

# First Session

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**Bash Scripting for Audio-Visual Preservation**  
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# Handouts

- the presentations
  - the code of the scripts
  - a bibliography
- [reto.ch/training/2022/202202/](https://reto.ch/training/2022/202202/)
- [avpres.net/Bash/](https://avpres.net/Bash/)

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# Beginner level's goals

- to write independently simple Bash scripts
- to know where help can be found

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# "Play with checksums"

- command-line interface
- parse input and format output
- flow control: branching with **if**
- variables
- functions
- data processing

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# Contents

- computer
- Unix, GNU and Linux
- user interface

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# Interacting with the computer

- punched cards reader and line printer
- command-line interface (CLI)
- graphical user interface (GUI)
- touchless interface

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ASCII (1977/1986)																
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0x	NUL	SOH	STX	ETX	EOT	ENQ	ACK	BEL	BS	HT	LF	VT	FF	CR	SO	SI
1x	DLE	DC1	DC2	DC3	DC4	NAK	SYN	ETB	CAN	EM	SUB	ESC	FS	GS	RS	US
2x	SP	!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/
3x	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4x	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5x	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
6x	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7x	p	q	r	s	t	u	v	w	x	y	z	{		}	~	DEL

Legend:  
■ Changed or added in 1963 version  
■ Changed in both 1963 version and 1965 draft

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# Let's start!

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## Set the working directory

Linux/Mac/Windows Terminal or WSL:

```
cd ~/Desktop
```

Windows locally:

```
cd Desktop
```

Windows on OneDrive Cloud:

```
cd OneDrive
```

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## Edit and run a script

```
nano script
```

```
chmod +x script
```

```
sudo chmod +x script
```

```
./script
```

```
drag-and-drop_script
```

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## Shebang

```
#!/path_to_shell
```

```
#!/path_to_programming_language
```

```
#!/bin/sh
```

```
#!/bin/bash
```

```
#!/usr/bin/env bash
```

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## Built-in commands

```
cd path
```

```
echo string
```

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## External commands

```
ffmpeg options arguments  
ffplay options arguments  
ffprobe options arguments  
  
grep options pattern file
```

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## Syntax for an **if** statement

```
if condition ; then  
    command  
elif condition_n ; then  
    command_n  
else  
    command  
fi
```

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