
*To begin Proctored Testing...*

1. Open the SPATS-ESL program.



DO NOT LOG IN!!!!

At the bottom left corner of the screen, **click on "Supervisor Options"** with the right-hand mouse button while holding down the Control (Cntrl) key on the keyboard.



2. When the supervisor options are displayed, **click on "Go to Proctored Testing."** (At this point you do not enter your Supervisor ID or click "Confirm to Continue.")

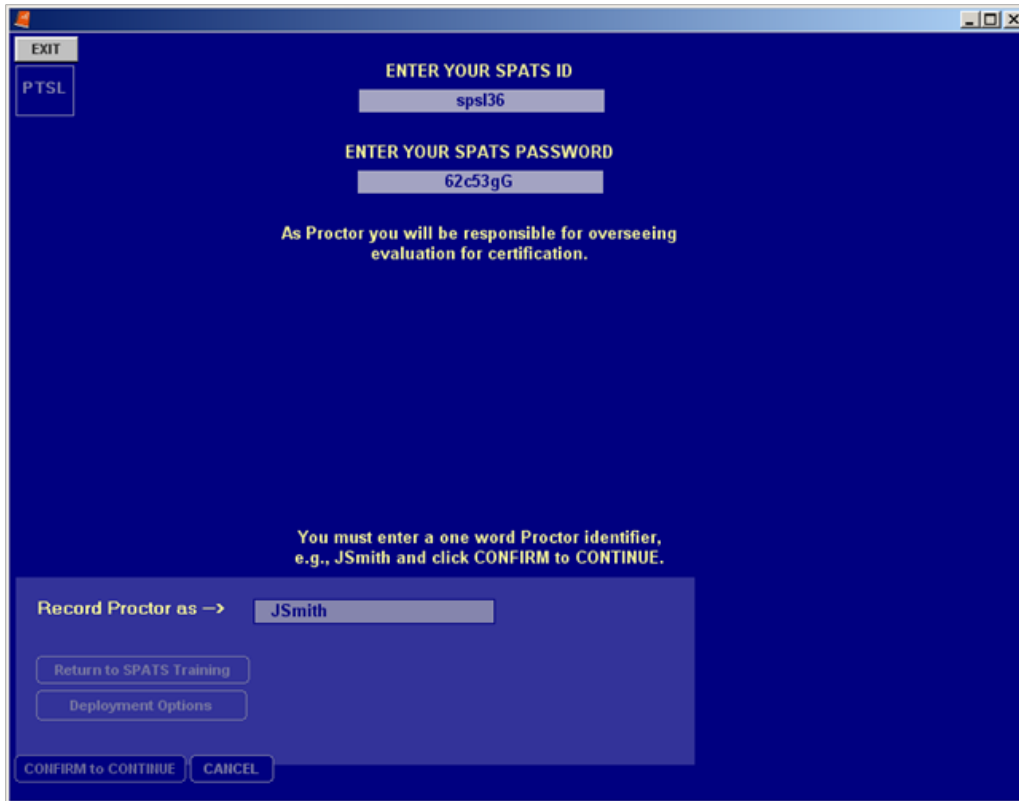


## Administrator's Guide to SPATS-ESL and Proctored Tests



3. When the next screen appears, the Administrator must enter her/his ID in the field at the top of the screen. This will consist of "spsl" followed by a number, e.g., spsl36. On

entering the ID, the field for entering the Administrator's password is presented. Type the password and press Enter.



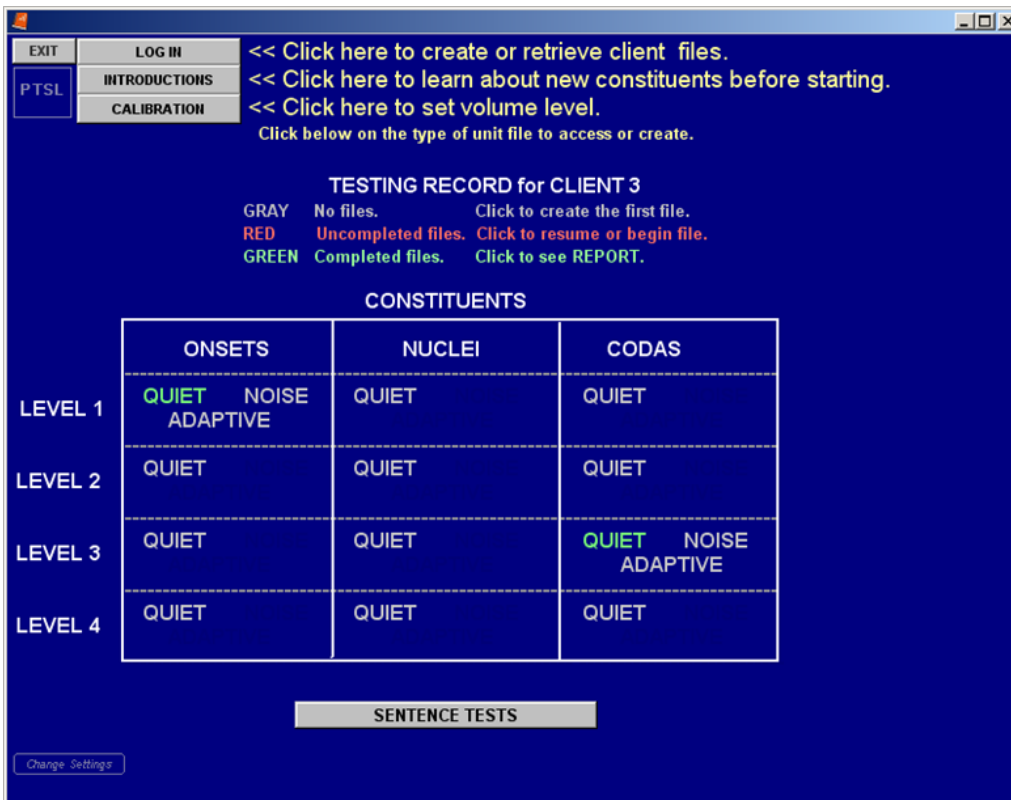
4. Before continuing, the Proctor must a) identify himself by typing in a **one word** identifier (e.g., JoeSmith) and b) click the "CONFIRM to CONTINUE" button.

After clicking on "CONFIRM to CONTINUE," The field for entering the student's ID will appear at the top of the screen as it did for the Administrator. This time type the ID of the student to be

4.

5. tested and press "Enter."  
The field for the Password will appear. Type in the client's password and press Enter.

## Administrator's Guide to SPATS-ESL and Proctored Tests



The screen will display a chart containing all the available Constituent Tests and with a SENTENCE TESTS button below for displaying Sentence Test options. Buttons at the upper right allow you to LOG OUT and enter another client, access INTRODUCTIONS to Constituent Test screens, and do CALIBRATION of sound levels. Note in the case on the left the student has already completed at least one Proctored Test for Onsets Level 1 and Codas Level 3. This indicated by the test names being colored green.

It is advisable to check calibration before beginning testing. Click CALIBRATION in the upper left corner of the screen. The button's caption will change to END CALIBRATION, and a continuous sound will be heard. Adjust the speaker or earphone volume to a comfortably loud level. Click END CALIBRATION. If there is no sound or you are unable to adjust volume to a satisfactory level, the problem is most likely with your computer's sound settings. Go to Control Panel. Reset the speaker settings to default and try CALIBRATION again. (See Appendix 1 of "Student's Guide to SPATS-ESL.") When the sound level has been properly set, you are ready to proceed to testing.

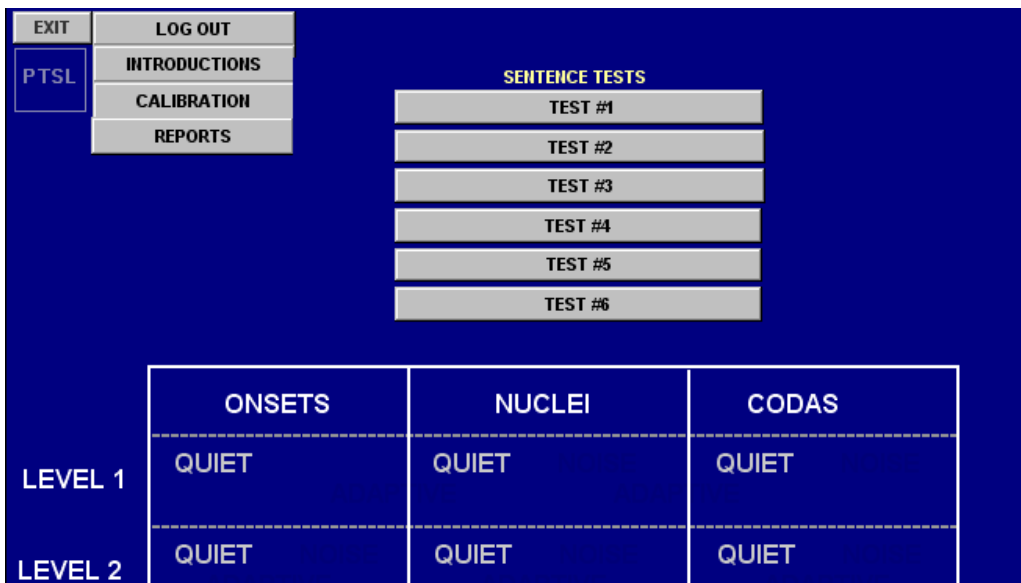
The proctor should determine the types of tests the student should take and at what levels. In most programs this is a simple matter of implementing a supervisor's or a student's request. A testing session might proceed as follows:

- > A student requests tests on Onsets Level 1, Codas Level 4, and Nuclei Level 2.
- > The proctor selects the first test by clicking on QUIET in an appropriate column or row in the Testing Record Chart. All ESL syllable-constituent tests are given without noise interference, i.e., in QUIET. Options which may appear on the screen later (for NOISE and ADAPTIVE) should not be used in ESL testing.
- > The program displays the test and the student takes it in the proctor's presence.
- > When the student finishes the test, he informs the proctor.
- > The proctor clicks the "Return to Unit Record" button.
- > The screen displays scores and analytical feedback on the test just taken. The proctor may want to make a note of these for purposes of certification or making recommendations to the student.
- > The proctor closes the feedback display and returns to the "Testing Record" screen. The proctor can then click to activate the next requested test in the chart.

# Administrator's Guide to SPATS-ESL and Proctored Tests

> This process is repeated until the student has completed all the requested tests.

If a sentence test is requested, the proctor clicks the SENTENCE TESTS button under the Testing Record chart. Six buttons appear at the top of the screen for selecting a sentence tests. When a test is taken, its button becomes inactive and the test is no longer available to the client.



The content of tests for each level of Onsets, Nuclei, and Codas does not change and they may be taken repeatedly until native level perception is demonstrated, but there are only six sentence tests each of which can only be taken once as entirely unfamiliar content is required to demonstrate the skill being tested. Consequently, sentence tests should be administered judiciously to allow the client to be certified at the highest level he or she can

achieve. .

In each sentence test, the student will be asked to identify 15 short sentences that are spoken by different speakers (women and men, younger and older). The sentences are presented in multi-talker speech “babble,” representing the type of background sound that often occurs in classrooms and work places. The background sound is very soft for some sentences and will not interfere with hearing the words, while other sentences are presented in louder backgrounds and are difficult to hear.

When a test is completed the student will receive a report of their performance on the SPATS screen. The report gives the total number of words identified, the errors (clicks on wrong words), the number of temporal penalties (five-second intervals without a click), and the student’s effective percent correct which adjusts for the number of words, number of errors and number of temporal penalties. A report on 15 sentences might look like the lines shown below.

| Number of Words | Number of Errors | Number of Temporal Penalties | Effective Percent Correct | Performance Category |
|-----------------|------------------|------------------------------|---------------------------|----------------------|
| 84              | 20               | 20                           | 68                        | Needs Work           |

The relation between the **Effective Percent Correct** and the **Performance Category** is shown in the table below.

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## Administrator's Guide to SPATS-ESL and Proctored Tests

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| Effective Percent Correct | Performance Category |
|---------------------------|----------------------|
| > 70                      | Needs Work           |
| 70 - 77                   | Fair                 |
| 78 - 85                   | Good                 |
| 86 - 93                   | Very Good            |
| 94 - 100                  | Excellent            |

There are more examples of sentence performance in the "Student's Guide to SPATS-ESL."

### Scoring Students' Performance

A student's percent correct (PC) on a proctored test is converted to percentage of the minimum native speaker score (%MNS) at Cumulative Level 4. To do this, scores (PCs) at Cumulative Levels 1, 2, 3, & 4 are first multiplied by 0.25, 0.50, 0.75, and 1.00, respectively. These are divided by 94 for onsets and nuclei, by 88 for Codas, and by 90 for sentences. All are then multiplied by 100 to calculate the %MNS. An overall score is obtained by weighting the %MNS scores for onsets, nuclei, and codas  $1/5^{\text{th}}$  each and for sentences  $2/5^{\text{th}}$ . Descriptors associated with %MNS scores are shown in the table.

| SPATS-ESL Scoring Guide |                     |
|-------------------------|---------------------|
| %MNS                    | Aural English Level |
| 0 - 25                  | Beginning - I       |
| 26 - 50                 | Beginning - II      |
| 51 - 70                 | Intermediate - I    |
| 71 - 80                 | Intermediate - II   |
| 81 - 90                 | Intermediate - III  |
| 91 - 99                 | Near Native         |
| ≥ 100                   | Native Like         |

A sample certificate is shown on the next page. CDT will assist a program in proctored test scoring and in the creation of certificates. Notice that when a student scores in the Native Speaker Range, then his %MNS will be 100 or greater as the student has equaled or exceeded the *minimum* score attained by native speakers of English.)

# Certificate of Achievement

## Perception of Spoken English

### Xin Chou Lee

has taken SPATS-ESL Proctored Tests  
and demonstrated the abilities listed in the table below.

| <b>Task</b>                                             | <b>% MNS*</b> | <b>Description</b>      | <b>Date</b>       |
|---------------------------------------------------------|---------------|-------------------------|-------------------|
| <b>Syllable Perception<br/>(Onsets)</b>                 | <b>95</b>     | <b>Near Native</b>      | <b>03/30/2009</b> |
| <b>Syllable Perception<br/>(Nuclei)</b>                 | <b>85</b>     | <b>Intermediate III</b> | <b>04/15/2009</b> |
| <b>Syllable Perception<br/>(Codas)</b>                  | <b>92</b>     | <b>Near Native</b>      | <b>04/15/2009</b> |
| <b>Sentence<br/>Perception</b>                          | <b>101</b>    | <b>Native Like</b>      | <b>03/15/2009</b> |
| <b>Overall</b>                                          | <b>95</b>     | <b>Near Native</b>      | <b>04/15/2009</b> |
| <b>* %MNS = Percent of Minimum Native Speaker Score</b> |               |                         |                   |

| <b>%MNS</b>  | <b>Aural English Level</b> |
|--------------|----------------------------|
| <b>0-25</b>  | <b>Beginning - I</b>       |
| <b>26-50</b> | <b>Beginning - II</b>      |
| <b>51-70</b> | <b>Intermediate - I</b>    |
| <b>71-80</b> | <b>Intermediate - II</b>   |
| <b>81-90</b> | <b>Intermediate - III</b>  |
| <b>91-99</b> | <b>Near Native</b>         |
| <b>≥100</b>  | <b>Native-Like</b>         |

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## Appendix I. Checking the Sound System in WindowsXP

### Checking the Sound

- 1) Click the **CALIBRATION** button to hear a sound in the headphones.
- 2) To stop the sound, click the same button which now reads **END CALIBRATION**

The calibration sound is a noise and it should sound moderately loud as the SPATS speech sounds will be a little softer than the “calibration noise.” If the calibration sound is absent, too soft, or too loud, consider the following:

### Three Common Problems

- 1) Another user has turned off or raised or lowered the loudness of the sound system.  
> Look to see that the headset is properly plugged in.

- 2) If the head set is properly plugged in.

> Check the internal settings of the computer's sound system as follows:

*(my computer → control panel → sounds, speech, and audio devices → change the speaker settings → speaker volume → restore defaults → apply → OK → OK.)*

- 3) The default settings maybe too loud. In this case the student needs to locate the volume control and reduce the volume until it is comfortable.