User's Guide

# **Resultv 6.01**



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ResulTV 3.0 User's Guide

July 5, 2005

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## **ResulTV Introduction**

## **RESULTV**

ResulTV<sup>™</sup> is a digital television graphic generation program for use with FinishLynx<sup>®</sup> 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 (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 (support@finishlynx.com).

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- Go to the Lynx website (www.finishlynx.com) and click the Products link
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- Send an email to our Sales Department (sales@finishlynx.com)

**CHAPTER 1** 

## **Installing ResulTV**

ResulTV 6.01 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 6.01 in Demo mode only.

Follow the instructions in this chapter to install ResulTV 6.01 onto a computer.

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### **Before you Begin**

Make sure you have the following:

- Lynx software USB (purple) or access to the Lynx website (www.finishlynx.com).
- ResulTV license number available by contacting Lynx System Developers, Inc.
- USB port on the ResulTV computer.
- Hardware dongle (green) also available by contacting Lynx System Developers, Inc.
- 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 USB *or* by visiting the Lynx website.

#### Installing from the Lynx USB

- 1 Insert the Lynx USB into your computer.
- 2 Double-click the ResulTV installer and begin installation.
- 3 If the File Download Security Warning dialog appears, click Run.
- 4 Click Yes when asked if you wish to install ResulTV.
- **5** Follow the instructions on the screen to continue with the installation.
- 6 If you have a ResulTV license number, type it in the Serial 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.
- 7 Click Install.
- 8 When the Security Key Installation dialog appears, select KEYLOK 2 (USB w/Driver) and Standalone.

 DO NOT connect the USB Dongle to the computer yet. Click Begin Install and wait until the Security Key Installation is complete.

YLOK Security Key Installation	
Dongle Type	
Select one or more Dongle Types	
KEYLOK 3 or Fortress (USB Driverless)	
KEYLOK 2 (USB w/Driver)	
F KEYLOK 2 (Parallel)	
Installation Type	
<ul> <li>Standalone</li> </ul>	?
C Client	
C Server	
□ Uninstall	Begin Install
Command Line Options	Exit

**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* (www.finishlynx.com).
- 2 Click Products | Software | ResulTV Data Display Software.
- 3 Scroll down and click the **Downloads** tab.
- **4** Click the latest version of ResulTV software. Open the installer once it appears on your screen.
- 5 If the File Download Security Warning dialog appears, click Run.
- 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 Install.
- 10 When the Security Key Installation dialog appears, select KEYLOK 2 (USB w/Driver) and Standalone.
  - DO NOT connect it to the computer yet. Click Begin Install and wait until the Security Key Installation is complete.

Dongle Type	
Select one or more Dongle Types	
KEYLOK 3 or Fortress (USB Driverless)	
KEYLOK 2 (USB w/Driver)	
KEYLOK 2 (Parallel)	
Installation Type	
Standalone	
C Client	
C Server	
🔲 Uninstall	Begin Install
Command Line Options	Exit

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

## **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
- 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

To create a shortcut on the Desktop, navigate to the ResulTV folder (by default this is in the C: drive). Right-click on the ResulTV application file, and choose "Send to Desktop (Create shortcut)".

Start ResulTV by double-clicking the **ResulTV** shortcut.

#### Step 2: Configure ResulTV to Receive Data

- Click File from the Menu bar and select Options.... The Options dialog appears. Go to the Sources tab.
- 2 From the Script: drop-down list, select FinishLynx.rss.
- 3 If your ResulTV and FinishLynx computers are connected:
  - Via serial using a DB9 null modem cable, select the COM port the cable is connected to on the ResulTV computer from the Serial Port: drop-down 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.
- **4** To change the status of the source from "Not Loaded" to "Running" you will need to close and reopen ResulTV.

**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 ResulTV.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: drop-down 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) In the **IP Address** field type the IP Address of the ResulTV computer and then click **Ok**.
- **5** To change the status of the scoreboard you just created from "Not Loaded" to "Running" you will need to close and reopen FinishLynx.

## 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.

1024x768			
John Smith M	emorial Games [STA   TXT]		
Event Name [DYN   TXT]			
Place 1	Name 1 [DYN   TXT]	Affiliation 1 [DYN   TXT]	Mark 1 [DYN   TXT]
Place 2	Name 2 [DYN   TXT]	Affiliation 2 [DYN   TXT]	Mark 2 [DYN   TXT]
Place 3	Name 3 [DYN   TXT]	Affiliation 3 [DYN   TXT]	Mark 3 [DYN   TXT]
Place 4	Name 4 [DYN   TXT]	Affiliation 4 [DYN   TXT]	Mark 4 [DYN   TXT]
Place 5	Name 5 [DYN   TXT]	Affiliation 5 [DYN   TXT]	Mark 5 [DYN   TXT]
Place 6	Name 6 [DYN   TXT]	Affiliation 6 [DYN   TXT]	Mark 6 [DYN   TXT]
	Running Time [DYN   TXT]		Jones.tga [STA   BMP]

- **1** Press **Alt** + **Tab** simultaneously on the ResulTV computer keyboard. A dialog appears containing any windows currently running on the computer.
- 2 While holding down **Alt**, press **Tab** until the scoreboard display is selected, or, click on it.



**3** Release **Alt** + **Tab** with the scoreboard display selected. The ResulTV display appears on the screen.

John Smith Memorial Games				
60 Meter Dash				
1 Longley	Columbia	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 Next to Running Time: click the Options down-arrow to expand the drop-down menu and check the Send results if armed option to display the start list as soon as you open the event in FinishLynx.
- 3 Next to **Results:** click the **Options** down-arrow to expand the drop-down menu and check the **Always Send Place** box to display place as soon as you evaluate the FinishLynx image.
- 4 Check the **Paging:** box, type **6** in the **Size** box, and type **5.0** in the **Time** box to scroll through six lines at a time at an interval of five seconds.
- 5 Verify the scoreboard status is "Running." If not, make sure there is a selection next to **Serial Port:** then click **Ok**. 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/objects, such as sponsor logos.
- Display dynamic images/objects (see "Displaying FinishLynx image dynamically"), such as FinishLynx images.

## **System Requirements**

- ResulTV requires the following:
  - Microsoft Windows 95 or higher operating system.
  - A minimum of 16 MB of RAM.
  - 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.
  - At least one USB port for the USB Dongle.

## **Starting ResulTV**

To start the ResulTV application:

- **1** Double-click the ResulTV Shortcut.
- **2** 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 **Alt** + **Tab**. 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 school logos or 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.



## **ResulTV Display Screen**

Access the ResulTV display screen from the ResulTV configuration screen by holding down **Alt** and pressing **Tab** until the scoreboard display screen is selected. When you release the Alt key, the scoreboard display screen appears.



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

CHAPTER 4

## **ResulTV Quick Start Tutorial**

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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 *connect a second 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 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 adapter.

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 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* (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.
- 3 Click Ok to return to the ResulTV configuration screen.

Source Source	Status Running	<u>^</u>	New
		~ -	Delete
Serial Port:	Network (listen)       Port       1965		
	Port   1965		

## **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 FinishLynx.rss for data coming from FinishLynx.
  - 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.
  - Select **MeetPro.rss** for data coming from MeetPro Meet Manager.
- 4 The default source name, Source, appears in the Name: text field. Type a new name if you would like. 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). In the Port: field, enter the same Port number that the FinishLynx computer's scoreboard network (connect) port is set to.
- 6 Click **Ok**. You have now created a data source within ResulTV.
- **7** 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**.
- 2 Go to the **Sources** tab. 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
FinishLynx.rss	ResulTV.lss in FinishLynx
Hytek.rss	Hy-Tek Meet Manager for Track and Field
HytekSwim.rss	Hy-Tek Meet Manager for Swimming
MeetPro.rss	MeetPro Meet Manager

#### 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** Go to the **Sources** tab. Click the **New** button to create a new source, and repeat the appropriate steps in "Creating a new data source."

### 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 Go to the **Sources** tab. Click the **New** button.
- 3 In the Script: drop-down list select FinishLynx.rss.
- **4** In the **Name:** text field type a new name for your data source, for example, "FinishLynx Primary."
- **5** Go to the **Serial Port:** drop-down list and configure the **serial or network settings** (see "Setting Up the Computers").
- 6 Click **OK** 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 | Options. The Options dialog appears.
  - 3 Click the **New** button to create a new scoreboard source.
  - 4 Select **ResulTV.Iss** 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).

Script:	ResulTV.Iss   Name: ResulTV
Code Set:	Single Byte C Unicode C Native
Serial Port:	COM3 (Serial Port) 💌 Baud 9600 💌
	Data Bits 8 🕶 Parity None 💌 Stop Bits 1.0 🕶

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

Script:	ResulTV.Iss	▼ Name:	ResulTV
Code Set:	Single Byte C Unicode	C Native	
Serial Port:	Network (connect) 💌		
	Port 1965 IP Address	192.168.0.150	

- **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 Go to the **Sources** tab. Click the **New** button.
- 3 Tab to the Script: drop-down list and select Hytek.rss.
- **4** 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 select the correct COM port from the drop-down list.

Source	Status		
Hy-Tek Res	ults Running	^	New
		~	Delete
Code Set:	Single Byte C Unicode C Na	itive	

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

## 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* (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, specify the **connection method** you are using, and then click **OK**.
- 4. Click Run from the menu bar. The Run the Meet screen appears.

#### If using a serial connection:

 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.

Enter 0 to c	lose serial port	
	FieldLynx (0-16) :	0
Track Button	Finish Timer (0-16) :	0
CC/RR Button	Finish Timer (0-16) :	0
	Scoreboard (0-16) :	0
	Photo Finish (0-16) :	0

- 2. Click in the Serial Port for Scoreboard (0-16) field and 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.
- 3. Go to Interfaces | Scoreboard Daktronics Fixed Digit | Customize.
- **4.** Enter the number of results per page to be shown in ResulTV, and specify Lane or Finish order.
- 5. Confirm Baud Rate is 9600, number of seconds each page of results is shown, and Metric vs English for field event results. You can also customize how names are shown (upper case, last name only, etc.). Click **OK**.

Daktronics F	ixed Digit Serial	
	of Lanes on Board : 8	
Results in La	ane or Finish Order : F	
	Baud Rate : 9600	•
F	Results Cycle Delay : 8	
Metric or English for	Field Event Results : M	
Metric or English for Combined	Event Field Results : M	
Punctuation     Athlete Nar <ul> <li>Upper/Lower Case</li> <li>C Lastname On</li> <li>C Lastname + 1</li> <li>C Leave as is</li> <li>C Lastname, Fill</li> </ul>		

#### If using a network connection:

1 Click Interfaces from the menu bar and select Scoreboard - Daktronics Fixed Digit | Set UDP Port and IP Address. The Set UDP Port and IP Address dialog appears.

Set UDP Port and IP A	ddress				×
	U	DP			
Remote Scorebo	ard Port / S	ocket (1 to 65535	): [	21000	
Rei	note Score	board IP Addres	s : []	255.255.25	5.255
Enter 255.255.255.255	for UDP IP a	ddess to broadc	ast to	all local I	P's
	<u>о</u> к	Cancel			

- 2 Click in the Port/Socket field and enter the port number you will be using (this same port number will be entered in the Source Settings in ResulTV). You can also enter the ResulTV computer's IP address or use the broadcast IP address. Click OK.
- 3 Go to Interfaces | Scoreboard Daktronics Fixed Digit | Customize.
- 4 Enter the number of results per page to be shown in ResulTV, and specify Lane or Finish order.
- 5 Confirm the number of **seconds** each page of results is shown, and **Metric vs English** for field event results. You can also customize how names are shown (upper case, last name only, etc.). Click **OK**.

Dakuonics	Fixed Digit UDP
Number	of Lanes on Board :
Results in Li	ane or Finish Order : F
Metric or English for ric or English for Combined Punctuation	
Metric or English for ric or English for Combined Punctuation	Field Event Results : M Event Field Results : M Athlete Names
Metric or English for ric or English for Combined	Field Event Results : M Event Field Results : M

### 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 Go to the **Sources** tab. 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".
- **5** Tab to the **Serial Port:** drop-down list and select the correct COM port from the drop-down list.

Source Hy-Tek Res	Status ults Running	New
		Delete
Code Set:	Single Byte C Unicode C Native     COM3 (Serial Port)      Baud 9600	

6 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* (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. Click Set-up from the Menu bar and select Alpha Scoreboard INTERFACE from the drop-down menu. The Scoreboard Vendor dialog appears.



- 2 Select the Generic Serial radio button and then click OK.
- 3 Click Run from the menu bar. The Run the Meet screen appears.
- 4 Click Scoreboard (Genser) from the menu bar and then select Open/Close Serial Port for GENSER. The Select Serial Port for GENSER dialog appears.

Select Serial P	OIT TOF GENSI	-n	
	Serial Com	Port for Timer (	0-8) : <u>()</u>
Serial Com Po	rt for GENSE	R Scoreboard (	0-8) : 1
	Enter 0 to cl	ose serial port	
	<u>0</u> K	Cancel	

- **5** 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. Click **OK**. Meet Manager is now ready to send data to ResulTV.
- 6 To send a start list, simultaneously press Ctrl + F10 on the Meet Manager computer. To send Results, simultaneously press Ctrl + F11 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. The options include the layout default, local override using any source, and local override using a selected source.

#### 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 then 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 dropdown 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. Click the **Basic** tab.
- 2 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.

## **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 files* (see "Creating a new layout or modifying an existing layout").

🚮 640x480.rtv	4/1/2004 10:23 AM	ResulTV Layout	6 KE
200x600.rtv	4/1/2004 10:23 AM	ResulTV Layout	6 KE
🛃 1024x768.rtv	4/1/2004 10:23 AM	ResulTV Layout	6 KE
💷 1024x768flag.rtv	7/29/2002 10:41 AM	ResulTV Layout	6 KE
🚮 1024x768-flags.rtv	1/27/2015 5:11 PM	ResulTV Layout	11 KE
🛃 1024x768-no-flags.rtv	1/27/2015 5:10 PM	ResulTV Layout	9 KE
1024x768swim.rtv	10/11/2001 1:08 PM	ResulTV Layout	7 KI
1280x720-flags.rtv	1/27/2015 5:10 PM	ResulTV Layout	11 KI
💷 1280x720-no-flags.rtv	1/27/2015 5:10 PM	ResulTV Layout	9 KI
1366x768-flags.rtv	1/27/2015 5:09 PM	ResulTV Layout	11 KE
🜉 1366x768-no-flags.rtv	1/27/2015 5:09 PM	ResulTV Layout	9 KE
Time.rtv	11/30/2007 3:33 PM	ResulTV Layout	1 KE

- 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.
- 1024x768-flags.rtv: configured to work with any 1024x768 pixel display. Fields include: competition name, event name, heat/flight number, place, name, affiliation, flags, mark/time, running time, and up to 8 lanes.
- 1024x768-no-flags.rtv: configured to work with any 1024x768 pixel display. Fields include: competition name, event name, heat/flight number, place, name, affiliation, mark/time, running time, and up to 8 lanes.
- 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.
- 1280x720-flags.rtv: configured to work with any 1280x720 pixel display. Fields include: competition name, event name, heat/flight number, place, name, affiliation, flags, mark/time, running time, and up to 8 lanes.

- 1280x720-no-flags.rtv: configured to work with any 1280x720 pixel display. Fields include: competition name, event name, heat/flight number, place, name, affiliation, mark/time, running time up to 8 lanes.
- 1366x768-no-flags.rtv: configured to work with any 1366x768 pixel display. Fields include: competition name, event name, heat/flight number, place, name, affiliation, mark/time, running time, and up to 8 lanes.
- 1366x768-flags.rtv: configured to work with any 1366x768 pixel display. Fields include: competition name, event name, heat/flight number, place, name, affiliation, flags, mark/time, running time, and up to 8 lanes. Shown below.

Animate	d Flag Games	Men's 100m	Ht/Fit: 2
Place	Name	Affiliation	Time/Mark
_1	Akani Simbine	RSA	10.36
2	Tom Gamble	AUS	10.52
3	Itayi Vambe	ZIM 💈	10.75
4	Davron Atabaev	TJK	10.98
5	Maninder Singh Hira	IND	<b>3</b> 11.07
6	Andy Grech	MLT	11.16
7	Prince Bethykpaingui	CAF	11.18
DNS	Rasheed Dwyer	JAM	×
LYNX Running Time: 10.36			e: 10.36

### **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**

Make sure you have a layout open on the ResulTV configuration screen. **Doubleclick** on the text object you want to edit. The **Object Properties** box for that specific text object appears.

Basic Text		1
Font:	<internal></internal>	
Size:	44 💌	
Width:	100	
Face:	White	
Border:	Black 💌	
Shadow:	Black 💌	
Background:	Transparent 💌	
Justification:	← Left C Center C Right	
Lines:	1 Line space 0	
Text:	%s	
	Ok Cancel	

## **Cutting, Copying and Pasting**

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

- 1 Click on 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 and clicking on all the objects you want to select.

## **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".

Text:	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 coordinates 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.

Position:	Horiz. 176 Vert. 72
Size:	Width 288 Height 44
	○ Static
Source:	Layout default     C Local override
	🕼 Any source 🕜 Selected sources: 💌
Field:	Name 1
Trigger:	Time

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

## 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.

Layout Propertie	s		×
Background:	Blue 💌		
Source:	Any source	○ Selected sources: ▼	
Γ	Ok	Cancel	

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.

## Changing a Text Object's 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 transparent from the list, the text object defaults to the original background color of the layout, or whatever else is "behind" it.
- **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 the 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 the 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 **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.

### 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 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 include any TrueType fonts.

Not recommended to use 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
- XP
- 7, 8, or 10

## 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 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 Double-click on a text object. The Object Properties dialog appears.
  - 2 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.

#### Shrink to fit

Sometimes text fields get sent data that are too long to fit in the text object using a fixed font size, so they will appear to get cut-off. This can occur with long names, affiliations, etc. To help your display look more professional, use this method:

- 1 Double-click on a text object. The Object Properties dialog appears.
- 2 Choose a font other than the default.
- 3 Enter a size value and check off the Shrink to fit option. The box beside it defines what percentage the font may be reduced by; this can be changed to a custom value. The default value of 50 means the font may be reduced by as much as 50 percent before it stops shrinking.

Font:	Arial	•
Size:	50	
Width:	100	Shrink to fit 50

### 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 Go to the Sources tab. 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 (besides choosing which corner it will be located), static and 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 | 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. Click Ok.

Stati	c File:	FLynx1.tga	•
Dyn	amic File:	%s.tga	
Dyn	amic Dir.:		Browse
Spee	ed:	100	
	)raw black	as transparent	

- 3 Resize the object box by clicking and dragging its handle to a new size.
- 4 Move the object box by dragging 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 Share the C:\ResulTV directory (or wherever you installed the ResulTV files on the ResulTV computer) with the FinishLynx computer, being sure it has both read and write permissions.
- 2 Make sure the FinishLynx and ResulTV computers are connected over a *network* (see "Using ResulTV over a network").

#### > Configure ResulTV

Be sure to be using the FinishLynx.rss source script.

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

#### Configure FinishLynx

Be sure to use the ResulTV.Iss scoreboard script.

#### 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.
- **3** Navigate to the ResulTV directory that the ResulTV computer is using and click **Save**.
- **4** Leave the name of the file as its default Event-Round-Heat format name from FinishLynx, for example, 001-1-01. ResulTV displays the FinishLynx image along with the event results.

**Note:** By default, ResulTV will look for the image file in a Targa format (.tga). Your computer may save the image as a jpeg file (.jpg). If this is the case, go into the object's properties in ResulTV, and change the **Dynamic File:** from "%s.tga" to "%s.jpg".

## **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, a **JPEG** file **(.jpg)**, or a **GIF** file **(.gif)**. Then, follow these steps:

- > Displaying Your Object Statically (company logos, backgrounds, etc.)
  - 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 (and most likely), C:\ResulTV.
  - 2 Run ResulTV and open a layout on the ResulTV configuration screen.
  - 3 Click Layout | 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 **Static File:** drop-down list, select the custom graphic you placed in the ResulTV directory and then click **Ok**.

Basic	Bitmap		
Stati	c File:	custom_image.jpg	•
Dyn	amic File:	%s.jpg	
Dyn	amic Dir.:		Browse
Spee	:d:	100	
	)raw black	as transparent	

- 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.
- > Displaying Your Object Dynamically (country flags, school logos, etc.)
  - 1 Save the file (.tga, .jpg, or .gif) in a directory. It must be named the same as what your object is representing will say. For example, if using an object for a school's logo, and whenever that school will be shown in ResulTV it will show as an abbreviation, your object must be named that same abbreviation.
  - 2 Open a layout on the ResulTV configuration screen.
  - 3 Click Layout | New bitmap object. A graphics object appears on the layout.

- 4 **Double-click** the object. Next to **Dynamic Dir.:** click **Browse** and select the directory that your object is located in.
- 5 Next to Dynamic File: type "%s.(your file's extension)". This will be either .tga, .jpg, or .gif. So, if you have a JPEG of a school logo, you will put %s.jpg, and make sure the Dynamic Directory is configured to the directory. Confirm the other settings (draw black as transparent, and in the case of GIF animations you can change the speed).
- 6 Go to the Basic tab. Select the Dynamic radio button, and choose the appropriate field from the Field: drop-down menu. For example, in the case of the school logo, the object where place 1's logo should be, choose "Affiliation 1" from the drop-down menu. For layouts containing more than one line of results, each line would contain its own dynamic object, each only differing in their field's Affiliation #.
- 7 Move the object by dragging and dropping it onto a desired location. When you press Alt + Tab to view the ResulTV display, the file you just added appears.

### **Clearing a Dynamic Graphic or Text Object**

To clear any dynamic graphic or text objects from either the configuration or the display screen, press Alt + C. 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 | 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.

### **Displaying GIFs**

ResulTV has the ability to display GIF files. You'll find that \*.gif files appear in the Bitmap **Static File:** drop-down menu. The GIF file format includes the delay after each frame, which can be different for each frame. You should be able to set this in your GIF editor. If you find a GIF somewhere and don't like the speed, you should be able to change the delays in an editor.

The GIF file format (optionally) includes the number of times that the animation should be played. The way the spec is written the animation should only be played once if this value is omitted. In ResulTV, however, an omitted value results in the animation playing continuously. If you only want 1 loop (or a finite number) then be sure to set the value in your editor. Some editors may always set this value (either to a finite number or to the "continuous" value, which is zero).

**Note:** GIFs can take a while to load. 1.5MB file size takes about 1 second for ResulTV to load it. The mouse cursor should show the hourglass whenever a GIF is loading. Note that using undo/redo involves reloading bitmaps, so you'll see the delay then as well.

If you have many GIFs and/or large GIFs and/or GIFs overlapping large text areas then playback can slow down in ResulTV. In particular, a GIF overlapping text (especially long and/or large text) can cause some slowdown. Also, ResulTV enforces a minimum delay between frames of 30 milliseconds (corresponding to a maximum frame rate of 30 fps). GIFs are generally designed to run at less than 30 fps (20, 15, or 10 likely; [This is now controlled by a hidden setting (\Display\MinAnimDelay). The minimum value is 10 milliseconds]).

To change the **speed** of the GIF, double-click on the object and enter a new **Speed**: value. A value of 100 is "normal" speed, 200 is double, 50 is half, etc. Negative values can be used to run the animation backwards.

By default, ResulTV will always use **black** for the **background color**. This allows ResulTV to easily "erase" the background of the GIF by displaying black as transparent. To keep the black background, double-click on the object and uncheck "**Draw black as transparent**." There is a hidden setting (Display\GIFUseBg) that if set to **1** ResulTV will use the background color stored in the GIF rather than using black.

To display your GIF statically, see "Displaying a custom graphic."

## Can I Edit or Delete the Lynx Logo?

You cannot edit or delete the Lynx logo. You can choose which corner it appears in by going to **File | Options | Display** and choosing a corner from the **Lynx Logo:** drop-down list.

## **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 additional text or graphics object(s). Selected objects appear white with a dark blue header.

**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 | 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 or graphics object. Then, hold down the Ctrl key on your computer keyboard while clicking on additional text or graphics object(s). Selected objects appear white with a dark blue header.

**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 | 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 | 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**. The objects 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 | 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**

- 1 Click to select the text or graphics object.
- 2 Click Layout | 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.

## Sending Data to ResulTV

## In This Chapter

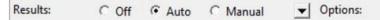
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## Sending Data from FinishLynx

## 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.



b) Assuming you have already configured ResulTV and FinishLynx to exchange data serially or over the network, ResulTV will display 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**.

Results: C Off C Auto 🕫 Manual 💌 Options:

- b) Open a start list or results in FinishLynx.
- c) Assuming you have already configured ResulTV and FinishLynx to exchange data 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.

Running Time: C Off @ Normal C Raw V Options:

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.
- 4 Configure the text and graphics objects as desired, and set up the data sources.
- 5 Now that you have opened both layouts, simultaneously press Alt + 1 and then simultaneously press Alt + 2 keys on the ResulTV computer to toggle between the layouts.

Note: An armed event in FinishLynx will by default send the 0.0 time to ResulTV while it waits for the start signal. To override this and show the start list up until the start signal is received, in FinishLynx go to Scoreboard | Options, and next to Running Time: expand the Options: drop-down arrow and check "Send results if armed."

## Sending Data Using Hy-Tek Meet Manager

## Meet Manager for Track & Field

## Sending a start list from Meet Manager for Track & Field for Windows

After you have configured Meet Manager and ResulTV to exchange data, simultaneously press **Ctrl + F10** 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 Track & Field for Windows

After you have configured Meet Manager and ResulTV to exchange data, simultaneously press **Ctrl** + **F11** to send results to ResulTV. The results, ordered by place, appear on the ResulTV display. If an event has multiple heats, after they are all finished you can send the event's combined results by pressing **Ctrl** + **F12**.

### 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 **Ctrl + F10** 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 **Ctrl + F11** 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 Alt + 1 then simultaneously press Alt + 2 on the ResulTV computer to toggle between the layouts. You can also click Window at the top of your screen to see a list of layouts that are currently open along with their corresponding keyboard shortcut.

## **Automatic Switching of Display Screens**

ResulTV can 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 use the **ResulTV.Iss** scoreboard script in FinishLynx.

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

**Note:** The running time must be stopped in order for FinishLynx to send results to the display. To stop the clock, simply **Scoreboard | Stop (Alt + S)** or use a photo-eye. See the *FinishLynx User's Manual* to configure a photo-eye or a FinishLynx camera using Automatic Capture Mode.

#### > 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.

# Manual and Automatic Triggering of Text and Bitmap Objects

Layout objects (both text and bitmap) can be **triggered either manually by keyboard events or automatically through remote commands that appear in the data stream**. A trigger is a string of characters (up to 15 and not case sensitive). When using a data stream, any string can be used. In order to have the ability to manually trigger the object, the trigger value must be able to be generated by the keyboard.

Any normal key (letter, number, punctuation, etc.) generates a trigger with that single character as its value. Holding the Shift, Control, or Alt keys when hitting a normal key will prepend a "S+", "C+", or "A+" to the trigger. You can use one or more of these keys (in that order). Hitting the Function key generates the trigger "Fn", where n is the function key number. The Function keys can also be modified by Shift, Control, and/or Alt. Note: the *display screen* must be active when manually triggering an object, not the configuration screen.

A time can also be entered in the Time: field, in **seconds**, if you want the triggered object to only appear for a period of time and then disappear. If you wish for it to remain visible **indefinitely**, leave the Time: field **blank**.

The **Trigger:** and **Time:** fields can be found by going into an object's **Properties** and into the **Basic** tab.

Position:	Horiz. 232 Vert. 256	
Size:	Width 176 Height 52	
Туре:	Static O Dynamic	
Source:	🕫 Layout default 🛛 C Local override	
Field:	·	
Trigger:	F1 Time 3.0	

#### Examples:

- If you want to trigger an object using the F1 key, enter "F1" in the trigger field.
- If you want to trigger an object using the Control and F1 keys, enter "C+F1" in the trigger field.
- If you want to trigger an object using the Control, Alt, and J keys, enter "C+A+J" in the trigger field.

**Note:** Be careful not to choose a trigger that is also a menu accelerator, as the menu will capture the event and it will not make it to the display window to be used as a trigger.

Sending a trigger through the data stream uses the same mechanism as the automatic layout switching. The Command is "Trigger", the Name is that of the string being used as the trigger, and the Action can be "On", "Off", or "Toggle", each corresponding with how they wish to affect the state of the object they are triggering.

An **active example** of this feature can be found in the script ResulTV.lss in the TimeStopped section:

;;TimeStopped	
; This is sent when the time is stopped by a beam break.	
; Line codes are identical to the TimeRunning line codes.	
<pre>, The following line (if not commented) will tell ResulTV to change lay ;\11\00Command=LayoutDraw;Name=Time;Clear=1;\0a \11\01\02%15.15s\03\04</pre>	/outs.
; The following line will trigger event F1. ; Note that the event is triggered after the data is sent. This is impo ; if the triggered field will use the TimeStopped data.	ortant
\11\00Command=Trigger;Name=F1;Action=On;\0a	

In this case, the Trigger of F1 is being used to turn on an object when the time is stopped. The object's corresponding properties in ResulTV can be seen here in the Time.rtv layout.

Time John Smith Memorial Games [STA   TXT]	
Running Time	Dbject Properties Basic Bitmap
[DYN   TXT] Mynx.tga [STA   BMP   TRG "F1"]	Position:     Horiz.     222     Vert.     252       Size:     Width     176     Height     52       Type:     If Static     C     Dynamic       Source:     If Layout default     C     Local override
Jonestga [STA   BMP]	Field:
	Ok Cancel

**Note:** This object can also be triggered manually by hitting the F1 key since the trigger used in the data stream is also a normal key.

## **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 display can be sent through the computer's VGA or HDMI port to an external monitor, projector, or scan converter. This means you can view the ResulTV configuration screen on the computer while viewing the ResulTV display on an external monitor.

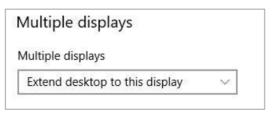
You can also run FinishLynx on the ResulTV computer while sending the ResulTV display to the external monitor, saving you the need for a second computer.

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

- > Configure the Microsoft Windows display settings:
  - 1 Attach an external monitor, projector, or scan converter to the VGA port (15-pin female port) or HDMI port on the ResulTV computer.
  - 2 Go to your computer's **Display Settings** window.

Settings					
ம் Home	Display				
Find a setting P	Rearrange your displays				
System	Select a display below to change the s	settings for it. Press a	and hold (or select) a disp	olay, then drag t	o rearrange it.
🖵 Display					
다) Sound					
Notifications & actions		2	1		
	-	_			
() Power & sleep					
🗇 Battery	Apply Cancel			Identify	Detect

3 Click to select #2, and then select Extend desktop to this display.



#### > Configure ResulTV:

1 Start ResulTV.

4 Select Monitor 2.

5 Click OK.

- 2 Click File | Options...
- 3 Click the **Display** tab.

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.

### Η

#### 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 layouts, 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.

#### V

#### 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.