



Altium®

Altium Designer Roadshow

Easily Realizing Complex PCB Documentation

Rainer Asfalg

Global Head of Channel Marketing

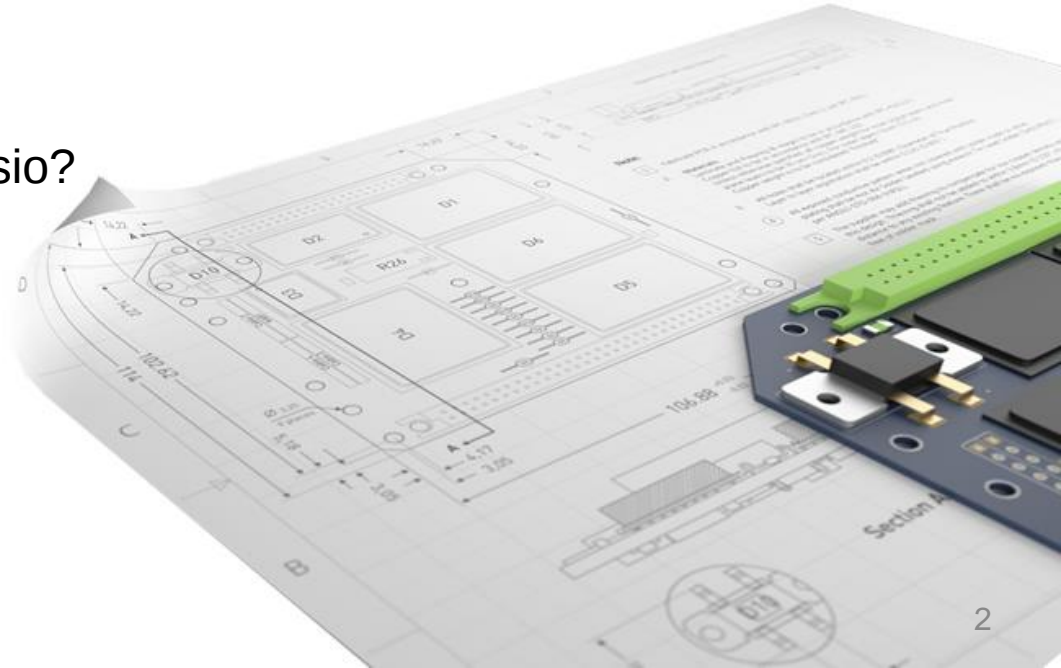
Aida Gharahkhani

Field Application Engineer

The Need for PCB MFG Documentation



- No MFG Documentation = No PCB
- How do you create this Documentation today?
 - Word?, MCAD?, PPT?, Visio?



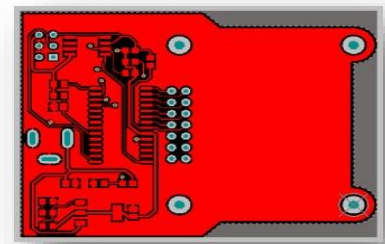
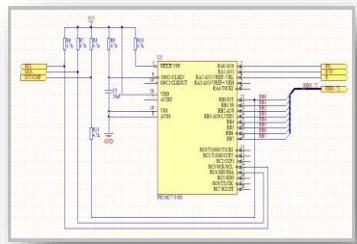
Documentation in Altium Designer



- Creating Manufacturing Specifications for electronic Products
- Creating Service Documents
- Creating Customer Documentation
- The more Detailed & Clear, the Less Problems
- Relevant not only for the Board Manufacturers & Assembly Houses

- Can be:

- Schematic Print
- PCB Print
- Bill-Of-Materials
- Gerber files
- ...



Footprint	Comment	Label	Designator	Description	Quantity
CAPC012N	Cap Pol	C1 C2		Polarized Capacitor (Surface Mount)	2
CAPC021N	Cap	C3		Capacitor	1
PWR2.5	PWR2.5	J1		Low Voltage Power Supply Connector	1
LCD-S048N	2x8 LCD	DMC-S048N	LD01	8 char x 2 line LCD character display with Bright	1
HER20_CE	Header 30A	Header 30A	P1	Header, 3-Pin, Dual row	1
N					
RES0212N	Res	Res	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11	Resistor	11
HE 04	LM317MST3	LM317MST3	U1	Three-Terminal Adjustable Output Positive Voltage Regulator	1
SOIC8	TCN75	TCN75	U2	Serial temperature sensor	1
SOIC	PK16C773S0	PK16C773S0	U3	5-Bit CMOS Microcontroller with 12.8K A/D, 4K (14-Bit words) Program Memory, 256 Bytes Data Memory, 28-Pin SOIC, Standard VDD Range, Commercial Temperature	1
SO8_N					20

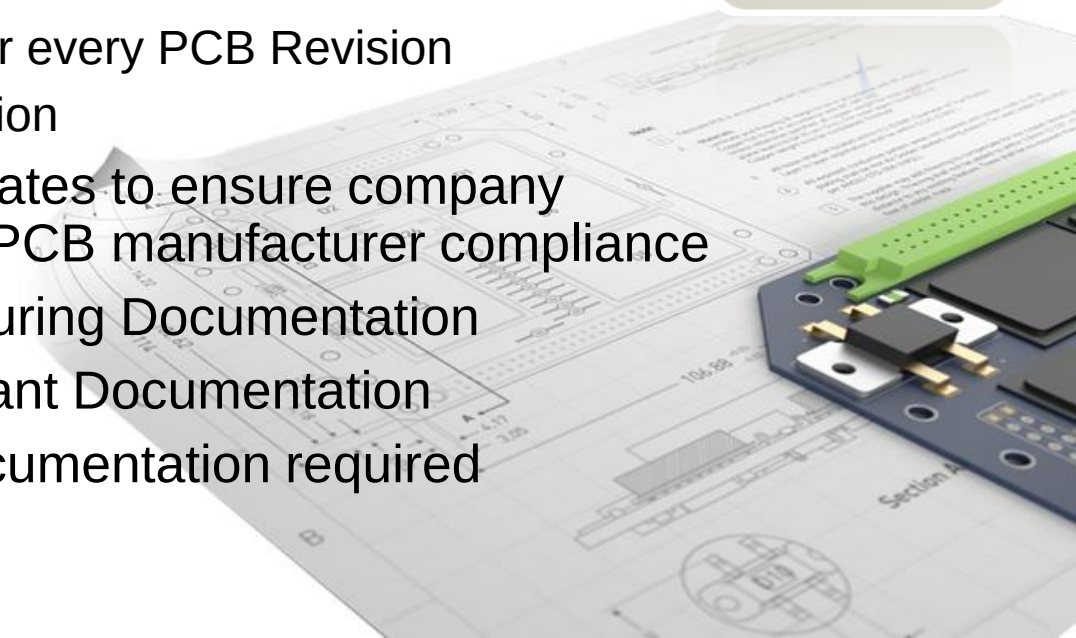
- Integrated Editor to create PCB Documentation for
 - Fabrication
 - Service
 - ...
- Fully integrated in Altium Designer (Subscription)
 - => No additional cost!
 - => No Import/Export



Why Draftsman?

Altium®

- Capability to create extensive PCB MFG Documentation
- After new PCB version, up to date PCB documentation by a push of a button
 - Significant Time saving for every PCB Revision
 - High Quality thru automation
- PCB documentation templates to ensure company standard compliance and PCB manufacturer compliance
- Consistent PCB Manufacturing Documentation
- PCB Manufacturer compliant Documentation
- No 3rd Party Tools for Documentation required



Draftsman Drawing Example



A
B
C
D

Assembly View - Top side

Scale 2:1

Drill Drawing View

Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
⊘	45	0.7mm	Plated	None
□	25	0.9mm	Plated	None
○	2	1.6mm	Plated	None
⊘	2	3.25mm	Non-Plated	None
77 Total				

Bill of Materials

Item	Footprint	Designator	Quantity
1	CAPC2012	C3-C6, C10-C16	11
2	CAPC3525	C1, C2	2
3	CAPC2012	C7, C8	2
4	CAPR7_5-3_6K7_5	CP	1
5	LED2013	D61-D65	5
6	F8122-2581	J11	1
7	HDR2X10	JP4	1
8	INDC2012	L1, L2	2
9	RESC2012	R10-R13	4
10	RESC2012	R14	1
11	RESC2012	R16, R19, R20, R23, R24	5
12	RESC2012	R2, R3, R5, R6	4
13	RESC2012	R1, R7	2
14	RESC2012	R4, R8, R9, R15, R17, R18, R21, R22	8
15	SOIC127PP10-16	T1	1
16	TQFP90R000XPO0-48	U1	1
17	XTAL_HC4FSMD 20MHz +/-30ppm 20df	Y11	1

Top Layer

Bottom Layer

Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type
Paste Mask	Top Paste			Paste Mask
Legend	Top Overlay			Legend
Surface Material	Top Solder	0.01mm	Solder Resist	Solder Mask
Copper	Top Layer	0.036mm	FR-4	Signal
Copper	Bottom Layer	0.036mm		Signal
Surface Material	Bottom Solder	0.01mm	Solder Resist	Solder Mask
Legend	Bottom Overlay			Legend
Paste Mask	Bottom Paste			Paste Mask

Total thickness: 0.411mm

Note:

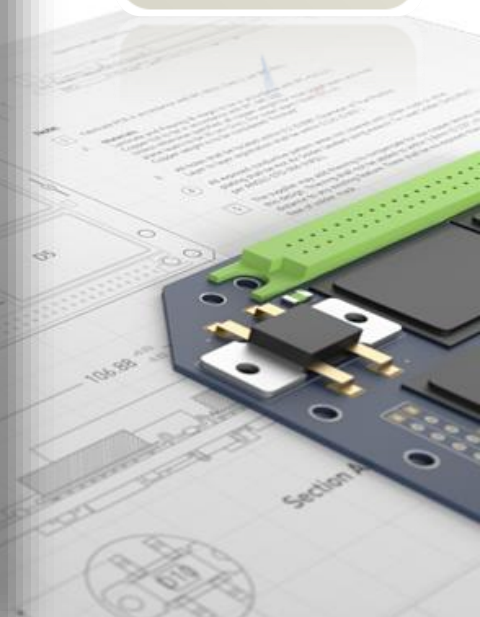
- Use Bothhand 10/100 BaseT Pulse Transformer
- Last updated 22/03/2016
- Drawing units: Metric

UNLESS OTHERWISE SPECIFIED:		DRAWN	NAME	DATE	Altium PWFPHY - Draft 5
DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED:		CHECKED	PL	22/03/2016	
FRACTIONS USE FRACTIONAL INCHES UNLESS OTHERWISE SPECIFIED:		ENG APPR.			
DECIMALS USE DECIMAL INCHES UNLESS OTHERWISE SPECIFIED:		MFG APPR.			
TOLERANCES UNLESS OTHERWISE SPECIFIED:		D.S.	PN		DATE
MATERIAL		TOLERANCES		SHEET NO.	
NEXT ASSY		USED ON		22-3	
APPLICATION		DO NOT SCALE DRAWING		SCALE: 1:1 WEIGHT: SHEET 1 OF 1	

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PROPRIETARY AND CONFIDENTIAL

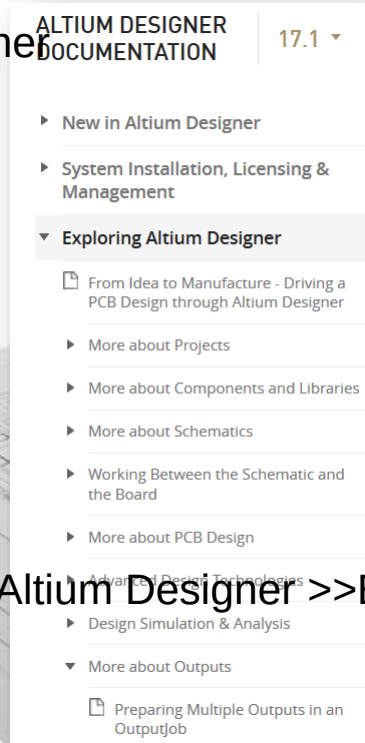
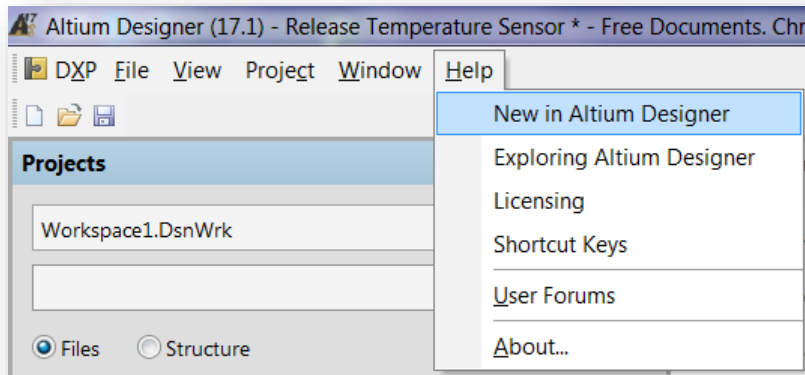
A
B
C
D



Documentation?

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