

# QUALITY CONTROL

There is a common misconception that DIGITAL means QUALITY! If that were true, there would be no need for Quality Control. However, in the real world Quality Control has become big business and getting it right has never been more important.

## BACKGROUND

The EBU's strategic programme on Quality Control (QC) has been working with broadcasters, vendors and standards groups to build a compendium of the processes and tests that are needed in a file based workflow.

The first stage of this work is now available through the [EBU.IO/QC](http://EBU.IO/QC) tool where over 220 different QC Items are defined and explained.

## QC WORKFLOWS

QC processes have developed slowly over many years, based on linear workflows that were unique to each broadcaster and targeted at a single traditional broadcast output. Now, traditional television is just one of many destinations for content and each has its own QC requirements and its own file format checks that have to be passed before delivery!

Using the [EBU.IO/QC](http://EBU.IO/QC) tool it is possible to bring together QC Items into a QC Template with user settings and export the Template as a FIMS compliant XML file that can be loaded into any FIMS compliant AQC device.

## QC TEMPLATES

Each QC Template starts with the individual QC Items. The EBU QC Items defined in [EBU.IO/QC](http://EBU.IO/QC) include test parameters with standards-based or commonly used default values.

Different QC Templates may be used for different outputs – the key is to build a viable test set for each of the programme's destinations.

Common examples are:

- **Automated QC** (To check signal levels and standards)
- **File Package Compliance** (To check against file standards, e.g. AS11 DPP)
- **Manual QC** (Golden Eyes/Ears watching the programme)
- **File Structure Analysis** (Deep analysis to find if something is wrong with the file structure)

## BUILDING A QC TEMPLATE

Any number of QC Items can be grouped together into a QC Template. As each QC Item is added, [EBU.IO/QC](http://EBU.IO/QC) allows to add and save the user parameters on a Template by Template basis. When all the QC Items have been added, the QC Template can be exported as a FIMS compliant XML file, ready to import into any FIMS AQC tool.



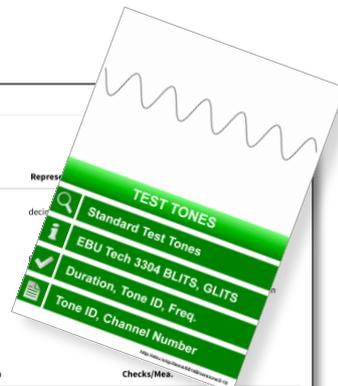
User Values - Test: 0260B v.0-17

Input						
Name	Unit	Type	Default Value	User Value	Range	Representation
Loudness Target Level Expected	LUFs	real number	-23.0	<input type="text" value="23.0"/>	[-31, 0]	decimal
Loudness Target Level Expected Tolerance	LU	real number	0.5	<input type="text" value="0.5"/>	[0.1, 5]	
Loudness Service Channel Allocation		string	4a 1.2	<input type="text" value="4a 1.2"/>		

Output						
Name	Unit	Type	Range	Representation	Checks/Meas.	
Check Result		boolean			This parameter is required in Checks and not applicable in Measurements	
Loudness Integrated Level	LUFs	real number	[-31, 0]	decimal with 1 fractional digit	This parameter is optional in Checks and required in Measurements	

Close

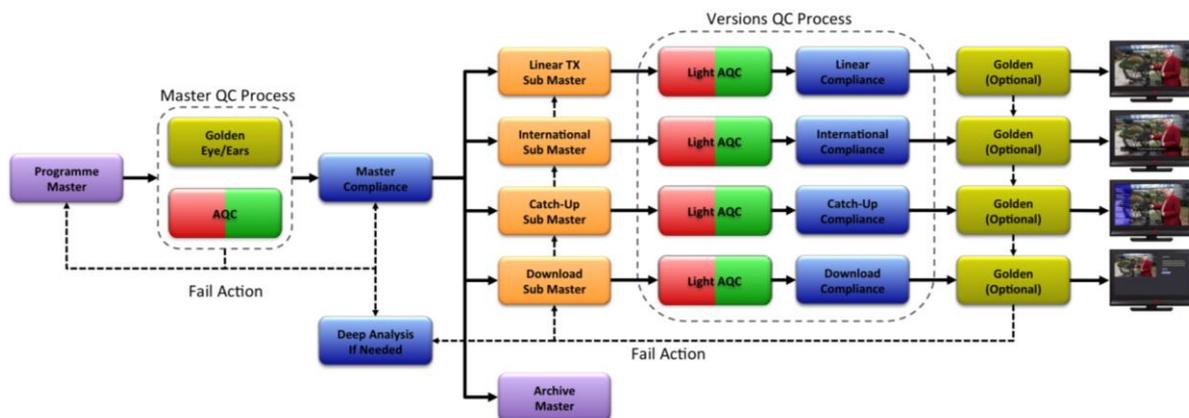


QC Item User Input Tool (pre-release version shown at IBC 2015).

## EBU QC WORKFLOW

A finished programme workflow may require several different QC Templates, each based on the particular requirements of the deliverable.

Different levels of QC tests can be applied to minimise the risk of failure and maximise the workflow efficiency. The number of times a programme is actually watched will depend on the level of processing and the accuracy of the automated QC checks applied at each stage.



## QC REPORTING

A traditional QC report is a written document with a mixture of comments, critical assessment and technical measurements. The “sign-off” for transmission is usually just a signature!

The on-going task of the EBU QC group with FIMS, is to produce a standardised QC Reporting option that can replace the paper report which, although well known, is open to misunderstanding and lacks the detail needed for checking a file is actually compliant with a broadcasters requirements.

## FIND OUT MORE

EBU QC group (also open to non-members)

[tech.ebu.ch/groups/qc](http://tech.ebu.ch/groups/qc)

EBU QC tool

[EBU.IO/QC](http://EBU.IO/QC)