

Single Day Event

Walk on Feet, Work on Linux – Automate Programming Related Work with Shell Script

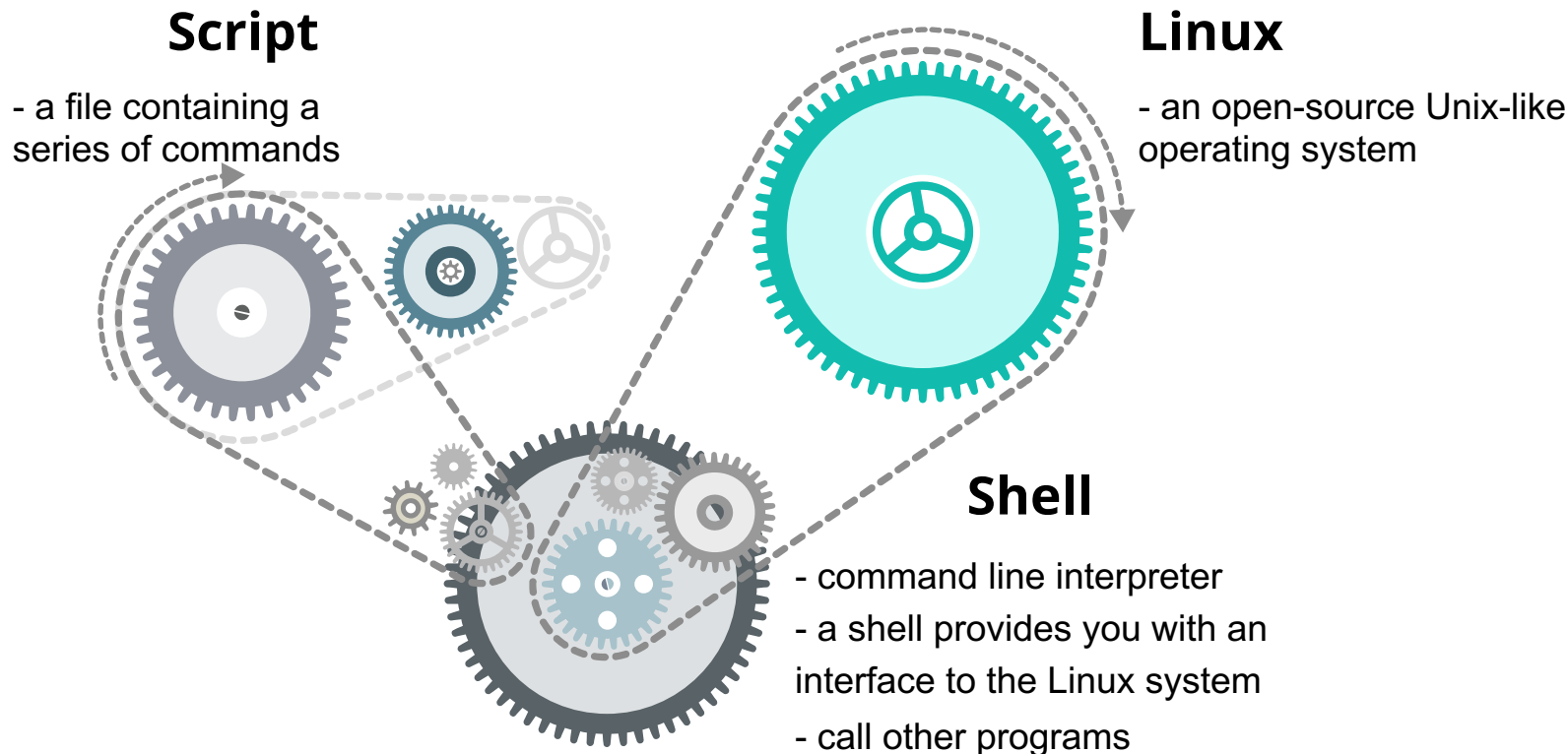
Zongle Hu, Novartis

A large, stylized diamond shape composed of four teal-colored segments, each with a gradient. The word "Agenda" is centered within the diamond in a bold, teal, sans-serif font.

Agenda

- 01 What is shell script
- 02 Why use shell script
- 03 What can shell script do
- 04 Real cases sharing

What is shell script





Why use shell script

Some manual
work can be
achieved with
Linux command



Script can do
massive repeated
work



What can shell script do



Integrate dependency information

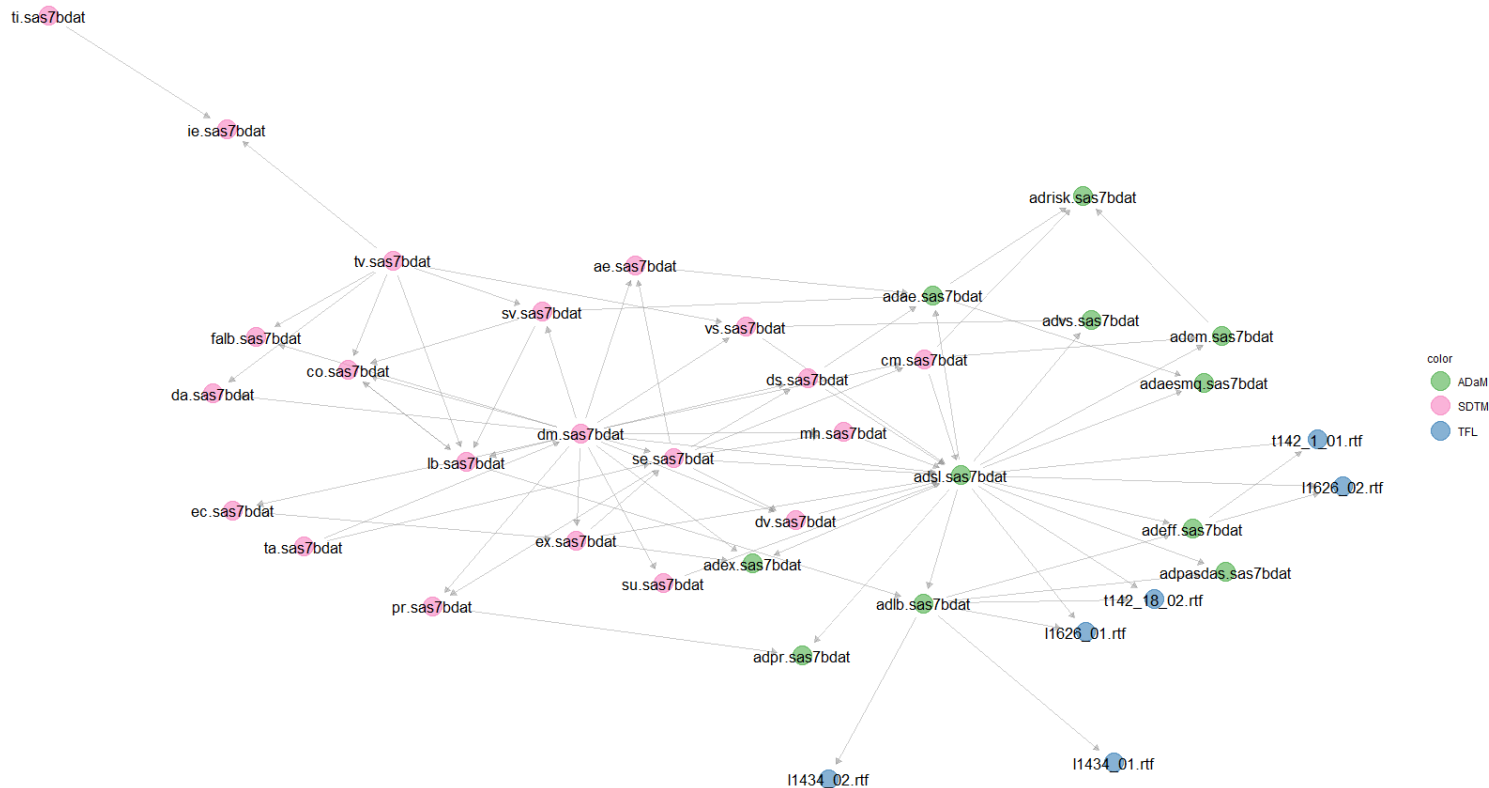


Execute programs



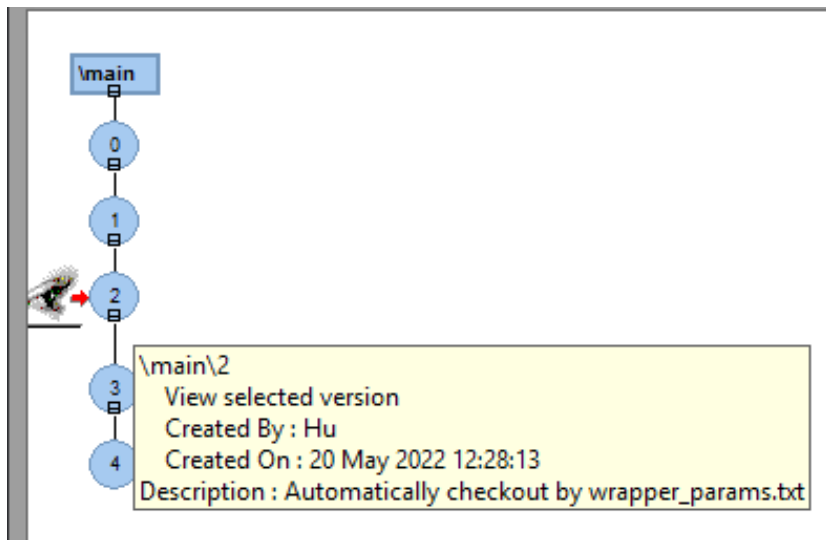
Batch update program with fixed programming module







Version control





Version control

Benefits

manage and protect
the source file

keep track of all the
modifications
made to the file

compare earlier
versions of the file

support inspection
and audit



Real case



Case1 :

Project A is about to deliver.

A mistake is found in lb.sas

How to evaluate the impact and fix it ASAP?



Manual solution

Find all files impacted manually and execute corresponding programs to update them(easy to make mistake)



Automatic solution

Iterate over all files that depend on lb.sas



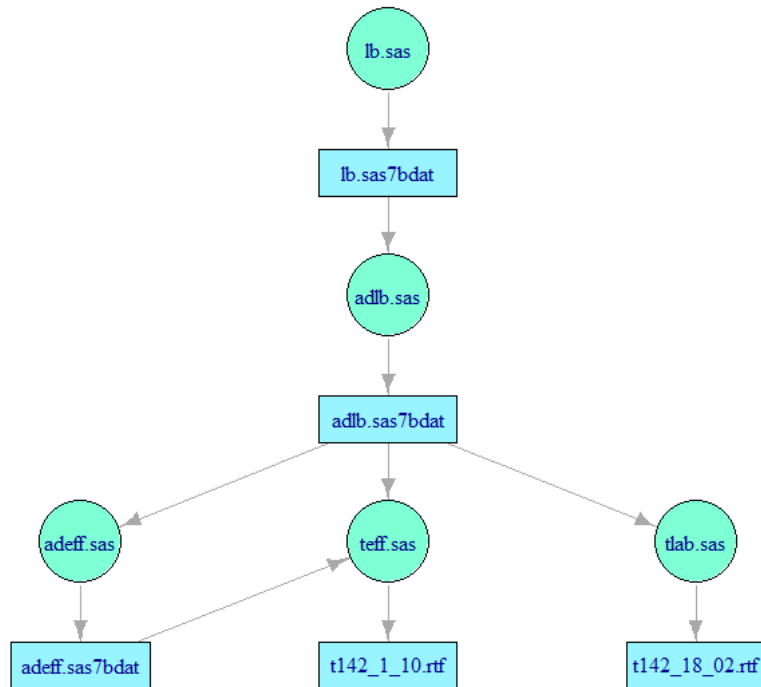


Real case

- Automatic solution

Iterate over all files that depend on lb.sas

- Breadth-first search (BFS):



After source data refresh, programs need to be executed without error in specific sequence and validated



Execute each dev program and QC program, check logs...(takes a lot of efforts)



Real case

Steps for each output:





Real case

Case2:

After source data refresh, programs need to be executed without error in specific sequence and validated

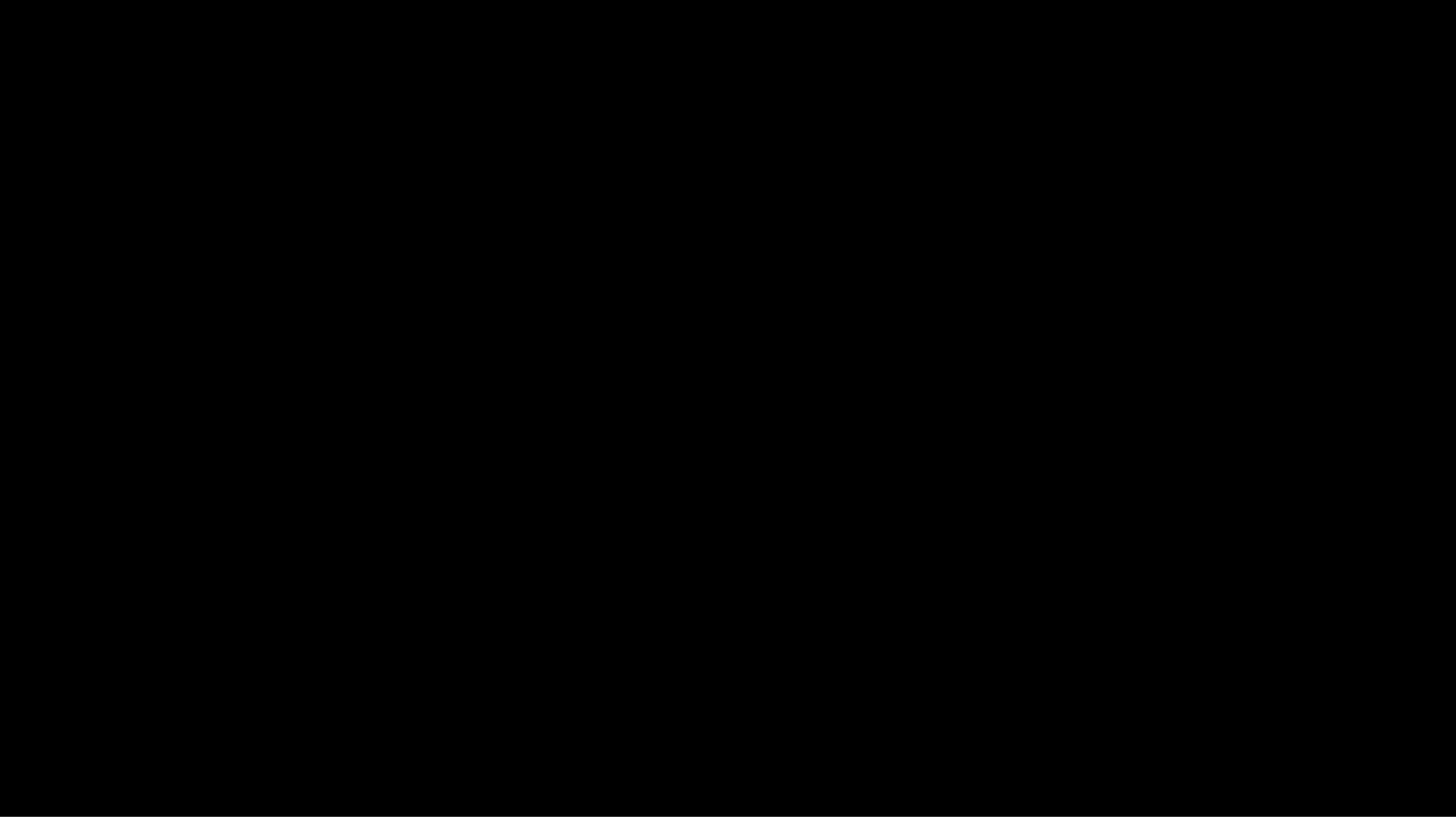
Automatic solution

Use script to execute programs according to this sequence, check the result, send message if human intervention is needed



Manual solution

Execute each dev program and QC program, check logs...(takes a lot of efforts)



Case3:



We need to add a line of code after a specific macro call in a lot of files. The macro may appear at any location of the code.

Automatic solution



Batch update programs with fixed programming module



Manual solution

Open every program and add that line

THANKS

Q&A

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