



Comparison of PDF output for documents edited in FM and XML

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Purpose and scope

2

- Purpose

- Show the main differences of layout between FM and XML document output in PDF
- Present the small remaining issues with Migrate tool used for automated FM to XML conversion

- Scope

- FM to XML migration and upload into Dita Exchange
- MCD standalone documents (application notes) planned for publication before e/o 2014
- STM8A/STM8S datasheets already converted to XML (PILOT project)

Example used for presentation

- AN4080, application for STINGRAY, Rev 3

- FM document → AN4080_V3m.pdf

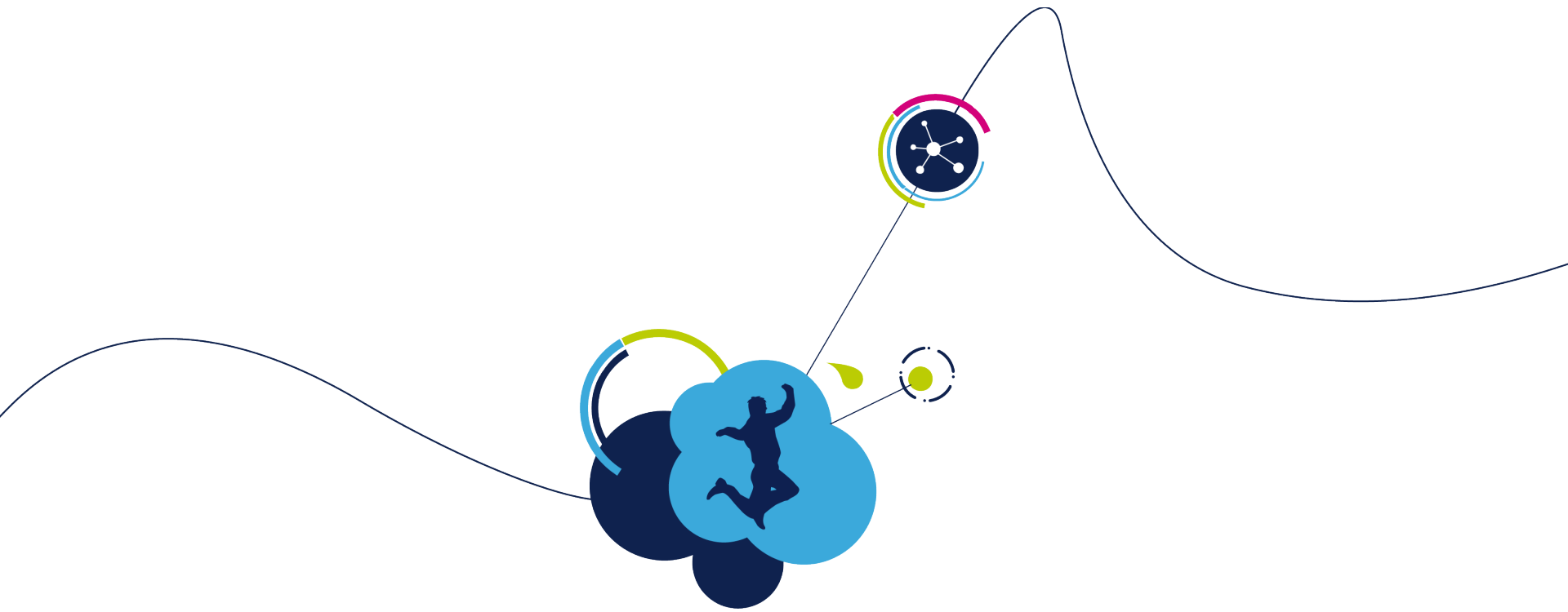


- XML package → DocID023035_AN4080_pub_V3.pdf



- STM8A6222, STM8A6223bA, STM8A6226 datasheet, Rev 3






Main output layout differences

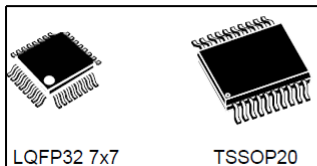
Datasheet cover page

- Position of the figure showing the packages
 - XML package: top right column position vs. FM files: top left column position

 **STM8AF6223 STM8AF6223A**
STM8AF6226

Automotive 8-bit MCU, with up to 8 Kbytes Flash, 1 Kbyte RAM, 640 bytes EEPROM, 10-bit ADC, 3 timers, LINUART, SPI, I²C, 3 to 5.5 V

Datasheet - production data




Interrupt management

- Nested interrupt controller with 32 interrupts
- Up to 28 external interrupts on 7 vectors

Timers

- Advanced control timer: 16-bit, 4 CAPCOM channels, 3 complementary outputs, dead-time insertion and flexible synchronization

 **STM8AF5xxx**
STM8AF6x69/7x/8x/9x/Ax

Automotive 8-bit MCU, with up to 128 Kbytes Flash, data EEPROM, 10-bit ADC, timers, LIN, CAN, USART, SPI, I²C, 3 to 5.5 V

Datasheet - production data

Features

- Core
 - Max f_{CPU} : 24 MHz
 - Advanced STM8A core with Harvard architecture and 3-stage pipeline
 - Average 1.6 cycles/instruction resulting in 10 MIPS at 16 MHz f_{CPU} for industry standard benchmark



- Top/bottom spacing of paragraph tag
 - More spacing in XML documents vs. FM cover paragraph tags
 - issue when converting from FM, **need to remove some features**

- Figure frame thickness
 - 0.8 or 1 point in XML package vs. 0.5 point in FM files

Figure 3: Schottky diode connection

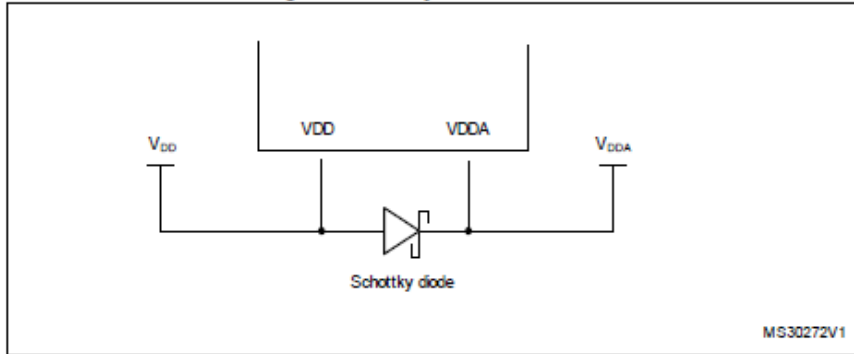
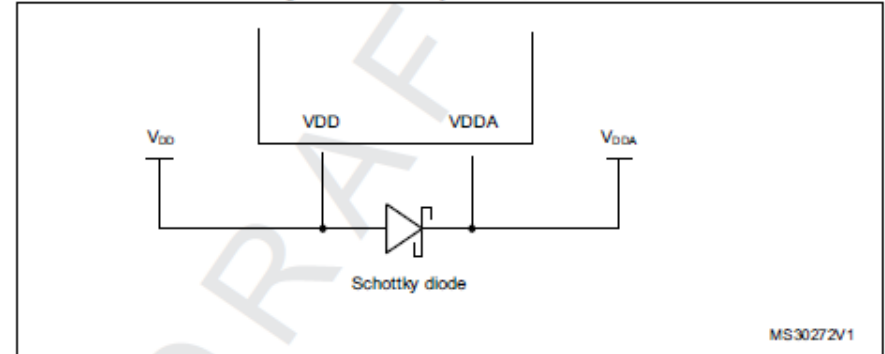


Figure 3. Schottky diode connection



- Figure readability
 - Scaling in XML package + corrupted SVG to EMF conversion in XML package
 - Re-edit the SVG files with MSVisio using BB's templates, or follow the guidelines in Graphics style guide for figures edited with Adobe Illustrator

Document headers and footers

7

- Mix of plain and bold in chapter title displayed in document header

Power supplies and reset sources of the
STM32F030 family

AN4325

- Wrong format for revision number in the footer
- → ask Stephane to correct the tool

26/26

DocID024966 Rev 1.0



- OK when editing in Dita Exchange

- Table headings
 - Grey shading in XML package vs. no shading in FM files

Table 5: SWD port pins

SWD pin name	SWD port		Pin assignment
	Type	Debug assignment	
SWDIO	I/O	Serial wire data input/output	PA13
SWCLK	I	Serial wire clock	PA14

Table 4. SWD port pins

SWD pin name	SWD port		Pin assignment
	Type	Debug assignment	
SWDIO	I/O	Serial wire data input/output	PA13
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- Multiple heading rows and merged cells
 - Manual update required in XML files → **CHECK all tables after the FM to XML conversion**

Table 5: SWD port pins

SWD pin name	SWD port		Pin assignment
Type	Debug assignment		
SWDIO	I/O	Serial wire data input/output	PA13
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Notes and warnings

9

- Icon in XML package versus text in FM files



In this document, the notation used for devices is STM32F0xx where xx are the two first digits following F0 standing for entry-level family. Pin count and memory size do not impact this hardware description.

Note:

In this document, the notation used for devices is STM32F0xx where xx are the two first digits following F0 standing for entry-level family. Pin count and memory size do not impact this hardware description.

Revision history (1/2)

10

- The font size is bigger for cross references to sections, tables and figures

11-Feb-2013	2	<p>Modified <i>Section 6: "Reference design"</i>.</p> <p>Modified <i>Table 8: "STM32F1 series and STM32F03x/5x device pinout differences"</i>.</p>
29-Sep-2014	3	<p>Document reformatted.</p> <p>Renamed part numbers.</p> <p>Updated:</p> <ul style="list-style-type: none">• <i>Section 1: "Power supplies and reset sources of the STM32F0xx family"</i>: grouped together information for STM32F05x and STM32F06x devices.• <i>Section 2: "Clocks"</i>• <i>Section 4.3.4: "SWD port connection with standard SWD connector"</i>• <i>Section 5.3: "Ground and power supply (VDD, VDDA, VDDIO2)"</i>• <i>Section 3: "Boot configuration"</i>• <i>Table 8: "STM32F1 series and STM32F03x/5x device pinout differences"</i>• <i>Figure 1: "Power supply scheme of STM32F0x1/x2 devices"</i>, <i>Figure 5: "Simplified diagram of the reset circuit"</i> and <i>Figure 8: "SWD port connection"</i>

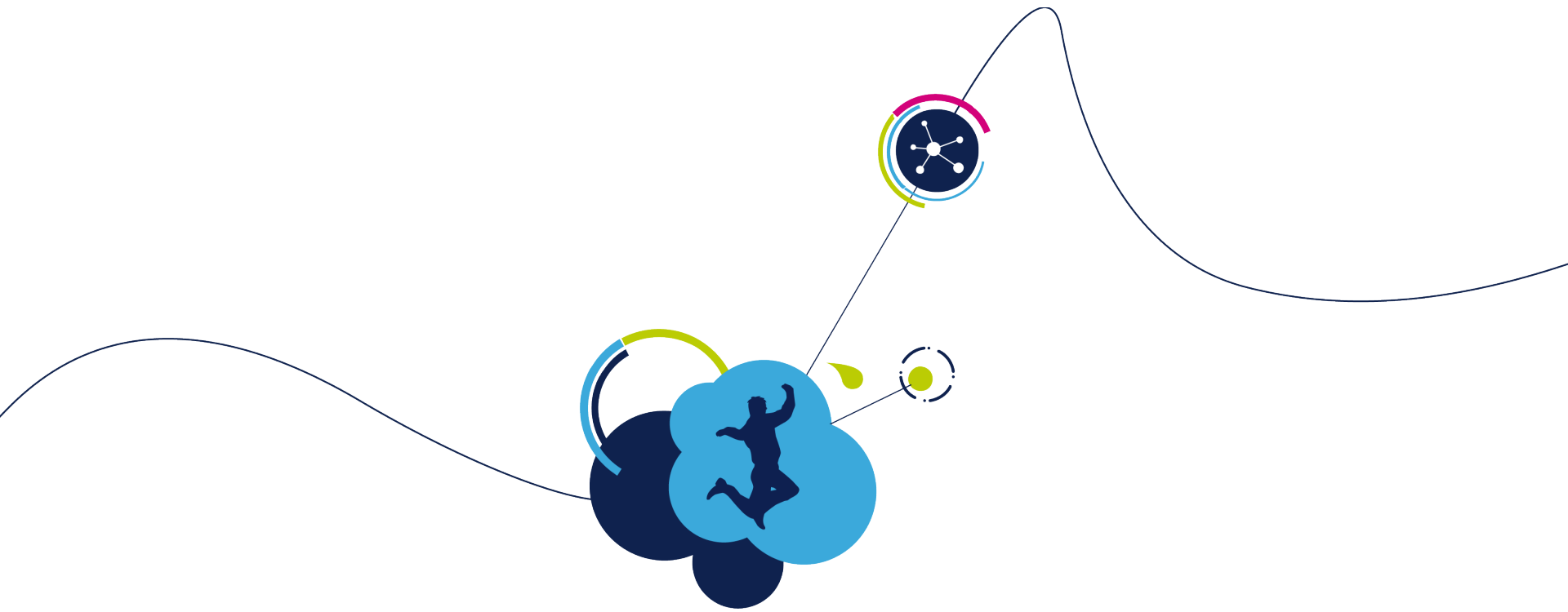


Revision history (2/2)

11

- The column width is not adequate and needs to be updated in the column attributes (colwidth)

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  frame="all" class="- topic/table ">␣
  <title id="ID07-1BC374D7DE2" class="- topic/title ">Document revision history</title>␣
  <tgroup cols="3" align="center" class="- topic/tgroup ">␣
    <colspec colname="C1" colwidth="3cm" class="- topic/colspec "/>␣
    <colspec colname="C2" colwidth="3cm" class="- topic/colspec "/>␣
    <colspec colname="C3" colwidth="9cm" class="- topic/colspec "/>␣
  <thead class="- topic/thead ">␣
```



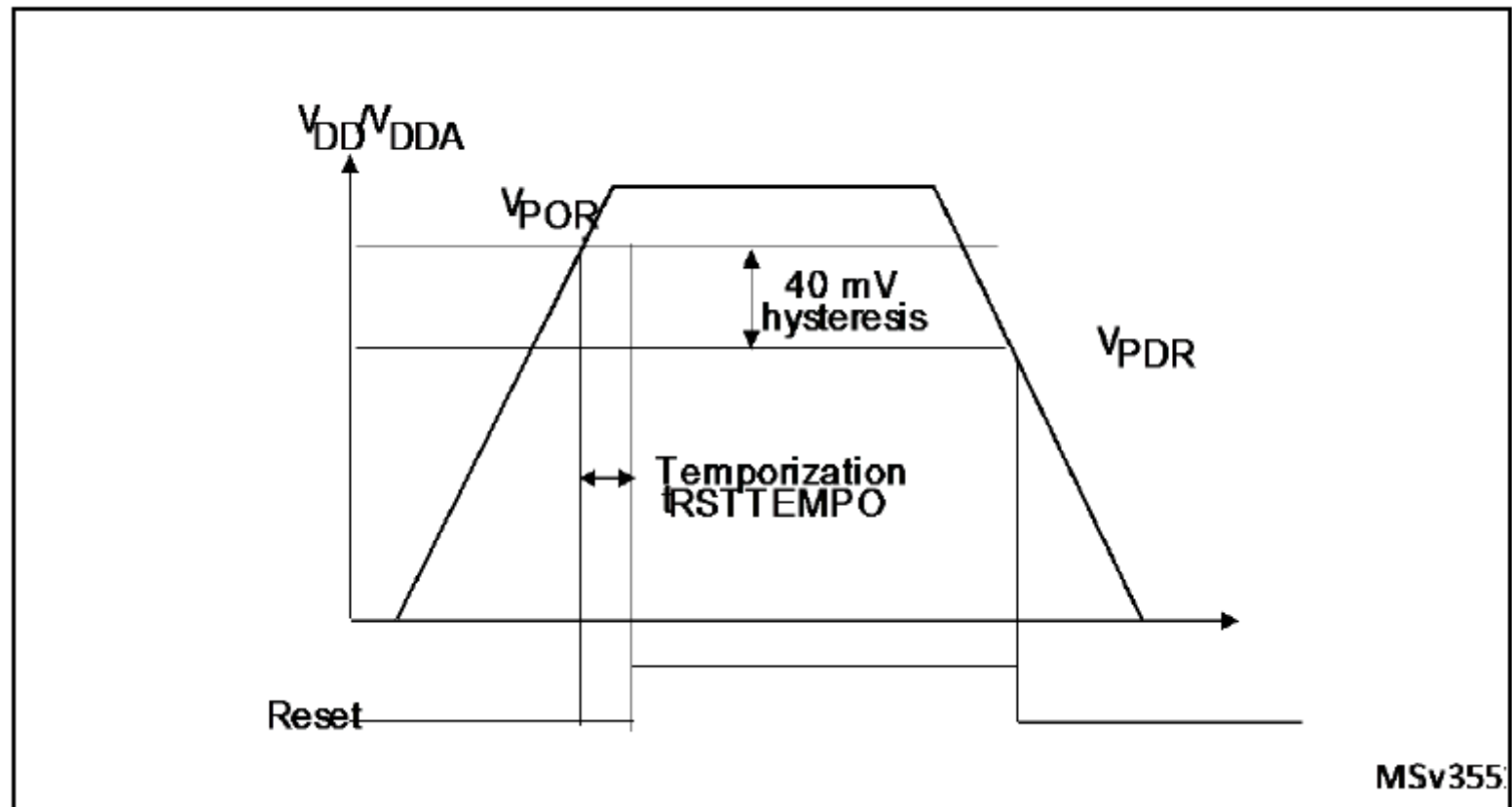
Usual issues with FM to XML conversion

FM to XML conversion: issue with figures

13

- Check the figure rendering in the MSWord and PDF
 - Edit the emf in advance and ask SL to extract these from Banque/Drawings

Figure 4: Power on reset/power down reset waveform



FM to XML conversion: issue with tables (1/2)

14

- Check the table headings
 - Second heading row often wrongly converted

Table 5: SWD port pins

SWD pin name	SWD port		Pin assignment
Type	Debug assignment		
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SWCLK	I	Serial wire clock	PA14

FM to XML conversion: issue with tables (2/2)

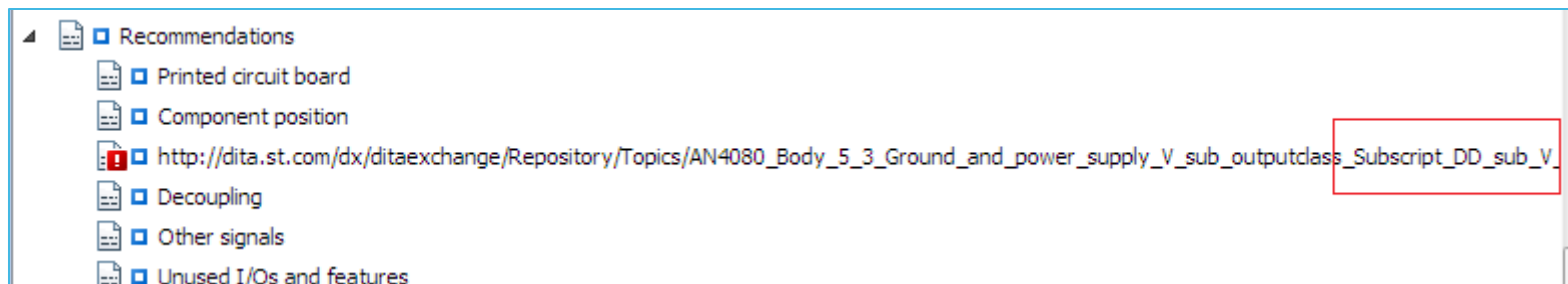
15

- Check the text alignment in tables
 - Ask SL to add the Align = "left" attribute in the last column of the revision history

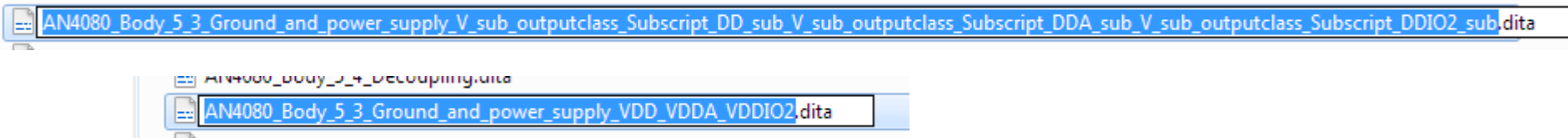
Table 12: Document revision history

Date	Revision	Changes
11-Jul-2012	1	Initial release.
11-Feb-2013	2	Added Chapter 3: Power supplies of the STM32F06x family. Modified <i>Section 6: "Reference design"</i> . Modified <i>Table 8: "STM32F1 series and STM32F03x/5x device pinout differences"</i> .
29-Sep-2014	3	Document reformatted. Renamed part numbers. Updated: <ul style="list-style-type: none">• <i>Section 1: "Power supplies and reset sources of the STM32F0xx family"</i>: grouped together information for STM32F05x and STM32F06x devices.• <i>Section 2: "Clocks"</i>• <i>Section 4.3.4: "SWD port connection with standard SWD"</i>

- Restrictions with topic naming when uploading to Dita Exchange
 - Dx does not support the use of subscript, superscript



- Check the topic names and modify



- Validate the map and correct the topic type if needed



Thank you!