
User's Guide

ResultTV 6.10

RESULTV

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ResultTV 3.0 User's Guide

July 5, 2005

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ResultTV Introduction



ResultTV™ is a digital television graphic generation program for use with FinishLynx® timing systems. Use ResultTV 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, ResultTV works with any international television system (see "Sending data to television").

ResultTV 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").

ResultTV 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>).

CHAPTER 1

Installing ResultTV

ResultTV 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 ResultTV 3.0 in Demo mode only.

Follow the instructions in this chapter to install ResultTV 3.0 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).
- ResultTV license number - available by contacting Lynx System Developers, Inc.
- USB port on the ResultTV 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 ResultTV computer.

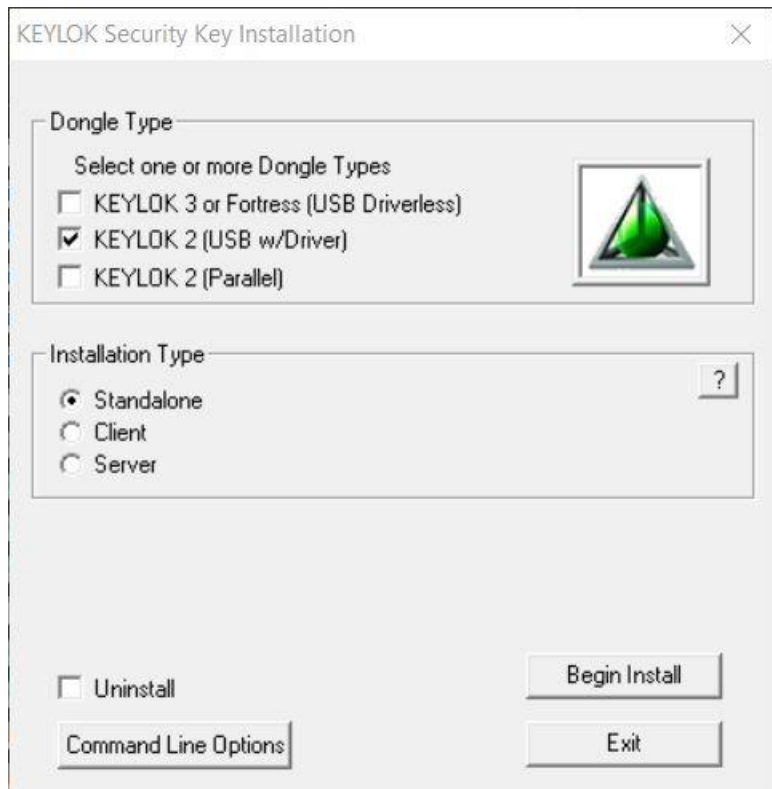
Install the ResultV software

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, click to 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.

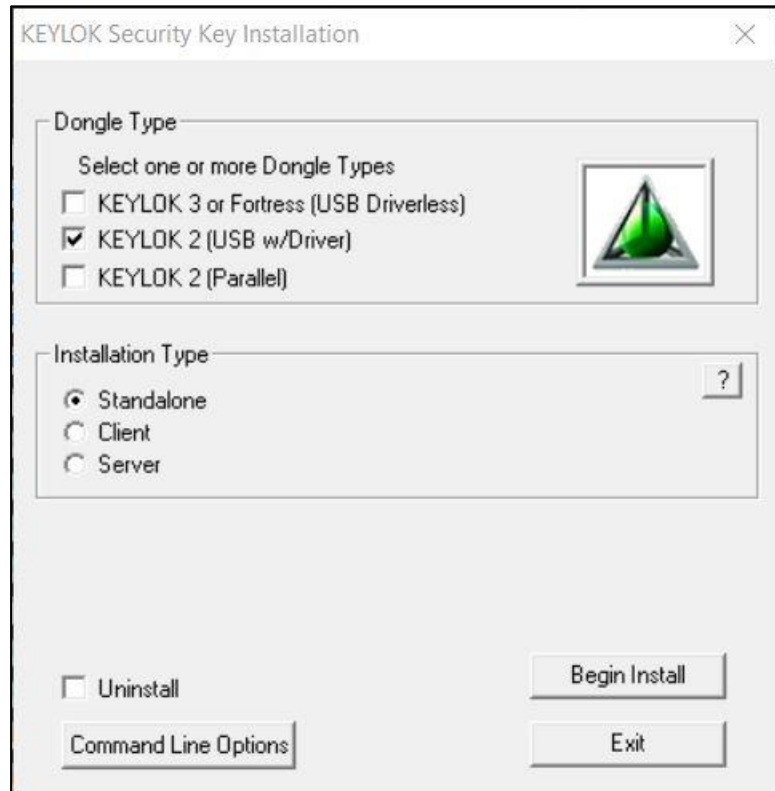


Note: The hardware dongle must be attached to the ResultV computer at all times or else the ResultV software is disabled.

Installing from the Lynx website

- 1 Go to the Lynx website (<http://www.finishlynx.com/>).
- 2 Click 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, click to 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.



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

 CHAPTER 2

ResultTV Quick Start Tutorial

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

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

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

Start ResultTV by double-clicking the ResultTV shortcut.

Step 2: Configure ResultTV to receive data

- 1 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 ResultTV and FinishLynx computers are connected:

- Via serial using a DB9 null modem cable, select the COM port the cable is connected to on the ResultTV 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 ResultTV.

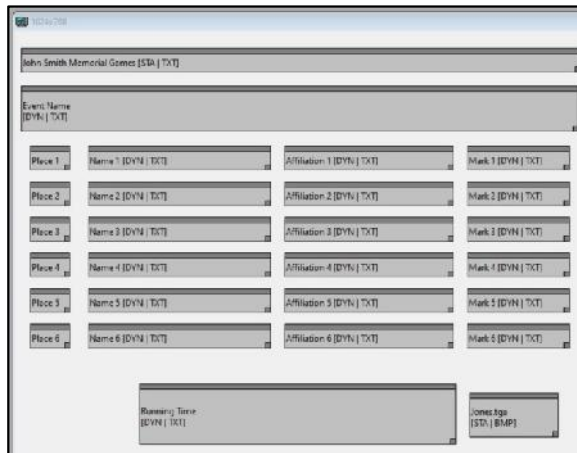
Tip: You can display the ResultTV configuration screen on a computer and send the ResultTV display to another device (see "Displaying ResultTV on multiple monitors"), such as a desktop monitor, scan converter, or projector.

Step 3: Configure FinishLynx to send data to ResultTV

- 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 ResultTV.Iss.
 - If you are connecting the ResultTV 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 ResultTV computer in the previous step.
 - c) In the IP Address field type the IP Address of the ResultTV 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 ResultTV, 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 ResultTV computer keyboard. A dialog appears containing any windows currently running on the computer.
- 2 While holding down the Alt key, press Tab until the scoreboard display is selected, or click on it.



- 3 Release the Alt and Tab keys with the scoreboard display selected. The ResultTV 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


9:20:07


Step 5: Send data to ResultTV 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 6 lines at a time at an interval of 5 seconds.
- 5** Verify the scoreboard status is "Running." If not, make sure there is a selection next to Serial Port: then 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 ResultTV layout, and
- sending data (see "Sending Data to ResultTV") from FinishLynx and other data sources.

CHAPTER 3

ResultTV Basics

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Uses

Use ResultTV 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

- ResultTV 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.
 - at least one USB port for the USB Dongle.

Starting ResultTV

To start the ResultTV application:

- 1 Double-click the ResultTV Shortcut.
- 2 A blank, gray, ResultTV screen appears with some Menu bar items at the top. This is the ResultTV 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

ResultTV 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").

ResultTV configuration screen

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



ResultTV display screen

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



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

CHAPTER 4

Setting up the Computers

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Connecting the computers

The computer running ResultTV 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 ResultTV and FinishLynx on the same computer and connect a second monitor (see "Displaying ResultTV on multiple monitors") to the ResultTV computer.

Using ResultTV over a serial connection

Connect the ResultTV computer to a data source computer or SerialLynx 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 ResultTV 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 ResultTV to listen to each data source over the network (see "Using ResultTV over a network").

Using ResultTV over a network

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

➤ Pre-requisites

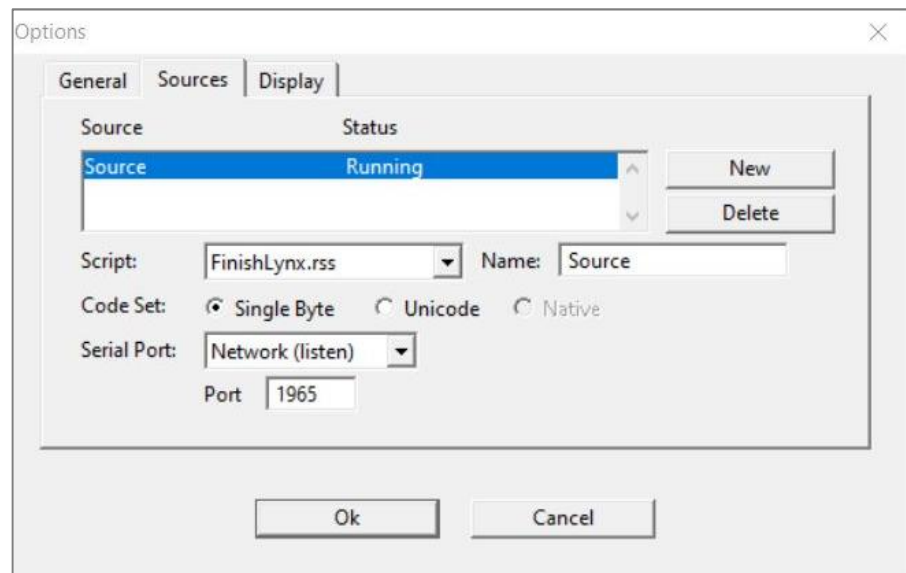
For ResultTV to get data from sources over a network, the following conditions must exist:

- Your ResultTV 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 ResultTV 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 ResultTV 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 ResultTV knows how and from where it is receiving data.

- To create a data source
 - 1** Make sure you are at the ResultTV configuration screen (see "ResultTV 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 want. This is helpful if you want to keep track of data coming to ResultTV from multiple sources.
 - 5** From the Serial Port: drop-down list:
 - For data sources connected to the ResultTV computer via a null modem cable (see "Using ResultTV over a serial connection"), select the correct COM port.
 - For data sources connected to the ResultTV computer via wired or wireless Ethernet (see "Using ResultTV 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 ResultTV.

- 7 Close ResultTV and then restart the application.
- 8 After restarting ResultTV, 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 ResultTV.

Deleting a data source

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

Which RSS file do I select?

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

Select this script in ResultTV...	With this script and/or program...
FinishLynx.rss	ResultTV.Iss
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 ResultTV to get data from more than one data source. For example, you can use ResultTV 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 ResultTV 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 ResultTV for use with FinishLynx

- 1 Click File | Options from the Menu bar on the ResultTV 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 FinishLynx.rss.
- 4 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 ResultTV. ResultTV is now configured to receive data from the FinishLynx computer.

Configuring FinishLynx for use with ResultTV

➤ Pre-requisites

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

- The FinishLynx computer is connected to the ResultTV computer using a null modem cable (see "Using ResultTV over a serial connection") via the DB9 serial (COM) ports.
- The FinishLynx computer and the ResultTV computer are on the same wired or wireless Ethernet network (see "Using ResultTV 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 ResultTV.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 ResultTV over a serial connection, select the COM port through which the FinishLynx computer is connected to the ResultTV computer. Leave the Baud, Data Bits, Parity, and Stop Bits settings at their default values (9600, 8, None, 1).

The screenshot shows the 'Options' dialog box for ResultTV. The 'Script' field is set to 'ResultTV.Iss' and the 'Name' field is 'ResultTV'. Under 'Code Set', 'Single Byte' is selected. The 'Serial Port' is set to 'COM3 (Serial Port)'. The 'Baud' rate is '9600', 'Data Bits' is '8', 'Parity' is 'None', and 'Stop Bits' is '1.0'.

- If you are sending data from FinishLynx to ResultTV 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 ResultTV computer to, and in the IP Address field type the IP address of the ResultTV computer.

The screenshot shows the 'Options' dialog box for ResultTV. The 'Script' field is set to 'ResultTV.Iss' and the 'Name' field is 'ResultTV'. Under 'Code Set', 'Single Byte' is selected. The 'Serial Port' is set to 'Network (connect)'. The 'Port' field is '1965' and the 'IP Address' field is '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 ResultTV computer.

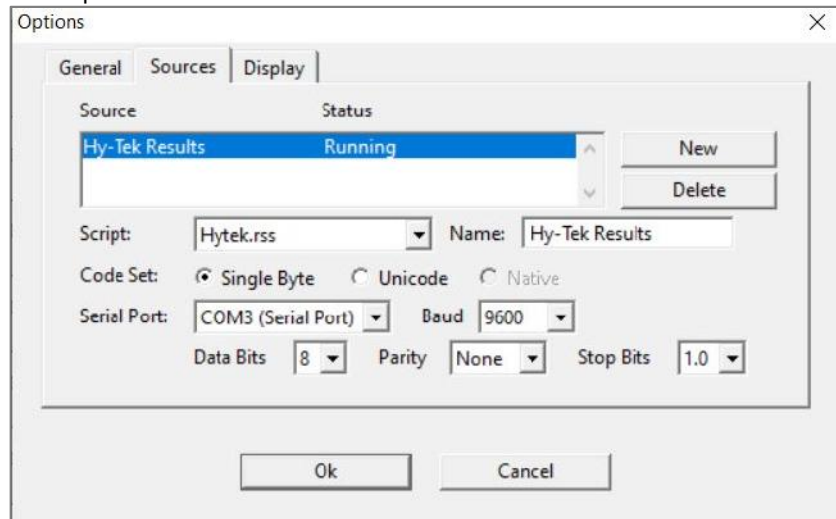
Hy-Tek Meet Manager as a data source

Hy-Tek Meet Manager for Track and Field

Configuring ResultTV for use with Meet Manager for Track and Field

- 1** Click File | Options from the menu bar on the ResultTV 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 selected the correct COM port from the drop-down list.



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

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

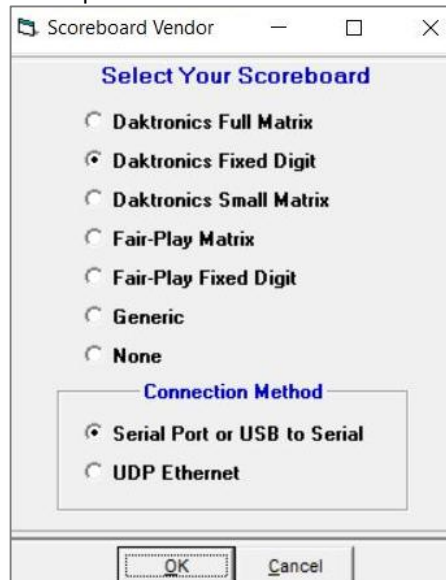
Note: The instructions provided here are for the convenience of our customers. Because Meet Manager for Track and Field is a software program designed by Hy-Tek, Ltd., the instructions below may not be valid for versions later than 1.2. Please refer to the Hy-Tek website (<http://www.hy-tek.com/>) for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

➤ Pre-requisites

If you are sending data from Meet Manager to ResultTV over a serial connection (see "Using ResultTV 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.



Select Serial Port for Daktronics Fixed Digit

Photo Finish (0-16) :

Scoreboard (0-16) :

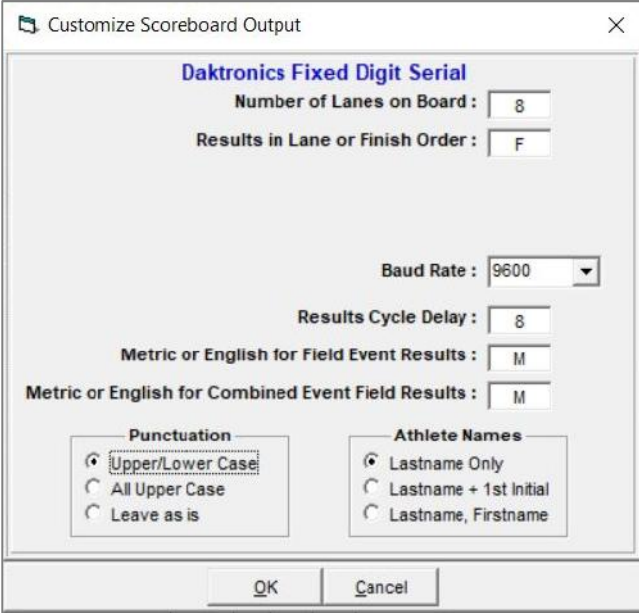
CC/RR Button Finish Timer (0-16) :

Track Button Finish Timer (0-16) :

FieldLynx (0-16) :

Enter 0 to close serial port

- 6 Click in the Serial Port for Scoreboard (0-16) 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 ResultTV computer.
- 7 Go To Interfaces | Scoreboard – Daktronics Fixed Digit | Customize. Enter the number of results per page to be shown in ResultTV, and specify Lane or Finish order. 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.



Customize Scoreboard Output

Daktronics Fixed Digit Serial

Number of Lanes on Board :

Results in Lane or Finish Order :

Baud Rate :

Results Cycle Delay :

Metric or English for Field Event Results :

Metric or English for Combined Event Field Results :

Punctuation

Upper/Lower Case

All Upper Case

Leave as is

Athlete Names

Lastname Only

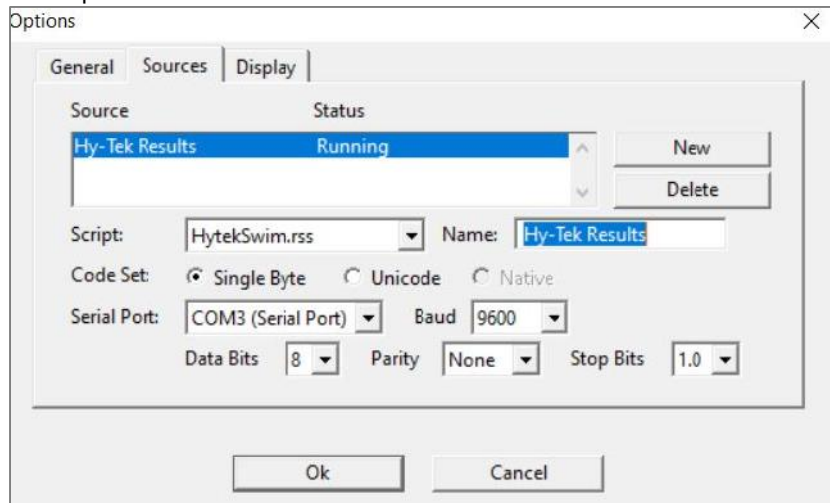
Lastname + 1st Initial

Lastname, Firstname

Hy-Tek Meet Manager for Swimming

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

- 1 Click File | Options from the Menu bar on the ResultTV 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.
 - Tab to the Serial Port: drop-down list and select the correct COM port from the drop-down list.



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

Configuring Meet Manager Swimming for use with ResultTV

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-tek.com/>) for more information.

➤ Pre-requisites

If you are sending data from Meet Manager to ResultTV over a serial connection (see "Using ResultTV 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.
- 8** 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.

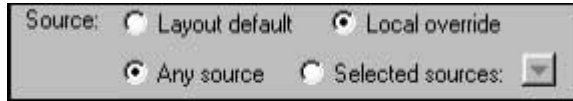
- If you want ResultV to get dynamic data from the source specified by the layout (File | Options dialog)
 - 1** Double-click on a text object. The Object Properties dialog appears.
 - 2** Click the Basic tab.
 - 3** Select the Layout default radio button and then click Ok.
- If you want to specify where 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

ResultTV 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	ResultTV Layout:	6 KB
 800x600.rtv	4/1/2004 10:23 AM	ResultTV Layout:	6 KB
 1024x768.rtv	4/1/2004 10:23 AM	ResultTV Layout:	6 KB
 1024x768flag.rtv	7/29/2002 10:41 AM	ResultTV Layout:	6 KB
 1024x768-flags.rtv	1/27/2015 5:11 PM	ResultTV Layout:	11 KB
 1024x768-no-flags.rtv	1/27/2015 5:10 PM	ResultTV Layout:	9 KB
 1024x768swim.rtv	10/11/2001 1:08 PM	ResultTV Layout:	7 KB
 1280x720-flags.rtv	1/27/2015 5:10 PM	ResultTV Layout:	11 KB
 1280x720-no-flags.rtv	1/27/2015 5:10 PM	ResultTV Layout:	9 KB
 1366x768-flags.rtv	1/27/2015 5:09 PM	ResultTV Layout:	11 KB
 1366x768-no-flags.rtv	1/27/2015 5:09 PM	ResultTV Layout:	9 KB
 Time.rtv	11/30/2007 3:33 PM	ResultTV Layout:	1 KB

- 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.

Animated 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 	11.07
6	Andy Grech	MLT 	11.16
7	Prince Bethykpangui	CAF 	11.18
DNS	Rasheed Dwyer	JAM 	

 **Running Time: 10.36**

Dynamic image layout

There is a layout available for use with ResultTV that allows you to dynamically display medals, country flags, and FinishLynx images on your ResultTV 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.

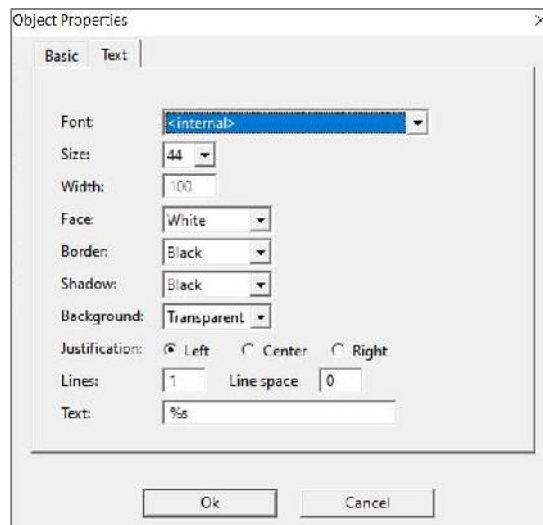


Working with text objects

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

Basic text object editing

- 1 Make sure you have a layout open on the ResultTV 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 ResultTV.

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

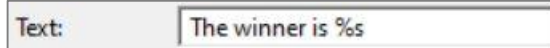
Note: You can cut, copy, or paste multiple objects. Select multiple objects by holding down the CTRL key and clicking on all the objects you want to select.

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"



The screenshot shows a dialog box with a label 'Text:' on the left and a text input field on the right. The text input field contains the string '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.

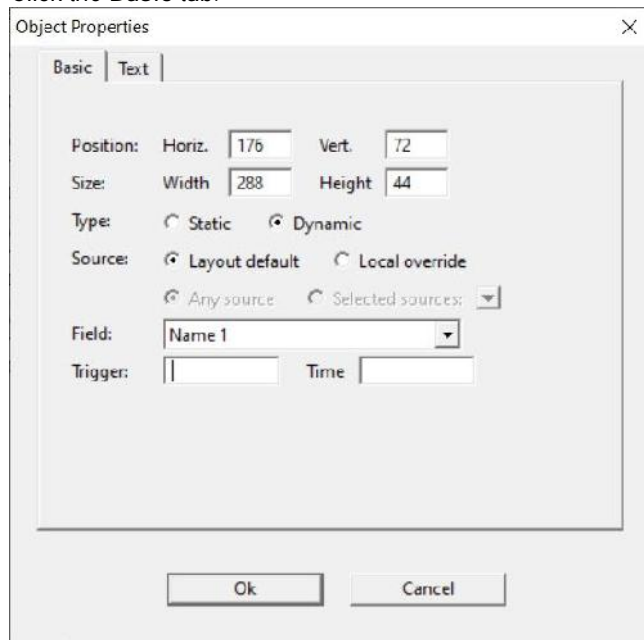
Changing the text position

You can change how text gets positioned on the ResultTV 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 ResultTV 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.

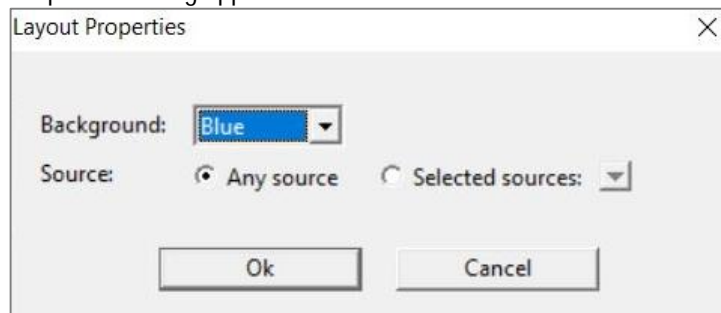
Changing the justification

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. Or 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.

Note: See "Shrink to fit" for text objects that may contain varying lengths of data such as names and affiliations.

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 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, or
- 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 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

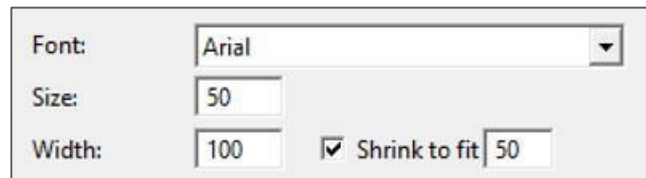
You can change the font size (based on points) of any text object. Our engineers have entered a size as large as 800 points!

- To change a text object's font size
 - 1 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.



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 ResultTV.

➤ Enable Unicode data exchange

In ResultTV...

- 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...

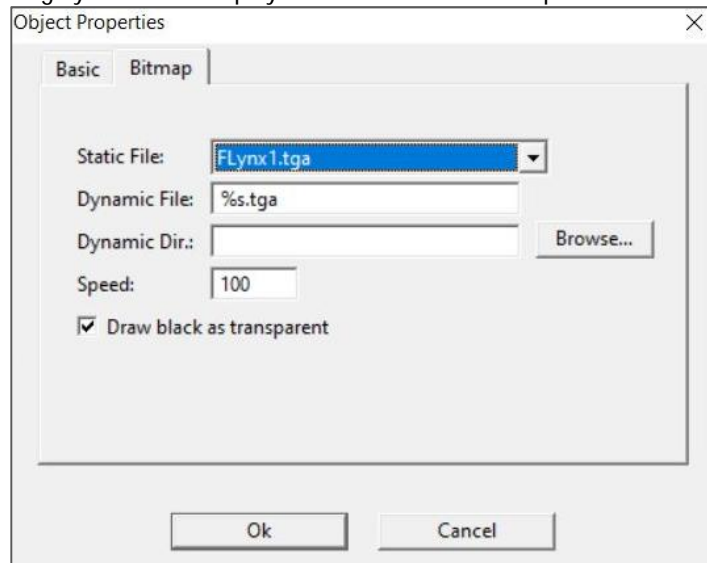
- 1 Run FinishLynx and select File | Options... from the Menu bar. The Options dialog appears.
- 2 Click the Scoreboard tab.
- 3 Select Unicode in the Code Set: line and then click Ok.

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 ResultTV 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 ResultTV 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.



- 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 ResultTV.

- Pre-requisites
 - 1 Share the C:\ResultTV directory (or wherever you installed the ResultTV files on the ResultTV computer) with the FinishLynx computer, being sure it has both read and write permissions.
 - 2 Make sure the FinishLynx and ResultTV computers are connected over a network (see "Using ResultTV over a network").

➤ **Configure ResultTV**

Now, follow these steps.

- 1** Be sure to be using the FinishLynx.rss source script.
- 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.

➤ **Configure FinishLynx**

Be sure to use the ResultTV.lss 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 ResultTV.
- 2** Click Export.... A Save As dialog appears. Navigate to the ResultTV directory that the ResultTV computer is using and click Save. Leave the name of the file as its default Event-Round-Heat format name from FinishLynx, for example, 001-1-01. ResultTV displays the FinishLynx image along with the event results.

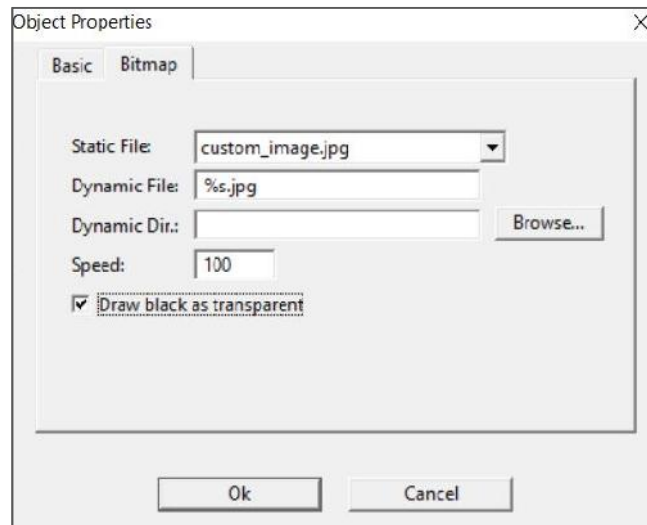
Note: By default, ResultTV will look for the image file in a Targa format (.tga). Your computer may save the image as a jpeg file (.jpg). If this is the case, go into the object's properties in ResultTV, and change the Dynamic File: from "%s.tga" to "%s.jpg".

Displaying a custom graphic

If you want ResultTV 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 ResultTV directory on the ResultTV computer. This is the same directory where you stored the ResultTV files during installation, for example, C:\ResultTV.
- 2** Run ResultTV and open a layout on the ResultTV 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 ResultTV 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 ResultTV 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 ResultTV it will show as an abbreviation, your object must be named that same abbreviation.
 - 2 Open a layout on the ResultTV 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. 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).
 - 5 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 #.
 - 6 Move the object by dragging and dropping it onto a desired location. When you press Alt + Tab to view the ResultTV 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, simultaneously hold down the Alt and C keys. Only dynamic objects (not static objects) are cleared using this keyboard shortcut.

Displaying an existing graphic

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

- 1** Open a layout on the ResultTV 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 ResultTV display, the TGA file you just selected appears.

Displaying GIFs

ResultTV 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 ResultTV, 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 ResultTV 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 ResultTV. In particular, a GIF overlapping text (especially long and/or large text) can cause some slowdown. Also, ResultTV 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 ResultTV will always use black for the background color. This allows ResultTV 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 ResultTV 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). The 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 | 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). The 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 | 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. 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 | 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.

CHAPTER 7

Sending Data to ResultTV

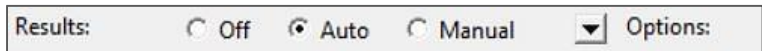
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Sending data from FinishLynx

Sending a start list and results from FinishLynx

You can configure FinishLynx to send a start list or results to ResultTV 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 ResultTV automatically
 - a) At the bottom of the dialog, there is a Results: section. Select the Auto radio button and then click Ok.

The screenshot shows a control panel with the label "Results:" on the left. To its right are three radio buttons: "Off", "Auto", and "Manual". The "Auto" radio button is selected, indicated by a small black dot inside the circle. To the right of these buttons is a dropdown arrow and the label "Options:".
 - b) Assuming you have already configured ResultTV and FinishLynx to exchange data serially or over the network, ResultTV will display the new start list as soon as you open it in FinishLynx.
 - To send a start list or results from FinishLynx to ResultTV manually
 - a) At the bottom of the dialog, there is a Results: section. Select the Manual radio button and then click Ok.

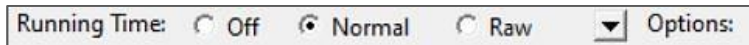
The screenshot shows the same control panel as above, but now the "Manual" radio button is selected, with a small black dot inside its circle. The "Auto" and "Off" buttons are unselected.
 - b) Open a start list or results in FinishLynx.
 - c) Assuming you have already configured ResultTV and FinishLynx 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 ResultTV.

Sending running time from FinishLynx

These steps assume you have already configured FinishLynx and ResultTV 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 ResultTV. When the timing circuitry in the camera starts, ResultTV 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 ResultTV 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.
- 5 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 ResultTV 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 ResultTV to exchange data, simultaneously press the Ctrl and F10 keys on the keyboard of the Meet Manager computer to send a start list to ResultTV. The start list, ordered by lane number, appears on the ResultTV display.

Sending results from Meet Manager for Track and Field for Windows

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

Meet Manager for Swimming

Sending a start list from Meet Manager for Swimming

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

Sending results from Meet Manager for Swimming

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

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

➤ Before you begin

You must use the ResultTV.lss scoreboard script in FinishLynx.

➤ Basic instructions

- 1 Start at the ResultTV 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
 - 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 ResultTV, 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, ResultTV 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 ResultTV, 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 ResultTV.
- 4** When the FinishLynx operator begins evaluating the FinishLynx image, the results appear in ResultTV.
- 5** If a scoreboard message is sent, the Message.rtv layout causes the message to be displayed in ResultTV.

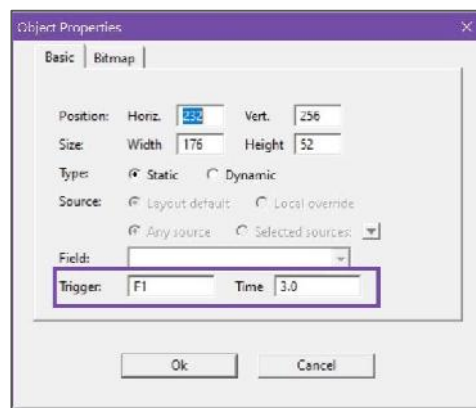
Manual and Automatic triggering of text and bitmap objects

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.



Examples:

- If you want to trigger an object using the F1 key, enter "F1" in the objects 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.

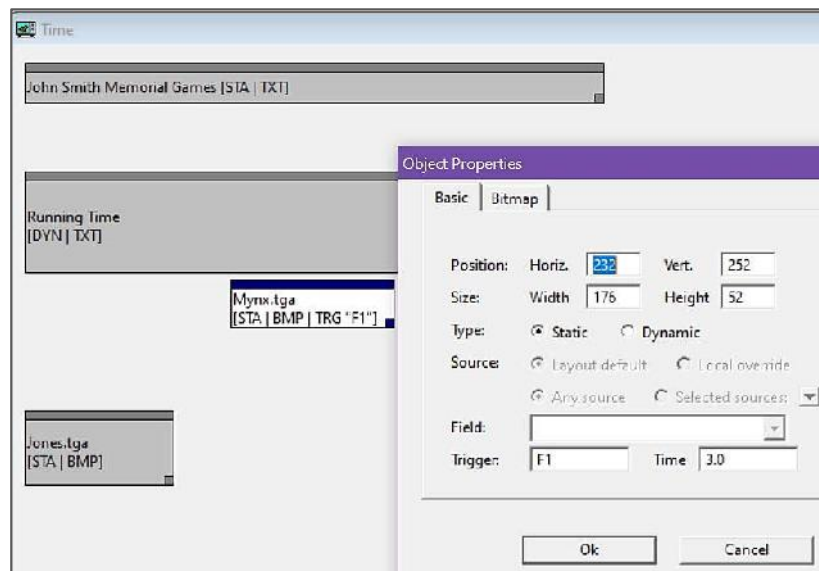
Note: Be careful not to choose a trigger that is also a menu accelerator, as the menu will capture the event and it will not make it to the display window to be used as a trigger.

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.
;
; The following line (if not commented) will tell ResultV to change layouts.
;\11\00Command=LayoutDraw;Name=Time;Clear=1;\0a
\11\01\01T\02%15.15s\03\04
; The following line will trigger event F1.
; Note that the event is triggered after the data is sent. This is important
; if the triggered field will use the TimeStopped data.
\11\00Command=Trigger;Name=F1;Action=On;\0a
```

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



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

Sending data to television

➤ Pre-requisites

To send ResultTV data to television, you need to connect the ResultTV 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 ResultTV 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 ResultTV output on the computer monitor as well as on the television monitor.

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

Displaying ResultTV on multiple monitors

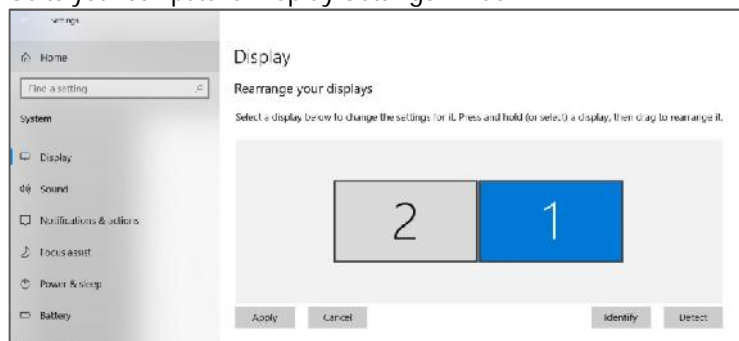
The ResultTV display can be sent through the computer's VGA or HDMI port to an external monitor, projector, or scan converter. This means you can view the ResultTV configuration screen on the computer while viewing the ResultTV display on an external monitor.

You can also run FinishLynx on the ResultTV computer while sending the ResultTV 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 an external monitor, projector, or scan converter to the VGA port (15-pin female port) or HDMI port on the ResultTV computer.
- 2 Go to your computer's Display Settings window.



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



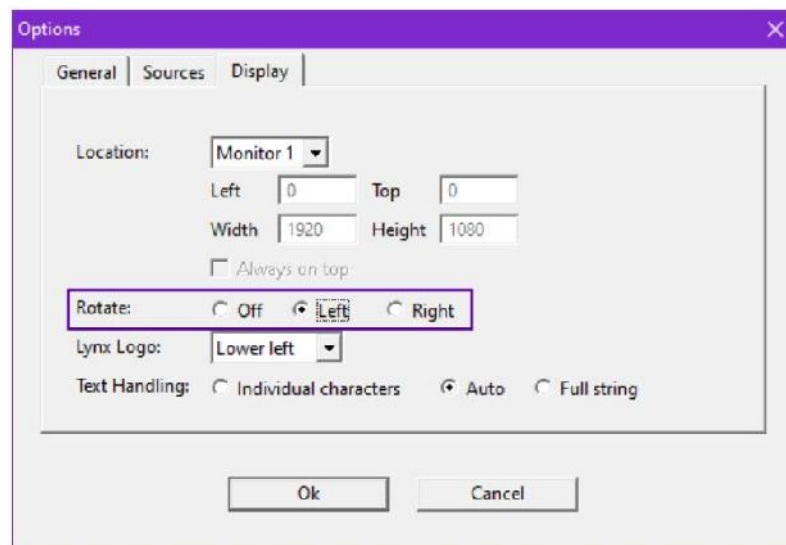
- Configure ResultTV:
 - 1 Start ResultTV.
 - 2 Click File | Options...
 - 3 Click the Display tab.
 - 4 Select Monitor 2.
 - 5 Click OK.

The ResultTV display screen now appears on the second monitor.

Displaying ResultTV on a Rotated Display

The ResultTV layout can be rotated clockwise or counter-clockwise when it is sent to a display. This is required to be used with the Portable 84x168-Pixel LED Video Finish Line Display, and may be used with any display that has been rotated 90 degrees.

- To rotate layouts:
 - 1 Go to File | Options | Display
 - 2 Select Rotate: (either Off (no rotation), Left (counter-clockwise), or Right (clockwise))



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Glossary of Terms

D

data source

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

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 ResultTV layout screen.

H

hardware dongle

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

L

layout file

Visible from the configuration screen (see "ResultTV configuration screen"), is a template on which you can design your ResultTV 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 ResultTV Source Script.

RTV file

A layout file with the file extension, RTV. Several layout files are included with ResultTV 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.

T

text object

An editable block of text on the ResultTV 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.