# Demonstration of Wire Scanners Logs Analysis Application

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# Goals:

- Easier access to logging database than trough Timber application
- Wire Scanner customs settings
- Static set of variables designated to Wire Scanners
- Easy manipulation of charts
- CSV and PNG data download
- Plot of numeric values in respect of timestamps
- Possibility of bunch-by-bunch plot for SPS/LHC
- Possible Gaussian fitting to acquired profiles
- Introduced scan quality factor

# Current set of variables

Vectonumeric values:

- Data IN/OUT
- Position IN/OUT
- Resistance IN/OUT
- Current IN/OUT
- Position Probed (only for the LHC)
- PROJ_BUNCH IN/OUT (only for the SPS)
- Bunch selection (for the SPS and the LHC)

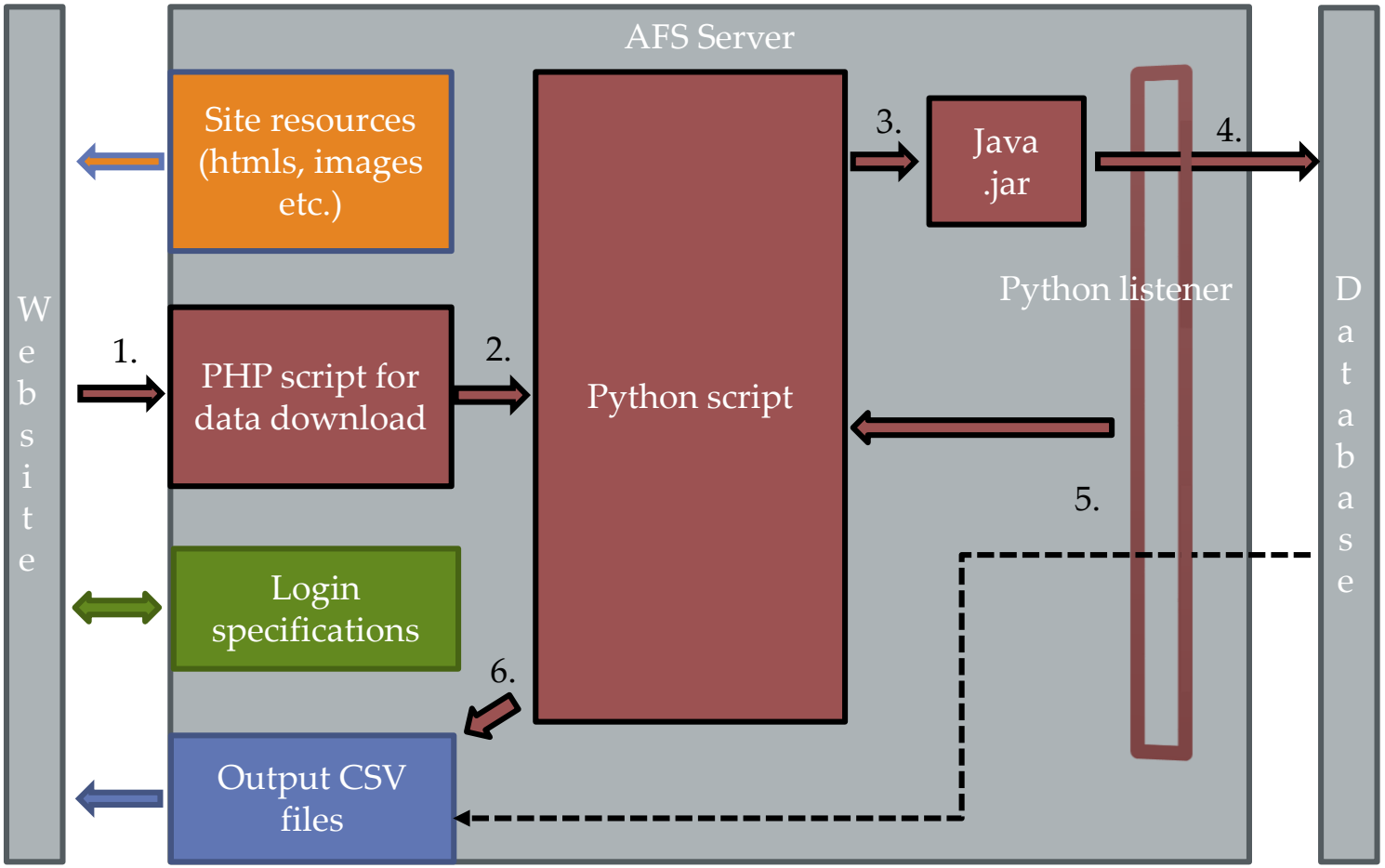
Numeric values:

- Selected filter
- Gain
- POT_READ
- Number of bunches

Calculated values:

- Sigma IN/OUT
- Scan quality

# General system architecture



# Website address – valid CERN account is required

www.cern.ch/bws-web

# Online presentation

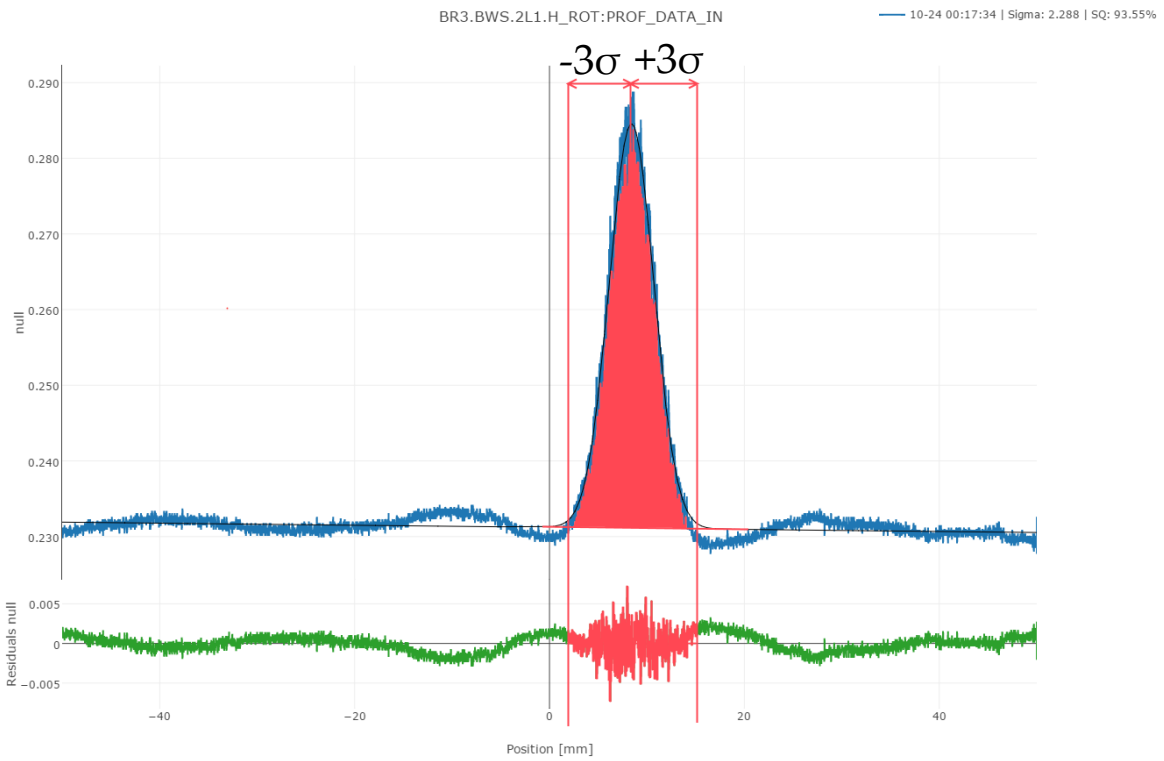
# Thank you for your attention

# Scan quality

Formula

$$SQ = \left(1 - \frac{\int_{-3\sigma}^{+3\sigma} |Residuals|}{\int_{-3\sigma}^{+3\sigma} |Gaussian - Offset|}\right) \cdot 100\%$$

Example



# Initial fit values