

There are two Audit Logs available for a user: **Participant Audit Log** and **Rescore Audit Log**.

Participant Audit Log - will contain audit entries of when participant snapshot is created and when participant snapshot is modified. A record of demographics field values before and after the edits will be created (old and new demographic data).

Participant audit log will be sorted by PIN, DateCreated and DateModified with latest (rescored) record on top and “before-rescore” record under it.

* Participant audit log data columns can be found at the end of this document.

Rescore Audit Log – will include changes related to rescore (old and new updated scores). This audit log will include all instruments affected by scoring adjustment functionality and demographic re-score functionality.

Composites scores (After record) will be included in this audit log. Audit log will be sorted by first, PIN and next, Instrument name. All records with exception to Composites are to be displayed in pairs: latest record on top and “before-rescore” record under it.

** Rescore audit log data columns can be found at the end of this document.

Note:

The “Audit Logs” section can be found on Help & Support screen. Both audit log files (“Participant Audit Log.csv” and “Rescore Audit Log.csv”) have option to Email, upload to iCloud, and upload to iTunes. Email and upload to iCloud options are disabled by default. User will be able to enable those options via Data Security section of Settings screen.

Participant data elements are the following:

- Identifier (PIN) - required, free text.
- Name – optional, free text.
- Gender – optional, valid values are presented in a popover list.
- Birthdate – optional, valid values for month, day, and year must be selected from popover lists.
- Age – optional, value will either be calculated from birthdate, or a value entered by the user.
- Highest Education Level Completed - optional, valid values are presented in a popover list
- Mother’s Education- optional, valid values are presented in a popover list.
- Father’s Education - optional, valid values are presented in a popover list.
 - This field only appears if Unkn is selected for Mother’s Education.
- Legal Guardian’s Education.
 - This field only appears if Unkn is selected for Father’s Education.
- Handedness - optional, valid values are presented in a popover list.
- Race - optional, valid values are presented in a popover list.
- Ethnicity - optional, valid values are presented in a popover list.

Participant Audit Log

Use Case-01: User creates a new participant.

1. User enters data (see above) for a new participant on a 'New Participant' screen.
2. User taps either <Done> button or Back arrow.
 - a. Participant Audit log record of participant info with all fields is created. This is participant info BEFORE record.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
	Device ID	PIN	Assessment Name	Name	Gender	Birthdate	Age	Education	Mothers Education	Fathers Education	Guardians Education	Handedness	Race	Ethnicity	Starting Level Override	Date Participant/Assessment Created	Date Participant Modified	App Version
1	alphanumeric	1New	No Assessments	111	2	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/30/2018 12:33	1.17.1614

How to read file:

- a. If data was entered as option "not provided" then in the log it will be shown as '-1'.
- b. Column (C) 'Assessment Name' indicates that no Assessments have been created yet.

*When Birthdate provided, the Age is shown in the Log only if Assessment was started.

Use Case-02: User modifies a participant info with no assessments.

1. User modifies any of the data elements (Ex: Gender (see Pict-1 below), Education, Mothers Education, Race (see Pict-2 below)) for the participant on Participant Info screen.
2. User taps either <Done> button, back arrow or <Add New Assessment> button.
 - a. Participant Audit log record of participant info with all fields is created as AFTER record. This record goes on top of participant's BEFORE record.
 - b. Relevant field(s) gets updated.

Pict-1

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
	Device ID	PIN	Assessment Name	Name	Gender	Birthdate	Age	Education	Mothers Education	Fathers Education	Guardians Education	Handedness	Race	Ethnicity	Starting Level Override	Date Participant/Assessment Created	Date Participant Modified	App Version
2	alphanumeric	1New	No Assessment	111	1	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/31/2018 9:28	1.17.1630
3	alphanumeric	1New	No Assessment	111	2	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/30/2018 12:33	1.17.1614

Pict-2

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
	Device ID	PIN	Assessment Name	Name	Gender	Birthdate	Age	Education	Mothers Education	Fathers Education	Guardians Education	Handedness	Race	Ethnicity	Starting Level Override	Date Participant/Assessment Created	Date Participant Modified	App Version
2	alphanumeric	1New	No Assessments	111	1	10/9/2002		12	18			1	4	-1		5/30/2018 12:32	5/31/2018 9:43	1.17.1630
3	alphanumeric	1New	No Assessments	111	1	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/31/2018 9:28	1.17.1630
4	alphanumeric	1New	No Assessments	111	2	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/30/2018 12:33	1.17.1614

How to read file:

- a. Column 'E' on Pict-1 shows a new value of Gender.
- b. Columns 'H', 'I', 'M' on Pict-2 show a new values of Education, Mothers Education and Race.
- c. Column 'Q' is showing the date and time the change has been done.

Use Case-03: User **creates** a new Assessment for this participant.

1. User taps on <Add New Assessment> button, enters an Assessment name (optional) and selects instruments for participant.
2. User taps <Done> button.
 - a. Participant Audit log record of participant info with all fields is created. This is a 'participant info as of...' BEFORE record.

Note: To find the 'participant info as of...' screen, expend the assessment and tap on <View> button.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
	Device ID	PIN	Assessment Name	Name	Gender	Birthdate	Age	Education	MothersEducation	FathersEducation	Guardians Education	Handedness	Race	Ethnicity	StartingLevelOverride	Date Participant/Assessment Created	Date Participant Modified	App Version
1	alphanumeric	1New	Assessment 1	111	1	10/9/2002		12	18			1	4	-1		5/31/2018 9:58	5/31/2018 9:58	1.17.1630
3	alphanumeric	1New	No Assessments	111	1	10/9/2002		12	18			1	4	-1		5/30/2018 12:32	5/31/2018 9:43	1.17.1630
4	alphanumeric	1New	No Assessments	111	1	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/31/2018 9:28	1.17.1630
5	alphanumeric	1New	No Assessments	111	2	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/30/2018 12:33	1.17.1614

How to read file:

- a. Column (C) 'Assessment Name' indicates that new Assessments has been created.
- b. Column (G) is still empty because the Assessment has not been started yet, hence the Age is not calculated.

Use Case-04: User **modifies** a participant info with completed Assessment.

1. User renames the 'Assessment 1' to 'Assmnt-Name'.
2. User starts and completes the assessment 'Assmnt-Name'.
3. User modifies any of the data elements for the participant (Ex: Ethnicity) on Participant Info screen.
4. User taps either <Done> button, Back arrow or <Add New Assessment>.
 - a. Audit log record of participant info with all fields is created as AFTER record.
 - b. Audit log record of 'participant info as of...' with all fields is created as AFTER record.
 - c. Field(s) gets updated.

Note: If there is more than one assessment then the Audit log record for the 'participant info as of...' will be created for each existing assessment.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
	Device ID	PIN	Assessment Name	Name	Gender	Birthdate	Age	Education	MothersEducation	FathersEducation	Guardians Education	Handedness	Race	Ethnicity	StartingLevelOverride	Date Participant/Assessment Created	Date Participant Modified	App Version
1	alphanumeric	1New	Assmnt-Name	111	1	10/9/2002	15	12	18			1	4	2		5/31/2018 9:58	5/31/2018 10:26	1.17.1630
2	alphanumeric	1New	Assessment 1	111	1	10/9/2002		12	18			1	4	-1		5/31/2018 9:58	5/31/2018 9:58	1.17.1630
3	alphanumeric	1New	All Assessments	111	1	10/9/2002		12	18			1	4	2		5/30/2018 12:32	5/31/2018 10:26	1.17.1630
4	alphanumeric	1New	No Assessments	111	1	10/9/2002		12	18			1	4	-1		5/30/2018 12:32	5/31/2018 9:43	1.17.1630
5	alphanumeric	1New	No Assessments	111	1	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/31/2018 9:28	1.17.1630
6	alphanumeric	1New	No Assessments	111	2	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/30/2018 12:33	1.17.1614

How to read file:

a. Rows #2 and #4 indicate the fact that new value of Ethnicity has been applied to all assessments (as if to completed, not started, and future).

b. Row #2 also shows that Assessment 1 (default name) has been renamed to 'Assmnt-Name', and then completed - that is why the Age was calculated.

Use Case-05: User **modifies** participant info for specific assessment.

- User modifies an Education (Ex., Mother's Education, Father's Education) on the 'participant info as of...' screen. Expand the assessment and tap on <View> button, then tap <Edit> button.
- User taps <Done> button.
 - Audit log record of 'participant info as of' with all fields is created as an AFTER record.
 - Field(s) gets updated.

Note: This change will apply to current assessment only.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
	Device ID	PIN	Assessment Name	Name	Gender	Birthdate	Age	Education	MothersEducation	FathersEducation	Guardians Education	Handedness	Race	Ethnicity	StartingLevelOverride	Date Participant/Assessment Created	Date Participant Modified	App Version
1	alphanumeric	1New	Assmnt-Name	111	1	10/9/2002	15	12	999	22		1	4	2		5/31/2018 9:58	5/31/2018 11:28	1.17.1630
2	alphanumeric	1New	Assmnt-Name	111	1	10/9/2002	15	12	18			1	4	2		5/31/2018 9:58	5/31/2018 10:26	1.17.1630
3	alphanumeric	1New	Assessment 1	111	1	10/9/2002		12	18			1	4	-1		5/31/2018 9:58	5/31/2018 9:58	1.17.1630
4	alphanumeric	1New	All Assessments	111	1	10/9/2002		12	18			1	4	2		5/30/2018 12:32	5/31/2018 10:26	1.17.1630
5	alphanumeric	1New	No Assessments	111	1	10/9/2002		12	18			1	4	-1		5/30/2018 12:32	5/31/2018 9:43	1.17.1630
6	alphanumeric	1New	No Assessments	111	1	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/31/2018 9:28	1.17.1630
7	alphanumeric	1New	No Assessments	111	2	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/30/2018 12:33	1.17.1614

How to read file:

- New Education values are shown in columns 'I' and 'J'. Education code '999' = unkn.
- The fact that there is no other record of Education update except the row #2 (look for All Assessments in column 'Assessment Name') tells us that this change has been applied to specific assessment only. Future or not started assessments are not affected.

Use Case-06: User **modifies** participant info with completed Assessment again.

1. User modifies any of the data elements for the participant (Ex: Name) on Participant Info screen.
2. User taps either <DONE> button, Back arrow or <Add New Assessment>.
 - a. Audit log record of participant info with all fields is created as AFTER record.
 - b. Audit log record of 'participant info as of...' with all fields is created as AFTER record.
 - c. Field(s) gets updated.

Note: This change will apply to all assessments (completed, not started, and future).

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
		Assessment	Name	Gender	Birthdate	Age	Education	MothersEd	FathersEd	Guardians	Handedn	Race	Ethnicity	StartingLev	Participant/Ass	Date	App
1	PIN	Name	Name					ucation	ucation	Education	ess			elOverride	Created	Participant	Version
2	1New	Assmnt-Name	John Smith	1	10/9/2002	15	12	999	22		1	4	2		5/31/2018 9:58	5/31/2018 2:13	1.17.1630
3	1New	Assmnt-Name	111	1	10/9/2002	15	12	999	22		1	4	2		5/31/2018 9:58	5/31/2018 11:28	1.17.1630
4	1New	Assmnt-Name	111	1	10/9/2002	15	12	18			1	4	2		5/31/2018 9:58	5/31/2018 10:26	1.17.1630
5	1New	Assessment 1	111	1	10/9/2002		12	18			1	4	-1		5/31/2018 9:58	5/31/2018 9:58	1.17.1630
6	1New	All Assessments	John Smith	1	10/9/2002		12	18			1	4	2		5/30/2018 12:32	5/31/2018 2:13	1.17.1630
7	1New	All Assessments	111	1	10/9/2002		12	18			1	4	2		5/30/2018 12:32	5/31/2018 10:26	1.17.1630
8	1New	No Assessments	111	1	10/9/2002		12	18			1	4	-1		5/30/2018 12:32	5/31/2018 9:43	1.17.1630
9	1New	No Assessments	111	1	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/31/2018 9:28	1.17.1630
10	1New	No Assessments	111	2	10/9/2002		10	7			1	32	-1		5/30/2018 12:32	5/30/2018 12:33	1.17.1614

How to read file:

- a. Row #2 and #6 indicate that new value of Name has been applied to all assessments (as if to completed, not started, and future).

Rescore Audit Log

Use Case-07: User **edits** participant info with completed Assessment to trigger the rescore.

1. User modifies any of participant's data elements (Ex: Birthdate/Age) on Participant Info screen.
 - a. Rescore Audit log record of score data before and after the edits will be created.
 - b. The latest record is on top and "before-rescore" record under it.

Note: This change will trigger rescore of all assessment level instruments as needed.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
		Assessment									Uncorrec	Age-	National	Fully-		Record			App
1	PIN	Age	Name	Inst	Date Finished	RawScore	Theta	TScore	SE	Compute	ted	Corrected	Percentile	Correcte	Rescore Date	Type	Comments	Device ID	Version
2	1New	18	Assmnt-Name	NIH Toolbox Anger FF Ages 8-17 v2.0	5/31/2018 10:19	13	0.413	55	4		Standard	Standard	(age	d T-score	5/31/2018 2:44	1		alphanumeric	1.17.1630
3	1New	15	Assmnt-Name	NIH Toolbox Anger FF Ages 8-17 v2.0	5/31/2018 10:19	13	0.413	55	4					57		1		alphanumeric	1.17.1630

How to read file:

- Row #3 is the 'before' record, which shows scores before recalculation.
- Row #2 is the 'after' record, which shows new/recalculated score data.

Use Case-08: User **modifies** participant info for specific assessment to trigger the rescore.

- User modifies an Education on the 'participant info as of...' screen. Expend the assessment and tap on <View> button, then tap <Edit> button.
- User taps <Done> button.
 - Rescore Audit log record of score data before and after the edits will be created.
 - The latest record is on top and "before-rescore" record is under it.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
			Assessment								Uncorrec	Age-	National	Fully-					
1	PIN	Age	Name	Inst	Date Finished	RawScore	Theta	TScore	SE	Compute	Standard	Standard	Percentile	Correcte	Rescore Date	Record	Comments	Device ID	App
2	1New	18	Assmnt-Name	NIH Toolbox Anger FF Ages 8-17 v2.0	5/31/2018 10:19	13	0.413	55	4						5/31/2018 2:44	1		alphanum	1.17.1630
3	1New	15	Assmnt-Name	NIH Toolbox Anger FF Ages 8-17 v2.0	5/31/2018 10:19	13	0.413	55	4					57		1		alphanum	1.17.1630
4	1New	18	Assmnt-Name2	NIH Toolbox Picture Vocabulary Test	5/31/2018 15:19		1.811		0.489		91	87	19	40	5/31/2018 3:20	1		alphanum	1.17.1630
5	1New	18	Assmnt-Name2	NIH Toolbox Picture Vocabulary Test	5/31/2018 15:19		1.811		0.489		91	87	19	46		1		alphanum	1.17.1630

How to read file:

- Row #5 is the 'before' record, which shows demographic and score data before rescore.
- Row #4 is the 'after' record, which shows new/recalculated score data.

Use Case-09: User **upgrades** App version from any pre v1.8 to higher.

- Once App gets upgraded (Ex: v1.7 to v1.17) it will automatically trigger score adjustment if user has data/scores affected or changes applied in recent releases to the output formulas/ formats/ columns.
 - Rescore Audit log record of rescored data will be created.
 - The latest record is on top and "before-rescore" record is under it.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
			Assessm									Age-	National	Fully-					
1	PIN	Age	Name	Inst	Date Finished	RawScore	Theta	TScore	SE	Compute	Uncorrected	Standard	Percentil	Correcte	Rescore Date	Record	Comme	Device ID	App
2	PIN.01	18	Cog	NIH Toolbox Pattern Comparison Processing Speed Test Age 7+ v2.1	5/25/2018 9:09	57				77	128	117	87	65	5/25/2018 9:16	1		alphanum	1.17.1614
3	PIN.01	18	Cog	NIH Toolbox Pattern Comparison Processing Speed Test Age 7+ v2.0	5/25/2018 9:09	57					102	84		37		1		alphanum	1.17.1614

How to read file:

- Row #3 is the 'before' record, which shows score data collected in v1.7
- Row #2 is the 'after' record, which shows new/recalculated(adjusted) score data.

Note:

Score Adjustment process triggered by upgrade doesn't generate Participant Audit log record. It only creates Rescore Audit log records.

*** Participant audit log will contain following data fields:**

1. Device ID
2. Identifier (PIN)
3. Assessment (This field will be blank when assessment is not attached to participant)
4. Name
5. Gender
6. Birthdate
7. Age
8. Education
9. Mother's Education
10. Father's Education
11. Guardian's Education
12. Handedness
13. Race
14. Ethnicity
15. StartingLevelOverride
16. Date Participant/snapshot Created
17. Date Modified
18. App Version

**** Rescore audit log will have following data columns:**

1. Identifier (PIN)
2. Age
3. Assessment
4. Instrument
5. Date Finished
6. Raw score
7. Theta
8. TScore
9. SE
10. Computed Score
11. Uncorrected Standard Score
12. Age-corrected Standard Score
13. National Percentile (age adjusted)
14. Fully-corrected T-score

Following List of fields (15 - 43) are only available if instrument with that score is part of the audit log:

15. Dominant Score
16. Non-Dominant Score
17. Static Visual Acuity logMAR
18. Static Visual Acuity Snellen
19. DVA Right Difference LOGMAR
20. DVA Left Difference LOGMAR
21. Standing Balance Ratio Position2/Position1
22. Standing Balance Ratio Position4/Position3
23. Raw Score Right Ear
24. Raw Score Left Ear
25. Threshold Right Ear
26. Threshold Left Ear
27. Whole Mouth Quinine
28. Whole Mouth Salt
29. Uncorrected Standard Scores Dominant
30. Age-Corrected Standard Scores Dominant
31. National Percentile Age Adjusted (Dominant)
32. Fully Corrected T-Scores Dominant
33. Uncorrected Standard Scores Non-Dominant
34. Age-Corrected Standard Score Non-Dominant
35. National Percentile Age Adjusted (Non-Dominant)
36. Fully Corrected T-Scores Non-Dominant
37. Uncorrected Standard Scores Quinine Whole
38. Uncorrected Standard Scores Salt Whole
39. Age-Corrected Standard Scores Quinine Whole
40. National Percentile (age adjusted) Whole Mouth Quinine
41. Age-Corrected Standard Scores Salt Whole
42. National Percentile (age adjusted) Whole Mouth Salt
43. Fully-Corrected T-Scores Quinine Whole
44. Fully-Corrected T-Scores Salt Whole
45. Rescore Date
46. Record Type (This is set to 1)
47. Comments
48. Device ID
49. App version