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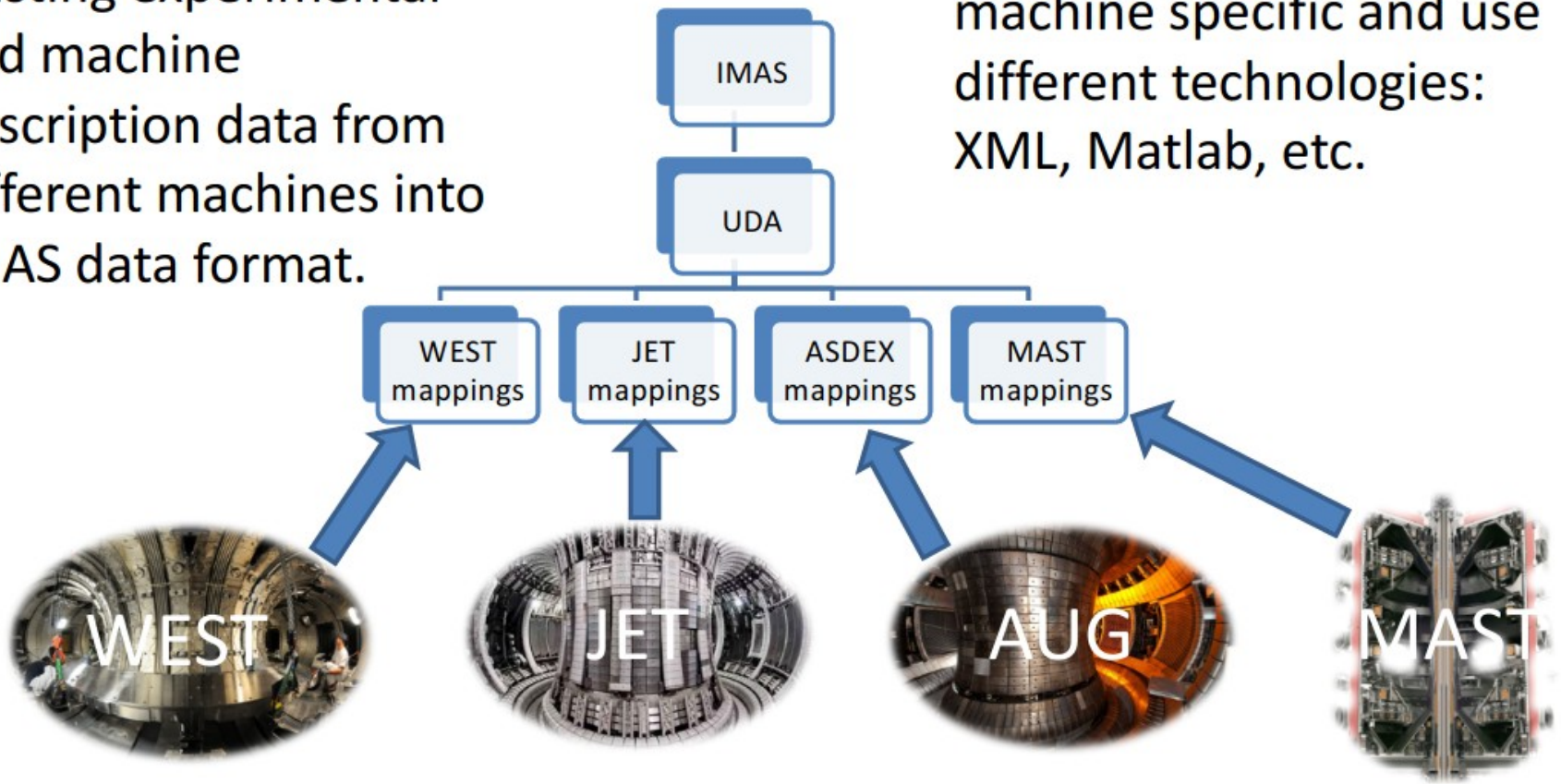
The Universal Data Access library

UDA* is used to map existing experimental and machine description data from different machines into IMAS data format.

The mappings are machine specific and use different technologies: XML, Matlab, etc.



*Universal Data Access: Data access and transformation tool originally created for the MAST data systems

J. Hollocombe and D. Muir

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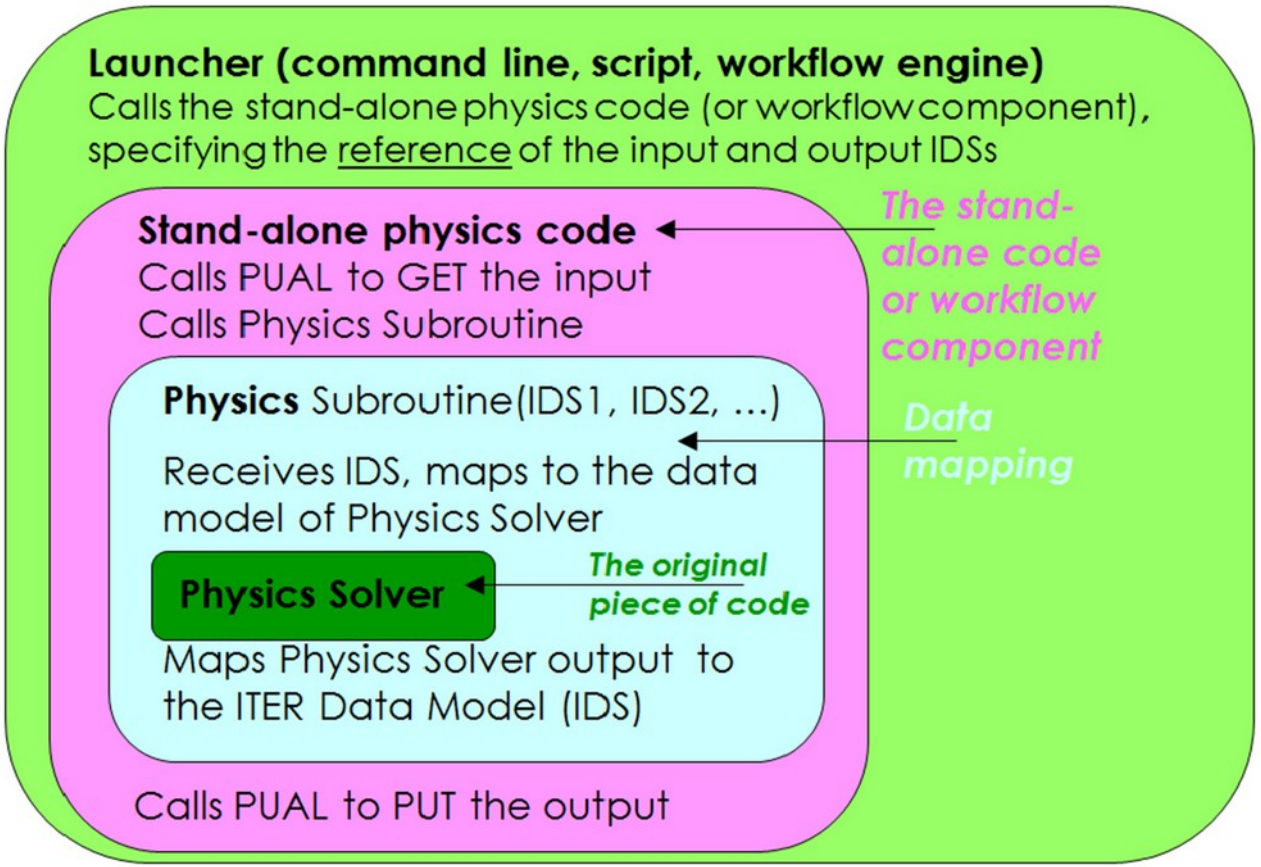
Launcher (command line, script, workflow engine)
Calls the stand-alone physics code (or workflow component), specifying the reference of the input and output IDSs
Stand-alone physics code
Calls PUAL to GET the input
Calls Physics Subroutine
The stand-alone code or workflow component
Physics Subroutine(IDS1, IDS2, ...)
Receives IDS, maps to the data model of Physics Solver
Data mapping
Physics Solver
The original piece of code
Maps Physics Solver output to the ITER Data Model (IDS)
Calls PUAL to PUT the output

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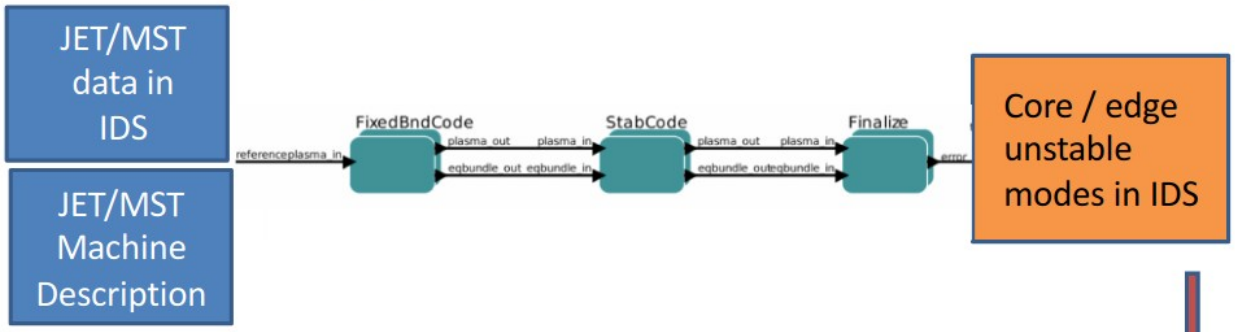
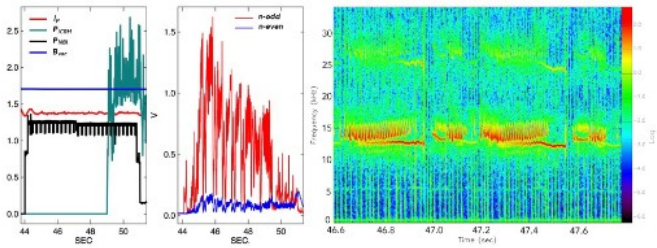
- **The Equilibrium and MHD stability workflow uses IMAS IDS for the coupling of arbitrary equilibrium and stability codes**



INPUT data / interfaces for MST prepared in EWE tasks

Equilibrium modules will include CLISTE. and EFIT++ in IMAS in 2019



R. Coelho, IAEA FEC 2018

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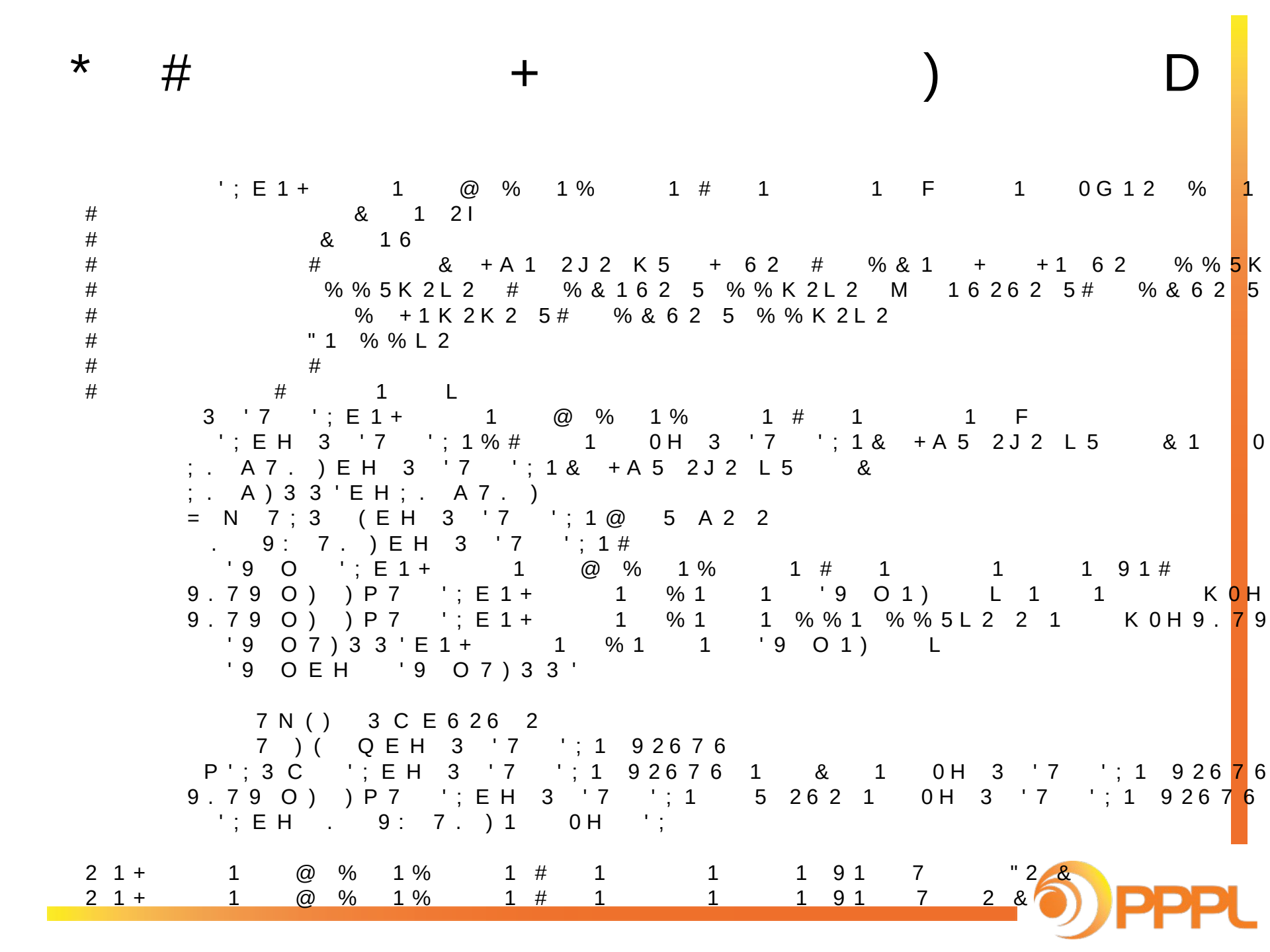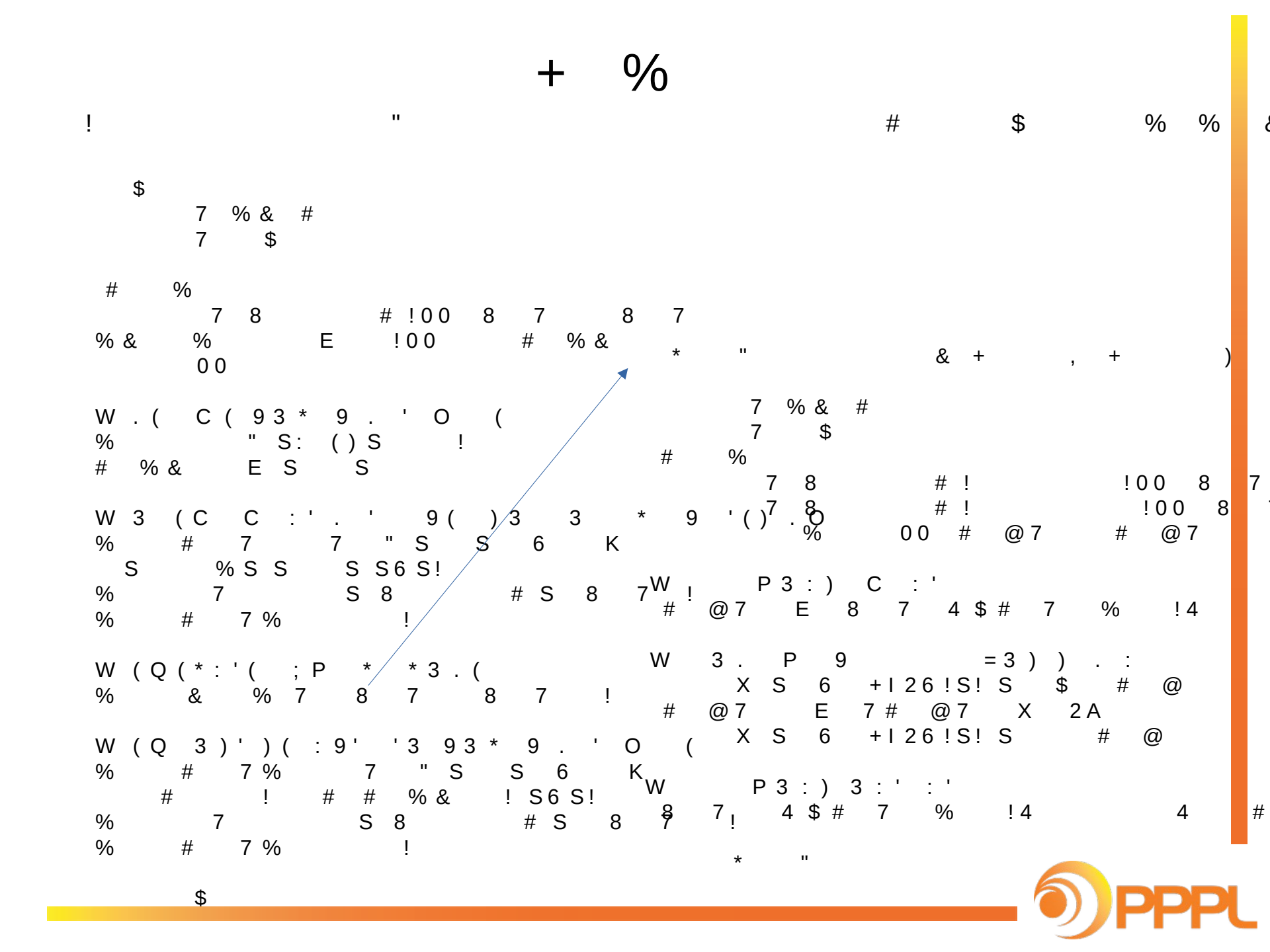
```
sudo apt update -y

sudo apt install gcc -y
sudo apt install gdb -y
sudo apt install build-essential -y
sudo apt install cmake -y
sudo apt install byacc -y
sudo apt install libssl-dev -y
sudo apt install libboost-all-dev -y
sudo apt install swig -y
sudo apt install libxml2-dev -y
sudo apt install python2.7 -y
sudo apt install python3.7 -y
sudo apt install python-pip -y
sudo apt install python3-pip -y
sudo apt install unzip -y
sudo apt install libreadline-dev -y
sudo apt install gfortran -y
sudo apt install autoconf -y
sudo apt install doxygen -y
sudo apt install xsltproc -y
sudo apt install flex -y
sudo apt install environment-modules -y
sudo apt install ghostscript -y
sudo apt install texlive-font-utils -y
sudo apt install curl -y
sudo apt install libcurl4-openssl-dev -y
sudo apt install nsis -y
sudo apt install bison -y
sudo apt install libjpeg-turbo8 -y
sudo apt install libopenjp2-7 -y

sudo add-apt-repository ppa:webupd8team/java
sudo apt update -y
sudo apt install oracle-java8-installer -y
sudo apt install oracle-java8-set-default -y
```