### **RehaCom®** Cognitive Therapy EVIDENCE-BASED - CLINICALLY PROVEN

Stroke/TBI Multiple Sclerosis Dementia/Alzheimer Psychiatric Disorders Geriatrics ADHD

Made in Germany

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### Training Modules & Screenings

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### Attention

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Alertness	Alertness Training	ALTA	12	16					
	Reaction Behaviour	REVE	13	16					
	Responsiveness	REA1	13	20					
Vigilance	Vigilance 2	VIG2	14	9					
Sustained Attention	Sustained Attention	SUSA	14	9					
Selective Attention	Attention and Concentration	AUFM	15	24					
Divided Attention	Divided Attention	GEAU	15	14					
	Divided Attention 2	GEA2	16	22					
Visual-Spatial Attention (spatial-cognitive)	Spatial Operations	RAUM	16	42					
	Spatial Operations 2	SPOT	17	11					
	Spatial Operations 3D	RO3D	17	24					
	Two-Dimensional Operations	VR01	18	24					
Visual-Spatial (spatial-constructive)	Visuo-Constructional Ability	KONS	18	18					
Memory									
	Working Memory	WOMF	19	70					
	Memory Strategy Training	LEST	20	18					
	Verbal Memory	VERB	20	10					
	Figural Memory	BILD	21	9					
	Memory for Words	WORT	21	30					
	Topological Memory	MEMO	22	20					
	Physiognomic Memory	GESI	22	21					
Executive Eunctions									
			22	22					
			23	23					
			24						
			24	55					
	Calculation	CALC	25	42					
Visual Field									
	Saccadic Training	SAKA	26	34					
	Exploration	EXPL	27	30					
	Exploration 2	EX02	27	18					
	Restoration Training	RESE	28	1					
Visuo-Motor abilities									
	Visuo-Motor Coordination	WISO	29	96					
Screenings									
	Alorthoss		22						
			22						
	Soloctive Attention		22						
	Spatial Numbers Sparch		37						
	Working Memory		24						
	Memory For Words		34						
			35						
		KAMP	35						
	Visual Field		35						
		VIIL	55						

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(October 2018)

### Orders, Questions and Feedback

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### RehaCom in a Global Network

Many partners worldwide are involved in research, product development, distribution and rehabilitation. For further information please contact us.

### System Requirements

Processor:	Intel Core i3, i5 or i7 or comparable
System memory:	4GB RAM
Graphics card:	DirectX10.1 capable (Intel HD3000 or better)
Hard drive:	100GB free space
Sound card:	available
Resolution:	1024x768px (if scaling is higher than 100%, vertical resolution must be 1080px)
DVD drive:	for installation of the software (also possible via USB drive or download)
Operating system:	Windows 7, Windows 8/8.1 or Windows 10



4

12



Therapy Modules Attention Memory **Executive Functions** Visual Field Visuo-Motor Coordination Recommended Therapy Modules

32 Screenings

36 Scientific Partners **Global Distributors** Testimonials

### New in RehaCom

- 14 Vigilance 2
- 14 Sustained Attention
- 17 Spatial Operations 2
- 20 Memory Strategy Training
- 27 Exploration 2
- 35 Campimetry



Cognitive Therapy in Rehabilitation Customised RehaCom Solutions

Hometraining via Internet

Visit our HASOMED YouTube channel and watch "RehaCom Introduction"



RehaCom has been developed by therapists for therapists for more than 25 years. The effectiveness of computer-aided therapy in general and of RehaCom in particular has been documented in numerous studies. The consensus is that frequency and intensity of training are a major factor in verifiable improvements.

On the basis of numerous studies RehaCom is recommended by the guidelines of the German Society of Neuropsychology (GNP) and the German Association

In order to prove the effectiveness of the computer-aided therapy with RehaCom, we are always interested in new studies. We are pleased to support you in your



### Cognitive Therapy in Rehabilitation

Cognition works as an "interface" between the brain and its environment, directing the mental processes involved in gaining knowledge and understanding. These processes are essential for completing everyday activities. Loss of these functions may seriously reduce a person's quality of life.

The effects of brain damage, whether caused by stroke, traumatic brain injury (TBI), tumours, or multiple sclerosis, occur both physically and mentally. These impairments vary widely from person to person and depend on many factors, including an individual's personality and the severity of the brain damage. Clients often experience difficulty with concentration and sometimes develop speech disorders. They may also experience difficulty recognising or naming objects or persons. Frequently, spatial orientation and memory are also affected.

Different diagnostic measures are used depending on the severity and the type of brain damage. Clients may undergo physical, occupational and speech therapy as well as neuropsychological therapy, which includes cognitive therapy. The aim of cognitive rehabilitation is to minimise the damage, to regain lost skills, to develop compensation strategies, and to help the client to progress to the highest possible level of independence. Intact functions should be trained first because the success leads to better self-confidence. After that, affected functions can be trained specifically by using clear and explicit instructions.

### Modular structure

RehaCom includes 29 modules for training basic functions as well as specialised and more complex modules for training several affected cognitive functions. Starting at a low level of difficulty, the client can progress to solve increasingly complex tasks.

### Adaptivity & Individualisation

RehaCom is an auto-adaptive programme which adapts the complexity of each task automatically to the client's actual performance. The programme provides the client with a 'just right' challenge the requirements are neither too high nor too low. This makes therapy with RehaCom very motivating and frustration is avoided.

### Error-Specific Feedback

The computer operates as a neutral observer making objective comments on the client's performance and gives, if necessary, error-specific feedback. This leads to a higher self-confidence of the clients and can minimise the risk of side effects often caused by brain damage such as depressions or low self-esteem.



### Effectiveness

Numerous studies scientifically support the effectiveness of RehaCom. Please visit our website: rehacom.com to find all the latest RehaCom studies.

### Continuity and Control

RehaCom saves all training results. A new training session starts where the last one has been finished. Thus, it is possible to control the course of therapy and to adjust parameters promptly. The therapist has the ability to analyse all client data to further develop the therapy strategies.

### Efficiency

With RehaCom, many clients can train independently. At the beginning and at the end of the training, the client and the therapist determine the therapy goal and discuss the results face-to-face. As the clients can complete their cognitive training independently using RehaCom, the therapist can spend less time building up cognitive capacities, and more time working on other goals such as developing communication strategies. Implementing RehaCom in a clinic setting also allows therapists to work with several clients at the same time - one more reason why RehaCom has become a market leader for computer-based cognitive rehabilitation in Europe.

### Customised RehaCom Solutions

### **Training Times**

The rehabilitation of cognitive impairments requires continuous treatment over time. Therapy begins in the clinic and can be continued at home under supervision of a therapist. The duration of a therapy session with RehaCom depends on the client's personal performance. According to German clinical guidelines, clients should train:

- Several times a day for 10-15 minutes in the acute phase
- In the following 6-8 weeks, training sessions of 30-45 minutes should take place at least 3-5 times per week
- In the late phase of rehabilitation, and in the subsequent home training, clients should train 3-5 times a week for about 3-5 months

### Chin Rest/ Head Rest



### RehaCom Keyboard



We recommend using a chin

rest/head rest for training of

the visual field. This allows the

client to stay in a comfortable

and reproducible position in

front of the monitor, remaining

the same throughout the trai-

ning session. The chin rest is

adjustable in height and can be

adapted individually. It is made of a light and stable aluminum wood construction and can be fixed to the table with a screw clamp. The aluminum/varnished wood design makes it very easy



- We offer different options to activate RehaCom:
- Single work station in the institution or at home
- · Central network solution in the institution to use several work stations
- Internet license for home training

A conventional PC keyboard may be inappropriate as an input device for computer-based therapies. Therefore, we offer a special keyboard that allows clients with severe motor impairments to use the PC.

### Benefits

- · Developed by leading scientists, clinicians and therapists
- Motivating design, challenging tasks
- · Automatic adaption to clients' needs
- Provides more than 25 years of experience
- Market leader for computer-aided rehabilitation

### For therapists

- Quality made in Germany with the knowledge of clinical neuropsychologists
- An easy to use therapy tool covering all groups of cognitive disorders in all rehabilitation phases
- More time to really care for your clients
- Evidence based and clinically proven part of cognitive rehabilitation
- · Offers customised solutions for clinics and practice

### For clients

- A medical therapy device that will help you to achieve your therapy goal successfully and quickly
- Easy handling by touchscreen, special clients' keyboard, pc keyboard
- Tailored to the needs of clients, easy to learn and understand
- Supervised training by therapist over the internet
- · Clients train in their native language



to clean.

· Offers screening modules to detect impairments and to recommend corresponding training modules

### Cognitive Training in 5 Steps

### **Screen Your Client**

- The therapist measures the client's performance
- RehaCom offers 9 screening modules to test cognitive functions
- · Screening modules provide results in comparison with healthy people of the same gender and age
- · As a result of testing, the system recommends RehaCom therapy with specific therapy modules which fit the client's needs

### Screening modules:

Alertness · Divided Attention · Selective Attention · Working Memory · Spatial Numbers Search · Memory for Words · Logical Reasoning · Visual Field · Campimetry

### **Choose Appropriate Therapy Modules**

• There are up to 29 RehaCom therapy modules available

- · Each module has hundreds of tasks with different levels of difficulty: from very easy - to highly complex tasks
- Each module works self adaptive
- Modules are available for a basic therapy of fundamental cognitive functions as well as for therapy of complex daily life abilities

### Self adaptivity:

RehaCom measures the current performance of the client during the course of a therapy and automatically switches to the according level of difficulty. This guarantees best therapy results for the client.

### Individualise the Therapy

- Therapists can adjust every module exactly to the client's needs
- The self adaptive mode of every module can be adapted to different therapeutic tasks
- · Parameters can be adjusted to control therapy duration, number of tasks, working speed, feedback etc.
- Therapy modules can be adapted to client's family background, profession or personal preferences

### Individualise therapy material:

An individualised therapy is not a must, but nice to have. Every client has a story and other needs. With RehaCom you are well-prepared for all challenges a therapy may hold.

### Let's Get the Therapy Started

- · Before the therapy starts, the therapist has to introduce the therapy task to the client
- RehaCom supports this introduction by instructions or tutorials
- After the instruction phase, the client works for a time of 15 to 60 minutes
- · The computer monitors the client during the therapy

### The client works independently:

The RehaCom module monitors the client's behavior, reaction times, mistakes etc. The system gives feedback and adapts the difficulty level automatically.

### Analyse the Therapy Results

- All screening and therapy results are stored automatically in the client's data
- The therapist can evaluate and print the results as an overview or in detail
- By detailed recording of the course of the therapy, the decision for next therapy tasks is easy
- After a defined number of therapy sessions, the success of the therapy can be monitored by repetition of the screening and comparison of the results before and after the therapy

Different views of result display: An easy result view explains the progress of the therapy to the client in a clear and easy to understand way. A more complex result view allows the therapist to see every detail. All results can be printed out for documentation.

### Attention

Attention disorders are very common in both neurological and psychiatric patients and affect all areas of life.

While we think about a single concept in everyday life and speak of "attention", science distinguishes between various subfunctions, such as alertness, sustained attention and selective attention. Depending on the disorder or the location of damage in the brain, different attention functions can be affected and require specific training.

### Alertness Training



The module ALTA trains the alertness dimension of attention – the ability to temporarily increase and sustain the intensity of attention. The aim of alertness training is to increase the intrinsic alertness, since only then the arousal is fully cognitively controlled.

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**Indications:** Symptoms from attention deficit disorder, chronic fatigue syndrome, depression. Aim: to increase intrinsic alertness, causing attention to be entirely cognitively controlled. It is necessary to improve the phasic alertness first, and then proceed to work on intrinsic alertness. For early phases of rehabilitation, this module can be used as a criterion for driving suitability or as supplementary training for clients with neglect.

**Task:** The client's task is to observe a realistic street scenario and react quickly after a stimulus appears. The maximum response time can be set with two pre-selectable variants. RehaCom recognises correct, missed, and false reactions.

**Training Material:** The client will see objects (vehicles, animals, people, etc.) appearing in their line of sight. As the level increases, the complexity increases as well. The stimuli appears in different points on the screen (centrally, laterally, etc.). This produces a demand on anticipation and intrinsic reactivity similar to real life scenarios. Clients should train at least 10 mins (recommended).

### **Reaction Behavior**



The module REVE is used to train reaction behavior (reaction speed and accuracy) for single or multiple choice reactions to visual stimuli. At the edge of the screen, traffic signs are shown. Next to each sign, the button of the panel which the client has to press when the traffic sign appears, is indicated.

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**Indications:** Reduced reaction speed (e.g. as a result of insult, ischemia dementia, craniocerebral trauma, tumor development, etc.) mostly occurs in diffuse brain damage as well as in frontal and prefrontal lesions.

Task: The task is to press the corresponding reaction button as fast as possible whenever a relevant stimulus - a traffic sign - is shown on the screen.

Training Material: During the learning phase, the client has to memorise traffic signs and the corresponding reaction buttons. During the training phase, relevant traffic signs are presented to the client who must react within a certain time interval. In higher difficulty levels also irrelevant traffic signs, which require no reaction, can be shown optional.

### Responsiveness



The module REA1 aims to improve reaction speed and accuracy to visual and acoustic stimuli. Simple reaction tasks, simple choice, and multiple choice reaction tasks are used for training the client to react to certain stimuli as quickly and differentially as possible.

**Indications:** Impairment of responsiveness after cerebral lesions, disorders of selective attention performances, disturbances of visual and acoustic discrimination, cognition, and/or behavioral performance. The module is less suitable for persons with severe ametropia (visual refractive error) or poor hearing.

Task: Responsiveness is trained using simple reactions, simple choice, and multiple choice reactions with visual and/or acoustic stimuli. The training contains either only visual (module 1) or visual and acoustic stimuli (module 2). After a stimulus has appeared, the client must press a particular button on the RehaCom panel as fast as possible. During the acquisition phase, the client memorises the assignment of relevant stimuli to corresponding buttons. Reaction speed and accuracy are measured and evaluated.

**Training Material:** More than 200 visual stimuli and 6 acoustic stimuli in 3 variations each are included in the training. The therapist can add visual and acoustic stimuli (pictures and sounds) through the integrated programme editor.



### **NEW** Vigilance 2



Training of the ability to maintain the focus and level of attention during a condition of monotony (decrease of frequencies of stimuli and reduction of selected reactions).

### **Indications:** The training is indicated for clients with problems maintaining attention performance under the condition of a stimuli with a relatively low density over a longer period of time.

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Task: The client's task is comparing the objects on the conveyor belt, which pass by with varying spaces between them, with the original object. Objects on the conveyor belt that do not correspond to the originals must be sorted out. In the beginning of the training, the density (number of total objects) and the number of objects that need to be sorted out is rather high, however, it decreases during the course of training.

**Training Material:** Pictures with specific, real objects are available in 9 levels. Each original object comes with 3 modifications (differentiations in colour, outline and object details). The belt's direction of flow and speed are adjustable.

### **NEW** Sustained Attention



Training of the ability to maintain the focus and level of attention during high frequencies of stimuli and high demands on the selection process for longer periods.

Indications: The training is indicated for clients with problems maintaining attention performance under the condition of a stimuli with a relatively high frequency and an increasing number of reaction choices over a longer period of time.

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Task: As in module Vigilance 2, the client's task is comparing the objects on the conveyor belt. Objects which do not match the original ones must be sorted out. Contrary to the training Vigilance 2, the stimuli density (number of total objects) and the percentage of objects that need to be sorted out, are increased.

Training Material: Graphic pools with specific, real objects are available in 9 levels. Each original object comes with 3 modifications (differentiations in colour, outline and object details). Adapting the difficulty is affected by the number and resemblance of the objects, the increasing stimulus interval as well as the number of wrong objects. The belt's direction of flow and speed are adjustable.

### Attention and Concentration



The module AUFM is based on the principle of pattern comparison. The client has to find one picture in a matrix that matches exactly the "comparison picture".

Indications: Attention disorders (functionally and organically caused) after acquired brain damage. They are found in 80% of all persons affected by stroke, TBI, diffuse organic brain impairments (e.g. caused by chronic alcohol abuse or intoxication), as well as in other diseases of the central nervous system. Suitable for clients with disorders in attention and concentration.

Task: A picture shown separately on the screen has to be compared to a matrix of pictures. The client must find the picture in the matrix matching exactly the "comparison picture".

Training Material: A total of 77 picture pools are available, each with 16 coloured illustrations. All pictures are optimised concerning visibility and differentiability. According to parameter settings, either concrete objects (fruits, animals, faces etc.), geometric objects (circles, rectangles, and triangles of different size and order) or letters and numbers are displayed.

G2 6+ 19 Levels (1) 25 Languages

### **Divided** Attention



The module GEAU is made for divided attention training. Several stimuli have to be observed simultaneously as often demanded in everyday life. Like a train driver, the client has to monitor the driver's cab, regulate the speed, and react to different signals during the train run.

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**Indications**: Disorders in divided attention occur with almost all diffuse brain damages (caused by e.g. intoxication or alcohol abuse) as well as with local damage of the right hemisphere, especially of parietal parts. Affected clients have difficulties in focusing attention to multiple objects at the same time.

Task: On the lower part of the screen, a driver's cab is shown. Thus, the client can observe the railway like looking through the windscreen of the driver's cab. He must react to the elements of the cab and to relevant objects on the railway.

Training Material: The driver's panel contains a speedometer, a so-called "Deadman's switch" and the "emergency stop lamp". On the speedometer, a "target speed", which the client must keep, is set. As soon as a lamp lights up, the client has to press the corresponding button on the RehaCom Panel (e.g. the stop button). If a relevant object appears on the railway, the client also has to react to it (e.g. stopping at a red signal).



### Divided Attention 2



In the module GEA2, clients have to pay attention to several external stimuli whilst driving a car. They have to observe the landscape passing in front of them as well as the car dashboard and react to acoustic information in a differentiated way.

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Indications: Disturbances in focussing on certain aspects of a task, such as reacting quickly to relevant stimuli while ignoring irrelevant stimuli. This occurs in 80% of all clients after stroke, TBI, diffuse organic brain impairment (e.g. as a result of chronic alcohol abuse or intoxication) as well as in other diseases of the central nervous system.

Task and Training Material: On the screen, the view through the windscreen of a car as well as at the car's dashboard is simulated. On the left, the speedometer is shown. A green area marks the speed the client should drive. Push the arrow key up for accelerating the car, push the arrow key down for slowing down. There is a display for the way to go and for the expired time. The aim is to drive a certain distance within a limited time. Irrelevant as well as relevant objects move towards the client. Additionally acoustic stimuli are presented.

### **Spatial Operations**



The module RAUM trains the spatial perception (one- and two-dimensional) in the following categories: estimation of positions and angles, estimation of relations (filling of vessels) and dimensions.

Indications: For training of basic cognitive functions of spatial perception. Due to non-verbal material, even clients with restrictions in language and understanding words can work with the module. The training is less suitable for clients with highly intellectual impairment or distinct attention disorder.

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Training Task and Training Material: When estimating the position, two big fields are indicated on the screen. One field shows a fixed position. The other one shows the same object in a different position. The task is to move the picture in the right field to the same position. When estimating angles, 2 angles are shown in both fields which have to be adjusted to the same size by means of the arrow buttons of the RehaCom panel. When estimating relations, vessels with a given amount of liquid have to be filled or emptied. When estimating size, objects of different size are shown in both fields which must be brought to equal size with the arrow buttons. This task is available in a one- or two-dimensional version. The short-term memory for spatial perception is trained in higher levels of difficulty when the reference object disappears with the first changes to the object.

### **NEW** Spatial Operations 2



Training of up to nine different spatial perceptive performances. Partly also the spatial memory is required.

Indications: All disorders of visual and spatial perception, especially clients with parietal lobe lesions and/or neglect.

Task: This module consists of nine different tasks, which differ greatly from each other depending on spatial perceptive performances. Usually the training is carried out by comparing and adapting a spatial property to a reference object. The following performances can be trained: position estimation, angle estimation, relations estimation, one- and two-dimensional size estimation, parallelism estimation, length estimation, lines splitting and velocity and distance estimation.

Training Material: Multiple photorealistic and everyday graphics are available for each task. The short-term memory for spatial perception is trained in higher levels by fading out the reference object. The reconstruction must then be performed from memory.

▲ 8+ 1 22 Levels ( 26 Languages GEA2

### Spatial Operations 3D



The module RO3D is used for training spatial awareness and attention. For this purpose, several three-dimensional objects are shown on the screen which must be compared to a reference object. As an option, 3D glasses for a real 3D presentation can be used.

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Indications: For treatment of cognitive disorders, especially of spatial perception functions. In addition, the module can be used to continue attention training on a high level. By using non-verbal material, the client can work with the module even with restrictions in language and understanding words. The training is less suitable for clients with severe intellectual impairment or distinct attention deficit disorder.

Task and Training Material: In the upper half of the screen, a three-dimensional object is shown. In the lower half, three to six objects are shown which are more or less similar to each other depending on the level of difficulty. The client has to find the object below which matches exactly the object in the upper half of the screen. All objects on the screen can be rotated in three dimensions and thus can be viewed from all sides. As training material, a total of 432 3D bodies in 67 groups are available.



### Two-Dimensional Operations



The module "Two-dimensional-operations" trains the visual constructive capacities and spatial orientation. The task is to find the picture of a matrix which exactly corresponds to a "comparison picture". The corresponding picture is twisted towards the "comparison picture".

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Indications: Loss of performance in visual-constructive tasks, items of the position-in-space-exploration as well as in spatial orientation in clients with damages of the frontal lobe and with right hemispheric temporal and parietal damage. The training is indicated for clients with lesions in this area, with diffuse brain damage or low intellectual abilities. The training is less suitable for clients with severe intellectual impairment or distinct attention deficit disorder.

Task: On the screen, several objects are displayed which have to be compared to an object on the edge of the screen. The client has to find the object matching the "comparison picture" in every detail. Regarding the corresponding picture in the matrix, the "comparison picture" in the plane is rotated.

Training Material: Geometric figures like triangles, squares, hexagons, etc. are used as objects. In high levels of difficulty, the training material becomes more complex up to concrete objects and maps.

### Visuo-Constructional Ability



The module KONS is used for training the visual reconstruction of concrete pictures. The client has to memorise as many details as possible in a given picture. The picture is then divided into several pieces like in a puzzle. Next, the picture has to be reconstructed correctly.

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Indications: Constructional apraxia is mainly caused by parietal lesions. For managing the tasks constructive abilities, attention and memory performances are needed. Therefore, these cognitive functions are also demanded and trained. The training is indicated for clients with light or medium performance loss in the visuo-constructive field or with generalised functional disorders. This performance decrease is often found in diffuse organic brain damage caused by intoxications, alcohol abuse, etc. The training is particularly suitable for clients with serious apraxia, amnesia, and concentration disturbances.

Task: The training is made like a puzzle. At the beginning of a task, a picture is shown with which the client has to memorise as many details as possible. Once the client presses the OK button or after a defined time, the picture is divided into a certain number of puzzle pieces and has to be reconstructed.

**Training Material:** For this module, photographs and drawings are used, e.g. houses, faces, everyday objects or paintings. The pictures appear on the screen in very high resolution.

KONS 2 8+ 18 Levels 126 Languages

### Memory

Memory impairment occurs both after brain damage and after psychiatric illness. A distinction is made between different forms of memory (e.g. working, short-term, long-term memory).

In most cases, the recording and permanent storage of new information is disturbed while the retrieval of already stored information is maintained. For affected patients, memory deficits often have serious consequences. These can be reduced through training, but mostly through providing compensation strategies.

VR01 10+ 11 24 Levels (26 Languages

### Working Memory



The training exercises the ability to remember information and to manipulate it. Maintaining attention and the resistance to interference play a central role.

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Indications: The module is suited for clients with mild to moderate working memory disorders after neurological and psychiatric disorders, as well as for the training of complex attention and executive functions. The training is not indicated for severe disorders of the selective attention and short-term memory.

Task: Depending on the level of difficulty, the client has to remember an increasing number of playing cards (memory system), select them from different distractors (selective attention) and later mentally manipulate them (central executive). By selecting modifiers optionally, it is possible to set priorities and consider individual limitations.

**Training Material:** A complete deck of cards (52 cards) with French, German or colored cards is used. The training material is completed by distractors on the cards, distractors for delayed retrieval and a reward system to support motivation. The training includes 70 levels.



### NEW

### Memory Strategy Training



The module introduces and consolidates a learning strategy and thus improves the memorisation and retrieval of Information.

**Indications:** The training is suitable for clients with light and moderately severe disorders of learning abilities.

Task: The task is to memorise terms that are displayed on the monitor. These are either presented as pictures or as words. With the help of an offered learning strategy (visualisation and storage on a body route, or visualised writing of a word) the terms have to be memorised and recognised after a simple distraction task.

**Training Material:** Approx. 200 objects are displayed as high-resolution photos or words in 18 levels. The two different learning strategies are taught as tutorials.

### Verbal Memory



The module VERB aims to improve the short-term memory of verbal information. For this purpose, short stories are displayed on the screen. The clients have to memorise all details in the story. Afterwards, they must reproduce them when asked by the programme.

Indications: Disorders or impairments of the short-term or medium-term verbal memory. They might occur in almost every diffuse brain damage (dementia, alcohol abuse, etc.) as well as in bilateral or left-hemispheric lesions of different aetiology.

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Task: A short story is shown on the screen. The client should memorise as many details of the story as possible (names, numbers, events, objects). The learning phase is completed by pressing the OK button. After that, the client must answer questions about the content of the story.

**Training Material:** More than 74 short stories are available. Depending on the setting, either the computer or the therapist selects a story for the client. An extension of the pool of stories is possible by using an integrated editor.

▲ 10+ 18 Levels ⊕ 21 Languages VERB ▲ 10+ 10 Levels ⊕ 20 Languages

### **Figural Memory**



This module is used for training the long-term nonverbal and verbal memory (working memory). The client has to memorize specific (nameable) objects. After the "learning phase", terms will appear like on a conveyor belt. The client has to press the OK button whenever they recognize an object.

Indications: All memory disorders (especially disorders of the working memory) for verbal and nonverbal contents. The training module is also suitable for clients with impaired ability to name objects as well as with difficulties in conceptual classification (organically or functionally caused).

Task: At the beginning, pictures of concrete objects are shown. The client has to memorise the terms of these objects. The client completes the learning phase by pressing the OK button. After that, different terms move by on the screen from the left to the right. Whenever the term for an object shown during the learning phase passes through the marked area, the client must press the OK button.

Training Material: About 200 pictures of concrete objects, 100 of which have a high classification safety. It is possible to adjust the speed of the terms moving by. This ensures that clients (and children) with a different speed of reading can use this module for training.

BILD **L** 6+ **1** 9 Levels **(1)** 27 Languages

LEST

### Memory for Words



This module trains the ability to learn and remember words. During a learning phase, a certain number of words is shown on the screen. After the client has memorised these words a conveyor belt is shown with words moving along it. The client's task is to identify the learned words.

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Indications: Impairment of vocabulary and reduced recognition performance, especially for clients with beginning amnestic syndrome. This occurs in persons with diffuse cerebro-organic damage and left hemispheric or bilateral lesion (especially of the limbic lemniscus with damage of the thalamic parts). Also suitable for clients with functionally caused impairments.

Task: During the "learning phase", the client has to memorise a list of words (from 1 up to 10 words). With an increasing level of difficulty, the number of words in the list as well as the difficulty of the words grow. The words presented during the "learning phase" must then be selected from a number of different (irrelevant) words.

Training Material: The words appear big and clearly visible on the screen. The movement of the words across the screen happens continually and fluently. The speed of the words "rolling by" can be adapted.



### Topological Memory



This module MEMO trains the topological memory. Like in a memory game, the client has to memorise the position of cards and pictures (e.g. books, cutlery, television, camera, etc.) or geometric figures.

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Indications: All memory disorders or impairments for verbal and nonverbal contents. Amnestic syndromes can be observed for all diffuse cerebroorganic diseases (dementia, intoxications, chronic alcohol abuse, etc.) as well as for all left-sided or bilateral lesions of the medial or basolateral limbic lemniscus. Furthermore, vascular diseases, TBI or brain tumors in prefrontal, temporal or parietal cortical areas can lead to memory deficits.

Task: In the learning phase, a variable number of cards (depending on the level of difficulty) with concrete pictures or geometric figures are displayed on the screen. The client has to memorise the position of the pictures. After a preset time – or manually by pressing the OK button – the pictures of the matrix are turned face down. The client must find the picture matching the one indicated on the right side of the screen.

**Training Material:** Altogether, 464 pictures of concrete objects, geometric figures, and letters are available. The number of simultaneously displayed cards varies from 3 to a maximum of 16.

▲ 6+ 1 20 Levels ( 27 Languages

### Physiognomic Memory



The purpose of the modul GESI is to train the recognition of faces. The faces are shown from different sides. The client has to decide whether he has already seen this person before. In higher levels of difficulty, he has to memorize additional verbal information about the person.

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Indications: Suitable for clients with visual prosapognosia where the ability to recognise faces and to connect meaningful associations to them is impaired or lost. The problem can also be related to memory components that are responsible for remembering faces. The training is indicated for all clients with right-sided or bilateral lesion of the temporal lobe of different aetiology in which the mentioned impairments are observed.

Task: During the "learning phase", the client has to memorise a specific number of faces. Then they must pick these faces out of a 'line-up' of different faces. In higher levels of difficulty, a name and a profession are also shown. The client now has the task to find out the face associated with the name or the profession.

**Training Material:** A total of 47 persons have been photographed from four different directions. The pictures reach photo quality. It is possible to add photos from the client's environment via an integrated editor.

▲ 6+ 1 21 Levels ( 25 Languages

GESI

# ecutive Functions

Executive functions are a collective term for various higher function mental processes associated with action planning or goal-oriented behavior.

Patients with deficits in executive functions show difficulties in planning and adhering to rules, often have little sense of social norms and in suppressing unwanted behavior. Executive functions are closely linked to the frontal brain. Neurological diseases or injuries of the frontal brain as well as psychiatric diseases (e.g. schizophrenia) then show abnormalities.

MEMO

### Logical Reasoning



The module LODE aims to improve logical thinking (reasoning). The client has to continue rows of symbols that order is based on logical rules.

**Indications:** Acquired damage of the frontal lobe, where impairments in abstract logical thinking can be observed. Those losses of performance often occur in clients with chronic alcohol abuse, dementia, as well as schizophrenia.

.....

**Task**: From several symbols (pool of answers), the client has to find out the one that correctly continues a given sequence of symbols.

Training Material: A sequence of symbols (circles, triangles, squares, etc.) of different shape, colour, and size are displayed on the screen being in a regular relation to each other. If the answer is wrong, special pieces of information about the type of error (shape, colour, and/or size) are given.



### Shopping



The module EINK is a training environment in which the client has to solve everyday life tasks in a supermarket. The aim of the training is to improve planning and execution.

.....

Indications: Deficits in working memory and difficulties in concept development and action planning as a result of TBI, stroke, cerebral tumor surgery or cerebral haemorrhage. The module can also be used for maintaining the mental performance of elderly people as well as for children aged 10 and up. Not suitable for clients with attention deficits.

Task: Client gets a shopping list of articles that he has to look for in a supermarket and put into a trolley. When all articles are in the trolley, the client can leave the supermarket by using the "cash" button. Beyond a certain level of difficulty, additional demands on the client's mathematical abilities are made (a certain amount of money is specified, the products are marked with prices, etc.).

Training Material: The training module currently uses more than 100 articles illustrated photo-realistically (food, household objects, etc.). These articles appear on shelves from which the client must choose them. The training programme disposes of a voice output, which means all articles are named when selected. Two shops can be chosen: supermarket or hardware store.

### Plan a Vacation



The module PLAN is about planning daily errands. The aim is to improve executive functions respectively to establish strategies for planning. "Plan a Vacation" makes demands on basic and – especially in higher levels of difficulty – more complex cognitive skills.

.....

Indications: Disorders of cognitive functions, especially of planning skills. The ability to plan and to organise everyday life is one of the most complex human skills. It can be affected by any brain damage, especially by damages of frontal structures or diffuse cerebral damages. The module Plan a Vacation can also be used for training memory skills. It is not recommended in very heavy amnestic disorders. The presence of a therapist is strongly recommended for seriously impaired clients.

Task: The training task is to prioritise a list of errands in optimal order. For this purpose, a map is shown on the screen with different buildings and roads from bird's-eye view. Clients have to "visit" one building after another according to their time schedule and enter them in their diary. There are three different request types:

- · Note priority
- · Minimise travelling time
- $\cdot$  Maximise the number of completed tasks.

Training Material: Plan a Vacation provides an almost endless number of different tasks since new combinations of tasks can be generated randomly.

PLAN 10+ 55 Levels (19 Languages

### Calculations



The module CALC supports clients to improve their arithmetic skills. Depending on the type of disorder, basic or more complex tasks are trained. Calculating with money is included.

Indications: Impairments of arithmetic cognitive skills. Disorders of cognitive functions can be diverse. They range from reduced basal disorders when estimating sizes and quantities to problems in applying basic arithmetic operations and difficulties in solving complex mathematic problems.

Task: The training has a high diversity of tasks. The client starts with simple comparisons of size or quantity and with sorting tasks. After that, basic arithmetic operations, such as adding and subtracting, are trained, both mentally and in writing. In higher levels of difficulty, the client is instructed in very realistic situations to handle money. He has to offer the exact amount of money, give change or check their own change. Finally, multiplication and division tasks are available.

Training Material: Size and quantity tasks are trained using pictures of simple objects until the client passes on to calculations with numbers. Written addition and subtraction is shown in small numbers in the carry over. For money handling pictures of realistic banknotes and coins are used.

▲ 8+ 🚮 42 Levels 🌐 24 Languages

# Visual Fielo

Loss of visual field is a common side effect of stroke or hypoxic brain injury.

The visual information is transmitted from the eye via the optic nerve and via the optic radiation to the occipital lobe for processing. If these nerve tracts are damaged, the necessary visual information no longer reaches them and cannot be processed, resulting in a loss of visual field. Those affected have difficulties in reading and visual orientation. Targeted training can significantly reduce the effects on everyday life.

### Saccadic Training



The module SAKA is developed for clients with visual neglect phenomena or hemianopsia. The clients are instructed to push a corresponding reaction button when a figure appears left or right from the centre.

Indications: Impairments in visual exploration on one half of the visual field. They occur in extended cerebral infarcts in the area of distribution of the middle or posterior cerebral artery neglects. Other organic brain disorders can also cause these functional impairments.

Task: The client can see a horizon on the screen with a very simple structured landscape. In the middle of the screen, a big sun is displayed. At irregular intervals, an object appears left or right from the sun. Whenever the client notices an object, he has to press the corresponding reaction button (left or right arrow key of the RehaCom Panel).

Training Material: On the screen, a horizontal line is visible. At easier levels, a sun is indicated in the middle for a better orientation of the client. In irregular temporal intervals, different objects or symbols, e.g. animals, cars, bikes, motorcycles etc., appear on the horizontal line. At higher levels of difficulty, the symbols become smaller, the horizon disappears, and additional deflecting stimuli are shown and fade again.

### Exploration



The module EXPL is used for treating visual exploration disorders. During training, the serial search is used in which localised objects undergo a detailed analysis.

Indications: Homonymous restrictions of the visual field, disorders of visual exploration as a consequence of visual field loss, visual neglect, and/or Balint's syndrome. Due to the use of non-verbal material, the module is also suitable for clients suffering from linguistic restrictions and restrictions in understanding words.

Task: Different stimuli (symbols) appear on a black background from which the client is required to select all stimuli he/she memorised before by systematical search. A circular cursor moves over the field line by line (with interlace). In this way, the exploration movement of the client is controlled. Each time, the relevant symbol is within the moving circular cursor, the client has to press the OK button.

Training Material: For exploration training, squares, triangle, circles, stars, and symbols are used.



### **NEW** Exploration2



The module serves the treatment of impaired visual exploration and improves the detail analysis.

Indications: The training is recommended for clients with homonymous visual field impairments, impaired visual exploration or visual neglect.

Training Task: There are four different types of tasks. In the task "Search for missing numbers", numbers scattered around the screen must be searched one after the other and the missing numbers must be identified. In "Search objects", certain objects embedded in scenes must be found and clicked on. In the task "Search and count object", the number of presented objects must be determined. The task "Superimposed figures" is used for training the detailed analysis. Simple figures are presented superimposed. The patient must decide which basic forms the superimposed figure consists of.

Training Material: There are many detailed images and scenes available for the "Find object" and "Find and Count objects" tasks. The task "Superimposed figures" contains many simple geometric figures that are differently colored or black.



### **Restoration Training**



RESE is intended for the improvement of visual functions in clients with impaired vision (e.g. Hemianopia). In the months immediately following the lesion, some recovery is possible and this module encourages and strengthens the restitutive process.

Indications: Neurological visual impairments such as Hemianopia and resulting perception, processing disorders, reading and attention problems, and visual neglect.

**Task:** A fixation point is displayed on the screen. When a light stimulus appears, the client should respond by pressing a key (mouse click, keyboard, etc.). The client has to react when the fixation point changes colour and respond to every visible light stimulus. If the client misses a stimulus, it will disappear, and then reappear.

Training Material: The light stimulus is displayed by using a specific algorithm. The stimuli will move and appear in different positions on the screen, including close to, and over, the border of the impaired side of the visual field. Repeated and intensive activation of this area will encourage a positive change in the visual field over time. Audio feedback/signals will provide feedback to help sustain the client's attention. RESE is auto-adaptive, changing the difficulty according to the client's performance. It is recommended to use the chin rest to stabilise the head, maintaining a consistent distance from the screen.

### RESE 💄 8+ 🚮 1 Level 🌐 25 Languages

### Visuo-Motor Coordination

Human movements are based on the coordination of different motor, visual and proprioceptive systems.

In numerous everyday "fine-motor" activities, such as the use of cutlery or tools, the exact coordination of eyes, head and hands is essential. During motor action, visual control plays an important role - especially in the learning stage of movement sequences. Brain damage to the motor or sensory area, but also to the spatial or visual system, can lead to serious difficulties in the eye-hand coordination.

### Visuo-Motor Coordination



The module WISO is important for the rehabilitation of clients with disorders in visuo-motor coordination. A cursor and a rotor are displayed on the screen in different forms and colours. The client has to move the cursor to the middle of the rotor with the joystick and follow the movements of the rotor.

Indications: Damages of the motor cortex (frontal lobe) causing deficits in the control of fine motor skills. They can be observed most clearly in coordination disorders of hand and finger movements. In many cerebro-organic diseases and damages, e.g. cerebral insults, haemorrhage, spacious tumours, craniocerebral trauma, etc., visuo-motor functions are also affected. The training is indicated for all disorders of fine motor skills.

**Task**: On the screen, a circular disc (rotor type abstract) and a dot are shown differing strongly from each other due to different colours. The client has to move the dot into the circular disk by means of the joystick or mouse. Then the disk starts moving along an unpredictable track. The client tries to follow the movement with the joystick (represented by the dot). In "rotor type concrete", e.g. a flower is used instead of the circular disk and a beetle or a bee replaces the dot.

Training Material: For operating the training, a huge circular disk describing a given movement, and a dot that can be moved with the joystick or mouse, are used. In order to make the training more variable and interesting especially for children, 25 pairs of pictures are used as rotor/cursor in the "concrete" mode.

### Recommended Therapy Modules

STROKE/TBI Severe Traumatic Brain Injury / Early Phase of Rehabilitation	<ul><li>ALTA Alertness Training</li><li>AUFM Attention and Concentration</li><li>REVE Reaction Behavior</li><li>WOME Working Memory</li><li>WORT Memory of Words</li><li>BILD Figural Memory</li></ul>	DEMENTIA
<b>STROKE/TBI</b> Severe Traumatic Brain Injury/ Early Phase of Rehabilitation + Neglect/Visual Field	ALTAAlertness TrainingAUFMAttention and ConcentrationREVEReaction BehaviorBILDFigural MemoryWORTMemory of WordsWOMEWorking MemorySAKASaccadic TrainingRESERestoration Training	
STROKE/TBI Moderate Traumatic Brain Injury/ MID Phase of Rehabilitation	AUFMAttention and ConcentrationREA1ResponsivenessGEAUDivided AttentionVR01Two-dimensional OperationsWOMEWorking MemoryLESTMemory Strategy TrainingVERBVerbal MemoryLODELogical Reasoning	DEPRESSION
STROKE/TBI Mild Traumatic Brain Injury	GEA2Divided Attention 2RO3DSpatial Operations 3DWOMEWorking MemoryVERBVerbal MemoryLESTMemory Strategy TrainingPLANPlan a VacationEINKShopping	SCHIZOPHRENI
ADD/ADHD	AUFMAttention and ConcentrationSUSASustained AttentionREVEReaction BehaviorGEAUDivided AttentionGEA2Divided Attention 2WOMEWorking MemoryPLANPlan a Vacation	
MULTIPLE SCLEROSIS	REVEReaction BehaviorREA1ResponsivenessGEAUDivided AttentionGEA2Divided Attention 2WOMEWorking MemoryVERBVerbal MemoryBILDFigural MemoryRAUMSpatial OperationsVR01Two-dimensional OperationsEINKShopping	We would be pleased to arrang

ALTA	Alertness Training
AUFM	Attention and Concentration
REVE	Reaction Behavior
WOME	Working Memory
GESI	Physiognomic Memory
WORT	Memory of Words
BILD	Figural Memory
VERB	Verbal Memory
MEMO	Topological Memory
EINK	Shopping
LODE	Logical Reasoning
ALTA	Alertness Training
REVE	Reaction Behavior
AUFM	Attention and Concentration
SUSA	Sustained Attention
GEAU	Divided Attention
GEA2	Divided Attention 2
WOME	Working Memory
VERB	Verbal Memory
LODE	Logical Reasoning
EINK	Shopping
PLAN	Plan a Vacation
AUFM	Attention and Concentration
REVE	Reaction Behavior
VIG2	Vigilance 2
GEAU	Divided Attention
GEA2	Divided Attention 2
WOME	Working Memory
VERB	Verbal Memory
LODE	Logical Reasoning
EINK	Shopping
PLAN	Plan a Vacation
AUFM	Attention and Concentration
REVW	Reaction Behavior
GEAU	Divided Attention
WOME	Working Memory
LEST	Memory Strategy Training
GESI	Physiognomic Memory
WORT	Memory of Words
BILD	Figural Memory
VERB	Verbal Memory
MEMO	Topological Memory
EINK	Shopping
LODE	Logical Reasoning

e an individual training package according to your needs.

## Screenings

Targeted cognitive therapy is an important instrument in the rehabilitation process. Before starting the therapy, a diagnostic assessment of all brain functions is made in order to pinpoint the impairment as well as determine which functions are still intact. Then, a therapy plan is created to meet the client's specific needs, and specific goals are defined together with the client so that the therapy is as successful as possible.

RehaCom is a therapy tool. As such, its focus is on rehabilitation of cognitive impairments. In contrast to a complex assessment, the screening tool just gives a hint according to the deviation from the norm.

Specially adapted screenings can help to identify suspected cognitive weaknesses or impairments. This area can be assessed with further specific diagnostic tools afterwards. The results then give a quick overview on the affected cognitive functions.

The RehaCom Screening Set consists of 9 modules for screening the cognitive status of clients with neurological and/or psychiatric diseases. Evaluate the screening results and get recommendations which training should be used.



### Alertness **Divided Attention** ເ ເ ເ Measures tonic, phasic and intrin-Measures the ability to respond

to more than one task simultaneously

.....

In this module the tonic and the phasic alertness are measured. The client has to push a button as fast as possible, whenever a square on the screen is filled. (tonic alertness condition). In half of the trials a signal can be heard just before the square appears (phasic alertness condition). The client should benefit from the tone and react just a little faster than without it. The mean reaction times for both conditions are recorded.

sic Alertness

**(b**) 5 min. 48 visual stimuli,

24 of them with warning sound

In this module, the client has to react to a visual and an auditive task simultaneously. One trial contains 80 visual stimuli with about 15% relevant stimuli as well as 160 auditive stimuli with approximately 10% relevant stimuli. For a visual as well as an auditive stimulus, the client has to push the same button on the keyboard.

**4** min.

160 auditory stimuli, 80 visual stimuli

25 Languages ALET

32





### 

Measures the ability to respond to relevant stimuli under time pressure and ignore irrelevant stimuli

.....

This screening measures the ability to react fast on certain stimuli and to inhibit reactions on other (Go-Nogo paradigm). In everyday life it is essential to suppress reactions in favour of internally controlled behavior. The mean reaction times and errors are recorded.



(-) 3-4 min. 20 Go and 20 NoGo stimuli

GONT

### Spatial Numbers Search



Measures the overall cognitive performance speed and lateral preference in solving a simple visual search task

.....

The screen displays 24 two-digit numbers (01-24). The task is to search and click on them in ascending order. Prerequisites are sufficiently preserved visual acuity as well as basic language comprehension. Processing times, lateral preference and exhaustibility are evaluated. This task is deduced from the well-known "Digits-Connection-Test" developed by Oswald and Roth 1987.

 $\bigcirc$ 4-5 min. (max. 8 min.) 24 two-digit numbers



Working Memory

Measures the visual-spatial memory span and certain aspects of working memory

.....

On the screen ten points are arranged in a circle. During the learning phase an increasing number of points at different positions blink one after the other. The task is to remember those points and to click on them in the same order (immediate memory span). After two consecutive errors the test is completed.

(L) 3-7 min.

10 circularly arranged dots

This screening measures the client's ability to memorise and recognise words. Firstly, the client is shown two words at the same time and must indicate whether the words are different or identical. In the second stage, the client will be shown one word at a time on the screen. The client must indicate whether this is the first time the word has appeared, or whether it has appeared before. This module requires the client to use their long-term memory and recognition methods to complete successfully.

Memory For Words

ECHT

Betavet Unbekant

Measures the verbal learning ability/aspect of verbal memory

.....

(L) 10 min.

72 words in blocks of 12 words each

### Logical Reasoning

### Campimetry NEW

Visual field screening



Measuring the ability to think in a convergent figurative way

client's ability to complete a se-

quence. It examines whether the

client can identify irregularities

and is able to draw logical conclusi-

ons. Visual material similar to intel-

ligence tests used by Weiss, Cattell,

Horn Sturm and Melchers is used.

A visual sequence of four blocks

will be displayed on the screen.

They must complete the sequence

correctly by selecting a 5th block

from the options available. This

screening is an important part of

executive function diagnostics.

**()** 5-7 min. (max. 13 min.)

13 picture sequences

..... The field of vision can be exami-This screening measures the

> ned binocularly or monocularly using the screening campimetry. In contrast to the three-dimensional perimetry, the campimetry is two-dimensional. In the test, stimuli appear on the screen at random intervals at different positions. While the client keeps his gaze fixed on a central point on the screen, he should perceive these stimuli and confirm them as quickly as possible with the answer button. To control the fixation, the fixation point changes its colour or shape at irregular intervals. The change of colour should also be confirmed as quickly as possible with the answer key. Before performing the test, parameters such as screen size, distance from eye to screen, size of the measuring matrix, as well as the eye to be tested, can be set.

**C** ca. 15 min.

КАМР

404 relevant stimuli, 81 fixation controls

NUQU



### Visual Field



Visual field screening under selective conditions

This screening measures the visual field and fixation accuracy of the client. In many hospitals, clinics and outpatient facilities, assessment of the visual field is difficult. This module provides them with an accurate tool. The client will be asked to focus on a circle in the centre of the screen. He must indicate when he sees that circle fills with colour. He must also indicate when a line appears from this circle with another circle on its end. He must not react if there is no circle at the end of the line. The results can be printed as a visual field map.

**(-)** ca. 10 min.

96 relevant stimuli, 48 irrelevant stimuli 58 fixation controls

### Supervised Home Training via Internet



RehaCom Home training via Internet makes professional rehabilitation services available to people who would have limited or no access to such services e.g. people with mobility restrictions or in rural areas.

For daily training at home, the therapist creates a therapy plan that is individually adjusted to the client's needs. The client-specific treatment plan is stored on an internet platform. As soon as the client wants to train, the RehaCom system downloads the therapy plan, the client performs the training and the system saves training results automatically.

Thus, the therapist can evaluate the results promptly and supervise the performance. He can adapt the therapy plan optimally to the individual needs and the actual performance of the person concerned, and can respond to changing performance directly. The integration of caregivers is possible and can be very motivating for clients, particularly with severe cognitive disorders. Family support is essential for promoting long-term active participation in daily life.

### Benefits of Home Training:

- Improved outcomes by continuing cognitive
- rehabilitation at home
- Increased independence in the home environment
- Increased self-confidence and self-esteem
  Better vocational opportunities

### Scientific Partner

We would like to thank all partners, employees and teams who have been involved in the development of RehaCom and continue to be involved in their valuable work. Only through good cooperation is a successful and approved therapy system such as RehaCom possible.

Dr. René Vohn Clinical Neuropsychologist (GNP), Psychological Psychotherapist, Neuropsychological Practice, Würselen

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Mexico MedRent S.A. de C.V. www.med-rent.com

### **AFRICA**

South Africa Mediotronics Physical Medicine (Pty) Ltd. www.mediotronics.co.za

### Testimonials



Dr. phil. Hendrik Niemann

Head of Department of Neuropsychology Leipzig, Germany Chairman of the German Society for Neuropsychology until 2013

"In our inpatient rehabilitation center, we have been using the RehaCom programmes for many years very successfully with our neurological patients. For example, the programmes for exploration, saccadic eye movements and reading are very helpful for patients with visual field defects. The default criterion for moving patients back and forth through the difficulty levels of each task is self-explanatory and can be individually adjusted if necessary. The feedback while performing a task as well as the graphic profile at the end of each session is helpful for patients and therapists to monitor progress. Another important feature of RehaCom is the special keyboard which is easily used by patients with motor impairments. In summary, the RehaCom system is highly recommendable for the remediation of neuro-cognitive deficits and should be integrated in a cognitive rehabilitation concept."



Prof. Dr. Sandra Verena Mueller

Chair of Rehabilitation and Integration at the Ostfalia University of Applied Science Braunschweig/Wolfenbuettel, Germany

"As specialist for impairments of executive functions I developed 3 therapy modules in cooperation with the company HASOMED. The cognitive fields attention, memory and executive functions are trained in the late phase of rehabilitation. The tasks of these modules have a deep practical orientation, which helps the patient to return into his working life. Many of my colleagues are successfully using RehaCom in their therapy due to user friendliness and the scientific background."



Dr. rer. nat. Hartwig Kulke

Specialty Hospital/Department of Neuropsychology Herzogenaurach, Germany

"As head of a Department of Neuropsychology, I've been treating patients after Stroke and TBI for many years now. We use RehaCom very successfully; not only my personal experience but also numerous studies show the effectiveness of the treatment. The therapy with RehaCom is user-friendly and allows for very precise adjustment of the difficulty of the tasks matching the patient's abilities. Based on my clinical work, I treat patients with an ongoing supervised home training. This way, the teletherapy with RehaCom allows to continue with the cognitive training as long as the patient really needs it."



Dr. Angelika Thoene-Otto

Clinical Neuropsychologist at the University of Leipzig, Daycare Clinic for Cognitive Neurology

"RehaCom Cognitive Training programs are being developed according to recent scientific findings and are continuously updated, thus we can be sure to treat our patients with latest state-of-theart materials. The programs are an important part of the functional training within our neuropsychological therapy in an outpatient unit for brain injured patients of different etiologies. Patients as well as therapists appreciate the very user-friendly interfaces, the adaptive way of increasing task difficulty and the motivating feedback of progress."



### Dr. Volker Peschke

Clinical Neuropsychologist, Supervisor and Psychotherapist, Neurological Clinic Therapy Center Burgau (Bavaria)

"Dr. Peter Weber, CEO of HASOMED and I know each other for more than 20 years. At that time, we both were involved in research for the development of medical devices; hence a close and innovative cooperation began. In the early nineties I started to work with RehaCom and treated my Neglect patients with the SAKA exploration training on a 32 inch TV screen. In the following years, HASOMED developed more and more RehaCom training modules close to everyday life, which enabled my clients to cope with daily activities again. CEO and head of development Frank Schulze always appreciated wishes, ideas and constructive criticism resulting from the therapy with RehaCom. I always enjoy our conversations and discussions about further developments and improvements. It is my personal conviction that both, clients and therapists, benefit from training with RehaCom."





Fachklinik Herzogenaurach



Therapiezentrum Burgau



### Dr. Andrew Barnes

Clinical Neuropsychologist, Bad Ems, Germany

"RehaCom offers excellent opportunities for delivering individualised cognitive training programmes to brain-injured patients in their homes. Through the internet, patients can be monitored and supervised in their regular training. As a therapist working with outpatients I find a major advantage of this approach to be that it enables time-consuming cognitive exercises to take place outside of weekly therapy sessions. There is thus more time available in faceto-face therapy for other important rehabilitation issues such as emotional adjustment."



Praxis für neuropsychologische und psychologische Rehabilitation

### Imprint

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### Prof. Dr. phil. Helmut Hildebrandt

Centre of Neurology Bremen, Germany and Institute of Psychology at the University of Oldenburg, Germany

"I know the RehaCom software as an instrument for neuropsychological rehabilitation since my first steps in this field. During the years an increasing number of specific training modules have been added to it and we use it regularly in our unit for severe impaired and mildly impaired patients. I can highly recommend its use in clinical practice because it is easy to use, specifically trains impaired functions, adapts automatically to the level of the patients and has proven to be efficient."







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