



Hes·so  VALAIS
WALLIS

 School of Engineering

Digital Twin

Dynamic Production Planning with Digital Twin

Industrie
:: 2025

Partners

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Smart Process Lab

 **Constellium**

HITACHI
Inspire the Next

STEPHAN 
FRIBOURG

**Innovation project
supported by**

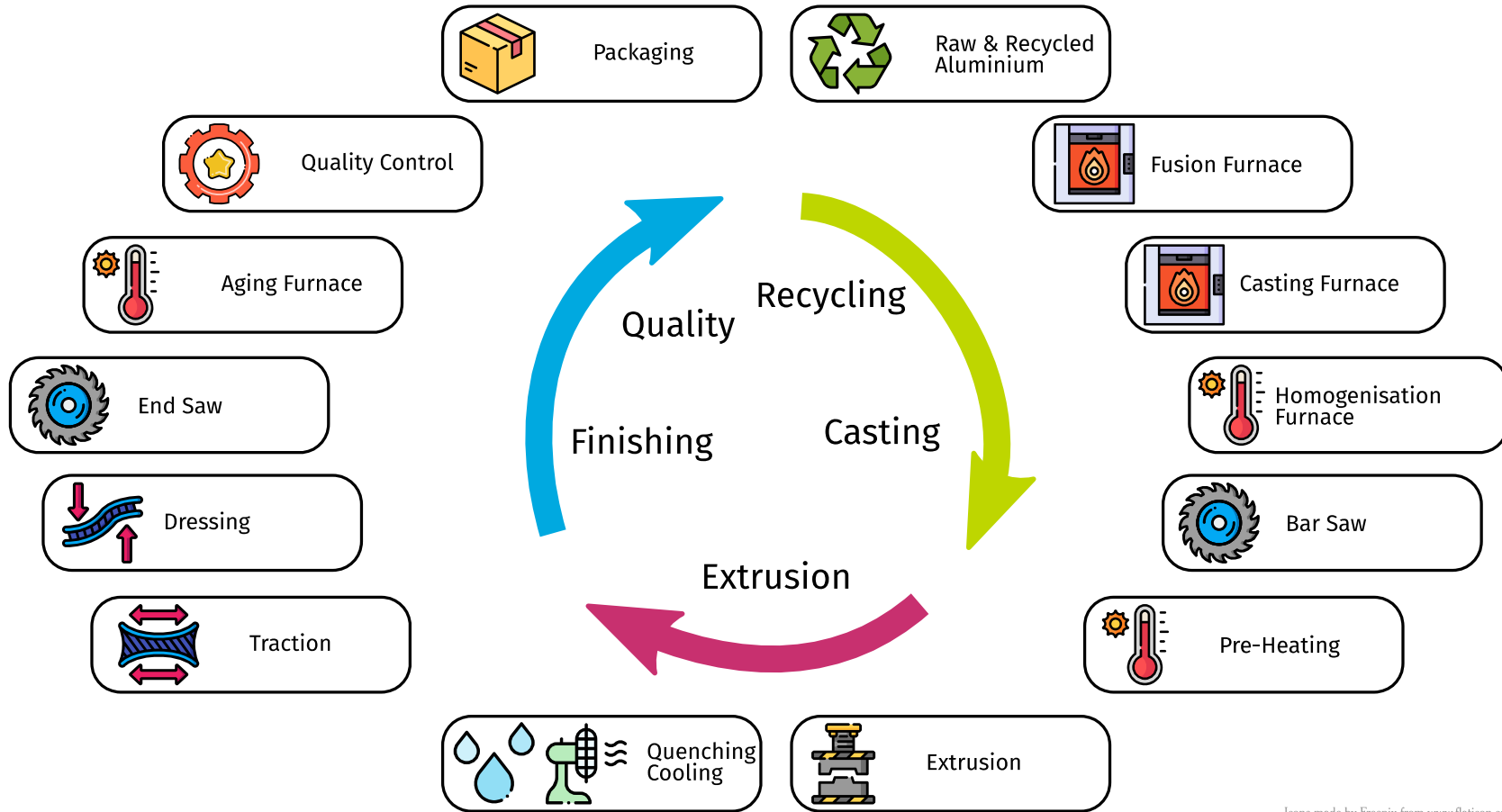


Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

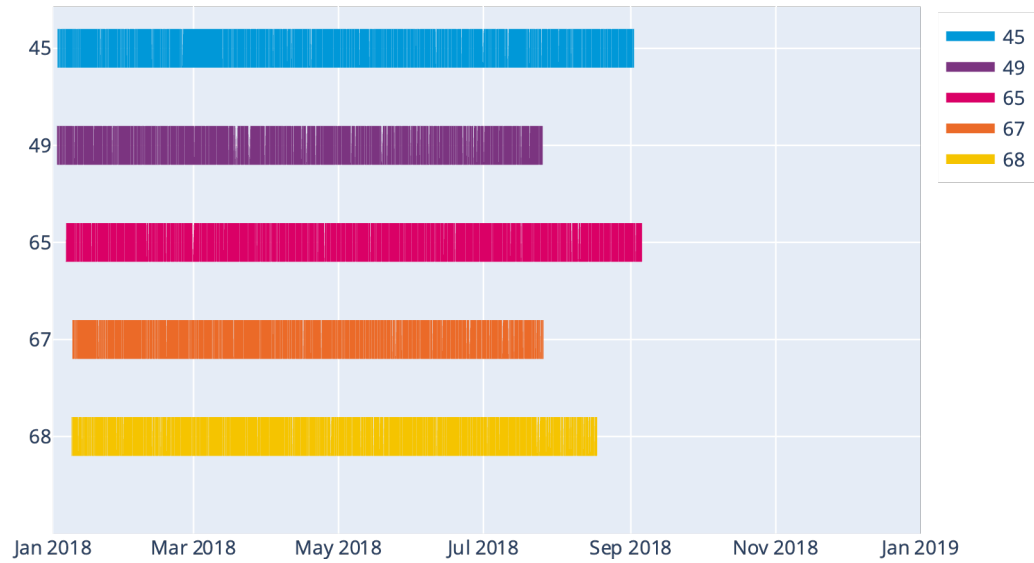
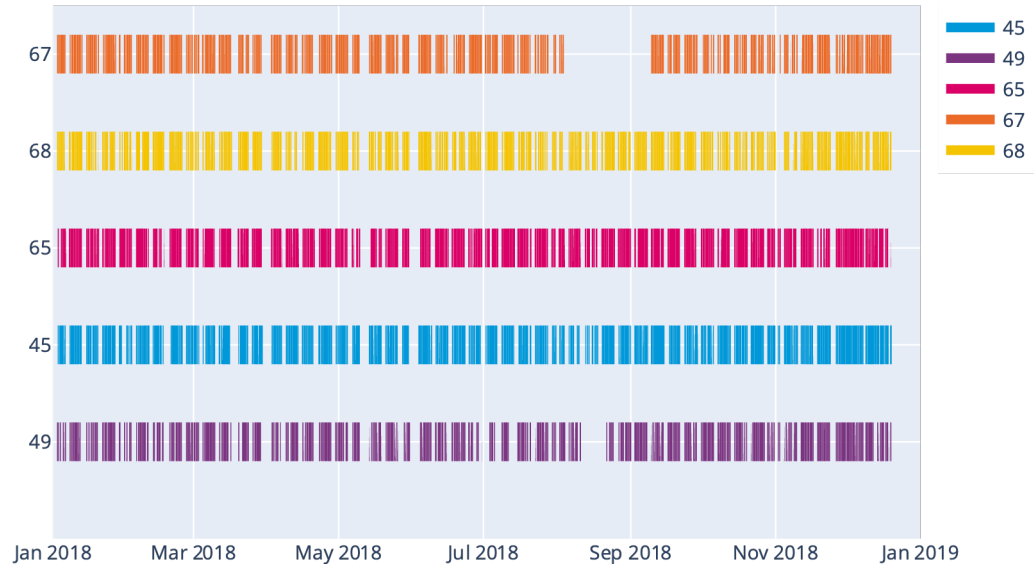
Swiss Confederation

Innosuisse – Swiss Innovation Agency

Lifecycle of Aluminium



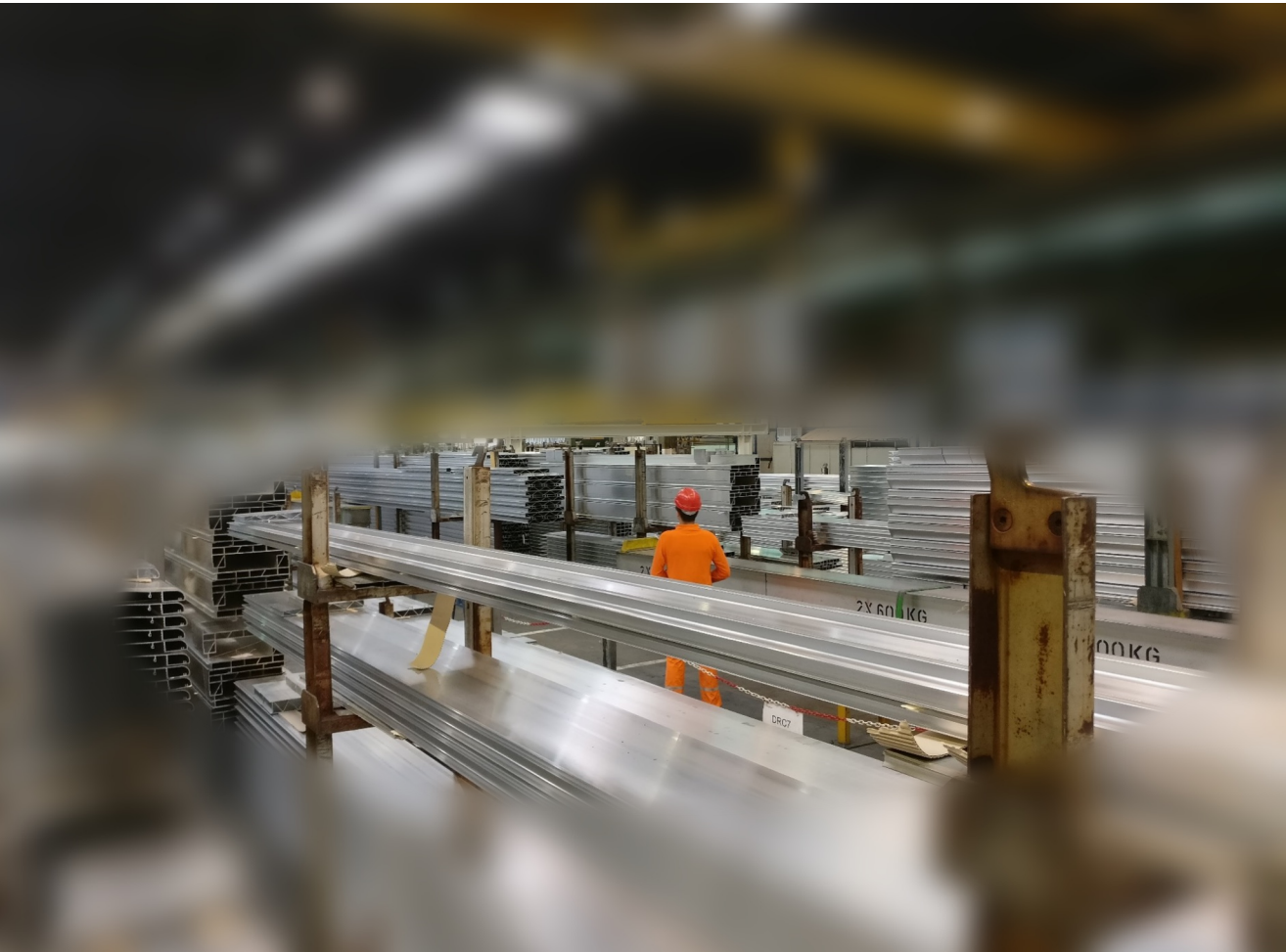
Bottleneck?



Objective



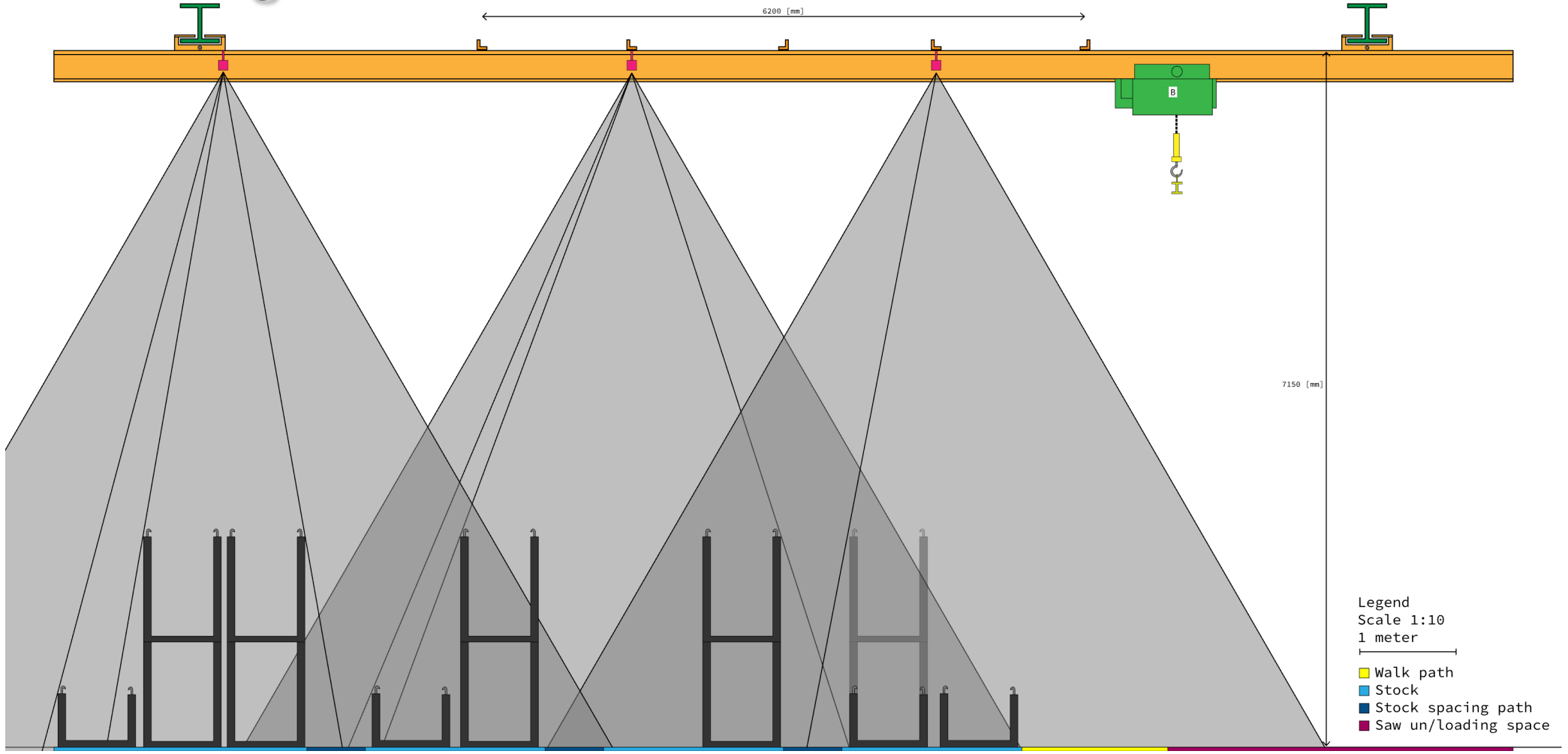
Objective



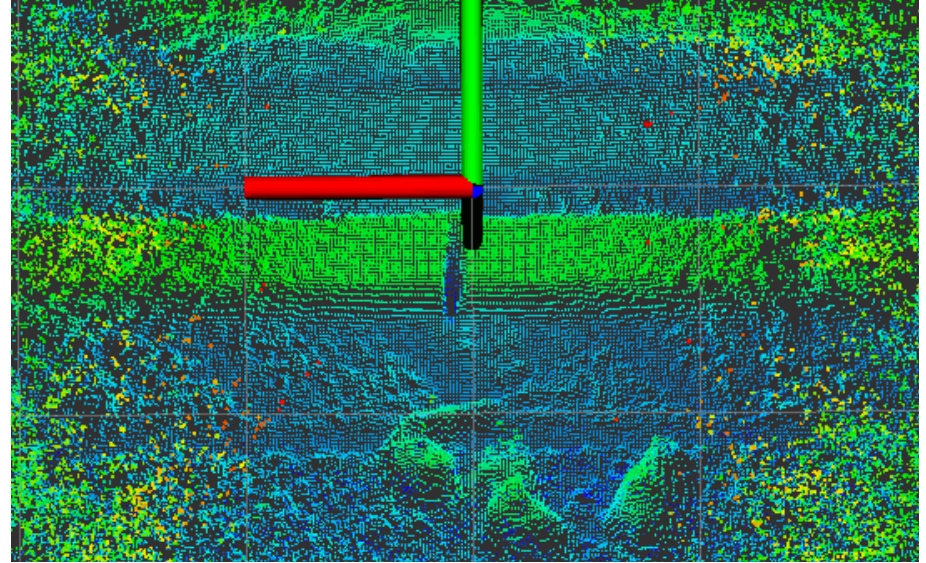
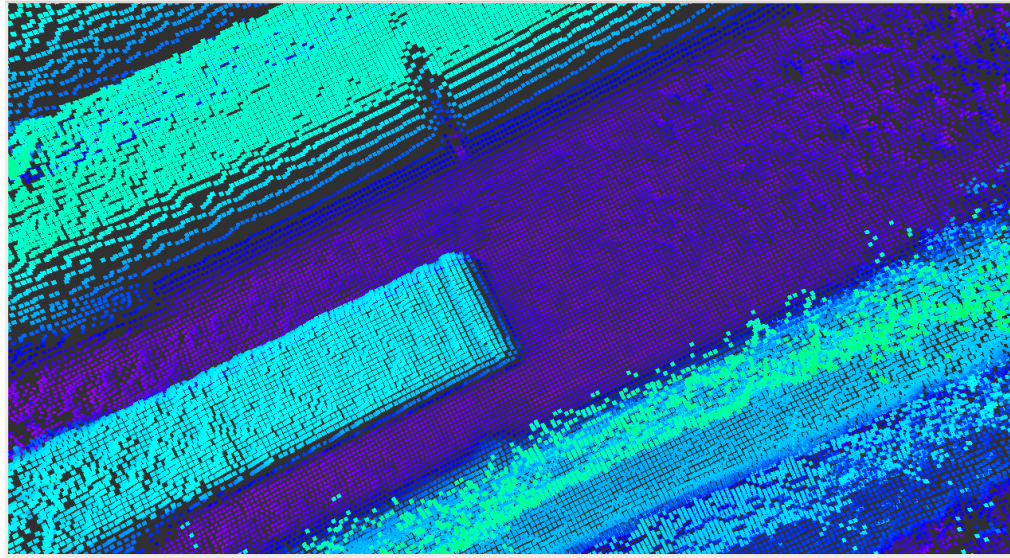
Objective



Scanning Packets



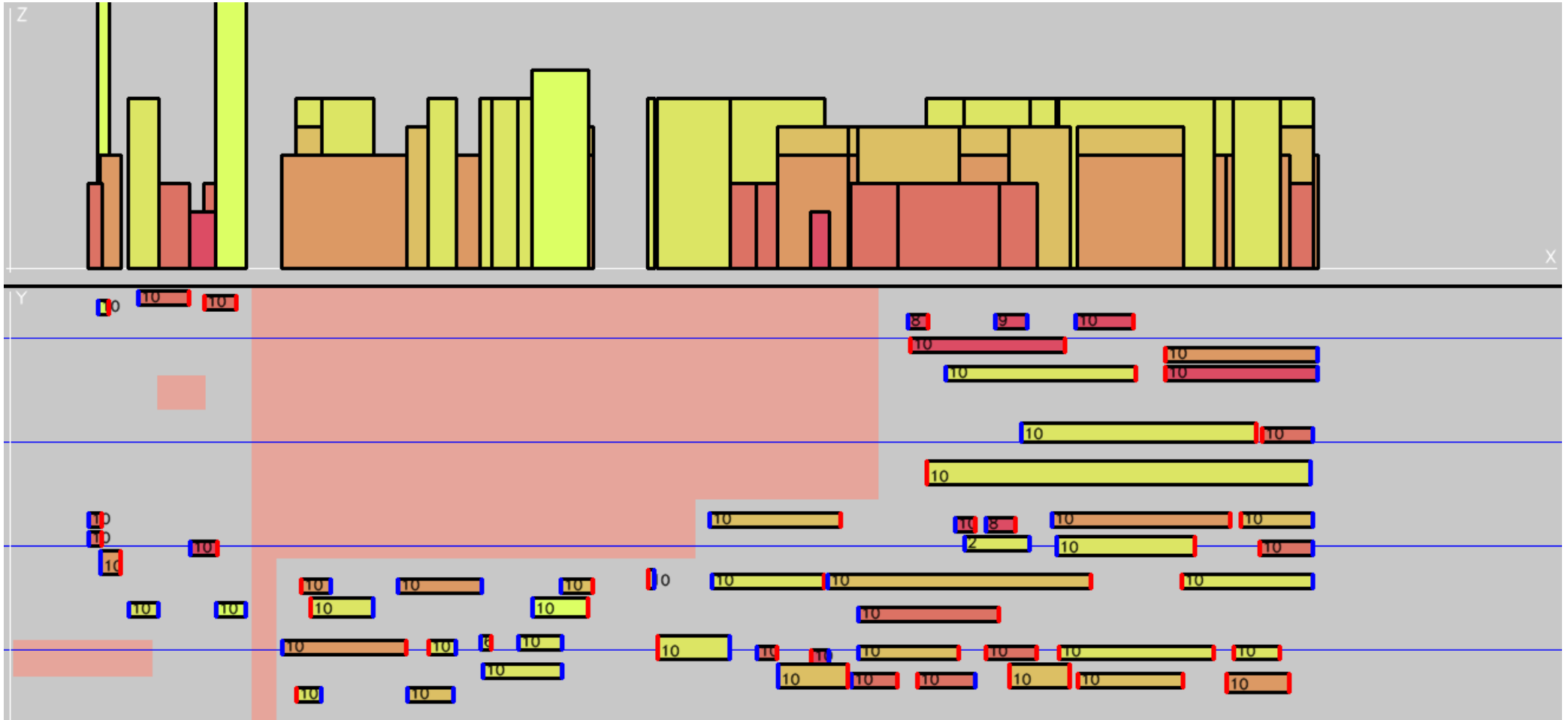
Scanning Packets



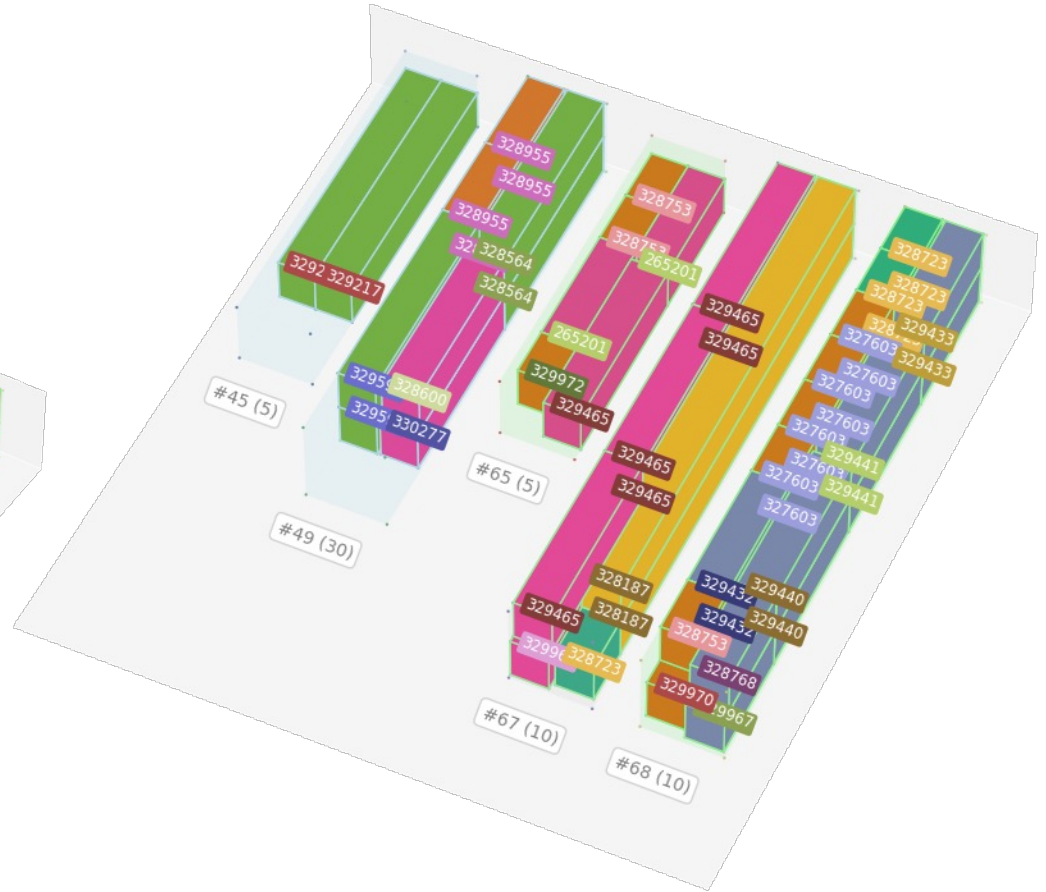
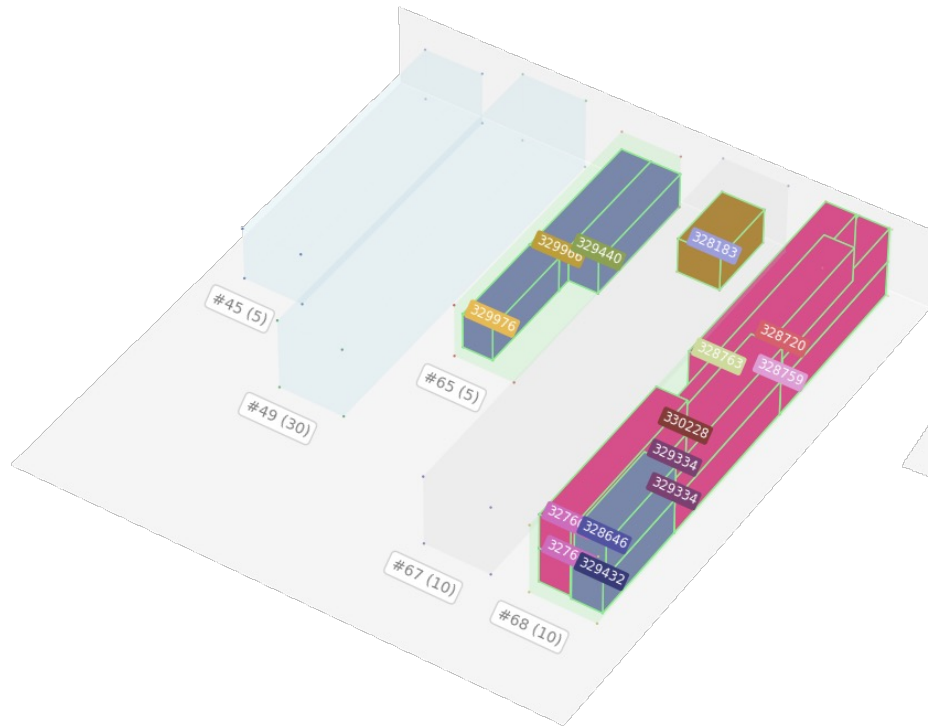
Scanning of Productionhall



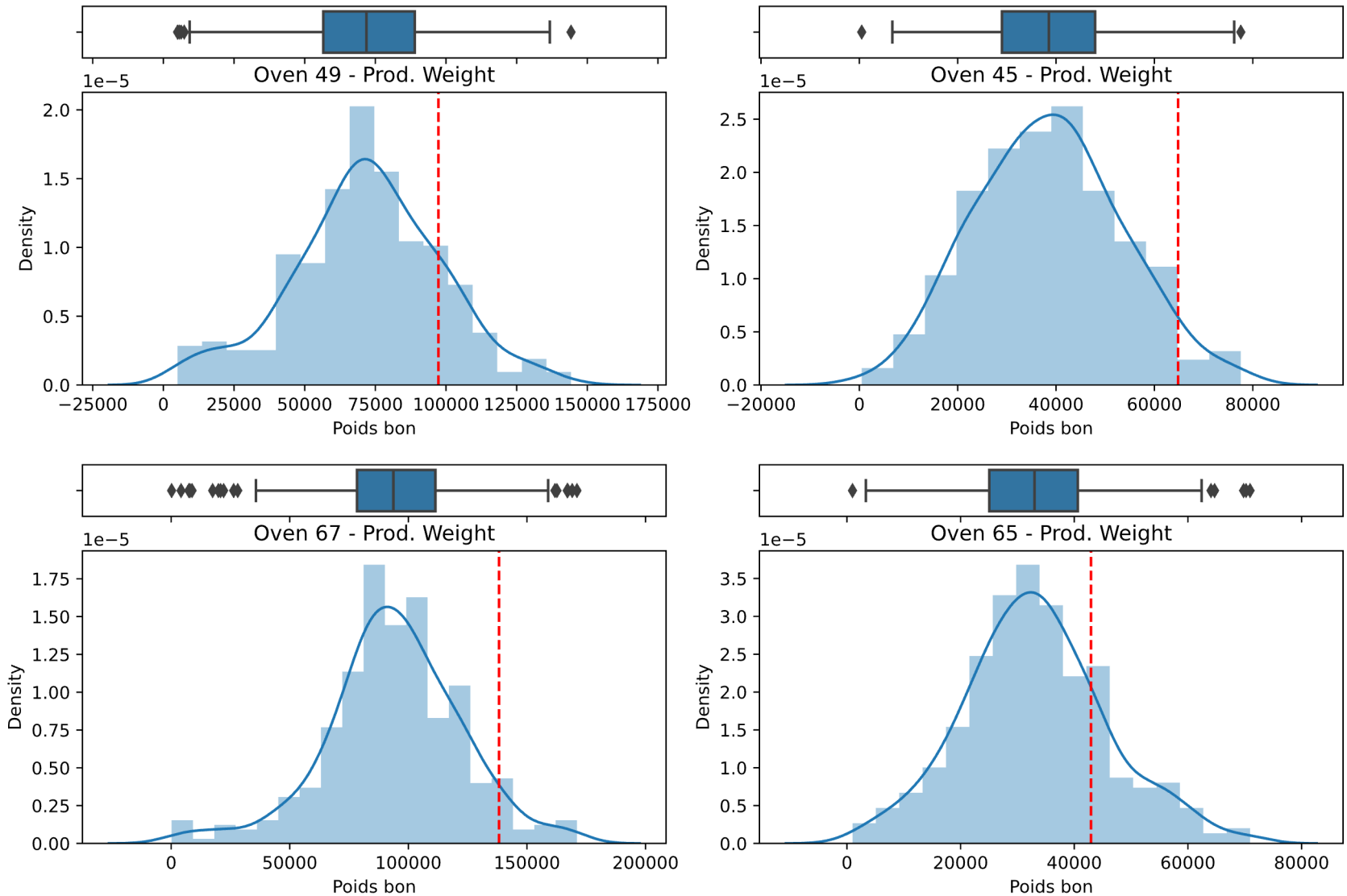
Reproduction of Productionhall



Playing Lego™

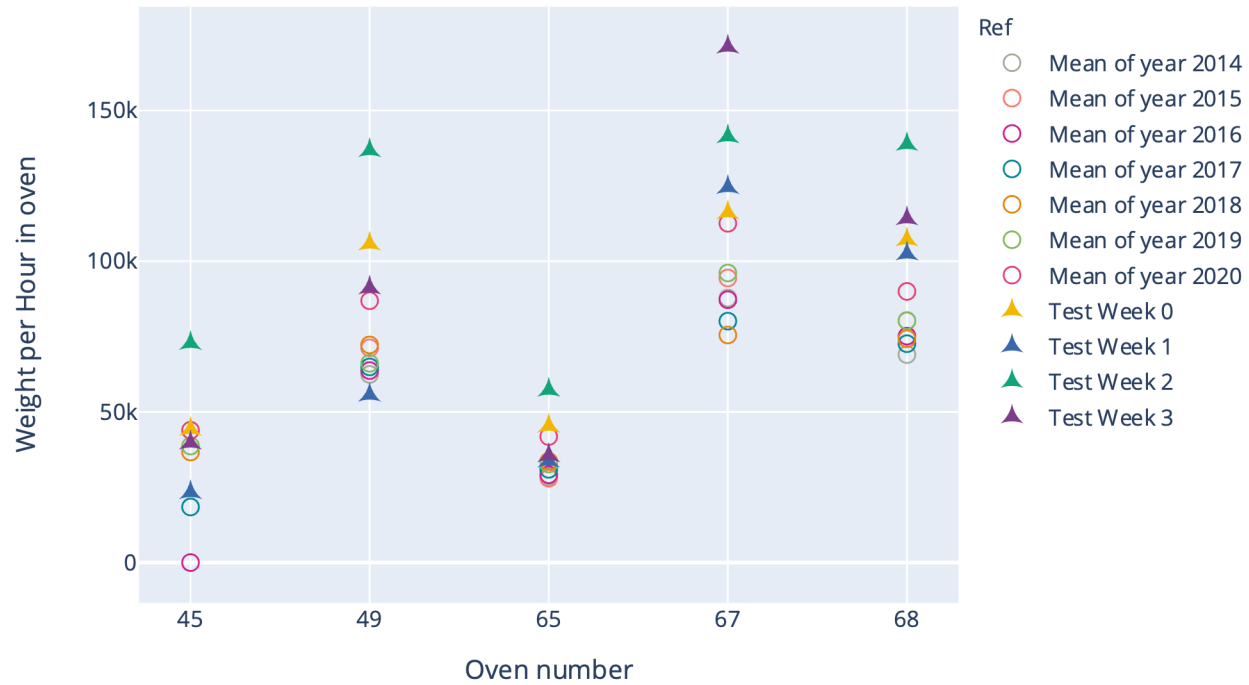


Results



Results

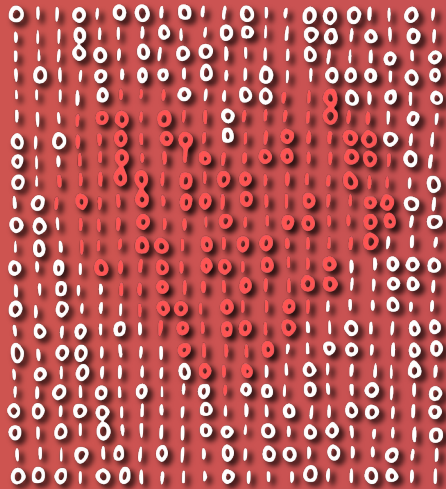
Produced weight per Hour passed in oven



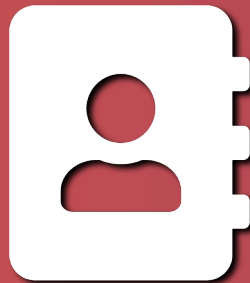
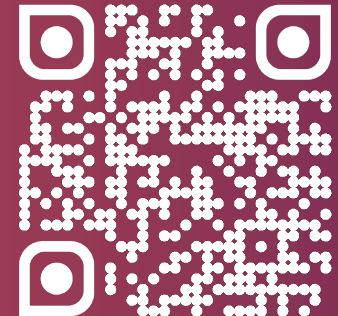
Thank you for your attention

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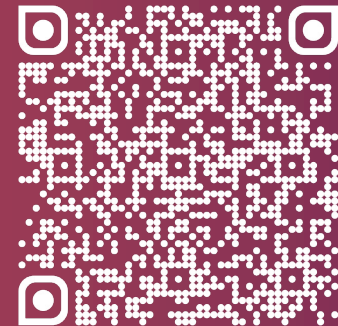
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More infos



Contact me



WHY ARE THERE MIRRORS ABOVE BEDS

WHY DO I SAY UH

WHY IS SEA SALT BETTER

WHY ARE THERE TREES IN THE MIDDLE OF FIELDS

WHY IS THERE NOT A POKEMON MMO

WHY IS THERE LAUGHING IN TV SHOWS

WHY ARE THERE DOORS ON THE FREEWAY

WHY ARE THERE SO MANY SUCHOST.EXE RUNNING

WHY AREN'T ANY COUNTRIES IN ANTARCTICA

WHY ARE THERE SCARY SOUNDS IN MINECRAFT

WHY IS THERE KICKING IN MY STOMACH

WHY ARE THERE TWO SLASHES AFTER HTTP

WHY ARE THERE CELEBRITIES

WHY DO SNAKES EXIST

WHY DO OYSTERS HAVE PEARLS

WHY ARE DUCKS CALLED DUCKS

WHY DO THEY CALL IT THE CLAP

WHY ARE KYLE AND CARTMAN FRIENDS

WHY IS THERE AN ARROW ON AANG'S HEAD

WHY ARE TEXT MESSAGES BLUE

WHY ARE THERE MUSTACHES ON CLOTHES

WHY WUBA LUBBA DUB DUB MEANING

WHY IS THERE A WHALE AND A POT FALLING

WHY ARE THERE SO MANY BIRDS IN SWISS

WHY IS THERE SO LITTLE RAIN IN WALLIS

WHY IS WALLIS WEATHER FORECAST ALWAYS WRONG

WHY ARE THERE MALE AND FEMALE BIKES

WHY ARE THERE BRIDESMAIDS

WHY DO DYING PEOPLE REACH UP

HOW FAST IS LIGHTSPEED

WHY ARE OLD KLINGONS DIFFERENT

WHY ARE THERE TINY SPIDERS IN MY HOUSE

WHY DO SPIDERS COME INSIDE

WHY ARE THERE HUGE SPIDERS IN MY HOUSE

WHY ARE THERE LOTS OF SPIDERS IN MY HOUSE

WHY ARE THERE SPIDERS IN MY ROOM

WHY ARE THERE SO MANY SPIDERS IN MY ROOM

WHY DO SPYDER BITES ITCH

WHY IS DYING SO SCARY

WHY IS THERE NO GPS IN LAPTOPS

WHY DO KNEES CLICK

WHY AREN'T THERE 5 GRADES

WHY ARE THERE GHOSTS

WHY ARE THERE GHOSTS

WHY IS THERE CAFFEINE IN MY SHAMPOO

WHY HAVE DINOSAURS NO FUR

WHY DO IGUANAS DIE

WHY AREN'T ECONOMISTS RICH

WHY DO AMERICANS CALL IT SOCCER

WHY ARE MY EARS RINGING

WHY IS 42 THE ANSWER TO EVERYTHING

WHY CAN'T NOBODY ELSE LIFT THORS HAMMER

WHY IS MARVIN ALWAYS SO SAD

WHY ARE THERE ANTS IN MY LAPTOP

WHY IS EARTH TILTED

WHY IS SPACE BLACK

WHY IS OUTER SPACE SO COLD

WHY ARE THERE PYRAMIDS ON THE MOON

WHY IS NASA SHUTTING DOWN

WHY ARE THERE GHOSTS

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WHY ARE THERE GHOSTS

WHY ARE SWISS AFRAID OF DRAGONS

WHY IS THERE A LINE THROUGH HTTPS

WHY IS THERE A RED LINE THROUGH HTTPS ON TWITTER

WHY IS HTTPS IMPORTANT

WHY AREN'T MY ARMS GROWING

WHY ARE THERE SO MANY CROWS IN ROCHESTER

WHY IS TO BE OR NOT TO BE FUNNY

WHY DO CHILDREN GET CANCER

WHY IS POSEIDON ANGRY WITH ODYSSEUS

WHY IS THERE ICE IN SPACE

WHY IS THERE AN OWL IN MY BACKYARD

WHY IS THERE AN OWL OUTSIDE MY WINDOW

WHY IS THERE AN OWL ON THE DOLLAR BILL

WHY DO OWLS ATTACK PEOPLE

WHY ARE FPGA'S EVERYWHERE

WHY ARE THERE HELICOPTERS CIRCLING MY HOUSE

WHY ARE THERE GODS

WHY ARE THERE TWO SPOCKS

WHAT IS <https://xkcd.com/1256/>

WHY DO THEY SAY T-MINUS

WHY ARE THERE OBELISKS

WHY ARE WRESTLERS ALWAYS WET

WHY ARE OCEANS BECOMMING MORE ACIDIC

WHY AREN'T THERE GUNS IN HARRY POTTER

WHY AREN'T THERE GUNS IN HARRY POTTER

WHY AREN'T THERE GUNS IN HARRY POTTER

WHY AREN'T THERE GUNS IN HARRY POTTER

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WHY AREN'T THERE GUNS IN HARRY POTTER

QUESTIONS

CAN BE ASKED BY ANYONE ANYTIME



WHY AREN'T THERE DINOSAUR GHOSTS

WHY IS THERE A SWARM OF ANTS

WHY ARE THERE WEEKS I DO I FEEL DIZZY

WHY ARE THERE WEEKS I DO I FEEL DIZZY

References

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[1] This presentation has been designed using resources from
Flaticon.com and Fontawesome.com