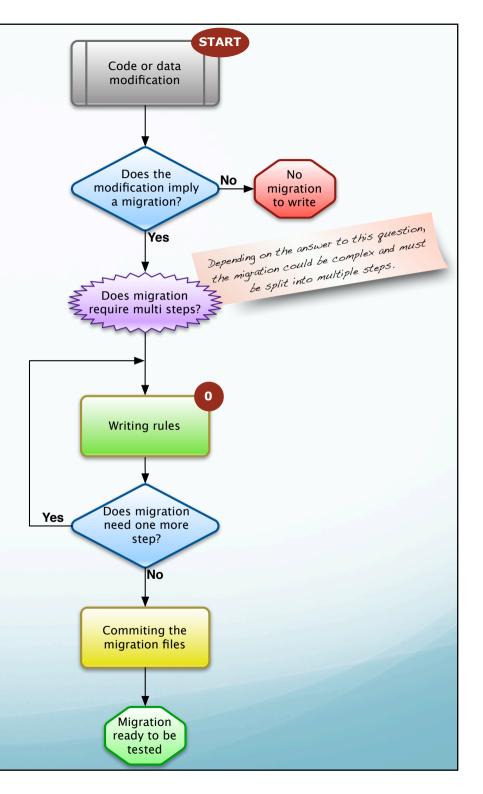
# LMSWR Lotaris Migration Scripts Writing Rules

#### Whole process

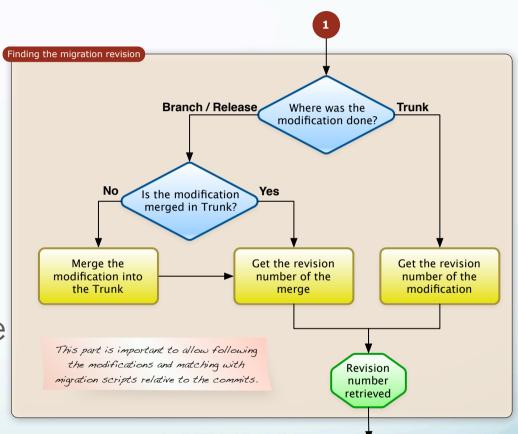
- Does the code modification require a database modification?
- Determine whether the script must be split or not.
- Write the queries and place them in the right file.
- Name the file using the revision that introduced the modification.



Global rules (0) Define the type of the Schema Data Which kind of migration? migration. Is my data applicable for all environments, all contexts? Generic and/or Which kind of Writing the Define the type of data. infrastructural data data? migration queries Contextual data Finding the Write queries. migration revision Writing the migration queries Retrieve the right Separate queries by Does the migration contain queries for components and file name. multi components? chronology Finding the next No free file name for the context Retrieve the right Apply the name for Apply the name for place for the file. the migration parts the migration script Enrich the file with annotations to Put the annotation for script sequence orderina improve the ordering algorithm.

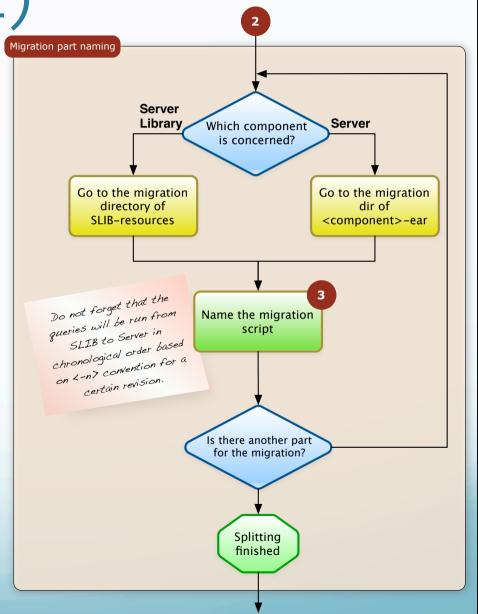
#### Find the revision (1)

- Check where the modification was done.
- Merge the modification into the trunk if necessary.
- Use the revision number where the code was committed or merged in the trunk.



Part naming (2)

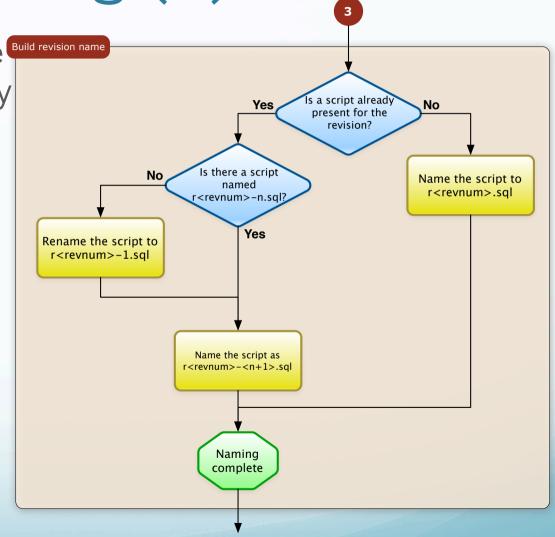
- Is the modification applicable to the server library?
- Name the migration scripts.
- Determine whether the script must be split because of constraint or data.



## Revision naming (3)

• Check if a file for the same revision already exists.

- Check if a file with suffix "-n" already exists. Use the next number (n+1) if it does.
- Apply the naming convention.



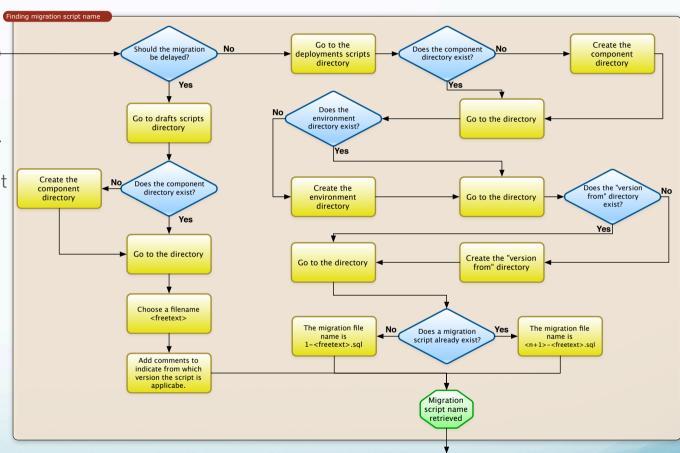
## Contextual script naming (4)

 Check if the migration script must be kept for a later release.

Go to the deployment directory and check if the component (server/database) already exists.

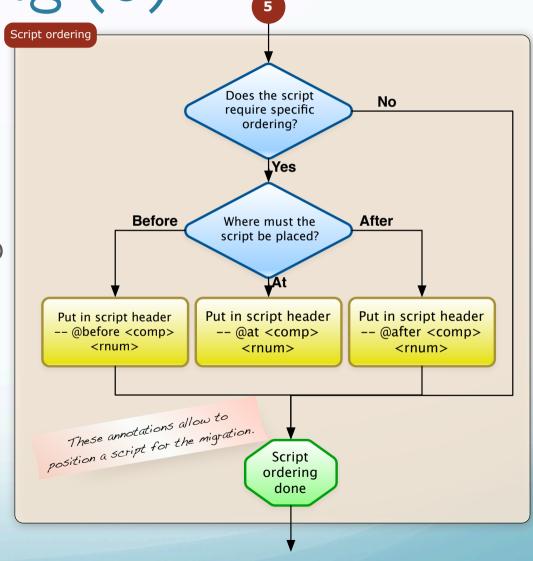
Check if the environment directory already exists.

- Check if the "version from" directory already exists.
- Check if the migration script already exists.
- Apply the naming convention.



Script ordering (5)

- Check if the script must be run at a specific revision.
- Define when the script must be run relative to the revision (@at, @before, @after).
- Apply the annotation convention.



#### That's it

- A revision migration file always refers to a different revision (the one that introduced the modification).
- Any code/data modification must have its migration script(s) (atomicity/immutability).
- Corrections on previous scripts should be in their own new scripts (immutability).
- Comments are the best friend of the Migration Manager. Add them to help him.
   Ex: SELECT queries to complete contextual scripts.
- Avoid forgetting the database name in queries (or placeholder for the server library scripts).
- At this stage, a code part moved from a component to the server library is tricky to handle. Ask the Migration Manager for further details on how to handle the migration.
- Feel free to propose new ideas to improve the whole migration process.