'Dynamic' PS
versus
RadioText (RT & RT+)

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- 1. Since so many MP3 players are capable to display all relevant information, broadcasters seek a possibility to signal content on air
 - Music titles, Artist names, Album names, Programme title, Programme home page, etc.
- 2. Also, a possibility to use a longer 'PS' than just the RDS standard eight PS characters is sometimes preferred

Perhaps 'dynamic' PS could do all this, but after 2009 with the new IEC 62106 ed.2 – Annex P a much better solution was found by the RDS Forum introducing RT with RT+

In the following slides I show you various implementations

A sequence of screen shots



Observations:

- Only screens no.1 are conform with RDS standard
- All the rest of the PS info appears to be totally redundant and unnecessary and has no relation with the required PS
- In addition this mode is distracting for car drivers and even annoying as listeners cannot understand why it is done in this way

Quality of implementation



A sequence of screen shots ... with a receiver that has no RT



Observations:

- Only screens no.1 are conform with RDS standard
- This is a rare best case
- What can be worse: Words with more than eight characters are arbitrarily cut
- Imagine one would do this on Digital Radio as well
- If this is done only on FM, then it results in degrading FM/RDS

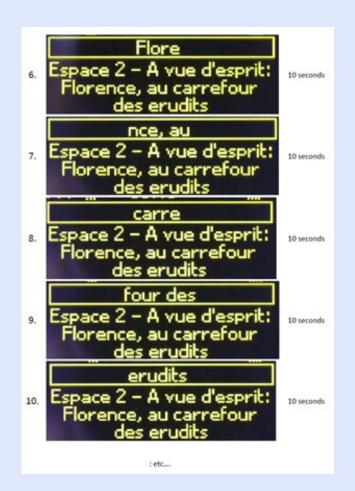
One reason for broadcasters to do 'Dynamic' PS is

- that many FM/RDS car radios display only PS, but not yet RT (or the mode is hidden and can be switched on for safety reasons only through user intervention)
- With larger displays being used, this situation changes now very rapidly in favour of RT and RT+
- Thus, at a certain point of time, broadcasters can no longer justify their 'Dynamic' PS and they will be better off to fully comply with the RDS standard and avoid this kind of workaround

Here is a really bad case example







Look at the word cuttings – These are really extremely bad here



Quality of implementation

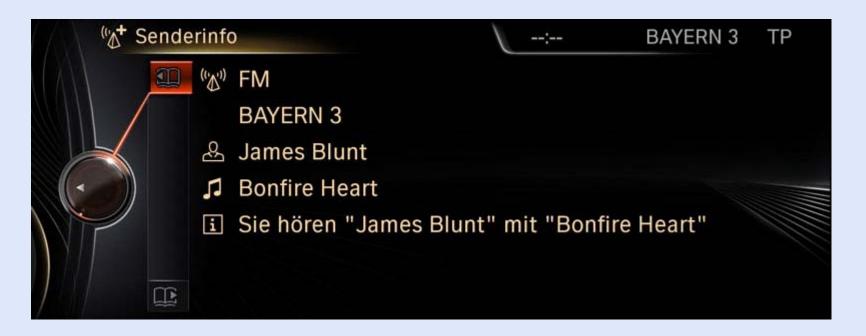


Highly distracting for car drivers

- 'A driver is distracted when they pay attention to a second activity while driving'
- 'Visual distraction occurs when a driver sees objects or events and this impairs the driver's observations of the road environment'
- 'Drivers who are distracted also have difficulty controlling their speed and their distance from the vehicle in front, and their lane position can vary drastically'

These are only a few quotations from a memo of the UK Royal Society for the Prevention of Accidents, December 2007

Normal PS and RT with RT+

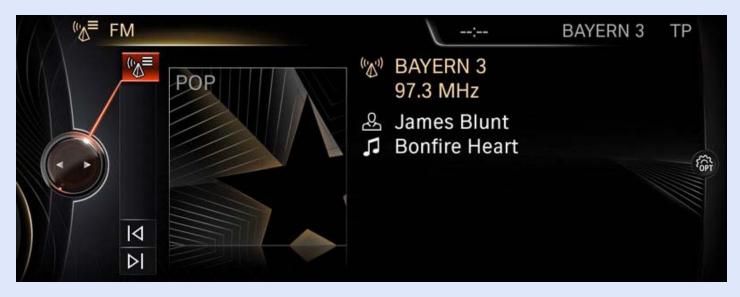


Screen shot: BMW Professional nav car radio - 2013

NOTE: On this kind of a large LCD RT is not at all distractive in the car This is a screen shot of the Info display mode where RT is visible

Normal PS and RT with RT+





Screen shot: BMW Professional nav car radio - 2013

In the normal listening mode when the broadcaster uses RT+ (RT is not visible)

There is no driver distraction and this display can be read with a glance of the eye

When broadcasters need



- A PS name with more than 8 characters such as
 - ANTENNE BAYERN
 - FUNKHAUS EUROPA
 - OPTION MUSIQUE
- The solution with RDS is also normal PS, RT and RT+



Screen shot: BMW Professional nav car radio - 2013

NOTE: In RT+ 'ANTENNE BAYERN' can be tagged as
 Stationname.long (tag code 32) > no need then to toggle the PS!

Disturb very much the tuning functions of car radios

 Therefore the RDS standard does not permit this kind of broadcaster implementation

In the following slides I show you some unwanted cases

- They also occur when car radios use multiple tuners to update the LCD showing the listener the PS names of all stations on air where ever the car is travelling
- This is done to enable the driver to quickly change programme with a glance of the eye and minimal receiver interaction
- The function is not only the convenience but also for the safety on the road

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A high-end RDS radio



This radio is programmed to receive several radio programmes
now it receives Radio France 'INFO'



- Now from Switzerland 'OPTION' and toggled 'MUSIQUE' is received
 - The middle key is storing the PS captured as the PS 'MUSIQUE'
- The key 'MUSIQUE' below is the programme Radio France 'MUSIQUE'
 - •The toggled PS can thus also result in a total listener confusion



On the centre key - instead of the PS 'SRF 1' a bit of text

'DES' was captured and stored



Toggling two PS names





Screen shot: Peugeot 308 car radio - Frits de Jong

 'Omroep Brabant' is a regional programme from the Dutch public broadcasters showing 'OMROEP and 'BRABANT' both for about 10 seconds

Observations:

- Although changing the PS every 10 seconds, it is not really a driver distraction, it is not permitted by the RDS standard, because a receiver has to store the PS
 - the first one is totally unnecessary and if it were stored, is quite meaningless
 - the meaning of 'OMROEP' is just only 'BROADCAST'

Examples from the Netherlands

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'Dynamic 'PS and RadioText



Screen shot: Peugeot 308 car radio - Frits de Jong

This is a commercial broadcaster.
 'RADIONL'

•Observations:

- PS shows 'RADIONL' for about 25% of the time; then it shows for the rest of the time the first name and family name of the artist preceded by "JE HOORT" (You hear) - RT shows only the name(s) of the current artist, preceded by 'JE HOORT' ('You hear') This is really very annoying since both PS
- During spoken advertisements the PS as well as RT are static 'RADIONL'

and RT give here the same information

Sorry, not really....

CONCLUSION: Standards are there to be respected

The IEC 62106 for RDS as well

(and in this particular case even a contribution to road safety is made then)

Hope the message is finally understood

by those broadcasters who breached the RDS standard

The RDS Forum expects all Radio Regulators to ensure that the RDS PS feature is *only* used as specified in the RDS Standard; prohibiting all use of 'Dynamic' PS.

This is vital to ensure appropriate operation of all RDS equipped radios



Dietmar Kopitz, CEO RDS FORUM

Thanks to RDS Forum member

Frits de Jong

for his help in the elaboration of this presentation