




**Demystify ..... EPG**

RTS London 25 May 2011

Aug-11 [Weitzel.tv](http://Weitzel.tv)


## Agenda



**The history and basics**  
Peter Weitzel

**SIEMENS**

**The EPG to your home**  
Peter Daniel Siemens



**The EPG**

- The Role of today's EPG
- Workflow
- What makes a good EPG listing
- Current trends and the future  
Richard Kirk Red Bee/BDS

**Q&A**

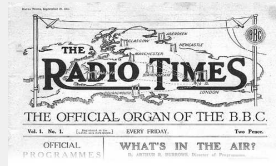
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### Programme guide - why?

#### “Contents” for an ethereal and ephemeral medium

In the UK first Programme guide was in 1923

Who published it ?



And Why?

The newspapers see radio as competition and refuse to print programme schedules, so the BBC launches the Radio Times in September 1923, begins to include TV listings in December 1936.

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### “Ceefax Mag 6”



Ceefax Service launch September 23, 1974

BBC had about 20 channels listed in mid 1990's

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**EN 300-707 Electronic Programme Guide (EPG);  
NexTVView™**

“Protocol for a TV Guide using electronic data Transmission”

Work started in 1993-4  
First and until well into C21 the only open standard EPG.

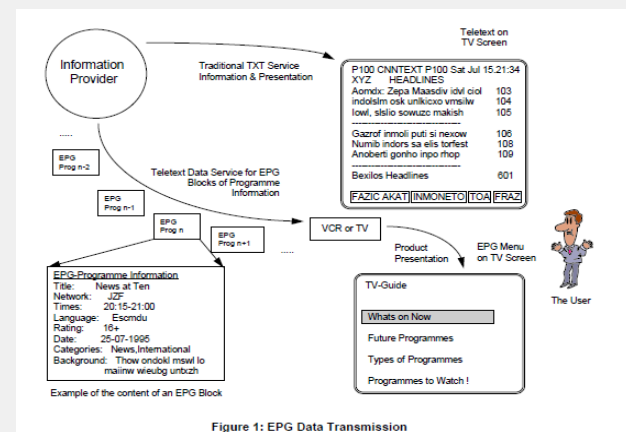
Had to explain what an EPG was and how it could be used-  
- It reads a bit quaintly these days -

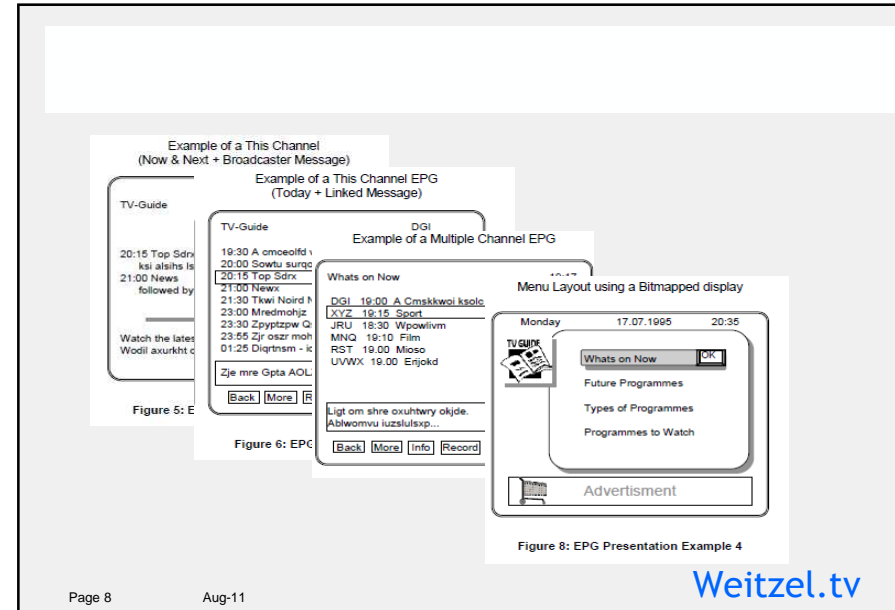
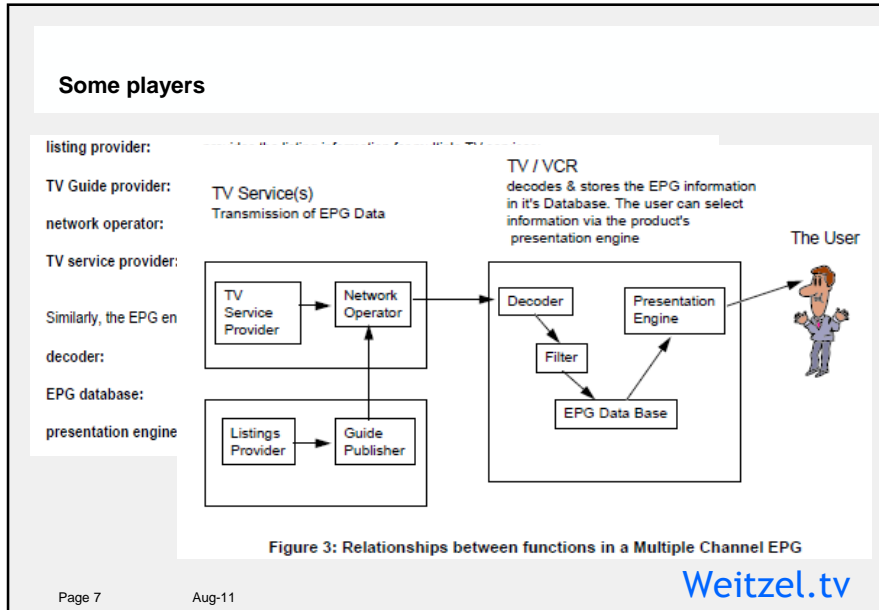
And its target platform was a TV set with 8 bit “PIC type” processor  
( but the Thomson bottom end TV only had 4 bits – hence a simple EPG)  
And a normal teletext display –  
(but Siemens had the Megatext chip set)

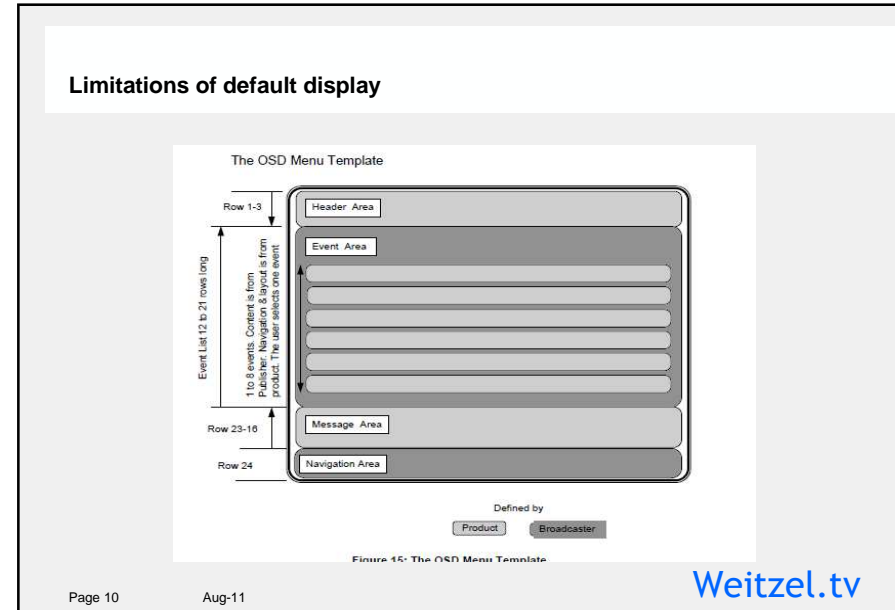
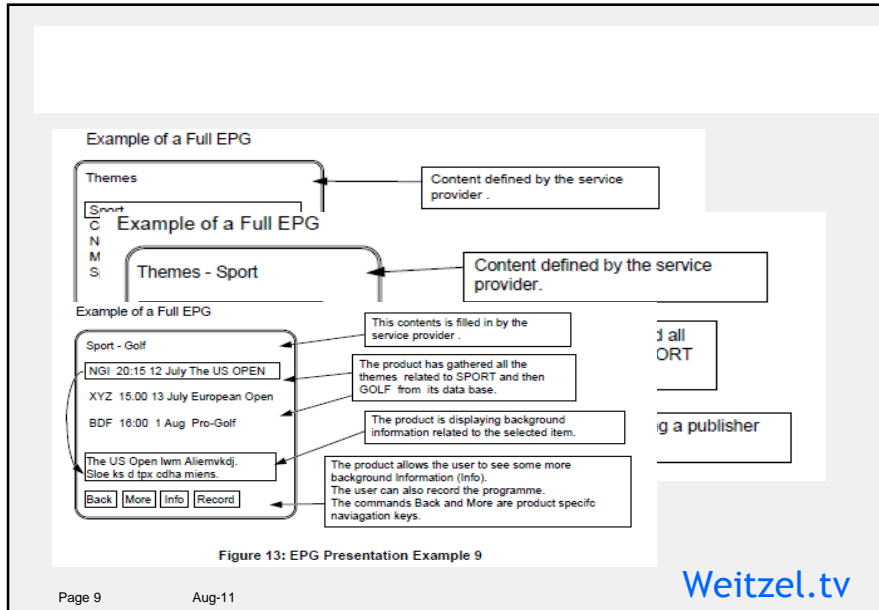
**And it was inherently multi channel - and thus NOT Broadcaster friendly**

Written by teletext group of EBU- ETSI JTC  
co chaired by Jan van Lier Phillips and Peter Weitzel BBC

**It by-passes normal teletext**







**Some problems of bit rate – and updating databases**

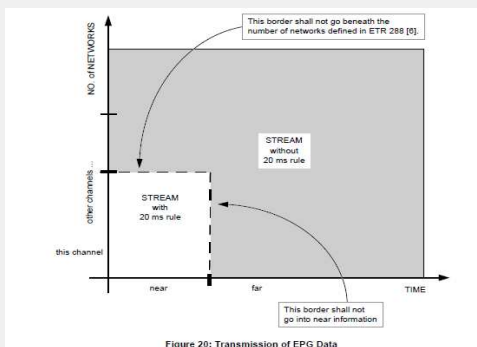


Figure 20: Transmission of EPG Data

The "now" information is the current programme or blank. "Next" information comprises **up to 4 programmes** immediately after the "now" one.

The remainder includes the other programmes classified as Near that do not fall into the Now and Next categories.

The network operators or service providers are obliged to transmit the **This Channel "now" and "next" information** with a repetition rate of at least once per every **10 seconds**.

Minimum repetition rate of This Channel / Near is once per 35 seconds and Max for "REST" is about 20 minutes

**PDC - EN 300 231 Merging German VPS and UK led "PDC"**

Tell the VCR to look out for a transmitted a label = unique ID

And the easiest is the "channel /date/ original billed time"

**Preselection**

**Manually - channel date time**  
(but this may not be actual transmitted time)

**Via Teletext page**  
PDC normal listings page plus additional info off screen "packet X/28"  
*Makes "Ceefax" an Comms Act 2003 EPG?*

VPS special page

**By NexTVView™**

**By Video+ Show view - GEMSTAR** efficient coding

**By bar code** Toshiba

**Record control**

At the appropriate time send out the labels  
4 label Channels – max 4 label/sec  
(packet 8/30 format2)

This requires some clairvoyance and an intimate link with play out automation even on non reactive channels – which in the 1990s was NOT there and was not in 2000 either (so we made our own) Or but is coming perhaps in 2010 +++

### PDC implementation

#### Need to ask some fundamental questions

What does the broadcaster want to deliver to the time shifted viewer?

What is a programme?  
How are you going to use genres?

Where in the workflow do you set the PDC code ?  
How do you get the PDC code to the viewer?

What triggers the PDC code?

#### BBC Starting rule

40 sec before start send "Record Pause"  
At start of last junc item go RECORD.  
( Gets network branding and Health warning)

#### BBC Stopping rule

At end of first junction item send STOP for 10 Seconds (min) or until a starting rule starts  
(Gets "If you are affected" or Book etc Promo)

#### BBC "One programme on air at one time" rule

(well almost!)  
**BBC "interrupted Programme system"**  
- can bridge news on Saturday nights

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### Other points

#### Gemstar

Holds lots of patents on EPG and thus licensed interactive program guide technology to multichannel operators, such as cable and satellite television providers, and consumer electronics manufacturers

– and owns Video Plus™ – Show view™ for Video Recording preselecting

was bought by Macrovision (jul2009) who are now called Rovi

#### TV anytime

International Forum for specifying interoperable standards to enable local persistent storage .  
Founded 1999 and fizzled out in 2005  
main contribution is meta data specification and Schema  
– including the CRID.

#### Other Standards

Specification du Systeme D2-MAC/Paquet included *Network Name Prog name, genre, Short info etc*  
And dates from1985

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### Sum up to current EPG

There are many fundamental issues which you need to consider ...

Many of these were explored about 25 to 15 Years ago – Before digital TV.

These are still as valid if not more so... The answers may be a bit different now

What is the Business case for having an EPG

What features makes it more (or less ) attractive.

What does the EPG contain?

- Basic (meta) data
- Machine readable – AD S genre
- Editorial – “blurbs”
- Cast lists
- Recommendations
- Age restrictions
- CA/DRM ??

Links to recording ....

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### The key points

#### Live TV

*Viewing broadcasting live is to access an ethereal & ephemeral medium*

What and how do you access the information

Who are the players in value chain

How up to date ....?

- Update rate – reactive channels
- Non reactive channels
- Now And next near and far information
- This channel or “others”
- Remote database management ...

#### And if you can record it ??

What do you want to have as the “Programme” on the recorder?

- Pre-selection
- Record control ..

#### Bear in Mind - Regulation ...!

Due prominence - ND and F&R terms

#### **EPG gateway to Digital TV viewing**

Are you on the first few pages ??

But how much of what was thought in1993 is implemented ?

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