Lynx System Developers, Inc.

FINISH LINES

A NEWSLETTER FOR OPERATORS OF TECHNOLOGY FROM LYNX SYSTEM DEVELOPERS, INC.

Number 21, January 2001

NOTES FROM THE EDITOR

Nora Courtney - Customer Service Co-ordinator

We are settling into the winter months, and winter events, here at Lynx after a banner year of high profile outdoor events across the country and the globe.

We have reached the halfway point in another exciting season of Short Track Speed Skating and we are making plans for reaching new horizons in the coming sport seasons. This is perhaps no surprise given the range of new products that have been developed and realized this past year.

With new technology that can easily be added to your current system, we look forward to bringing the latest Lynx innovations to you in the new year.

Nora

nora@finishlynx.com

CONVENTION TRAVEL TALES

Highlighting new products.

Once again, December saw a team of Lynx employees demonstrating the latest technology at the USATF Convention in Albuquerque, NM and the High Schools Athletic Director's Convention in San Diego, CA.

In Albuquerque, we had great interest in the LaserLynx Electronic Data Measurement system during the show, and even held impromptu training sessions for prospective customers in the square across from the convention center.

Sales Supremo, Kevin McGill demonstrated a prototype electronic start system for an interested group in the same public square. Curious to hear the range of the audio "gun" signal and to see the strobe flash in direct sunlight, all were impressed with its performance and the possibility of some day eliminating starter pistols and shells from campuses and budgets.

In contrast to Albuquerque, we were not in and out of the convention center in San Diego demonstrating products, but there was equally keen interest in Lynx again this year at the HSAD's Convention.

Focusing on new and established products and fundraising opportunities, we introduced a number of people to Lynx this past December.

One such introduction involved a conversation with a gentleman from California representing a school that had recently been awarded a "technology" grant. Showing how different Lynx products could be used in a multitude of classroom lessons as well as on the athletic field made for an intriguing and lively discussion. Curious to know how our products can be used in the classroom? Give us a call at Lynx to learn more.

DENNIS MITCHELL AND REACTIME

ReacTime gets special attention at the USATF Convention.

Mitchell at Olympic Trials in Sacramento

We are delighted to announce an alliance with Dennis Mitchell - the Green Machine - and one of America's top sprinters of the decade, to help further improve ReacTime.

Because of his confidence in the product's technical ability and in the valuable information it can provide to help individual athletes improve their performance, Dennis has offered his name, time and feedback to Lynx.

Both as an athlete and a coach, Dennis wants to work with ReacTime. He plans to use ReacTime in his capacity as a coach to a number of sprinters and in his work with professional football players.

ReacTime was also at center stage during the Lynx hosted breakfast where we showcased ReacTime technology and how it can be used as an effective sprint-training tool. Over coffee, we discussed power outputs, time-to-distance measurement and Last Significant Peaks with all those in attendance. Thanks are due to Dave Milliman and the USTCA for all their help in making this possible.

We plan to bring you feedback from Dennis Mitchell in an upcoming issue of Finish Lines. If you would like information on ReacTime and how it can be used for Sprint Training, please call Kevin McGill at (800) 989-5969

INTERLYNX AND THE ISU

InterLynx Event Management Software debuts in Short Track Speed Skating.

In this competition season 2000–2001, we have seen the successful implementation of InterLynx at the ISU World Cup and World Junior Championship events. InterLynx is used by the Competitors Stewards to administer short-track speed skating competitions, working with FinishLynx to export start lists and import results.

In addition, InterLynx performs all event management functions, from checking in competitors at the start of a competition to automatically advancing and seeding qualifiers to subsequent event rounds.

Because InterLynx is database-driven, competitor data entered into the database during the first World Cup event is re-used at subsequent World Cup Events, allowing for new competitors to be added to the database as necessary. Also, reports generated for inclusion in the Official Protocol at all ISU short track speed skating events are prepared by InterLynx with the click of a button. From event beginning to end, InterLynx drives the data.

UCI WORLD CUP

Former Olympian administers event using Lynx equipment.

Mexico City hosted the 3rd stage of the UCI Track World Cup this past summer. Humberto Uribe of the Mexican Cycling Federation was in charge of the timing, photofinish and results for the event.

Two weeks before the event, Humberto traveled to Trexlertown, PA, home of Phoenix Sport Technology, to learn the integrated Alge, Phoenix and Lynx technology he would need to administer the World Cup event. Upon his return to Mexico, he had a week to train his group of operators on all he had learned.

"The experience was so great because we had a new kilometer time trial World Record by Arnaund Tournant. With a time of 1:00.148 in only one kilometer, Tournant traveled at a speed average of 59.852 km/h.

"We were very happy because 28 countries came to the event. We had world champions, Olympic champions and all the people that are preparing for the Olympic Games in Australia.

"I took very nice pictures with the Lynx camera. It works very well and I didn't have any problems."

USING LYNX EVERY WEEK

FinishLynx and cycling in Denmark

Many thanks to Henrick Kristensen of the DCU for the information he has shared on his work with the Federations' Lynx system.: "The Danish Cycling Federation (DCU) handles organized cycling races in Denmark; DCU is a member of the International Cycling Federation (UCI). I don't think that there is a single company in Denmark that is doing photo finish.

"DCU is divided into two districts, an eastern district and a western district. The western district decided four years ago that they need a new photo finish system. It was decided that I should go to France to look at the FinishLynx system during a race. I got in contact with Gerald Chalamet

from Matsport and he showed me the system during the "4 jours de Dunkerque" in 1997.

"I was convinced that FinishLynx was what we needed. The district bought the system in August '97. At that time it was obvious that the system could be used for stage races and one day races on the international calendar, but it was not clear how to use all the nice features in FinishLynx for the weekly meets.

"I have developed an Access based application for use with the weekly meets. This application has two main purposes; it can generate an event file for FinishLynx and it can import LIF-files from FinishLynx and print the result for each class….It has improved over the last three years and has proven very stable."

LYNX IN PRINT AND ON THE WEB

Technology gets press on both sides of the Atlantic.

Matthew French of **Mass High Tech** published an article just prior to the Olympic Trials in Sacramento. Writing on a range of Lynx products, this excerpt focuses on the innovations in wireless technology at Lynx.

"[I]n the past, an athlete participating in an event with multiple parts — such as the decathlon — had no real idea where he stood in the rankings at any given time. While one athlete was participating in the pole vault, another might be in the long jump or in a running event and would not know how well to score to remain in competition.

"Now we have developed a real-time wireless connection so athletes and their coaches and trainers can access a database to see exactly where they stand at any given second," he said. "It can be accessed by a handheld wireless device from anywhere on the field."

For the full text of the article, visit http://www.masshightech.com/displayarticledetail.asp?art_id=1132.

Published on the Belgrave Harriers web site, Lynx receives another nod.

"The installation of FinishLynx electric timing equipment at Battersea Park marks a tremendous step forward in club athletics. Several times the track judges consulted the computer screen to check their decisions over tight finishes - and on two occasions the images caused the race result to be amended.

"The following day the equipment was used again for a BMC meeting and in only the second race of the programme a World Best was recorded by an Australian Women's 4 x 1500 metres squad. All told there was a World Best, a national record, a World Junior Championships qualifying time and four Olympic qualifying times set that day on the Battersea oval - what a baptism for the new equipment."

Runners World featured an article about the US Olympic Track Trials written by their Editor, Amby Burfoot

"For the first time in track history, the starting blocks are connected to the timing system through a wireless ethernet. There are no wires dangling from the backs of the blocks-wires that previously fed into the timing equipment. Now each block is totally wireless and totally portable.

The blocks have now become a training tool. An athlete can "take the blocks home" and use them in practice sessions…That's because another component of the blocks includes a speaker system and a microcomputer programmed to deliver the "on your marks" and "go" commands at randomized intervals. After the sprinter bolts from the blocks, the computer also delivers an instant readout of his/her reaction time. The sprinter can try different start techniques, and find out with precision which one works best.

For the full text of the article, visit http://www.runnersworld.com/road2sydney/outdoors/news/000721wireless.html

FEEDBACK

GOOD FEELINGS ABOUND

Ken Jakalski of Lisle High School writes, (and not under duress):

"You are GREAT! You really make us feel special back here in Illinois, and in every communication with you guys, we're treated as if we're VIP's instead of track geeks.

"Our Daktronics board is a ten year old football scoreboard. Nevertheless, it works smoothly with Lynx, and actually speeds up the meet. Starters don't even look at the transducer, or wait for some signal from the finish line or press box. When they see double zeroes on the scoreboard, they fire the gun...simple as that. They really like this feature. With our "system," the starters are always in control - not us. They LOVE that."

CHAMPIONSHIPS IN COLOR

Need an upgrade fast? We can do that.

Jack Recla, of Trabuco Hills High School called Kevin McGill to tell him that his system worked great at their big meet of the outdoor season. They got their camera upgraded to color at the last second for the event.

F.A.T. AT DUAL MEETS

Hank Lawson of Lynbrook High School is making the most of his system.

Now that track is basically over - I've got some time to write you on how my Lynx system worked. Great! A lot of coaches were totally impressed that we had FAT times available at HS dual meets. We also used it at Leagues and everyone was pleased.

Spotlight on WIRELESS

FIELDLYNX GOES WIRELESS

With the help of some new Lynx technology.

Those familiar with FieldLynx know that it is a Palm PDA-based software program that can change the way you run your field events. No more sheets of paper and typing of marks into your database program. FieldLynx software handles five-alive groupings, jump-offs and Metric to English conversions with ease. Plug your FieldLynx unit into a scoreboard to display marks, standings, next athlete or a text message. FieldLynx offers connectivity like you currently find with FinishLynx.

Brief mention was made in the last newsletter of a group of new products that combine to create a new level of meet administration and presentation.

The time has come where you can administer your full day of field events while giving the spectators the most up-to-date information via scoreboards, without ever leaving the infield and without wires.

VCPD – SERIALYNX - AIRLYNX

A winning combination.

Want to get competitor lists for an event and send information back to your database from alongside the long jump pit? Send athlete information, marks and standings in real time to scoreboards. Get wind gauge readings after each jump? All this can be done without long wires tangling on your infield.

How is it done physically? The computer with your data files will be running VCPD software (Lynx Virtual Com Port Driver). This computer will be connected to AirLynx via Ethernet cable. AirLynx plugs into your hub and is the bridge to your FieldLynx units connected to wireless SeriaLynx's.

Clip a SeriaLynx unit to your belt and you are free to roam. A second wireless SeriaLynx unit is attached to your wind gauge, a third wireless SeriaLynx attaches to an infield scoreboard, a fourth attaches

to your stadium scoreboard, either physically or via a controller computer.

How is it done technically? Connect one or two serial devices to a SeriaLynx unit. SeriaLynx will convert serial data into network data and send that modified data out via a wired or wireless network. VCPD software allows you to convert serial data into data packets that can travel across the same wired or wireless network.

What does this mean for the FieldLynx operator? From the infield, you can download flight lists from your data computer…Set up and administer your long jump event with FieldLynx…Pull wind readings directly into FieldLynx from a wind gauge after each attempt. Then send information back to the database with a tap of the stylus at the end of the event.

What will this mean for the spectators? They will see athlete information, marks, and standings in real time on numerous scoreboards as the event proceeds.

LASERLYNX

Electronic Distance Measurement from Lynx has arrived.

While on the subject of revolutionizing field event management, we must introduce LaserLynx. It is a laser-based measuring device used for throwing events and linked by state-of-the-art Lynx software to a Palm PDA.

All the LaserLynx measurements are computer generated. Therefore, information can be converted between Metric and English units and shared with scoreboards, infield displays, databases and announcers.

Add Lynx wireless technology to your LaserLynx set up and you have the ability to receive and send data without the restrictions of hard-wired connections.

WIRELESS START SIGNALS?

What do we mean by "Mission Critical?"

Some of our customers have correctly pointed out that our wireless ReacTime system is using a wireless indication of a start signal to the block sensors, and they have asked us why we are not producing wireless start systems for FinishLynx. The answer lies in the different "missions" of ReacTime and FinishLynx.

ReacTime – like any false-start detection system - is an *aid* to the Starter. FinishLynx is the sole arbiter of finish positions and finish times: it is what we call 'mission critical.'

To better understand the difference between these two options, think of yourself as a parachutist standing in the doorway of a plane. You would probably be comfortable entrusting the illumination

of the 'jump now' light to wireless technology- if it fails you will only jump a little late. But how would you feel about having a wireless transmission control whether your ripcord gets pulled?…or not? FinishLynx and the ripcord define 'mission critical'.

Wireless technology has come a long way in the last few years, but we are still not convinced that affordable solutions are *totally* fail-safe. And although there are some sports where the absolute accuracy of the start signal is not so crucial, for track and field applications we will continue to recommend a start cable as our first choice.

RF Interference: From Doug Lynch of Venue Sports.

As a Lynx operator, we use a variety of cables in our business. One of the problems I used to run into sometimes was losing my camera data connection unexpectedly. I tried replacing cables, checking connections, but it would still happen on occasion.

Then, one spring I was at Stanford timing the PAC10 Championships and the TV crew had their cables all over the place. Power cables, headset cables, monitor cables, all laid out and almost impossible for me to avoid with our Lynx camera and start cable. The TV power supply cable was running on top of our XLR starting cable and was setting off false starts randomly, making it very difficult to start a race accurately. I'm very thankful for start logging.

Last year, at the California State HS meet, one of our camera connections kept losing contact, the camera status turning red, so I went to investigate. Sure enough, it was lying directly on top of Fox Sports' power cable. I simply lifted it up and moved it over a foot and we never had the problem again.

All computer cables, as well as power and TV cables, give off a radio frequency signal that can interfere with other cables nearby. Power cables also give off magnetic fields that can disrupt data transmission. Normally, this isn't a problem for standard CAT5 Ethernet cable.

CAT5 cable is a UTP cable, an unshielded twisted pair. Since it is unshielded, it can interfere with itself if you leave it in a big coil. I discovered this at Mt..SAC as I ran my line to the timing tent, I had some cable left over so I coiled it up neatly. I couldn't get a reliable connection until I loosened up the coil. Other cable like 10Base2 Coax cable have internal shielding which help it maintain its signal over a greater distance, so it is unlikely to be affected.

If you are having connection problems, try to isolate your cables from other cables, even a few inches may help.

FINISHLYNX HALL OF FRAMES

SLIPPERY FINISHLINE

The cyclists had much to contend with at the finish line of the Stuttgard to Ansbach Stage of the Deutschland Tour 2000

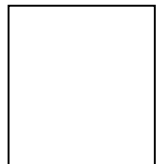Photo Courtesy of Datasport AG

MEASURED ON THE SKATE

China's Haonan Li "slides" into second place in the final of the Men's 500M at the 2001 World Junior Championships in Poland.

AND IF YOU FALL IN THE OTHER DIRECTION

JiaJun Li of China fell from a possible 3rd place finish into 5th in the final of the Men's 3000M at the World Cup held in Chang Chun China in December.