

11 Print Media Technology

WorldSkills Standards Specification

Section	WSSS Marks
1	Work organization and management
2	Planning and preparation
3	Press run
4	Quality control, adjustments, and troubleshooting
5	Finishing
6	Clean-Up

Criteria

ID	Name
A	OFFSET PRINTING
B	DIGITAL PRINTING
C	ADDITIONAL TASKS

D
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Sub Criterion ID	Sub Criterion Name or Description	Day of Marking	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
A1	Initial setup of offset press & process control - task 1	1	M M M M M M J	Task complete with no machine stops Task completed target speed of 12,000 SPH Task completed at full speed of 15,000 SPH Deliver a specific amount of sheets to delivery Waste reduction Total time of task completed Analysis of initial feeder and infeed table set-up	0 1 2 3
A2	Adjust Process controls - task 2	2	J	Delivery pile is suitable for following phases	0 1 2 3
			M M	Circumferential Square - Print Image to sheet registration Circumferential Center - Print Image to sheet registration, outside	

A3	Good copies, time, color registration, press clear	4	M	Side-to-Side Center - print image to sheet registration, outside to	0 1 2 3	
			M	colour-to-colour registration - Operator Side		
			M	colour-to-colour registration - Drive Side		
			M	Deliver a specific amount of sheets to delivery		
			M	Waste reduction		
			M	Final Sheet colour-to-colour registration - Operator Side		
			M	Final Sheet colour-to-colour registration - Drive Side		
			M	Total time of task completed on maintenance exercise		
			J	Analysis of initial press sheet readiness for customer delivery		
			J	Delivery pile is suitable for following phases		0 1 2 3

			J	Cleaning the printing units, plates, blankets and impression cylinder	0 1 2 3
			J	After press run, organizing the work area according to the safety	0 1 2 3
			J	Set Off Marking, piling from spray dust, any visual defect after run	0 1 2 3
			J	Delivery pile is suitable for following phases	0 1 2 3
Sub Criterion ID	Sub Criterion Name or Description	Day of Marking	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
B1	Preflight and edit digital file - task 4	1	M M M M	Perform Standard preflight check Edit PDF File Copy Saved File in accordance with Specified Naming convention Total time of task completed	
B2	Impose and print multiple up image job - task 5	1	M M M M M J	Finished Press sheet contain the maximum usable images Verify/load correct stock is in feeder drawer Total quantity printed business cards Front of press sheet and back of press sheet are in alignment: e Total time of task completed Imposition and digital printing	

					0 1 2 3
B3	Preflight - PDF defects - task 6	2	M	Found correct Pdf- files whitout defects	
			M	Mark to form if the file is correct or incorrect and reasons for inco	
			M	Create only One new PDF- with only the files that are acceptable	
			M	High-resolution document is named according job ticket	
			M	Total time of task completed	
B4	Digital printing workflow engineering - task 7	2	M	Create a hot folder/ Page list that will produce multiple post cards	
			M	Hot Folder/ Page list must include all required (5) specifications	
			M	Front of press sheet and back of press sheet are in alignment: e	
			M	Give to the judge your makeready sheets; Deduction for more tha	
			M	Print the 10 copies of your post cards	
			M	Total time of task completed	
			J	Quality of the products including front to back registration	0 1 2 3
			J	Work orientation, using economically materials and work area cle	0 1 2 3
B5	Preflight and edit digital file - task 8	3	M	Perform Standard preflight check	
			M	Edit PDF File Copy	
			M	Saved File in accordance with Specified Naming convention	
			M	Total time of task completed	
B6	Digital printing colour correction - task 9	3	M	Match colour of printed sample to versafire sheet, Closest Delta E	
			M	All areas requiring adjustment were made	
			M	Front of press sheet and back of press sheet are in alignment: e	
			M	Give to the judge your makeready sheets; Deduction for more tha	
			M	Print the 10 copies of your post cards	
			M	Total time of task completed	

B7	Preflight and edit digital file - task 10	4	J	Quality of the products including front to back registration	0 1 2 3
			J	Work orientation, using economically materials and work area cle	0 1 2 3
B8	Digital printing Calendar - task 11	4	M	Perform Standard preflight check and fix errors identified	
			M	Made note of new page positions	
			M	Saved File in accordance with Specified Naming convention	
			M	Total time of task completed	
			M	Repositioned and/or added pages as needed if not done in preflight	
			M	Give to the judges each of your incorrect registration sheets	
			M	Print the 5 copies of your post cards	
			M	Total time of task completed	
			M	Verify/load correct stock is in feeder drawer:	
			J	Quality of the products including front to back registration	0 1 2 3
			J	Work orientation, using economically materials and work area cle	0 1 2 3
Sub Criterion ID	Sub Criterion Name or Description	Day of Marking	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
C1	Mix (2) Special Pantone Colours for production r	4			

C4	Cutting digital toner post cards - task 15	2	M M M M M	Accuracy of the size of all cards Competitor provide the cutting plan based on uncut product Final size according to the job ticket Every card below required quantity deduct 0,20 marks Total time of task completed on cutting exercise	
C5	Cutting test pattern - task 16	3	M M M M	Competitor makes the first cut in the correct location +- 0,2 mm Competitor makes the second cut in the correct location +- 0,01 mm Competitor identifies the problem and solves the challenge - cut Total time of task completed on cutting exercise	
C6	Cutting Digital toner Calendar - task 17	4	M M M M	Competitor provide the cutting plan based on uncut product Final size according to the job ticket Every booklet below required quantity deduct 0,20 marks Total time of task completed on cutting exercise	
C7	SHOTS Print simulation 1 - task 18	1	M M	Print Simulation Virtual Cost for successful completed task Task actual time of successfully completed task	
C8	SHOTS Print simulation 2 - task 19	2	M M	Print Simulation Virtual Cost for successful completed task Task actual time of successfully completed task	
C9	SHOTS Print simulation 3 - task 20	3	M M M	Print Simulation Virtual Cost for successful completed task Task actual time of successfully completed task Task Virtual Time of successful completed task	
C10	SHOTS Print simulation 4 - task 21	4	M M M	Print Simulation Virtual Cost for successful completed task Task actual time of successfully completed task Task Virtual Time of successful completed task	
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	WSSS Marks	Aspect Marks	Variation
	10.00	11.00	1.00
	20.00	19.25	0.75
	20.00	19.25	0.75
	40.00	40.00	0.00
	5.00	5.50	0.50
	5.00	5.00	0.00
	Total Variation		3.00

	Mark
	40.00
	30.00
	30.00

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Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSSS Section	Calculation Row (Export only)	Max Mark
0-1 stop = 1.00, 2 stops = 0.50, 3 or more stops = 0.00 mark	Number of stops	3	1	1.00
Target 12,000 SPH >= 1,0 mark each 11,000 - 11,999 SPH	Yes / No	3		1.00
Full Speed 15,000 SPH = 1,0 marks	Yes / No	4		1.00
Number of good copies in counter after printing - as determined	700 sheets	2		0.50
Every unprinted sheet left in feeder, if full quantity is printed	Number of sheets	2		0.50
Record Time taken. Fastest completed task = Full marks, slowest = 0.00	According to time taken	1	2	1.00
		4		2.00
Competitor had no indication of what to do to solve problem				
Competitor nearly solved the problem but ran out of time during task				
Competitor solved the problem on time but did not take the task seriously				
Competitor solved the problem and displayed confidence and control		1		2.00
Below industry standard - many sheets sticking out, too many sheets out of line				
Acceptable to industry standard but will require some rework				
Meets industry standard - no more than 3 sheets out of line				
Exceeds industry standard - perfect stack and operator did not touch the stack				
Image is in correct position = 0,5 marks; Not in position = 0.00	Yes / No	4		0.50
Image is in correct position = 0,5 marks; Not in position = 0.00	Yes / No	4		0.50

Criterion A Total Mark 40.00

Image is in correct position = 0,5 marks; Not in position =	Yes / No	4		0.50
Best registration = Full marks. Every position behind deduc	According the rank	4	3	1.50
Best registration = Full marks. Every position behind deduc	According the rank	4	3	1.50
Number of good copies in counter after printing - as deter	700 sheets	2		0.50
Every unprinted sheet left in feeder, if full quantity is printe	Number of sheets	2		0.50
Best registration = Full marks. Every position behind deduc	According the rank	4	3	1.50
Best registration = Full marks. Every position behind deduc	According the rank	4	3	1.50
Record Time taken. Fastest completed task = Full marks,	According to time t	4	2	1.00
		4		1.00
Competitor had no indication of what to do to solve proble				
Competitor nearly solved the problem but ran out of time d				
Competitor solved the problem on time but did not take the				
Competitor solved the problem and displayed confidence a				
		4		1.00
Below industry standard - many sheets sticking out, too m				
Acceptable to industry standard but will require some rewo				
Meets industry standard - no more than 3 sheets out of lin				
Exceeds industry standard - perfect stack and operator dic				
Long grain paper was selected for the job	Yes / No	1		0.25
4 correct = 1,0, 3 correct = 0,75, 2 correct = 0,5, 1 correct	Yes / No	2		1.00
Best registration = Full marks. Every position behind deduc	According the rank	2	3	0.50
Best registration = Full marks. Every position behind deduc	According the rank	2	3	0.50
Each spot Outside of Tolerance deduct = 14.28% of aspec	Numbers of spots	3	4	1.50
Each spot Outside of Tolerance deduct = 14.28% of aspec	Numbers of spots	3	4	1.50
Each spot Outside of Tolerance deduct = 14.28% of aspec	Numbers of spots	3	4	1.50
Each spot Outside of Tolerance deduct = 14.28% of aspec	Numbers of spots	3	4	1.50
Each spot Outside of Tolerance deduct = 14.28% of aspec	Numbers of spots	4	4	1.00
Each spot Outside of Tolerance deduct = 14.28% of aspec	Numbers of spots	4	4	1.00
Each spot Outside of Tolerance deduct = 14.28% of aspec	Numbers of spots	4	4	1.00
Each spot Outside of Tolerance deduct = 14.28% of aspec	Numbers of spots	4	4	1.00
Number of good copies in counter after printing - as deter	500 sheets	2		0.50
Every unprinted sheet left in feeder, if full quantity is printe	Number of sheets	2		1.00
Record Time taken. Fastest completed task = Full marks,	According to time t	1	5	1.00
		4		0.50
Competitor had no indication of what to do to solve proble				
Competitor nearly solved the problem but ran out of time d				
Competitor solved the problem on time but did not take the				
Competitor solved the problem and displayed confidence a				

Below industry standard - ran out of time or did not use safety equipment		6		1.00
Acceptable industry standard - safety equipment was used				
Meets industry standard - safety equipment used correctly				
Highly meets industry standard - safety equipment used correctly				
Below industry standard - ran out of time or did not dispose of waste		6		0.50
Acceptable industry standard - safety equipment was used				
Meets industry standard - safety equipment used correctly				
Highly meets industry standard - safety equipment used correctly				
Below industry standard - many sheets sticking out, too many sheets		4		1.75
Acceptable to industry standard but will require some rework				
Meets industry standard - no more than 3 sheets out of line				
Exceeds industry standard - perfect stack and operator did not				
Below industry standard - many sheets sticking out, too many sheets		4		1.00
Acceptable to industry standard but will require some rework				
Meets industry standard - no more than 3 sheets out of line				
Exceeds industry standard - perfect stack and operator did not				
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSSS Section	Calculation Row (Export only)	Max Mark
Image size, Bleeds, Fonts, etc - Anything missed = 0,0 marks	Yes / No	2		0.50
Changed type fields with correct copy, size, and style - Anything missed = 0,0 marks	Yes / No	2		0.75
Saved File named correctly - Anything wrong = 0,0 marks	Yes / No	2		0.25
Record Time taken. Fastest completed task = Full marks, anything else = 0,0 marks	According to time taken	1	6	0.25
25 cards per sheet = full marks, anything less = 0,0 marks	Yes / No	1		1.00
Verify/load correct stock is in feeder drawer: Yes = 0.25 marks / No = 0.00 marks	Yes / No	3		0.25
Yes = 0.50 marks / No = 0.00 marks - Deduct 0.10 marks for each error	Number of unprinted cards	3		0.50
Inside tolerance +/- 0,6mm full marks / outside of tolerance = 0,0 marks	Yes / No	4		0.50
Record Time taken. Fastest completed task = Full marks, anything else = 0,0 marks	According to time taken	1	7	0.50
		3		1.00

Criterion B Total Mark 30.00

Below industry standard - Competitor had little or no knowledge					
Acceptable to industry standard but not perfect - Competitor					
Meets industry standard - Finished the task but did not show					
Exceeds industry standard - All aspects of the process and					
Deduct 0,5 for every correct file not found or incorrect selection	Yes / No	2			1.25
Deduct 0.25 for each wrong answer	Yes / No	2			1.00
Files must be correct	Yes / No	2			0.50
Naming convention must be correct	Yes / No	2			0.50
Record Time taken. Fastest completed task = Full marks,	According to time taken	1	6		0.50
Hot Folder /Page List was used to create print layout	Yes / No	2			1.25
Every missing required specification deduct 0,25	Number	3			1.25
Inside tolerance +/- 0,6mm full marks / outside of tolerance	Yes / No	4			0.50
Deduct 0,1 for each sheet makeready sheet greater than 5	Number	4			0.50
Every copies less deduct 0.05	Number	4			0.25
Record Time taken. Fastest completed task = Full marks,	According to time taken	1	7		0.50
		4			1.00
Product or is not ready made, Any customer wouldn't pay					
Product is finished but need to fix registration etc. before delivery					
Product is finished. This is a good work and customer pays					
Product is finished. This is a excellent work and customer					
		4			1.00
There are challenges on economical, safe and clean work					
Beginner: the work process needs to improve before it is safe					
Semi professional: the work process is quite smooth or economical					
Full professional: the work process is smooth, economical					
Image size, Bleeds, Fonts, etc - Anything missed = 0 marks	Yes / No	2			0.25
Deleted copy as instructed on job ticket	Yes / No	2			0.75
Saved File named correctly	Yes / No	2			0.25
Record Time taken. Fastest completed task = Full marks,	According to time taken	1	6		0.75
Best Delta E closest to 0,0 = full marks, Highest Delta E re	According to rank	3			1.50
Anything Missing = 0,0 marks	Yes / No	3			0.50
Inside tolerance +/- 0,6mm full marks / outside of tolerance	Yes / No	2			0.50
Deduct 0,1 for each sheet makeready sheet greater than 5	Number	2			0.50
Every copies less deduct 0.50	Number	2			0.50
Record Time taken. Fastest completed task = Full marks,	According to time taken	1	7		0.25

Product or is not ready made, Any customer wouldn't pay Product is finished but need to fix registration etc. before d Product is finished. This is a good work and customer pay Product is finished. This is a excellent work and customer		4		1.00
		3		1.00
	There are challenges on economical, safe and clean work Beginner: the work process needs to improve before it is s Semi professional: the work process is quite smooth or ec Full professional: the work process is smooth, economical			
Image size, Bleeds, Fonts, etc - Anything missed or file no	Yes / No	2		1.00
realize page location can be changed in RIP	Yes / No	2		0.75
Saved File named correctly	Yes / No	2		0.25
Record Time taken. Fastest completed task = Full marks,	According to time t	1	6	0.25
Any page out of order = 0,0 marks	Yes / No	3		1.00
Every missing sheet deduct 0.50	number	3		0.50
Every copies less deduct 0.50	Number	1		0.50
Record Time taken. Fastest completed task = Full marks,	According to time t	1	7	0.25
Verify/load correct stock is in feeder drawer: Yes = 0.25 m	Yes / No	3		0.25
		3		1.00
Product or is not ready made, Any customer wouldn't pay				
Product is finished but need to fix registration etc. before d				
Product is finished. This is a good work and customer pay				
Product is finished. This is a excellent work and customer		1		1.00
There are challenges on economical, safe and clean work				
Beginner: the work process needs to improve before it is s				
Semi professional: the work process is quite smooth or ec				
Full professional: the work process is smooth, economical				
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSSS Section	Calculation Row (Export only)	Max Mark

Criterion C Total Mark 30.00

Mixing 800gms of PMS 332 Ink	+/- 10grams	2		0.50
Best Delta E closest to 0,0 = full marks, Highest Delta E re	According the rank	4		1.00
Mixing 1.25 kgms of PMS 2617 Ink	+/- 10grams	2		0.50
Best Delta E closest to 0,0 = full marks, Highest Delta E re	According the rank	4		1.00
Record Time taken. Fastest completed task = Full marks,	According to time t	2	8	0.50
		6		1.00
Below industry standard - ran out of time or did not dispos				
Acceptable industry standard - safety equipment was used				
Meets industry standard - safety equipment used correctly				
highly meets industry standard - safety equipment used co				
Dark colour close to delivery - light colour close to feeder	Yes / No	3		1.00
Total thickness must equal 0,0 to bearer high	Yes / No	3		0.50
All 4 steps followed = full marks, each step missed is 25%	Yes / No	4		0.50
If correct or incorrect thickness and competitor fixes his/he	Yes / No	4		0.50
	Yes / No	4		0.50
	Yes / No	4		0.50
	Yes / No	4		0.50
	Yes / No	4		0.50
Record Time taken. Fastest completed task = Full marks,	According to rank	3		1.00
Best Delta E closest to 0,0 = full marks, Highest Delta E re	According the rank	4		1.00
Best Delta E closest to 0,0 = full marks, Highest Delta E re	According the rank	4		1.00
Record Time taken. Fastest completed task = Full marks,	According to time t	1	9	1.00
		6		1.00
Below industry standard - ran out of time or did not dispos				
Acceptable industry standard - safety equipment was used				
Meets industry standard - safety equipment used correctly				
highly meets industry standard - safety equipment used co				
		4		1.00
Below industry standard - several defect marks, job not ac				
Minimally acceptable to industry standard, insignificant ma				
Meets industry standard - one side perfect, small insignifi				
Perfect industry standard - no defects on either side of the				
Must all be exact same size	yes / no	6		0.50
Cards were cut as specified	yes / no	2		0.50
`+- 0.50 mm. Within tolerance = full marks, outside toleran	Yes / No	6		0.50
Required Quantity 160	nbr finished cards	4		0.50
Record Time taken. Fastest completed task = Full marks,	According to time t	6	6	0.50

Must all be exact same size	yes / no	5		0.50
Same as judging plan	yes / no	2		0.50
`+- 0.50 mm. Within tolerance = full marks, outside tolerance = 0	yes / No	5		0.50
Required Quantity 8 of each design	nbr finished cards	4		0.50
Record Time taken. Fastest completed task = Full marks, According to time taken		5	6	0.50
Cut must be close but not perfect	yes / no	5		0.50
Cut must be perfect	yes / no	2		0.50
Give full mark if achieved on the second attempt; deduct 0.50 if not	yes / No	5		1.00
Record Time taken. Fastest completed task = Full marks, According to time taken		5	6	0.50
Same as judging plan	yes / no	5		0.50
`+- 0.50 mm. Within tolerance = full marks, outside tolerance = 0	yes / No	5		0.50
Required quantity of 4	nbr finished cards	5		0.50
Record Time taken. Fastest completed task = Full marks, According to time taken		5	6	0.50
Lowest Total Virtual Cost = Full marks / Every position behind = 0.25	According to the Score	4		0.25
Lowest Actual Time = Full marks / Every position behind = 0.25	According to the Score	4		0.25
Lowest Total Virtual Cost = Full marks / Every position behind = 0.25	According to the Score	4		0.25
Lowest Actual Time = Full marks / Every position behind = 0.25	According to the Score	4		0.25
Lowest Total Virtual Cost = Full marks / Every position behind = 1.00	According to the Score	4		1.00
Lowest Actual Time = Full marks / Every position behind = 0.25	According to the Score	4		0.25
Lowest Total Cost = Full marks / Every position behind = 1.00	According to the Score	4		1.00
Lowest Total Virtual Cost = Full marks / Every position behind = 1.00	According to the Score	4		1.00
Lowest Actual Time = Full marks / Every position behind = 0.25	According to the Score	4		0.25
Lowest Total Cost = Full marks / Every position behind = 1.00	According to the Score	4		1.00
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSSS Section	Calculation Row (Export only)	Max Mark

Criterion D Total Mark 0.00

Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSSS Section	Calculation Row (Export only)	Max Mark
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSSS Section	Calculation Row (Export only)	Max Mark
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSSS Section	Calculation Row (Export only)	Max Mark
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement (Measurement Only)	WSSS Section	Calculation Row (Export only)	Max Mark
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Criterion E Total Mark 0.00

Criterion F Total Mark 0.00

Criterion G Total Mark 0.00

Criterion H Total Mark 0.00

Criterion I Total Mark 0.00

Competition	Total Mark	100.00
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