SMARTCOACH PRODUCT LINE

WHAT IS SMARTCOACH?

SMARTCOACH is a line of products for monitoring performance in strength training.

It is the only device in the market useable with weights, as well as with innovative flywheel and inertial devices for eccentric exercise.

SMARTCOACH allows planning training schedules, provide instant feedback to the trainee during exercise, assessing performance and much more!

WHY SMARTCOACH?

Performance in sport is dictated by the capability of generating power. Power measures the attitude of producing force at high speeds, and it's power - more than bare force - the crucial parameter to be developed for optimal results.

Efficient training requires tools to monitor the athlete's performance - not only force, but also spe speed and power.

In rehabilitation and injury prevention, that allows adjusting the work load in completely safe conditions.

WHO USES SMARTCOACH?

The SMARTCOACH range of products covers all these needs in modern strength training, both for individuals and teams. They are targeted to strength and conditioning coaches, personal trainers, physiotherapists and professionals in rehabilitation and also provide great added value to gyms and fitness centers.

WHICH SMARTCOACH?

SMARTCOACH systems are composed of:

- an acquisition unit (encoder) to be connected to the training device, which can be the SMARTCOACH WEIGHT ENCODER, LITE or POWER ENCODER

- data acquisition and analysis software (the SMARTCOACH software for PC or the SMARTCOACH PRO system)

In terms of hardware, the three available units suit different types of training devices: the **Weight Encoder** can exclusively be used with weight stack machines and free weights; the **Lite** is targeted to inertial training devices only (such as VersaPulley™ and kBox), while the **Power Encoder** fits both weight and inertial devices.

Data can be acquired and analyzed on the **SmartCoach** software, but also a more powerful solution exists: **SmartCoach Pro** with a central main computer (the server) connected to several training stations, each equipped with an acquisition unit and its own feedback unit (the **Pad**). This solution is described in detail later.

When used with the PC software, **SmartCoach** devices are offered in convenient hardware and software combinations to target different needs and customer profiles:

		Packs							
		Planner	Fitness	Fitness+	Inertia	Inertia+	Performance	Performance+	Platinum
ACQUISITION DEVICE	SmartCoach Weight Encoder		●	●					
	SmartCoach Lite				●	●			
	SmartCoach Power Encoder						●	●	●
WEIGHTS	Weight machines		●	●			●	●	●
	Free weights		●	●			●	●	●
INERTIAL DEVICES	VersaPulley™				●	●	●	●	●
	kBox				●	●	●	●	●
	YoYo Technology™ devices				●	●	●	●	●

Modular and versatile

The **SmartCoach** software is meant to adapt to the customer's needs: its functions are grouped in functional blocks called *modules*, which can be purchased and enabled separately. Modules range from functions to perform specific tests, to advanced training options, exercise libraries and so on. With this philosophy and the several options for the acquisition device, you can build the **SmartCoach** system to fit exactly your needs – and only pay for what you use.
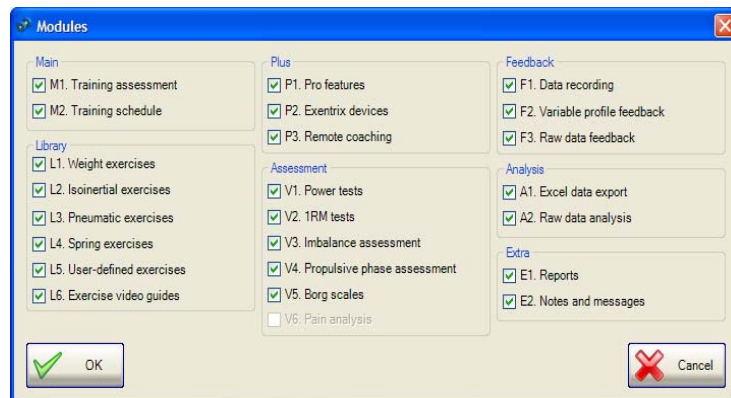
To make life easier, we offer a range of convenient combinations of hardware and software modules – the *packs*. For example (see table on previous page), the **Inertia** and **Inertia+** packs come with a **SmartCoach Lite** acquisition unit and are meant for use with inertial devices, and differ in the software modules, with the **Inertia+** having more advanced functions than its basic version. Refer to the modules brochure for more detailed info.

Of course, **SmartCoach** systems are also scalable: it's always possible to upgrade by just purchasing the additional modules you will need in future, build your custom configuration by buying a pack plus some additional modules, or constructing the software exactly as you want by purchasing the modules individually.

Need even more options?

Each customer has different needs, and we strive to satisfy each and every one. That's why we offer even more options, such as buying the bare additional hardware and share the same copy of the software. Or vice versa, purchase additional software licenses to share the same device on several computers. Our portfolio also includes nifty services, such as the *LicenseSafe* option to secure your software against bad luck such as a computer crash or theft, which will allow reinstalling the software at no cost!

SmartCoach Power Encoder and Weight Encoder

The **Power Encoder** is the classic and most versatile acquisition device of the product line.

It's a compact linear wire encoder that can be used with any weight stack machine or free weights. Its spring-loaded steel wire is hooked to the weight stack, barbell or dumbbell and measures the lifting speed during exercise, which is then used to compute power and other variables in the software.

It also has a an input to connect to inertial training devices such as kBox, VersaPulley™ and Yoyo Technology™ equipped with a dedicated sensor. VersaPulley™ and kBox devices are offered in a "SmartCoach ready" version with sensor preinstalled. A stripped-down version also exists: the WEIGHT ENCODER, useable with weights only, and provides a cheaper solution for those not interested in flywheel training, e.g. with the FITNESS and FITNESS+ packs.

SMARTCOACH LITE

Not into weights? SMARTCOACH LITE is the most convenient solution for use with inertial training devices only, such as the kBox, the VersaPulley™ and Yoyo Technology™ families.

It is a tiny box that connects directly to the sensor mounted on those machines and measures the speed and power developed, as well as eccentric overload and all the other paramount parameters in flywheel training.


SMARTCOACH PRO

If the question is how to coach an entire team and monitor several athletes at once with maximal efficiency, SMARTCOACH PRO is the answer! In a SMARTCOACH PRO environment, each training station is equipped with a suitable sensor (Power Encoder for weights, Lite for inertial devices) and an intuitive touchscreen interface – the SMARTCOACH PAD. All the stations are connected wirelessly to a central workstation (the *server*) where the strength coach prepares the training schedules and analyzes the data.


It is possible to add optional workstations (*clients*) to allow several coaches working in parallel in the creation of schedules and analysis. Clients, and the server itself, can also be used to acquire data by connecting an acquisition device (POWER or WEIGHT ENCODER or SMARTCOACH LITE). For example, a client station could be portable computer connected wirelessly to the SmartCoach Pro network, and used as a mobile recording station to be moved between training devices.
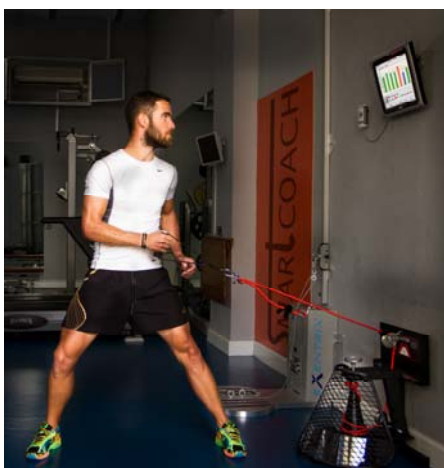
Each athlete is equipped with a personal radio identification wristband or card. He simply approaches it to the Pad which displays his training schedule on an intuitive interface. Then he starts training by following the real-time feedback, which guides him in achieving the prescribed target and number of reps. Acquisition is started and stopped automatically; data from the various training stations is sent to the central server and optional clients, where results can later be analyzed on the SmartCoach software equipped with the Pro module.

The advantage of SmartCoach Pro is that the coach doesn't get busy acquiring data, and can instead focus on the athletes' performance while several of them train at once. The system is completely modular and expandable, and fits to any weight machine and inertial training device (kBox, VersaPulley™ and Yoyo Technology™). If an Exentrix training device is in the network and has the SmartCoach Link option enabled, also its training data is sent to the server and clients for subsequent analysis.
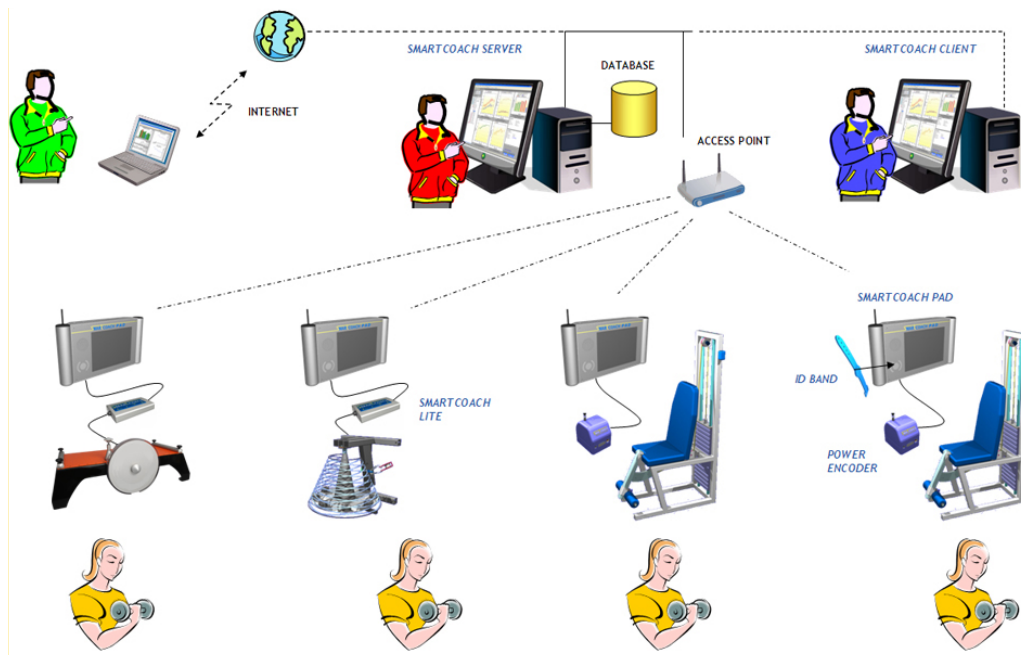

EVERYTHING PLANNED!

The SmartCoach software allows planning the training schedule from a library of over 170 exercises, and also gives the possibility of creating your own.

The training editor permits planning all the exercises and their parameters in advance, saving precious time during the training session.

All the training variables can be adjusted: load, sets, reps, recovery time and target power or speed, with endless possible combinations. The editor also includes a unique function to set the working point (load and target power) directly on the athlete's power curve.

Once the schedule for a given period is ready for one player, it can be propagated to the entire team with just a click. And for SmartCoach Pro systems, it is also possible to request subjective values of perceived exertion and pain at the end of the series.
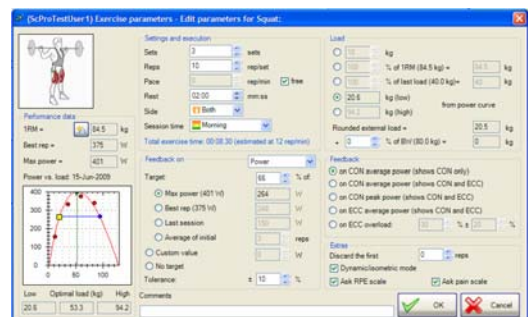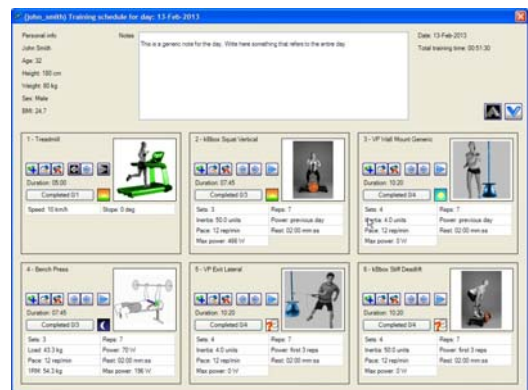
Power is nothing without control

This is why **SmartCoach** offers a real-time, intuitive feedback on developed power or speed. So the athlete is guided in achieving the prescribed target, under complete and objectively controlled performance.

Feedback is given in form of audio and visual guidance, with simple bars indicating if the execution was correct (green), too fast (red) or too slow (blue) for each rep.

Several options allow controlling the concentric or eccentric phase, as well as the eccentric overload.

The feedback also shows the recovery time between sets.

Aiming at the top

It would be of little use planning the work load without knowing its optimal value, right?

The **SmartCoach** power test feature allows running a simple incremental test to estimate the trainee's power curve as a function of the load and execution speed.

These curves can be used to assess the optimal training load and speed that result in maximal power, as well as comparing left/right imbalances and evaluating the improvement of the physical status over time.

This function is also available for inertial devices to allow the estimation of their optimal training inertia.
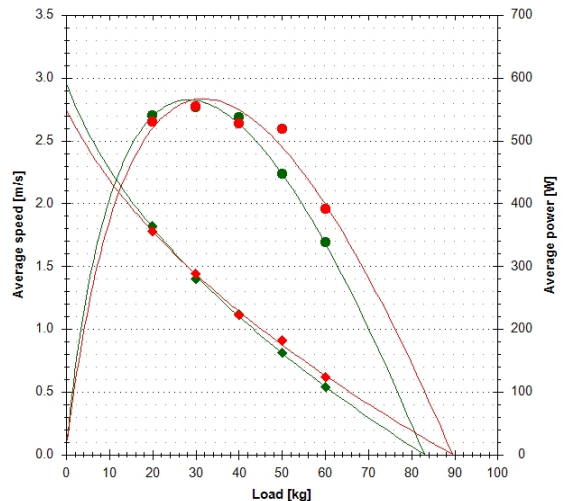
Drill down the data

A powerful training progress analysis tool is included in **SmartCoach**. It displays all the performed exercises and intuitive progress curves showing the improvements over time of the critical performance variables: power, speed, load, work and so on.

Performance indexes show absolute and relative changes over time, consistency and other paramount information. Data can also be exported to Excel for further processing.

It is also possible to drill down data from single repetitions, discard and filter results, and even display raw data plots.

Needless to say, this tool also allows producing neat printed progress reports.

Something eccentric

No need to explain the advantages of eccentric training. What is worth mentioning is that SmartCoach was born having eccentric training in mind. It has been the first, and still it's unbeatably the best product in the market for use with the inertial devices for eccentric training, such as the popular VersaPulley™, kBox, and Yoyo Technology™ machines.

Thanks to an unique feedback option, SmartCoach allows training at a prescribed eccentric overload – no less and no more - to squeeze the most out of these great training devices, yet in completely safe and controlled conditions.

Several training devices, one environment

Tired of messing up with different systems and software? The SmartCoach environment is everything you need to monitor all of your strength training devices, whether it's a simple barbell, a weight stack machine, a flywheel device (kBox, VersaPulley™, kBox, or Yoyo Technology™), or our intelligent Exentrix motor-powered training system.

The SmartCoach software is also suited for pilates spring-loaded devices (e.g. Reformer™), pneumatic machines (e.g. Keyser™ Infinity, through installation of a dedicated sensor), and even to log any other type of non-strength exercises (aerobic, core stability, VersaClimber™, TRX™, etc) by building your own exercise library.

Unlimited Features

The SmartCoach software modules offer a wide range of options for the customer, whether he is a strength coach, physiotherapist, professional in rehabilitation, personal trainer and so on. Modules include features such as power and 1RM tests, imbalance assessment, logging of Borg indexes, advanced training options such as variable profile feedback (with a different target for each repetition), raw data feedback and analysis, assessment of propulsive phase and so on.
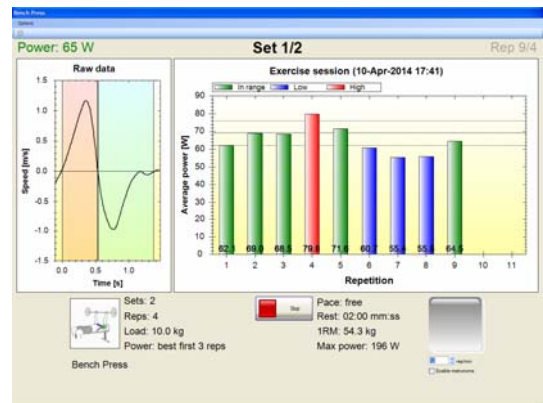
The world at your fingertips

The best has yet to come. SmartCoach features a unique remote coaching feature which allows controlling remote athletes from anywhere in the world. A strength coach can prepare the training schedule and send it over an internet connection to his athletes, and get the training data back after the training session.
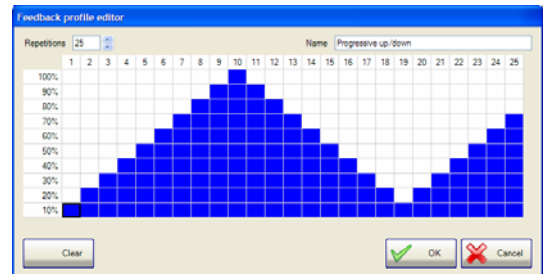
This feature also works with SmartCoach Pro, which means you can administer and control the training sessions of an entire training center, gym or fitness club from home or office. This is a great way to consult for several customers, no matter where and when they train.

Be with the best, or stay with the rest?

We are convinced that SmartCoach products are great tools. Maybe because we spent so much time working closely with professional athletes and their strength coaches, and thought how to make their work more efficient.

But don't take the word from us, and check out our list of customers from smartcoach.eu. You will find out we are not alone thinking so!

Give it a try!

There is much more than this to say. But we prefer let the facts speak instead.

Go to the download page of our website to install a free evaluation copy of the software. You will also find a sample database with pre-recorded data, to get a feel of its many great features.

And if you decide to get yourself a SmartCoach, refer to our distributors for additional information or a demo.

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Page 8 of 8