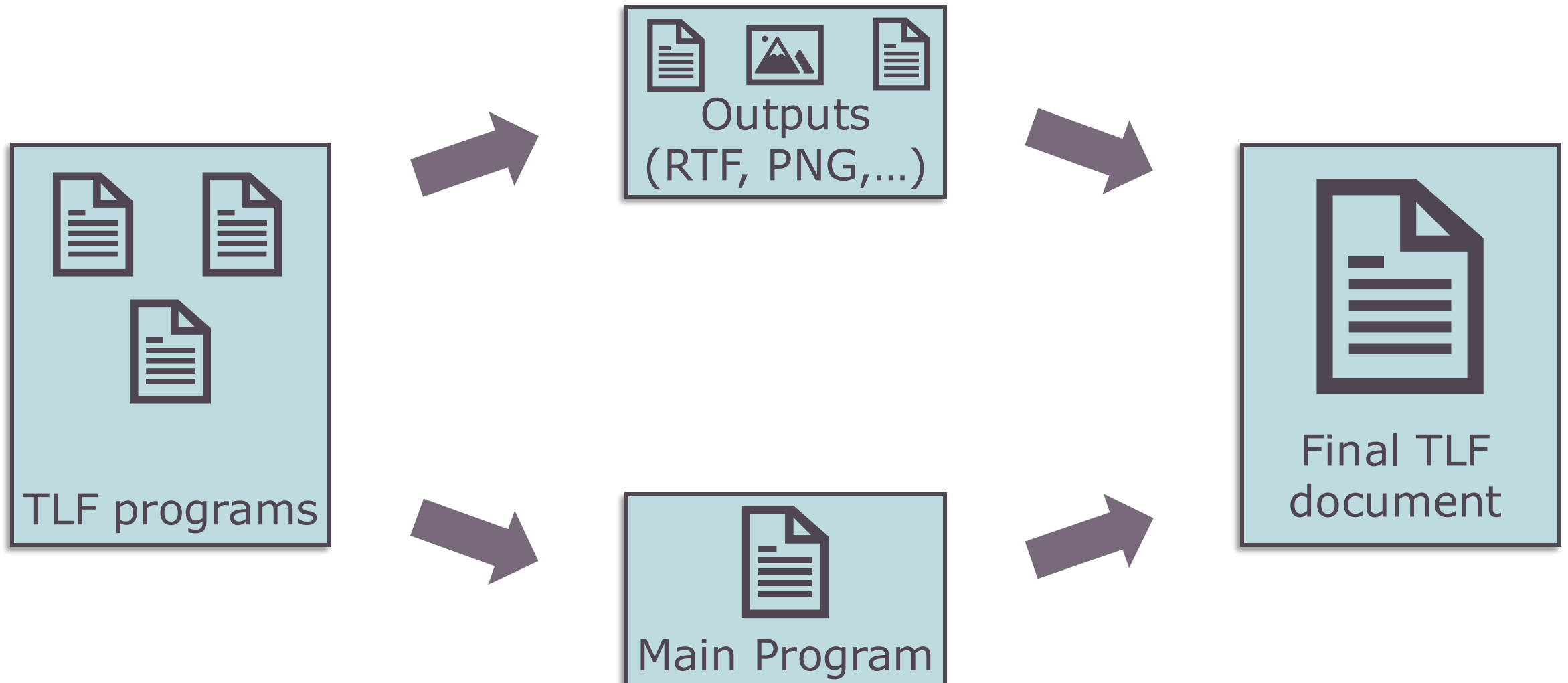


How to handle huge amounts of output tables A systematic approach

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- ▶ Motivation
- ▶ Manual Approach
- ▶ Challenges
- ▶ Idea
- ▶ Process Flow
- ▶ Summary
- ▶ Advanced Usage



Create Output Documents

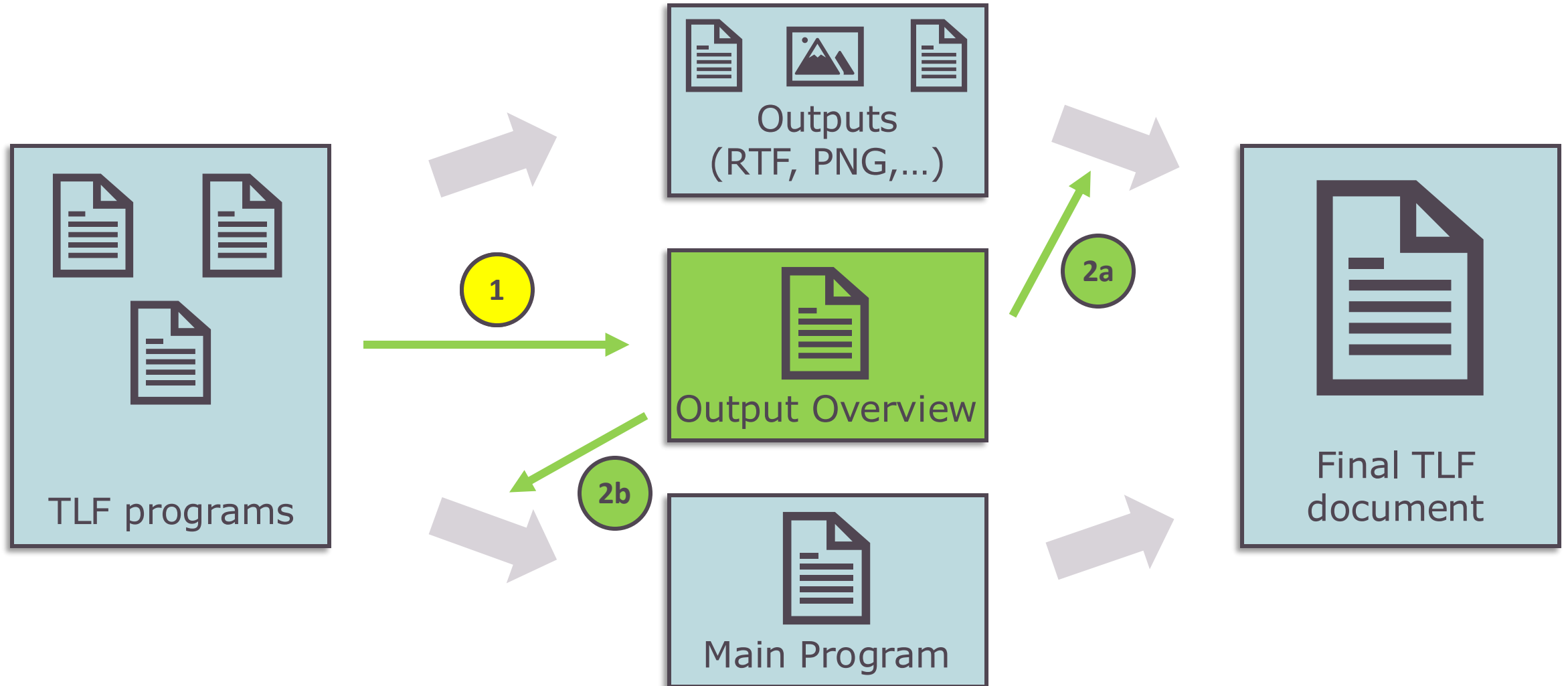
1. Execute TLF programs
2. Write all output file names into a configuration file
3. Consider the correct sorting order
4. Do not forget any files

Create Main Program

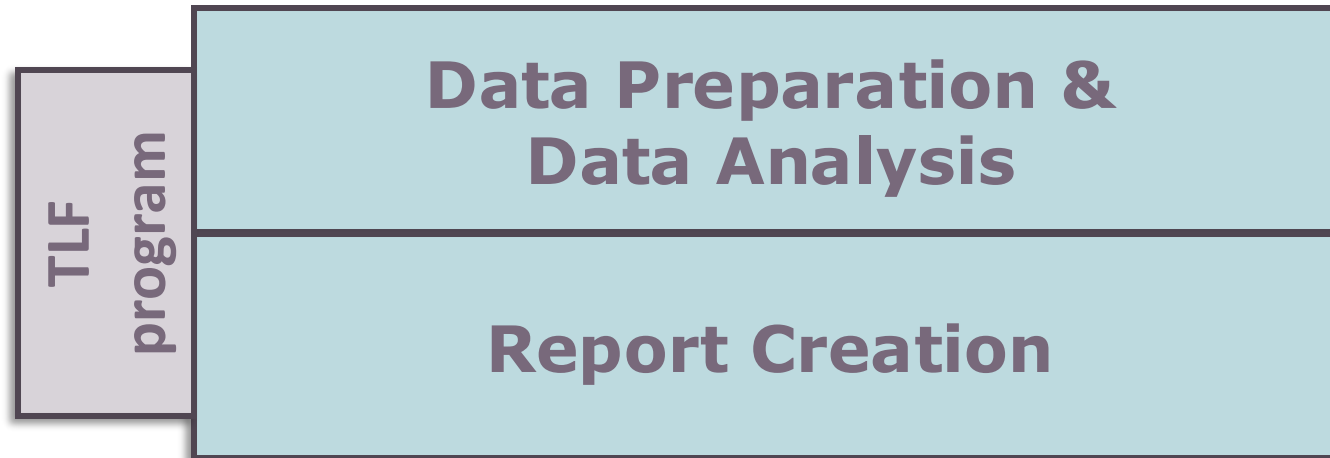
1. Extract all program file names into one main program
2. Consider the correct sorting order
3. Do not forget any programs
4. Include section headers
5. Include final TLF creation

- ▶ Many outputs (>100)
- ▶ Similar filenames
- ▶ No table numbers in filenames
- ▶ Sorting order
- ▶ Different file types





1



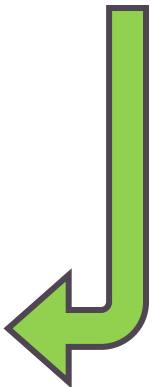
1

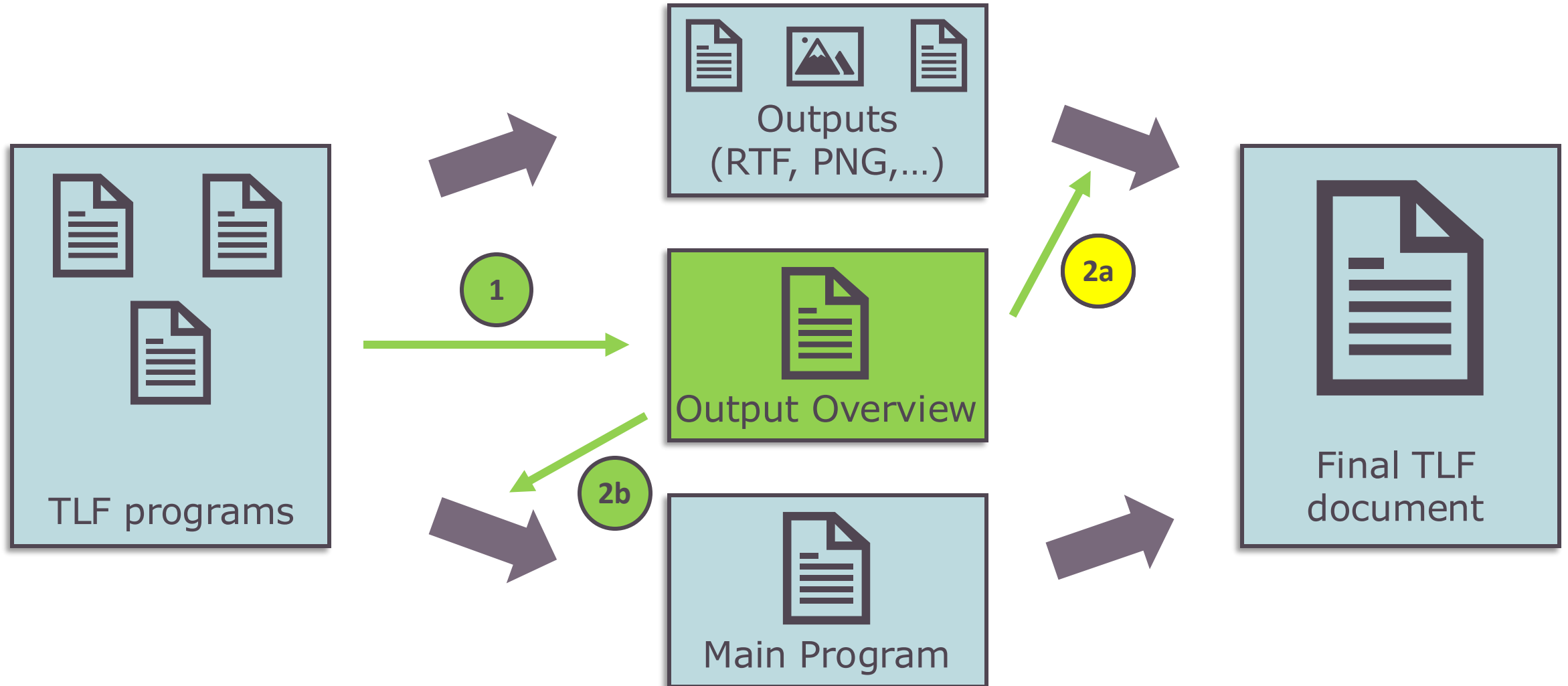
- Store file- and program name in the output overview
- Get title (and footnote) from sashelp.vtitle
- Extract output type and table number
- Sort data by table number in linguistic sorting sequence

```
%export_title(  
  filename= t_first.rtf  
  proname=t_first.sas
```

Output Overview				
File name	Program name	Title	Output Type	Table Number

XLSX, CSV, SAS dataset





2a

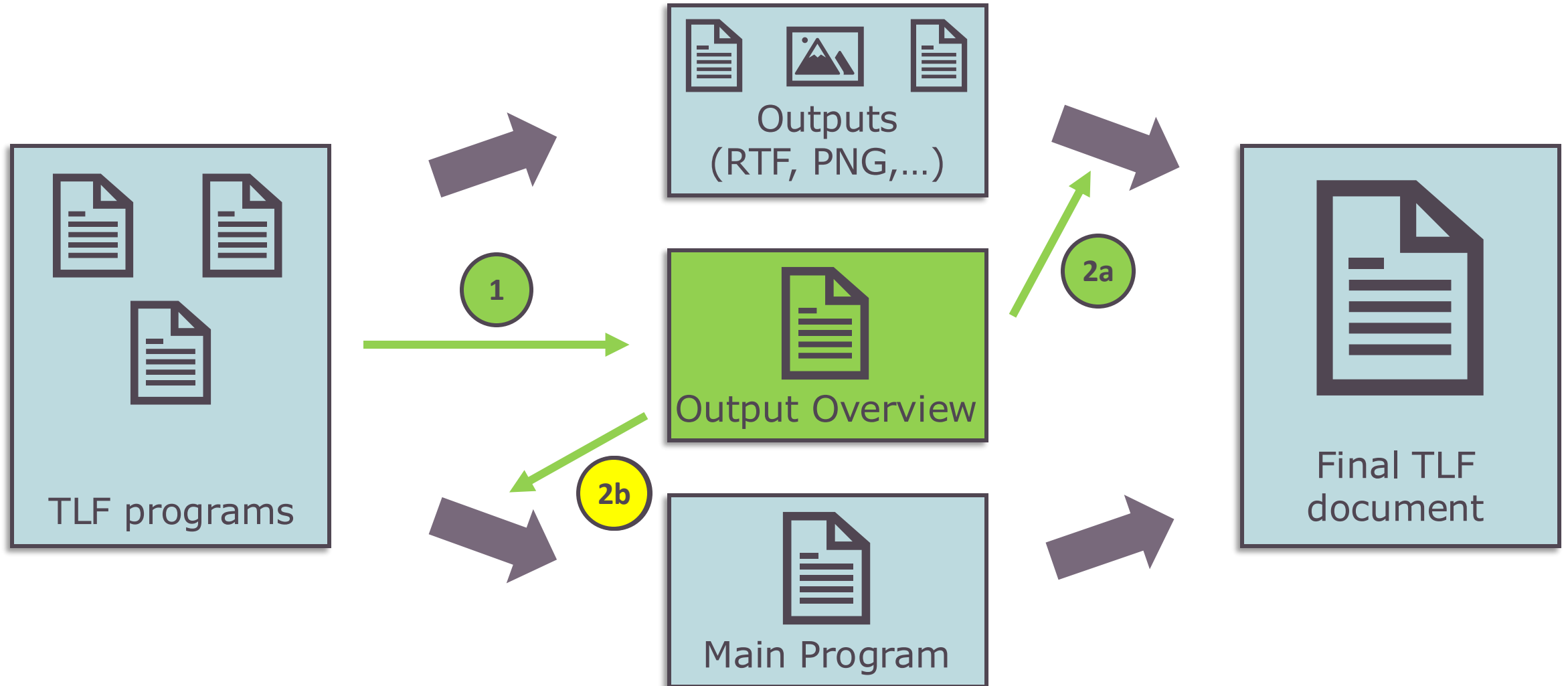
Output Overview			
File name	Title	Table number	Section
t_first.rtf	Table 1-1.1: First table	1-1.1	Section 1
f_first.png	Figure 1-1.1: First figure	1-1.1	Section 1
t_second.rtf	Table 2-1.1: Second table	2-1.1	Section 2



```
Header1;Section 1  
RTF;t_first.rtf  
FigureTitle;Figure 1-1.1: First figure  
Figure;f_first.png  
Header1;Section2  
RTF;t_second.rtf
```

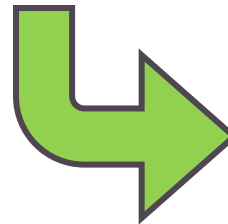


Reindeer.docm



2b

Output Overview		
Program name	Table number	Section
t_first.sas	1-1.1	Section 1
t_second.rtf	2-1.1	Section 2



```
/*Start RTF creation*/
ods tagsets.rtf
    file="C:\Users\nico.schreiber\final_report.rtf"
    startpage = yes
;

ods escapechar="^";

/*Execute programs*/
ods text="^S={fontsize=24pt}Section 1";
ods startpage=now;

%include "t_first.sas";

ods text="^S={fontsize=24pt}Section 2";
ods startpage=now;

%include "t_second.sas";

/*Finish RTF creation*/
ods rtf close;
```

PROS

- Fast creation of the final report document
- Significantly less error-prone
- Adaptable to various study processes
- Suitable for studies of any complexity
- Ensures accurate sorting of tables and figures
- Initial macro implementation is straightforward
- Flexible naming conventions for program files
- Detailed overview of all programs and outputs

CONS

- Requires development and validation of processing macros
- Implementing flexibility within macros can be challenging
- SAS/ACCESS for PC Files is necessary to have an XLSX output overview

- ▶ Storing of footnotes
- ▶ Subsetting of programs/outputs
- ▶ Including creation date of outputs
- ▶ Allow / Prevent overwriting of records
- ▶ Automatic copying of programs across studies



- Glass, K. (2021). Katja Glass Consulting,
<https://github.com/KatjaGlassConsulting/reindeer>

THANK YOU

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