



LYNX

FinishLines

LYNX SYSTEM DEVELOPERS, INC.

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

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EtherLynx PRO is a hit with Photographers

The 1/10,000th second accuracy of the EtherLynx PRO continues to amaze photo finish providers around the world: at Indy races, at motorcycle tracks, and at other high-velocity sport venues. The quality and time-precision of the images it produces are unlike anything anyone has ever seen before.

These unique images have led to an increasing number of requests coming into the Lynx offices from **photographers** who want to use the new high-resolution cameras. All of them are eager to explore the creative possibilities presented by this ground-breaking technology.

During the Summer Olympic Games in Athens, a newsgroup popular with sports photographers was buzzing with rumors

as people speculated about a mystery camera "the size of a shoebox with a Nikon lens and a cable coming out of it". The user of the camera turned out to be Bill Frakes of Sports Illustrated who was investigating the imaginative opportunities offered by the new EtherLynx PRO.

In the fall we also heard from photographers Stephen Schauer and Mike Powell who were working with Getty Images to produce images on the themes of Speed and Victory. We put them in touch with EtherLynx PRO owner Sean Laughlin and together they produced some stunning cycling images at the Encino Velodrome in California.

"Conceptually, It's very, very interesting. It's amazing to think that it's compressing time into one frame, and that similar to the invention of the first camera in the 1830's, it's allowing the viewer to see things in a whole new way."

*Stephen Schauer
~ photographer*

Brook Report ~ the transition is complete



Graeme Brook, General Manager of House of Brook

"The Brook group has been installing photo finish equipment on racetracks in Australia and New Zealand since 1954. We bought our first FinishLynx SCSI camera in Dec 1995.

They were more than 500 kms apart and 3000km from the nearest city....we arranged to lease them a unit on a share basis with another outback Harness club with a different racing season. The racing bodies commented that this was the biggest move forward for racing in the area for years.

"After some resistance to the new technology we had a steady growth of installations, initially upgrading our existing clients and then picking up new clients from our competitors that would not move with the times and tried to continue with film. We now have over 300 clients, using about 100 FinishLynx cameras, operating on more than 2700 race days annually.

"Last month we replaced the last of our 250 film installations [with FinishLynx], this installation was difficult due to the location of the 3 horse racing tracks.

"10 years ago we were one of the biggest end-users of B/W film in Australia, using more than 10,000 rolls of film a year! This month we closed our film account. We are now totally digital, and we don't leave a race track smelling like a chemical factory.

"[Because of the accuracy and image definition] the new EtherLynx Pro has just stepped up another level in quality and is getting raves from our Judging staff."

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Nike Team Nationals ~ The Sport of Cross Country is Changed Forever



December 4th
Portland Meadows Racetrack
Portland, OR.

“WHAT WE WITNESSED ON SATURDAY WILL BE ETCHED INTO THE MINDS OF ALL INVOLVED FOR A LIFETIME. THERE ARE VERY FEW ‘FIRSTS’ IN THE WORLD AND (WE) WERE LUCKY AND PRIVILEGED TO BE PART OF A BIG ONE. THE MOMENT THOSE SPLITS BEGAN CLICKING OFF AND THE SCORES BECAME ‘FINAL’ AT THE 1K SPLIT WAS A MOMENT I WILL NEVER FORGET.”

JOSH ROWE

~NIKE YOUTH RUNNING MANAGER

One of the fundamental ideas that underlies all Lynx technology is a willingness to look for new ways of crossing the chasm between what “is” and what “could be.”

The idea of a High School National Team Cross Country Championships has been discussed for years, but it was not until Josh Rowe of Nike made it a personal crusade, and Nike partnered its influence with Lynx’s technical prowess, that it began to seem possible.

At the Penn Relays in April 2004, Giles Norton from Lynx

sat down with Rowe and members of the NSSF to outline the ultimate objectives for the meet. Apart from the obvious goal of establishing National Champion Teams, the technological dream for the event was for Lynx to design and implement totally new technology to raise the excitement level for the fans watching at the stadium.

Even though it had never been done before, the plan was for team scores to be calculated **live** as the races progressed, and for this information to be displayed on huge video display boards.

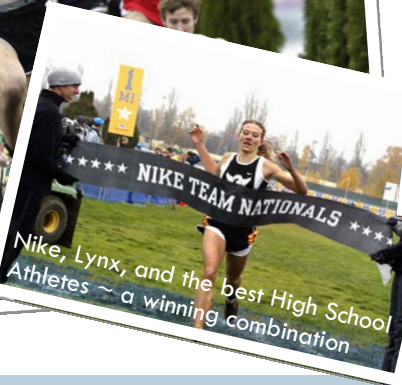
Also, Lynx believed that they could expand on their existing AirCyber Palm-handheld based technology to create wireless individual scoreboards for each of the team coaches.

By June, Lynx had established that their engineers and field service teams had sufficient time to design, build and test the new software and hardware that would be needed, and the proposal was submitted to Nike. Within hours they had accepted and the Lynx engineers started work.

Five-athletes-a-second made rapid data gathering essential



Coaches with handheld computers tracked their team's performances - live!



Nike, Lynx, and the best High School Athletes ~ a winning combination



23'x17' Video Display Boards showing the Team Standings at the 2k split

Nike Team Nationals ~ Timing

For that portion of the results process used primarily for entertainment (intermediate split times, intermediate Team Scores, and unofficial results at the finish) there was a real need for speed – at

the 1k split 140+ times needed to be evaluated within 30 seconds.

With this need for speed in mind, the decision was made to use transponder technology for these components of the results.

Because one of the major concerns with transponder-based technology is that there is no reviewable evidence, the transponder data was integrated directly with FinishLynx and stored with the race images.

The FinishLynx LapTime plugin was enhanced to accept input from the transponder detection

loops and to display directly on the FinishLynx image the time-stamps from the chips.

This meant that FinishLynx cameras placed at the split points were able to verify the information returned from the chips.

The result? 1430 Transponder passes with zero misses. There were four placing reversals based on the position of the torso in the FinishLynx image at the end of the race, which confirmed the value of combining these technologies.

Nike Team Nationals ~ Scoring

The piece of the puzzle that was totally missing at the start of this project was the live team scores component that updated in real time as athletes passed a split point.

Cross Country team scoring can appear fairly bizarre to those people who do not follow the

sport. Each athlete gets a score that corresponds to their finishing position: 1 for 1st, 2 for 2nd, 3 for 3rd, etc.. The team with the **lowest** score for their first five athletes wins. A wrinkle in this system is that the 6th and 7th runners for a team do not score, but they can displace athletes from other teams by

occupying a place in the finishing order.

Using these rules, Lynx custom-wrote software that analyzed the split data and calculated team scores. Finally they added the ability to output this information directly to ResultTV and on to the scoreboards.

Nike Team Nationals ~ Handheld Computers

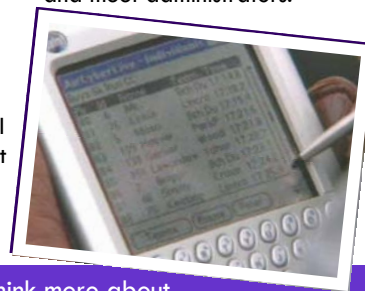
Since 2000, Lynx has been at the leading edge of on-site results distribution to wireless Palm OS computers. The AirCyber program can show results, FinishLynx images, ReactTime data, etc..

For this application, Lynx created AirCyberLive which was a

true personal scoreboard that each coach could customize to show exactly the information they wanted - selected teams, key competitors, etc..

This information updated in real time as athletes crossed the split points and was broadcast to Palm OS handheld computers

provided to coaches, the media, and meet administrators.



Has reading about Lynx at Nike Team Nationals made you think more about your own visionary idea? Or do you think that this implementation of technology might fit your application? Give Giles a call at the office or drop him an email: info@finishlynx.com

“FOR YEARS MANY HAVE DECRIED THE TECHNOLOGICAL AGE AND ITS NEGATIVE IMPACT ON FITNESS, ESPECIALLY THAT OF THE YOUNG, BUT TODAY IN OREGON WE SAW A BRILLIANT AND INNOVATIVE MESHING OF THE TWO DISPARATE ASPECTS OF LIFE. AS THE RACE PROGRESSED, THANKS TO A NEW SYSTEM BY FINISHLYNX, FANS COULD SEE HOW THE ACTUAL TEAM RACE WAS EVOLVING”

LEO COLLINS
~SPORTS JOURNALIST

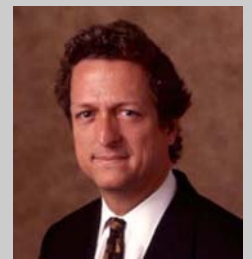
USA Olympic Trials in Track and Field ~ July 2004.

The Lynx technology at the Track and Field Olympic Trials so impressed the News Team from KCRA Television that they featured it on a prime-time news segment. Reporter Tana Castro did a sensational job of explaining in five minutes how all the components interacted: FinishLynx, ResultTV, ReactTime and LaserLynx all made the show! Visit our website to see this news clip: www.finishlynx.com/video

In the wake of the hugely successful event, we also heard from David Raith, the Meet Director:

“The immediate results for the in-stadium scoreboards and flawless interface with television helped ensure the success of [the] meet.

“Lynx technology is state of the art and essential equipment, especially for high-level meets. It greatly helped in the success of all of USA Track & Field’s Golden Spike Tour events in 2004, including the 2004 U.S. Olympic Team Trials.”



David Raith
Director of Events and Broadcasting for USATF



<http://www.finishlynx.com/video>



Ellanee Richardson competing in the 400 Hurdles at the US Olympic Trials in Track and Field ~ Starter’s audio and False Start detection were provided by ReactTime

CHECK OUT OTHER NEW STUFF ON THE LYNX WEBSITE

- LYNXPAD 2.X (AFFORDABLE MEET MANAGEMENT)
- WWW.FINISHLYNX.COM/LYNXPAD
- ETHERLYNX PRO (WORLD’S FASTEST PHOTOFINISH CAMERA)
- WWW.FINISHLYNX.COM/PRO
- NEW PACKAGED SOLUTIONS (BRONZE, SILVER AND GOLD SOLUTIONS FOR TRACK CLUBS AND HIGH SCHOOLS)
- WWW.FINISHLYNX.COM/PACKAGES

Fast ~ Accurate ~ Universal

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

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Kudos ~ We dip into our mailbag



Dave Woytek and Timing Team



Dave Woytek, Ohio...

"Just wanted to let you know FinishLynx worked perfectly at the first International Children's Games held in the United States. Cleveland, OH became the inaugural US host city for the International Children's Games from July 30th to August 2nd.

"Children ages 12 to 15, representing over 50 countries participated in the Track & Field venue. The International Children's Games have become the world's largest international multi-sport youth games and is recognized by the International Olympic Committee.

"The FinishLynx technology was highly publicized thanks to our use of ResultTV and a 17' X 23' video board to display results and live video during the

games. I had many people come by to see how it all worked."

Mark Form, Dinwiddie High School, VA...

"I just wanted to thank ALL of you in Tech Support for the MANY hours that you have spent with me on the telephone. I cannot express my gratitude for all of your help. I have called on Saturdays IN A PANIC and you guys have never let me down in helping clear up a problem. ...I learn something new about the FinishLynx System every time that I use it and I owe all of my knowledge to you. With only one more week of the track season left for me, again, I can't tell you how much I appreciate your help, patience and guidance. Please do not keep this message to yourself.

Pass it along to your superiors to let them know just how good you guys are."

Frank Wolfsheimer at Louisiana State University...

"You guys are awesome. I don't surf your web site often, but I did today. The descriptions of the new features and upgrades in version 5.0 of the FinishLynx software sound like exactly what we needed. I also looked at the new features for the ResultTV version 2.2 and will upgrade to check out that too. I really like the interaction of ResultTV to automatically detect and switch from start list to running time to results. I'm going to have some fun with that. It sounds like Lynx put a lot of thought and hard work into these upgrades and I'm anxious to see it run."

Tech Notes – XP and FinishLynx

The added security features of Windows XP can present issues when using FinishLynx. To ensure your XP setup is FinishLynx compatible, follow these simple steps:

Go to the Icon **My Network Places** on the desktop and right click to

Properties. Then within that box look for your network adapter and again right click and go to **Properties**.

Now look for the tab above called **Advanced** select it and verify that your **Internet Connection Firewall**

is **Unchecked** - or - Add FinishLynx, NetExchange, etc.. to the **"Firewall Exception List"**

To include FinishLynx in exceptions:

1. Click on the **Exceptions** tab of **Windows Firewall**

2. Click on **Add Program...**

3. Choose **FinishLynx**

FinishLynx will now be added to the list of exceptions and the camera should boot properly.