



VIR Systems

Production management

QUOTES · WORK ORDERS · SHOP FLOOR · STOCK · COSTING · QUALITY

The whole job, from quote to cost.

One server on your own network. Every PC, tablet and phone just opens a browser. Nothing to install anywhere else, no per-seat licences to count, and your data never leaves the building.

QUOTE Q-0142

Spring catalogue · 2,000

WORK ORDER WO-2041

Cut → Print → Fold → Pack

SHOP FLOOR

Printing · 1h 12m on PRESS-1

JOB COST

0.41 per good piece · quoted 0.46

17

working modules

3

add-ons

2

languages

1

PC to install on



WHAT VIR IS

A production system built for a shop floor, not a spreadsheet

VIR follows a job from the first price you give the customer to the moment you know what it cost. Sales quotes it, the office plans it, quality control releases it, the floor runs it from a touch screen, stock comes off the shelf as it is used, and the hours land against the job automatically.

PLAN**Office**

Quotes, work orders, steps, materials, due dates, and which day each step runs on which machine.

RUN**Shop floor**

A kiosk built for touch, in English or Croatian. Start a step, use material, finish, move on.

CHECK**Quality**

Every job reviewed before and after, with rejects and their reasons on record.

KNOW**Numbers**

Real hours, real material, real cost per good piece — next to what it was sold for.

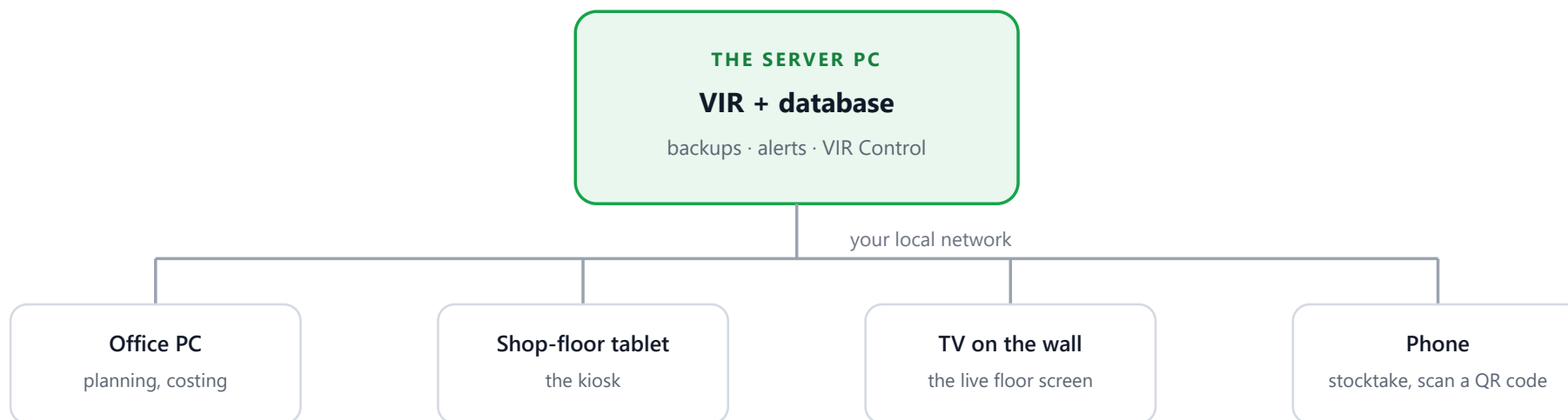
It records what actually happened — not what someone remembered at the end of the week. Every figure in VIR traces back to a person pressing a button at a machine.

It looks after itself — restarts after a crash, backs itself up every night, and emails you when something needs attention.



ONE SERVER, EVERYONE ELSE IN A BROWSER

Nothing to install on the machines people use

**Installed once**

Only the server PC is set up. Everything else opens a web address — no software, no updates to push, no licences to count.

Stays in the building

VIR runs on your own network. It is not a cloud service and does not send your work anywhere.

Add a machine in a minute

Copy a shortcut, or scan the QR code VIR Control shows. That is the whole process.

THE LIFE OF A JOB

Every stage leaves a trace



What the office decides

- **The steps** and the order they run in — a step stays locked until the one before it is finished.
- **Who may run each step**, by skill: only a trained cutter sees cutting work.
- **What materials** the job should need and how long each step should take — carried straight over from the accepted quote.
- **Which day each step runs on which machine**, checked against who is on shift.
- **A printed work order** that travels with the job, with a QR code that opens it on the kiosk.

What the floor records

- **Time**, automatically, against the exact step and machine.
- **Material actually used** — which comes straight off warehouse stock.
- **Time nobody timed** — at log-out the kiosk shows the untimed stretches of the shift and asks what they were.
- **What went out** — pallets, and a numbered delivery note for every load.



MODULES

Every area of the shop, one system

Production

Work orders, the route through the machines, files, repeat a job.

Preproduction prep

Where a job is written: steps, estimates, materials, due date.

Job planner

Which step runs on which machine, day by day, and the printed list.

Shop-floor kiosk

Touch screen: clock in, run steps, use material, fill gaps.

Quality control

Two reviews per job, holds, rejects and reasons on record.

Quotes

Several quantities, real costs and speeds, printed quote.

Customers

One page per customer: jobs, quotes, sales, invoices.

Sales

Deals from new to won, each linked to the job it became.

Finance

Invoices linked to jobs, paid and outstanding, margin.

Procurement NEW

Suppliers, draft orders for low stock, orders that add stock when received.

Warehouse NEW

Stock by location, goods in, shelf labels, history, a stocktake from a phone.

Logistics

Pallets, box and pallet labels, shipments, delivery notes.

Time & payroll

Every hour on a job and machine, paid at the rate in force at the time.

Job costing

Material + labour, cost per good piece, against the quote.

Production report

Hours by machine, person and job; estimate vs actual.

Maintenance

Machines and tools; a machine that is down blocks new work.

HR

People, roles, PINs, kiosk skills, attendance, leave.

ADD-ON

The Planner

Calendar, to-dos, fleet, kit, renewals, servicing.

ADD-ON

Shift planner

The weekly rota, published to the kiosk.

ADD-ON

Shop-floor screen

The whole floor on a TV on the wall.

Not using a module yet? **Switch it off** — it disappears from every menu and nothing in it is lost. Switch it back on when you need it.

THE KIOSK

Designed for someone standing at a machine

Big targets, one thing at a time, and it never leaves anybody guessing. A worker signs in with a PIN, picks where they are working, and sees only the jobs — and machines — they can actually work on.

- **Signing in clocks you in.** Signing out clocks you out. Nothing else to remember.
- **One task at a time.** Starting something stops whatever was running, so hours never double-count.
- **Locked steps say why** — “waiting for: Cutting”, “machine down” — instead of just being greyed out.
- **Scan the printed work order** to open the job; the artwork and approved proof open on the tablet.
- **Materials come off stock** as they are used, including anything unplanned.
- **Before you go:** untimed stretches of the shift are shown at log-out, so a forgotten timer gets filled in.
- **Your shifts and today for you:** the week’s published rota, own to-dos, van bookings and meetings.
- **English or Croatian**, set per tablet. Finished jobs drop off the list by the next shift.

WO-2041 · Spring catalogue

🔊 2 files

Working on: Printing · PRESS-1

Running 1h 12m · should take 2h 00m

FINISH STEP

STOP

NEXT STEPS

Folding · FOLD-1

locked — machine down

Packing

waiting for Folding

FILES

Approved proof.pdf

Open

The kiosk mid-job, in its light theme



QUALITY CONTROL

Every job checked twice, on the record

A job is reviewed when it is created and again when the last step is finished. Each decision is stored with who made it, when, and why.

STAGE	QUESTION	EFFECT
Before production	Is this job ready to be made?	Advisory — the floor can start, but it is on the list
Final	Is what we made acceptable?	A failure stops all further work until released

Hold stops the job at either stage, and nobody can start new work on it — not even the owner. Work already under way can always be finished.

Rejects feed straight into cost

The final review records how many pieces were rejected and what was wrong. That number changes the only figure that matters:

2.00

Cost per unit
assumes nothing was rejected

2.50

Cost per **good** unit
after 20 of 100 rejected

The whole cost of the job is carried by the pieces you can actually sell. VIR shows both numbers and says plainly which one is real.



WAREHOUSE & PURCHASING

Stock that matches the shelf, and orders that are ready to send

On the shelf

- **Stock per location**, not one big number — you can see where it is.
- **Goods in, a whole delivery at once**: a line per material and shelf, or scan the labels one after another. Nothing is received unless every line is right, and the delivery note number goes on every line.
- **Move and count** as plain actions. A count that confirms the number writes nothing.
- **Shelf labels**: scan one to see what is on that shelf. In a stocktake from a phone, scan the shelf, then what you count on it.
- **The history of every material**, with the stock after each change, and movements you can filter and export.
- **Never goes negative** — two people picking the same last box cannot both succeed.

Receive		Delivery note DN-4471 · Papir Primjer d.o.o.
RM-1001 Coated 150 g, SRA3 → A1		2,000 sheets
RM-1030 Matt film 32 µm → B1		600 m
RM-1040 Box 310×220×100 → B2		150 pcs

Ordering

- **A usual supplier and a reorder quantity** for each material.
- **Draft orders for low stock**: one draft purchase order per supplier, for everything below its minimum that isn't already on order.
- **ON ORDER** instead of LOW once it has been ordered.
- **Received orders add stock** to the shelf you pick.
- **Stock value** at the top of the page — stock with no cost is listed as not counted, never as worth nothing.
- **The morning low-stock email** says what is already on order, and from whom.

Nothing is sent behind your back. A draft order stays a draft until someone checks it and sends it.

Receive all

One delivery, three shelves, one press of a button — or scan each label and the lines fill themselves in.



JOB COSTING

What a job really cost, set against what it was sold for

- **Material at the price it cost when used**, so re-pricing later never rewrites an old job.
- **Labour from real logged hours**, at the rate each person was on when the work was done. A raise changes the future — not last month's jobs, and not a past payroll.
- **Spread over the good pieces**. Rejects recorded at the final check make every good piece carry its share.
- **Against the quote** it was sold on, and **margin** once an invoice is linked.
- **Nothing unpriced is counted as free** — it is listed and left out of the total, and the page says so.

An honest number or none at all. VIR would rather tell you the total is incomplete than show a precise figure that quietly understates the job.

WO-2041 · Job cost		Spring catalogue · 2,000
Material		412.80
Labour · 22h 30m		392.40
Total		805.20
Rejected at the final check		38 of 2,000
Per good piece		0.41
Sold on quote Q-0142		0.46 per piece
Invoiced		920.00
Margin		114.80 · 12.5%

Job cost on the work order page



REPORTING

Where the hours actually went

Built entirely from time the floor already logs. Nothing extra to fill in, and no money figures — so it is safe to hand to whoever runs production.

BY MACHINE

Which press earns its keep and which sits idle.

BY PERSON

Hours per person over any range, matching payroll exactly.

BY JOB

What each work order really consumed.

ESTIMATE VS ACTUAL

Which steps routinely run long, and by how much.

Estimate vs actual, at a glance



This is how estimates get better. After a few jobs you stop guessing how long a step takes and start knowing.



QUOTES & CUSTOMERS

From the first price to the repeat order

Quotes built on what the floor really does

- **Several quantities at once**, priced from material costs, machine rates, set-up and run speed.
- **Past jobs** show how fast each step really ran, so an estimate starts from fact.
- **A clean printed quote** in English or Croatian — cost and markup never appear on it.
- **One click when they say yes**: the sales order and work order are made, steps and materials already in.

ROOM FOLDERS	500	1,000
Cost	645.17	981.44
Price	806.46	1,226.80
Per piece · margin	1.61 · 20%	1.23 · 20%

Customers, without retyping anything

- **One page per customer**: every job, quote, sales order, invoice and shipment, with win rate.
- **Built from names already on your records**. “BISTRO LIPA” on an order and “Bistro Lipa” on a job are one customer — and no old record is changed.
- **Each person sees what their role allows** — sales see quotes, finance sees invoices.

Repeat this job. A reorder copies the steps, machines, materials and box label, scaled to the new quantity — and never copies what happened last time.

The quote follows the job. Job costing shows what it was sold for next to what it really cost.



PLANNING THE WEEK

What runs where, and who is there to run it

The job planner

- **A week per machine.** Pick a step up and put it on a day — it works the same on a touch screen.
- **Each day's load against staffed hours** from the rota, so an impossible day shows in red.
- **Warnings, never blocks:** too much for the day, nobody on the machine, machine down, planned after the job is due, steps out of order.
- **Print the list** — a page per day for the workshop wall.

Week 39		Mon · Tue · Wed		
PRESS-1	18h 30m / 16h staffed	9h / 16h	—	
CUT-1	4h / 8h	6h / 8h	2h / 8h	
FOLD-1	nobody on shift	machine down	—	

The shift planner · add-on

- **Named shifts** — morning, afternoon, night — on a person × day grid, with the machine each person is on.
- **Copy last week, publish this one.** Workers only ever see published weeks, on the kiosk.
- **Warnings as you plan:** on leave, too little rest, too many hours in the week, not trained for that machine.
- **Planned vs actual** against clock-ins: late, left early, didn't come in.
- **Print the rota** for the notice board.

The two agree with each other. The job planner reads the rota to know how long each machine is really staffed — two people on one press for eight hours is eight press-hours, not sixteen.



PAPERWORK

The documents a job needs, printed from what is already there

WORK ORDER · RADNI NALOG

Travels with the job

Steps with machines and who may do them, materials and which shelf holds them, packing — and boxes to sign off by hand. No prices on it.

DELIVERY NOTE · OTPREMNICA

Numbered, never edited

Built from the pallets or shipment, customer details from the register. Issuing marks the pallets shipped; a mistake is voided, and keeps its number.

LABELS

Box, pallet and shelf

One label per job for its boxes; a pallet label lists everything on it; a shelf label shows what is on that shelf.

QUOTE

For the customer

Every quantity with price, VAT and total, your letterhead and terms. Cost and markup stay inside VIR.

Files on the job. The customer's PDF, the artwork and the photo of the approved proof are attached to the work order — and open on the kiosk at the machine.

Tiskara Primjer d.o.o.

Ilica 1, Zagreb · OIB 12345678901

OTPREMNICA

OTP-2026-0014

Kupac: **Bistro Lipa d.o.o.**

Savska 12, Zagreb

#	OPIS	KOL.	KUT.
1	Jelovnik A4 — laminiran	2.000	20
2	Podmetači za čaše	5.000	10

Izdao

Prijevoznik

Primio

Documents for the customer print in English or Croatian



ADD-ON · THE SHOP-FLOOR SCREEN

The whole floor, on one screen on the wall

Put a TV on the workshop wall and everyone can see how the day is going — without asking, and without anyone typing anything in.

- **Every machine:** running, idle or down, who is on it, and a live timer.
- **Every open job:** the step it is on, when it is due, and its QC state.
- **One strip for trouble:** late jobs, holds, broken machines, a timer left on overnight.
- **Nobody signed in on the TV.** A screen link opens this board and nothing else, and the office can remove it at any time.
- **Looks after itself** — refreshes every 15 seconds and updates when VIR does.

Shop floor

11:30

FOLD-1 is down

WO-2041 is 2 days late

WO-2044 is due today

A timer has run 16h — left on?

PRESS-1

Printing · WO-2041

ana, marko

3:14:51

RUNNING

CUT-1

Trimming · WO-2044

ivana

0:29:51

RUNNING

FOLD-1

Drive belt snapped — technician Wednesday

DOWN

DIGI-1

No timer running · last ran at 18:05

IDLE

WO-2041 Spring catalogue · 1/5 steps

2 DAYS LATE

WO-2049 Concert tickets · 3/3 steps

FAILED FINAL CHECK

No pay, no hours totals and no leave ever appear on the wall.

ADD-ON · THE PLANNER

Everything else the company has to keep track of

Same login, its own database. Everything that isn't production but still has a date, an owner or a cost attached to it.

CALENDAR**Meetings and deadlines**

Company events and approved leave on one month view, so nobody books a meeting with people who are away.

TO-DOS**Jobs that aren't work orders**

Assigned, with due dates. People tick off their own on the kiosk or the office home page.

FLEET**Vans, cars, forklifts**

One log for fuel, service and mileage, cost per km, and bookings that can't clash.

ASSETS**Laptops, phones, tools**

Who has each item now, who had it before, and when the warranty runs out.

RENEWALS**Nothing expires unnoticed**

Registration, insurance, certificates, licences — each warns as early as it needs, in a morning email.

SERVICING**By hours actually run**

Machine services counted from the job timers, with a calendar limit as a backstop.

Documents live with the record. Scanned policies and registration papers attach to the van or renewal they belong to, and go into the nightly backup with everything else.



THE OFFICE

Open VIR and it tells you what needs you

A home page for each person

- **Needs attention:** late and held jobs, finished work waiting for QC, machines down, low stock, leave to approve, renewals and services due — each only for the people whose job it is.
- **Yours today:** your shift, your to-dos, your meetings and the van booked for you.
- **Finish setting up** (owner): what VIR still needs — alert email, company details, machines no worker can see yet, office PINs that are too short. Each item disappears once it's done.

Fits the shop you have

- **English or Croatian**, chosen per computer from the settings cog, with dates and numbers to match.
- **Switch off what you don't use.** A module that's off leaves every menu; switching it on brings it all back.
- **Company details** on every plan: the name and address on your documents, your currency, and the language documents print in.

Hello, marija

Friday, 25 September

NEEDS ATTENTION

WO-2041 Spring catalogue

2 days late

WO-2049 Concert tickets

failed final check

2 finished jobs are waiting for their final check

FOLD-1 Folder

Down

RM-1001 Coated 150 g — short 400

YOURS TODAY

Morning 06:00–14:00 · PRESS-1

Order new blanket for PRESS-1

late

The office home page



VIR CONTROL

Running the server without a command line

A small program on the server's desktop. It is the only thing anyone needs to operate VIR day to day — and it deliberately cannot damage your data.

- **Is it healthy?** Status, uptime, and the live log in one window.
- **Start, stop, restart** — and it names who is working before it interrupts them.
- **Backups** — when the last one ran, what it contained, and “back up now”.
- **Run checks** — database, backups, disk space, and a real test email.
- **Restore a backup** — in its own window, only while VIR is stopped, only from backups that pass their checks.
- **Other machines** — the addresses to type, and a QR code for tablets.

VIR Control

Server running

Uptime

7h 36m

In use

2 clocked in

Last backup

8h ago · verified

Scheduled jobs

7 of 7 healthy

Office

http://TREEBASE:3000/index.html

Floor

http://TREEBASE:3000/kiosk.html

Restart

Run backup now

Run checks

One window answers “is everything alright?”



UNATTENDED OPERATION

It runs itself, and tells you when it can't

EVERY 2 SECONDS

Crash recovery

If the server stops for any reason, a supervisor restarts it within about two seconds. After a power cut it comes back on its own.

EVERY NIGHT, 2 AM

Verified backup

Both databases and every attached document, checked against the originals. A backup that fails its own check is deleted, not kept.

EVERY 5 MINUTES

Uptime check

An independent check that VIR is answering. If it stops, you get an email — and another when it recovers.

DAILY, 7:00 · 7:15 · 7:30

Morning digests

Stock that is newly low; jobs late or due within three days; renewals and machine services coming due.

WHEN YOU NEED IT

Restore

Pick a backup in VIR Control. It checks the file first and keeps a copy of whatever it replaces.

ON FAILURE

It emails you

Crashes, failed backups, an unplugged backup drive, repeated wrong PINs — and a reminder if VIR is left stopped. Each one reaches you.

The alerts are designed not to cry wolf. A problem that is still there tomorrow does not email you every morning — you hear about it when it is news, and once a week while it lasts. That is what keeps the alerts worth reading.



ACCESS & PERSONAL DATA

Who sees what

ROLE	SEES
Worker	The kiosk only: their jobs and steps, only the machines they're trained for, and their own shifts, to-dos and bookings.
Quality	The QC queue, production, the job planner, the rota and the floor screen.
Sales	Quotes, customers, sales orders, logistics and delivery notes.
HR	People, attendance, hours, payroll, the rota, warehouse.
Finance / Procurement	Their own module.
Owner	Everything. Only the owner can create or change an owner account.

Pay figures appear only on payroll and job costing. The production report, the printed work order and the floor screen carry no money at all, so they can be shared freely.

Personal data

- **PINs are never stored** — only an irreversible hash. Nobody, including the owner, can read one back.
- **Office PINs have at least 6 digits**, kiosk PINs 4. Repeated wrong PINs lock the account, each time for longer, up to an hour.
- **Show a person their data** as a file, whenever they ask.
- **Remove someone properly**: their identity goes, their hours stay, so payroll and job costs are unchanged.
- **The rota shows who is on leave, never why.**

VIR sends nothing off the machine except its own alert emails and, on a licensed install, a nightly subscription check — and none of those contain hours, pay or attendance.



DAY TO DAY

What each person actually does

WHO	EVERY DAY	WHERE
Everyone in the office	Open VIR and read "Needs attention" and "Yours today".	The home page.
Shop floor	Sign in, start a step, record material, finish it, sign out.	The kiosk, on a tablet at the machine.
Sales	Price jobs, send quotes, mark them accepted.	Quotes and Customers.
Office / planning	Turn won deals into jobs, plan the week, print the list and work orders.	Prep, Job planner, Production.
Quality	Release new jobs, check finished ones, record rejects.	Quality Control.
Warehouse & dispatch	Receive deliveries, order what is low, count shelves, build pallets, issue delivery notes.	Warehouse, stocktake on a phone, Logistics.
HR	Publish next week's rota, approve leave, check attendance.	Shift planner, HR.
Owner / manager	Check job costs against quotes, run payroll, read the report.	Job costing, Payroll, Report, Planner.
Whoever runs the PC	Glance at VIR Control; press "Run checks" monthly.	VIR Control on the server.

Nothing needs a daily routine. Backups, restarts and alerts happen on their own. If something needs you, VIR emails.

The one habit worth building: start work from the kiosk against the job, not as a loose task. That is what makes costing and the report worth reading.



TECHNICAL SPECIFICATION

For whoever looks after the PC

ITEM	DETAIL
Platform	Node.js 18+ on Windows 10/11
Database	SQLite — one file on the server, plus one for the Planner
Files	Attached documents in two folders beside the databases
Network	HTTP on port 3000, local network only; HTTPS (port 3443) if you switch it on
Clients	Any modern browser, English or Croatian. Nothing installed.
Background jobs	7 Windows scheduled tasks
Backups	Nightly, verified, 30 days — databases and attached files
Outbound	Alert email (SMTP). On a licensed install, a nightly subscription check too.

Limits worth knowing

- **One server per site.** VIR is not multi-site and does not sync between locations.
- **Local network only.** Remote access would need a VPN.
- **Port 3000 is fixed** — one VIR per machine.
- **The server PC is the single point of failure.** That is what the nightly off-disk backup is for; keep it on a separate drive.

Restoring: every backup carries a checksum and a row count. A restore refuses a file that no longer matches, and copies aside whatever is already there before writing.

IN SHORT

Install it on one PC. Everyone else opens a browser.

It records the truth

Hours, material and rejects come from the floor as the work happens.

It tells you what a job cost

Material plus labour, set against the quote and spread over the pieces you can sell.

It keeps itself alive

Restarts, backs up, checks itself, and emails you when it can't.