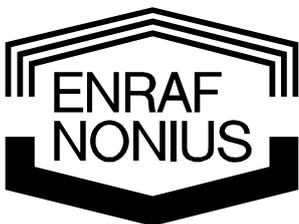
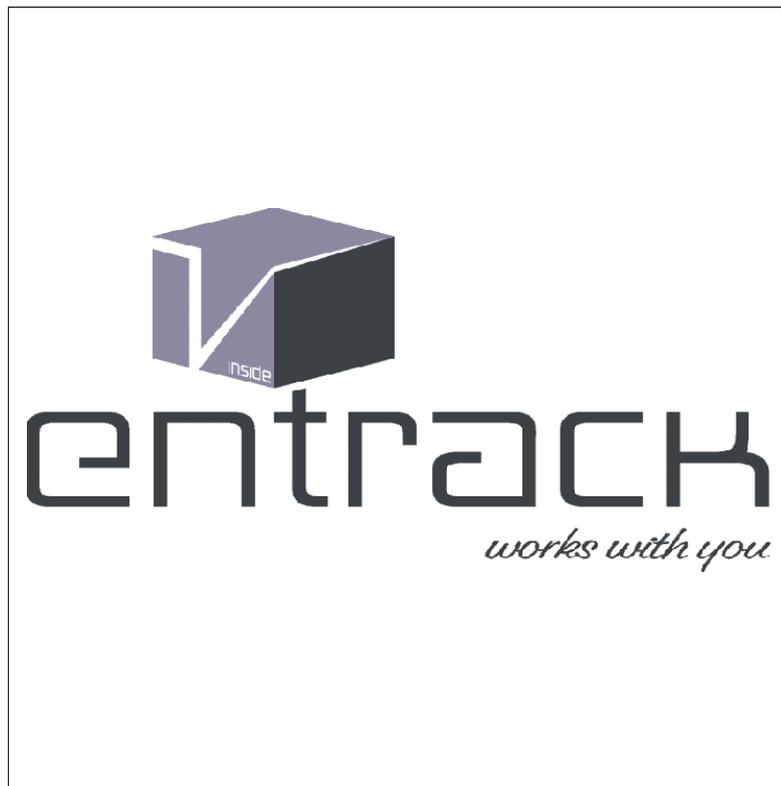


# EN-Track

User manual



# EN-Track

User manual

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# 1 Introduction

---

## 1.1 General

EN-Track is a software program for generating exercise protocols and monitoring their execution. It enables a physiotherapist or coach to acquire a clear insight into a client's training status. Using the chipcard on which the training protocols are written, the En-Strength exercise machines, EN-Free locations and the EN-Cycle-Track ergometer of Enraf-Nonius can all be pre-set. The program also enables the results and parameters for each exercise to be read off and the training results for each exercise to be recorded. A client can also be 'referred' from one exercise machine to another.

EN-Track is intended for use by experts in physiotherapy, rehabilitation and related fields.

The EN-Track software package is exclusively reserved for use with Enraf-Nonius equipment that can be controlled by EN-Track software.

For information on how to install the exercise machines that can be controlled by EN-Track, we refer you to the installation manuals supplied with the hardware.

## 1.2 Conclusion

You have certainly made the right decision by purchasing the EN-Track software program. We're convinced that you have many years of pleasurable use of the program ahead of you. Should you have any questions then you can always approach your supplier.

---

## 2 Safety

---

### 2.1 Preliminary remarks

It is important that you read this manual through carefully before you start to use EN-Track. Make sure, above all, that this manual is constantly available to all the personnel involved by printing it out.

**Words in the manual that are printed in bold type refer to texts that are used in the software program.**

When using EN-Track, pay particular attention to the following:

1. You must make sure that you are adequately informed about the various contra-indications (see chapter 3).
2. The client must remain within view of the physiotherapist/therapist at all times.
3. The program should not be used in so-called “wet rooms” (hydrotherapy rooms).

The manufacturer is not liable for the consequences of using the software program in a manner other than that described in this manual.

### 2.2 Product liability

A law on Product Liability has become effective in many countries. This Product Liability law implies, amongst other things, that once a period of 10 years has elapsed after a product has been brought into circulation, the manufacturer can no longer be held responsible for possible shortcomings of the product.

#### Limitations of liability

To the maximum extent permitted by applicable law, in no event will Enraf-Nonius or its suppliers or resellers be liable for any indirect, special, incidental or consequential damages arising from the use of or inability to use the product, including, without limitation, damages for loss of goodwill, work and productivity, computer failure or malfunction, or any and all other commercial damages or losses, even if advised of the possibility thereof, and regardless of the legal or equitable theory (contract, tort or otherwise) upon which the claim is based. In any case, Enraf-Nonius's entire liability under any provision of this agreement shall not exceed in the aggregate the sum of the fees paid for this product and fees for support of the product received by Enraf-Nonius under a separate support agreement (if any), with the exception of death or personal injury caused by the negligence of Enraf-Nonius to the extent applicable law prohibits the limitation of damages in such cases.

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## 3 Absolute and relative contra-indications

### 3.1 Criteria for exercise therapy

If a shortened muscle is working over a hypomobile and/or painful joint, then the active roll-gliding in the joint must first be restored before the shortened muscle is treated (stretched).

If a weak muscle is shortened over a hypomobile and/or painful joint, then the active roll-gliding in the joint must first be restored before the weak muscle is strengthened.

If the antagonist of a weak muscle is shortened, then the shortened antagonist must first be stretched before the weak muscle is strengthened.

If you wish to strengthen a weak, painful muscle then, at the start of training, the muscle must NOT be trained from the maximum stretched position. Eventually, however, it will be possible to train the muscle from the maximum stretched position.

It is not recommended that you commence training without any form of preliminary examination of the patient or while the patient is feeling unwell or uncomfortable (e.g. tired, cold).

Medical training therapy should not result in painful joints. Muscle pain, on the other hand, can be a normal result of intensive training. The patient must therefore be told in advance that muscle pain may arise.

In patients with problems of the spinal column, heavy pressure loads on the back must be avoided. This can be done by selecting exercises in such a way that exercises that can cause pressure load are skipped or adequately replaced.

The following factors are regarded as **absolute contra-indications** for exercise therapy:

- recent myocardial infarction, suspected infarction,
- pronounced resting stenocardia;
- pronounced resting insufficiency;
- serious dysrhythmia and asequence;
- pronounced aortic stenosis;
- active thrombophlebitis, recent embolism;
- malignant hypertonia;
- myocarditis, endocarditis, pericarditis;
- major aneurysm of the heart or large vessels;
- acute infectious disorders, acute illnesses.

The following factors are regarded as **relative contra-indications** for exercise therapy:

- serious exercise coronary insufficiency;
- stimulus and conduction disorders;
- metabolic derangement;
- moderately severe aortic stenosis;
- hypertonic regulatory disorders;
- hypertrophy;
- respiratory insufficiency;
- minor aneurysm of the heart or large vessels.

---

## 4 Using the EN-Track for the first time

---

### 4.1 If you are using the EN-Track for the first time

EN-Track is a software package for generating active exercise protocols and for checking the realization of these protocols. The EN-Track software can run under Windows (95 and higher). The software can also run under a Windows network (See menu **Extra \ database**). This is possible both with a single user and with a multi-user database.

To install the software, please insert the CD-ROM in the disk drive and type "D:\SETUP". Then follow the instructions on the screen. Under Windows you can get the EN-Track software to start automatically (click your right mouse button on the taskbar, select "Properties" and specify EN-Track as the startup program). For further information, please refer to your Windows manual.

The hardware requirements for the EN-Track software are:

- a Celleron 2Ghz or better
- with Windows XP Professional (currently Windows Vista is not recommended)
- 256 Mb internal memory, 512 Mb is recommended
- CD-ROM disk drive
- (S)VGA monitor
- a printer according to your personal requirements, and supported by your Windows version.

## 4.2 Request a license

Out of the box EN-Track will be fully functional for 30 days. Within this period you must apply for a licence key, which is bound to the PC EN-Track is running on.

When unlicensed, EN-Track will start with the following dialog:

The screenshot shows a dialog box titled "EN-Trackv6". It contains the following fields and controls:

- Site code: CF49AC91
- MID: FF0B-9F25-4F9A-F929
- Days left: 30
- Uses left: N/A
- Radio buttons:  Enter application,  Unlock application,  Remove license,  Transfer license
- Text fields: Activation code (empty), New Site code: (empty)
- Application status: EVALUATION
- Buttons: Online, Fax, Cancel, Continue >>

Fig. 4.1: License dialog

You can request a licence directly by pressing the **Online** button in case you have an internet connection. An internet site will open and a form will appear where you can fill out your personal data. Once completed please post this form to our support team.

If no internet connection is available on the EN-Track PC, you can create a printable form by pressing the **FAX** button. Fill out your personal data and print it. Consequently fax the form as indicated on the printed sheet.

Finally you can also go to a PC with an internet connection and surf to our website <http://www.en-track.com/> and select the license menu option, ([license form](#)). Complete the form that is presented to you and submit it.

Note: The SITE- and MID-codes are very important, so copy them accurately!

After we have received your license request, an activation code will be sent to you within a few days. Upon receipt select the option **Unlock application** in the EN-Track opening dialog (see fig 4.1) and fill in the **activation code**. By pressing **Continue** your copy of EN-Track will be licensed. Store this code carefully.

Without license, EN-Track will function for 30 days. After this period it will cease working. The license will be valid for 365 days. 30 days before this license period this dialog will popup again when starting EN-Track, reminding you to renew the license.

At any time you can view this license screen by keeping the LEFT SHIFT + LEFT CTRL keys pressed, when starting EN-Track.

## 5 EN-Track operation

After you have started up EN-Track you will see the following starting screen.



Fig. 5 .1 Starting screen

From the starting screen the various main menus can be reached by clicking on:

Client Exercise Indication Tools Options Help

Consult the table of contents to locate the information on the various menus. Before you can start using EN-Track the exercise systems in your practice must first be selected and the standard settings defined. For information on how to do this, read the **Options** chapter of this user manual.

Go to the **Options** menu and fill in the requested details to customize your package to suit your practice. Now go to **Client information** to enter details of the first client.

## 5.1 Client information

In this menu new clients can be entered or data for existing clients can be retrieved from the database. The Import option allows you to import client data from other databases. See appendix A

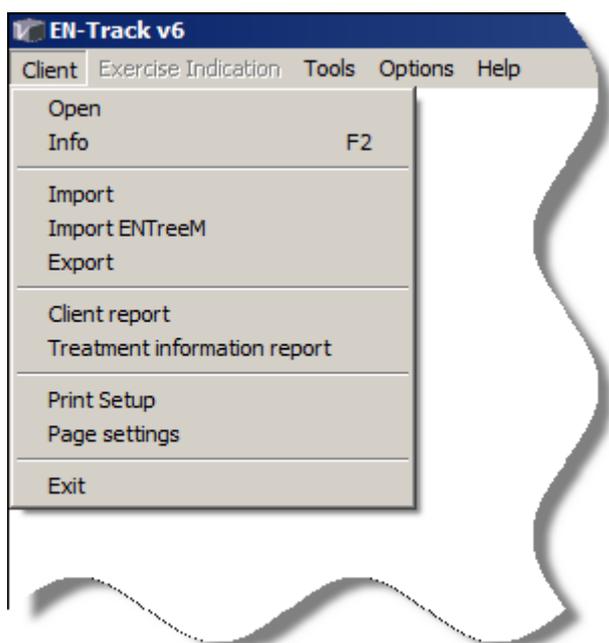


Fig. 5 .2 Client information

In submenu **New** you can add a new client to the database.

In submenu **Open** you can select the client with whom you are going to be working or add a new client by clicking on "+". By clicking on "-" you can delete a client from the database.

The submenu **Info** displays the data for a selected patient. This data can also be retrieved by clicking on the Function Key F2, e.g. if the "Exercise indication screen" is already open.

The submenu **Import** enables you to import client data from external databases (see appendix A).

The submenu **Import EN-TreeM** will only appear in case you have an EN-TreeM installation on your PC!

Submenu **Export** provides a way to save all client address details in one comma-delimited TXT file or a Virtual Card Format file (VCF) per client.

With the submenu **Client attendance report** you can create a list of clients, together with the dates of their attendance and the total number of trainings (the dates cannot be changed via this menu). This is not a declaration program for tax purposes and no rights can therefore be derived from it.

With the submenu **Client info report** you can create a list of the clients' referral and training information, which is defined by the therapist in the submenu **Exercise indication** under "reporting" and "comments per training", (see § 5.2). The specific time-window for which you want to summarize the training information can also be chosen. This summary can also be printed out.

With the submenu **Printing Set-up** you can select your printer.

With the **Close** option you exit the EN-Track program.

### 5.1.1 Inputting new clients

After clicking on **Open** or **New** the following screen appears:

Fig. 5.3 Entering new clients

-  = Delete the selected client and **all his/her exercise and 1RM information**
-  = Add a new client
-  = Open general filter pannel.
-  = Shortcut to **Exercise Indication**
-  = Quick link to **Client info report**
-  = Confirm the data. If no data has been changed this will in the window being closed. Otherwise the changed data will be saved. You can also save any changed data by clicking on the **indication** button.

Items in bold type (surname, first name, date of birth) are obligatory fields (if specified as such under “Options\ Obligatory fields”).

As soon as the personal details have been filled in, click on ‘**indication**’ to reach the **Exercise indication** menu.

#### Note:

If you want to change the date format (or have problems with it), you can change this under Windows (in <settings> in <configuration screen>, in <country settings>, in <date> in <short form date>). If the short-form date does not contain a four-figure year number then you will be warned about this when you restart. In that case you cannot, of course, be certain how the PC will fill in the year number.

### 5.1.2 General filter panel



=

If the group-filter is activated, the right dropdown box displays the selected group.



=

Filter exercise results on date. This allows you to show only the exercises performed on a certain date with results present. When selected, a date selection button appears. This allows you to set a date-range or one particular day



=

Filter exercises with deviations between actual performed and target values, for a particular date or date-range

## 5.2 Exercise indication

Indication 

After activating this tab all the aspects of the exercise will be displayed in sequence in the field 'Enter new client' (5.1.1) or after double-clicking on the client's name:

From this main menu the client's loading parameters can be processed.

This menu cannot be accessed unless the Client menu is selected in the menu **Client information**



A selected client is shown in the status bar at the top of the screen

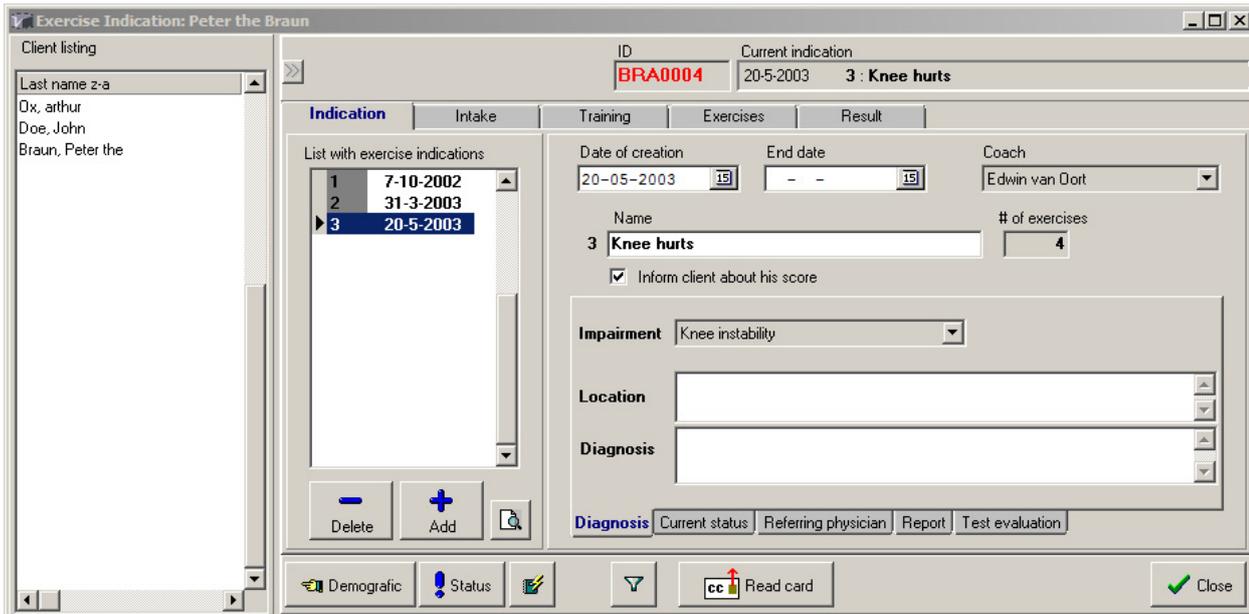


Fig. 5.4 Exercise indication

 = Hide or show Client listing.

 = Client report generator, see [appendix F](#)



Use **CTRL+TAB** to switch between the tabs  
The submenus will be explained in sequence.

## 5.2.1 Indication

### Indication

In this menu an indication for a client can be added or deleted. The date on which a new indication was created will appear on the list of indications.

For each client several indications can be shown under different dates. The information relating to a client who comes back for training after, say, six months need not be re-entered. Old training routines can easily be retrieved (for relapsing patients for example).



Add

Add an indication for a new or existing client, including a name for the indication.



Delete

Delete an indication for a new or existing client, including a name for the indication.

Date of creation	End date
19-05-2007 	- - 

Each indication has a Creation date and an End date. This determines a indication periode that not only contains treatments and results but also test results. If a new indication is created the End date of the previous indication will be set on today

### Date selection button

Give the indication a designation by filling in the field '**name**' .



Inform client about his score

You can indicate by ticking the selection box that you wish the client to be shown their score at the end of the training. After the client's training data have been stored in the computer via the chipcard a screen will appear with a message stating that everything has gone OK. Exercises that were performed in an amended form, which were omitted, or which were not performed completely will be displayed on the screen. The standard value for this setting, as well as the percentage by which the exercise results must deviate before the warning is displayed, can be set in menu **Options, Standard settings**.

Under **# trainings** you will see the number of trainings that have been entered for the client.



Under **reporting** you can compile and maintain a personal report per indication.

On the basis of the indication you can then compile a training program (perform intake, create training, run, and check results).

## 5.2.2 Status



The **Status** box can be activated at any time in the **exercise indication** field. You can use this box to save information about the status, the referring person, a possible diagnosis or reporting information. Entered strings do not affect any report or protocol, and are intended merely as a 'memo field'.

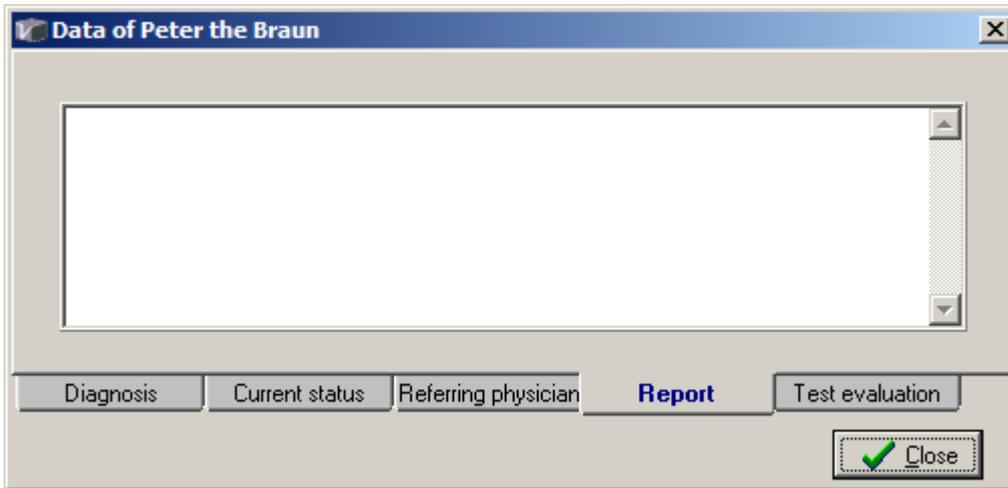


Fig. 5.6 Client details

### 5.2.3 Intake

#### Intake

From the Exercise List (**1RM definition** tab) you can select the units that should be used for the 1RM test by using the arrows (-> for 1 unit, ->-> for all units). The right-hand listing shows the selected units. By clicking on the Intake card you can create a card that can be used to perform the 1RM test.

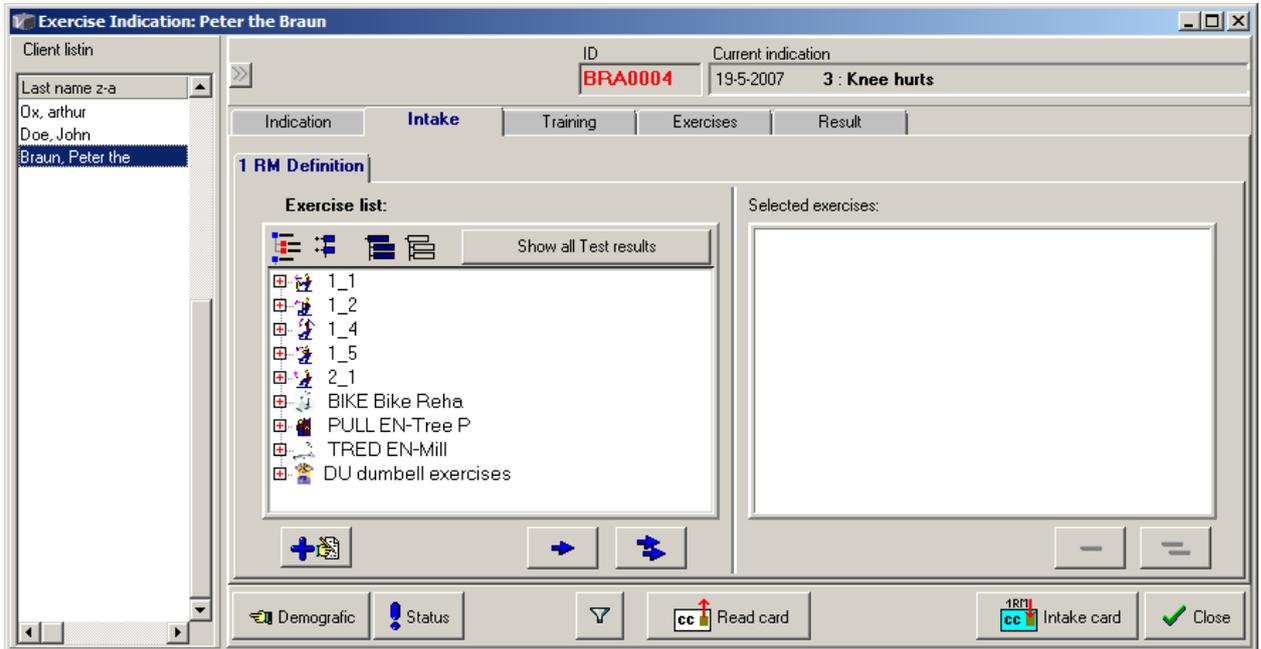


Fig. 5.7 Selecting intake exercises

#### 5.2.3.1 Test Definition / accepting an intake

##### 1 RM Definition

On the exercise list of this tab there appear the exercises that can be performed on the exercise equipment that you have in your practice. Select an exercise by double-clicking on the designation/name in the left-hand list. Another way of doing this is to use the following keys:



= add the selected exercise. This will copy the selected exercise from left to right.



= add all exercises. This will copy all exercises from left to right

In the right-hand list a set of exercises then appears which can be written out to the chipcard.

##### Show all Test results

This button appears while normally only the test that are performed during the indication period are shown. When you want to see all the tests this client has performed over the years without any date limitation press this button.

-  = Display grouped or in a list
-  = Collapse or expand all
-  = Select all
-  = Delete all selections

Three tests can be performed on any EN-Cycle. You select a test in the same way as a 1RM test.



After selecting the exercise(s), click on this button. This will write the exercises to the chipcard (in the chipcard reader). The chipcard is then inserted into the control box of an EN-Strength, EN-Free or EN-Cardio machine. The parameters will then appear on the display. The EN-Strength exercise machine will also be automatically set. Alternately-flashing bars on the display of an EN-Strength machine show that an intake is being accepted.

If the chipcard is inserted into the wrong control box (if the EN-Strength, EN-Free or EN-Cardio exercise machines have not been selected for the intake), the control box will refer you to the first exercise machine in the list.

After an intake has been accepted on all the selected exercise equipment you will be referred back to the PC. Insert the chipcard into the chipcard reader. The card will be automatically read in if you have selected this option in **Options\general\Auto read-in**.

### 5.2.3.2 Manual input of a 1RM value or test value



= Select a unit in the exercise list (see fig. 4.7) and manually enter a 1RM value (e.g. the result of an isokinetic test for that movement).

These fields will appear in sequence to enable you to manually enter a 1RM value.



Fig. 5.8 Manual input of a 1RM value strength exercise



Fig. 5.9 Manual input of a 1RM value cardio exercise

### 5.2.3.3 1RM value strength exercise results / Cardio test result

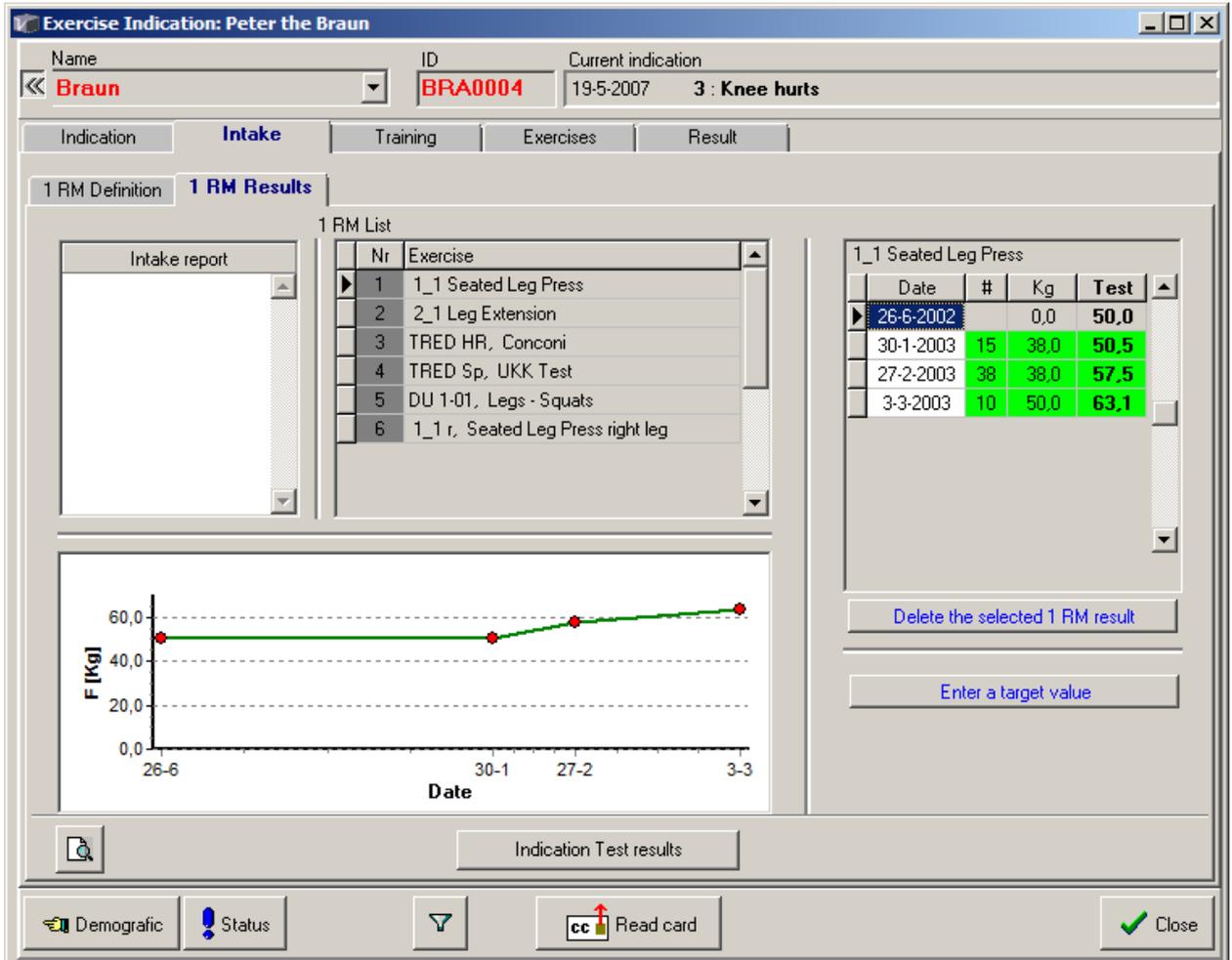
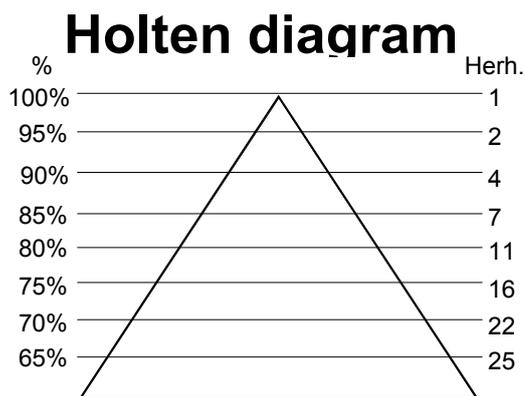


Fig. 5.10 Test results

**1 RM Results** Under **1RM results** will appear a graphical representation of the 1RM test or EN-Cardio tests (calculated from the Holten diagram) and the actual values of the test. If the 1RM value was entered manually, the number of repetitions (#) and the weight (Kg) will be shown as 0, while the manually entered 1RM value will be shown under 1RM



Example:

Client performed 8 repetitions at 60 Kg on the 1/1 Seated Leg Press. The 1RM will therefore be calculated as  $60 \text{ Kg} \times 100\% / 81.5\% = 73.6 \text{ Kg}$  (81.5% is the best-fit result between 80% and 85% from the Holten diagram, according to the best-fit logarithmic equation  $y = -9.88\ln(x) + 102.05$ .) NOTE: if the 1RM values were entered manually then the unit will show # = 0 and Kg = 0

the **Intake report** can contain several remarks about this specific intake.

[Enter a target value](#)

Enabled you to enter a test target value for each specific test as a goal value

Indication Test results

Only select the test results that are obtained in the indication periode.

## 5.2.4 Training

[Training](#)

Click on this tab

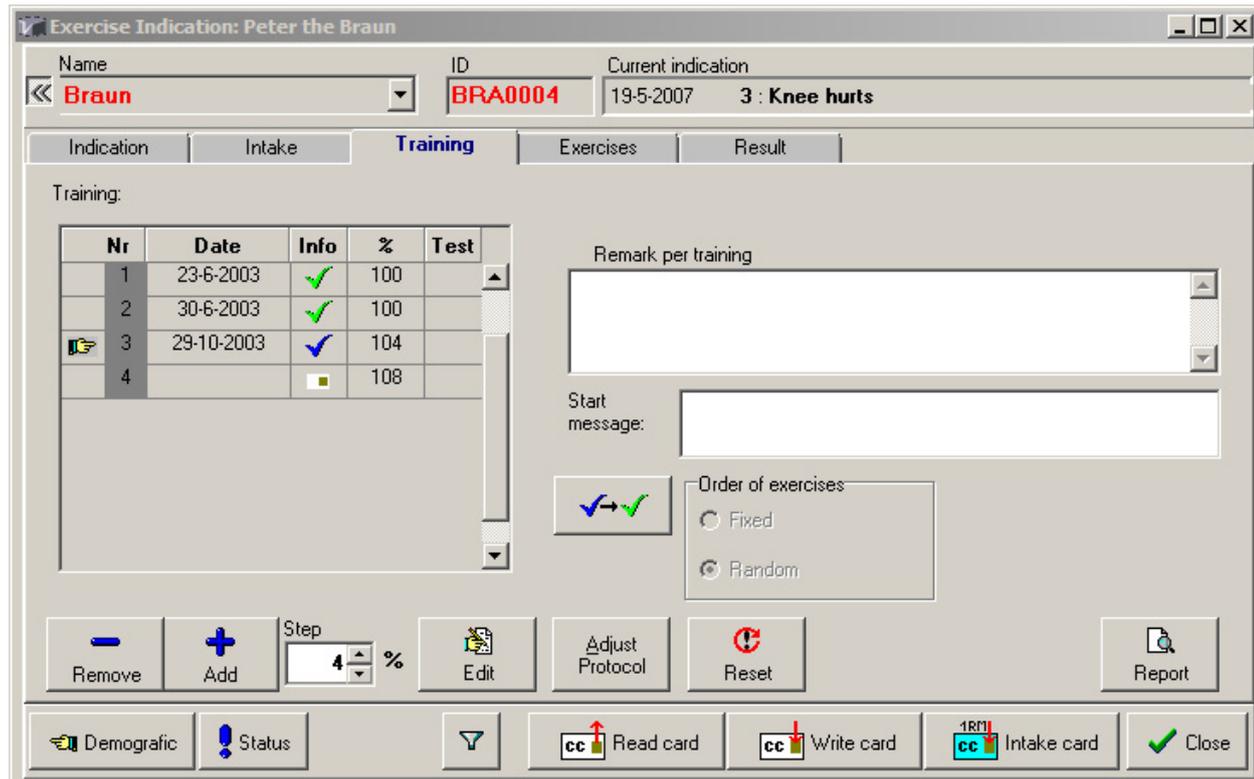


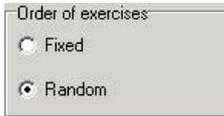
Fig. 5.11a Putting a training together

The current status for each training is shown under **Info**: A green marker and a date indicate that the training has been completed for that date; a blue marker means that an exercise has been started but the training is not completed. Before a "next day" can begin this exercise should be completed (or skipped by pressing the Reset button).

The maximum number of trainings that can be created per referral is 63. When you create a new referral the last training from the previous referral will be automatically copied. If you do not want to use this training you can delete it and create a new training instead.



- Using the increment% you can quickly add values for each training. When a training is added the resistance values will be increased for all systems according to the increment percentage.
- By first setting the increment size and then adding several trainings by clicking on the  button a smoothly incremental protocol can be compiled.
- **The remark per training** can be used as a notepad.
- **The start message** can be used to display a message to the client when s/he is loading his/her chipcard on the PC. This can be used to, for example, provide information about an individual warm-up.



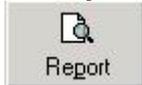
- When **order of exercises** is selected, the sequence of the systems selected is fixed. After one system is finished the display on the unit will show the next system specified, and not any of the remaining systems.

Adjust Protocol

This button will adjust all exercises of the remaining training sessions according to the results of the training last performed. The actual values for a new training will therefore be based on the values realized in the previous training.

NOTE 1: this will only function with increased values (thus the realized value of the last training should be higher than the actual value of the last training, otherwise it will adopt the actual value)

NOTE 2: Adjust Protocol can be used with any training, whether fixed, auto-adjustable and /or unlimited client adjustment.



- With this button all information concerning the training can be viewed and/or printed (both numerically and graphically).

The status of the training will be displayed in the column **Info**, where:

-  A green marker and a date indicate that the training has been completed for that date,
-  A blue marker means an exercise has been started but the training is not completed. Before a "next day" can begin, this exercise should be completed (or skipped by pressing the Reset button)
-  The little chipcard icon indicates that the training is already loaded



- This function appears when a training in the list is not fully completed. If you want to mark the training as DONE, use this function.

100 %

- Reset the training percentage of all trainings that are not yet started to 100%.

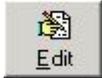
Legend

For other indications see this button

Result

## 5.2.5 Exercises

On this tab the exercises of a selected training can be seen in detail. In the right-hand field you can see the series of the exercise that has been selected in the left-hand field.



If the training has not yet been performed this can still be adjusted by clicking this button (the same procedure as **defining exercises**).

See **details** after clicking on **change** for an explanation of the icons displayed under **Extra exercise information**.

(Fig. 4.12a & b)

Exercise Indication: Peter the Braun

Name: Braun ID: BRA0004 Current indication: 19-5-2007 3 : Knee hurts

Indication Intake Training Exercises Result

Settings of the exercises for training nr. 3 29-10-2003 104 % Series for exercises nr. 1

Nr	Level	Exercise name	Series
1	Custom; All	1_1 Seated Leg Press	3
2	Interval; Short Extensive	BIKE P, Power	5
3	Duration; Extensive	TRED HR, EN-Mill Heartrate	1

Nr	#	Kg	last
1	4	40,0	0,0
2	4	40,0	0,0
3	4	40,0	0,0

Extra exercise info

Pause : 0:15 Training

Demographic Status Read card Write card Intake card Close

Fig. 5.14 Exercise information

Extra exercise info

Pause : 0:15 Training

This screen shows what has been selected under the **Extra exercise information** (see chapter [Exercise information](#))



The measured results of the previous training for the selected exercise, if these are present, should be set to 0. If the results of the last exercise performed are higher than was desired according to the training scheme and you therefore want to definitively adjust the protocol for the rest of the training cycle, then the results of the previous training must be reset for this exercise.

If you do NOT do this while **top detection** is enabled then the last exercise parameters performed will be stored again on the chipcard. If **top detection** is not disabled then data from a previous training need not be reset.

## 5.2.6 Results

Exercise Indication: van Capelle, Tjeerd

Name: van Capelle ID: Current indication: 21-08-2002 1 : Back Pain

Indication Intake Training Exercises **Result**

Settings of the exercises for training nr. 2 26-8-2002 100 % Series for exercises nr. 2

Nr	Exercise	Info	1 RM
1	1_1 Seated Leg Press	✓	73,6
2	1_4 Pull Down	✓	0,0

Nr	#	#	Time	Kg	Kg
1	4	4	0:03	47,0	48,0
2	4	4	0:03	47,0	48,5
3	4	5	0:09	47,0	48,5

Totals: 13 0:15

Legend Report

Demographic Info Read card cc Close

Fig. 5.16 Results

### Result

Under this tab all the selected exercises can be viewed in detail. The right-hand table shows all the series for the unit that is selected in the left-hand table.

- a green marker and a date indicate that the exercise has been completed for that date.
- a blue marker means that an exercise has been started but the exercise is not completed. Before a "next day" can begin, this exercise should be completed (or skipped by pressing the Reset button)
- If you can see a green marker, this means that the client has not yet started the exercise.
- In the right-hand field color-coding indicates the status of the series of the exercise.

### 5.2.6.1 Legenda

#### Legend

In the right-hand list are shown the requested and actual values, with the actual values shown in color codes. The meaning of the various colors is shown below.

Legend

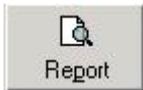
**Color codes**

- Not done yet, or unknown!
- Done more!
- All done correctly!
- Done less!
- Nothing done!
- Target
- 1 RM values

Defaults Ok

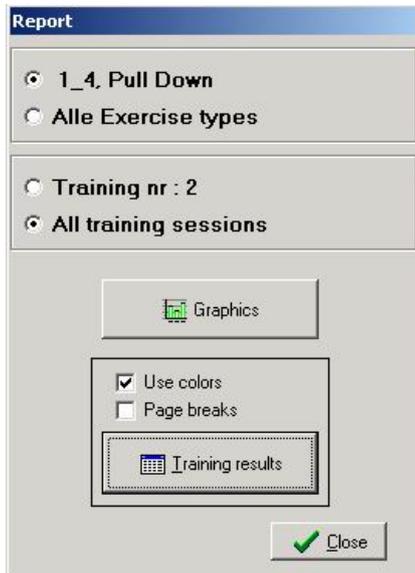
Fig. 5.17 Legends

## 5.2.6.2 Reporting



You can report graphics or numerical values

### Graphical reporting per exercise

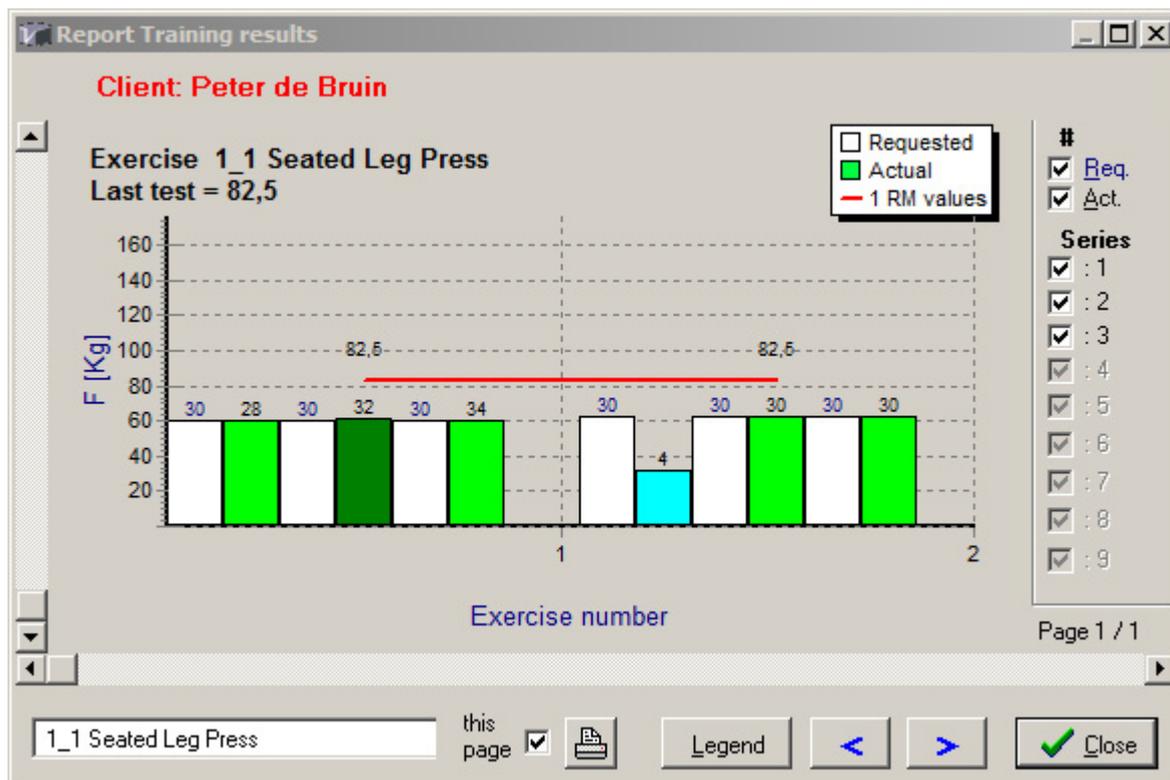


The graphic shows:

- Per training (horizontal axis)
- The resistance (vertical axis) at which the client should have trained (requested value = white) and
- The resistance at which he actually trained (actual value = green).
- The 1RM value is shown as a red line.

On the right-hand side of the graphic you can select which values/parameters should be shown. You can use a scroll bar to change the size of the graphic and so display one or more training dates simultaneously.

Fig. 5.18 Reporting



The graph shows:

- Data per training day (horizontal axis)
- Data per selected exercise
- The target resistance (vertical axis) (white)
- The actual resistance (green).
- Test value results as a red line.

On the right of the graph, one can select which items and which series must be shown. With the scrollbar one can determine the amount of training days are shown in one frame.

## Exercise results



17-10-2007

Client: **Peter the Braun**  
 Coach: Edwin van Oort  
 Indication:

---

Detailed results for exercise:

---

Training nr: 23

100 %

Date: 3-3-2003

---



**1\_1 Seated Leg Press**  
 Test: 63,1 Kg    Pause 3:00

Requested			Actual		
Nr	#	Kg	#	Time	Kg
1	10	44,0	10	0:03	52,0
2	10	44,0	10	0:03	52,0
3	10	44,0	0	0:00	0,0
4	10	44,0	0	0:00	0,0
			20	0:06	

---

Training nr: 24

100 %

Date: 3-3-2003

---



**1\_1 Seated Leg Press**  
 Test: 63,1 Kg    Pause 3:00

Requested			Actual		
Nr	#	Kg	#	Time	Kg
1	10	44,0			
2	10	44,0			
3	10	44,0			

This provides an overview of all training sessions and series.

The overview can also be exported:

- As a Quick Report File (QRF) to be used in EN-Track again at a later stage.
- Or in Text Format (TXT), RTF, HTML or WMF (graphical) after which it can be used in different Windows applications.

See Appendix B for examples of printouts.

See [Appendix B](#) for an explanation about printing.

## 5.2.7 Creating a chipcard



Chipcard

Name: Tjeerd van Capelle

Training card, nr: 1 .. 12

Exercise Indication		Training	
Nr	date	Nr	Date
1	21-8-2002	12	21-8-2002

Back pain

Everyday to PC  
 Template card

Ok Cancel

Fig. 5.15 Creating a chipcard

When writing to a chipcard information is provided about:

- client's name
- current indication
- current training

### Every day to PC?

With a multiple day card, **only the last training** values are saved on the chipcard. If all the data is to be saved, enable "every day to PC"! After each training the training unit will indicate that data has to be saved first before you can progress to the next day.

### Template card

"Template card" creates a chipcard that will not save any data at all (i.e. a 'generic' training card). This can be useful if, for example, you are working with generic protocols (such as Sequence Training). You could, for instance, place your frequently used training schemes on one card. You then give this card a number or color code and then make it available to the client. The client can see from the number at what absolute level the exercise must be performed. This client does not then have to be explicitly entered into the system.

### 5.3 Add and adjust exercises

By pressing on “**Edit**” or “**plus**” button from the “**Exercise indication**” window, tab “**Training**” the exercise window appears (see blow fig 5.11b):

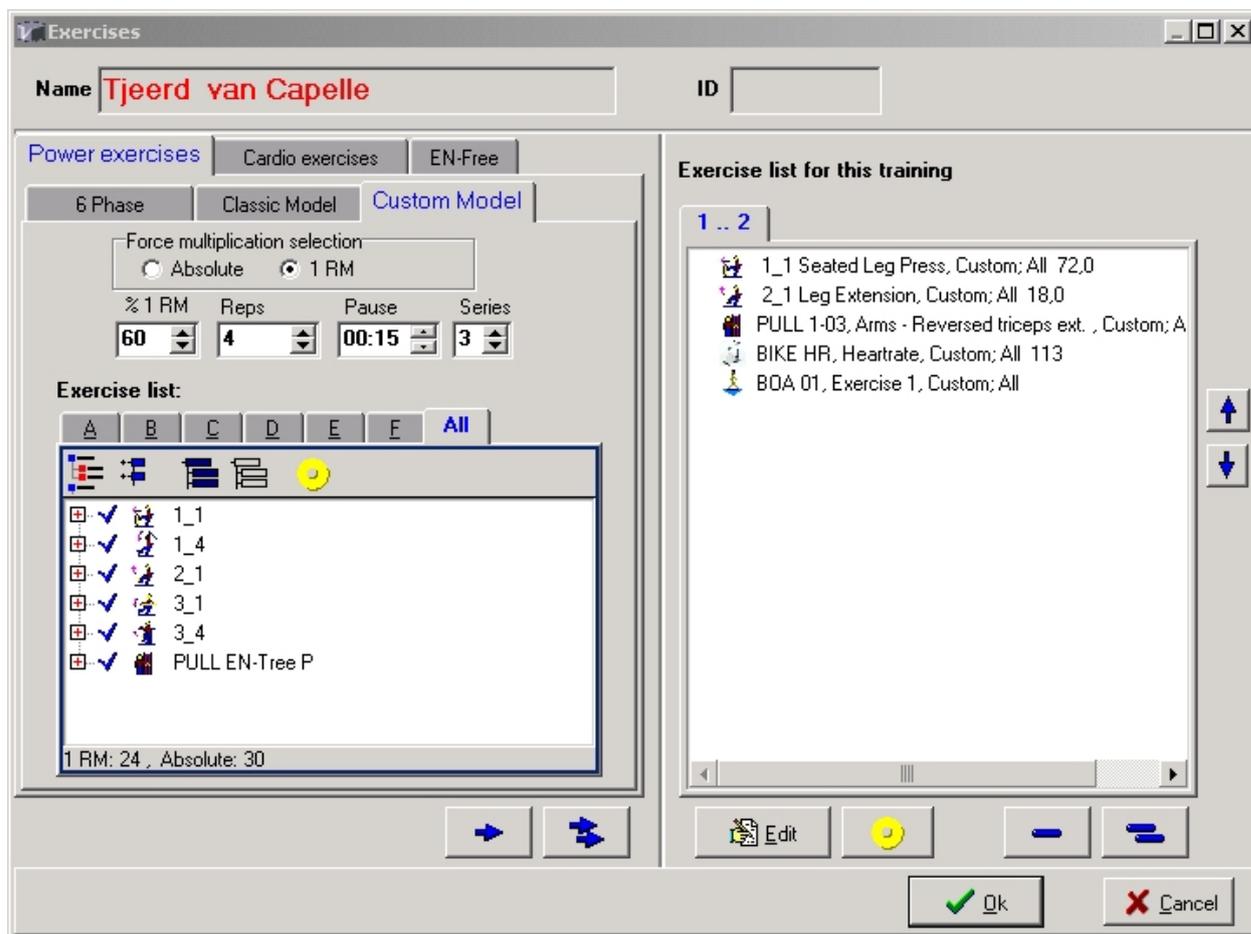


Fig. 5.11b Putting together the first training

In the right-hand field the protocol can be built up by adding trainings. This proceeds in the same way as with ‘**Intake**’. You can choose from Strength, Freestyle or Cardio exercises.

The strength trainings are compiled according to the following models:



The Cardio trainings are compiled as follows:



First the strength factor is specified. This is the percentage of the client’s maximum strength (1RM value or EN-Cardio test value).

The ‘**exercise list**’ can be displayed in different ways.

-  = Display grouped or in a list
-  = Collapse or expand all
-  = Select all
-  = Delete all selections



= Select test exercise(s). With this button you can select the last exercise for which a test has been administered (intake exercises).

The right part of the window shows the chosen exercises for this training. Below the following buttons can be selected:



"Edit" shows the extra exercise edit screen.

The second button changes the target value relatively to the latest Test value. (When an exercise is created based on a client's test-value for that exercise, the percentage is stored. Now this percentage can be used to create a new exercise-reference value based on the latest test value)

The '-' en '- /-' buttons remove resp. the selected or ALL exercises from the list.

Note: when by mistake unwanted changes are made, just press the "cancel" button and nothing is stored! The same happens when you just close this window with the upper-right cross-button!

### 5.3.1 Exercise information



After pressing the Edit button in the previous **Exercises** window, the following screen appears (fig. 5.12a). This window enables you to view and edit exercise related properties.

Test	Protocol value	Progression	Reference force for all series :
63,1 Kg 100%	38,0 Kg 60,2%	104 %	F 40,0 Kg 63,4 %

#	Kg	#
1	40,0 (100%)	4
2	40,0 (100%)	4
3	40,0 (100%)	4

Fig. 5.12a exercise information: Series

- In the upper left part, the training number, the exercise name and the original protocols are visible.
- The upper right part shows the exercise properties and the pause time in between the series.
- The middle part shows the construction of the reference force (for further detail see paragraph 5.3.2)
- The lower part show all the series and the actual target values.

The following training properties can be set:

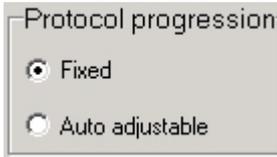
- Protocol progression: **Fixed** or **Auto adjustable**
- Client adjustments; **Limited** or **Unlimited**
- Exercise type: **Warming up**, **Training** or **Cooling-down**

The following chapters will explain these properties in depth.

The pictograms shown in these chapters can be found in the **Exercise Indication** screen, tab **Exercises**, section **Extra exercise info**.

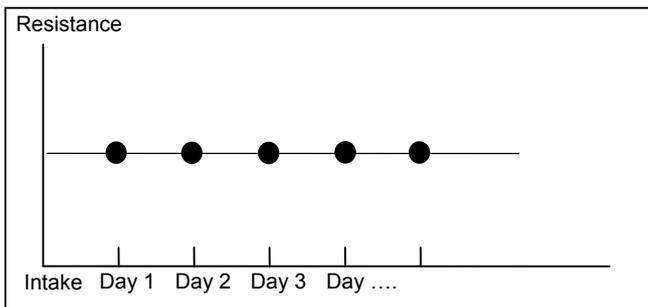
### 5.3.1.1 Progress protocol: fixed

In case the protocol is fixed than the exercise results do not influence the settings of the remaining series on the chipcard. In a **fixed protocol** the load (the resistance setting) is fixed. During the execution of the protocol the client can still change the setting, but this will not affect the setting for a subsequent session of the entire protocol (so the settings are 'fixed').



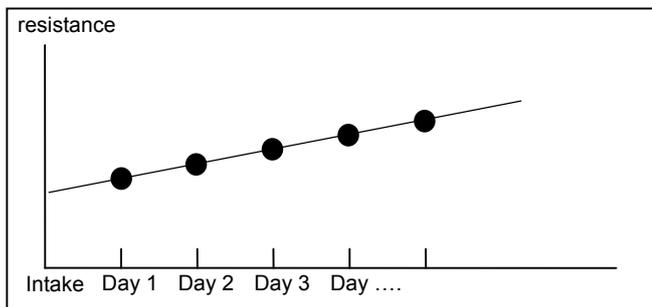
There are 2 kinds of **fixed protocols** (See Fig. 4.12b)

#### A. The fixed protocol that is constant over several sessions

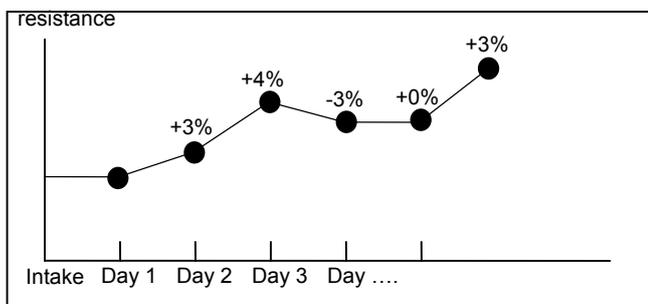


#### B. The fixed protocol with progressive resistance.

The effort (resistance setting) is therefore predefined and progressive over time (e.g. an increase of 5% for each session). The percentage increment is a derivative of the last defined training.



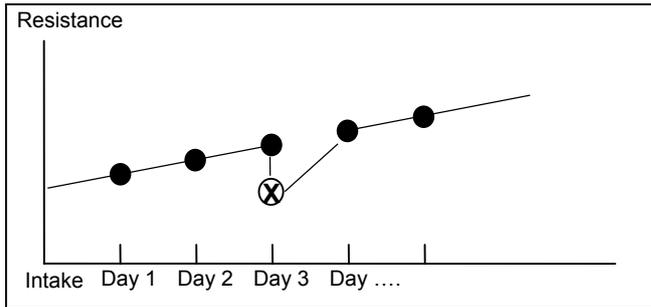
Note: progression does not have to be linear: it can vary per training session and it can even vary positively and negatively (i.e. increase and decrease).



If a client changes his actual resistance during the training session (so that the actual value deviates from the requested value), this will not affect the settings for the next session (i.e. the **fixed protocol** continues with the requested values).



The use of top detection is disabled in this case



● = entered value  
 ⊗ = executed value

### 5.3.1.2 Progress protocol: auto-adjustable:



If a client increases the resistance on the exercise unit above the set value of the protocol, the next series of exercises will automatically use that value instead of the predefined (lower) value. In an **auto-adjustable** protocol the resistance setting will be in accordance with the predefined protocol unless the client changes his settings during a training session. In that case the next session will use this changed value in that series as a setting for the next session (i.e. it auto-adjusts the settings).

#### Note:



The use of top detection is enabled. This means that when an exercise machine is being pre-set it will always select the higher value when making a choice between the executed load of the last training and the desired load for the training that is now to be performed.

The higher of these two values will always be used. A client can therefore never train regressively. The coach then needs to redefine the trainings (with lowered values).

Note 1: this auto-adjustment will result in new requested values. These new values will be maintained until the old original requested values are equaled or exceeded.

Note 2: this auto-adjustment will only be performed if the actual value exceeds the requested value, so if a client decreases his resistance settings this will not lead to an automatic protocol adjustment. This is to prevent someone from automatically training less and less over time.

Note 3: auto-adjustment is noted at series level. This means that if an increase is made only in the second series then the next session will also only be adjusted in the second series.

Example: on the 1 -1 Seated Leg Press, auto-adjustable protocol, no progression

Note in particular the last series, where the pre-set top detection has retained the value of the protocol.

	Protocol for day 1	Actually realized on day 1	Auto-adjustable protocol for day 2
series 1	10 reps. at 50 kg	10 reps. at 50 kg	10 reps. at 50 kg
series 2	10 reps. at 50 kg	10 reps. at 60 kg	10 reps. at 60 kg
series 3	10 reps. at 50 kg	10 reps. at 40 kg	10 reps. at 50 kg

### 5.3.1.3 Executing the protocol

Client adjustments

Limited

Unlimited

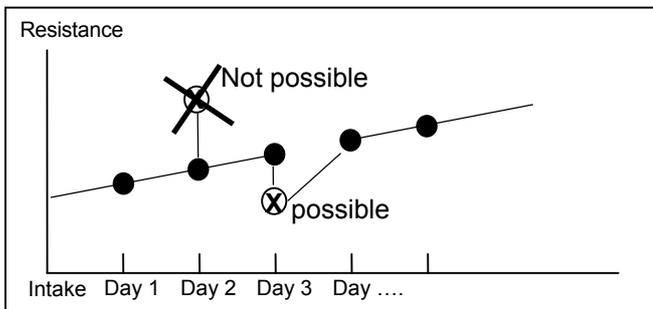
When performing a protocol there are 2 options:  
 1. Limited adjustment by the client  
 2. Unlimited adjustment by the client

#### 5.3.1.4 Client-adjustable: Limited



The client himself can downwardly adjust strength.

The client can only decrease his resistance settings during a training. He cannot increase the value above the pre-set value (this is to prevent overexertion). With limited adjustment the EN-Dynamic unit will not allow him to exceed the pre-set values. He can only reduce his resistance setting. This means that he can never do more than what is prescribed by the protocol (in terms of strength). There is therefore no danger of overexertion.



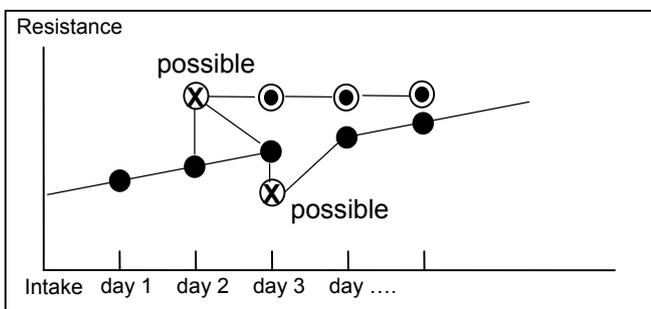
● = requested value  
 ⊗ = actual value

Note: the combination auto-adjustable + limited adjustment is not possible. Auto-adjustment will only be performed if the resistance setting is increased. However, limited adjustment will not allow the resistance settings to be increased.

#### 5.3.1.5 Client-adjustable: Unlimited



The client is allowed to increase and/or decrease the resistance value above or below the pre-set value. In unlimited adjustment mode the client can adjust his resistance settings in all directions. Thus the client can both increase and decrease his resistance settings.



● = requested value  
 ⊙ = auto-adjustable requested value  
 ⊗ = actual value

With an auto-adjustable protocol ⊙  
 With a fixed protocol ●

### 5.3.1.6 Exercise type: Warming-up

Exercise type

Warming up

Power training

Cooling down

A warm-up exercise will be initiated first, i.e. before any other exercise type. A warm-up exercise can be done on any system, for example at a 1/1 Seated Leg Press.

Note: if you want more than just a local warm-up, i.e. a cardio-respiratory warm-up as well, then at least 1/6 of the total body muscle mass should be incorporated. Most lower- extremity units can therefore be used for a total body warm-up, while most upper- extremity units do not provide enough muscle mass involvement.

### 5.3.1.7 Exercise type: Power training

Exercise type

Warming up

Power training

Cooling down

A power training is the training that actually relates to your training objective. It will be inserted between a warm-up and a cooling-down.

All exercises default to Power training.

### 5.3.1.8 Exercise type: Cooling-down

Exercise type

Warming up

Power training

Cooling down

A cooling-down exercise will begin last, i.e. after any other exercise type.

### 5.3.2 Construction of the reference value

Test	Protocol value	Progression	Reference force for all series :
63,1 Kg 100%	38,0 Kg 60,2 %	<input checked="" type="checkbox"/> 104 %	F 40,0 Kg 63,4 %

In all series, the training values are determined by a percentage of the reference values. These values are constructed as follows:

- First a possible testvalue for the exercise is shown. (if no test is performed, nothing is shown). This value is only shown in order to give an indication of the relation between reference value and testvalue. The percentage that is shown below this testvalue will always be 100%.
- Right of the "Test" value the "Protocol value" is shown. Initially this is the value derived from the list of template exercises / protocols in the previous screen. The percentage shown is the relative value of the "Protocol value" with respect to the "Test" value.
- Next a (possible) progression factor is shown. The actual percentage can be adjusted in the Exercise indication screen in the tab Training (since this value effects ALL exercises) but in this screen you can determine if this exercise uses this progression percentage or not.
- Finally, the previously three factors define the reference value, which is shown on the right side. This value can be adjusted by clicking on the scroll buttons or by entering a value via the numeric keys. However, do realise that a possible relationship with the initial protocol will be lost in case you change the reference value in this field!

Note:

If the Progression is switched off, the protocol value will always be equal to the reference value.

#### progression off:



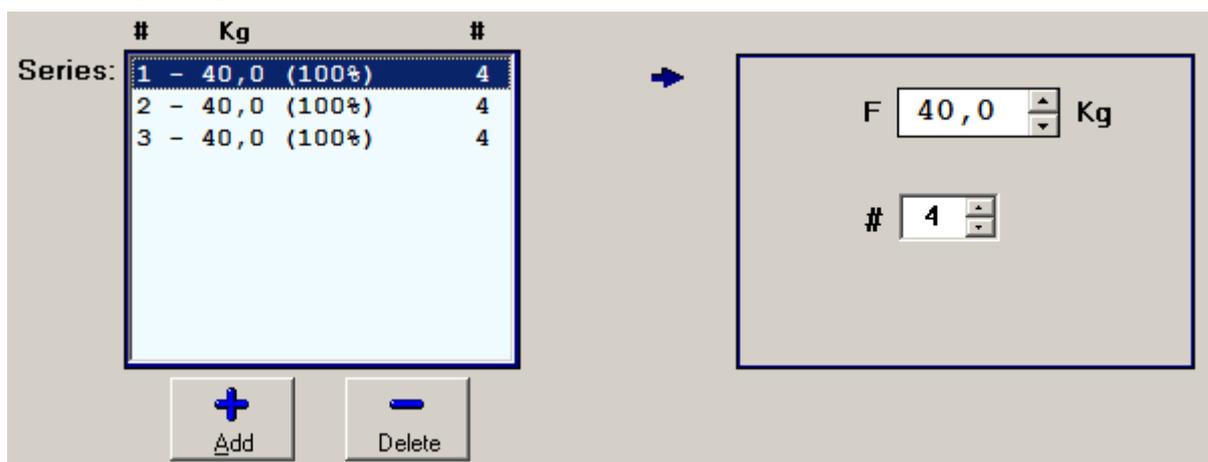
The progression percentage that is set in **step** % under **training** is not applicable to the selected exercise

#### progression on:



The progression percentage that is set in **step** % under **training** is applicable for the selected exercise.

### 5.3.3 Adjusting the series



In this part of the window, the user controls the series of each exercise.

Each serie has a main target value and a repetition- or time- value as a secondary target value.

In the example screen above an exercise with weight as main target value (Kg) and repetition as secondary target value is shown (#). The (main) target value is stored as a percentage and together with the reference value for this exercise this will result in a actual target value.

If the Series field has the focus (thick blue border) the values can be adjusted in several ways:

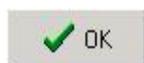
1. Via the part on the right (arrow is pointing to it) where you can see the two values one below the other and adjust it via the scroll boxes or enter a value when you set the focus to it.

2. Via short-keys:

- Arrow left/right = series percentage is adjusted with single small steps.
- PgDn / PgUp = series percentage is adjusted with large steps.
- CTRL + left/right = series repetition value is adjusted with single small steps.
- CTRL + PgUp/PgDn = series repetition value is adjusted with single large step.
- SHIFT + left/right = Trainingsreference value is adjusted with single small steps.
- SHIFT + PgUp/PgDn = Trainingsreference value is adjusted with single large step.



With these buttons you can add or remove series.

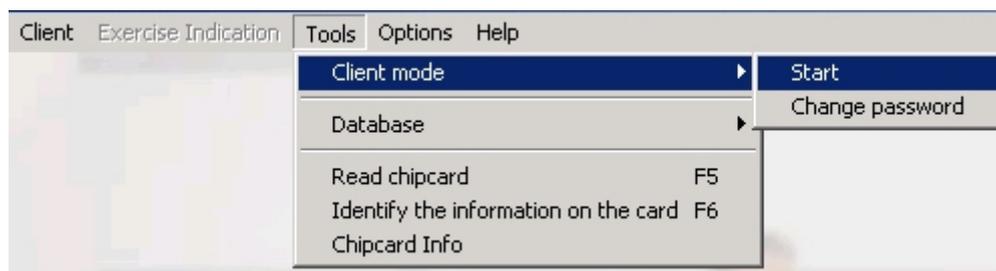


By activating this button the data is stored and the main "exercise indication" screen appears again.

## 5.4 Tools

### 5.4.1 Client mode

The Tools menu contains **Client mode**



If this mode is selected you enter a screen where clients can load their chipcard themselves by entering their date of birth.

This mode can be used if the coach cannot remain continuously with the PC.

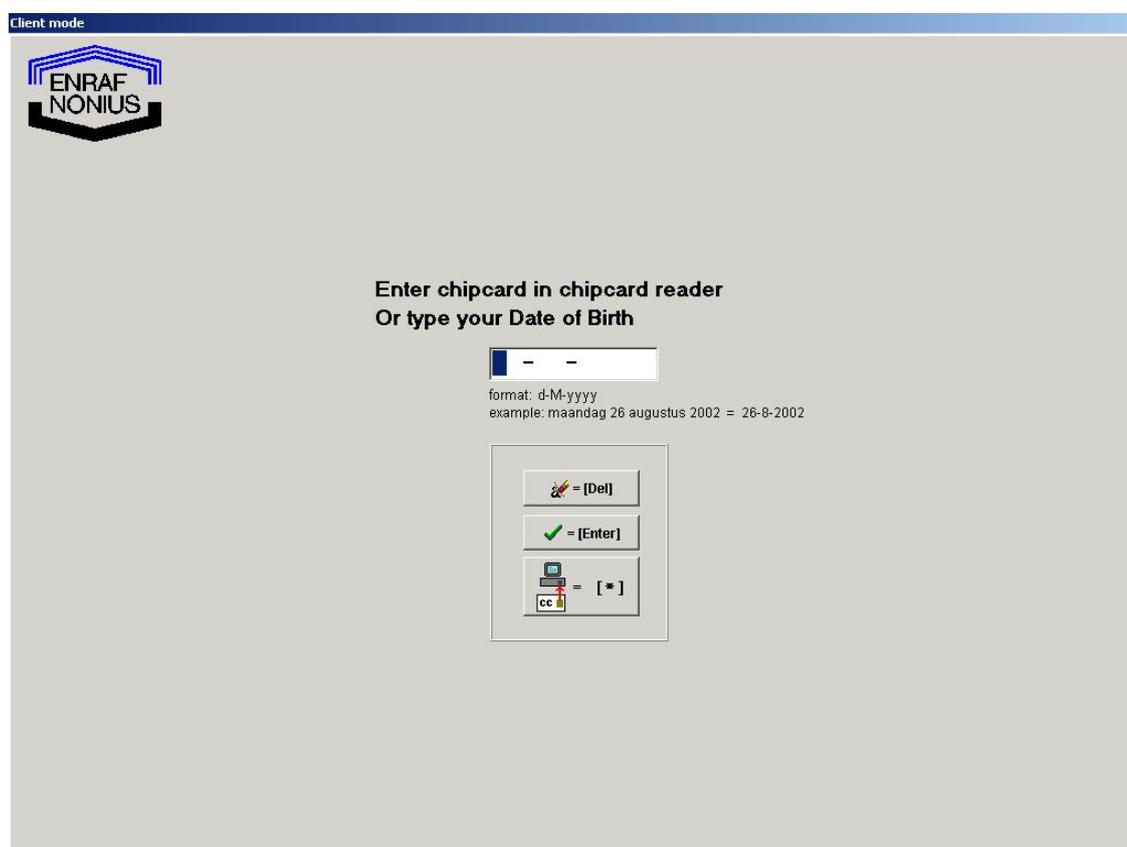


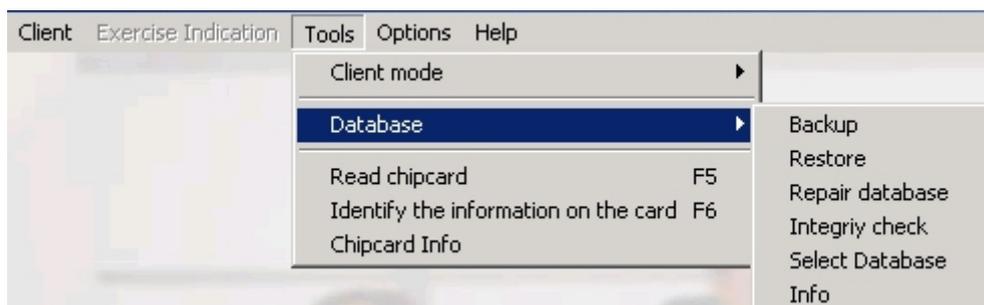
Fig. 5.19 Client mode

If the correct date is entered the patient's current session will be displayed.

NOTE: you can exit **Client mode** by clicking on **CTRL** and **F10** simultaneously. The **password** (if it is entered) will prevent clients from accessing database information and the settings of the EN-Track program. This mode can only be operated from the Keypad!

## 5.4.2 Database

The database can be managed from this menu.



### 5.4.2.1 Make backup

This allows you to create a complete backup of all your EN-Track data. The data will be stored in 1 compressed container file. The data can then be restored if the database is corrupted (e.g. a computer malfunction or power outage).

The file name is as follows:

EN\_TRACK\_2000630.enc = EN\_TRACK Year Month Day

It is possible to rename the file.

### 5.4.2.2 Restore backup

To restore the backup file mentioned above.

### 5.4.2.3 Repair database

This allows you to repair a corrupted database if necessary. A database can become corrupted by a computer malfunction or if you shut off the power of your PC without first closing EN-Track.

**Attention!** All three functions mentioned above are only possible when there is only 1 PC (1 EN-Track instance) using the database. In a network configuration all the other EN-Track programs must therefore be closed!

### 5.4.2.4 Select another database directory

With this function the location of the EN-Track database can be chosen. The default location is "<INSTALL DIRECTORY>\DATABASE". On one PC you can create multiple EN-Track database directories to allow more than one physiotherapist to use a different database (when they have different patients).

Mainly, however, this will be used in a network configuration when each PC (i.e. EN-Track program) in the network wishes to utilize the same (shared) EN-Track database. In these cases a shared resource must be created on one of the PCs. Next, all the PCs must select this shared database resource by typing the same resource name in each EN-Track program.

The resource must be identified by the following universal naming convention:

**UNC of the resource: "\\<PC\_NAME>\<RESOURCE\_NAME>"**

Example:

Take a PC name "**PRACTICE**" and the shared name of the database directory

"C:\Program Files\Enraf-Nonius\EnTrack\Database" is

**"DB\_ENTRACK"**

Then the UNC name would be:

**"\\PRACTICE\DB\_ENTRACK"**

This name must now be entered in all EN-Track programs that wish to use this database. This must also be done on the PC on which the shared resource is created !!

The network functionality works with the following configuration:

the EN-Track program runs on a Windows 2000 or XP System. The database is on a "true server" i.e. a machine on which Windows NT 4.0 server or Linux is installed.

For further information on network resources and terminology, please refer to the Windows Help information on network use!

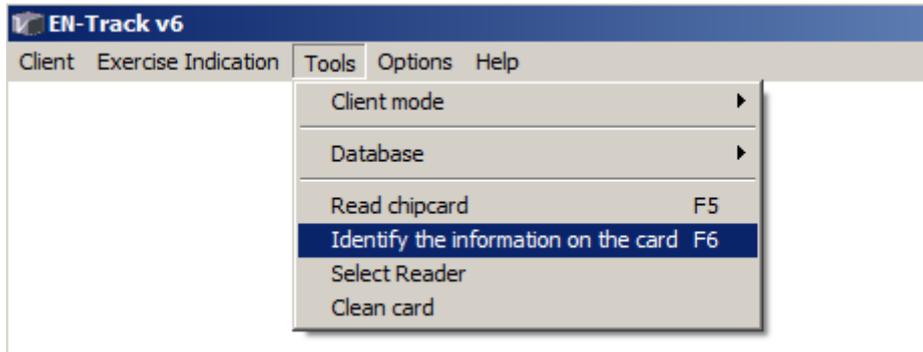
#### **Comment on network use**

If several PCs can use an EN-Track database simultaneously then it may happen that client data that has been created on PC 1 (perhaps using an exercise program) is not yet visible on PC 2. By clicking function key **F9** the database is locally refreshed so that all the latest data is visible. This refreshing takes place automatically when the chipcard is read in or when the "Client screen" is opened from the main menu.

#### **5.4.2.5 Database information**

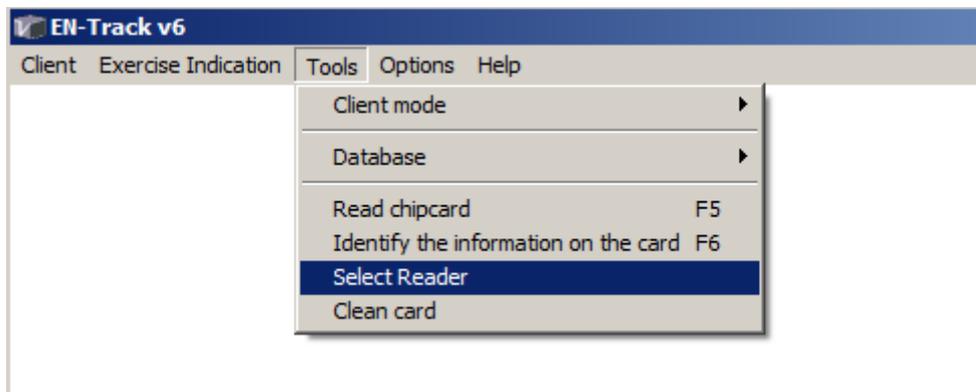
Displays the location of the current database and private (local) directory.

### 5.4.3 Identifying the information on the card F6



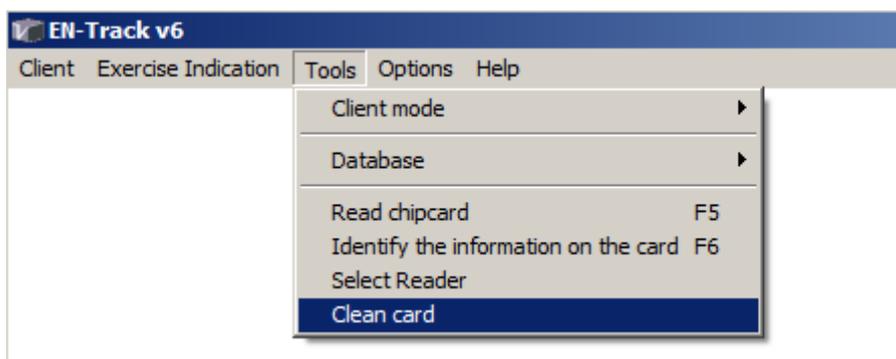
The **Identify information on the chipcard** function (which can also be activated by F6) makes it possible to view just the information on the chipcard, without writing the data to the database. This can be useful if, for example, several chipcards have become mixed up and you want to select the correct (already loaded) chipcard for the selected client.

### 5.4.4 Select a Cardreader



When the system detects one chipcard reader, a dialog with information about this reader appears. When multiple chipcardreaders are detected a list of those readers appears with the one currently in use highlighted. Here you can select another reader to use. The system can only work with 1 reader at the time.

### 5.4.5 Erase the chipcard



This option removes all training data from a chipcard, even when this card contains "corrupted data"

Note: If a card contains corrupted data it can always be used when you create a new training card. The chipcard is in 99% of these cases mechanically and electrical still functional, only the data when writing to the chipcard got corrupted, e.g. by removing the card too soon from the device.

## 5.5 Options

Client Exercise Indication Tools **Options** Help

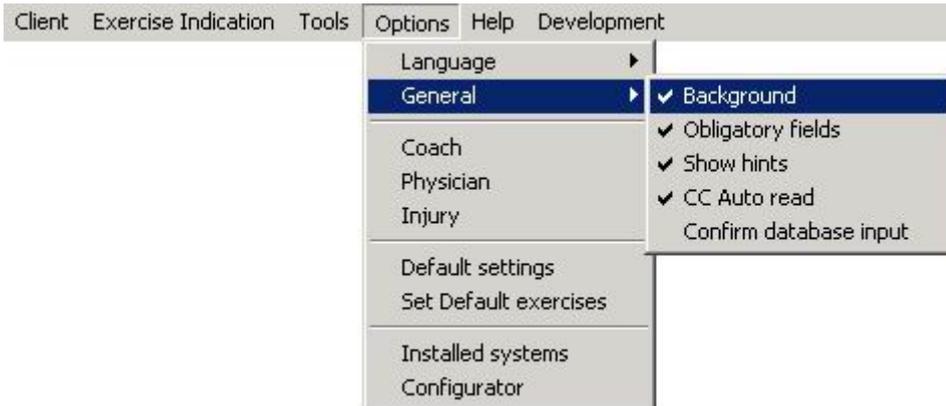
With this menu you can customize the package for your practice

### 5.5.1 Language

You can select the **Language**, after which all menus, including this help file, will appear in the chosen language.

Double-click to change the language. The program must be restarted after changing the language.

### 5.5.2 General



Background on  
Background off

= main screen with picture  
= main screen white (use with screens of 16 colors or less)

Obligatory field on

= last name, first name and date of birth obligatory (needed for identification in client mode)

Obligatory fields off

= only last name obligatory

Show hints on

= on-line hints will be shown when the cursor is placed over a symbol

Show hints off

= no on-line hints will be shown

CC Auto read on

= chipcard will be read when inserted into chipcard reader

CC Auto read off

= chipcard will only be read after confirmation (with Enter or OK)

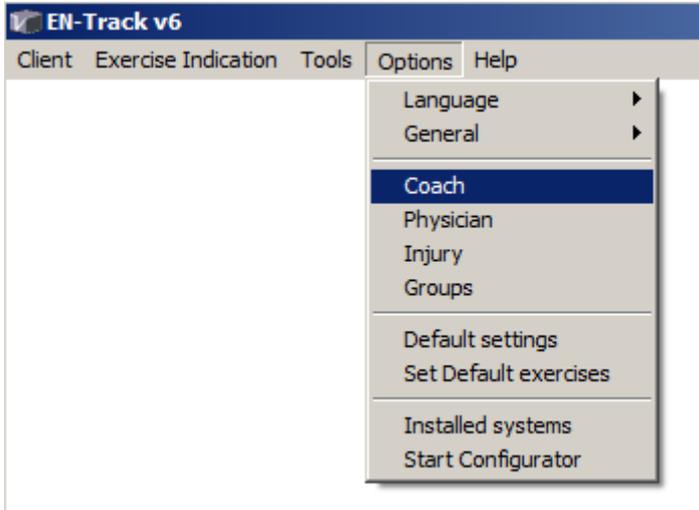
Confirm database input on

= ask for confirmation after a chipcard is inserted before adding data to the database

Confirm database input off

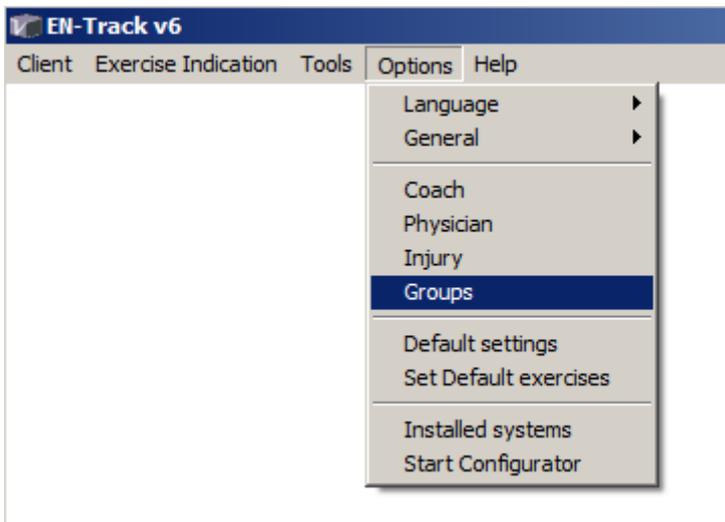
= write to database automatically

### 5.5.3 Coach / Doctor / Exercise indications



To set defaults for Coach / Physician / Injury that can be selected under **Exercise Indication**

### 5.5.4 Groups



With this option you can assign real names to the group numbers. By default the group numbers are visible.

## 5.5.5 Default settings

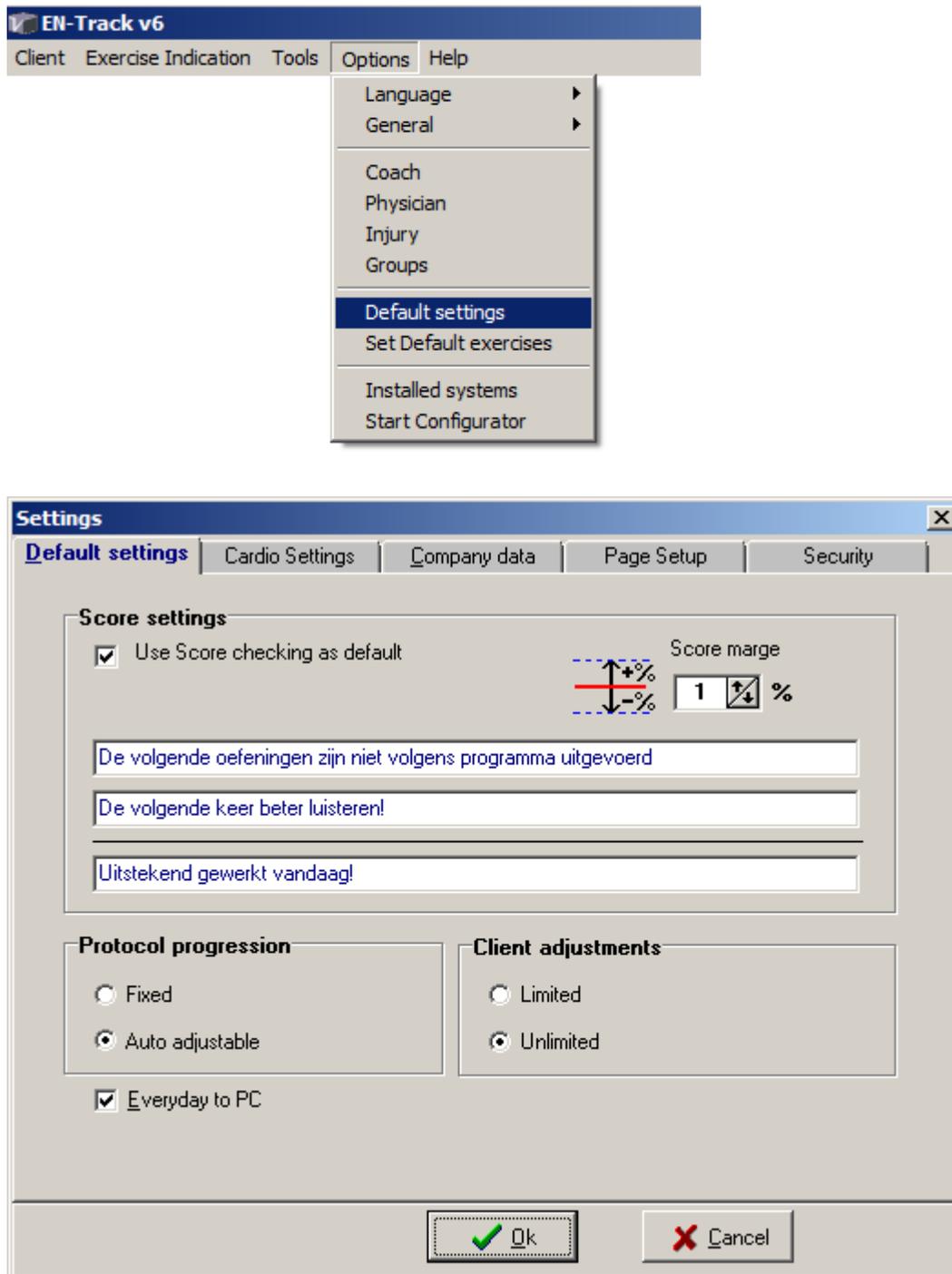


Fig. 5.21a Default settings

Under **default settings** there are several options:

- **Score settings:** if this is selected a message will appear when a client downloads his chipcard and the results of a training are outside the set bandwidth (i.e. either time or strength are plus or minus the selected percentage)
- **Protocol Progression:** defaults either to the <Fixed> or <Auto-adjustable> option
- **Client adjustment:** defaults to either to the <Limited> or the <Unlimited> option
- **Every day to PC:** defaults to the option to download all data every day before the next day can be started

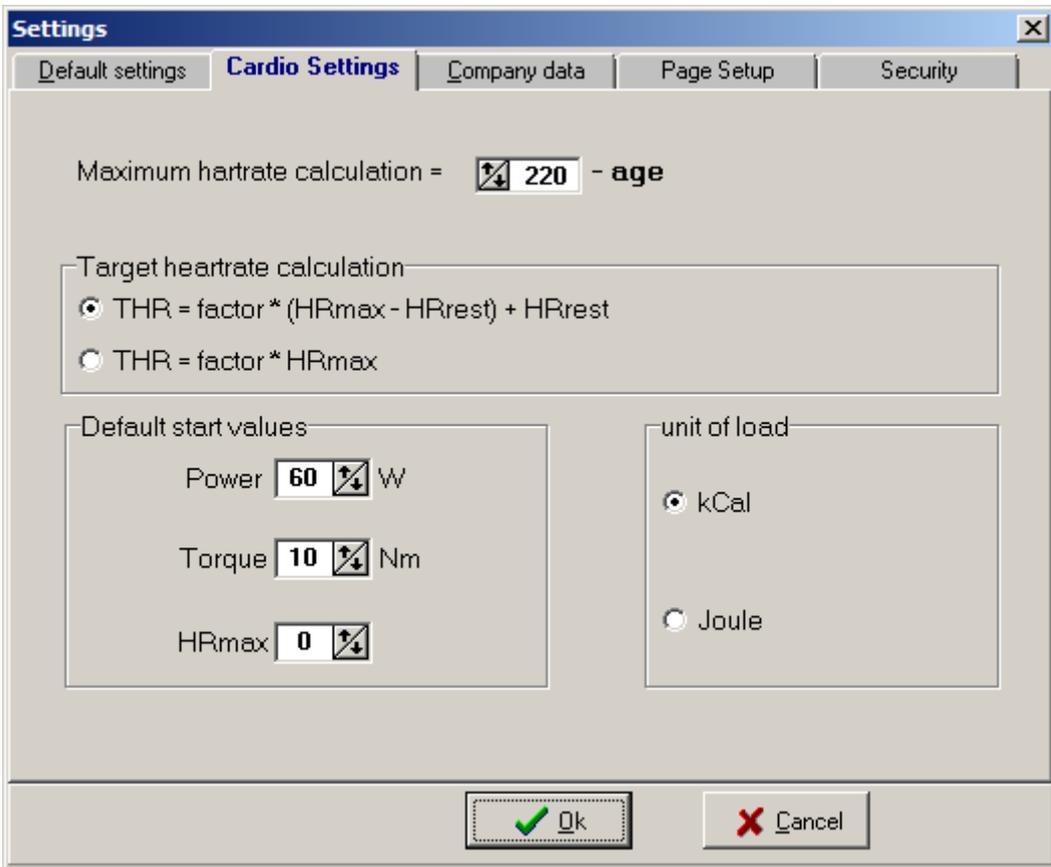


Fig. 5.21b Cardio settings

In the tab **Cardio settings** you can define the basic values for the maximum heart rate (heart rate - age) and the formula for calculating the target heart rate. Here also you can define the basic values for power and torque.

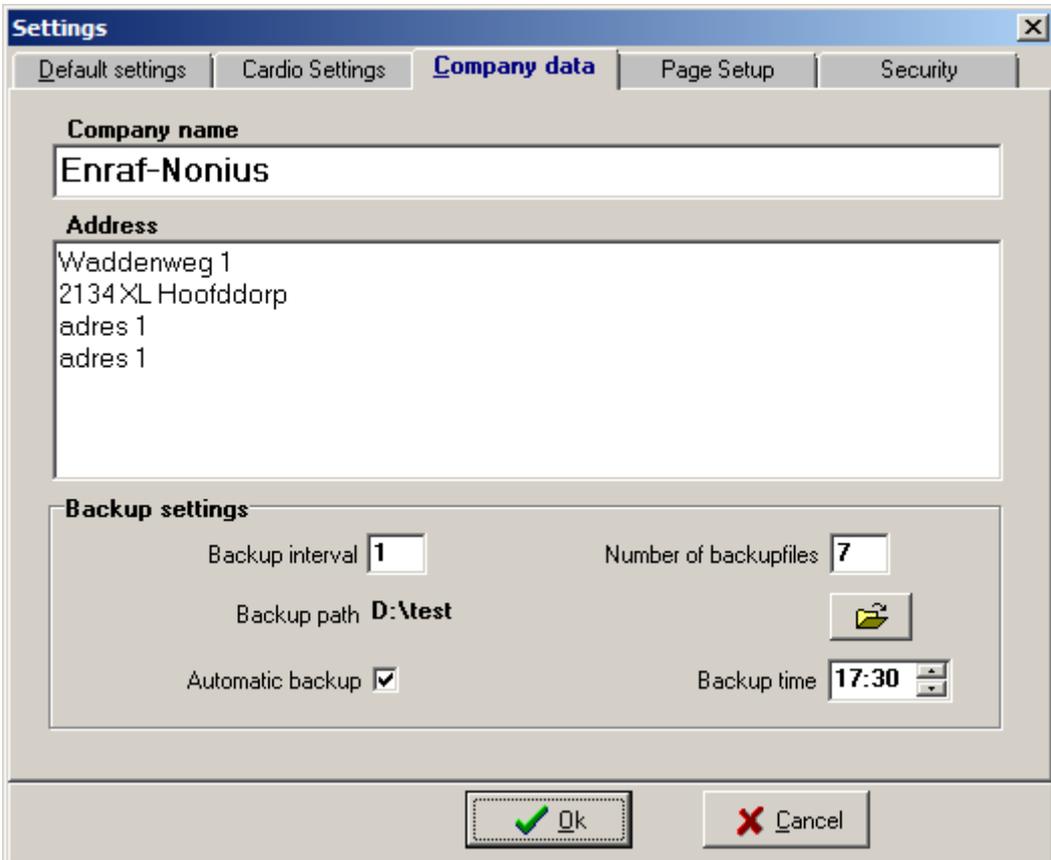


Fig. 5.21c Company data settings

Under Set default exercises you can adjust/create default protocols.

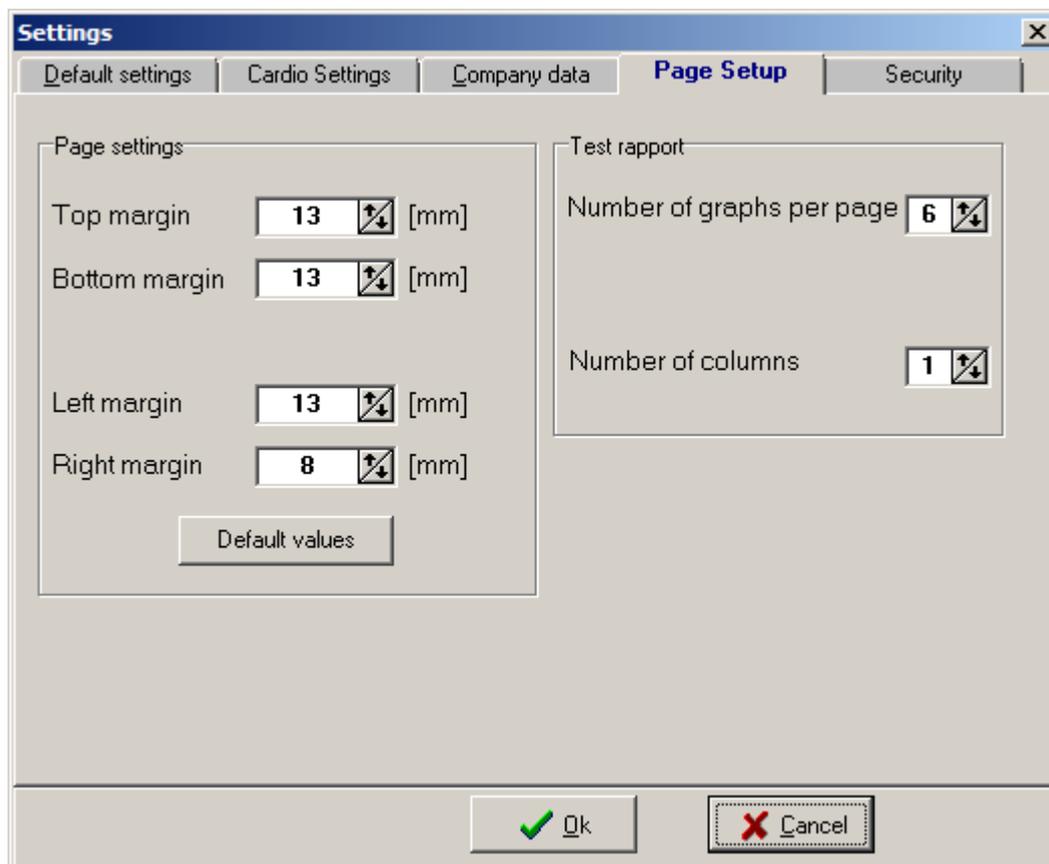
**In default settings** under **company data** the name and address of the facility can be entered, so that this data will automatically be used in the **reports** (in the upper right-hand corner).

In the bottom halve you can determine all the backup settings:

- **Back-up interval:** Indicates how many days between to backups, 1 = every day, 2 = every other day etc. 0 = no backups are made
- **Number of backups:** Determines how many different backup files are kept before overwriting the oldest one.  
E.g. when you fill in 7, you will find 7 different backup files together with e.g. a backup interval of 1, you can go back 7 days in time.
- **Back-up path:** location of the back-up files.
- **Automatic back-up:** By default EN-Track will check the backup parameters when closing. If you select automatic backup active, it will check the backup parameters (in other words, is this a 'backup-day') on the time of day selected with the "backup-time"
- **Backup time:** time of day on which EN-track performs an automatic backup (if enabled)

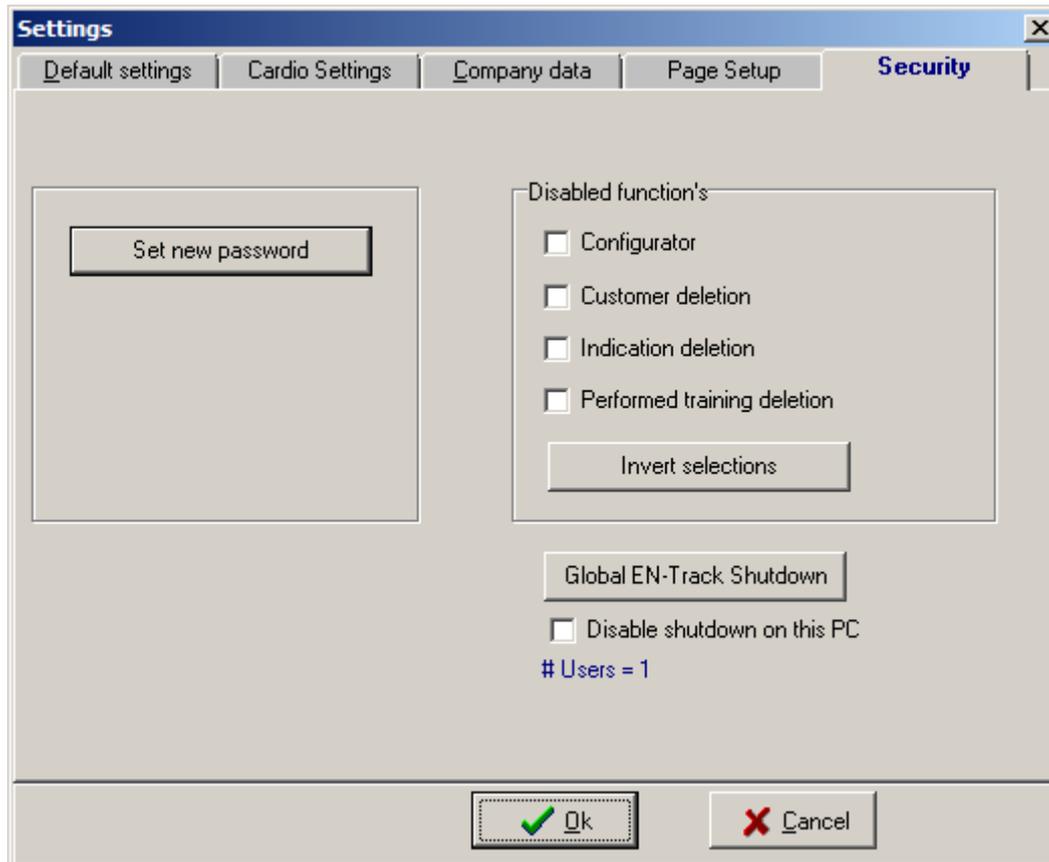
Before an (automatic) backup is made, a dialog appears with the question if you want to precede. After 5 seconds it will continue by default unless a user presses Cancel.

Of course it is always possible to create a backup by hand. With the "tools -> database -> backup" option. The path selected there is separate from the backup-path described above.



Figuur 5.21d: Pagina Setup

Under the "Page Setup" tab one can adjust the margins and page layout for the printed reports. For a graphical report you can define the maximal number of graphics per page. For the standard report you can define the number of columns.



Figuur 5.21e: security

With the section **Security** several functions can be placed under password protection. To be able to perform these functions one must enter the password in this screen.

When no password is defined, you have to set one first.

In order to change any of the functions, one must enter this previously entered password first.

The functions that can password protected are:

- Start the configurator (all other EN-track session using the same database, must be closed first!)
- Deletion of customers
- Deletion of indications
- Deletion of performed trainings

Also, from this screen, you can shutdown every running EN-Track instance in the network (when you have a multi PC environment with the function Global EN-Track shutdown). In case you wish to keep your EN-Track session active, e.g. to start up the Configurator, you have to select the option Disable shutdown on this PC, before pressing the global shutdown button..

### 5.5.6 Set default exercises



Under **options**, **set default exercises**. You can now set the exercises.

In the left-hand table there are 3 possible models:

- the 6-phase model
- the custom model
- the classic model

In the left-hand table you can select the suggested exercise and move it to the right-hand table (6 possibilities, a to f) using the arrows (-> for only the selected exercise, ->> for all exercises). The same goes for EN-Cardio, where the protocols are built up as follows.

- Cardio improving condition, fat burning
- Duration extensive, intensive
- Interval short intensive, short extensive, long intensive, long extensive
- Free a – f

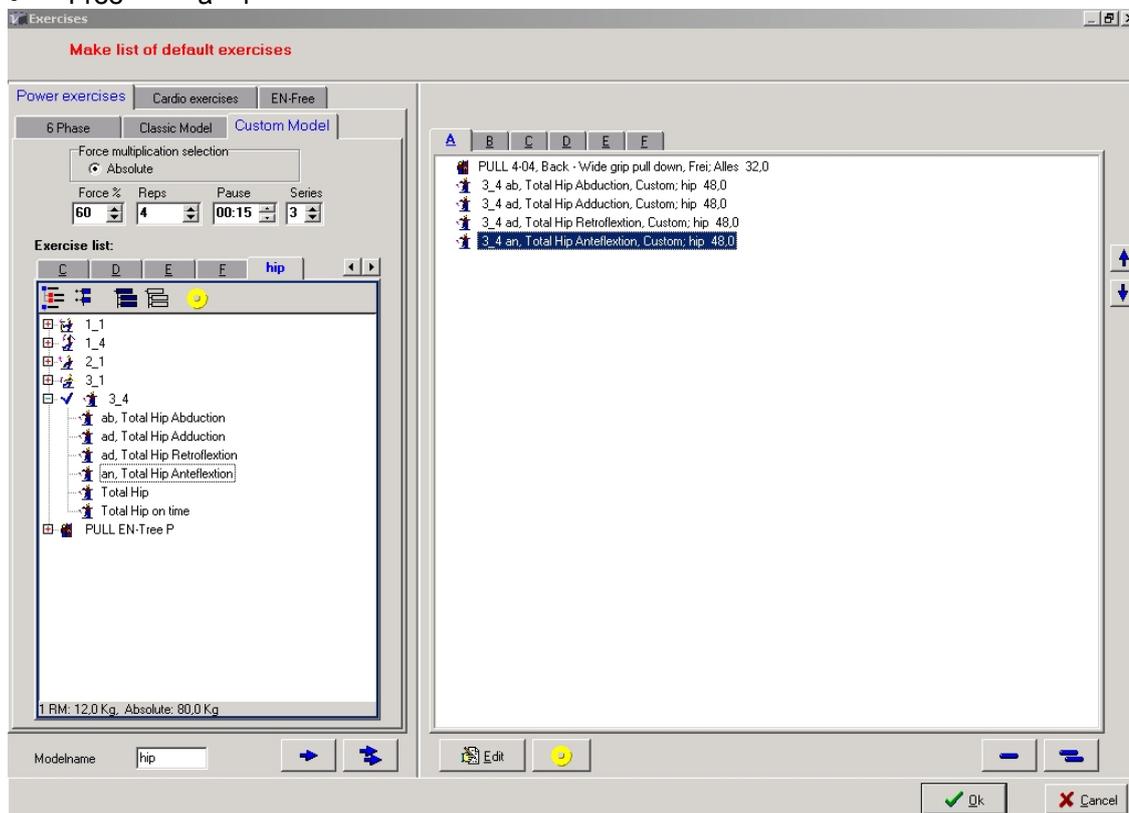


Fig. 5.22 Standard exercises

To create default templates:

- Choose whether you want the template to be based
    1. on absolute force values => select Absolute
    2. on relative values, referring to the 1RM => select 1RM
  - Select the force or 1RM multiplication %
  - Select the number of reps
  - Select the duration of the pause
  - Select the number of series
  - Then copy the units you want to incorporate into your template from the left-hand Exercise list under "All" to the right-hand side under TAB A, B, C, D or E
- Further details can then be added / changed by means of the "Edit" function (also see Details). After this you can repeat this process, but NOTE: if you copy from "ALL" to a TAB Page it will use the default values of ALL, whereas if you copy from TAB A to TAB B it will multiply by the values stored under TAB A

Modelname

Under model name you can name the template that you have compiled. In Fig. 5.22 the protocol called 'hip' has been compiled. For each main exercise list (Strength, Cardio and Freestyle exercises) different model names can be chosen per list. (A to F) The model names will always retain the standard designation A to F during the definition on the right-hand side.

**NOTE:** If you copy "All" from the left-hand to the right-hand tab the default values will be taken as reference. If you copy from the left-hand TAB A to right-hand TAB B then the reference values will be taken from TAB A (this could result in, for example, 50% of 50% of the reference strength).

When defining a training you can select a predefined template (either with absolute or relative values) from the Custom Model to quickly create your own protocol.

Note: the Classic Model and the 6-Phase model can also be edited here so that they use other values as default.

Within each phase there is an area in which the strength and the number of repetitions can be set. Both in this screen and in the standard "**Exercises**" screen the exact values of each model will be stored.

The percentages of all the tabs and sub tabs will be stored after activation and will be displayed as defaults in "**Compile first training**"(page 19).



## 5.5.7 Installed systems

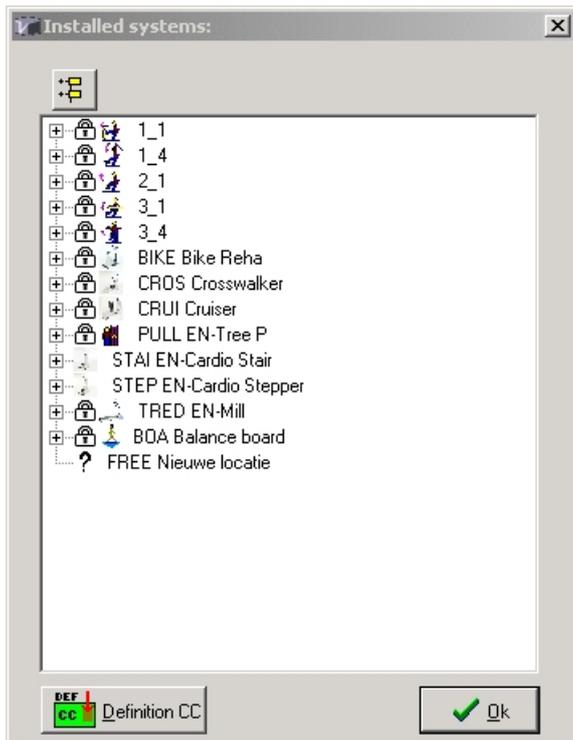
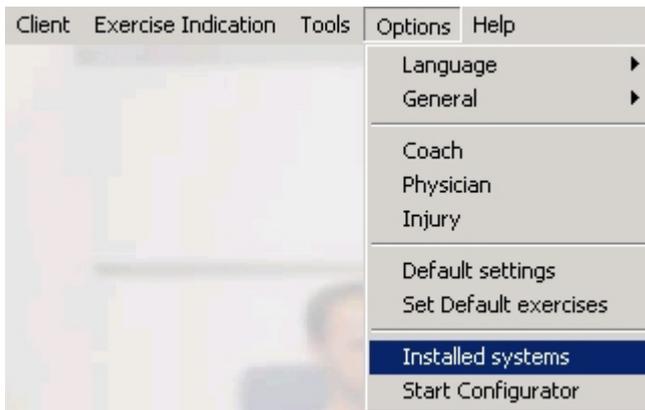
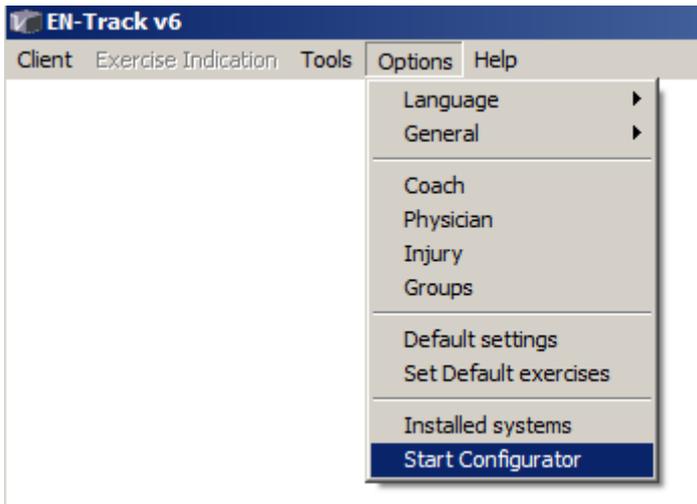


Fig. 5.23 Installed systems

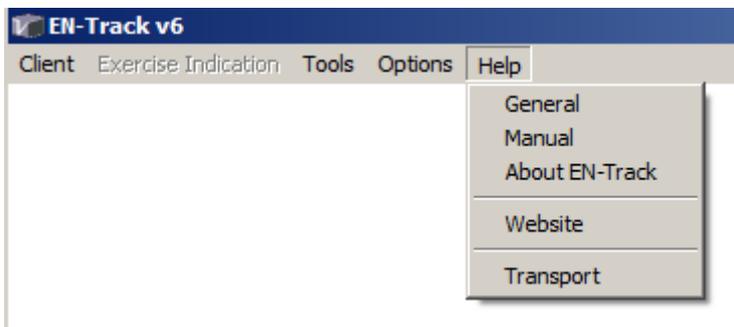
Under **installed systems** you can select the En Free location that you want to install in the facility. A click on the EN Free location icon, followed by **Definition CC** selects the system for your facility. (Also see § 6.7)

### 5.5.8 Start Configurator



Start Configurator is further explained in [Chapter 6](#).

### 5.6 Help



- **General Igemeen** geeft de helpfunctie weer (on-line altijd via F1 te adviseren).
- **Manual** toont de complete manual in een PDF-document.
- **About EN-Track** geeft informatie over uw kopie van EN-Track software.
- **Website** shows the EN-Track website online.
- **Transport** generates a back-office report file which can be send to Enraf-Nonius in case of a support request. It contains the certain database files en the log file

**NOTE: This is NO backup but only intended for analitic purposes.**



Fig. 5.24 About EN-Track

## 6 Start configurator

Via the main menu, **Options, Start Configurator**, you enter the EN-Track Configurator.

In the configurator a number of freestyle exercises are predefined which, if desired, can be amended and expanded. In the **Templates** tab all the fixed EN-Strength, EN Cardio and predefined freestyle EN-Free exercises are displayed. The configurator also enables you to generate other kinds of freestyle exercises that have not yet been defined. How exactly does this work?

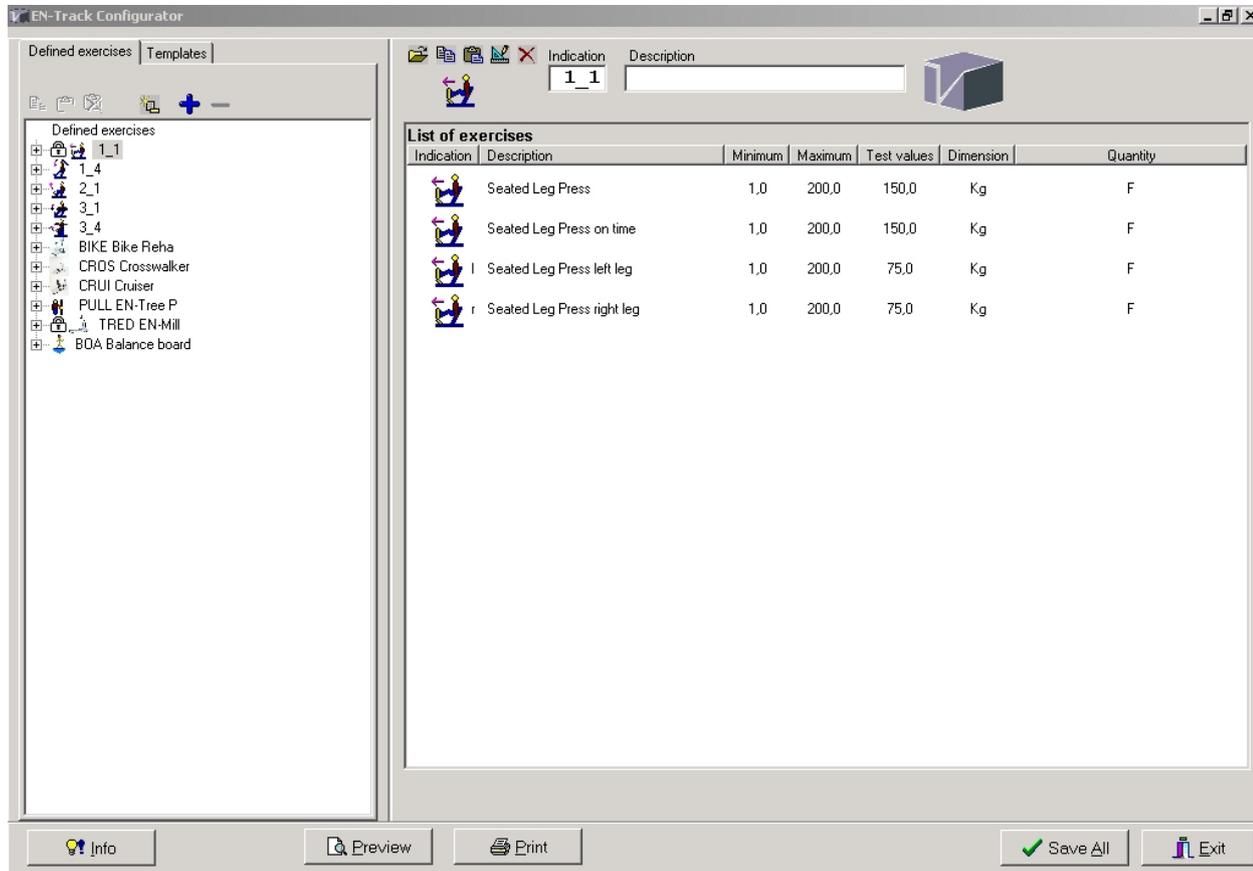


Fig. 6.1 Tab: Exercises used

The “lock” symbol indicates that the exercise appears at least once in the client’s exercise scheme and therefore CANNOT any longer be removed.

### 6.1 Adding a new EN-Free location

 If you click on ‘**Add a new EN-Free location**’ a new EN-Free location will appear. This location can be named in the right-hand field under **Designation** using a maximum of 4 characters (e.g. **4\_1**) This designation will appear in the topmost display of the EN-Free control box. This EN-Free location can also be further defined under **Definition**.



-  open
-  copy
-  paste
-  edit
-  delete

You can use the above icons to open, copy, paste, edit and delete a bitmap. The selected bitmap will then come to lie at the location of the '?'

## 6.2 Adding exercises to a new EN-Free location

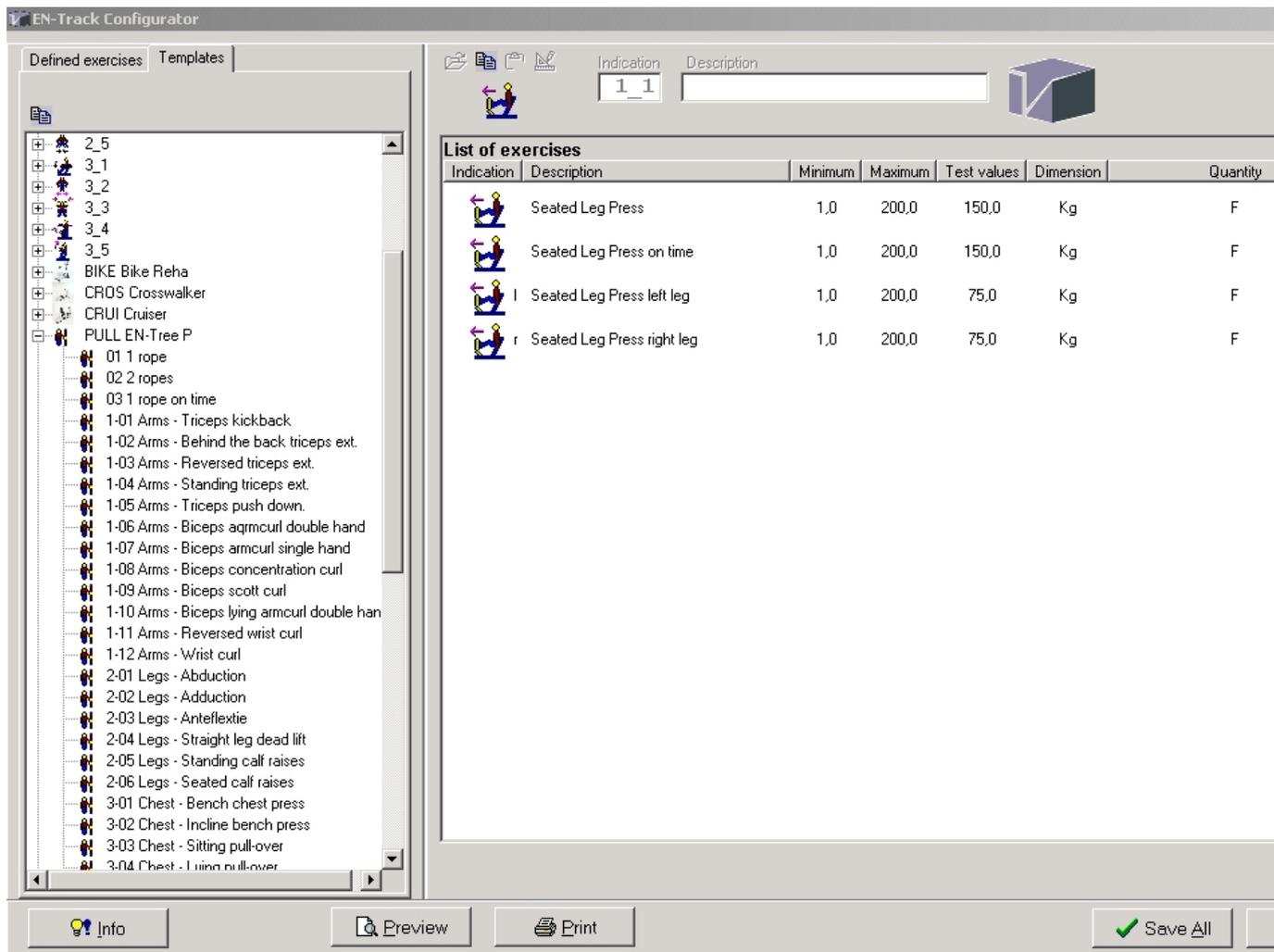


fig. 6.2 Selection list of used exercises

Once the new EN-Free location has been named, several exercises can be placed there. This is done as follows:

- In the **Templates** list, select the desired group of exercises. Double-click and then select the desired exercise from this list. E.g. from  PULL EN-Tree P select the exercise **1-01 Triceps kickback**
-  Copy the selected exercise by clicking on this button at top left.
- Move the cursor to the EN-Free location **4\_1** in **Defined exercises** where you want the exercise to appear and then click on this.
-  Paste the exercise at the desired place by clicking on this button.
- Repeat the above process, if desired, to place several exercises at the EN-Free location

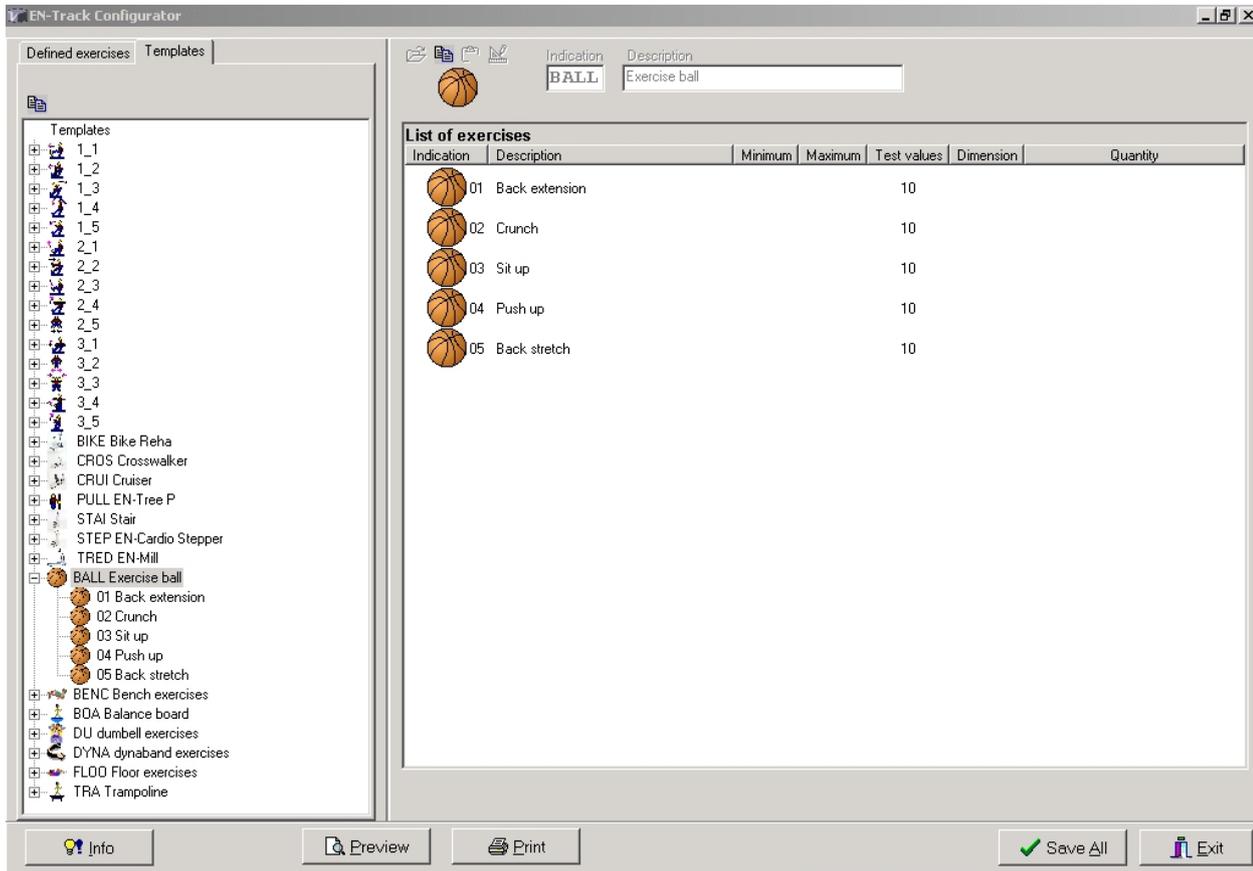


Fig. 6.3 Adding exercises to an EN-Free location

It is also possible to copy a group of exercises from **Templates** to **Exercises used**. This is done as follows:

- In the **Templates list** select the desired group of exercises. E.g.  **BAL Exercise bal**
-  Copy the selected group of exercises by clicking on this button at top left.
- The whole group of exercises will then be automatically placed in the list of **Defined exercises**.

 **Preview** = A preview of the description of the selected exercise, including photo, if present

 **Print** = Printout of the description of the selected exercise, including photo, if present

### 6.3 Creating, amending and deleting an exercise



By clicking on the + button a copy of the **01 Leg raises bend** will appear under EN-Free location. Move the cursor to the copy and left-click. The content of the defined exercise can now be amended. At top right **Indication**, **Description** and the Bitmap of the copy image can be changed.

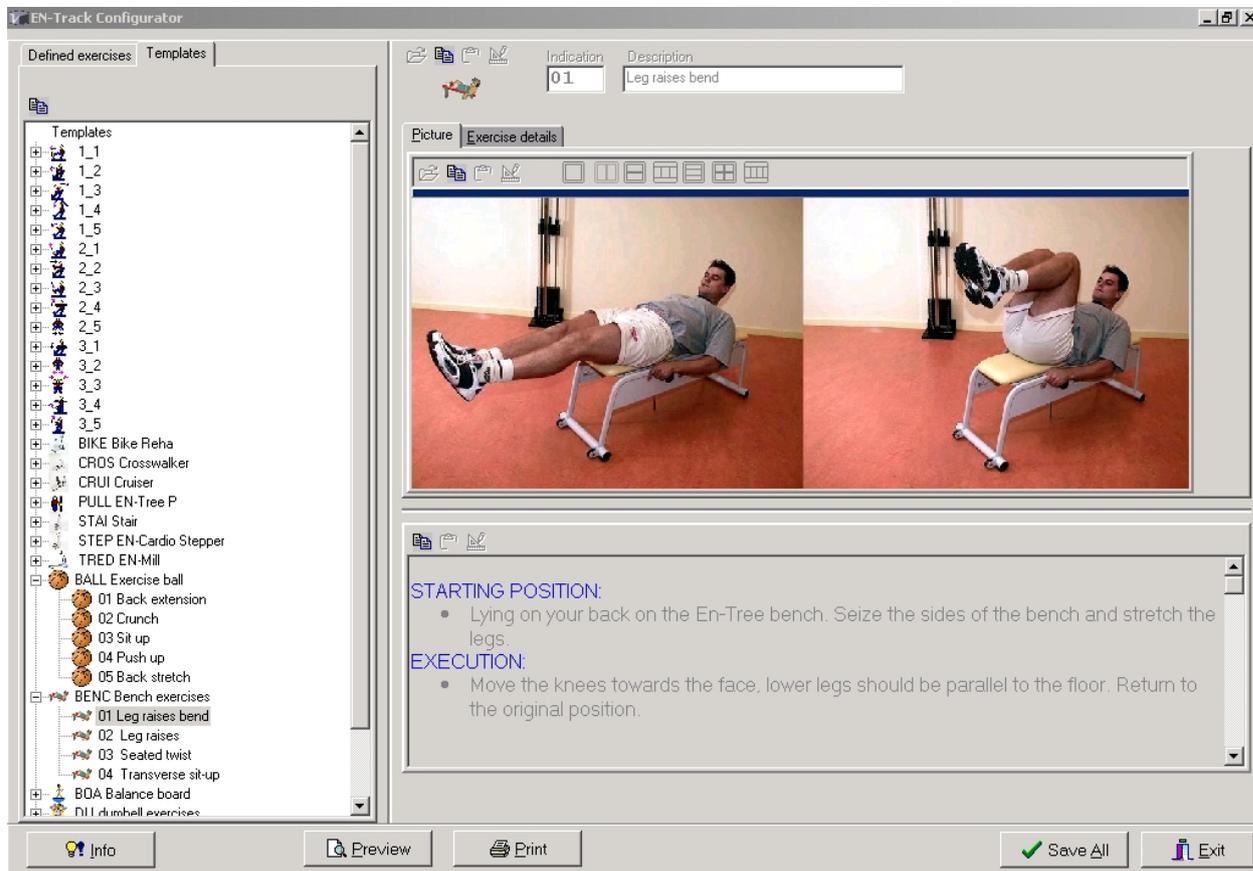


Fig. 6.4 Creating, amending and deleting an exercise

#### Exercise details

By activating Exercise details the **Magnitude**, **Dimensions** and **Precision** can be amended if necessary. The range can be subdivided into several increments. Both the **Minimum** and the **Maximum** can be indicated, e.g. with dumbbells, which increase in 1 kg-steps from a **Minimum** of 1 to a **Maximum** of 24 kg.

	Quantity	Dimension	Precision
	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
type	Range		
<input checked="" type="radio"/> range	Minimum	Maximum	Step
<input type="radio"/> discr.	<input type="text" value="1"/>	<input type="text" value="30"/>	<input type="text" value="1"/>

With a discrete range there is no incremental buildup. All the steps that can occur are stated. In the example below the EN-Tree pulley is taken as a starting-point.

Quantity	Dimension	Precision
<input type="text"/>	<input type="text"/>	0
type		
Discrete values:		
<input type="radio"/> range <input checked="" type="radio"/> discr.		
<input type="text" value="1,5-2-4-6-8-10-12-14-16-18-20-22-24"/>		

#### 6.4 Different exercise forms possible

It is possible to exercise in three different ways: on load, on repetitions and on time.

##### 1) Training on load

If the target value has been set to **On load** and **repetitions** are being performed, the exercise can be shown as a strength exercise. The exercise is then shown in the list of **Strength exercises**, as discussed in detail under **Training Tab** (see § 5.3.2). Activate this exercise form by ticking **Use of strength exercise**. Entering the desired value can change the function test values. The principle of 1RM value can also be used, as extensively discussed under **Intake Tab** (see § 5.2.2).

Target value	Test values	train on:
<input checked="" type="checkbox"/> Use 1 RM		
<input checked="" type="radio"/> On Load  <input type="radio"/> On reps. or time	<input type="text" value="1"/>	<input checked="" type="radio"/> reps.  <input type="radio"/> time

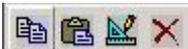
##### 2) Training on repetitions or time

Exercises can, however, also be performed on **time**, as is usual in circuit training. Set the **Target value** to **On repet. or time**. Under **training on** activate the radio button **time**. By ticking **Blank at top** the top most field, which is not applicable to training on time, will be left blank.

Target value	Test values	train on:
<input type="checkbox"/> Hide upper display		
<input type="radio"/> On Load  <input checked="" type="radio"/> On reps. or time	<input type="text" value="1"/>  <input type="text" value="01:00"/>	<input type="radio"/> reps.  <input checked="" type="radio"/> time

Training on repetitions: under **training on** the radio button **repetitions** must be activated. The desired number of repetitions can be pre-set.

Target value	Test values	train on:
<input type="checkbox"/> Hide upper display		
<input type="radio"/> On Load  <input checked="" type="radio"/> On reps. or time	<input type="text" value="1"/>  <input type="text" value="10"/>	<input checked="" type="radio"/> reps.  <input type="radio"/> time



In the text field the accompanying text that relates to the selected exercise can be entered or amended. With the first button you can copy the text to the clipboard. The second button pastes the content of the clipboard. It is, however, also possible to create a link to the word processing program of the system with which you are working:



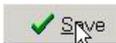
Start up word processor.



First type the text in the desired form and then save the text.



Close the word processor by clicking on **X** top-right. The text will be automatically displayed in the field below.



Save the changes made to the exercise.



If the changes to the exercise do not have to be executed, click on Cancel.

## 6.5 Removing an EN-Free location/exercise

De-Activate

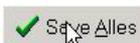
With this button it is possible to hide/reveal an exercise definition in EN-Track. You can use this when there are exercises present that have been used once but which are never going to be performed again. In this case the definition must remain present, but you don't want to see it any longer in the exercise lists of EN-Track. When an exercise has been deactivated the name of the exercise will be "crossed through".



By clicking on the **-** button the selected location or exercise will be deleted.

## 6.6 Closing the wizard

When the EN-Free location(s), with the exercises they contain, have been created or amended the wizard can be closed. This is done as follows:



Save all changes.



Exit the wizard. EN-Track will start up.

## 6.7 Activating an EN-Free location

The EN-Free location(s), with the exercises they contain, and EN-Cardio names, can be defined as follows:

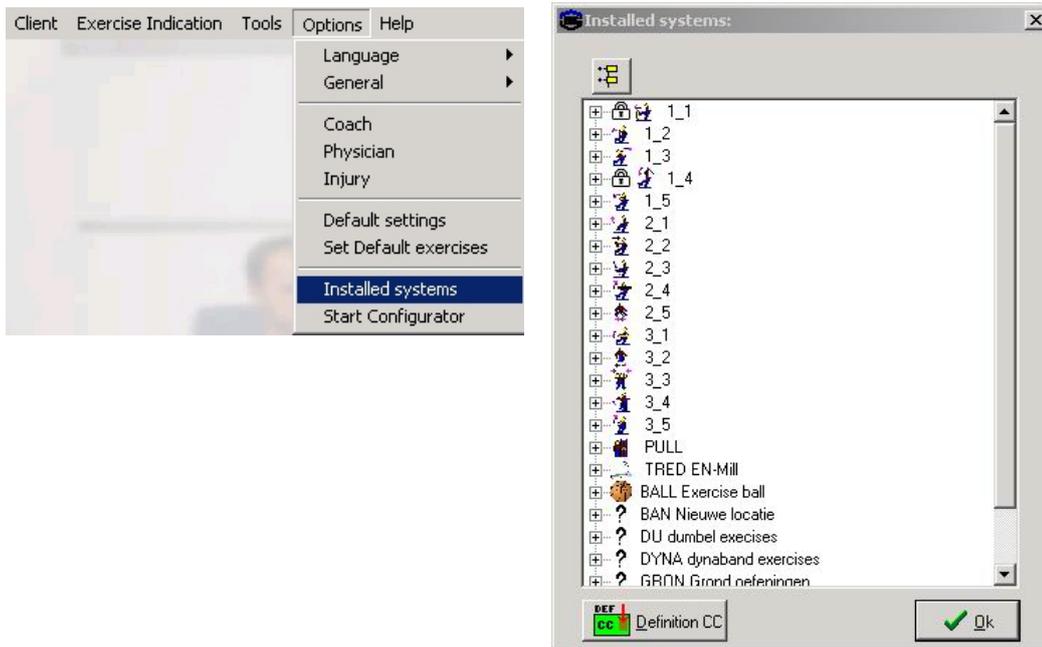


Fig. 6.5 Create EN-Free Definition CC

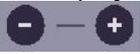
1. In the **Options** menu select **Installed exercises**
2.  Create an EN-Free / EN-Cardio definition card. All EN-Free locations and EN-Cardio devices are now on the definition card.
3. Go to the EN-Free control box and insert the chipcard. If the EN-Free location has a definition the display will flash if the "definition" is also on the **Definition cc card**.
4.  In the topmost display, select the desired EN-Free location.
5.  Activate the selected EN-Free location by clicking on the Accept button.



Fig. 6.6 Activating an EN-Free Location

6. By putting this card into a EN-Cardio devices, you program this device with it's (new) name. The actual name will appear and you have to confirm it by pressing the green button.

## Appendix A: Import

With this function, client data can be imported from external databases. This data must then be in a comma-separated text file in accordance with the following format:



The format of the data file is as follows:

Text Delimiter Field    “ (double quote)  
Separator                , (comma)

	<b>name</b>	<b>type</b>	<b>max. length</b>
Field 1	Ref. Key	text	20
Field 2	Surname	text	40
Field 3	Middle name	text	15
Field 4	First name	text	20
Field 5	Street	text	40
Field 6	Street no.	text	10
Field 7	Zip code	text	10
Field 8	City	text	40
<b>Field 9</b>	<b>Phone private</b>	<b>text</b>	<b>20</b>
Field 10	Phone office	text	20
Field 11	Date of birth	text	8 (fixed format: YYYYMMDD)
Field 12	Preferred side	integer	6 (0=Unknown, 1=Left, 2=Right)
Field 13	Physician	text	40
Field 14	Length	integer	6
Field 15	Weight	integer	6
Field 16	Gender	integer	6 (0=female, 1=male)

remark 1: An "integer" is a whole number, so the "Height" and "Weight" cannot be fractional numbers but it doesn't matter what it represents. No conversion is made.

remark 2: Field "**Ref. Key**" will be matched with the "**Custom ID**" inside the EN-Track database. If a match is found, the rest of the fields inside the EN-Track customer database are updated. If not, a new customer entry is created.

Remark 3: Each line in the import file MUST be terminated by a [Carriage-Return linefeed]

**Example:**

Ref key: 0105  
Surname: Smith  
Middle name: Peter  
First name: John  
Street/Street no: 79<sup>nd</sup> Street/12567  
Zip code: NY 10024  
City: New York  
Phone: 0345312341  
Private: 0302121234  
Phone office: private  
Date of birth: 29011971  
Preferred side: right-handed  
Physician: Dr Knowitall  
Height: 192cm  
Weight: 87 kg  
Gender: male

**Example record in the import file:****entry (line) in import file:**

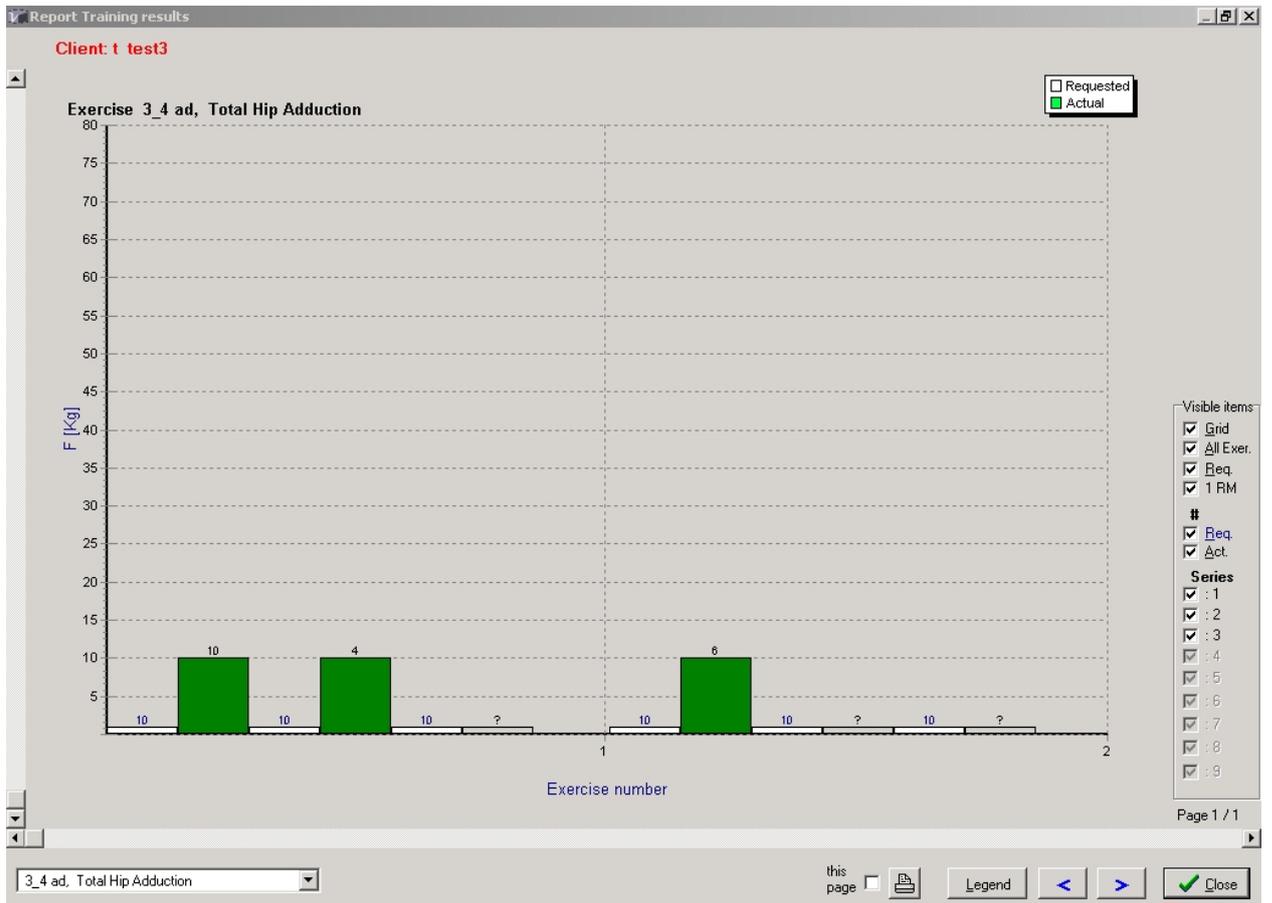
0105,"Smith","Peter","John","79<sup>th</sup> Street","12567","NY 10024","New York","-secret-","09-31 - 0053787530","19641221", 1 ,"Dr Knowitall", 192,87,1

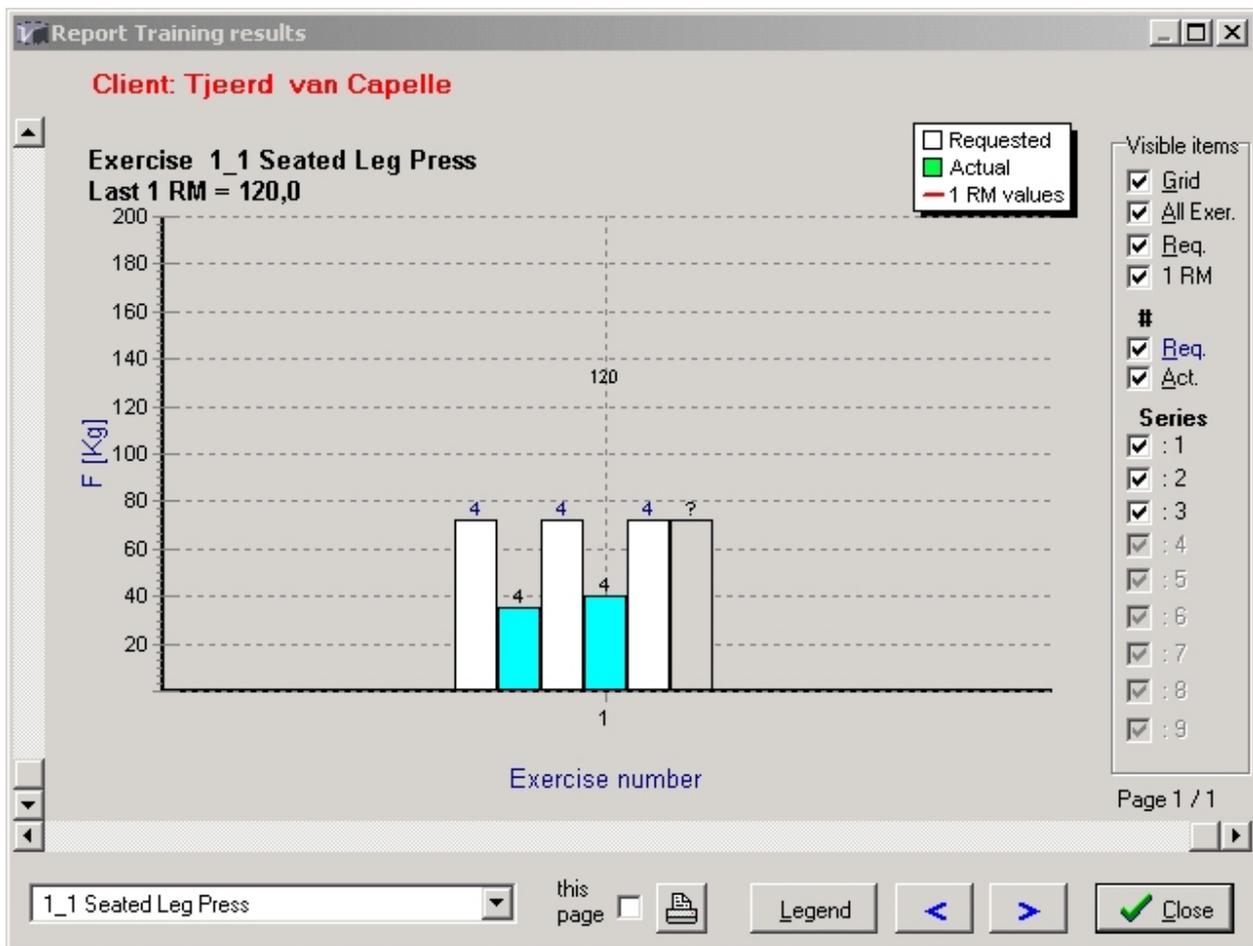
## Appendix B: Printing

Example of

- a graphical printout
  - shows the progression / changes per exercise unit (thus for all training dates)
- two numerical printouts
  - shows the progression / changes per exercise date (thus for all units)
    - Training no. 1
    - Training no. 2

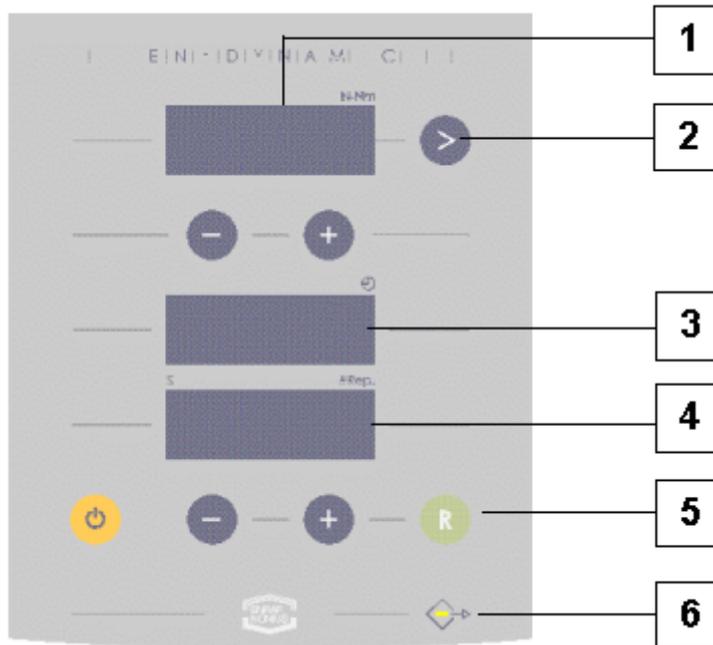
The Numerical printout gives a complete overview of the training content.





## Appendix C: EN-Track Hardware

The EN-Track Hardware (the display on the exercise units) has some extra functionality when used in EN-Track mode.



For the complete hardware functionality, please see the EN-Dynamic/EN-Train/EN-Track manual.

The extra functionality with the use of a chipcard is:

### 1. The resistance display:

- Normally shows the resistance
- When the chipcard is inserted the resistance will increase or decrease to the set point of the protocol. During this period the resistance display will blink, indicating that it is measuring and setting the correct resistance. Wait until after the beep before starting the exercise.
- When the unit has not been used for a while some air may have escaped from the pneumatic system. In that case the set resistance and the measured resistance will not match. Therefore this display will indicate "-----". NOTE: this is a normal function of a pneumatic system. By simply entering a different value (or inserting your chipcard) this problem will be resolved (new resistance will be set, so the measured and actual resistance will be in agreement with each other again).

### 2. The Next (>) button

- When several days are being written to the card, after every session the last display will show "Stop", and the first unit used the next day will show "Day x". Confirm you want to continue by clicking the Next (>) button.
- When an intake card is made, a 1RM test is executed. If a person exceeds 20 repetitions during this test, the resistance should be increased (as the test becomes very unreliable after 20 repetitions). Increasing the resistance will automatically reset the repetition counter to 0. Once the test has been done correctly, confirm the number of repetitions, and thus conclude the 1RM test on that unit with the Next (>) button.

### 3. The time display

- Normally blanked and only shows time during the pause
- if you have a training protocol on a time basis (instead of repetitions) this display shows the time remaining
- During the intake test (in the 1RM mode) this display shows a fluently repeating figure
- If the chipcard cannot be read, this display will show "-----" together with the repetition counter display.

### 4. The repetition counter display

- This display normally shows the number of repetitions only
- When used with the chipcard it will show the number of series (digits on left) and the number of repetitions (digits on right)
- If the chipcard cannot be read, this display will show "-----" together with the time display.

### 5. The Reset (R) button

- The reset button can be used to reset the number of repetitions within one series
- Or you can skip a series or a pause
- After the exercise, when all the remaining units are shown consecutively in the upper display (1), you can skip a unit by pressing the reset button while that particular unit is blinking
- If no chipcard is inserted into an exercise unit, you can decrease the resistance immediately to 0 by pressing the reset button for 5 seconds

### 6. The Chipcard Indication LED

- If a chipcard is inserted and if information is being exchanged this LED will be on. This occurs:
- When inserting the chipcard
- When finalizing a series

## Appendix D: Troubleshooting

### **The resistance displayed on the EN-Dynamic unit shows "-----"**

Pneumatic values are out of alignment. Simply hit any key, or insert the chipcard

### **The resistance displayed on the EN-Dynamic unit shows a normal value, but all other displays (those for time and repetitions) show "-----"**

This means that the chipcard cannot be downloaded properly, so

- Insert once again or
- Clean the "golden" chipcard contact (rub it with a clean towel)

Alternatively it means that the chipcard was not meant for the unit it was inserted into, so try another unit.

### **The chipcard reader does not function**

Check via "Tools" and "Chipcard info" if there is any communication

If not, check the cables

When the card is inserted, what does the red LED on the chipcard reader indicate?

1. LED off = no chipcard inserted or detected
2. LED green, continuous light = chipcard is being properly written to / from
3. LED green, pulsating light = chipcard is currently in data transfer
4. LED yellow, continuous light = chipcard cannot be properly written to / from. The card is not damaged, but is not properly formatted.
5. LED yellow, pulsating light = card is damaged. Try to clean the "golden" chipcard contact (rub it with a clean towel), or check the way it is inserted into the reader (upside down ?).

### **A Day 2 training does not start with the message "Day 2", but immediately refers to a specific exercise**

This means that the "Day 1" training was not concluded and still needs to be concluded. In that case the marker in the "Training" screen (see page 18) will be blue (meaning training was started but not completed). To continue you can

- Perform the missing exercises
- Skip the requested exercises by pressing the <reset> button

### **A 1RM test was done, but the exercise values do not match**

Check the 1RM values actually used in the protocol (select a unit and Edit; the "Edit" screen shows the 1RM value actually used). If these are not according to your expectations consider:

1. When the 1RM test was done on the EN-Dynamic unit, were the 1RM values actually **saved** to the chipcard by **clicking on the (>)** button ?
2. Was the correct chipcard used? (was it really an intake card for the selected person?)

If the 1RM value is correct but the exercise protocol shows resistance values that are not in accordance with your expectations, then consider:

1. Was the currently used protocol based on the currently used 1RM values (and not on old values?). This can be seen by going into the "Edit" field.

Remove all old non-executed training sessions and rebuild a new program. See the next possible error (after a second 1RM test, the protocol is not adjusted with the new reference value).

## After a second 1RM test, the protocol is not adjusted with the new reference value

In order to continue to work with a new 1RM value, you should delete all training sessions (under "Training"(5.2.3) with the "Delete" button) and then **add and edit** a new training.(fig 5.11)

In the edit page, remove all exercises (with  and select the new

Exercises again (with the  or  button)  
If you do not load any new exercises, EN-Track will continue to calculate with the old reference value !

### The Database is corrupted

Several error messages can indicate that the database is corrupted. A database can be corrupted by:

- Improper shutdown of the EN-Track software (e.g. not ending the program with Alt-F4, the X icon or with the exit command under Client, but by just switching off the computer)
- Entering exactly the same data twice

To deal with database corruption always:

1. Make a backup of the existing (corrupted) database
2. Run "Repair Database" under "Tools" and "Database" on the original database

**To prevent loss of data, consider regular backups of your database (once a week!)**

### When inserting the chipcard the system immediately refers to another system.

If the chipcard is inserted into an exercise system (for example in the EN-Dynamic 1-1) it shows another system in the upper display (for example it refers to the 1-2, the 1-3 and the 1-4), but it does not set the programmed resistance and number of repetitions on the 1-1 itself. This can be caused by:

- The previous day's training has not yet been completed (see error "A Day 2 training does not start with the message "Day 2" but immediately refers to a specific exercise" on the previous page)
- Under the <Training> tab, under the option <order of exercises>, the option <fixed> was selected. This means that the order of exercises is in accordance with the sequence as they were selected (under the <selected exercises>)
- Under <Exercise Information> under <Details>, the exercise was declared as a <Cooling-down> exercise. This means that this exercise (this unit 1-1) will be automatically referred to as the last exercise in the sequence. Only if all other units (in this example the 1-2, the 1-3 and the 1-4) are completed (or skipped by means of the <Reset> button) will the system refer to the cooling-down units (in this case the 1-1)
- Under the <Exercise Information> under <Details>, the other exercises (in this example the 1-2, the 1-3 and the 1-4) were declared as a <Warm-up> exercise. This means that these exercises will automatically be referred to as the first exercises that should be done in the sequence. Only if they are completed (or skipped by means of the <Reset> button) will the system refer to the remaining units (in this case the 1-1)

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## Appendix E: Function keys

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EN-Track has a few extra function keys.

F1 = help function

F3 = function key

F5 = read chipcard

reads all the info from the chipcard and adds it to the database

F6 = identify chipcard

shows name + training info, but does not download the information to the database  
See also under "Identify the information on the chipcard", 5.3.3

F9 = refresh the database

info in the PC used (only useful in networking environment! See also under "Database" 5.3.2)

**Ctrl-F8** = Create Clock card

This type of card enables you to set the time of all devices. Insert the card into a device and the time appears. With EN-Dynamic devices, the time is then also set, with EN-Cardio devices this new time must be accepted first This function is only active in the main / startup screen.

**Ctrl-F10** = exit client mode

for the coach/user to exit the client mode screen. To exit, the predefined password should be entered.

See also under "Client mode"



Below an example template:

-- start of example --

**Treatment report of:**

[\*Name\*]

[\*Street\*] [\*Nr.\*]

[\*Zip code\*] [\*Place\*]

Telephone : [\*Home phone\*]

Date of birth : [\*Date of birth\*]

Gender : [\*Gender\*]

Physician : [\*Referring physician\*]

Dear [\*Referring physician\*],

Below you find the treatment report of [\*Name\*].  
The treatment was based on the following diagnosis:

***Diagnosis***

Impairment : [\*Impairment\*]

Location : [\*Location\*]

Diagnosis:

[\*Diagnosis\*]

***Conclusion***

***[\*Report\*]***

We trust to have served you with this.

Yours truly,

[\*Coach\*]

Physiotherapist

-- end of example --

remark:

The chosen style (RTF) of a complete placeholder field will be used in the output. Only be sure the style is selected for the complete placeholder field and not a part of it (e.g. only the name and not the brackets) otherwise the placeholder will not be recognized.

