ADVANCED CONTROL SYSTEMS

FUNCTIONALITY DEEP-DIVE SERIES

Issue Two: Associated Routing

INTRODUCTION

Every customer has their own workflows and challenges to address; users should be able to leverage the full capabilities of their systems. In this series of How-To Guides, we will help engineers understand how to configure systems with added-value functionality to help solve issues in existing and future projects. Customers will be able to use a control platform as a simple unified system to deliver professional output and make simple day-to-day modifications without the need for expensive support calls.

This How-To Guide showcases TSL's association routing capabilities.

BEFORE YOU START

This document assumes you have set up router control, as described in Step 1 of TSL Control Systems: Functionality Deep Dive: #1 Router Control.

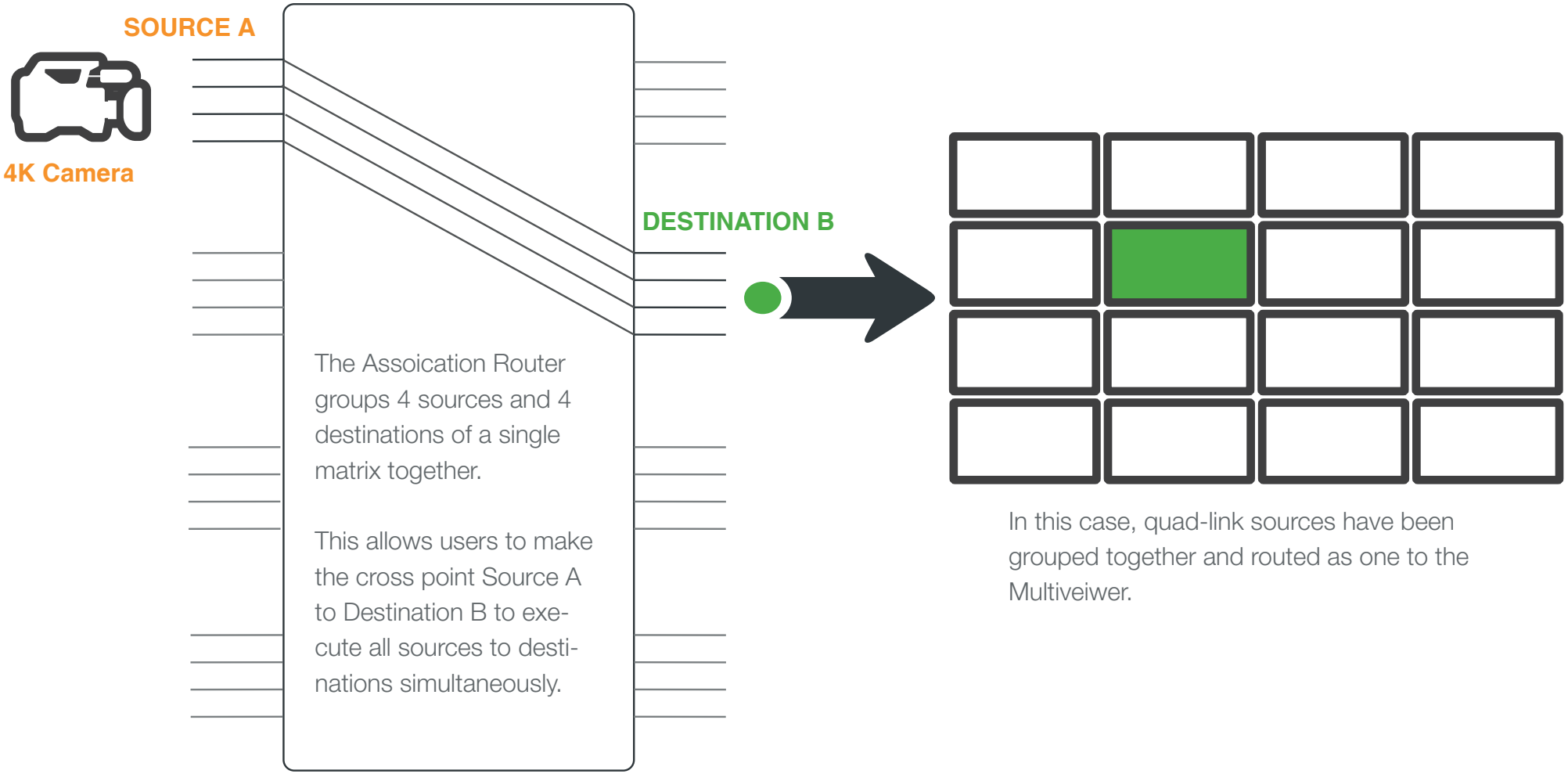
SCENARIO

Instead of the traditional requirement to route one video signal to one destination, ever-increasing video quality and resolution mean one destination is no longer enough. Broadcasters now need more bandwidth. For example, you might need to group 4x 3G data inputs to make a 4k source.

This guide provides in-depth instructions on how to use association routing to tie multiple sources and destinations together, to move more data around.

In this example, we will:

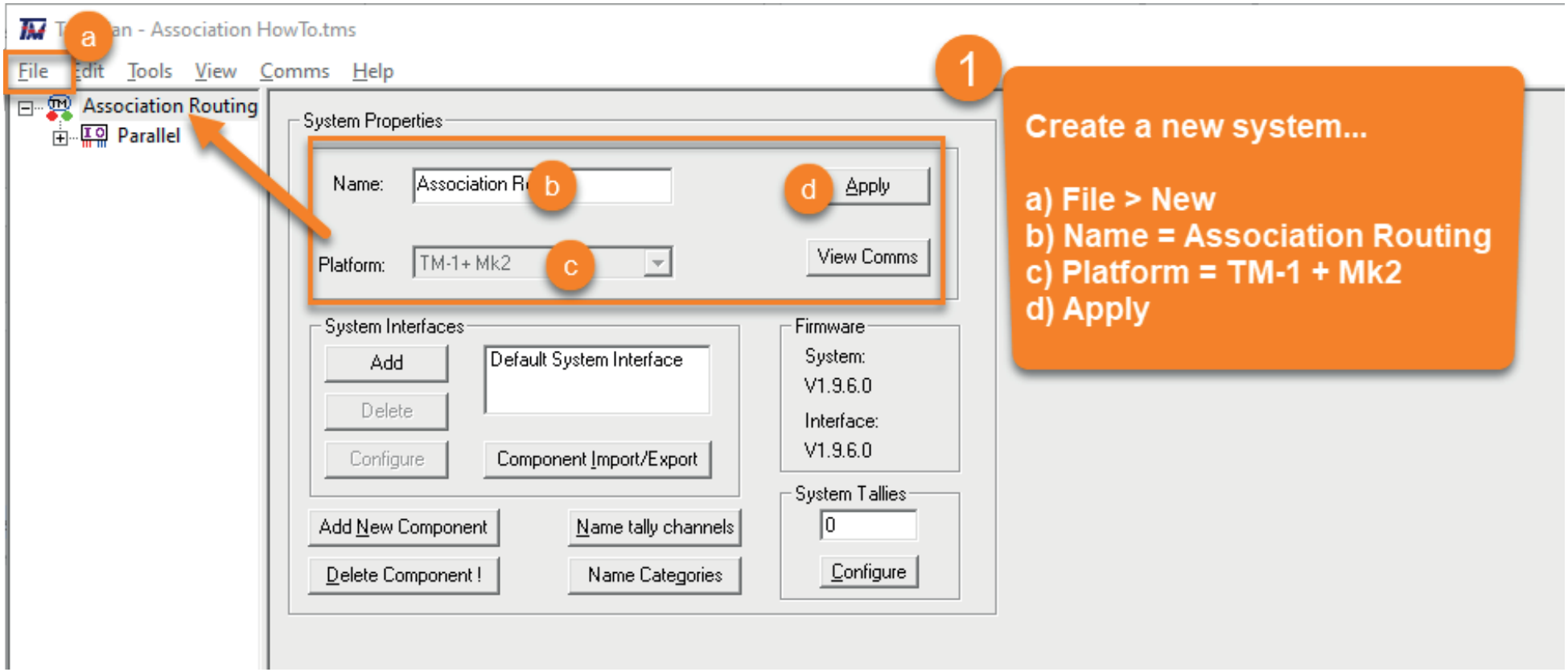
- Set up a router with a couple of 4k inputs and outputs
- Show how to route between blocks of quad inputs and outputs, by condensing 4 'levels' in an Association Router into 1 destination
- Use a TM shortcut to paste multiple Router Source/Destination names copied from a spreadsheet



In this case, quad-link sources have been grouped together and routed as one to the Multiveiwer.

1. SET UP THE CONFIGURATION

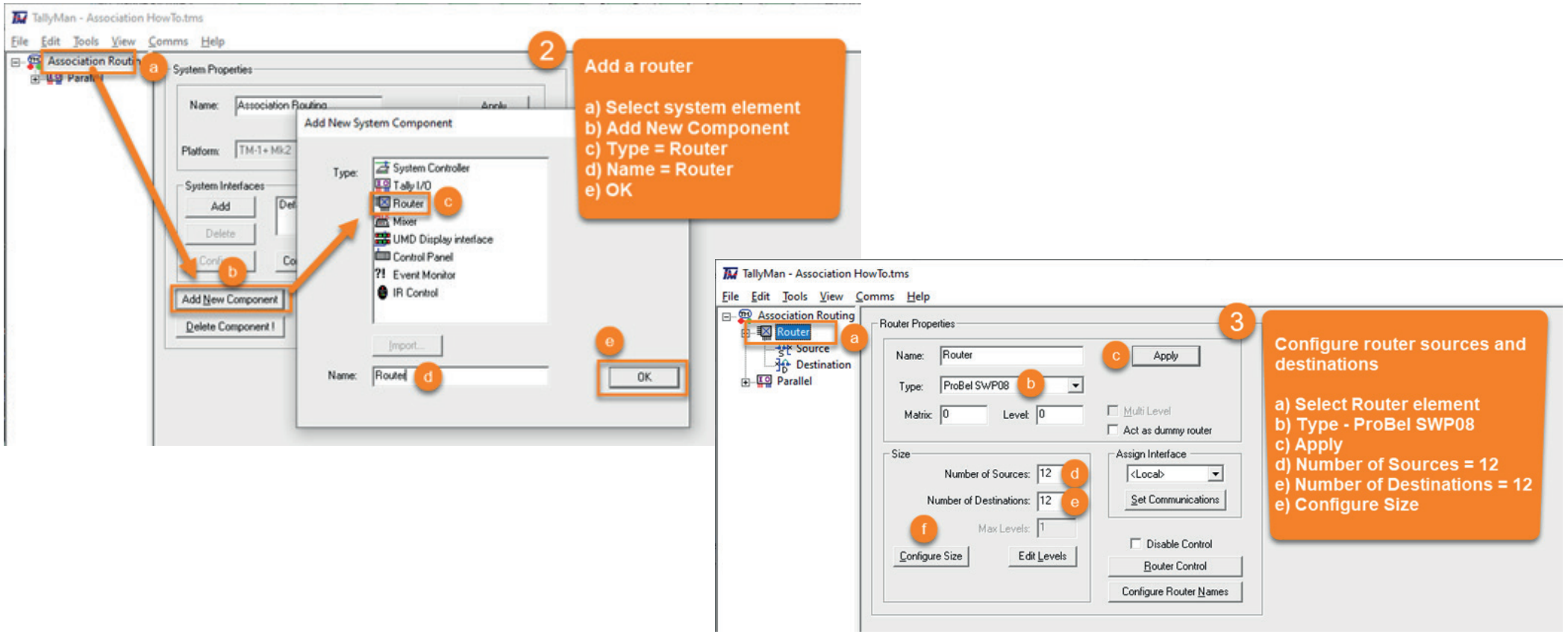
For this example we are creating a new project however these same steps can be used to add this functionality to an existing configuration.



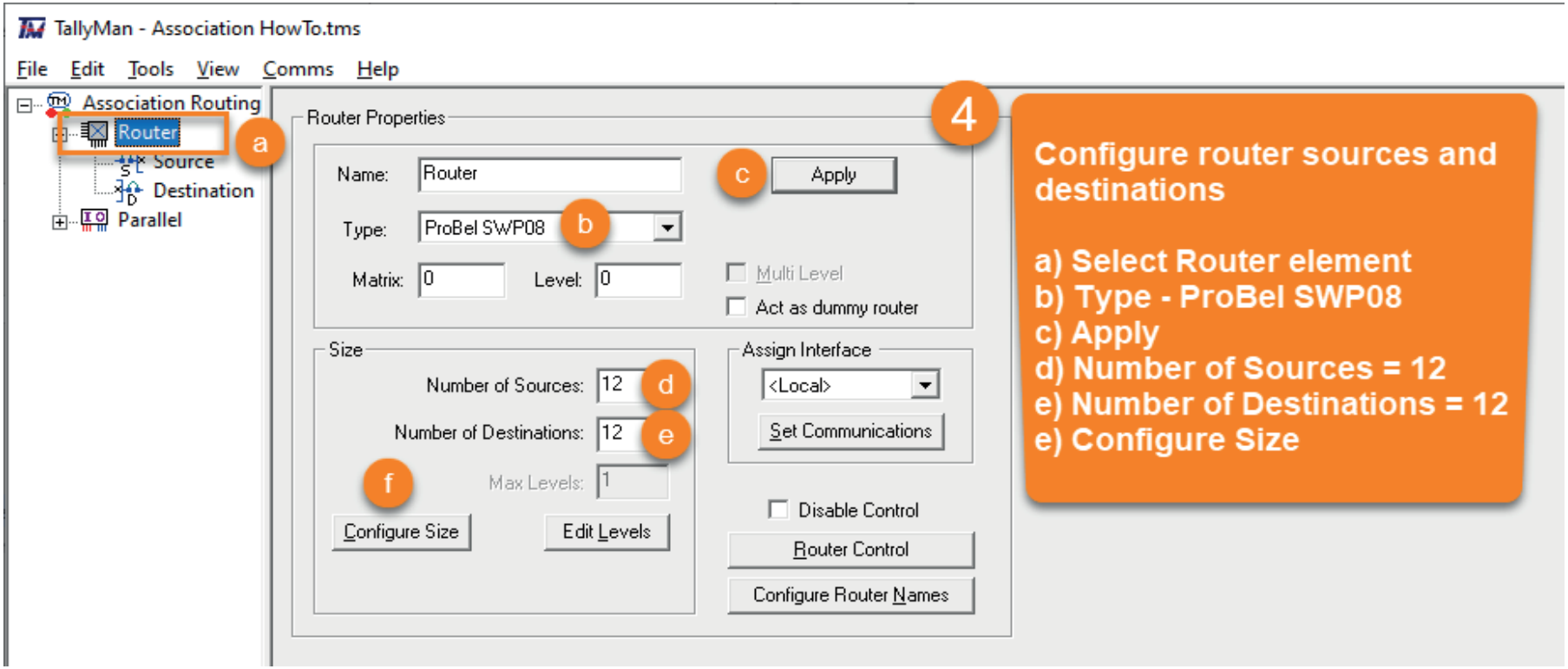
2. ADD & SET UP ROUTER

Setup the router

For this example, we are going to use a router that uses ProBel's SWP-08 router protocol. You can use a different protocol as required by your router. Please refer to the router's manufacturer to understand which protocols are supported by your router.

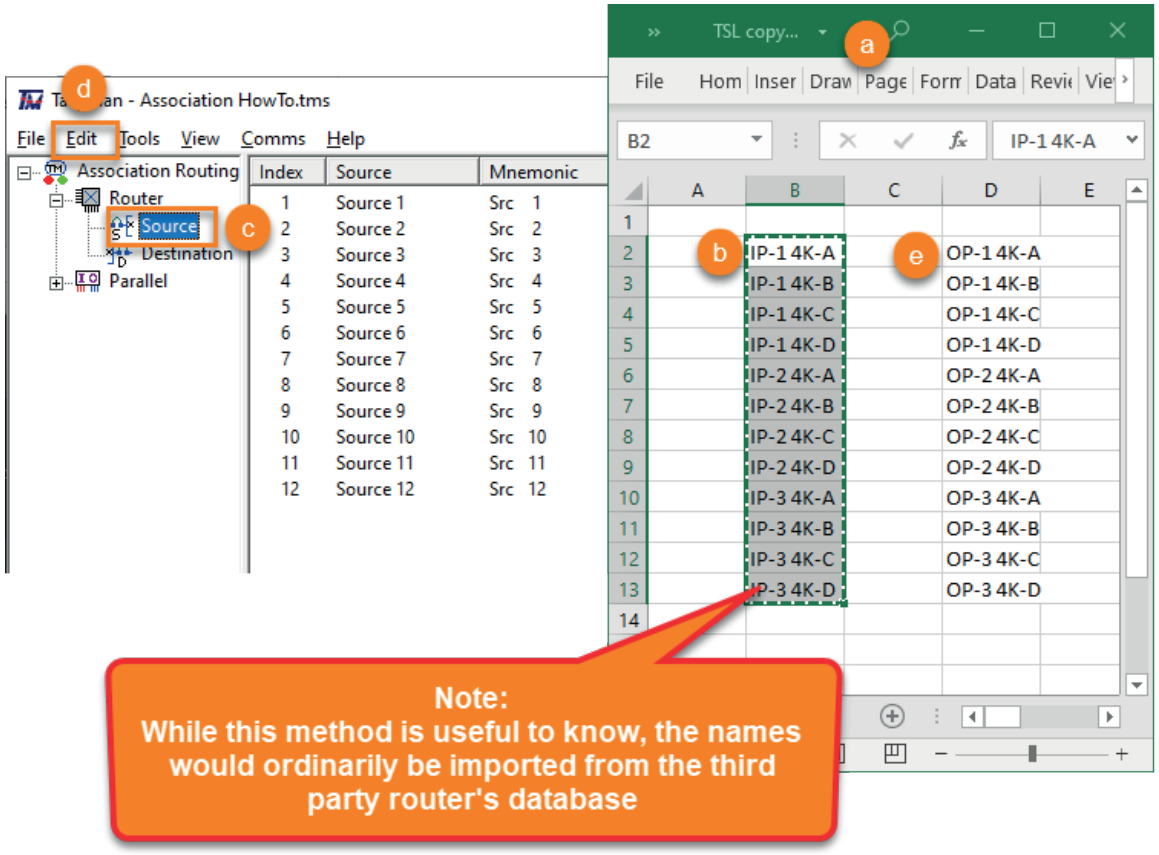


2. ADD & SET UP ROUTER



3. NAME THE ROUTER SOURCES & DESTINATIONS

In this example we are using Microsoft Excel to speed up naming the router sources and destinations.



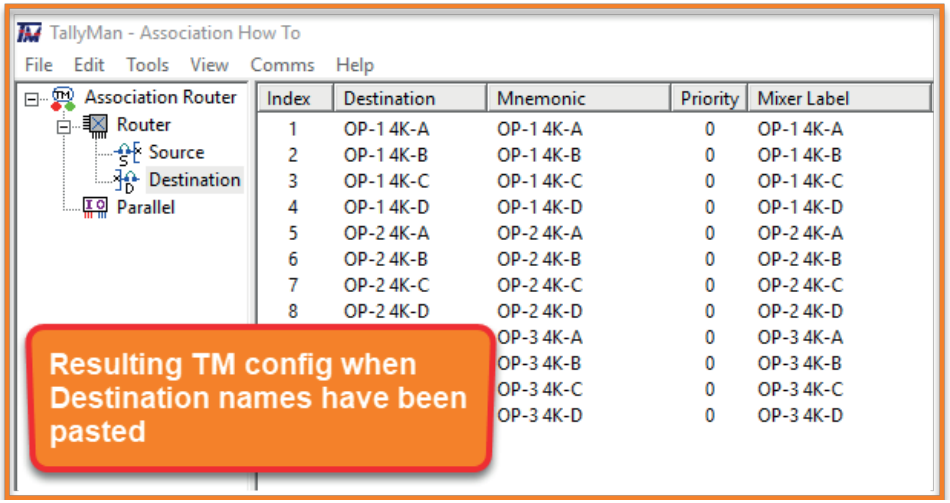
Note:
While this method is useful to know, the names would ordinarily be imported from the third party router's database

5

Name router sources & destinations

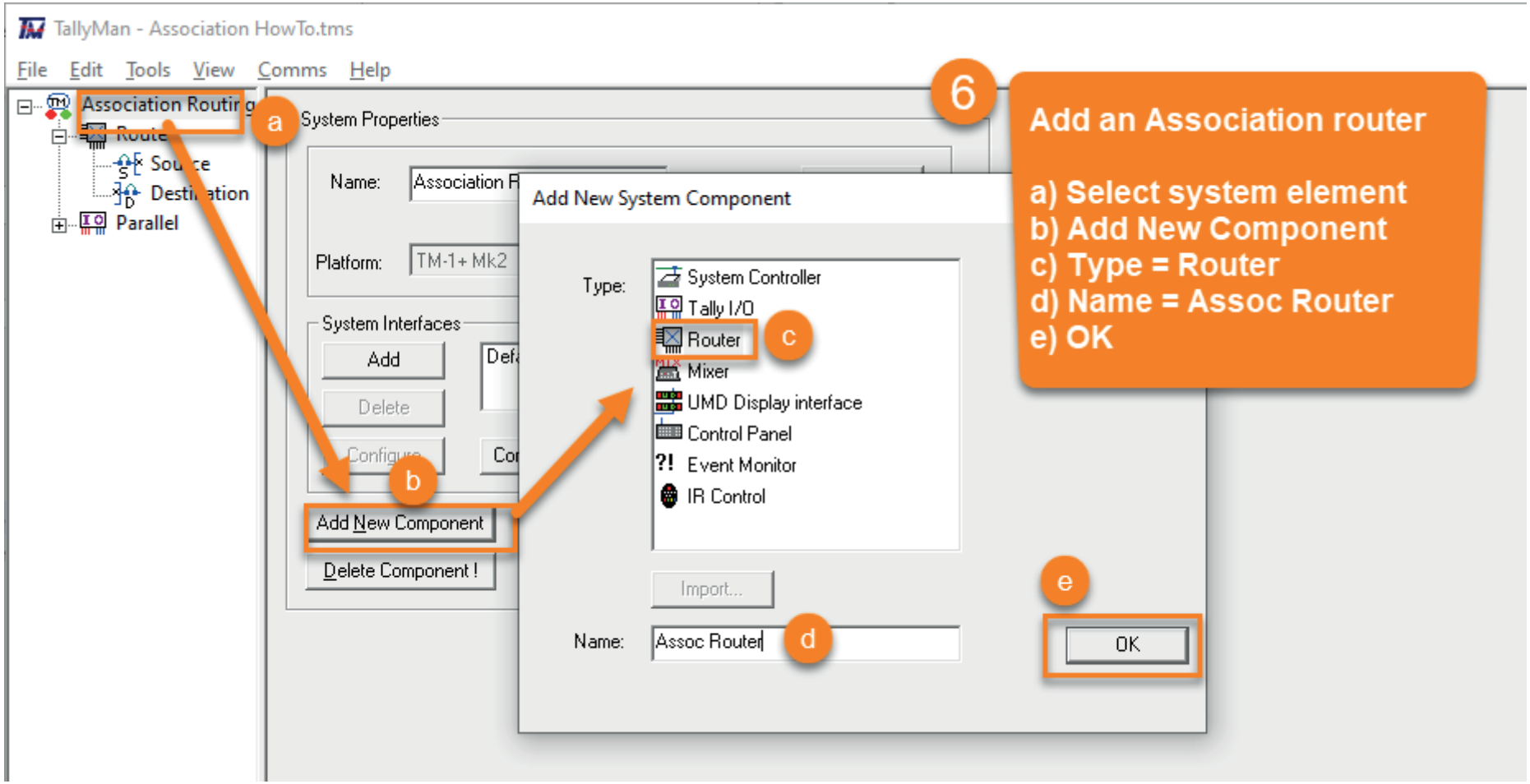
a) In Excel, create spreadsheet with source and destination names
b) Copy I/P names from spreadsheet
c) Select Router Source element
d) Edit > Paste Names
e) Edit > Paste Mnemonics

f) Repeat b, c, d & e for Destination O/P names

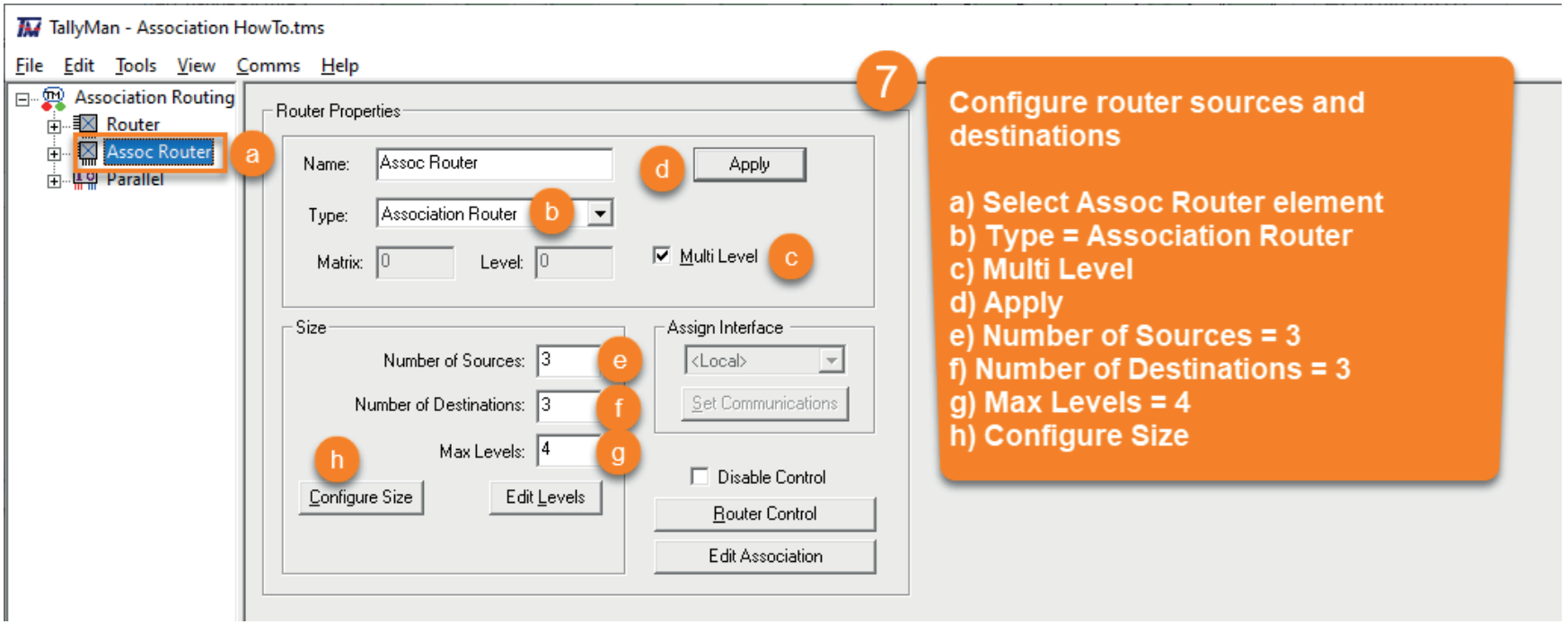


Resulting TM config when Destination names have been pasted

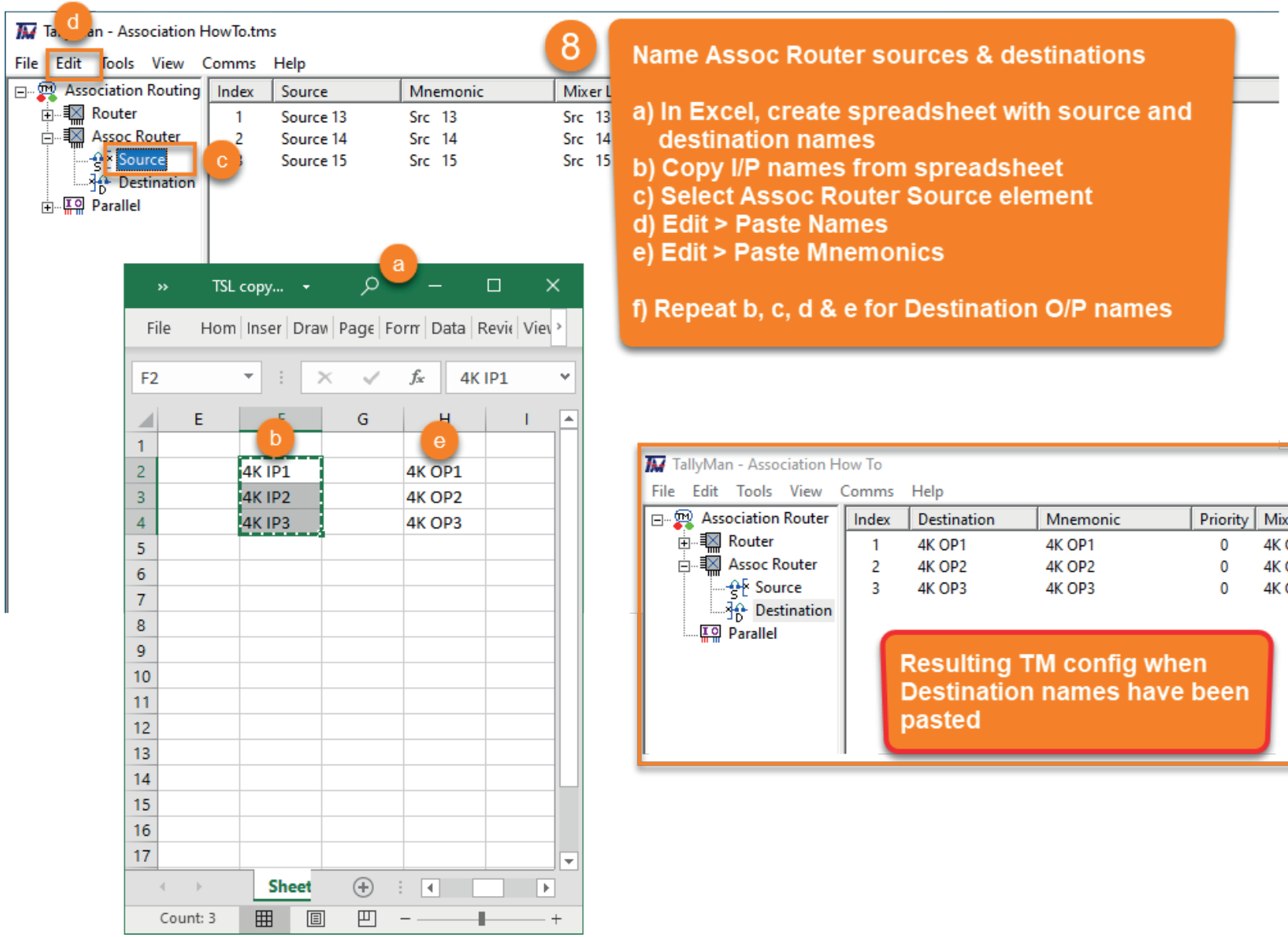
4. CREATE THE ASSOCIATION ROUTER



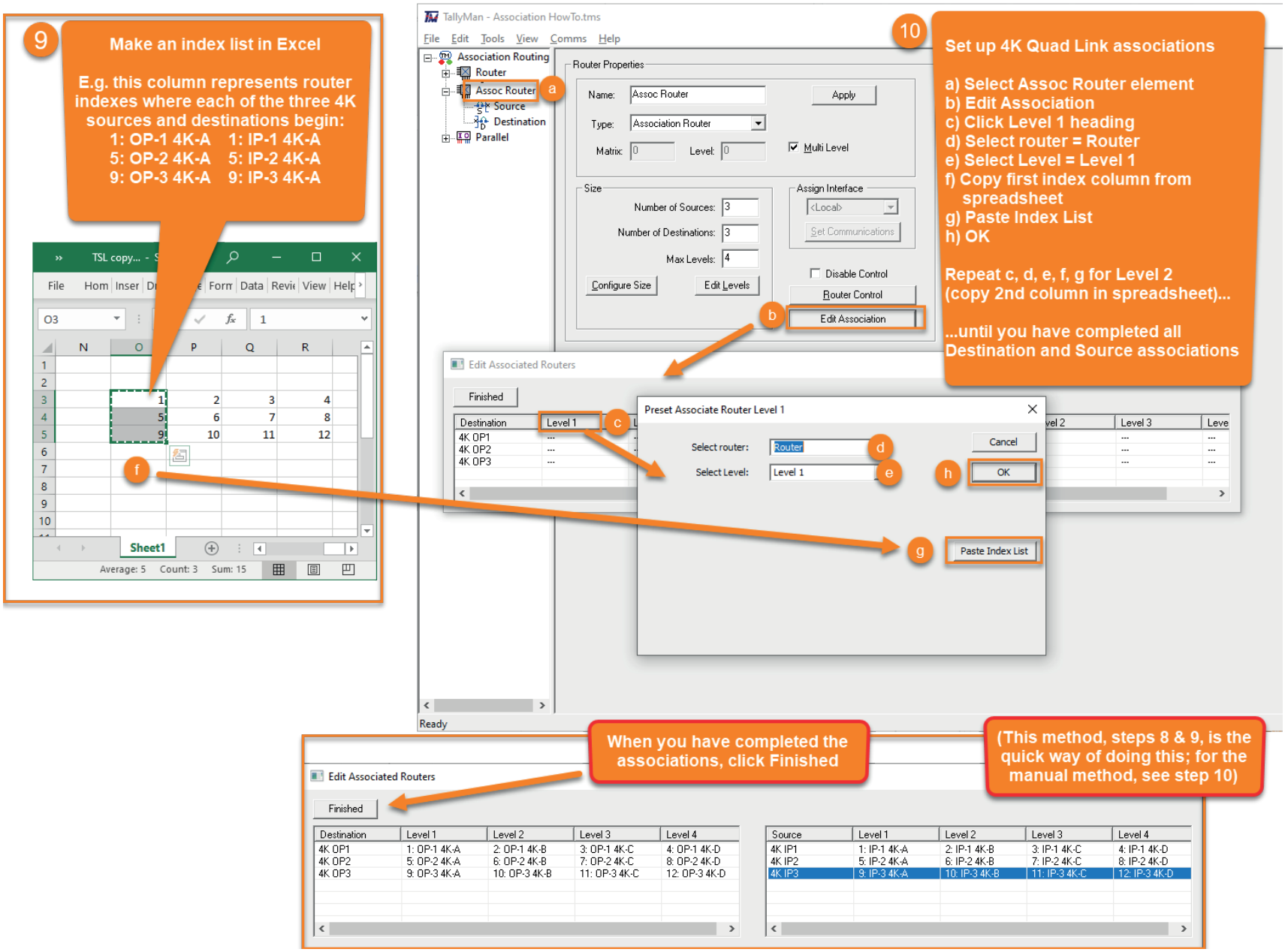
4. CREATE THE ASSOCIATION ROUTER



5. ASSOCIATIONS FOR QUAD-LINK SOURCES



5. ASSOCIATIONS FOR QUAD-LINK SOURCES



5. ASSOCIATIONS FOR QUAD-LINK SOURCES

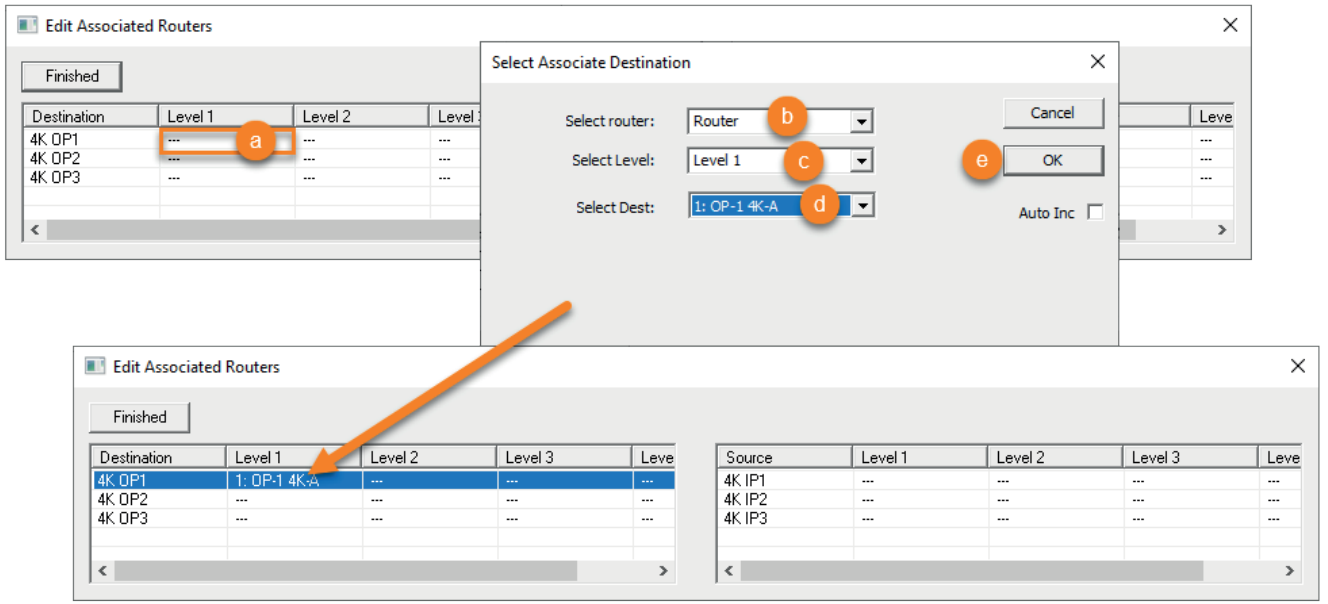
11

Manual method to set up 4K Quad Link associations (INSTEAD of 8 & 9):

Same initial steps as 9, but no spreadsheet...

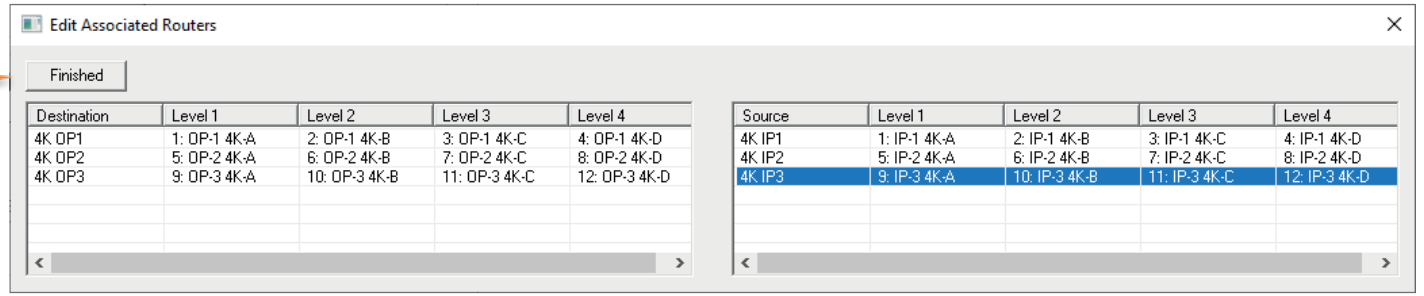
a) Double-click 4K OP1 cell, Level 1 (NOT heading)
b) Select router = Router
c) Select Level = Level 1
d) Select Dest = 1: OP-1 4K-A
e) OK

...



...Repeat for every Destination and Source cell until you have filled in the entire table

Click Finished



Write the configuration and connect

This procedure is described in Functional Deedive #1: Router Control, so follow the steps there if you need detailed instructions. Briefly, the steps are:

1. Choose Comms > Write Configuration.
2. Choose Comms > Connect to System and connect to the Default System Interface.

USING THE ASSOCIATION ROUTER

To use the association router, set up a router control panel.

An Association Router is controlled in the same way as any router in TallyMan, by either hardware panel, virtual panel or via an event.

As a quick reference

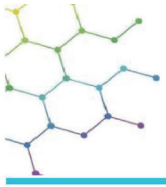
To use TMVP, in Tallyman:

1. Choose Comms > Disconnect from System.
2. Add a TMVP interface on a new port.
3. Choose Comms > Write Configuration and Restart when prompted.

To create a Router Control panel in TMVP:

1. Create a New Project and Import the Tallyman tms file.
2. Connect TMVP to Tallyman.
3. Create/edit a panel and add sources and destinations.
4. Use the Assign tab to find the router and assign the sources and destinations to the buttons.
5. Click the Play button use the router panel in kiosk mode.

Take a look at the detailed instructions are in Functional DeepDive #1: Routing Control



Advanced Broadcast
Control Systems

TSL Products

FUNCTIONAL DEEP-DIVE SERIES
Issue One: Router Control

Access Issue #1 and additional video guides at:
tslproducts.com/tech-insight-hub/functional-deep-dives

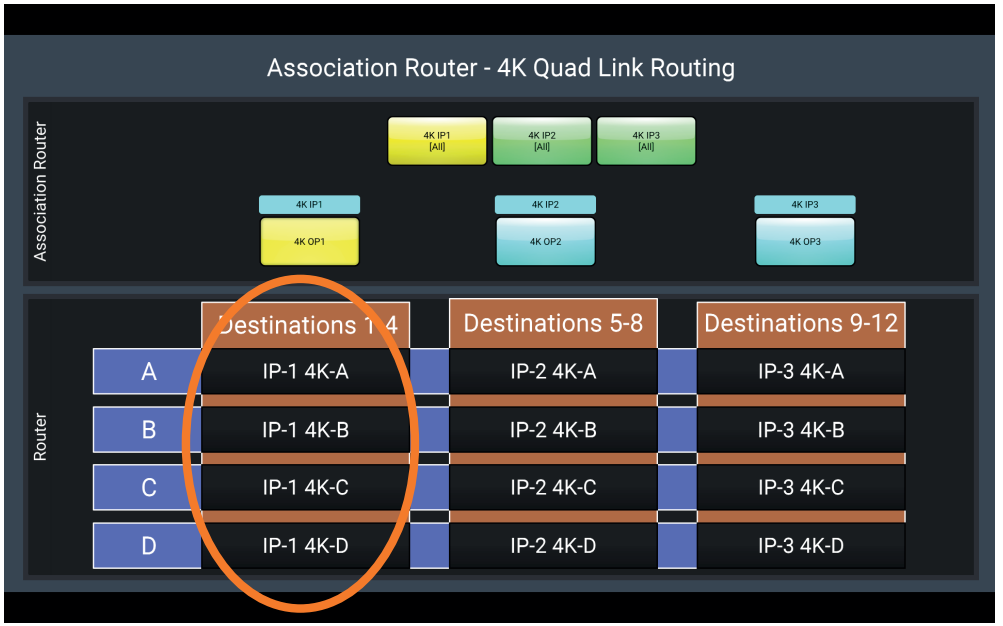
USING THE ASSOCIATION ROUTER

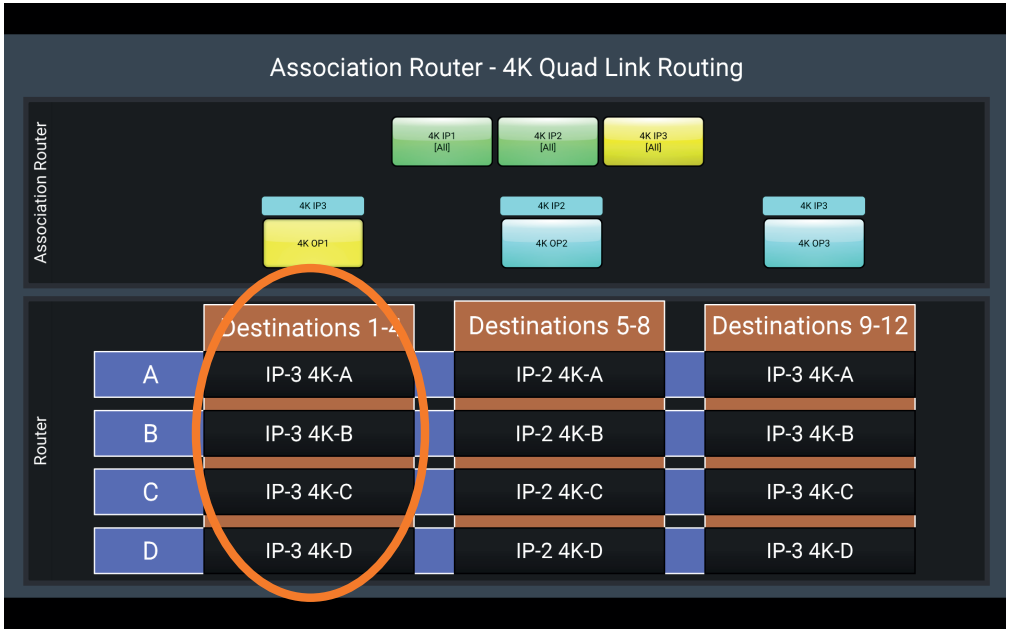
To illustrate the association router at work

Once your control panel is setup you can start to route the association router like any router. When you make a cross-point, the associated cross-points will also be made.

To see this in action in TMVP:

1. Add four UMD objects to your router control panel.
2. Assign the first four destinations of the router associated with the association router.
3. Click the Play button use the router panel in kiosk mode.
4. When you route the association router sources to the first destination, the four UMDs will show which sources have been routed to those destinations by the association router.





Contact our international team

TSL Products operates globally

For further details about our product range and where to buy please visit:

www.tslproducts.com

TSL Sales: +44 (0)1628 564 610

E-mail: enquiries@tslproducts.com

TSL Products

UNITS 1&2, FIRST AVENUE, GLOBE PARK, MARLOW, SL7 1YA, UNITED KINGDOM