

Programming in the Professional's Domain

Type: Executive Summary Report



Date: 5/9/2006

Total number of responses collected: 23

*****NOTE:** Verbatim data for open ended questions has been removed for anonymity. Affected questions are: 39, 10, 29, and 34-39. For summaries of this data, please see our paper.







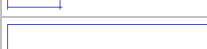
Q1: In the past 6 months, have you used image creation and/or manipulation tools (for example, Photoshop, GIMP, Illustrator, etc.).

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes						100.0%	23
No						0.0%	0
						Mean	1.000
						Valid Responses	23
						Total Responses	23

Q2: Which of the following tools do you use on a regular basis (check all that apply)?

(Respondents were allowed to choose **multiple** responses)

Response	20%	40%	60%	80%	100%	Frequency	Count
Adobe Photoshop						60.9%	14
GIMP						43.5%	10
Corel PhotoPaint						4.3%	1
Paint Shop Pro						8.7%	2
Adobe Illustrator						56.5%	13
CorelDRAW						8.7%	2
Other (please specify)						34.8%	8
						Valid Responses	23
						Total Responses	23

Q3: Approximately how many hours per week do you spend manipulating images:

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
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Less than 1	<input type="text"/>	8.7%	2
1-5 hours	<input type="text"/>	21.7%	5
6-10 hours	<input type="text"/>	8.7%	2
11-15	<input type="text"/>	17.4%	4
16-20	<input type="text"/>	17.4%	4
21-30	<input type="text"/>	8.7%	2
31-40	<input type="text"/>	8.7%	2
41+ hours	<input type="text"/>	8.7%	2
		Mean	4.174
		Valid Responses	23
		Total Responses	23

Q4_A: In the past have you done any of the following within your image applications?

		Yes	No	Not Sure	Total
Used batch processing to apply an action to multiple files	Count	19	3	0	22
	% by Row	86.4%	13.6%	0.0%	100.0%
Created a "droplet" of an action for repeat use later	Count	12	8	2	22
	% by Row	54.5%	36.4%	9.1%	100.0%
Used a predefined automation to perform a complex task (e.g., Photoshop's Web Photo Gallery creation tool)	Count	15	5	2	22
	% by Row	68.2%	22.7%	9.1%	100.0%
Executed a script written by someone else (e.g., from the Scripts dialog in Photoshop, or Python-Fu/Script-Fu menus in GIMP)	Count	17	5	0	22
	% by Row	77.3%	22.7%	0.0%	100.0%
Edited a script or plugin written by someone else (or copied from a reference) to meet your needs	Count	15	6	1	22
	% by Row	68.2%	27.3%	4.5%	100.0%
Personally written a script or plugin from scratch for use within the application	Count	16	5	1	22
	% by Row	72.7%	22.7%	4.5%	100.0%
Total	Count	94	32	6	132
	% by Row	71.2%	24.2%	4.5%	100.0%

Q5: For what purpose do you create and/or use automation tools (check all that apply)?

(Respondents were allowed to choose **multiple** responses)

Response	20%	40%	60%	80%	100%	Frequency	Count
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To rapidly create duplicate copies of objects in a single project	<input type="text"/>	39.1%	9
To apply one or more actions to a set of objects in a single project	<input type="text"/>	73.9%	17
To automate batch processing of a set of actions over multiple files	<input type="text"/>	65.2%	15
To apply a set of actions to objects conditionally (i.e., only to those that meet some preset criteria)	<input type="text"/>	52.2%	12
To interact with multiple software applications	<input type="text"/>	34.8%	8
To create dynamic media that is easily changed by outside users (e.g., an image that can be customized with changeable text)	<input type="text"/>	21.7%	5
Other (please specify)	<input type="text"/>	8.7%	2
		Valid Responses	20
		Total Responses	20

Q6: If you have previous experience writing scripts and/or plugins, check all languages you've used to create/edit scripts:

(Respondents were allowed to choose **multiple** responses)

Response	20%	40%	60%	80%	100%	Frequency	Count
AppleScript	<input type="text"/>					17.4%	4
Scheme	<input type="text"/>					13.0%	3
JavaScript (or ExtendScript)	<input type="text"/>					34.8%	8
Python	<input type="text"/>					8.7%	2
Perl	<input type="text"/>					13.0%	3
C	<input type="text"/>					4.3%	1
C#	<input type="text"/>					4.3%	1
VisualBasic	<input type="text"/>					0.0%	0
Other (please specify)	<input type="text"/>					0.0%	0
						Valid Responses	13
						Total Responses	13

Q7: Approximately how large is the largest script/plugin you've ever modified or created?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
0-15 lines	<input type="checkbox"/>					0.0%	0
15-30 lines	<input type="checkbox"/>					7.7%	1
31-45 lines	<input type="checkbox"/>					0.0%	0
46+ lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	92.3%	12
Mean							3.846
Valid Responses							13
Total Responses							13

Q8: Why did you start writing your own scripts in the first place (check all that apply)?

(Respondents were allowed to choose **multiple** responses)

Response	20%	40%	60%	80%	100%	Frequency	Count
To save time by automating repetitive tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	47.8%	11
To achieve a custom effect that is not standard in the application	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	39.1%	9
To create a re-distributable artifact to share with others (e.g., a plug-in)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21.7%	5
Friends/coworkers suggested I try it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.7%	2
Curiosity about programming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21.7%	5
Other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.3%	1
Valid Responses							13
Total Responses							13

Q9_A: On a scale of 1 to 5 where 1 means “never”, 3 means “regularly”, and 5 means “always”, how often do you:

		(never) 1	2	(regularly) 3	4	(always) 5	Total
Share scripts and/or plugins that you create with others	Count	1	1	3	2	6	13
	% by Row	7.7%	7.7%	23.1%	15.4%	46.2%	100.0%
Write scripts explicitly for other people’s use	Count	1	6	4	1	1	13
	% by Row	7.7%	46.2%	30.8%	7.7%	7.7%	100.0%
Use whole scripts written by other people as a part of your scripting projects	Count	1	4	4	2	2	13
	% by Row	7.7%	30.8%	30.8%	15.4%	15.4%	100.0%
Borrow pieces of code from scripts written by other people	Count	0	2	8	3	0	13

in your projects	% by Row	0.0%	15.4%	61.5%	23.1%	0.0%	100.0%
Borrow pieces of code from previous scripts of your own in new scripts	Count	0	1	4	4	4	13
	% by Row	0.0%	7.7%	30.8%	30.8%	30.8%	100.0%
Create sketches or diagrams of scripting ideas/concepts prior coding on the computer	Count	4	2	5	2	0	13
	% by Row	30.8%	15.4%	38.5%	15.4%	0.0%	100.0%
Write code (complete or partial scripts) on paper prior to coding on the computer	Count	8	1	2	2	0	13
	% by Row	61.5%	7.7%	15.4%	15.4%	0.0%	100.0%
Test your scripts on multiple files or with multiple inputs	Count	0	0	6	2	5	13
	% by Row	0.0%	0.0%	46.2%	15.4%	38.5%	100.0%
Test your scripts on multiple platforms (e.g., Windows, Mac, Linux)	Count	5	2	3	1	2	13
	% by Row	38.5%	15.4%	23.1%	7.7%	15.4%	100.0%
Test your scripts by inviting others to use them	Count	1	2	3	3	4	13
	% by Row	7.7%	15.4%	23.1%	23.1%	30.8%	100.0%
Total	Count	21	21	42	22	24	130
	% by Row	16.2%	16.2%	32.3%	16.9%	18.5%	100.0%

Q39: Please briefly describe the general process you use as you write your scripts:

Q10: Please briefly describe when and how you go about testing scripts that you write:

Q11_A: If you were attempting a new task with a piece of software, how likely would you be to consult the following resources for assistance? Please rate the resources on a scale from 1 to 5 where 1 means “not likely to consult” and 5 means “very likely to consult.”

		(not likely) 1	2	3	4	(very likely) 5	Total
An interactive software wizard that takes you step-by-step through the new task	Count	5	4	0	3	1	13
	% by Row	38.5%	30.8%	0.0%	23.1%	7.7%	100.0%
Examples of similar tasks from which you can borrow ideas and/or copy code	Count	0	0	1	6	6	13
	% by Row	0.0%	0.0%	7.7%	46.2%	46.2%	100.0%
A class or seminar	Count	3	4	4	2	0	13
	% by Row	23.1%	30.8%	30.8%	15.4%	0.0%	100.0%
A software agent that makes suggestions on an	Count	4	4	3	1	1	13
	% by Row	30.8%	30.8%	23.1%	7.7%	7.7%	100.0%

as-needed basis							
FAQs, books, tutorials or other documentation	Count	0	0	3	3	7	13
	% by Row	0.0%	0.0%	23.1%	23.1%	53.8%	100.0%
A friend or coworker	Count	1	2	6	3	1	13
	% by Row	7.7%	15.4%	46.2%	23.1%	7.7%	100.0%
Technical support/telephone hotline	Count	10	0	3	0	0	13
	% by Row	76.9%	0.0%	23.1%	0.0%	0.0%	100.0%
Total	Count	23	14	20	18	16	91
	% by Row	25.3%	15.4%	22.0%	19.8%	17.6%	100.0%

Q12: Are you personally familiar with the concept of a “variable”—a named memory location where programs can store results and/or read them back?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text" value="88.9%"/>					88.9%	16
No	<input type="text" value="11.1%"/>					11.1%	2
Mean							1.111
Valid Responses							18
Total Responses							18

Q13: When creating programs in the past year, have you personally defined and referenced variables?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text" value="93.8%"/>					93.8%	15
No	<input type="text" value="6.3%"/>					6.3%	1
Mean							1.063
Valid Responses							16
Total Responses							16

Q14: Are you personally familiar with the concept of a “subroutine”—a piece of code that can be called from multiple places in a program (also called a “procedure”, “function”, or “method”)?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text" value="94.4%"/>					94.4%	17
No	<input type="text" value="5.6%"/>					5.6%	1
						Mean	1.056
						Valid Responses	18
						Total Responses	18

Q15: When creating programs in the past year, have you defined called a subroutine written by another person whom you know personally?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text" value="41.2%"/>					41.2%	7
No	<input type="text" value="58.8%"/>					58.8%	10
						Mean	1.588
						Valid Responses	17
						Total Responses	17

Q16: When creating programs in the past year, have you personally created a new subroutine?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text" value="82.4%"/>					82.4%	14
No	<input type="text" value="17.6%"/>					17.6%	3
						Mean	1.176
						Valid Responses	17
						Total Responses	17

Q17: Are you personally familiar with the concept of a “conditional”—a command that prevents code from running unless a certain condition is met (also called “if/then”, “if/else”)?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text" value="94.4%"/>					94.4%	17
No	<input type="text" value="5.6%"/>					5.6%	1
						Mean	1.056
						Valid Responses	18
						Total Responses	18

Q18: When creating programs in the past year, have you personally coded conditional statements?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text" value="88.2%"/>					88.2%	15
No	<input type="text" value="11.8%"/>					11.8%	2
						Mean	1.118
						Valid Responses	17
						Total Responses	17

Q19: Are you personally familiar with the concept of a “loop”—a sequence of instructions that are repeated until a condition is met (also called “for/next”, “while/do”, “repeat/until”)?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text" value="94.4%"/>					94.4%	17
No	<input type="text" value="5.6%"/>					5.6%	1
						Mean	1.056
						Valid Responses	18
						Total Responses	18

Q20: When creating programs in the past year, have you personally coded loops?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text" value="88.2%"/>					88.2%	15
No	<input type="text" value="11.8%"/>					11.8%	2

	Mean	1.118
	Valid Responses	17
	Total Responses	17

Q21: Are you personally familiar with the concept of “compound data structures”—some grouping of two or more basic data elements that can be referred to as a whole (examples include “structs”, “records”, “arrays”, “lists”, “stacks”, “queues”, “trees”)?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text" value="83.3%"/>					83.3%	15
No	<input type="text" value="16.7%"/>					16.7%	3
						Mean	1.167
						Valid Responses	18
						Total Responses	18

Q22: When creating programs in the past year, have you personally coded using compound data structures?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text" value="86.7%"/>					86.7%	13
No	<input type="text" value="13.3%"/>					13.3%	2
						Mean	1.133
						Valid Responses	15
						Total Responses	15

Q23: Have you had formal or professional training (e.g., classes, degrees, certificates) in programming?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text"/>					38.9%	7
No	<input type="text"/>					61.1%	11
						Mean	1.611
						Valid Responses	18
						Total Responses	18

Q24: Do you consider yourself a programmer?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes	<input type="text"/>					16.7%	3
No	<input type="text"/>					83.3%	15
						Mean	1.833
						Valid Responses	18
						Total Responses	18

Q25: For approximately how many years have you used computers?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
1-5 years	<input type="text"/>					0.0%	0
5-10 years	<input type="text"/>					22.2%	4
15-20 years	<input type="text"/>					22.2%	4
20-25 years	<input type="text"/>					33.3%	6
25+ years	<input type="text"/>					22.2%	4
						Mean	3.556
						Valid Responses	18
						Total Responses	18

Q26: On a scale from 1 to 5, where one is beginner and five is advanced, how would you characterize yourself as a computer user?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
1 (beginner)						0.0%	0
2						0.0%	0
3						22.2%	4
4						22.2%	4
5 (advanced)						55.6%	10
						Mean	4.333
						Valid Responses	18
						Total Responses	18

Q27: Where do you learn about software application features? (check all that apply)

(Respondents were allowed to choose **multiple** responses)

Response	20%	40%	60%	80%	100%	Frequency	Count
Self taught/Learn by experimenting						78.3%	18
Formal classes						43.5%	10
Online tutorials or tutorials bundled with application						60.9%	14
Coworkers						30.4%	7
Other (please specify)						13.0%	3
						Valid Responses	18
						Total Responses	18

Q28: Which of the following categories best describes your occupational status? Are you:

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Currently working in a civilian job						77.8%	14
Currently working in an academic (e.g., university) job						0.0%	0
Currently working in a military or government job						0.0%	0
A student						0.0%	0
Retired						5.6%	1
Unemployed						5.6%	1

Other (please specify)	<input type="text"/>	11.1%	2
		Mean	2.167
		Valid Responses	18
		Total Responses	18

Q29: What is your occupation?

Q30: What is your gender?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Female	<input type="text"/>					0.0%	0
Male	<input type="text"/>					100.0%	18
						Mean	2.000
						Valid Responses	18
						Total Responses	18

Q31: What is your age group?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Under 18	<input type="text"/>					0.0%	0
18-21	<input type="text"/>					0.0%	0
21-25	<input type="text"/>					11.1%	2
26-30	<input type="text"/>					11.1%	2
31-35	<input type="text"/>					27.8%	5
36-40	<input type="text"/>					5.6%	1
41-45	<input type="text"/>					16.7%	3
46-50	<input type="text"/>					11.1%	2
51+	<input type="text"/>					16.7%	3
						Mean	6.056
						Valid Responses	18

Total Responses 18

Q32: What is your race/ethnicity?(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
White (non-Hispanic) or Caucasian						83.3%	15
Hispanic						5.6%	1
Black/African American						0.0%	0
Asian						0.0%	0
Native Hawaiian or Pacific Islander						0.0%	0
Native American						0.0%	0
Other (please specify)						11.1%	2
						Mean	1.722
						Valid Responses	18
						Total Responses	18

Q33: What is the highest level of education you have completed?(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Did not complete high school						0.0%	0
High school diploma/GED						27.8%	5
Some college but no degree						16.7%	3
Associate's degree						11.1%	2
Bachelor's degree (e.g., BA, BS)						33.3%	6
Master's degree (e.g., MA, MS, MEng)						11.1%	2
Professional degree (e.g., MD, JD, DVM)						0.0%	0
Doctoral degree (e.g., PhD, EdD)						0.0%	0
						Mean	3.833
						Valid Responses	18
						Total Responses	18

Q34: What was your college major or primary area(s) of study?

Q35: What was your primary area of post-graduate study?

Q36: What is your country of residence?

Q38: How did you hear about this survey (e.g., from what user group or online community)?

Q37: Please provide any additional information you'd like to share below:

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