



# Solutions for *Psychological and Physical* **Assessment, Evaluation,** *and Intervention*

- **Personnel Selection and Development**
- **Psychometric and Neuropsychological Research**
- **Traffic Psychology**
- **Clinical and Rehabilitation**
- **Aviation Performance**
- **Sports Performance**



# Solutions for **Psychological** and Physical **Assessment,** **Evaluation, and Intervention**

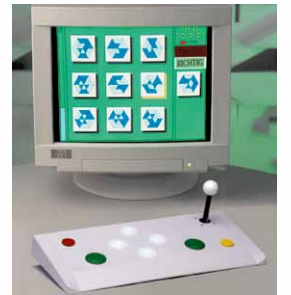
- **Personnel Selection and Development**

Personnel selection and development, coaching and career counselling.



- **Clinics and rehabilitation centers**

Investigation of type and extent of performance deficits and - in clinical psychology - of personality traits. Deficit-specific training, for example in cognitive, psychosomatic and neuromuscular fields.



- **Traffic Psychology**

Investigation of personality traits relevant in traffic contexts. Monitoring of driving-specific performance capability and targeted cognitive training to restore and maintain driving ability.



- **Aviation Performance**

Testing of performance and personality factors in pilots, pilot applicants and air traffic control staff in accordance with the suitability criteria of JAR - FCL3.



- **Sports and Military Performance**

Testing of differentiated aspects of performance such as concentration ability and reaction ability. Training/therapy to increase mental stress tolerance and improve stress management.



- **Psychometric and Neuropsychological Research**

Use of diagnostic procedures, e.g. in research into basic principles and in psychometric research.



# PHYSICAL WORK CAPACITY (PWC) AND FUNCTIONAL CAPACITY (FC) EVALUATION SYSTEM

The two components of the PWCFC Evaluation System are Physical Work Capacity (PWC) and Functional Capacity (FC).

The Physical Work Capacity component evaluates an individual's capacity to perform physically demanding work tasks. System input includes the person's physical ability test results and demographic data. Output is a computer-generated report that assesses the person's Physical Work Capacity. The report helps employers make either of two employment decisions, which are:

1. **Pre-employment** - The PWC report evaluates a job applicant's capacity to perform physically demanding work tasks.
2. **Return-to-Work** - The FC report evaluates an employee's capacity to perform physically demanding tasks at a level that allows for the safe return to work.

Data used to develop the Physical Work Capacity evaluation comes from 20 years of pre-employment research completed at the University of Houston. The purpose of this research was to validate pre-employment tests and define physiologically justified standards or "cut scores." The ergonomic principle is to match the worker to the demands of the job. This validation research is the linkage between test results and job tasks.

The Functional Capacity component assesses Work Capacity and physical fitness. The fitness components include maximum aerobic capacity (VO<sub>2</sub>max), body composition and flexibility. These are the common components included in adult fitness test batteries (Baumgartner & Jackson, 1999; Golding, Meyers & Sinning, 1989).

**Return on Investment** in the form of Reduction in:

- compensation claims.
- days away from work.
- OSHA recordables.
- repetitive motion claims.
- back injuries claims.

## Model 32601PWCFC Complete System includes:

- PWCFC Version 3.0 Software for Windows® Model 32600-PWC
- Jackson Strength Evaluation System Model 32628
- Lafayette Skinfold Caliper Model 01128
- Sit and Reach Flexibility Tester Model 01285A
- JAMAR Hydraulic Hand Dynamometer Model J00105



# MANUAL DEXTERITY TESTS

## Grooved Pegboard Test Model 32025

The Grooved Pegboard is a manipulative dexterity test consisting of 25 holes with randomly positioned slots. Pegs with a key along one side must be rotated to match the hole before they can be inserted. This test requires more complex visual-motor coordination than most pegboard tests. Some common uses are student labs, screening procedures in industry and evaluating lateralized brain damage. The pegs are conveniently stored under the nameplate.



Model 32025

## Purdue Pegboard Dexterity Test Model 32020

The Purdue Pegboard Test was first developed by Joseph Tiffin, Ph.D., an Industrial Psychologist at Purdue University in 1948. Since that time, this device has been used extensively to aid in the selection of employees for jobs that require fine and gross motor dexterity and coordination. It measures gross movements of hands, fingers and arms, and fingertip dexterity as necessary in assembly tasks. The pegboard is complete with pins, collars and washers and an examiner's manual with norms.



Model 32020

## Hand Tool Dexterity Test Model 32521

This test measures proficiency in using ordinary mechanic's tools. The test consists of tools and two uprights with bolts. The object is to disassemble all the bolts from one upright and reassemble them on corresponding rows of the other upright with the heads of the bolts inside. This type of skill is important in many different factory jobs, in industrial apprentice training and in servicing many types of instrumentation. Includes norms.



Model 32521

## O'Connor Tweezers Dexterity Test Model 32022

The O'Connor Tweezer Dexterity Test requires the use of tweezers in placing a single pin in each 1/16" diameter hole. A high score indicates manual aptitude for work involving the use of precision small tools, such as hair replacement procedures. Includes 1 tweezer, 100 pins and detailed examiner's manual.



Model 32022

## O'Connor Finger Dexterity Test Model 32021

The O'Connor Finger Dexterity Test requires hand placement of 3 pins per hole. This test has been used successfully as a predictor for rapid manipulation of small objects, as in assembly line work. It has also been found useful in predicting success for instrument work, such as the assembling of armatures, miniature parts of clocks and watches, rapid hand and eye work, filling vials and small lathe work.



Model 32021

## Complete Minnesota Manual Dexterity Test Model 32023A

The complete Minnesota Manual Dexterity Test measures simple hand-eye coordination and gross motor skills. It consists of a battery of five tests: Placing, Turning, Displacing, One-Hand Turning and Placing and Two-Hand Turning and Placing. Includes 2 folding boards, 60 blocks, carrying case and instruction manual.



Model 32023A



# MOΨART

## REACTION TIME/MOVEMENT TIME PANEL

### The Multi-Operational Apparatus for Reaction Time (MOΨART) system w/ psymcon control Model 35600

With MOΨART you can employ simple reaction time tasks such as Go/No Go tasks for the study of higher centers of the brain, and more complex discriminate reaction time tasks to study cognitive processing. The system may also be used to study executive functioning through the use of an interference tapping task. While subjects are required to attend to a reaction time task they must execute a simultaneous tapping task.



#### MOΨART's main menu allows the user to select one of the following six test types:

1. **Simple Reaction Time:** Choose either simple stimulus with response or Go/No Go reaction paradigm.
2. **Choice Reaction Time:** Choose from multiple stimuli and multiple responses.
3. **Simple Reaction/Movement:** Choose either simple stimulus with response or Go/No Go reaction paradigm with an added movement response.
4. **Choice Reaction/Movement:** Subject starts from a single key and responds to one of multiple response keys based on stimulus presented.
5. **Simple Tap Test:** The subject taps one key as quickly as possible during a timed test period.
6. **Complex Tap Test:** The subject alternately taps two separate keys as quickly as possible for a predetermined test time.

#### Additional Tests w/PsymSoft:

**Reaction Time + Tapping Test:** The subject is instructed to perform a reaction time test while simultaneously performing a tapping task.

Within each of these test types, the user can set several variable parameters to meet their needs. These parameters include: Choice of Stimulus, Reaction Method, Cue Type, Length of Cue, Error Types, Response Time Out and Random Presentation.

The Schuhfried company was founded in 1947. With its head office is located in Mödling, Austria and branch offices in Germany and France. Schuhfried's core task is to provide psychological diagnostics with proven, cutting edge systems. By combining scientifically based psychology with state-of-the-art technology, they make psychological assessment simple and practical. Schuhfried's products enable you to measure individuals' performance and personality characteristics in an economic and up-to-date manner. The blend of technology and psychological research opens up new horizons and the possibility of exciting new applications.

**State-of-the-art computerized systems for:**

- Psychological Assessment,
- Cognitive Rehabilitation,
- and Biofeedback

**System users include:**

- 2600 hospitals and rehabilitation centers
- 1600 traffic psychological assessment centers
- 1700 freelancers
- 1200 private companies
- 260 flight training centers
- 550 universities
- 14 military institutions

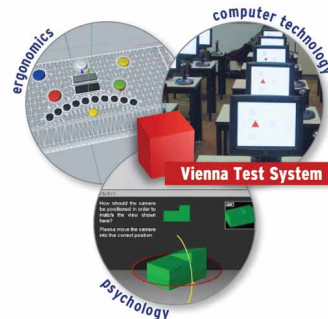


## PSYCHOLOGICAL ASSESSMENT

### Vienna Test System (VTS)

More than 80 tests can be freely combined according to your requirements:

- Intelligence tests
- Ability tests
- Personality tests
- Attitude tests
- Clinical tests



The Vienna Test System does not only include computerized versions of paper-pencil-tests, but also adaptive and multi-media tests. For more information on the tests visit our website: [www.lafayetteinstrument.com](http://www.lafayetteinstrument.com)

**VTS offers the highest precision in administration and evaluation due to the use of computers.**

The powerful **administration software** is acclaimed for the clarity of its user interface and useful additional functions. Standardized **instructions** and interactive practice items ensure that each respondent is optimally prepared for the test session. **Test presentation** takes place without the administrator's involvement, thereby guaranteeing the highest level of objectivity. All test **results** are printed out concisely and are saved in a database. Special **input devices**, such as the light pen and special panels, can be used and are also suitable for respondents with little computer experience. If a big number of respondents is to be tested, a Vienna Test System **group system** can be set up.

**In choosing the Vienna Test System you acquire an innovative and high-quality product that is the only one of its type on the market!**



# COGNITIVE REHABILITATION

## CogniPlus

CogniPlus is a modern, scientifically based software package with which **cognitive abilities** can be effectively and efficiently trained.

The training programs use **realistic scenarios**, making it easy for users to integrate the progress they have made into their everyday lives. The content of CogniPlus is closely linked to the Vienna Test System. This means that **diagnosis, treatment and evaluation can be conveniently linked**.

### CogniPlus contains training programs for:

- ALERT - Alertness
- VIG - Vigilance
- SPACE - Visuo-spatial attention
- SELECT - Selective attention
- FOCUS - Focused attention
- DIVID - Divided attention

For more information on the CogniPlus tests visit our website:  
[www.lafayetteinstrument.com](http://www.lafayetteinstrument.com)



## RehaCom

RehaCom is an ideal device for the **training of cognitive functions**, and thus frees the therapist of some routine work. The subject's training may be customized and focused to specific cognitive areas.

Training tasks include exercises on attention, memory, logical thinking, visuomotor skills, and reactive ability. Real life scenarios provide a motivating and efficient method to increase mental capacity in these areas.

With its ergonomically designed input panel and training programs that adapt to the progress made, clients find the system enjoyable and encouraging to use.

### Advantages:

- Wide range of tools for different applications
- Well-established standard in neuropsychological therapy
- Motivating and appealing to the user
- Adapts to the patient's ability level
- Reinforcement/feedback
- Simple to use

For more information on RehaCom visit our website:  
[www.lafayetteinstrument.com](http://www.lafayetteinstrument.com)





# BIOFEEDBACK

## Biofeedback 2000<sup>x-pert</sup>

Biofeedback 2000<sup>x-pert</sup> is a wireless system; signals are transmitted to the computer by Bluetooth® Technology.

Four user-friendly Bluetooth® modules are available, which allow maximum freedom of movement.

**MULTI:** EDA: skin conductance  
PULS: pulse amplitude and frequency  
TEMP: temperature  
MOT: motility (movement)

**RESP:** respiration

**EMG:** electromyography (muscle tension)

**EEG:** electroencephalogram (electrical brain activity)

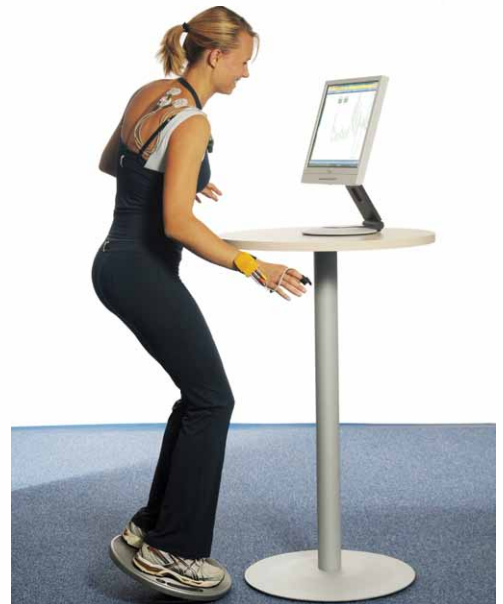
Modern sensors offer various advantages:

- Simple plug-in connections
- Color-coded connectors
- Can be used with all standard electrode types
- Enhanced precision and sensitivity

Biofeedback can be used in nearly any area of treatment or therapy. Wireless data transmission and small compact modules, allow for maximum versatility.

The software is very simple and intuitive to use, the user interface is clearly designed. The BFB software package provides several basic training programs; additional special training programs can be added and combined as required.

For more information on Biofeedback 2000<sup>x-pert</sup> visit our website:  
[www.lafayetteinstrument.com](http://www.lafayetteinstrument.com)



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