

Build a show in netmap

From an empty install to an exported drawing set: one small venue rig, entered once. Every screen in this guide is the real app, and the show it builds is the same one on every page.

BEFORE YOU START

- netmap installed and running — it opens in your browser, and your shows live on your machine, one `.json` file each.
- Nothing plugged in. This is the paperwork half: the rig gets built on paper first, patched second.
- A rough idea of your rig — what is in each rack, and which networks you carry. Ours is a small venue rig: two racks, two switches, a console, six nodes.
- No spreadsheet skills. You type into the app; the spreadsheet is what comes *out*.

INSIDE

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4. Add the gear
5. Put it in racks
6. Map the switch ports
7. Address everything
8. Let validation catch it
9. Export the package
10. When it does not work

FOR BEGINNERS

Your first show file.
Every screen pictured.
About fifteen minutes.

Read this first

netmap holds one set of data — your devices, VLANs, ports and racks — and prints every sheet in a show package from it: the cable schedule, device and rack build lists, switch port maps, the IP schedule, node universes, and to-scale rack elevations. **You enter each fact once.** Rename a device and every cable, port row, schedule and drawing that references it updates, exports included.

The app is organised into four phases, left to right down the sidebar — **Plan, Build, Patch, Ship** — and its own Guide tab keeps a live checklist of where your show stands. This guide follows the same road. You can work in any order you like; everything stays in sync either way.

GUIDE

How netmap works

One set of data in, a complete show package out: cable schedule, device and rack build lists, VLAN port maps, IP schedule, node universes and to-scale rack elevations. Work left to right through the four phases, or jump anywhere. Everything stays in sync.

This show, right now 7 / 8 live from the current show. Click a step to jump to it.

- Titleblock filled
- VLAN legend colored
- Devices added
- Gear placed in racks
- Switch ports mapped
- Cables scheduled
- Validation clean
- Package exported

PHASE 01

Plan

Project · VLANs

Name the show and set the VLAN legend. Colors travel from here to every screen and export.

PHASE 02

Build

Devices · Library · I/O Panels · Nodes

Add the gear, build connector panels, assign node universes.

PHASE 03

Patch

Ports & Grid · IP Schedule · Cables · Looms · Trunks · Topology

Assign switch ports and VLANs, address everything, build the cable and trunk schedules.

PHASE 04

Ship

Racks · Kit · Summaries · Firmware · Validation · Paperwork · Labels · Publish

Draw the racks, roll up the order, clear warnings, export the package.

ANYTIME

Tools

MA Calc · IP / Subnet · MVR / Patch · Shows · License · Settings

Analysis and utilities that ride alongside the four phases.

Enter once, stays in sync

Every cable, port, schedule and rack drawing references the same devices. Edit a device anywhere and it updates everywhere, exports included.

The VLAN legend is the source of truth

Colors and names flow from the VLANs tab to every cell, grid, panel ring and printed sheet. Rename or renumber freely, references follow.

Validation is live

The error / warning pill in the top bar counts issues as you type. Click it, or any row on the Validation tab, to jump straight to the problem.

The package is the point

A styled Excel workbook and a print-ready 11x17 drawing set. Pick sheets with presets, stamp a watermark, and export from Paperwork.

New here? Three minute start: [Load the full demo](#) and click through the tabs to see how the pieces connect, then [open the export window](#) to print the finished package. Ready for your own show? Open the show switcher up top (New show), fill in Project, and follow the phases.

Search the guide: try VLAN, fiber, export, IP, loom...

ALL **PLAN** **BUILD** **PATCH** **SHIP** **TOOLS**

Overview

Dashboard showing your show at a glance: the current state

Project

Edit the show title, order number, contact info, print date.

VLANs

Define your VLAN legend: each row is one VLAN with its ID.

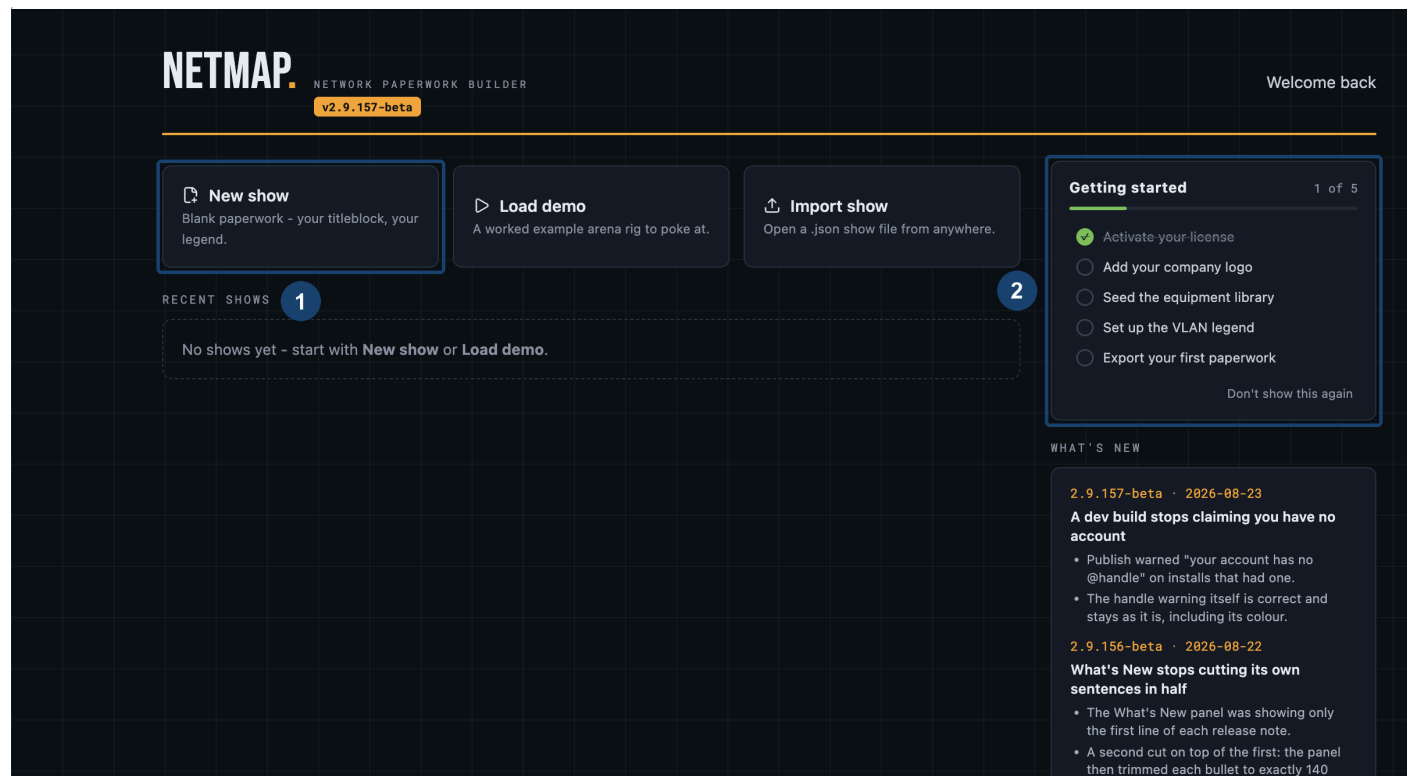
Devices

Master list of every piece of gear: your boxes, switches,

The Guide tab. The checklist **1** is live — it reads your actual show, and each step jumps to the tab where that work happens. This is the map for everything the rest of this guide does.

Start the show

First launch lands on the start screen. **New show** gives you blank paperwork; **Load demo** opens a worked arena rig that is worth ten minutes of clicking around some other day. Take **New show**.



The start screen. **1** New show — blank paperwork with your titleblock. **2** The getting-started list tracks one-time setup (licence, logo, library, legend) and ticks itself off as you go — **Don't show this again** hides it when you are done.

A new show opens on the **Project** tab: the titleblock. What you type here prints on the cover and in the running header of every exported sheet — show name, order number, company, who drew it, the revision. Fill in what you know and move on; nothing here is required to keep working.

PLAN Project Edit the show title, order number, contact info, print date, revision, and company branding.

The titleblock — appears on the cover and running header of every export. ✓ Auto-saved to show

SHOW / PROJECT

1

SECONDARY NAME / STAGE

e.g. Perry's Stage

ORDER #

26-0412

COMPANY

APEX PRODUCTION SERVICES

ADDRESS

VENUE / LOCATION

OFFICE PHONE

CONTACT EMAIL

DRAWN BY

A. RIVERA

PROJECT MANAGER

CREW CHIEF / LD

PRINT DATE

2026-08-23 today

SHOW DATES

mm/dd/yyyy to mm/dd/yyyy

SHOW IMAGE

Drop a logo or stage plot

click to choose · prints on the cover

16:9 landscape is preferred (fills the cover edge to edge), but anything works - the title block fits your art to its shape, so a square logo or tall plot lands clean too.

Company logo

all shows · falls back to the 3D case logo choose...

Revision

1 Bump

The current revision letter/number. Prints on the cover and every running header. Bump advances it per your Settings [revision scheme](#).

Private show notes planning space for you - next year's builds, ideas, gripes

Stays in this show file and your own cloud backup - never in the PDF or Excel exports, never on the published page, never sent to the render service. Carries over when you Duplicate the show.

2027: move the opto to the top of the FOH rack, order two more 25ft CAT6A, ask about the doghouse power drop...

The titleblock. 1 The show name — it becomes the export's cover and the file's name. **2** The revision block: **Bump** advances rev on the cover and every header when you re-issue. Everything on this tab auto-saves to the show.

Where the file lives. Each show is one `.json` file in the app's show library, with rolling backups. The show switcher lives at the top of every screen — the folder icon with the show's name on it.

The VLAN legend

The VLANs tab is the master list every other screen picks from — the legend is **the source of truth**. A row is one network: ID, name, a colour, and optionally the subnet it lives in. The colour is not decoration; it paints every device cell, port jack, panel ring and printed sheet that touches that VLAN, so a red port on paper means sACN everywhere in the package.

Press **+ Add VLAN** once per network. This show carries the netmap defaults you have seen in Guides 01-03: management untagged, sACN on tag 30, internet on tag 60 — plus MA Net 3 for the console, and the **TRUNK** marker row that stands for "every VLAN at once" on uplink ports.

PLAN

VLANs

Define your VLAN legend: each row is one VLAN with its ID, name, color hex, and optional subnet/IP plan.

5 networks

+ Add VLAN

Fix mismatched VLANs

VLAN schemes

The master VLAN list. Everything else picks from here. **Renumber or rename freely** — when you change a VLAN's ID or Name, every device, switch port and panel connector using it updates automatically — in this show and in your saved equipment / panel Library. Click a column header to sort (click again to reverse) to reorder the for the exports.

	COLOR	HEX	VLAN ID	NAME	SUBNET	GATEWAY	DHCP	AV PROFILE	PURPOSE	DEVICES
	(none)	#RRGGBB	TRUNK	TRUNK				N/A	Trunk port - carries every VLAN	0
	Black	#000000	1	MGMT	10.224.0.0/12			Data	Switch + device management	6
	Blue	#0000FF	2	MA Net 3	192.168.0.0/24			Lighting	grandMA3 console + process	3
	Red	#FF0000	30	sACN	192.168.30.0/24			Lighting	sACN lighting control to node	7
	Green	#00FF00	60	INTERNET				Data	House internet - DHCP from t	0

The legend, five rows in. **1** Add a VLAN per network. **2** A subnet typed here is what the IP planner assigns from later — put it in now and addressing becomes one click. The DEVICES column counts what rides each lane. Click a column header to sort — that order is the export order; the arrow button on a row rennumbers the IPs riding that lane.

Renumber freely. Changing a VLAN's ID or name here updates every device, switch port and panel connector that uses it — in this show and in your saved library. It is a rename, not a break.

Add the gear

The Devices tab is the master list of everything with a power cable: switches, nodes, the console, computers, access points. Every cable run and switch port references gear **by its Device ID** — FOH-SW, SL-NODE 1 — so name things the way your crew talks.

+ Add drops in a blank row, or pulls from your equipment library if you have seeded one. A device's **Type** is what unlocks the special editors: set it to **Switch** and the pencil editor grows a port builder; **Node** and it grows the universe grid; **Console** and it carries one entry per network jack, because a desk really is plugged in twice.

BUILD **Devices** Master list of every piece of gear: your boxes, switches, nodes, consoles, processors, I/O panels, shelves.

32 total

+ Add 1

Filter devices... ☒ Group by rack ☐ Network only Columns

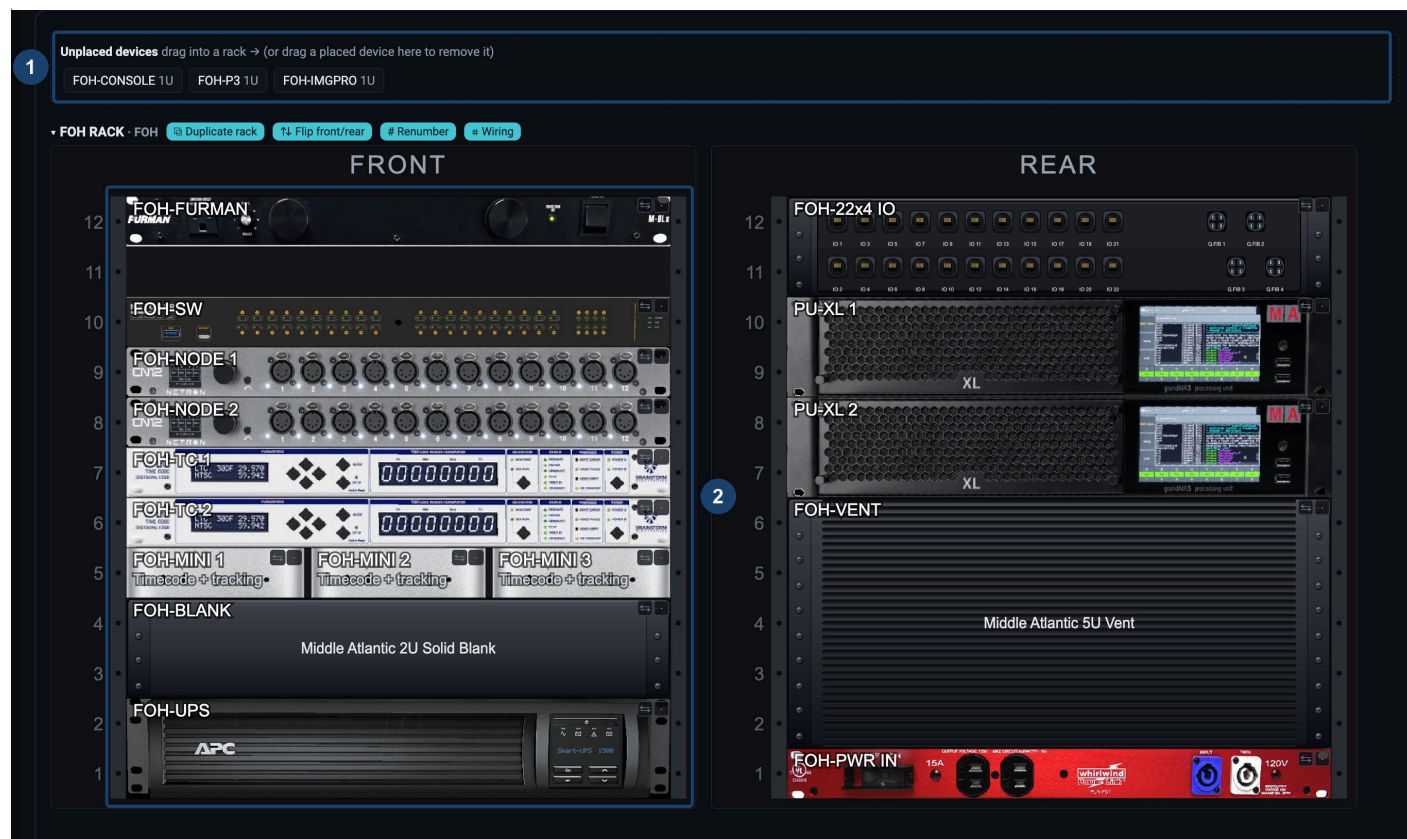
Every cable and switch port references these by Device ID. Add your own, or toggle gear in from the Library tab. Set a device's **Type** to **Switch** or **Node**, then open its **Edit** (pencil) editor - its type builder is a section right inside: the switch builder lays out ports and paints a VLAN onto each port; the node builder assigns universes.

#	NAME	TYPE	LOCATION	RACK	RU	MAKE	MODEL	Mount	IPV4 ADDRESS	SUBNET	VLAN	UNIV.	SWITCH PORT	I-CODE	NOTES	RSTP	
FOH RACK 16 devices																	
1	FOH-SW	Switch	FOH	FOH RACK	10	Netgear	M4250-40GBXF	Front	10.224.1.1	255.240.0.0	1 - MGMT		SL-SW / 13	(set in Library)		P22768	13.8.6.7
2	FOH-NODE 1	Node	FOH	FOH RACK	9	Obsidian Cor	EN12	Front	192.168.30.131	255.255.255.0	30 - sACN		FOH-SW / 1	(set in Library)			
3	FOH-NODE 2	Node	FOH	FOH RACK	8	Obsidian Cor	EN12	Front	192.168.30.132	255.255.255.0	30 - sACN		FOH-SW / 2	(set in Library)			
4	FOH-MINI 1	Procer	FOH	FOH RACK	5	Apple	Mac mini (M4) 2	Front	10.224.1.10	255.240.0.0	1 - MGMT		FOH-SW / 35	(set in Library)	Timecode + trac	macOS 26.5.2	
5	FOH-MINI 2	Procer	FOH	FOH RACK	5	Apple	Mac mini (M4) 2	Front	10.224.1.11	255.240.0.0	1 - MGMT		FOH-SW / 37	(set in Library)	Timecode + trac	macOS 26.5.2	
6	FOH-MINI 3	Procer	FOH	FOH RACK	5	Apple	Mac mini (M4) 2	Front	10.224.1.12	255.240.0.0	1 - MGMT		FOH-SW / 38	(set in Library)	Timecode + trac	macOS 26.5.2	
7	FOH-UPS	Other	FOH	FOH RACK	1	APC	1500VA 2U SMT	Front					not on a port	(set in Library)			
8	FOH-FURMAN	Other	FOH	FOH RACK	12	Furman	Series M-8Lx Po	Front					not on a port	(set in Library)			
9	PU-XL 1	Procer	FOH	FOH RACK	9	MA Lighting	MA3 PU-XL	Rear	192.168.20.102	255.255.255.0	2 - MA Ne		FOH-SW / 11	(set in Library)		2.4.2.2	
10	PU-XL 2	Procer	FOH	FOH RACK	7	MA Lighting	MA3 PU-XL	Rear	192.168.20.103	255.255.255.0	2 - MA Ne		FOH-SW / 12	(set in Library)		2.4.2.2	
11	FOH-22x4 IO	Other	FOH	FOH RACK	11	4Wall	22x4 Net IO	Rear					not on a port	(set in Library)			
12	FOH-PWR IN	Other	FOH	FOH RACK	1	Whirlwind	Powercon Input	Rear					not on a port	(set in Library)			
13	FOH-BLANK	Other	FOH	FOH RACK	3	Middle Atlas	2U Solid Blank	Front					not on a port	(set in Library)	608659		
14	FOH-VENT	Other	FOH	FOH RACK	2	Middle Atlas	5U Vent	Rear					not on a port	(set in Library)			
15	FOH-TC 1	Other	FOH	FOH RACK	7	Brainstorm	SR112	Front					not on a port	(set in Library)			
16	FOH-TC 2	Other	FOH	FOH RACK	6	Brainstorm	SR112	Front					not on a port	(set in Library)			
STAGE RACK 13 devices																	
17	SL-SW	Switch	SL STAGE	STAGE RACK	15	Netgear	M4250-12M2XF	Front	10.224.1.2	255.240.0.0	1 - MGMT		FOH-SW / 41	(set in Library)		P22768	13.8.6.7
18	SL-NODE 1	Node	SL STAGE	STAGE RACK	11	TMB	ProPlex IQ 1616	Front	192.168.30.141	255.255.255.0	30 - sACN		SL-SW / 1	(set in Library)	EASY IP - OFF		2.28
19	SL-NODE 2	Node	SL STAGE	STAGE RACK	9	TMB	ProPlex IQ 1616	Front	192.168.30.142	255.255.255.0	30 - sACN		SL-SW / 2	(set in Library)	EASY IP - OFF		2.28

The device list, grouped by rack. 1 Add by hand or from the library. 2 The VLAN cell wears the legend's colour. 3 SWITCH PORT is filled in for you — it reads the port map you will build in section 6, and the two always agree.

Put it in racks

The Racks tab draws real elevations — front and rear, to scale, from the RU each device sits at. Add a rack, give it a height, and drag gear from the **Unplaced devices** strip onto empty U space. A console has no rack and never needs one — typed in by hand it waits in the strip; pulled from the library it files itself under **Non rack mounted network devices** on the Devices tab.



The rack editor. **1** Anything not yet racked waits here — drag it in, or drag a placed unit back out. **2** The elevation is the drawing that prints: faceplate photos come from the library item, so gear you photographed once looks like itself in every rack. Click a unit to edit it in place.

Where the photos come from. A library item carries its faceplate image. Gear added by hand draws as a labelled outline until you give it one — the paperwork is just as valid, it only reads plainer.

Map the switch ports

Ports & Grid is the patch half of the paperwork: one row per switch port, and a painted mock-chassis that shows the same rows the way the faceplate looks. Pick a VLAN, click ports, and they take its colour. A port that carries one network is **Access**; a port that carries everything — the fiber uplink between two switches, or the one cable feeding a Mac that rides every lane (Guide 01) — is **Trunk**, and wears the TRUNK marker instead of a colour.

PATCH Switch Grid Paint switch VLAN ports visually in a mock-chassis view - copper and SFP+ banks rendered side by side, color-coded by VLAN.

2 switches

Each jack is coloured by its VLAN - the whole switch's architecture at a glance, in 1-over-2 column order like the real faceplate. Pick a switch to focus, or All.

All switches 2 total

FOH-SW 48p FOH RACK

SL-SW 14p STAGE RACK

Paint VLAN: (clear) 1 port to assign the selected VLAN. Each switch has Copy / Paste plan (port→VLAN map) and save/recall plan presets.

No plan presets yet - set a switch's ports, then Save as preset. Recall by name or number onto any switch.

3

1 - MGMT 2 - MA Net 3 30 - sACN 60 - INTERNET

FOH RACK

FOH-SW M4250-40GBXF-PoE+ · 10.224.1.1 · FOH · rack FOH RACK

Copy plan Paste plan Save as preset Recall preset...

FRONT

1 sACN	3 sACN	5 sACN	7 sACN	9 sACN	11 MA Net 3	13 MA Net 3	15 MA Net 3	17 MA Net 3	19 MA Net 3	21 INTERNET	23 INTERNET	25 INTERNET	27 INTERNET	29 -	31 -	33 -	35 MGMT	37 MGMT	39 MGMT	41 TRUNK	43 TRUNK	45 TRUNK	47 TRUNK
2 sACN	4 sACN	6 sACN	8 sACN	10 sACN	12 MA Net 3	14 MA Net 3	16 MA Net 3	18 MA Net 3	20 MA Net 3	22 INTERNET	24 INTERNET	26 INTERNET	28 INTERNET	30 -	32 -	34 -	36 MGMT	38 MGMT	40 MGMT	42 2	44 TRUNK	46 TRUNK	48 TRUNK

STAGE RACK

SL-SW M4250-12M2XF · 10.224.1.2 · SL STAGE · rack STAGE RACK

Copy plan Paste plan Save as preset Recall preset...

FRONT

1 sACN	2 sACN	3 sACN	4 sACN	5 MA Net 3	6 MA Net 3	7 INTERNET	8 INTERNET	9 MGMT	10 MGMT	11 MGMT	12 MGMT	13 TRUNK	14 TRUNK
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Both switches, painted. 1 Pick a VLAN, then click ports to paint it. 2 A trunk port — the uplink fiber between the two racks. 3 The legend rides along; a jack with no colour is a port nobody has mapped yet. Map every port, spares included — a spare on paper is a port nobody has to guess about at 1 AM.

Address everything

The IP Schedule is the master address book, grouped the way the export prints it: consoles and processors first — every NIC in its own column — then switches, then nodes. Type addresses inline, or let **Plan IPs** hand them out from the subnets you put on the legend in section 3. Duplicate addresses get boxed in red the moment they exist.

PATCH IP Schedule Edit and browse the live master IP schedule split into Consoles, Processors, Switches, and Nodes - each with VLAN, IP Subnet, and notes, sortable per section.

The master schedule, grouped like the export — Consoles/Processors show every NIC, then Switches, Nodes and other devices. Edit IPv4 / VLAN inline, click a **device name** to open its inspector, click a header to sort. Duplicate IPs are boxed in red. Renumber IPs Plan IPs

Comfortable Compact ☒ Subnet column ☒ Notes column ☒ Flag duplicate IPs ☐ Show other devices (1)

VLAN KEY 2 - MA Net 3 1 - MGMT 30 - sACN

CONSOLES ×1

FOH-CONSOLE grandMA3 Light Desk at FOH position

	CON 1	CON 2
IPv4	192.168.20.101	10.224.1.5
Subnet	255.255.255.0	255.240.0.0
VLAN	2 - MA Net 3	1 - MGMT

PROCESSORS (PU / NPU) ×5

FOH-MINI 1 Mac mini (M4) 2024 Timecode + tracking FOH BACK

	CON 1
IPv4	10.224.1.10
Subnet	255.240.0.0
VLAN	1 - MGMT

FOH-MINI 2 Mac mini (M4) 2024 Timecode + tracking FOH BACK

	CON 1
IPv4	10.224.1.11
Subnet	255.240.0.0
VLAN	1 - MGMT

FOH-MINI 3 Mac mini (M4) 2024 Timecode + tracking FOH BACK

	CON 1
IPv4	10.224.1.12
Subnet	255.240.0.0
VLAN	1 - MGMT

PU-XL 1 MA3 PU-XL FOH BACK

	CON 1
IPv4	192.168.20.102
Subnet	255.255.255.0
VLAN	2 - MA Net 3

The IP schedule. 1 The console shows one column per jack — MA Net on one, management on the other, because that is how the desk is really plugged in. **2** Plan IPs assigns from the legend's subnets; Renumber re-deals a lane without touching the others.

Let validation catch it

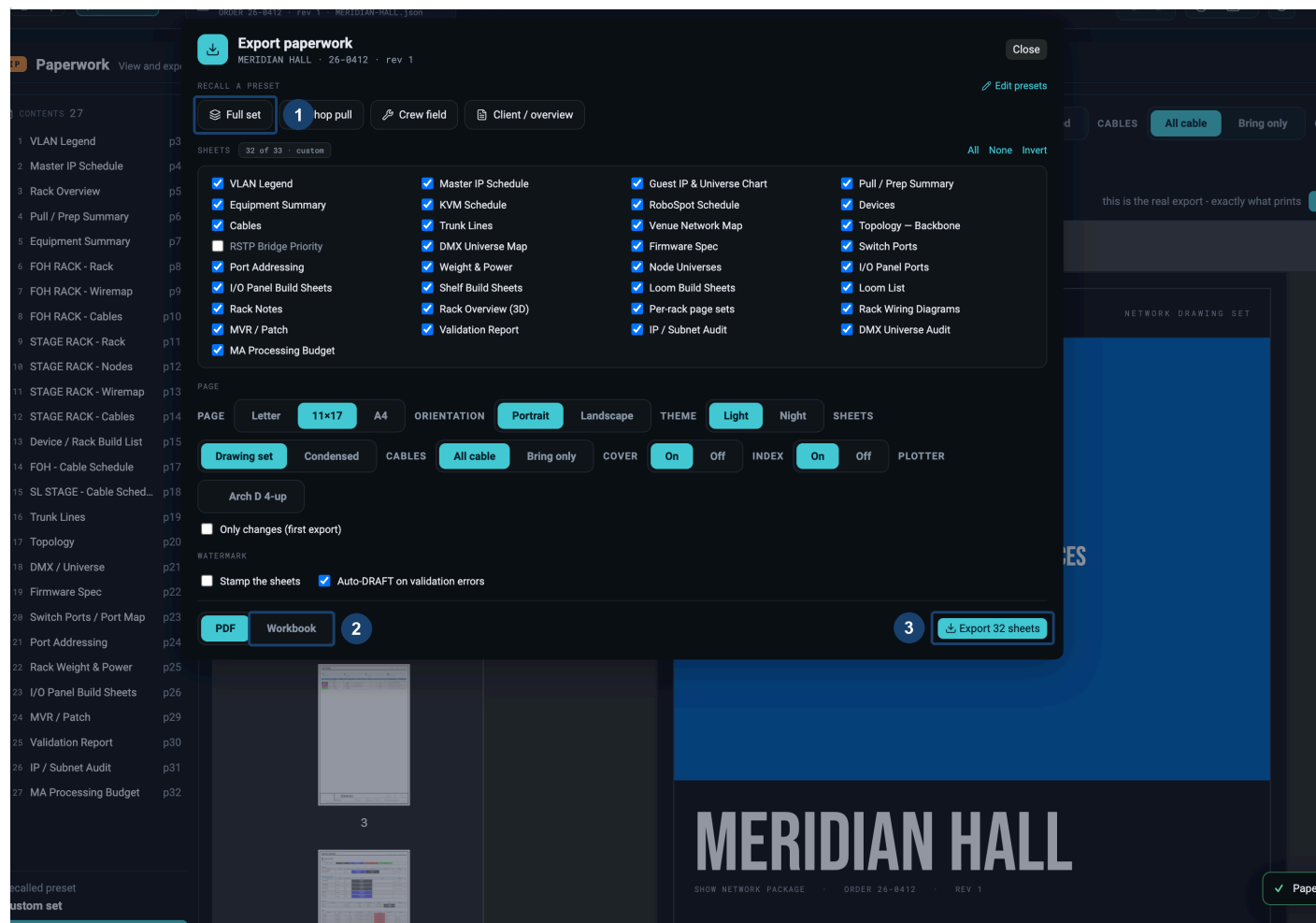
The error / warning pill rides the top bar on every screen, counting as you type. **Errors** are things the paperwork cannot print cleanly — a port on a VLAN the legend does not know, two devices on one port. **Warnings** are worth a look but do not block. Click the pill and the Validation tab opens; **Jump** on any row lands you on the exact row that is wrong.

The screenshot shows the UPLINK application interface. At the top, a navigation bar includes 'Help', 'Feedback', and a project name 'MERIDIAN HALL'. A pill in the top right corner shows '3' errors and '1' warning. Below this, the 'Validation' tab is active, displaying a list of errors and warnings. The first section, '3 errors', lists three items: 'Switch port row 55: VLAN 'TRUNK' not in the VLAN legend.', 'Switch port row 56: VLAN 'TRUNK' not in the VLAN legend.', and 'Switch port row 57: VLAN 'TRUNK' not in the VLAN legend.'. Each item has an 'Add to legend' button and a 'Jump' button. The second section, '1 warning', lists one item: 'Cable (row 3): connector mismatch RJ45 -> RJ45 (won't mate)'. This item also has a 'Jump' button. The interface is dark-themed with orange and green accents.

Validation, catching two real mistakes. 1 The pill — three errors, one warning, from anywhere in the app. **2** A VLAN used on ports but missing from the legend: **Add to legend** fixes it in one click. **3** A cable whose ends cannot mate — an RJ45 into a connector that does not exist. **Jump** lands on the row itself.

Export the package

The **Export** button lives in the top bar everywhere. It opens the paperwork window: pick sheets by hand or take a preset — **Full set**, **Shop pull** for the prep floor, **Crew field** for the road case, **Client / overview** for the production office. Choose page size and orientation, light or dark sheets, and whether cables print as a full schedule or a condensed pull list.



The export window. **1** Presets pick sheet sets for an audience. **2** PDF is the print-ready drawing set; Workbook is the same data as styled Excel. **3** One button prints the package. If validation still has errors, every sheet is stamped **DRAFT** automatically — the paperwork will not pretend to be finished.

What comes out is the drawing set this series is printed like — a cover with your titleblock, an index, and one sheet per section.



The exported set. The cover carries the titleblock from section 2, and every section becomes a numbered sheet — here, the DMX / universe map the Nodes tab built. This is the package you hand to a crew.

When it does not work

WHAT YOU SEE	WHAT IT USUALLY IS
A device draws as a plain outline in the rack	No faceplate image. Photos travel with library items — add the gear to your library once, give it an image there, and every elevation uses it.
The switch grid shows only a few jacks	Only ports with a row draw. Add rows for the spares too — the grid is the faceplate, and a port with no VLAN still draws, just uncoloured.
A device's VLAN cell has lost its colour	It references a VLAN the legend does not have — the cell only wears a colour the legend supplies, and Validation counts it as an error. Fix the legend, or use Fix mismatched VLANs on the VLANs tab.
An IP is boxed in red on the schedule	Something else already has that address. The box appears on both rows; change either.
Every exported sheet says DRAFT	Validation has errors. Clear them and export again — the stamp removes itself.
The export is missing a sheet	It is unticked in the export window, or its tab has no data. The sheet list shows exactly what will print, with page numbers.