### Introduction

This document provides the results of the ALCF 2012 User Survey. Every year ALCF seeks feedback from its users. This year, 33.2% of our users responded to the survey. Partially completed surveys were considered responses. Respondents included both project PIs and users from each of our core-hour allocation programs: INCITE, ALCC, and Director's Discretionary. The primary data contained in this document are the frequencies, percentages, or averages, as appropriate, of the responses for each question.

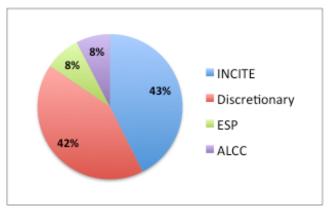
## **Survey Design**

This survey was designed to quickly move ALCF users through the most salient questions of the facility. Survey questions were grouped behind filtered yes/no questions and in some cases more choices.

This year ALCF decided to test portions of the survey with the goal of improvement. Four double-barreled questions were inserted in the survey to determine if there were statistical differences as separate questions. The Double Barreled special section on page 10 presents the results of this investigation.

## **Demographics**

ALCF users come from around the world and are representative of allocations. The pie chart shows the distribution of users across the different allocation programs. Users were categorized by their most substantial allocation program. The table shows the top five countries in which our users reside. Other countries included: Russia, Switzerland, China, Japan, Saudi Arabia, Brazil, Canada, Denmark, Italy, Poland, Puerto Rico, and Romania.



Country	Pct. Total
U.S.	85.2%
England	3.6%
Germany	2.6%
India	1.3%
France	1.0%

#### **Overall Satisfaction**

Users were very satisfied overall with the Argonne Leadership Computing Facility in 2012.

			Above		Below	
Question #	Question Subject	Excellent	Average	Average	Average	Poor
24	Overall Satisfaction	150	108	30	2	0

### Science at ALCF

The core mission of the ALCF is to support breakthrough science on one of the most powerful supercomputers in the world. The survey targets this mission by asking the users about the progress of their science goals and whether ALCF had an impact on these goals.

Was the progress you made toward the major science goal(s) of your project during your 2012 allocation satisfactory? Yes completely = 48.5%; yes partially =45.9%; and no, not really = 5.6%.

Response	Frequency
yes, completely	148
yes, partially	140
no, not really	17

How important was ALCF support in affecting the level of progress toward your science goal(s) in 2012? Very important = 53.1%; somewhat important=36.1%; and not important = 10.8%

Response	Frequency
very important	162
somewhat important	110
not important	33

ALCF users were given an opportunity to provide comments in the science section. Users classified these comments by choosing whether ALCF had a positive or negative role toward their scientific progress.

Contribution to Progress	Frequency	Percent of total (74 comments)
positive role	63	85%
negative role	4	5%

## **User Support**

Users were filtered out of this section of questions by the initial question: "Did you use ALCF support during your 2012 allocation?" 235 users responded YES, 70 users responded NO.

Users who answered YES were then presented 6 questions and given an opportunity to write comments regarding this section of questions. Note that users could obtain support in various ways so the total for methods of support is greater than the number of users receiving support. About four out of every five contacts with ALCF support occurred either via email or telephone.

The table below shows the different ways users communicate with ALCF. In the "Other" text box, the following answers were also received: teleconference, workshop, through others [in their research group], their catalyst, Google chat, and welcome call/meeting.

Type of contact	Frequency	Percent
via email	210	86%
by phone	111	45%
in person	56	23%
on the website (e.g. "contact us" page)	21	9%
Other (please specify)	8	3%

In questions 6a-6c, ALCF asked users to rate quality of documentation, quality of support, and availability of support.

		Strongly					
Question #	Question Subject	Agree	Agree	Neutral	Disagree	Disagree	N/A
6a	Documentation Quality	69	120	26	9	2	8
6b	Professional/Courteous	173	53	7	0	0	1
6c	Support Availability	129	91	10	3	0	1

ALCF users were given an opportunity to provide comments in the user support section. Users classified these comments by choosing one or more of the following selections: praise, suggestion for improvement, problem, or complaint.

Type of comment	Frequency	Percent of total (41 comments)
praise	29	71%
suggestion	16	39%
problem	1	2%
complaint	1	2%

### **Infrastructure and Software**

This section of questions focuses on the computing environment: the scheduler, hardware, operating system, basic libraries, storage/tape, and visualization hardware. Since all respondents used the infrastructure and software, there was no "filter question" for this section.

Questions 9a through 9g asked users to evaluate ALCF's management of the infrastructure, with specific reference to their use of Intrepid.

O	Strongly					Strongly	N1/0
Question	Question Subject	Agree	Agree	Neutral	Disagree	Disagree	N/A
9a	Disk/Tape Sufficient	94	111	28	13	0	47
9b	Capability Reasonable	76	110	49	6	5	47
9c	Running capability	58	75	35	4	2	119
9d	Scheduling turnaround	61	127	51	9	1	44
9e	Availability of Tools	57	97	44	8	3	84
9f	Availability of Libraries	73	109	47	8	1	55
9g	Porting Support	81	104	39	1	2	66

ALCF separated question 10 from 9a through 9g because some users of Intrepid did not use the visualization and analysis system, Eureka.

Question	Question Subject	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A
10	Visualization/Analysis	21	30	28	5	1	208

ALCF users were given an opportunity to provide comments in the infrastructure and software section. Users could again classify these comments as: praise, suggestion for improvement, problem, or complaint.

Type of Comment	Frequency	Percent of total (31 comments)
praise	14	45%
suggestion	16	52%
problem	5	16%
complaint	3	10%

## **ALCF Maintenance Day**

ALCF is required at times to shut down its computer for routine maintenance. Users were asked to rank each day of the week as either the best, good, neutral, bad, or the worst day for maintenance. The results show a strong preference for Monday maintenance.

Day of Week	Best	Good	Neutral	Bad	Worst
Monday	103	23	94	23	50
Tuesday	21	42	165	36	29
Wednesday	26	20	176	28	43
Thursday	9	32	178	47	27
Friday	58	27	110	22	76

## **Science and Technical Support**

This section of the survey addresses the effectiveness of the ALCF support at problem resolution, including: emails sent to support@alcf.anl.gov, phone calls, and in person meetings with individuals at the ALCF.

This survey section started with the initial filter question: "Did you use ALCF support to resolve a problem during your 2012 allocation?" 177 users responded YES, while 116 users responded NO or not that I remember, in which case they were not asked the subsequent questions 14a - 14d.

			Strongly				
Question #	Question Subject	Agree	Agree	Neutral	Disagree	Disagree	N/A
14a	Prompt Assistance	113	54	5	1	1	0
14b	Accurate/Complete Assistance	106	63	5	1	0	0
14c	Resolution Time	106	58	8	1	1	0
14d	Follow-up and Materials	78	48	23	5	0	19

ALCF users were given an opportunity to provide comments in the science and technical support section, and again were able to classify these comments as praise, suggestion for improvement, problem, or complaint.

Type of Comment	Frequency	Percent of total (15 comments)
praise	11	73%
suggestion	4	27%
problem	1	7%
complaint	2	13%

## **ALCF Catalysts**

Since many ALCF Users did not have a Catalyst and so would not be able to answer the questions in this section, the section contained the initial filter question: "Did you interact with a Catalyst as part of your use of ALCF services?" 82 users responded YES, 151 users responded NO, and 69 users responded I don't know. Only users who answered YES were asked questions about their Catalysts.

Of the 82 users who answered YES, ALCF presented questions relating to the Catalysts and their role in the project.

	Strongly				Strongly			
Question #	Question Subject	Agree	Agree	Neutral	Disagree	Disagree	N/A	
18a	Impact on Project	50	17	8	0	1	1	
18b	Prompt/Professional	55	15	5	0	1	1	
18c	Understood Deadlines/Constraints	48	17	8	1	1	2	
18d	Understood Core Scientific Questions	42	23	10	0	0	2	
18e	Helped with Performance Issue	39	15	7	0	2	14	
18f	Provided New Approach to Problem	22	10	18	7	3	17	
18g	Assisted on Problems	46	23	5	1	1	1	

ALCF users were again given an opportunity to provide comments in the catalyst part of the science and technical support section, and could classify these comments as containing praise, a suggestion for improvement, a problem, or a complaint.

		Percent of
Type of		total (10
Comment	Frequency	comments)
praise	9	90%
suggestion	2	20%
problem	0	0%
complaint	0	0%

## **Workshops**

Since not all users attended ALCF workshops, this section of the survey had the initial filter question: "Did you attend an ALCF sponsored workshop during your 2012 allocation?" 68 users responded YES, 234 users responded NO. The results in the table below are for those 68 users who responded that they had attended an ALCF designed and managed workshop.

		Strongly				Strongly	
Question #	Question Subject	Agree	Agree	Neutral	Disagree	Disagree	N/A
<b>22</b> a	Got to Know ALCF	28	27	4	0	0	3
22b	Staff Got Project Up and Running	15	20	8	1	0	18
22c	Relevant and Helpful Training	25	30	3	0	0	4
<b>22</b> d	Sufficient Access to Experts	33	25	1	0	0	3
22e	Helped with Performance Issue	15	23	10	0	0	14
22f	Utilized New Performance Tool	12	24	14	0	0	12
22g	ALCF Staff Understood My Science	13	23	14	0	0	12
22h	ALCF Staff Understood My Bottlenecks	9	25	12	0	0	16

ALCF users were again given the opportunity to provide comments as part of the workshop section, and could classify those comments as praise, suggestion for improvement, problem, or complaint.

Type of		Percent of total (11
Comment	Frequency	comments)
praise	8	73%
suggestion	3	27%
problem	0	0%
complaint	0	0%

### **Double-Barreled Questions**

Double-barreled questions "are single questions that ask for opinions about two different things. If respondents like one thing but not the other, they are unable to answer. For example: How satisfied are you with your wages and hours at the place where you work? If the respondents are satisfied with their hours but not with their wages, they cannot reply in terms of very satisfied-fairly satisfied-not at all. The researcher should ask two questions, not one. 1"

Thus the example question above from the Sheatsley book would be changed to two questions:

Question1: How satisfied are you with your wages at the place where you work? Question2: How satisfied are you with your hours at the place where you work?

ALCF tested four double-barreled questions (6b, 14b, 18b, and 18c in the previous tables). Users provided the following responses to the separated questions.

Question #	Question Subject	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A
7a	Staff Professional	164	58	11	0	0	1
7b	Staff Courteous	161	62	7	2	0	2
15a	Complete Assistance	93	70	10	1	0	1
15b	Accurate Assistance	101	64	6	1	0	1
19a	Catalyst Prompt	48	21	5	0	0	3
19b	Catalyst Professional	51	19	3	0	1	3
19c	Understood Deadlines	46	19	6	1	1	4
<b>19</b> d	Understood Constraints	45	19	8	0	0	5

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<sup>&</sup>lt;sup>1</sup> Sheatsley, Paul B., "Questionnaire Constructions and Item Writing" pg. 216, in Rossi, Peter H., James Wright, and Andy Anderson, <u>Handbook of Social Research</u>, Boston, Academic Press, Inc. 1983