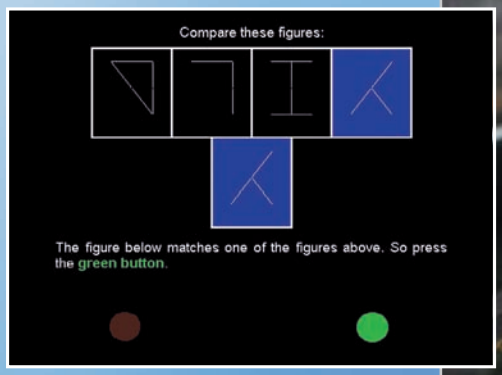
Psychological Examination of Train Personnel

Vienna Test System



Catalog

SCHUHFRIED
Qualität durch Kompetenz

Introduction

Human factors in railways

Train drivers must have appropriate physical and psychological fitness to ensure that overall operational and safety standards are met. To determine the fitness of train drivers, periodic medical and psychological examinations are necessary.

The aim of the psychological examination is to support the railway undertaking in the appointment and management of staff who have the **cognitive, psychomotor, behavioural and personality capabilities** to perform their roles safely. The psychological examination must only include assessment tools that are based on scientific principles.

As **worldwide market leader for computer-assisted psychological assessment** the **SCHUHFRIED** company offers the required reliability and security for your personnel management. All our tests are scientifically proven and constantly updated.

The SCHUHFRIED company is the first port of call in matters of computerised assessment. For more than 60 years companies and institutions all over the world have counted on our company's quality, expertise and experience. SCHUHFRIED is well known for quality, modernity and scientific research.

Licensing of train drivers: Third Railway Package

In accordance with the directive on railway safety, infrastructure managers and railway undertakings are requested to establish their safety management system in such a way that the railway system is at least able to meet the Common Safety Targets (CST) and comply with the national safety regulations and safety requirements defined in the Technical Specifications for Interoperability (TSI). The relevant parts of the Common Safety Methods must also be applied. Such a safety management system provides, among other things, staff training programmes and systems to ensure that staff competence is maintained and that tasks are carried out in the appropriate manner.

European licence for train personnel

Within the Third Railway Package a proposal for a **European licence in cross-border interoperability services**, aimed at maintaining high levels of safety, has been drawn up by the CER (Community of European Railways) and the ETF (European Transport Workers' Federation).

The European licence in cross-border interoperability services is a contribution to the liberalisation of the market for railway services. It also brings higher mobility to train drivers, allowing them to move from one country to another more easily.

Introduction

The European licence for train personnel is aimed at:

- Maintaining and increasing the level of safety and guaranteeing the quality of driver performance by ensuring and verifying compliance with competence levels geared to the relevant European railway systems
- Facilitating the interoperability of driving staff as a means to increase international railway traffic and enhancing mobility among train drivers
- Contributing to the efficiency of management of drivers in interoperability services by the railway companies
- Reducing the risks of social dumping
- Increasing public confidence in the rail system

The CER (Community of European Railways) and the ETF (European Transport Workers' Federation) have identified the following criteria as relevant for fulfilling the requirements of each safety function:

Cognitive

- Attention and concentration
- Memory
- Perception
- Reasoning
- Communication

Psychomotor

- Reaction time
- Hand coordination

Behavioural and personality

- Emotional self-control
- Behavioural reliability
- Autonomy
- Conscientiousness

Vienna Test System

The Vienna Test System has all the components of a sophisticated computerised assessment system: **powerful basic software, computerised tests and ergonomic input devices.**

Basic software

The powerful basic software enables the user to administer tests and manage data. Using the test system requires no specific computer knowledge. A wide range of additional functions are provided to make your work easier.

Tests

The Vienna Test System includes a wide range of personality and ability tests. They can be used to test all the factors that are relevant in the railway context. The tests are available in multiple languages, reflecting its international orientation.

Input devices

Special input devices are available; they have been developed specifically for use in computerised assessment and enable reliable measurement of important aspects of performance that cannot be measured using the computer mouse or keyboard.

Market leader in computerised psychological assessment – worldwide

Input media

Our input media are designed to be as ergonomic and user-friendly as possible. Even people with little computer experience will find them easy to use.

Respondent keyboard “Advanced”

For test administration the respondent keyboard “Advanced” is required.

- 7 coloured buttons
- 10 numbered buttons
- sensor button
- 2 control knobs
- USB interface

Foot pedals

The digital foot pedals are used in the same way as a switch.

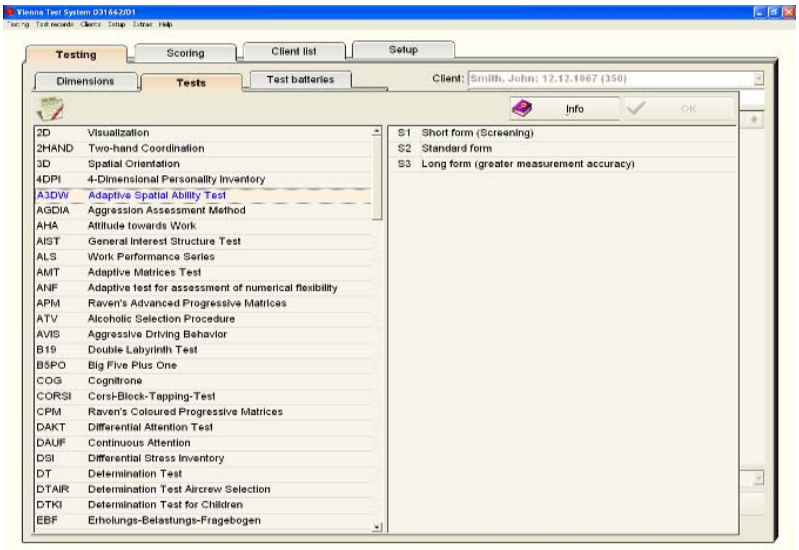
As a result of detailed attention to quality management in accordance with the stringent requirements of ISO 13485:2003, the respondent keyboard “Advanced” is completely reliable and highly durable.

The keyboard and foot pedals are easy to transport in a practical carrying case.

Basic software

Using the test system is straightforward and logical. In developing the system we have paid particular attention to creating clear layout and a uniform design. A user interface guides you through the necessary steps.

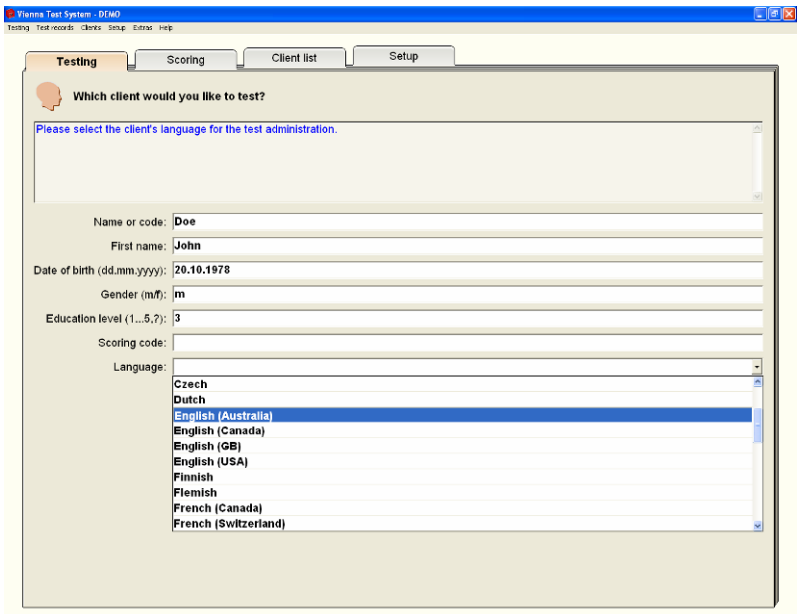
Tests are selected using a clearly structured index card system. Electronic manuals containing information on each test will help you make your selection.



Test administration

Test preparation

The first step involves inputting the respondent's details. Tests can be presented in a wide choice of languages. New languages are continually being added.



Instruction and practice phase

Each test begins with standardised **instructions** on the respondent's screen.

Once the instructions have been given, a **practice phase** follows. This enables the respondent to become familiar with the test and ensures that he/she understands what is required. The instructions and practice items are often linked and follow the principles of programmed learning. If necessary, the learning loops are repeated several times. If the respondent still fails to understand the task, the test administrator is notified. The administrator can then go over the instructions orally with the subject or can abort the test or the entire test battery.

This ensures that respondents are not tested if they do not adequately understand the task.

Test phase

After the instructions and the practice phase the respondent starts working on the individual test items. The tests are developed in such a way that the highest return of information is made in the shortest time and with as small a burden on the client as possible.

At the end of the test the results are saved at item level in a database; they can be printed out in an easy-to-interpret format or further processed electronically.

Test results

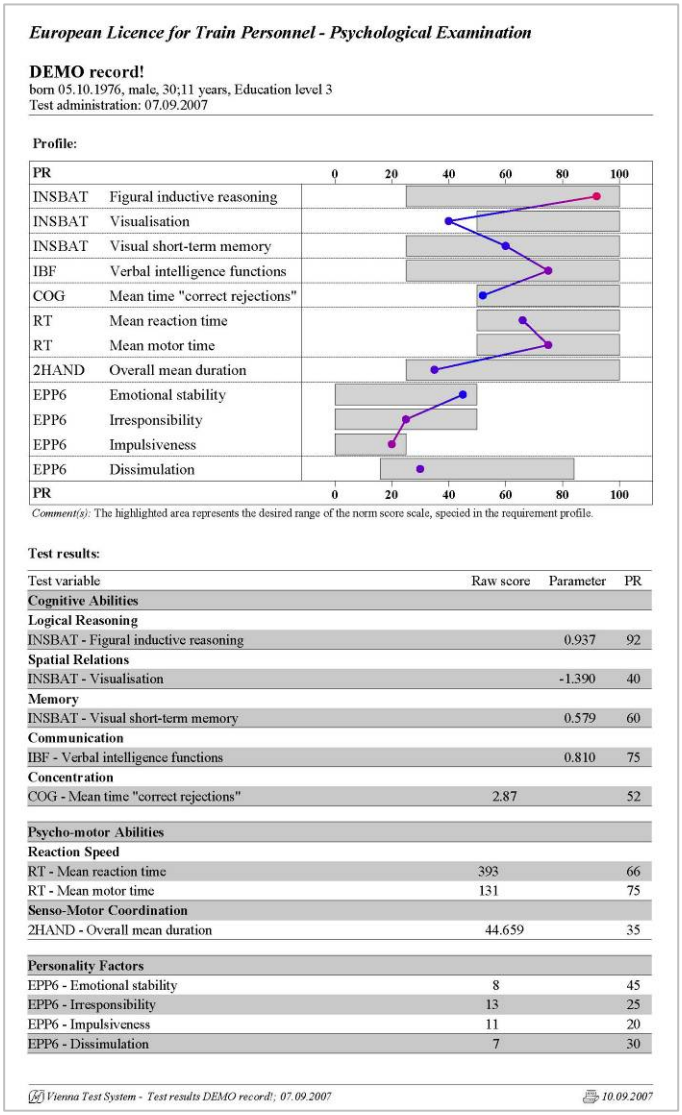
Test scoring

Test results can be displayed at any time as an on-screen summary, printed out or processed further, either in tabular form or as a test profile.

The **profile** provides a straightforward and convenient summary of a candidate's test results.

The test **results table** lists the test variables with the respondent's raw scores and parameter scores as well as the associated norm values (percentile ranks) and confidence intervals. The norm score comparisons always relate to an age-independent socio-demographically representative norm sample.

The coloured test profile shows the strengths and weaknesses of a respondent at a glance.



European Licence for Train Personnel - Psychological Examination

DEMO record!
born 05.10.1976, male, 30;11 years, Education level 3
Test administration: 07.09.2007

Profile:

PR		0 20 40 60 80 100
INSBAT	Figural inductive reasoning	
INSBAT	Visualisation	
INSBAT	Visual short-term memory	
IBF	Verbal intelligence functions	
COG	Mean time "correct rejections"	
RT	Mean reaction time	
RT	Mean motor time	
2HAND	Overall mean duration	
EPP6	Emotional stability	
EPP6	Irresponsibility	
EPP6	Impulsiveness	
EPP6	Dissimulation	
PR		0 20 40 60 80 100

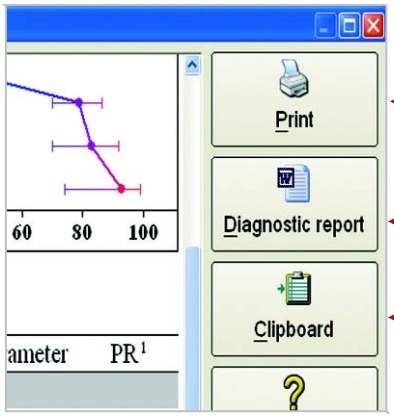
Comment(s): The highlighted area represents the desired range of the norm score scale, specied in the requirement profile.

Test results:

Test variable	Raw score	Parameter	PR
Cognitive Abilities			
Logical Reasoning			
INSBAT - Figural inductive reasoning		0.937	92
Spatial Relations			
INSBAT - Visualisation		-1.390	40
Memory			
INSBAT - Visual short-term memory		0.579	60
Communication			
IBF - Verbal intelligence functions		0.810	75
Concentration			
COG - Mean time "correct rejections"	2.87		52
Psycho-motor Abilities			
Reaction Speed			
RT - Mean reaction time	393		66
RT - Mean motor time	131		75
Senso-Motor Coordination			
2HAND - Overall mean duration	44.659		35
Personality Factors			
EPP6 - Emotional stability	8		45
EPP6 - Irresponsibility	13		25
EPP6 - Impulsiveness	11		20
EPP6 - Dissimulation	7		30

Vienna Test System - Test results DEMO record!; 07.09.2007 *10.09.2007*

Diagnostic report



Results can be printed directly from the test result screen

At the press of a button results can be exported directly into a full-text psychological report

Results can be stored in the clipboard and then copied into other documents

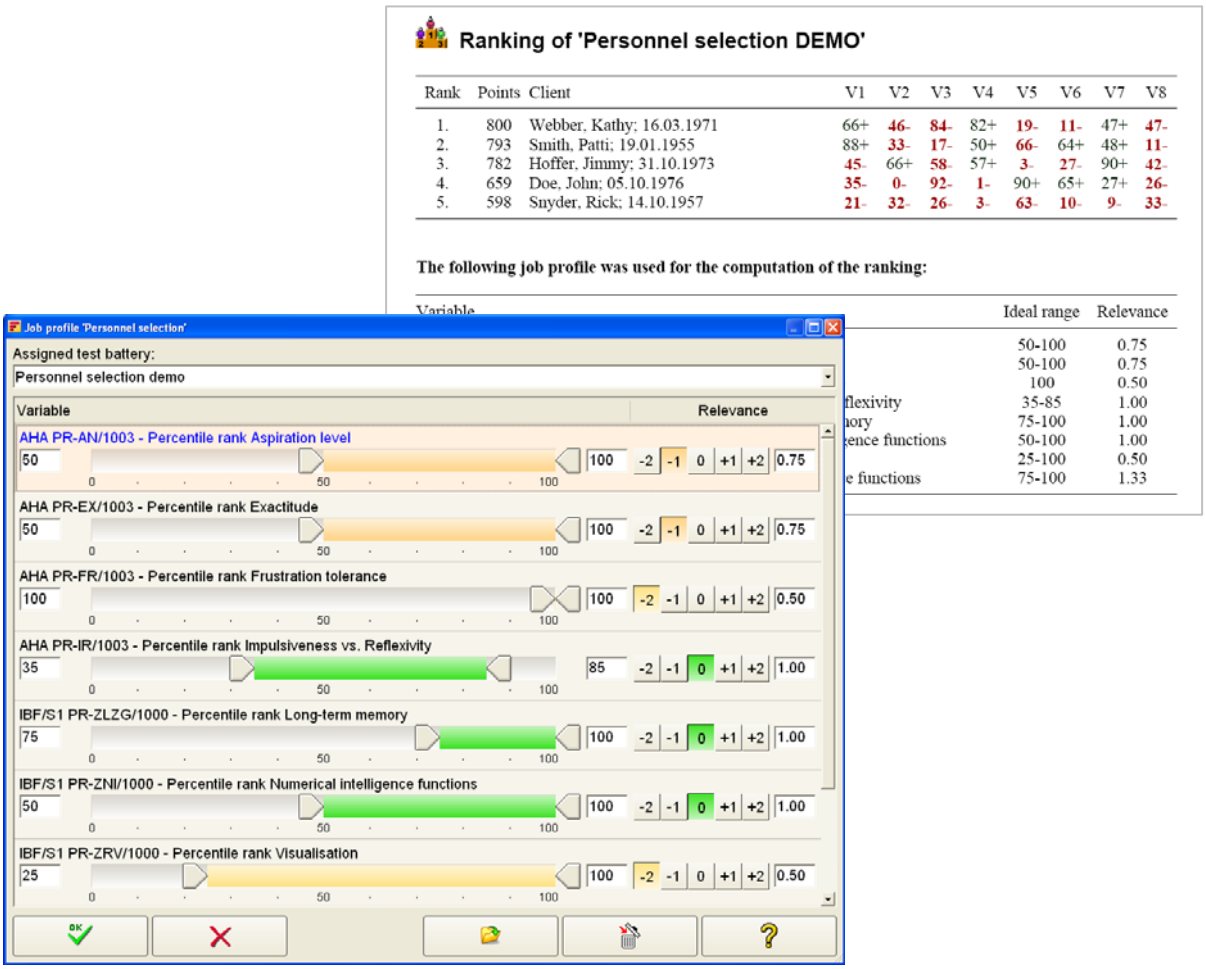
Output of results

Ranking

The **Ranking** function, which is available as a module of the Vienna Test System, enables fast and efficient comparison of the results of different applicants.

For each candidate a ranking is calculated in addition to his or her individual test results. Ranking is based on the extent to which the candidate's results deviate from the levels you have determined. A total of 1000 points can be achieved if all the test results are within the ideal range. The results show at a glance which candidates should be considered further.

At the outset a specific requirements profile is set up, defining the ability and personality factors which are considered to be relevant to success in the job. In addition, the desired level of these factors (target profile) is determined and their significance is weighted. Multiple requirements profiles can be drawn up, depending on job requirements. Where required, the ranking can take account of other criteria in addition to the test results, for example professional experience or knowledge of foreign languages.



Ranking of 'Personnel selection DEMO'

Rank	Points	Client	V1	V2	V3	V4	V5	V6	V7	V8
1.	800	Webber, Kathy; 16.03.1971	66+	46-	84-	82+	19-	11-	47+	47-
2.	793	Smith, Patti; 19.01.1955	88+	33-	17-	50+	66-	64+	48+	11-
3.	782	Hoffer, Jimmy; 31.10.1973	45-	66+	58-	57+	3-	27-	90+	42-
4.	659	Doe, John; 05.10.1976	35-	0-	92-	1-	90+	65+	27+	26-
5.	598	Snyder, Rick; 14.10.1957	21-	32-	26-	3-	63-	10-	9-	33-

The following job profile was used for the computation of the ranking:

Variable	Ideal range	Relevance
	50-100	0.75
	50-100	0.75
	100	0.50
flexivity	35-85	1.00
ory	75-100	1.00
ence functions	50-100	1.00
	25-100	0.50
e functions	75-100	1.33

Test battery

The test battery has been designed according to the requirements of the Third Railway package for the European Licence for Train Personnel.

Cognitive abilities

Dimension	Test		Reliability	Duration
Concentration	COG	Cognitrone	0.95	8 min
Memory	INSBAT VIK	Visual short-term memory	0.70	15 min
Vigilance	WAFV	Vigilance / sustained attention	0.96	18 min
Logical Reasoning	INSBAT FID	Figural-inductive reasoning	0.70	20 min
Communication	IBF VIF	Verbal intelligence functions	0.88	15 min
Perception	LVT	Visual Pursuit Test	0.92	5 min

Psychomotor abilities

Dimension	Test		Reliability	Duration
Reaction Time	RT	Reaction Test	0.94	8 min
Hand Coordination	2HAND	Two-Hand Coordination	0.97	8 min

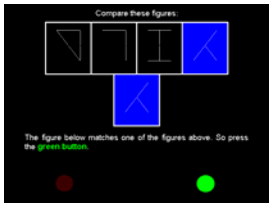
Personality traits

Dimension	Test		Reliability	Duration
Emotional Stability	Anxiety	Eysenck Personality Profiler Version 6	0.83	10 min
Responsibility	Responsibility		0.76	
Autonomy	Reflexivity		0.75	

Test battery

COG Cognitrone

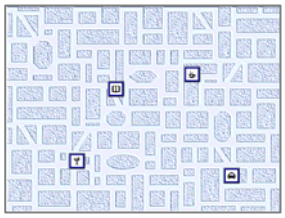
Concentration



In keeping with the tradition of concentration tests, COG uses simple, low-stimulus material. It requires the respondent to compare an abstract figure with a reference item and decide whether the two are identical.

INSBAT VIK Intelligence Structure Battery: Visual Short-term Memory

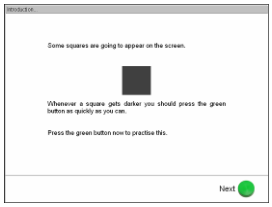
Memory, visual short-term memory



Visual Short-Term Memory is a subtest from the extensive intelligence structure battery INSBAT. The subtest involves a street map that is briefly displayed on-screen. Locations on the map are marked by means of symbols (e.g. a cross for a hospital). The respondent is required to note where these symbols are located. The presentation time, number of symbols shown and the structure of the street plan all vary with the difficulty of the task.

WAFV Perception and Attention Functions: Vigilance

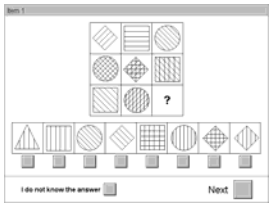
Attention, vigilance



WAFV forms part of the WAF test battery for measuring different dimensions of attention. WAFV is used to measure vigilance, which represents a special variant of long-term attention. The test takes the form of a relatively long monotonous signal-detection task with a low proportion of relevant stimuli.

INSBAT FID Intelligence Structure Battery: Figural-Inductive Reasoning

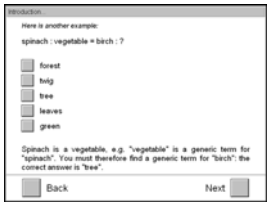
Reasoning



Figural-Inductive Reasoning is a subtest from the extensive intelligence structure battery INSBAT; it is used to measure logical deductive reasoning. The item format is that of classical matrix tasks. The respondent is presented with a 3x3 matrix containing a symbol in eight of its nine fields. The eight figures are arranged according to various rules; it is the respondent's task to identify these rules and fill the empty square in a logical manner.

IBF VIF Basic Intelligence Functions

Verbal intelligence

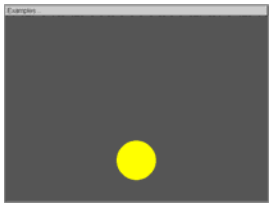


Verbal Intelligence Functions is a subtest from the intelligence battery Basic Intelligence Functions (IBF). The verbal intelligence functions cover the rapid and accurate application of general knowledge and formal logical reasoning to verbal information. A high score indicates a well-marked verbal cultural ability; the subject is therefore particularly suited to activities in which a well-developed command of language is required.

Test battery

RT Reaction Test

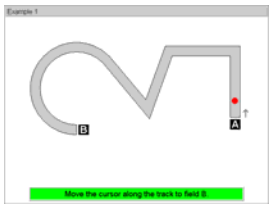
Reaction time



The Reaction Test is used to measure motor and cognitive reaction speed. Reaction time is measured by asking the respondent to lay a finger on the rest button and to move that same finger to operate the reaction button as soon as he detects the required signal or combination of signals.

2HAND Two-Hand Coordination

Eye-hand and hand-hand coordination



2HAND is used to measure the speed and accuracy of coordination when making fine, small-scale movements. The task is to make a red dot move along a given track. Depending on the test form used, this is done either with two control knobs or two joysticks. The test focuses on two components of ability: (1) eye-hand coordination and (2) coordination between left and right hand.

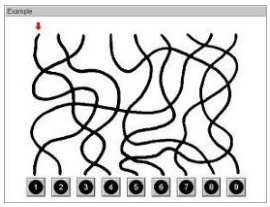
EPP6 Eysenck Personality Profiler V6

Emotional stability, behavioural reliability, autonomy, conscientiousness

The EPP6 is a classical multi-dimensional questionnaire based on the personality theory of Eysenck. It is useful in a wide range of applications. The subscales *Anxiety, Irresponsibility* and *Impulsiveness* are of special interest for the assessment of the dimensions required by the Third Railway Package.

LVT Visual Pursuit Test

Perception



The respondent is presented with an array of nine entwined lines; his task is to find the end of a specified line as quickly as possible. It assesses the aspect of visual orientation performance involved in tracking simple visual elements in a relatively complex environment. The respondent is required to work in a focused way, ignoring distractions, while under time pressure.

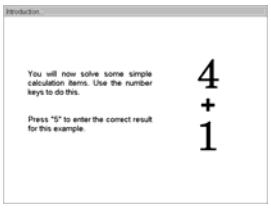
This test battery selection can of course be complemented with other tests from the Vienna Test System. Please see the next page.

Additional tests

Some rail companies also like to use the following tests for selecting and monitoring train drivers and crew:

ALS Work Performance Series

Concentration, mental saturation and fatigability in mental tasks



This test measures the course of the respondent's performance by requiring him/her to carry out continuous addition. It can be viewed as a general ability test, the aim of which is to measure general characteristics of the way in which mental tasks are performed. The respondent's task is to carry out as many additions and subtractions of two numbers as he can in a prescribed period.

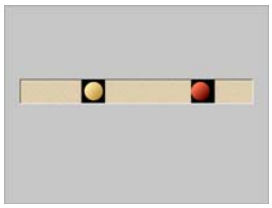
ATAVT Adaptive Tachistoscopic Traffic Test

Perceptive capability

The ATAVT tests observational ability by briefly presenting pictures of traffic situations. The respondent must subsequently report what he saw in the picture. For each picture five options are given.

B19 Double Labyrinth Test

Eye-hand coordination



The B19 measures eye-hand coordination under externally controlled speed conditions. Using the two control knobs, the respondent must attempt to keep two dots within a track, taking care to prevent them touching the track sides.

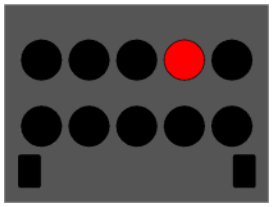
DAUF Sustained Attention

Attention, long-term selective attention

This test measures long-term selective attention and concentration. Triangles appear in a row on the screen, pointing either up or down. The respondent must press the reaction button whenever a pre-defined number of triangles points downwards.

DT Determination Test

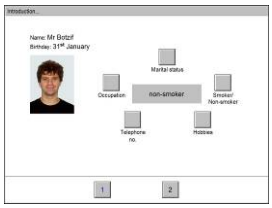
Resilience of reaction speed and attention



The DT is used to measure attention and reaction speed and the resilience of these functions. The difficulty of the DT arises from the need to sustain continuous, rapid and varying responses to rapidly changing stimuli.

INSBAT LZG Intelligence Structure Battery: Long-Term Memory

Memory, long-term memory

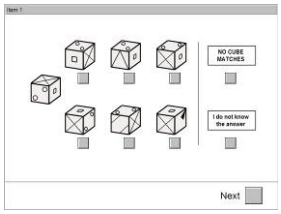


The respondent is given details of eight fictitious people (e.g. name, date of birth etc.) and asked to remember them. The names of the fictitious individuals were deliberately chosen to be meaningless, thus making the formation of associations more difficult. After expiry of the time allowed for the memorising phase, four other subtests are presented in succession. After completion of the four interposed subtests the test phase commences. The recall of the learned information is tested by means of multiple-choice items.

Additional tests

INSBAT VIK Intelligence Structure Battery: Visualisation

Visualisation



Visualisation is a subtest from the extensive intelligence structure battery INSBAT; it is used to measure spatial visualisation ability. Each item involves a test cube and six comparison cubes. Each cube has different patterns on each of its six sides, of which only three are visible. The respondent's task is to work out whether any of the six comparison cubes could be identical to the test cube.

SIGNAL Signal Detection

Attention, selective attention

Dots are displayed over the entire screen area; pseudo-randomly some of the dots disappear and others come into view. The respondent is required to react by pressing a button whenever four dots form a square. The challenge lies in the need to perceive weak signals against a constantly changing, "noisy" background.

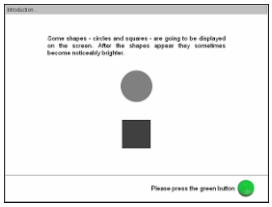
SIMKAP Simultaneous Capacity/Multi-Tasking

Multi-tasking

This test measures the respondent's simultaneous capacity – that is, his/her ability to coordinate several tasks that must be performed at the same time (divided attention during cognitive activities) – and his/her stress tolerance. In its long form SIMKAP consists of five subtests (three tests of perceptual speed and accuracy, one test of simple intellectual ability and the simultaneous capacity test itself, in which tasks of perceptual speed accuracy must be worked in parallel with problem-solving tasks.

WAF Perception and Attention Functions

Attention



According to psychological and neuropsychological theory, attention cannot be regarded as a single function. The WAF test battery for measuring six different dimensions of attention (alertness, vigilance/sustained attention, selective attention, focused attention, divided attention, spatial attention and visual field/extinction-neglect) consists of six tests which can be administered independently of each other or, as a test battery, in any combination. In addition, WAFW can be used to make a differential assessment of sensory impairments. For each of the WAF tests different test forms are available, enabling dimensions of attention to be assessed in different presentation modalities (visual, auditory and cross-modal).

All our tests our validated in accordance with the most up-to-date standards available. Norms are continually updated and psychometric development of the tests is undertaken, ensuring that our tests meet stringent scientific criteria. Further information on our tests can be found in our main catalogue, which is obtainable free of charge by e-mailing info@schuhfried.at.

Additional tests

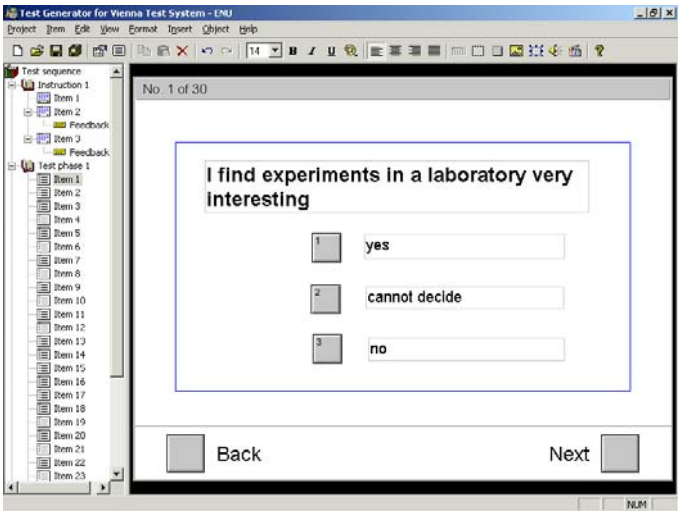
PP Peripheral Perception

The test assesses the perception and processing of peripheral visual information. The filed of vision is computed in degrees. It results from the sum of the left and right visual angles.
Light-emitting diodes mounted on the apparatus generate light stimuli that move at a pre-set speed (in regular “jumps”). Critical stimuli appear at pre-defined intervals; the testee reacts to these critical stimuli (vertically blinking column) by pressing the foot pedal. At the same time the testee has to monitor a ball on the screen and keep it in the cross line.

TQ Test Generator for Questionnaire Tests

With the aid of the Test Generator you can generate your own tests for the Vienna Test System.

No knowledge of a programming language or of technological details is necessary. This program enables you to adapt the Vienna Test System easily and effectively to your own requirements.
The same features with which you may already be familiar from the other tests of the Vienna Test System are available for tests generated using the Test Generator (e.g. combining various tests to form test batteries, standard instructions for various input devices, instructions with feedback, standardised possibilities for test interruption and menu call-up, automatic data storage in the Test System database, standardised output of test results, selection of standardisation samples, data export functions, etc.).



Further ability and personality aspects that can be measured with the VTS

Ability

1. Mathematical abilities	
2. Technical comprehension	
3. Working accuracy vs. working speed	
4. Multitasking	
5. English as a second language	▪ Reading comprehension ▪ Grammar ▪ Vocabular
6. Fine motor abilities	

Personality

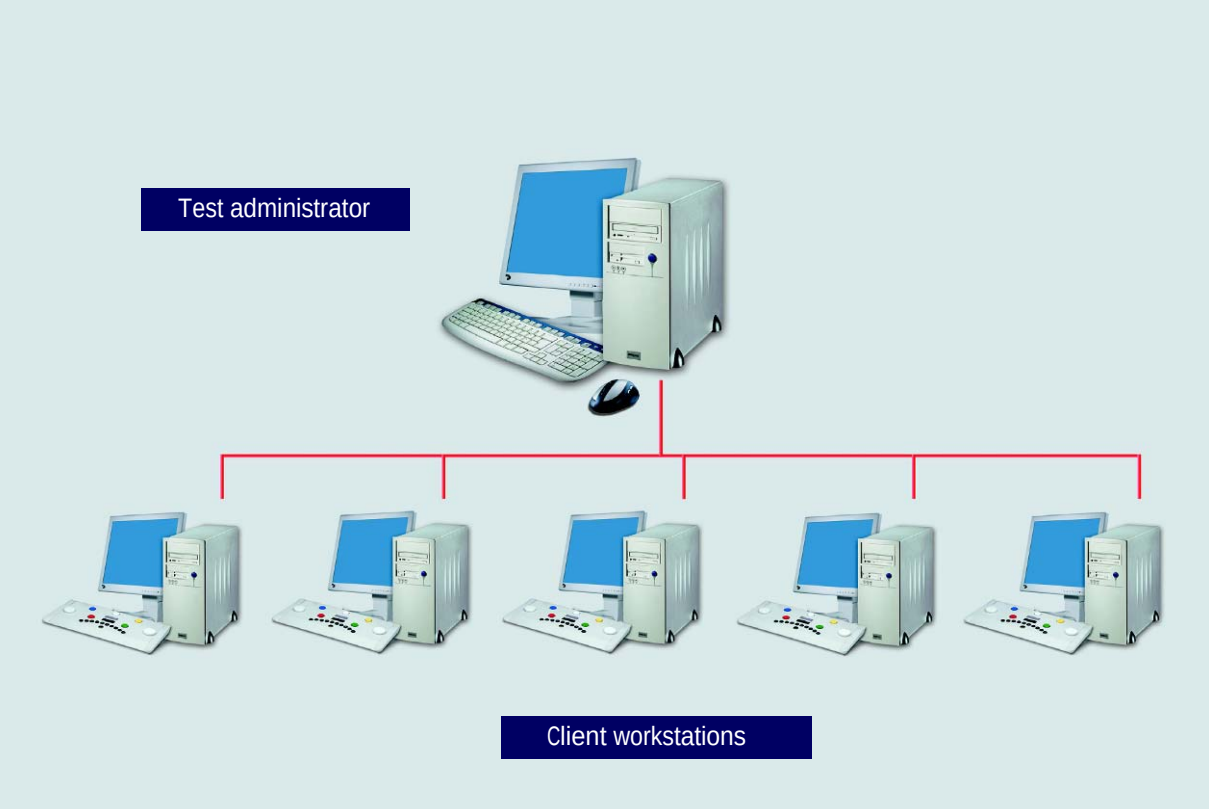
1. Vocational Interests	▪ Career maturity ▪ Realistic interests ▪ Investigative interests ▪ Artistic interests ▪ Social interests ▪ Enterprising interests ▪ Conventional interests
2. Work habits	▪ Estimation of own competence ▪ Orderliness ▪ Sense of duty ▪ Ambition of effort ▪ Activity ▪ Openess for ideas ▪ Openess for acts ▪ Impulsivity ▪ Assertiveness ▪ Violability
3. Ability to work in a team	▪ Irritability ▪ Propensity for ill feeling ▪ Sociability ▪ Openess for the values and standards ▪ Trust ▪ Concession ▪ Social bias ▪ Openess for fantasy

Further ability and personality aspects that can be measured with the VTS

4. Customer orientation	▪ Extraversion ▪ Striving for social acceptance ▪ Motivation to help ▪ Empathy ▪ Self-monitoring ▪ Achievement motivation ▪ Frustration tolerance ▪ Positive thinking
5. **Risk tendency**	▪ Adventuresomeness ▪ Prudence ▪ Honesty ▪ Self-discipline ▪ Anxiety ▪ Sensibility
6. Stress related work habits	▪ Subjective importance of work ▪ Work related ambition ▪ Willingness to work uniti exhausted ▪ Striving for perfection ▪ Distancing ability ▪ Proactive problem solving ▪ Inner calm and balance ▪ Experience of success at work ▪ Satisfaction with life ▪ Experience of social support
7. Inventory for personality assessment in situations	▪ Social and communicative behaviour ▪ Achievement behaviour ▪ Health & recreation

A description of the tests can be found at our website **www.schuhfried.at** and in the catalog "Vienna Test System". Contact us: info@schuhfried.at

Group testing system



If a large number of subjects are to be tested, it is advisable to use a **group testing system** with one workstation for the test administrator and a number of networked workstations for the respondents.

The **test administrator workstation** is used to enter respondent details, define the test battery to be used for each candidate and score the results. In addition, the progress of the tests being carried out at individual respondent workstations can be monitored.

The **individual workstations** are independent of each other. Candidates can start the predefined test battery individually and work through it at their own pace.

The results from all workstations are saved on a central server and printed out by a shared printer.

Through appropriate planning of the tests the assessor and the test administrator can optimise the use of their time. Respondent waiting times are kept to a minimum. In addition, the economy and efficient use of the workstations is increased and optimised.

SCHUHFRIED GmbH is always ready to help in setting up an individual timetabling and sequencing system.

System requirements

The following specifications refer to a **typical test system configuration**. Some tests require additional or better system components. You can find the relevant information in the Vienna Test System catalogue or on our website www.schuhfried.at

Computer

- PC or laptop with Pentium CPU (or compatible, e.g. Athlon), at least 1 Ghz
- At least 256 megabytes (MB) of RAM
- Display adapter with 24 or 32-bit colour depth (16 million colours)
- USB headset. Please contact us for advice on suitable equipment
- DVD drive, hard disk, mouse, keyboard
- USB ports for licence dongle and peripheral hardware (if all USB ports on the PC are in use a USB hub with external power supply is required)
- Serial or parallel interfaces (only if older VTS hardware is used)
- Network connection (e.g. for the installation of a Vienna Test System Network)
- Windows 2000/XP/2003/Vista (Windows NT4 on request)

Please ensure that no programs which could interfere with test presentation (e.g. through heavy CPU usage or display of on-screen messages) are installed on the computer!

Monitor

15" to 19" CRT or LCD colour monitor

CRT monitors must have a refresh rate of at least 75 Hz.
For **flat panel LCD monitors** the following considerations apply:

- We recommend using flat panel LCD monitors with a resolution of at least 1280x960 pixels.
- For technical reasons a light pen can not be used with a flat panel LCD monitor. A device with a built in touch screen can be used instead. Please contact us for advice on suitable equipment.

Printer

Laser or inkjet printer, black and white or colour

Safety Devices

If the Vienna Test System is used in health care facilities the use of the following devices may be mandatory:

- Isolating transformer for medical equipment according to EN 60601
- Galvanic (medical) network isolation according to EN 60601 (if the computer is connected to a data network)

Please inquire with your company's safety representative.

Products of the SCHUHFRIED Company are developed in accordance with the requirements of the European Union guideline 93/42/EWG. The CE mark proves that safety-relevant regulations, EMC Standards for Medical Devices (EN 60601), Biocompatibility Evaluation of Medical Devices (EN30993), product specific regulations and the underlying quality management system are adhered to.

Please contact us before acquiring new equipment so that we may give you the best possible advice.

Version: March 2009

References

SCHUHFRIED is the leading provider of computerised psychological assessment. SCHUHFRIED has equipped major railway companies all over the world with the Vienna Test System. All these operators have used the Vienna Test System with great success and to their entire satisfaction.

Our customers

- Austrian Federal Railways (ÖBB), Austria
- Belgian Railways (SNCB), Belgium
- DB GesundheitsService GmbH, Germany
- Indian Railways, India
- Japanese Railway (Sumitomo), Japan
- Queensland Rail, Australia
- Spanish Railways (RENFE, ADIF), Spain
- Swiss Railways (SBB), Switzerland
- Taiwan High Speed Railway, Taiwan

Swiss Railways (Switzerland)

"Since 2001 we have been incorporating the Vienna Test System (VTS) into our investigations, using it (...) to clarify a range of issues relating to performance and personality assessment.(...) For the last four years we have been using more than 40 VTS systems at locations all over Switzerland and we make use of a range of tools and tests in German, French and Italian. (...) Grouped together as a test battery, some tools provide an indispensable basis for investigating candidates' suitability. In other situations, specific tests are used as supplementary procedures in an assessment context, independent of the issues under consideration and the requirement criteria.
The VTS is simple and economical to use in our investigations. It is also easy to make short-term changes to the tests or the method of scoring. We very much appreciate the clear and straightforward presentation of results. (...) Overall the VTS has enabled us to work more efficiently and to obtain high-quality results. We shall continue to use the VTS in future, in particular on account of its extensive and constantly growing range of tests."

DB GesundheitsService GmbH (Germany)

"... The use of the VTS has played a significant part in optimising our aptitude assessment procedures and making them more flexible. (...) When the system was introduced it was a great help to us that your technical department was able to take account of distinctive local features and incorporate them into the set-up."

Wiener Linien (Austria)

"... The systems in the LAN networks not only operate flawlessly but also greatly contribute to the assessment and selection of new candidates. The easy handling of data and the presentation of results had a very positive impact by speeding up the whole process of personnel selection."

Quality management

SCHUHFRIED GmbH has set up a quality management system in accordance with EN ISO 13485:2003. This is a version of EN ISO 9001:2000 which is specially adapted for medical products.

SCHUHFRIED products are developed in accordance with the requirements of European Union directive 93/42/EEC. The CE mark proves that safety-relevant regulations, EMC Standards for Medical Devices (EN 60601), Biocompatibility Evaluation of Medical Devices (EN 30993), product-specific regulations and the underlying quality management system have been adhered to.

The development and production guidelines which have been drawn up as part of our quality management system ensure that our products are durable and highly reliable. We are continually improving both the expertise of our staff and the quality of our products.

Zertifikat - Certificate

Nr.: TÜV-A-MT-1/07/E032R2

Konformitätsbescheinigung des Qualitätsmanagementsystems
Quality management system approval certificate

Unternehmen / *Company*: SCHUHFRIED GmbH, 2340 Mödling, Hyrtlstrasse 45, Austria

Geltungsbereich / *Scope*: Forschung, Entwicklung, Fertigung, Verlag und Vertrieb von computergestützter psychologischer Diagnostik und kognitiver Rehabilitation
Entwicklung, Produktion und Vertrieb von medizinischen elektrischen Geräten, im speziellen Biofeedback- und Reizstromgeräte
Research, development, production, editing and sales of computer assisted psychological diagnostics and cognitive rehabilitation
Development, production and sales of electrical medical devices, in particular biofeedback- and stimulant current devices

Normen / *Standards*: EN ISO 13485:2003, Qualitätsmanagementsystem Medizinprodukte
Quality management system Medical devices

Bericht(e) / *Report(s)*: 06MT0672LUS

Hiermit bescheinigt der TÜV Österreich, daß das oben angeführte Unternehmen für den angeführten Geltungsbereich ein Qualitätsmanagement eingeführt hat und anwendet. Durch ein Audit wurde der Nachweis erbracht, daß die Forderungen der Nachweis-Normen erfüllt sind.
TÜV Austria certifies that the above mentioned manufacturer has introduced and uses a quality management system for the led scope. By an audit the proof was furnished that the demands of the standards are fulfilled

07.01.2007 – Datum der Ausstellung / *Date of issue*
Dipl.-Ing. Dr. Robert Messner – Zertifizierungsbeauftragter / *Certification representative*
06.01.2012 – Ende der Gültigkeit / *End of validity*

Erstausstellung / *First issue*: 16.02.2004

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Institut für Medizintechnik, Tel.: +43-1-610 91-6501, Fax: +43-1-610 91-6505, e-mail: mt@tuev.or.at

Austrian coat of arms

SCHUHFRIED GmbH has been awarded the Austrian coat of arms.

- High proportion of exports
- Quality management
- Good financial standing
- Innovative products
- Commitment to research and development
- Ongoing company development

Less than 0.5% of Austrian companies are awarded this distinction!

Contact us

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SCHUHFRIED
Qualität durch Kompetenz

EN ISO 13485:2003
Zert.Nr.: E032R1

Market leader in computerised psychological assessment
- WORLDWIDE -