NOTE: This reference is intended as a guide to help configure Venus 1500 controlled signs to interface with Hy-Tek's MEET MANAGER for track and FinishLynx photo finish system. A software key is required to use Venus 1500 Real Time. See ED-14511 for Hy-Tek and FinishLynx settings and configurations.

**Venus 1500 Real Time with Hy-Tek**

**STEP 1:** Connect a 9pin female to 9pin female null modem cable from the Hy-Tek computer to the Venus 1500 computer.

**STEP 2:** Create an input for V1500 Real Time; to do this open V1500 Real Time by clicking the **V1500 Real Time** button on the V1500 shell shown in Figure 1. Right click on **Input 2** on the screen shown in Figure 2, and select **New**. Select **Configure** from the box shown in Figure 3. In configuration select **Serial Com Port**, name it Hy-Tek, and press **OK**. Select the **Com Port** number that the 9pin cable is plugged into on the V1500 machine, as the port number. Baud Rate: 19200, Data Bits: 8, Parity: None. An example is shown in Figure 4. Press ITF on the screen in Figure 3. Click on the **Down Arrow** in the upper right corner of the screen and select **Browse** look in: C:\Program Files\Daktronics\Common\Input Templates\ and select the Hy-Tek Full & Small Matrix.itf shown in Figure 5. If this file does not show up on the list, it will need to be copied into the directory. When complete the screen should look like Figure 5. Press **Ok** to continue. Press **Select Displays** on the screen in Figure 3. Select the display that the Hy-Tek data will be going to and press the **Arrow** to move it into the column labeled **Authorized for RTD Input**, shown in Figure 6, then press **Close**.

**STEP 3:** Test communication by sending data from Hy-Tek and watch the green circle next to the input name shown in Figure 2. If it blinks on and off, V1500 Real Time is receiving information from Hy-Tek.
Venus 1500 Controlled Display with FinishLynx via Ethernet

**STEP 1:** Add the V1500 computer to the network already consisting of the FinishLynx Computer, EtherLynx camera and Galaxy display. All components must be in the same subnet/IP Range, and Subnet mask (255.255.255.0). The recommended addressing scheme is shown is Figure 7.

<table>
<thead>
<tr>
<th>Component</th>
<th>IP Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finish Lynx Capture Computer 1</td>
<td>192.168.0.5</td>
</tr>
<tr>
<td>Finish Lynx Capture Computer 2</td>
<td>192.168.0.15</td>
</tr>
<tr>
<td>Finish Lynx Edit Computer</td>
<td>192.168.0.25</td>
</tr>
<tr>
<td>Venus 1500 Computer</td>
<td>192.168.0.50</td>
</tr>
<tr>
<td>Track Scoreboards</td>
<td>192.168.0.51 – 192.168.0.54</td>
</tr>
<tr>
<td>Field Scoreboards</td>
<td>192.168.0.55 – 192.168.0.64</td>
</tr>
<tr>
<td>Hy-Tek Computers</td>
<td>192.168.0.90 – 192.168.0.94</td>
</tr>
</tbody>
</table>

**STEP 2:** Using the **M2Config** program connect to the sign and change the IP address within the range shown in Figure 8. This setting is located under the communications folder and TCP/IP, which is shown in Figure 8.

**STEP 3:** While connected to the sign, verify that **Port 1-3** are set up as follows:

**Port 1**
- **Type:** Direct
- **Baud Rate:** (19,200 for Galaxy Displays) (115,200 for Galaxy Pro Displays)
- **Number:** 1
- **Protocol:** Venus 1500

**Port 2**
- **Type:** TCP/IP
- **Number:** 3001
- **Protocol:** Venus 1500
Creating a FinishLynx Sequence

**STEP 1:** From the V1500 shell, open the **V1500 Message Studio.** Select **FileÆNew** and pick the sign to create the desired sequence.

**STEP 2:** Now in the V1500 Message Studio, select **FrameÆAddÆGraphic.** This will add a graphic frame to the sequence. Graphic frames are preferred for RTD because it allows positioning of the RTD boxes exactly where the user desires. On the right there should be a story board with 2 frames, (frame 2 is the one that was just added). Pick **Frame 1,** right click and pick **Delete Frame(s)** to remove the unwanted frame.

**STEP 3:** Next change the **Frame Duration** from 2.0 seconds to 1 hour. This is done to keep the one-tenth of a second running time smooth.

**STEP 4:** Now it is important to select the font to be used. It is changeable once the field has been added by selecting the text and picking a new font.

**STEP 5:** Add the RTD fields to the frame. In the V1500 Message Studio, pick the icon on the tool bar that says **RTD** shown in Figure 10. Left click once on the icon then move the mouse over the frame and pick where it will go. The RTD box is moveable after it is created. Now the screen in Figure 11 will come up. Left click on the drop down arrow and pick **Custom ITF.** To the right of the drop down arrow left click once on the “...” (browse). From C:\ProgramFiles\Daktronics\Common\InputTempletes\ select **FinishLynx.itf.** This is the “list” of data available from FinishLynx.

**STEP 6:** Once the list is up use the scroll bar on the right to see the entire list. From the list select the line with the information that is desired and add it into the current RTD box. For example, box 1 might be the event title, so pick **Field #4.** Notice that the parameters at the bottom of Figure 12 have changed. Justify should be set to **None.** Change the **Length** to fit the sign. Since Event Title is a word, do not change the **Item Number.** It needs to start displaying from the beginning of the field. If this were a number field like running time then it should display MN:SC.TH and not the whole field of HR-MM:SC.THT. To do this, change the **Length** from 12 to 8 and change the **Item Number** from 1 to 4. This will filter out the first 3 characters which were HR: and the last one-thousandths of a second digit. Another example would be Line 1 Place. Notice that it will show numbers up to 999. To show a place up to 99 change the **Length** to 2 and increase the **Item Number** by 1. This will “filter” out the hundreds digit.

**STEP 7:** Finish positioning the field and repeat steps 4 though 6 for each field to be displayed. A sample sequence for 48 x 144 is shown in Figure 12.

**STEP 8:** Remember to save and name the sequence.

**NOTE:** To remove the beginning of an item (i.e. the hours digits on time), increment the “item number” and decrement the “length”.
Creating a Hy-Tek Sequence

Complete steps 1-4 from creating a FinishLynx Sequence on page 3 then follow steps 5 and 6.

**STEP 5:** Add the RTD fields to the frame. On the V1500 Message Studio, pick the icon on the tool bar that says RTD shown in Figure 13. Left click once on the icon then move the mouse over the frame and pick where it will go. The RTD box is moveable after it is created. Now the screen in Figure 14 will come up. Left click on the drop down arrow and pick **Input 2.** This should automatically select the Hy-Tek Full and Small Matrix.ITF that was configured in Venus 1500 Real Time.

**STEP 6:** Determine how many lines of information will be displayed. From the item list choose Line 1 for line 1 on the display, 2 for 2, etc. A sample sequence for a 48 x 144 is shown in Figure 14.
Track Setup Guide – Alternate Connection Methods

**STEP 1:** Hy-tek or Finishlynx can also be set up by sending RTD directly to the M2/M3 controller in the display. For this setup connect a 9 pin male to 9 pin female cable from the Com Port on the Hy-Tek/Finishlynx computer to the 9 pin jack, J1, on a Daktronics signal converter. (If no Com Ports are available, try to use USB to Serial converters). The output on TB1 pins 1 and 2 will run to pins 2 and 6 of TB1 (CL +/_) on the M2/M3. Verify that the jumpers in the signal converter are set 12 to N, 13 to P.

**STEP 2:** Using the M2Config program connect to the sign and create a port with the following settings:
- Type: Direct
- Number: 2
- Protocol: Daktronics RTD
- Baud Rate: 19200
An example is shown in Figure 15

![Figure 15: M2Config – Port Settings](image-url)