

metadata

– the bit about bits

BACKGROUND

Traditionally, programmes are contained on films or tapes to which written labels can be attached for identification. The same goes for the material the programmes are made from, shots, audio clips, graphics and so on. Other information about programmes and the material that goes to build them is currently recorded and stored in a variety of different formats. In the digital world this accompanying information is known as Metadata. In the future, storage costs will be negligible and there will be no network constraints on transfer of data. We want to ensure that metadata is then handled in a well defined and agreed way so that everyone in the programme chain – researcher, producer, scheduler, business manager, archivist – has access to the data they need, in the form they need it.

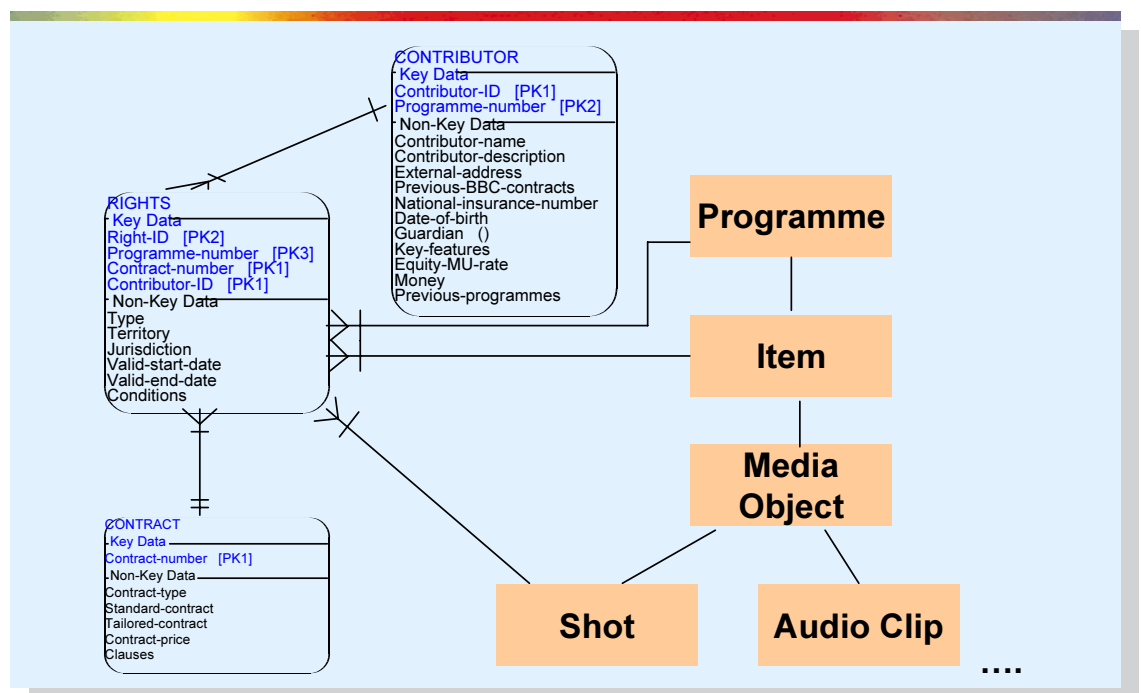
SMEF

The BBC Media Data Group was set up to see if it was possible to develop information standards for identifying, describing and exchanging media items between all processes and business areas. It wanted to use current technology to eliminate the different data formats used in current production practice and support the write-once-read-many approach to data management. It is also exploring how useful digital metadata could be in linking systems and processes.

The project set out to identify everything the business ever needed to know about a media item and to understand how that information was passed between process stages and business units. The outcome is a set of data tools which provide the basis for the Standard Media Exchange Framework or SMEF. This standard defines the information changing hands at the interfaces: the required outputs and inputs from one process to another.

In parallel with the data and process study, the Project audited all current production and distribution systems in use for their information output/input and metadata capability. The sad fact is that although there's lots of information generated there's very little capacity for handling it at the moment except in post-production and play-out – and most of that is proprietary. So the BBC is working through the EBU and the SMPTE to persuade the industry to develop solutions that fit together.

Part of the SMEF model.



BBC

Research &
Development

THE RADIO DEMONSTRATOR

To show people how metadata might be used, BBC Research & Development have built a radio demonstrator. It is not a system in itself, but a concept model that presents the sort of tool-set and middleware that could be developed with SMEF in place. It shows four process stages: research and archive retrieval; editing; scheduling and play-out; and DAB home reception.

We chose radio because it's technically and economically easier than TV, and because with the EBU Broadcast Wave Format there is already a standard file format with metadata capability.

What we hope to illustrate is the way information can be created and re-used for a number of different purposes throughout the programme lifecycle, if only it's structured properly in a standard way. The aim is to make life easier for the person entering the data, while delivering quality information to the subsequent user. The principle is "write-once-read-many". We'll also suggest how information might be imported and exported to other systems used in the process.

WHAT CAN METADATA DO FOR THE BBC?

A unified data structure will safeguard vital information and eliminate re-entry of data into different systems. As the technology develops it should become possible to generate much of the metadata automatically. So development of metadata should yield efficiency savings and make everyone's life easier throughout the production chain. And it will make it easier to identify material from the archive that is relevant to making of new programmes, including the rights clearances that are needed for its re-use. Thus metadata will enable the BBC to "repurpose" material to reduce production costs.

An example screen from the Radio demonstrator.

