



The Impact of APPLCOMPAT in a Continuous Delivery World

Andrew Badgley

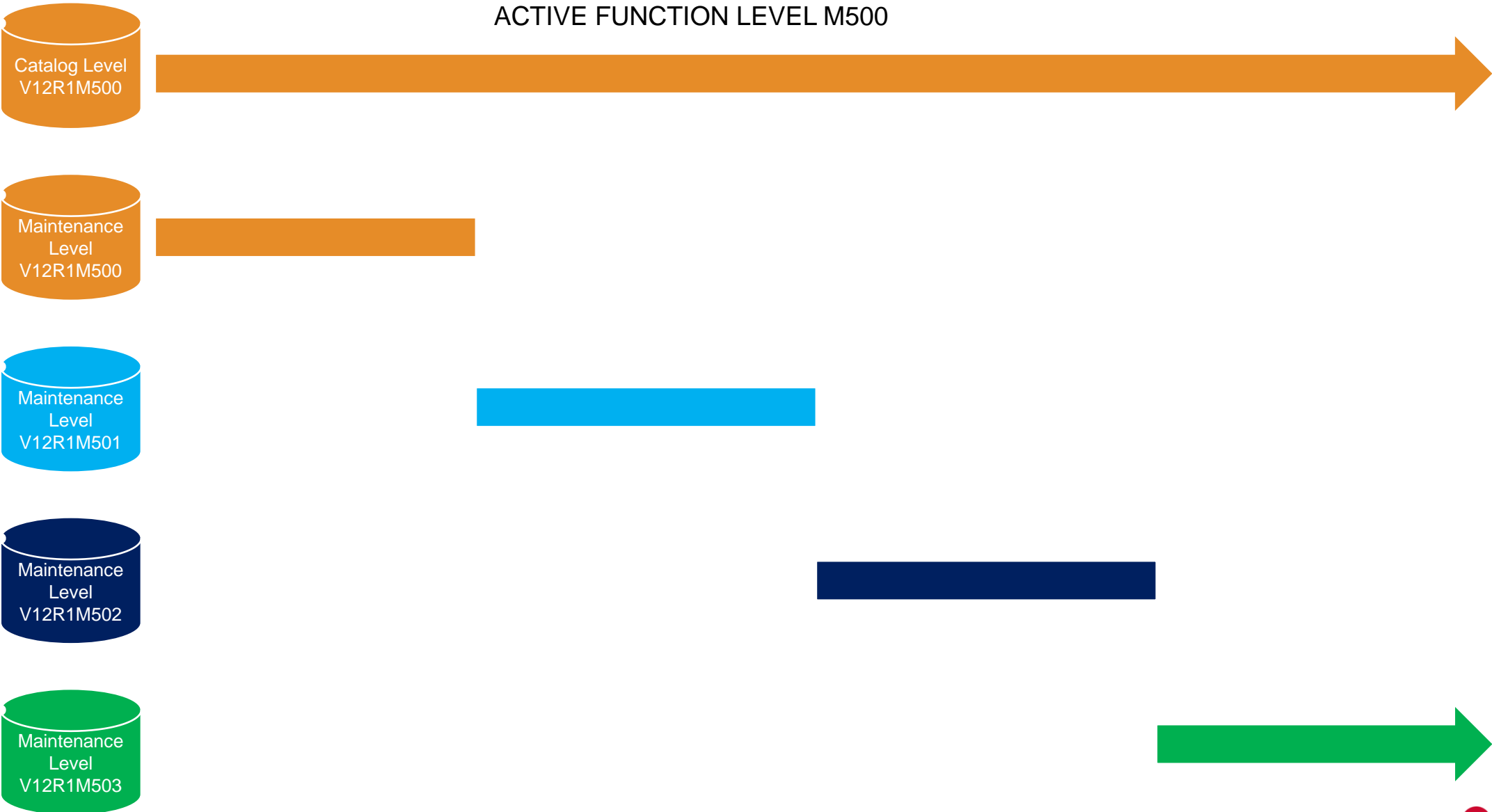
April 30th, 2019



Db2 12 Continuous Delivery



Maintenance Levels

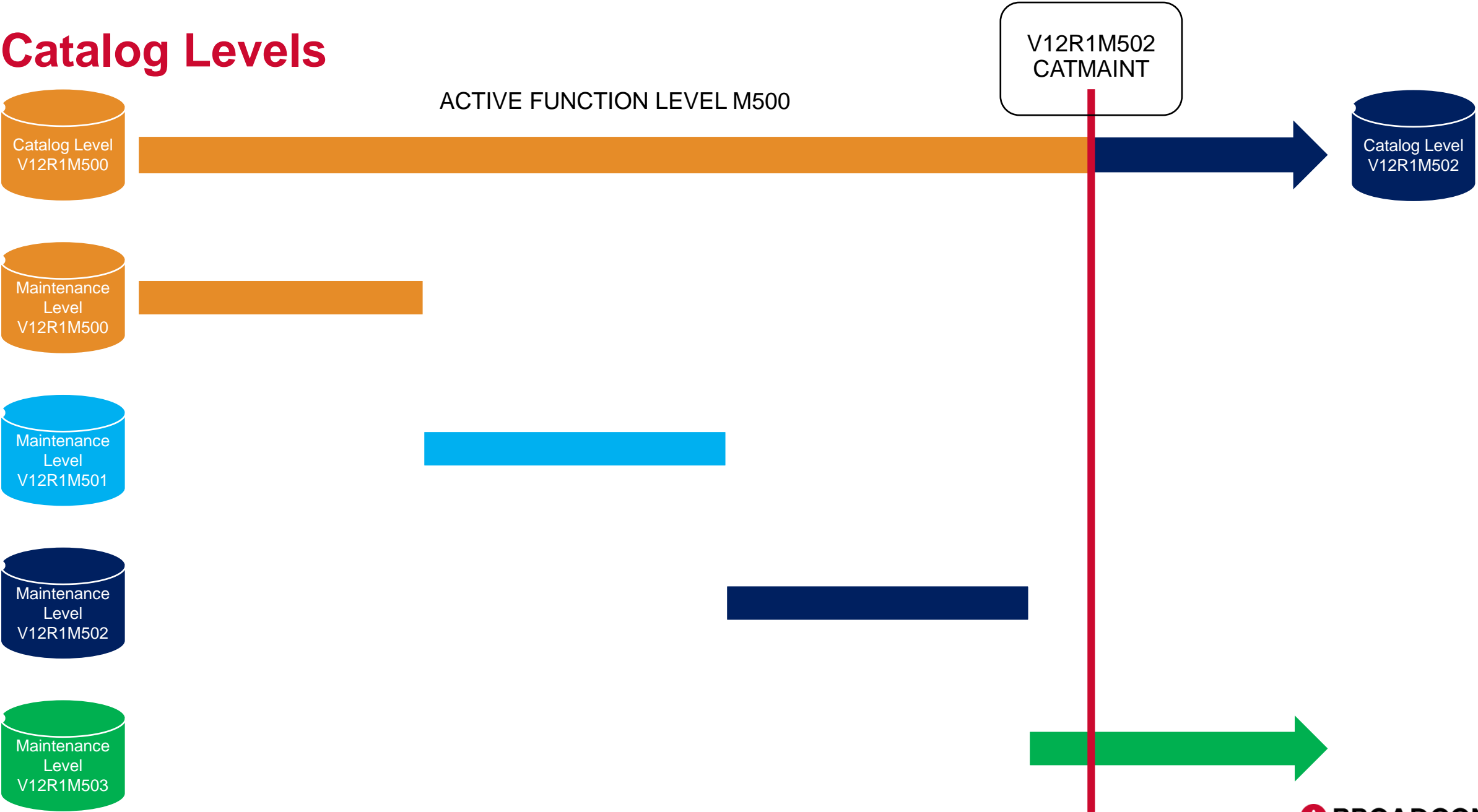


Maintenance Levels

```
***** TOP OF DATA *****
DSN7100I  !D12A DSN7GCMD
*** BEGIN DISPLAY OF GROUP(.....) CATALOG LEVEL(V12R1M500)
      CURRENT FUNCTION LEVEL(V12R1M500)
      HIGHEST ACTIVATED FUNCTION LEVEL(V12R1M500)
      HIGHEST POSSIBLE FUNCTION LEVEL(V12R1M501)
      PROTOCOL LEVEL(2)
      GROUP ATTACH NAME(.....)
-----
DB2      SUB      DB2      SYSTEM      IRLM
MEMBER   ID   SYS  CMDPREF  STATUS   LVL      NAME      SUBSYS  IRLMPROC
-----
.....    0 D12A !D12A    ACTIVE   121503 CA31      I12A    D12AIRLM
-----
SPT01  INLINE LENGTH:      32138
*** END DISPLAY OF GROUP(.....)
DSN9022I  !D12A DSN7GCMD 'DISPLAY GROUP ' NORMAL COMPLETION
***** BOTTOM OF DATA *****
```



Catalog Levels



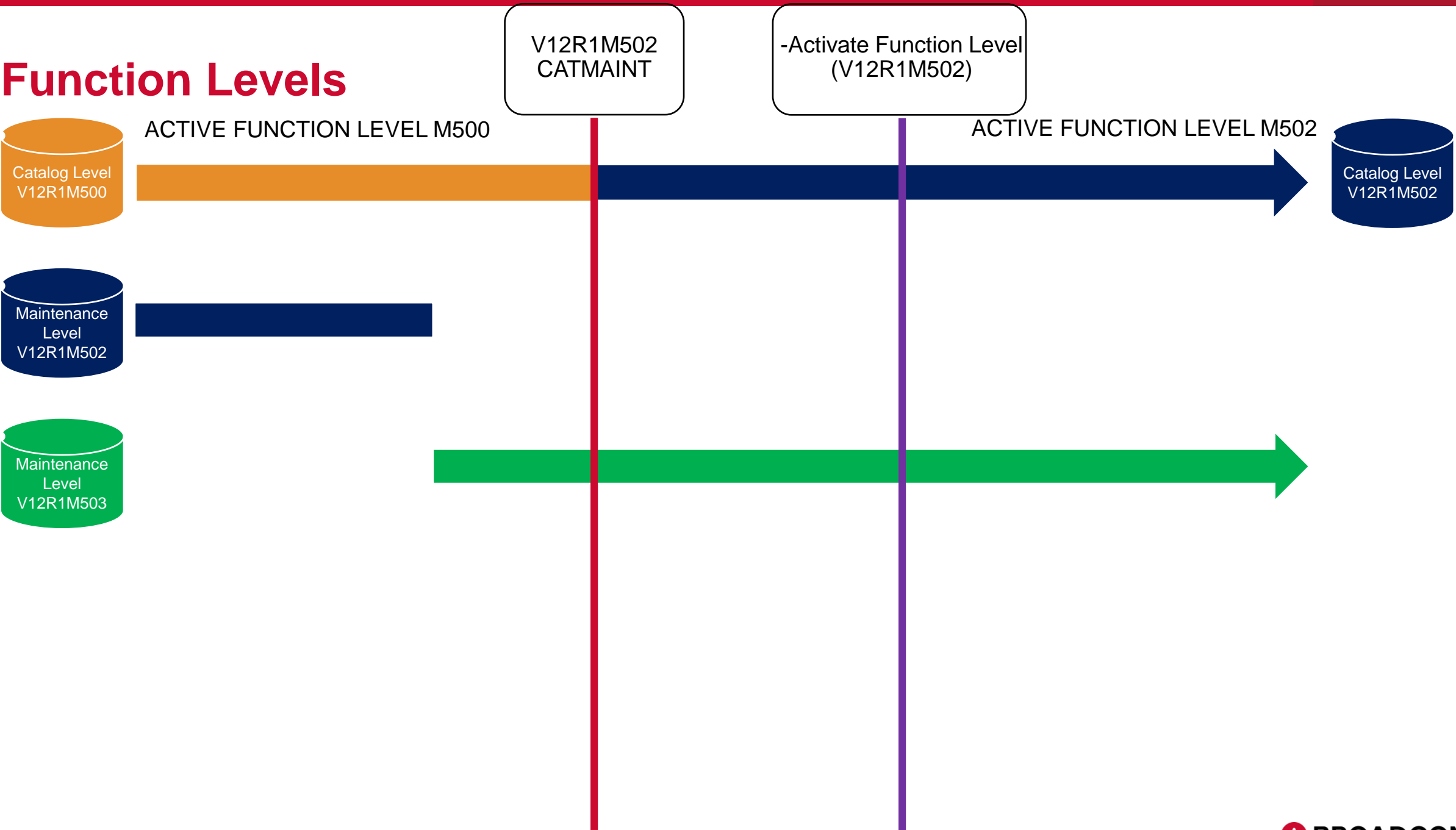
Catalog Levels

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***** TOP OF DATA *****
DSN7100I  !D12A DSN7GCMD
** BEGIN DISPLAY OF GROUP(.....) CATALOG LEVEL(V12R1M500)
      CURRENT FUNCTION LEVEL(V12R1M500)
      HIGHEST ACTIVATED FUNCTION LEVEL(V12R1M500)
      HIGHEST POSSIBLE FUNCTION LEVEL(V12R1M501)
      PROTOCOL LEVEL(2)
      GROUP ATTACH NAME(.....)

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DB2      SUB      DB2      SYSTEM      IRLM
MEMBER   ID   SYS  CMDPREF  STATUS   LVL      NAME      SUBSYS  IRLMPROC
-----
.....    0 D12A !D12A      ACTIVE    121503 CA31      I12A      D12AIRLM
-----

SPT01  INLINE LENGTH:      32138
** END DISPLAY OF GROUP(.....)
DSN9022I  !D12A DSN7GCMD 'DISPLAY GROUP ' NORMAL COMPLETION
***** BOTTOM OF DATA *****
```

Function Levels



Catalog Levels

```
***** TOP OF DATA *****
DSN7100I  !D12A DSN7GCMD
** BEGIN DISPLAY OF GROUP(.....) CATALOG LEVEL(V12R1M500)
      CURRENT FUNCTION LEVEL(V12R1M500)
      HIGHEST ACTIVATED FUNCTION LEVEL(V12R1M500)
      HIGHEST POSSIBLE FUNCTION LEVEL(V12R1M501)
      PROTOCOL LEVEL(2)
      GROUP ATTACH NAME(....)
-----
DB2      SUB      DB2      SYSTEM      IRLM
MEMBER   ID   SYS  CMDPREF  STATUS   LVL      NAME      SUBSYS  IRLMPROC
-----
.....    0 D12A !D12A    ACTIVE    121503 CA31      I12A     D12AIRLM
-----
SPT01  INLINE LENGTH:      32138
** END DISPLAY OF GROUP(.....)
DSN9022I  !D12A DSN7GCMD 'DISPLAY GROUP ' NORMAL COMPLETION
***** BOTTOM OF DATA *****
```


APPLCOMPAT



APPLCOMPAT



ACTIVE FUNCTION LEVEL M502

APPLCOMPAT (V10R1, V11R1,
V12R1M500, V12R1M501, V12R1M502)

-Activate Function Level
(V12R1M500)

ACTIVE FUNCTION LEVEL M500*

APPLCOMPAT (V10R1, V11R1, V12R1M500)



APPLCOMPAT Surprises



APPLCOMPAT



ACTIVE FUNCTION LEVEL M502



APPLCOMPAT (V12R1M500)



3rd Party application bound with APPLCOMPAT (V12R1M500)

- Dynamic CREATE TABLE ... NO KEY LABEL ... ; ends with SQL ERROR
- SET CURRENT APPLICATION COMPATIBILITY = 'V12R1M502'; ends with SQL ERROR
- Need to REBIND application with APPLCOMPAT (V12R1M502)

APPLCOMPAT



ACTIVE FUNCTION LEVEL M502



APPLCOMPAT (V12R1M502)



3rd Party application bound with APPLCOMPAT (V12R1M502)

- Dynamic CREATE TABLE ... NO KEY LABEL ... ; is successful
- SET CURRENT APPLICATION COMPATIBILITY = 'V12R1M500';
- Dynamic CREATE TABLE ... NO KEY LABEL ... ; ends with SQL ERROR

APPLCOMPAT



3rd Party application bound with APPLCOMPAT (V12R1M502)

- Dynamic CREATE TABLE ... NO KEY LABEL ... ; is successful
- SET CURRENT APPLICATION COMPATIBILITY = 'V12R1M500';
- Dynamic CREATE TABLE ... NO KEY LABEL ... ; ends with SQL ERROR.
- SET CURRENT APPLICATION COMPATIBILITY = 'V12R1M502';

V12R1M504

V12R1M504 impacts creation of the following objects

- Segmented (Non-UTS) or Classic Partitioned (Non-UTS) tablespace is created as a UTS
- Synonyms cannot be created
- Hash Tables cannot be created

Leave application bound at APPLCOMPAT level lower than V12R1M504 or
SET CURRENT APPLICATION COMPATIBILITY = 'V12R1M503' to avoid this constraint.

In Summary

As you make plans to activate a new Db2 Function Level, don't forget about your applications that will leverage the new features. Make sure your plan includes REBINDing the impacted packages.



Thank You





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