User's Guide

ResulTV 3.0



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ResulTV 3.0 User's Guide

July 5, 2005

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ResulTV Introduction



ResulTVTM is a digital television graphic generation program for use with FinishLynx® timing systems. Use ResulTV at your next competition to display *start lists and results* (see "Sending a start list and results from FinishLynx"), configuring it to work with most monitor sizes. When used with the appropriate VGA - to broadcast signal converter, ResulTV works with any international *television system* (see "Sending data to television").

ResulTV is designed to display information that conforms to a pre-arranged layout. You can also create several different layouts that can be active at one time, and simply toggle between each layout when you want it *displayed* (see "Working with multiple layouts").

ResulTV allows you to display dynamic graphics, such as FinishLynx images for *specific events* (see "Displaying FinishLynx image dynamically").

Obtaining technical support

There are three ways to obtain technical support for Lynx products:

- Go to the *Lynx website* (http://www.finishlynx.com/) and click the Support link
- Call (978) 556-9780 and ask to speak with someone in tech support, or
- Send an email to the *technical support department* (mailto:support@finishlynx.com).

Obtaining Lynx products and information

There are three ways to obtain Lynx products and information:

- Go to the *Lynx website* (http://www.finishlynx.com/) and click the **Products** link
- Call (978) 556-9780 and ask to speak with someone in sales, or
- Send an email to our sales department (mailto:sales@finishlynx.com).

What's new in ResulTV 3.0

Changes in ResulTV 3.0 since the release of ResulTV 2.0 include:

- New *installation* (see "Installing ResulTV") requiring a hardware dongle.
- New *multi-monitor support* (see "Displaying ResulTV on multiple monitors") that enables you to display the ResulTV configuration screen on a computer and send the ResulTV display to another device, such as a desktop monitor, scan converter, or projector. You can also use this feature to run FinishLynx on a computer while sending the ResulTV display to another attached device.

CHAPTER 1

Installing ResulTV

ResulTV 3.0 requires that you install a hardware dongle to receive data from external sources. If you do not install the hardware dongle, then you can run ResulTV 3.0 in Demo mode only.

Follow the instructions in this chapter to install ResulTV 3.0 onto a computer.

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Before you begin

Make sure you have the following:

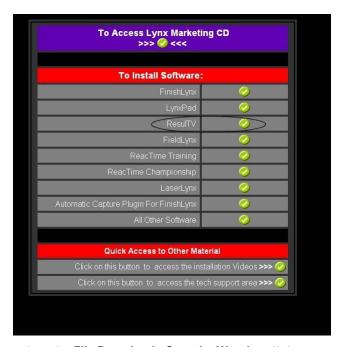
- Lynx Marketing CD or access to the Lynx website (http://www.finishlynx.com/).
- ResulTV license number available by contacting Lynx System Developers, Inc.
- *Either* an available 25-pin parallel printer port *or* USB port on the ResulTV computer.
- Hardware dongle also available by contacting Lynx System Developers, Inc. Two types of hardware dongles are available, either for a parallel port or a USB port.
- A computer running a Microsoft Windows Operating System 95 or higher.
- Administrator privileges on the ResulTV computer.

Install the ResulTV software

You can install the ResulTV software *either* from the **Lynx Marketing CD** or by visiting the Lynx website.

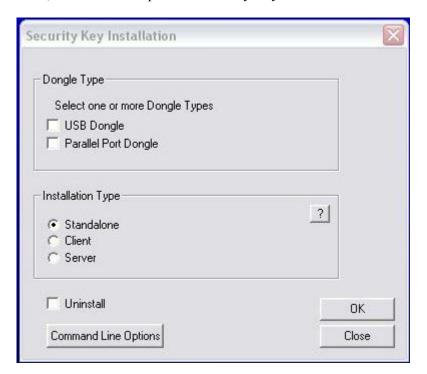
Installing from the Lynx Marketing CD

- 1 Insert the Lynx Marketing CD into your computer's CD-ROM drive. Wait for the CD to auto-run.
- **2** When the **To Access Lynx Marketing CD** screen appears, click the green checkbox next to ResulTV.



- 3 When the File Download Security Warning dialog appears, click Run.
- **4** When the **Internet Explorer Security Warning** dialog appears, click **Run** again.
- **5** Click **Yes** when asked if you wish to install ResulTV.
- **6** Follow the instructions on the screen to continue with the installation.
- 7 If you have a ResulTV license number, type it in the text box when prompted. If you do not have a license number, you can demo this software by typing **DEMO** in the serial number text box. If you decide to purchase a serial number later, you can enter it later without reinstalling the ResulTV application
- 8 Click Finish.
- **9** When the **Security Key Installation** dialog appears, click to select *either* **USB Dongle** *or* **Parallel Port Dongle**, depending on which type of hardware dongle you have.

- If you have a **USB Dongle**: *DO NOT* connect it to the computer yet. Click **OK** and wait until the Security Key Installation is complete.
- If you have a **Parallel Port Dongle:** connect it to the computer *NOW*. Then, click **OK** to complete the Security Key Installation.

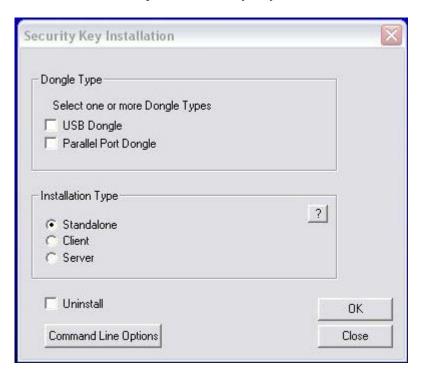


Note: The hardware dongle must be attached to the ResulTV computer at all times or else the ResulTV software is disabled.

Installing from the Lynx website

- 1 Go to the *Lynx website* (http://www.finishlynx.com/).
- 2 Click Downloads | ResulTV | Software.
- 3 Click the Single file link.
- 4 When the File Download Security Warning dialog appears, click Run.
- When the Internet Explorer Security Warning dialog appears, click Run again.
- **6** Click **Yes** when asked if you wish to install ResulTV.
- **7** Follow the instructions on the screen to continue with the installation.

- **8** If you have a ResulTV license number, type it in the text box when prompted. If you do not have a license number, you can demo this software by typing **DEMO** in the serial number text box. If you decide to purchase a serial number later, you can enter it later without reinstalling the ResulTV application
- 9 Click Finish.
- **10** When the **Security Key Installation** dialog appears, click to select *either* **USB Dongle** *or* **Parallel Port Dongle**, depending on which type of hardware dongle you have.
 - If you have a **USB Dongle**: *DO NOT* connect it to the computer yet. Click **OK** and wait until the Security Key Installation is complete.
 - If you have a **Parallel Port Dongle:** connect it to the computer *NOW*. Then, click **OK** to complete the Security Key Installation.



Note: The hardware dongle must be attached to the ResulTV computer at all times or else the ResulTV software is disabled.

Copy the ResulTV scoreboard script

If you are running ResulTV 3.0 with a version of FinishLynx earlier than 5.0, you must copy the scoreboard script **resultv220.lss** from the **C:/ResulTV** directory or wherever you stored your ResulTV files during installation and paste it into the **C:/Lynx** directory, or wherever you stored your FinishLynx files during installation.

CHAPTER 2

ResulTV Quick Start Tutorial

Follow the steps in this Tutorial to get started using ResulTV as quickly as possible. This Tutorial assumes:

- you have already *installed ResulTV* (see "Installing ResulTV")
- you are using ResulTV with FinishLynx, and
- your ResulTV and FinishLynx computers are either connected serially (see "Using ResulTV over a serial connection"), or are networked (see "Using ResulTV over a network").

Note: If your computers are networked, your FinishLynx computer must have the FinishLynx NCP Plug-in installed.

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Step 1: Start ResulTV

Start ResulTV by clicking the Windows **Start** button and choosing **Programs** | **ResulTV**.

Step 2: Configure ResulTV to receive data

- 1 Click **File** from the **Menu** bar and select **Options**.... The **Options** dialog appears.
- **2** From the **Script**: drop-down list, select **finishlynx410.rss**.
- **3** If your ResulTV and FinishLynx computers are connected:

- serially using a DB9 null modem cable, select the COM port the cable is connected to on the ResulTV computer from the Serial Port: dropdown list. Then, click Ok.
- If you are connecting the computers over a network, select Network (listen) from the Serial Port: drop-down list. Then, type a number greater than 1024 in the Port text box and click Ok.

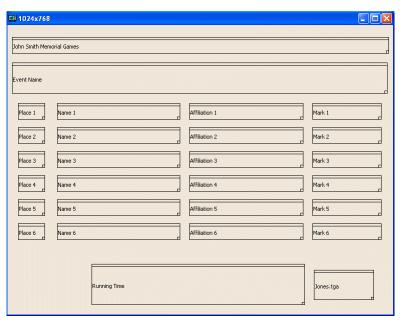
Tip: You can display the ResulTV configuration screen on a computer and send the ResulTV display to *another device* (see "Displaying ResulTV on multiple monitors"), such as a desktop monitor, scan converter, or projector.

Step 3: Configure FinishLynx to send data to ResulTV

- 1 Run FinishLynx.
- **2** Click **Scoreboard** | **Options**.... The **Options** dialog appears.
- **3** Click the **New** button to create a new scoreboard source.
- 4 From the **Script**: drop-down list, select **resultv220.lss**.
 - If you are connecting the ResulTV and FinishLynx computers serially using a DB9 null modem cable, select the COM port the cable is connected to on the FinishLynx computer from the Serial Port: dropdown list. Then, click Ok.
 - If you are connecting the computers over a network:
 - a) Select **Network (connect)** from the **Serial Port:** drop-down list.
 - b) Type the same **Port** number you assigned to the ResulTV computer in the previous step.
 - c) Tab to the IP Address field.
 - d) Type the IP Address of the ResulTV computer and then click **Ok**.

Step 4: Open a layout

1 In ResulTV, click File | Open... and double-click to open an RTV (layout) file, for example, 1024x768.rtv. A layout screen appears.



- 1 Press the **Alt** and **Tab** keys simultaneously on the ResulTV computer keyboard. A dialog appears containing several icons.
- **2** While holding down the **Alt** key, press **Tab** until the Microsoft program icon is selected.



3 Release the Alt and Tab keys with the Microsoft program icon selected. The ResulTV display appears on the screen.

John Smith Memorial Games 60 Meter Dash				
1 Longley	Golumbia	6.81		
2 Johnson	Cornell	6.83		
3 Baker	Harvard	6.87		
4 Martin	Brown	6.91		
5 Stanley	Dartmouth	6.92		
6 Carter	Princeton	6.93		
LYNX 9:20:07 JONES NISSAN				

Step 5: Send data to ResulTV from FinishLynx

Configure the scoreboard from within FinishLynx by clicking **Scoreboard** | **Options...** Then, either consult your *FinishLynx Operator's Manual* for specific instructions on configuring the scoreboard to display a start list, results, and running time, or follow these suggested steps.

- 1 Select the **Results: Auto** radio button to display results automatically.
- **2** Check the **Always Send Place** box to display place as soon as you evaluate the FinishLynx image.
- 3 Check the **Paging:** box, type 6 in the **Size** box, and type 5.0 in the **Time** box to scroll through 6 lines at a time at an interval of 5 seconds.

4 Click **Ok** and restart FinishLynx. The start list displays automatically when you open a new event in FinishLynx.

This completes the Quick Start Tutorial. Continue reading this User's Guide for detailed instructions on:

- *configuring* (see "Configuring the Data Source") FinishLynx and other data sources
- *editing* (see "Editing the Layout") the ResulTV layout, and
- *sending data* (see "Sending Data to ResulTV") from FinishLynx and other data sources.

CHAPTER 3

ResulTV Basics

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Uses

Use ResulTV at your next competition to:

- display information from the FinishLynx Results Zone, such as *start lists* (see "Sending a start list and results from FinishLynx"), results, and any other information including names, ID numbers, lane assignments, affiliations and times.
- send data from other sources such as *Hy-Tek Meet Manager* (see "Sending data using Hy-Tek Meet Manager") for Track and Field or Swimming.
- display *running time* (see "Display running time and results").
- display static images, such as sponsor logos.
- display dynamic images (see "Displaying FinishLynx image dynamically"), such as FinishLynx images.

System requirements

> ResulTV requires the following:

- Microsoft Windows 95 and higher operating system
- a minimum of 16 MB of RAM, and
- at least one available serial (COM) port or an Ethernet network card for the transfer of data from a computer running FinishLynx or Hy-Tek Meet Manager.

> Notes:

- If you are using alternative Microsoft Windows *compatible fonts* (see "Support for Microsoft Windows compatible fonts"), we recommend you use either Microsoft Windows NT 3.2 and higher, 2000, or XP for your operating system.
- If you are connecting a *second monitor* (see "Displaying ResulTV on multiple monitors") to the ResulTV computer, you must run Microsoft Windows 98 and higher.

Starting ResulTV

To start the ResulTV application:

- 1 Click the Microsoft Windows Start button and select All Programs.
- **2** Select **ResulTV**. A blank, gray, ResulTV screen appears with some Menu bar items at the top. This is the ResulTV configuration screen.



3 Toggle between the configuration screen and the display screen by simultaneously pressing the **Alt** and **Tab** keys. The unconfigured default display screen is blue with the Lynx logo at the lower left corner of the screen.



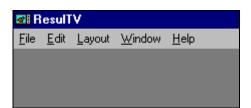
Displaying static and dynamic data

ResulTV can display static or dynamic information.

- Static data remains the same on every screen. Examples of static information include the name of the competition and its sponsor.
- Dynamic data gets supplied and updated by FinishLynx or some other data source. Dynamic data includes running time, results, start lists, and graphics such as a *FinishLynx image* (see "Displaying FinishLynx image dynamically").

ResulTV configuration screen

When you first run ResulTV, the ResulTV configuration screen appears with a Menu bar at the top. You must be in the ResulTV configuration screen to open layouts, make all layout edits and change data source configurations.



Using the online help

To launch ResulTV's online help file:

- **1** Start at the ResulTV configuration screen.
- **2** Click **Help** from the Menu bar and choose **Contents**. The online help appears.

ResulTV display screen

Access the ResulTV display screen from the ResulTV configuration screen

by holding down the **Alt** key and pressing the **Tab** key until ., the Microsoft programs icon, is selected. When you release the Alt key on this symbol, the ResulTV display screen appears.



You can return to the ResulTV configuration screen by holding down the Alt

key and pressing the **Tab** key until the ResulTV configuration screen icon, is highlighted. When you release the Alt key on this icon, you are returned to the ResulTV configuration screen.

CHAPTER 4

Setting Up the Computers

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Connecting the computers

The computer running ResulTV and the data source computers running FinishLynx, Hy-Tek Meet Manager, etc. can be connected by one of two ways:

- With a null modem cable attached to both computers' DB9 serial (COM) port. You can buy a DB9 null modem cable from Lynx or at Radio Shack, CompUSA or similar store.
- By wired or wireless Ethernet. Make sure all of the computers have a wired or wireless Ethernet card installed and are on the same network.

Optional: You can also run ResulTV and FinishLynx on the same computer and *attach a secon*d monitor (see "Displaying ResulTV on multiple monitors") to the ResulTV computer.

Using ResulTV over a serial connection

Connect the ResulTV computer to a data source computer or else to a SeriaLynx unit using a **DB9 null modem cable**. Attach each end of the null modem cable to a device's COM port.

Increasing the COM ports

You must have one available COM port on your ResulTV computer for every data source it is receiving data from. If you need to create an extra COM port to accommodate additional data sources, use a serial port add-on card or a USB to serial converter.

Otherwise, we recommend that you put all of the computers on an Ethernet network and follow the instructions in this User's Guide to configure ResulTV to listen to each data source over the *network* (see "Using ResulTV over a network").

Using ResulTV over a network

You can put the ResulTV computer and all of the data source computers on a wired or wireless Ethernet network and then configure ResulTV to listen for data from each source.

> Pre-requisites

For ResulTV to get data from sources over a network, the following conditions must exist:

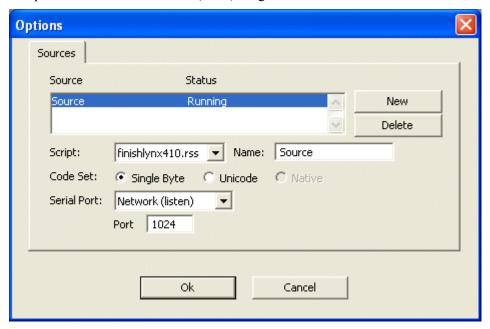
- Your ResulTV and data source computers (such as FinishLynx) must all have wired or wireless Ethernet network cards installed and must all be on the same network.
- The FinishLynx computer must have the Network COM Port (NCP) Plug-in installed and be set to **Network (connect)**.

Note: To obtain the NCP Plug-in, please *contact Lynx System Developers*, *Inc* (see "Obtaining Lynx products and information").

> Instructions

1 Go to File | Options in ResulTV and *create a new data source* (see "Creating a new data source"), select the script, and give the source a unique name.

2 Select **Network (listen)** from the **Serial Port:** drop-down list. Then, tab to the **Port** text field and type the same port number the FinishLynx computer's Network COM Port (NCP) Plug-in is set to.



Click **Ok** to return to the ResulTV configuration screen.

CHAPTER 5

Configuring the Data Source

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Data source basics

Creating a new data source

You must create a new data source or modify an existing one so ResulTV knows how and from where it is receiving data.

> To create a data source

- **1** Make sure you are at the ResulTV *configuration screen* (see "ResulTV configuration screen"). Click **File** | **Options**. The **Options** dialog box appears.
- 2 Click the **New** button.
- **3** From the **Script**: drop-down list:
 - select finishlx.rss for data coming from any version of FinishLynx.
 - select finishlynx410.rss for data coming from FinishLynx version 4.10 or higher.
 - **Note:** finishlynx410.rss will *not* work with a version of FinishLynx earlier than *4.10* (see "Copy the ResulTV scoreboard script").
 - select hytek.rss for data coming from Hy-Tek Meet Manager for Track and Field.
 - select hytekswim.rss for data coming from Hy-Tek Meet Manager for Swimming.
- 4 The default source name, Source, appears in the **Name:** text field. Type a new name if you want. This is helpful if you want to keep track of data coming to ResulTV from multiple sources.
- **5** From the **Serial Port**: drop-down list:

- For data sources connected to the ResulTV computer via a null modem cable (see "Using ResulTV over a serial connection"), select the correct COM port.
- For data sources connected to the ResulTV computer via wired or wireless Ethernet (see "Using ResulTV over a network"), select
 Network (listen). Then, tab to the Port text field and type the same port number that the FinishLynx computer's NCP Plug-in is set to.
- 6 Click **Ok**. You have now created a data source within ResulTV.
- 7 Click File | Exit to close ResulTV and then restart the application.
- **8** After restarting ResulTV, continue to the instructions for configuring the *FinishLynx* (see "Sending a start list and results from FinishLynx") or *Hy-Tek Meet Manager* (see "Sending a start list from Meet Manager for Track and Field for Windows") computer to send data to ResulTV.

Deleting a data source

- 1 Start at the ResulTV *configuration screen* (see "ResulTV configuration screen") and click **File** | **Options**. The **Options** dialog appears.
- **2** Click to highlight a source you created earlier in the **Source...Status** text field.
- 3 Click the **Delete** button.
- **4 Restart** ResulTV. When you return to the Options dialog, the data source you just deleted is gone.

Which RSS file do I select?

Important! When using ResulTV with FinishLynx or Hy-Tek Meet Manager, you must select the correct RSS file when configuring the data source!

Select this script in ResulTV	With this script and/or program
finishlx.rss	resultv.lss, found in any version of FinishLynx
finishlynx410.rss	resultv210.lss or resultv220.lss found <i>only</i> in FinishLynx 4.10 and <i>higher</i> (see "Copy the ResulTV scoreboard script")
hytek.rss	Hy-Tek Meet Manager for Track and Field
hytekswim.rss	Hy-Tek Meet Manager for Swimming

Working with multiple data sources

You can configure ResulTV to get data from more than one data source. For example, you can use ResulTV to display *running time* (see "Display running time and results") coming from the FinishLynx computer and results coming from the Meet Manager computer.

- **1** Start at the ResulTV configuration screen.
- 2 Click File | Options. The Options dialog appears.
- **3** Click the **New** button to create a new source, and then:
 - a) Select the *correct script* (see "Which RSS file do I select?") the data source uses from the **Script**: drop-down list.
 - b) Type a unique name for the source in the text field provided.

If the data sources are connected serially: (see "Using ResulTV over a serial connection")

c. Select the correct COM port the ResulTV computer is using to connect to the data source.

- d. If necessary, change the serial settings. Then, click **Ok.**
- e. Repeat these steps to create a second source. Make sure you select a different, correct COM port for the second source.
- If the data sources are connected over a network: (see "Using ResulTV over a network")
 - c. Select **Network (listen)** from the **Serial Port:** drop-down list.
 - d. Tab to the **Port** field and type the number of the port the FinishLynx NCP Plug-in is set to on the data source computer.
 - e. Repeat these steps to create a second source. Make sure you enter a different, correct port number for the second data source computer.

FinishLynx as a data source

Configuring ResulTV for use with FinishLynx

- 1 Click **File** | **Options** from the Menu bar on the ResulTV configuration screen. The **Options** dialog appears.
- 2 Click the **New** button.
- **3** Tab to the **Script**: drop-down list and select **finishlynx410.rss**.
- Tab to the **Name**: text field and type a new name for your data source, for example, FinishLynx Primary.
- **5** Tab to the **Serial Port**: drop-down list and configure the *serial or network settings* (see "Setting Up the Computers").
- 6 Click **OK** and then exit and restart ResulTV. ResulTV is now configured to receive data from the FinishLynx computer.

Configuring FinishLynx for use with ResulTV

> Pre-requisites

If you are configuring the FinishLynx computer to send data to the ResulTV computer, make sure that one of the following statements is true:

- The FinishLynx computer is connected to the ResulTV computer using a null modem cable (see "Using ResulTV over a serial connection") via the DB9 serial (COM) ports.
- The FinishLynx computer and the ResulTV computer are on the same *wired or wireless Ethernet network* (see "Using ResulTV over a network"), and the FinishLynx computer has the NCP Plug-in installed.

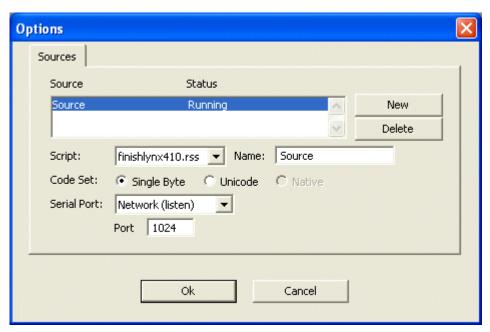
> Instructions

- 1 Run FinishLynx.
- 2 Click Scoreboard I Options. The Options dialog appears.
- **3** Click the **New** button to create a new scoreboard source.
- 4 Select resultv220.lss from the Script: drop-down list.
 Note: If you are running a version of FinishLynx earlier than 4.10, select resultv.lss from the Script: drop-down list.
- **5** Tab to the **Name:** text field and type a new name for the scoreboard FinishLynx is sending data to, if desired.

- 6 Click the **Serial Port**: drop-down list.
 - If you are sending data from FinishLynx to ResulTV over a serial connection, select the COM port through which the FinishLynx computer is connected to the ResulTV computer. Leave the Baud, Data Bits, Parity, and Stop Bits settings at their default values (9600, 8, None, 1).



If you are sending data from FinishLynx to ResulTV over a network and you have the FinishLynx NCP Plug-in installed, select Network (connect) and then tab to the Port text field. Type the port number you set the ResulTV computer to and then tab to the IP Address field and type the IP address of the ResulTV computer.



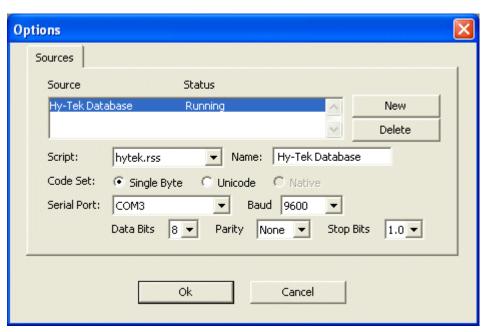
- 7 Configure the rest of the scoreboard settings as desired. Refer to the *FinishLynx Operator's Manual* for complete instructions.
- **8** Click **OK** and **restart** FinishLynx. FinishLynx is now ready to send data to the ResulTV computer.

Hy-Tek Meet Manager as a data source

Hy-Tek Meet Manager for Track and Field

Configuring ResulTV for use with Meet Manager for Track and Field

- 1 Click **File** | **Options** from the menu bar on the ResulTV configuration screen. The **Options** dialog appears.
- **2** Click the **New** button.
- **3** Tab to the **Script:** drop-down list and select **hytek.rss**.
- Tab to the **Name**: text field and type a new name for your data source, for example, Hy-Tek Database.
- **5** Tab to the **Serial Port**: drop-down list and selected the correct COM port from the drop-down list.



6 Click **OK**. ResulTV is now configured to receive data from the Hy-Tek Meet Manager computer.

Configuring Meet Manager Track and Field for DOS for use with ResulTV

Note: These instructions are valid for version 5.5 of Meet Manager Track and Field for DOS.

- 1 Run Hy-Tek Meet Manager. When the Hy-Tek splash screen appears, press **Enter** to start the application.
- **2** Type **0** Operate Meet.
- **3** Type **5** Timing / Scoreboard.
- **4** Type **C** Configure Scoreboard.
- 5 Type the number of the Serial COM port connected to SCOREBOARD (0-8) in the field provided.
- **6** Press **Enter** three times. The **Configure Scoreboard** screen appears.
- 7 Type 2 (Fixed Digit) and then press Enter. The Fixed Digit Configure Scoreboard screen appears.
- **8** Type to enter the data for the fixed digit scoreboard. Make sure the **Baud Rate** is set to **3** (9600).
- **9** Press **Enter** when done. Meet Manager opens the COM port you assigned earlier to the scoreboard. Meet Manager is now configured to send data to ResulTV.

Configuring Meet Manager Track and Field for Windows for use with ResultV

Note: The instructions provided here are for the convenience of our customers. Because Meet Manager for Track and Field is a software program designed by Hy-Tek, Ltd., the instructions below may not be valid for versions later than 1.2. Please refer to the *Hy-Tek website* (http://www.hy-tekltd.com/) for more information.

Pre-requisites

If you are sending data from Meet Manager to ResulTV over a *serial connection* (see "Using ResulTV over a serial connection"), make sure the computers are connected with a null modem cable.

> Instructions

- 1 Run Hy-Tek Meet Manager.
- 2 Click **Set-up** from the menu bar and select **Alpha Scoreboard Interface** from the drop-down menu. The **Scoreboard Vendor** dialog appears.



3 Select the **Daktronics Fixed Digit** radio button and then click **OK**.

- 4 Click **Run** from the menu bar. The **Run the Meet** screen appears.
- 5 Click Interfaces from the menu bar and select Scoreboard Daktronics Fixed Digit | Open/Close Serial Port. The Select Serial Port for Daktronics Fixed Digit dialog appears.



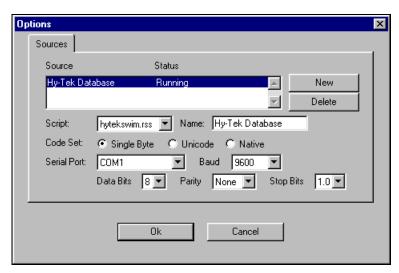
- 6 Click in the **Serial Port for Scoreboard (0-8)** field and then type the number of the COM port on the Meet Manager computer that is connected to the null modem cable going to the ResulTV computer.
- 7 Click **OK**. Meet Manager is now ready to send data to ResulTV.

Hy-Tek Meet Manager for Swimming

Configuring ResulTV for use with Hy-Tek Meet Manager for Swimming

- 1 Click **File** | **Options** from the Menu bar on the ResulTV configuration screen. The **Options** dialog appears.
- **2** Click the **New** button.
- **3** Tab to the **Script**: drop-down list and select **hytekswim.rss**.

- **4** Tab to the **Name:** text field and type a new name for your data source, for example, Hy-Tek Database.
 - Tab to the **Serial Port**: drop-down list and select the correct COM port from the drop-down list.



5 Click **Ok**. ResulTV is now configured to receive data from the Hy-Tek Meet Manager computer.

Configuring Meet Manager Swimming for use with ResulTV

Note: The instructions provided here are for the convenience of our customers. Because Meet Manager for Swimming is a software program designed by Hy-Tek, Ltd., the instructions below may not be valid for versions later than 1.4. Please refer to the *Hy-Tek website* (http://www.hy-tekltd.com/) for more information.

> Pre-requisites

If you are sending data from Meet Manager to ResulTV over a *serial connection* (see "Using ResulTV over a serial connection"), make sure the computers are connected with a null modem cable.

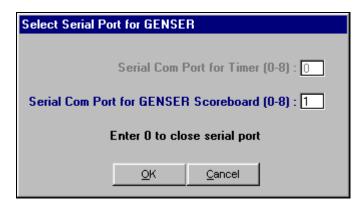
> Instructions

- **1** Run Hy-Tek Meet Manager.
- 2 Click **Set-up** from the menu bar and select **Alpha Scoreboard INTERFACE** from the drop-down menu. The **Scoreboard Vendor** dialog appears.



3 Select the **Generic Serial** radio button and then click **OK**.

- 4 Click **Run** from the menu bar. The **Run the Meet** screen appears.
- 5 Click Scoreboard (Genser) from the menu bar and then select Open/Close Serial Port for GENSER. The Select Serial Port for GENSER dialog appears.



- **6** Type the number of the COM port on the Meet Manager computer that is connected to the null modem cable going to the ResulTV computer.
- 7 Click **OK**. Meet Manager is now ready to send data to ResulTV.
- To send a start list, simultaneously press the **Ctrl** and **F10** keys on the Meet Manager computer. To send Results, simultaneously press the **Ctrl** and **F11** keys on the Meet Manager computer.

Working with a dynamic data source

Configuring the dynamic source

You can select the data sources from where ResulTV obtains its dynamic text or graphic.

- > If you want ResulTV to get dynamic data from the source specified by the layout (File | Options dialog)
 - 1 Double-click on a text object. The Object Properties dialog appears.
 - **2** Click the **Basic** tab.
 - 3 Select the Layout default radio button and then click **Ok**.
- If you want to specify where an object receives dynamic data from
 - 1 Double-click on a text object. The Object Properties dialog appears.
 - **2** Click the **Basic** tab.
 - 3 Select the Local override radio button. The Any source and Selected sources: selections become active.

- If you want the dynamic data in the object to come from any data source, select the **Any source** button.
- If you want the dynamic text in the object to come from a specific data source, select the **Selected sources:** button and then select the source from the drop-down list.

Local override

Local override allows you to specify where dynamic text comes from in a text object.

> To enable Local override

- 1 **Double-click** a text object on an open layout. The **Object Properties** dialog appears.
- 2 Click the **Basic** tab.
- 3 Select the Local override button.
 - If you want the dynamic data supplied from any data source, select the Any source radio button.



 If you want the dynamic data supplied from a specific data source, select the **Selected sources** radio button and then choose the source from the drop-down list.



Layout default

If **Layout default** is selected, the object receives dynamic data from the source as it is configured in the **File** | **Options** dialog.

> To enable Layout default

- 1 **Double-click** a text or graphics object on an open layout. The **Object Properties** dialog appears.
- **2** Click the **Basic** tab.
- 3 Select the **Layout default** radio button and then click **Ok**. Dynamic data for this text object is supplied by the source configured in the **File** | **Options** dialog.

Note: The Layout default selection is only available for use with dynamic data. Make sure **Dynamic** is selected in the **Type:** section of the Object Properties dialog.

CHAPTER 6

Editing the Layout

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Existing layouts

Opening an existing layout

- **1** Start at the ResulTV *configuration screen* (see "ResulTV configuration screen").
- 2 Click File and select Open.
- **3** Double-click an **RTV** file listed in the dialog box. The layout appears on your screen.

Note: Several layouts have been provided for your convenience. We recommend that you open an existing layout and then click **File** | **Save As**, rename the layout, and modify it for your specific needs.

Creating a new layout or modifying an existing layout

You can create a new, custom layout or you can modify an existing layout.

> To create a new, custom layout

- **1** Start at the ResulTV configuration screen.
- 2 Click File | New. A blank layout screen appears.
- 3 Add text and graphics object boxes to the layout by clicking Layout | New text object and Layout | New bitmap object.
- **4** Save the new layout by clicking **File** | **Save** and giving the file a name.

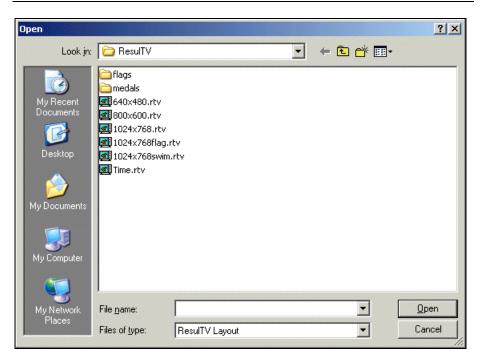
> To modify an existing layout

- 1 Click File | Open from the menu bar.
- **2** Double-click to open an **RTV** layout file.
- 3 Click File | Save as, give the file a new name, and then click the Save button. Now you can modify the new layout you just created. The original layout is saved under its original name for later use.

Different RTV files

ResulTV comes with several RTV, or layout files, described here.

Remember: If you do not want to use the existing layouts, you can customize existing *or create new RTV fi*les (see "Creating a new layout or modifying an existing layout").



- 1024x768.rtv: configured to work with any 1024x768 pixel display. Fields include: competition name, event name, place, name, affiliation, mark/time, competition sponsor, running time up to 6 lanes.
- 1024x768flag.rtv: configured to work with any 1024x768 pixel display, and is set up for you to display dynamic place (such as medals), affiliation (such as country flags), and event-round-heat (such as FinishLynx) images.
- 1024x768swim.rtv: configured to work with any 1024x768 pixel display and Hy-Tek Meet Manager for Swimming as its data source. Fields include: competition name, event name, place, lane, name, affiliation and mark up to 8 lanes.
- **640x480.rtv**: fields include those listed for 1024x768.rtv, but configured to work with this smaller size monitor.
- **800x600.rtv**: fields include those listed for 1024x768.rtv, but configured to work with this smaller size monitor.
- **Time.rtv**: fields include competition name, running time, and sponsor. Configured to work with a 640x480 size monitor.

Dynamic image layout

There is a layout available for use with ResulTV that allows you to dynamically display medals, country flags, and FinishLynx images on your ResulTV layout (see example below). Remember that you can still create a *custom layout* (see "Creating a new layout or modifying an existing layout") when displaying dynamic images. The layout is currently only available in a 1024 x 768 pixel size.

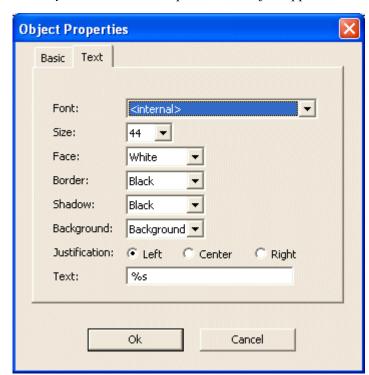


Working with text objects

The ResulTV layout consists of several fully editable fields, called text objects.

Basic text object editing

1 Make sure you have a layout open on the ResulTV configuration screen.



2 Double-click anywhere on the text object you want to edit. The Object Properties box for that specific text object appears.

Cutting, copying and pasting

You can cut, copy, and paste objects from one display to another from within ResulTV.

- 1 Click to select a text or graphic object.
- 2 Click Edit from the Menu bar and select Cut, Copy, or Paste.

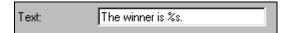
Note: You can cut, copy, or paste multiple objects. Select multiple objects by holding down the **CTRL** key while clicking on an object.

Entering static and dynamic text in the same text object

You can enter static and dynamic text in the same text object by making sure you use the %s dynamic text marker symbol. For example, you can combine static and dynamic text in the text object that displays the first place competitor's name to say, "The winner is [static text] Longley [dynamic text]."

Instructions

- 1 **Double-click** the text object where you want to combine static and dynamic text. The **Object Properties** dialog appears.
- 2 In the **Text**: field at the bottom, type the static text you want displayed and include %s wherever you want dynamic information to appear. In the example described above, you would type, "The winner is %s."



3 Click **OK**. The text object displays the static text you just entered, and will display the dynamic text when it is supplied by the data source.

Inserting a new text field

- 1 Click **Layout** from the Menu bar.
- **2** Select **New text object**. A new text object appears on the layout that is fully editable.

Changing the size of the text object

There are two ways to change the size of a text object.

- Drag and drop the handle in the lower right corner of the text object to a desired size, or
- Follow these steps:
 - 1. **Double-click** a text object. The **Object Properties** dialog appears.
 - 2. Click the **Basic** tab.
 - 3. Type, in pixels, the new Width and Height values in the text fields provided and then click **Ok**. The text object is resized to the values you just entered.

Changing the text position

You can change how text gets positioned on the ResulTV display by either clicking on a text object and dragging and dropping it to a new location, or by entering new co-ordinates for the top left corner of a text object.

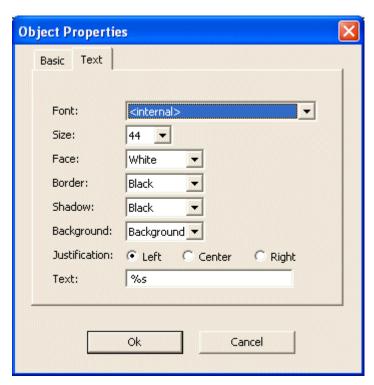
To change the position of a text object by dragging and dropping (easiest method)

- 1 With a layout open on the ResulTV configuration screen, **click and hold** somewhere on a text object you want to move.
- **2** While continuing to hold down the mouse button on a text object, drag it to the desired location and let go of the mouse button. The text object remains in its new location, until you drag and drop it to a different location.

> To change the position of a text object by entering new co-ordinates

The following method is recommended for greater accuracy.

1 **Double-click** the text object you want to re-position. The **Object Properties** dialog appears.



2 Click the **Basic** tab.

3 Enter new **Horiz**. and **Vert**. pixel co-ordinates in the text boxes provided and then click **Ok**. The text object gets re-positioned according to its new co-ordinates.

Changing the text content in a text object

- 1 **Double-click** on a text object. The **Object Properties** dialog appears, displaying the current text display in the **Text**: field at the bottom.
- 2 Type over the text in the field with new text you want displayed and then click **OK**. The text you just entered is displayed in the text object.

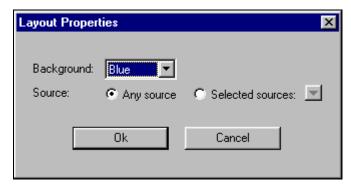
Changing the justification

You can left-justify, center, or right-justify text appearing in a text object.

- 1 **Double-click** the text object you want to edit. The **Object Properties** dialog appears.
- 2 Click the **Left**, **Center**, or **Right** radio button to change the text justification and then click **Ok**. The text in the object changes to the new justification setting you just selected.

Changing the background color

1 Click Layout from the menu bar and choose Properties.... The Layout Properties dialog appears.



2 Select a new color from the **Background** drop-down list and click **Ok**. The background color for the display changes to the color you just selected.

Selecting a text object background color

- 1 Double-click on a text object. The **Object Properties** dialog appears.
- 2 Select a color from the **Background:** drop-down list. Note that when you select Background from the list, the text object defaults to the original background color of the layout.

3 When you press **Alt** | **Tab**, the text object is displayed with the new background color you selected.

Changing the shadow color

- 1 **Double-click** the text object you want to edit. The **Object Properties** dialog appears.
- 2 Select a color from the **Shadow:** drop-down list and then click **Ok**. The shadow color of the text in the text object changes to the color you just selected.

Changing the border color

The border color is the outline color of text in a text object.

- 1 **Double-click** the text object you want to edit. The **Object Properties** dialog appears.
- 2 Select a color from the **Border**: drop-down list and then click **Ok**. The border color of the text in the text object changes to the color you just selected.

Changing the face color

The face color is the main color of a text object.

- 1 **Double-click** the text object you want to edit. The **Object Properties** dialog appears.
- 2 Select a color from the **Face:** drop-down list and then click **Ok**. The face color of the text in the text object changes to the color you just selected.

Changing the text size

- 1 **Double-click** the text object you want to edit. The **Object Properties** dialog appears.
- 2 Select a new value from the **Size**: drop-down list and then click **Ok**. The size of the text in the text object changes to the value you just selected.

Note: You can specifically control the font size by clicking the **Basic** tab on the Object Properties dialog. Type a new value in the **Height:** text field and then click **Ok**.

Moving to back or front

You can select either "move to back," or "move to front," when objects are layered on top of one another.

- 1 Click to select the text or graphic object you want to move.
- 2 Click Layout from the Menu bar and select Move to back or Move to front.

Support for Microsoft Windows compatible fonts

ResulTV allows you to use any type of Microsoft Windows compatible font when selecting text for display.

Recommended fonts

Recommended fonts include any TrueType fonts.

Not recommended are any script or ornate fonts.

Recommended Microsoft Windows operating system

It is recommended that your computer run one of the following Microsoft Windows operating systems when using alternative fonts with ResulTV:

- NT 3.2 and higher
- 2000, or
- XP

Selecting a new font for display

- 1 Double-click on a text object. The **Object Properties** dialog appears.
- **2** The original font is called "<internal>." Select a new font by choosing a new one from the drop-down list.
- 3 Click **Ok**. When you press **Alt** | **Tab**, the new font for the text object is displayed.

Note: Remember that fonts may vary on different computers. When displaying data on multiple computers, we recommend you select a universal font, such as Arial or Courier New.

Controlling font size

You can change the font size (based on points) of any text object. Our engineers have entered a size as large as 800 points!

To change a text object's font size

- 1 Click File | Open... to open a layout (RTV) file.
- **2** Double-click on a text object. The Object Properties dialog appears.
- **3** From here, you have two options:
 - Select a preset value from the **Text**: drop-down list, or
 - Click the **Basic** tab and type a new value in the **Size: Height** text field.

Supporting other language fonts

If you are using fonts in languages other than English, particularly Asian, Middle Eastern, and some Eastern European languages, you must use a Unicode data exchange between FinishLynx and ResulTV.

> Enable Unicode data exchange

In ResulTV...

- 1 Select File | Options... from the Menu bar. The Options dialog appears.
- 2 Select Unicode in the Code Set: line and then click Ok.

In FinishLynx...

- 1 Run FinishLynx and select **File** | **Options...** from the Menu bar. The **Options** dialog appears.
- 2 Click the Scoreboard tab.
- 3 Select Unicode in the Code Set: line and then click Ok.

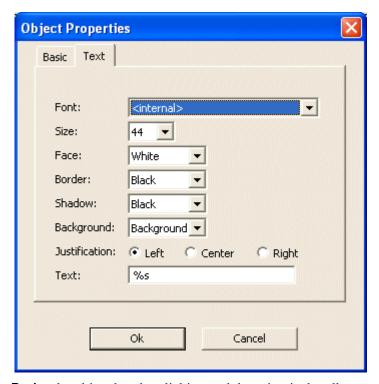
Working with graphics objects

Displaying graphics

With the exception of the Lynx logo which is *not* editable, static or dynamic graphics can be displayed anywhere on the ResulTV screen. You can either use existing graphics or you can create your own graphics for display.

> To place a graphic on the screen

- 1 With a layout open on the ResulTV configuration screen, click **Layout** from the Menu bar and select **New bitmap object**. A new object box appears on the layout screen.
- **2 Double-click** the object. When the **Object Properties** dialog appears, select the image you want to display from the **Static File:** drop-down list.



- **3** Resize the object box by clicking and dragging its handle to a new size.
- **4** Move the object box by dragging it and dropping it to a desired location.

Displaying FinishLynx image dynamically

You can display the FinishLynx image that corresponds with the results of the event you are sending to ResulTV.

> Pre-requisites

- 1 Make sure you are running FinishLynx version 4.1 or later and have the script, **resultv220.lss**, in the **C:/Lynx** directory, or wherever you stored the FinishLynx files during *installation* (see "Copy the ResulTV scoreboard script").
- 2 Share the **C:\ResulTV** directory (or wherever you installed the ResulTV files on the ResulTV computer) with the FinishLynx computer.
- **3** Make sure the FinishLynx and ResulTV computers are connected over a *network* (see "Using ResulTV over a network").

> Configure ResulTV

Now, follow these steps.

- 1 In ResulTV, click File | Options and select finishlynx410.rss from the Script: drop-down list. Then, click Ok.
- 2 Click File | New to create a new layout.
- **3** Click **Layout** | **New Bitmap Object...**. A new, blank graphic object appears on the layout.
- **4** Double-click the new graphic object. The **Object Properties** dialog appears.
- **5** Click the **Basic** tab.
- **6** Select the **Type: Dynamic** radio button.
- 7 From the Field: drop-down list, select Event-Round-Heat.
- 8 To view an example, click **File** | **Open** and select **1024x768flags.rtv**. The RTV layout opens.

Configure FinishLynx

In FinishLynx, click **Scoreboard** | **Options** and select **resultv220.lss** from the **Script:** drop-down list.

Send data from FinishLynx

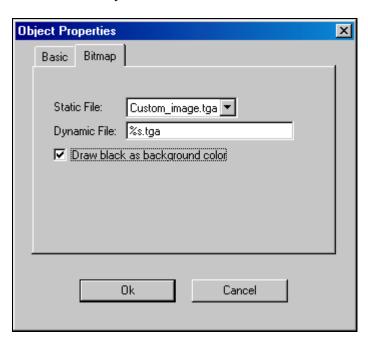
1 With a saved, evaluated FinishLynx image open, hold down the right mouse button to draw a box around the portion of the image you want displayed on ResulTV.

2 Click Export.... A Save As dialog appears. Navigate to the ResulTV directory where you are saving FinishLynx files and click Save. Leave the name of the file at its default Event-Round-Heat format name from FinishLynx, for example, 001-1-01. ResulTV displays the FinishLynx image along with the event results.

Displaying a custom graphic

If you want ResulTV to display a custom graphic, make sure the graphic is an **uncompressed 24-bit Targa (TGA)** file. Then, follow these steps:

- 1 Place the custom graphic file in the ResulTV directory on the ResulTV computer. This is the same directory where you stored the ResulTV files during installation, for example, **C:\ResulTV**.
- **2** Run ResulTV and open a layout on the ResulTV configuration screen.
- 3 Click Layout from the Menu bar and select **New bitmap object**. A graphics object box appears on the layout.
- **4 Double-click** on the graphics object box. The **Object Properties** dialog appears.
- **5** From the **File:** drop-down list, select the custom graphic you placed in the ResulTV directory and then click **Ok**.



6 Move the graphics object box by dragging and dropping it to a desired location. When you click **Alt** | **Tab** to view the ResulTV display, your custom graphic appears on the screen.

Clearing a dynamic graphic or text object

To clear any dynamic graphic or text objects from either the configuration or the display screen, simultaneously hold down the **Alt** and **C** keys. Only dynamic objects (not static objects) are cleared using this keyboard shortcut.

Displaying an existing graphic

ResulTV comes with sample TGA graphics files that you can display.

- 1 Open a layout on the ResulTV configuration screen.
- 2 Click Layout from the Menu bar and select **New bitmap object**. A graphics object appears on the layout.
- **3 Double-click** the graphics object box. An **Object Properties** dialog appears.
- 4 Select a TGA file from the **Static File**: drop-down list and then click **Ok**.
- **5** Move the graphics object by dragging and dropping it onto a desired location. When you press **Alt** | **Tab** to view the ResulTV display, the TGA file you just selected appears.

Can I edit or delete the Lynx logo?

You cannot edit or delete the Lynx logo appearing on the bottom left corner of the ResulTV display. The Lynx logo appears on every ResulTV layout in the same position and is not editable.

Other layout editing commands

Align horizontal

You can align two or more text or graphics objects horizontally along the same axis.

1 Click to select a text or graphics object. Then, hold down the **Ctrl** key on your computer keyboard while clicking on a text or graphics object. Both objects are selected if their topmost borders are white.

Tip: To select multiple objects, select an object by clicking on it, then skip over the objects you want selected. Hold down the **Shift** key while clicking on the last object you want selected. All of the objects between the first and last objects are selected.

2 Click Layout from the Menu bar and select Align horizontal. The text or graphics objects you just selected are aligned along the same horizontal axis

Align vertical

You can align two or more text or graphics objects vertically along the same axis.

- 1 Click to select a text object or graphics object. Then, hold down the Ctrl key on your computer keyboard while clicking on a text or graphics object. Both objects are selected if their topmost borders are white.

 Tip: To select multiple objects, select an object by clicking on it, then skip over the objects you want selected. Hold down the Shift key while clicking on the last object you want selected. All of the objects between the first and last objects are selected.
- 2 Click Layout from the Menu bar and select Align vertical. The text or graphics objects you just selected are aligned along the same vertical axis.

Select all

You can select all of the text or graphics objects on an open layout by clicking **Edit** from the Menu bar and clicking **Select all**. All of the objects on the layout appear with a white title bar, meaning you can now simultaneously edit them by clicking **Layout** | **Edit object(s)...**.

Select none

If you want to de-select all of the text or graphics objects on a layout, click **Edit** | **Select none**. Title bars revert from white back to their gray, unselected state. You must select the objects again if you want to edit them.

Invert selection

Use **Invert selection** if you want to shift the selection of one text object to others on the layout.

With a layout open and a text object selected, click **Edit** | **Invert selection**. The previously selected object becomes deselected, while the other text objects on the screen are selected.

Changing the settings of multiple objects

1 Open a layout on the ResulTV configuration screen.

- **2** Click to select a text or graphic object.
- **3** Hold down the **Ctrl** key while clicking on more text or graphic objects to select multiple objects at once.
- 4 Click Layout from the Menu bar and click Edit object(s).... The Object Properties dialog appears. Any changes you make in the Object Properties dialog are applied to all of the objects you selected.

Deleting multiple selected objects

WARNING! There is no "undo" for deleting a text or graphics object!

- 1 Click to select the text or graphics object.
- **2** Click **Layout** from the Menu bar and select **Delete object(s)**. The object is removed from the layout.

Note: You can delete multiple objects by holding down the **Ctrl** key while clicking on each object you want to delete. When you select **Layout** | **Delete selected object(s)**, all of the objects you selected disappear from the display.

Tip: To select multiple objects, select an object by clicking on it, then skip over the objects you want selected. Hold down the **Shift** key while clicking on the last object you want selected. All of the objects between the first and last objects are selected.

CHAPTER 7

Sending Data to ResulTV

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Sending data from FinishLynx

Sending a start list and results from FinishLynx

You can configure FinishLynx to send a start list or results to ResulTV automatically or you can configure it to send the data manually.

- **1** Run FinishLynx.
- 2 Click Scoreboard | Options. The Options dialog appears.
- > To send a start list or results from FinishLynx to ResulTV automatically
 - a) At the bottom of the dialog, there is a **Results:** section. Select the **Auto** radio button and then click **Ok**.



- b) Assuming you have already configured ResulTV and FinishLynx to exchange data serially or over the network, ResulTV displays the new start list as soon as you open it in FinishLynx.
- To send a start list or results from FinishLynx to ResulTV manually
 - a) At the bottom of the dialog, there is a **Results:** section. Select the **Manual** radio button and then click **Ok**.



b) Open a start list or results in FinishLynx.

c) Assuming you have already configured ResulTV and FinishLynx to exchange date serially or over the network, click **Scoreboard** from the menu bar and choose **Refresh**. The start list or results are displayed on ResulTV.

Sending running time from FinishLynx

These steps assume you have already configured FinishLynx and ResulTV to exchange data serially or over a network, and that you have created and selected a script for a new scoreboard in FinishLynx.

Instructions

- 1 Run FinishLynx.
- **2** Click **Scoreboard** | **Options** from the Menu bar. The **Options** dialog appears.
- 3 In the middle of the dialog, there are **Running Time:** selections. Click the **Normal** radio button.
- 4 Click **Ok** and then **Restart** FinishLynx. FinishLynx is now configured to send running time to ResulTV. When the timing circuitry in the camera starts, ResulTV displays the running time.

Display running time and results

You can have more than one layout open and toggle between the display of running time and results when FinishLynx is one of the data sources.

- 1 Start at the ResulTV configuration screen.
- 2 Click File | Open from the Menu bar and double-click the Time.rtv layout file. The running time layout appears on the screen.
- 3 Click File | Open from the Menu bar again and double-click one of the other layout files to show results. The layout file you just selected appears on the screen.
- **4** Configure the text and graphics objects as desired, and set up the data sources.
- Now that you have opened both layouts, simultaneously press the Alt and 1 keys and then simultaneously press the Alt and 2 keys on the ResulTV computer to toggle between the layouts.

Sending data using Hy-Tek Meet Manager

Meet Manager for Track and Field

Sending a start list from Meet Manager for Track and Field for Windows

After you have configured Meet Manager and ResulTV to exchange data, simultaneously press the **Ctrl** and **F10** keys on the keyboard of the Meet Manager computer to send a start list to ResulTV. The start list, ordered by lane number, appears on the ResulTV display.

Sending a start list from Meet Manager Track and Field for DOS

- **1** Make sure you have configured Meet Manager and ResulTV to exchange data.
- **2** From the **Operate Meet** menu in Meet Manager, type **1** Seeded Events.
- **3** Enter the event number for which you want to send a start list to ResulTV.
- 4 Simultaneously press **Ctrl** | **F4** to send the start list to ResulTV.

Sending results from Meet Manager for Track and Field for Windows

After you have configured Meet Manager and ResulTV to exchange data, simultaneously press the **Ctrl** and **F11** keys to send results to ResulTV. The results, ordered by place, appear on the ResulTV display.

Send results from Meet Manager Track and Field for DOS

- 1 Make sure you have configured Meet Manager and ResulTV to exchange data
- 2 From the Operate Meet menu in Meet Manager, type 1 Seeded Events.
- **3** Enter the event number for which you want to send results to ResulTV.
- 4 Simultaneously press **Ctrl** | **F3** to send the start list to ResulTV.

Meet Manager for Swimming

Sending a start list from Meet Manager for Swimming

After you have configured Meet Manager and ResulTV to exchange data, simultaneously press the **Ctrl** and **F10** keys on the keyboard of the Meet Manager computer to send a start list to ResulTV. The start list, ordered by lane number, appears on the ResulTV display.

Sending results from Meet Manager for Swimming

After you have configured Meet Manager and ResulTV to exchange data, simultaneously press the **Ctrl** and **F11** keys to send results to ResulTV. The results, ordered by place, appear on the ResulTV display.

Working with multiple layouts

- 1 Open each layout by clicking **File** | **Open** from the Menu bar. The layout you most recently open appears on the screen.
- 2 Now that you have opened more than one layout, simultaneously press the Alt and 1 keys and then simultaneously press the Alt and 2 keys on the ResulTV computer to toggle between the layouts.

Automatic switching of display screens

ResulTV can now receive commands from FinishLynx that cause the layout (RTV file) displayed to automatically switch. Specifically, you can create four different ResulTV layouts (start lists, results, running time, and messages), and display the appropriate layout on the ResulTV screen depending on data sent by FinishLynx without the use of an extra operator.

Before you begin

You must download the ResulTV auto-switching scoreboard script and save it to your **C:\Lynx** directory, or wherever you stored your FinishLynx application files during installation.

To download the ResulTV auto-switching scoreboard script, go to the *Lynx website* (http://www.finishlynx.com/) and click **Download** | **Displays** | **Software** | **resultv220** srtm.lss.

Basic instructions

- 1 Start at the ResulTV configuration screen.
- **2** Create four new layouts, or RTV files, and assign each layout a specific name associated with the type of information it displays. For example, create:
 - Starts.rtv for a start list display
 - Results.rtv for a results display
 - Time.rtv for a running time display, and
 - Message.rtv for a message display.

Example #1

In this example, an auto-switching occurs between the running time and results displays.

- 1 In ResulTV, open two layouts you created earlier: **Results.rtv** and **Time.rtv**.
- 2 In FinishLynx, set the scoreboard options to Running Time | Normal and Results | Auto.
- **3** When the running time in FinishLynx is armed or running, the Time.rtv layout, or running time, is automatically displayed on the screen.

4 When the running time is stopped and the FinishLynx operator starts evaluating the FinishLynx image, ResulTV automatically changes to the Results.rtv layout and the results are displayed.

> Example #2

In this example, auto-switching occurs between the start list, results, and a scoreboard message.

- 1 In ResulTV, open three layouts you created earlier: **Starts.rtv**, **Results.rtv** and **Message.rtv**.
- 2 In FinishLynx, set the scoreboard options to Running Time | Off and Results | Auto.
- **3** When the FinishLynx operator opens a new event from the database, the Starts.rtv, or start list, is displayed in ResulTV.
- **4** When the FinishLynx operator begins evaluating the FinishLynx image, the results appear in ResulTV.
- **5** If a scoreboard message is sent, the Message.rtv layout causes the message to be displayed in ResulTV.

Sending data to television

Pre-requisites

To send ResulTV data to television, you need to connect the ResulTV computer to a scan converter which is then connected to anything requiring a composite video feed. Examples of this include a closed-circuit television feed or a computer controlling a video scoreboard.

> Instructions

Connect the monitor output on the ResulTV computer to a scan converter. The scan converter converts the VGA signal into a video signal for use by television. Most scan converters allow you to simultaneously display the ResulTV output on the computer monitor as well as on the television monitor.

Tip: You can display the ResulTV configuration screen on a computer and send the ResulTV display to *another device* (see "Displaying ResulTV on multiple monitors"), such as a desktop monitor, scan converter, or projector.

Displaying ResulTV on multiple monitors

The ResulTV 3.0 display can be sent through the computer's VGA port to a desktop monitor, projector, or scan converter. This means you can view the ResulTV configuration screen on the computer while viewing the ResulTV display screen on an exterior monitor.

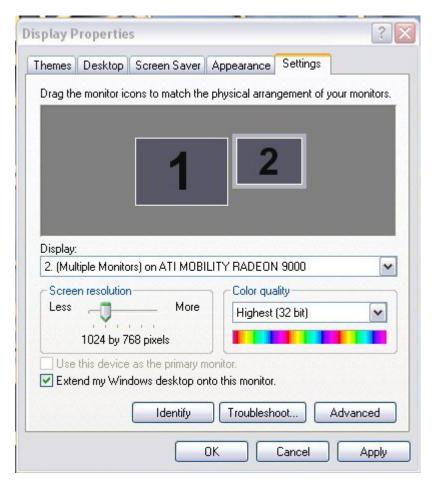
You can also run FinishLynx on the ResulTV computer while sending the ResulTV display to the external monitor, saving you the need for a second computer.

Note: To use this feature, you must run Microsoft Windows 98 and higher.

Configure the Microsoft Windows display settings:

- 1 Attach a desktop monitor, projector or scan converter to the VGA port (15-pin female port) on the ResulTV computer.
- 2 Click the Microsoft Windows **Start** button and then select **Control Panel**. The **Control Panel** screen appears.

- 3 Double-click **Display**. The **Display Properties** dialog appears.
- 4 Click the **Settings** tab.



- **5** Click the drop-down list under Display.
- 6 Click to select #2, and then select Extend my Windows desktop onto this Monitor.
- 7 Click Apply and then click **OK**.

> Configure ResulTV:

- 1 Start ResulTV.
- **2** Click **File** from the Menu bar and then select **Options...**. The Options dialog appears.
- 3 Click the **Display** tab.
- 4 Select Monitor 2.
- 5 Click **OK**.

The ResulTV display screen now appears on the second monitor.

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Glossary of Terms

D

data source

Computer from which ResulTV is getting its data. Data source examples include a computer running FinishLynx or Hy-Tek Meet Manager. For ResulTV to display data from a data source, you must configure the data source from within ResulTV. Additionally, you must configure FinishLynx and Hy-Tek Meet Manager to send data to ResulTV.

dynamic

Data or graphic that gets supplied and updated by another data source, such as FinishLynx. Includes running time, results, start lists, and graphics such as a FinishLynx image.

G

graphic object

An editable block of image on the ResulTV layout screen.

Н

hardware dongle

Security device that attaches to the computer running ResulTV. ResulTV cannot run properly without this device.

L

layout file

Visible from the *configuration screen* (see "ResulTV configuration screen"), is a template on which you can design your ResulTV display. Several layout, or RTV files, are available for you to use or modify. You can also create layout files from scratch

LSS

Stands for Lynx Scoreboard Script.

R

RSS

Stands for ResulTV Source Script.

RTV file

A layout file with the file extension, RTV. Several layout files are included with ResulTV for your use. You can also create your own layout files and modify existing ones. An example of an existing layout file is the file 1024x768.rtv.

S

scan converter

A device that converts a computer generated VGA signal to a signal suitable for television broadcast.

static

Graphic or other data that remains the same on every screen. For example, the name of a competition and its sponsor.

Т

text object

An editable block of text on the ResulTV layout screen.

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VGA signal

A signal sent by a computer. With the help of a scan converter, you can convert it to something that is usable by television, for example, NTSC or PAL format.