

# Researcher's Tool Kit

## Overview

The **Researcher's Tool Kit** is an add-on feature of IVA-AE2 that enables researchers to look at results in greater detail and export scores of all test records in a database to spreadsheet format for further analysis.

To export data, simply select the type of data you would like to export, and click the OK button. Select the location to which you would like to save your exported data. By default, the file name will include the type of data being imported along with the date and time of the export. Edit the file name as desired, and click "Save" which will start the Export. A box will appear, notifying you once the export is complete. All data is exported in .csv (comma delimited) format which can be opened using any spreadsheet program.

## **Types of Data Exports**

The **All Raw Test Data** include information on every click response made by all individuals of the current database. This information includes during what portion of the test a click was made (e.g., when 1's were frequent or when 1's were rare), the modality of the trial, the number of clicks made in response, reaction time, and error type.

The **Primary Raw Scale Scores** exports include information entered into the IVA-AE2 system such as sex, age at time of testing, and medications, along with raw scale scores. This type of spreadsheet will also give test validity for the auditory and visual modalities and the diagnoses that were supported by test and rating scale data.

An exported **Primary Quotient Scale Scores** file contains similar information to the Primary Raw file; however, all scale abbreviations are preceded with a "q" to indicate that the column contains quotient scores.

**Global and Special Analyses Quotient Scale Scores** exported files provide the quotient scores for the global which combine multiple primary scales to measure how well an individual performed in broad terms and special analyses scales which provide the opportunity for more in-depth analysis. This type of spreadsheet also includes information entered about the test taker and the diagnoses generated.

Provided below, you will find a guide to numeric codes for validity and diagnoses, scale name abbreviations, and labels used for each type of data export. The variable value is set to -9 in cases where the information is missing or not available.

## All Raw Test Data

Column Label	Description
Trial #	Ordinal number of a stimulus presented during a section of the test.
Type	<p>This column identifies sections of the test.</p> <p>“Warm-Up” Indicates that the stimulus was presented during the initial warm-up phase of the test. “Freq” indicates the stimulus was presented during a period when the target “1”s were frequent. “Rare” indicates the stimulus was presented during a period when target “1”s were rare.</p>
Mode	This column identifies whether the stimulus was presented visually (i.e., “Vis”) or auditorially (i.e., “Aud”). The visual and auditory sections of the warm-up are distinguished using this column.
Stimulus	Identifies whether the stimulus presented was a target “1” or a foil “2”.
# Clicks	Identifies how many response clicks were made following the presentation of a stimulus.
RT	Reaction time of initial response to stimulus in milliseconds. Although reaction times of 125 ms or less have been determined to be physically impossible, these are included in the raw data. In scale scores, these reaction times will count as fine motor hyperactivity responses.
ErrorType	If an error was made, this column will display the variables of “Omission” or “Commission” depending on the type of error.

## Diagnostic and Rating Scale Labels

This data is included in all of the data exports except the Raw Test Data. The diagnosis codes for the columns containing diagnoses are found in the Test & Rating Scale Diagnosis Codes table below.

Column Label	Description
TestDx(#)	Diagnoses suggested by the test results alone; Up to four diagnoses may be included.
RsDx1	Diagnosis suggested when only one type of rating scale data is present and active (i.e., rating scale data from only the parents, teachers, or self).
RsPTDx1	Diagnosis suggested by the combination of parent and teacher rating scale results.
ScaleType	Specifies whether parent-teacher (PT) or self (S) rating scales are set to be used in generating a report.
ScoreType	Identifies whether the ADHD Checklist, T-Score, or Percentile Rank scoring system was used for the rating scales. The use of the ADHD Checklist scoring system is designated in this column by the word "Symptoms".
Inattentive-P/T/S	The average score of a specific type of rating scale for inattentive ADHD-type symptoms. "P" indicates ratings by parents, "T" indicates ratings by teachers, and "S" indicates self-ratings by the test taker.
Hyper-P/T/S	The average score of a specific type of rating scale for hyperactive/impulsive ADHD-type symptoms. "P" indicates ratings by parents, "T" indicates ratings by teachers, and "S" indicates self-ratings by the test taker.

## Test & Rating Scale Diagnosis Codes

Code	Diagnosis
1	ADHD, Predominantly Inattentive Presentation
2	ADHD, Predominantly Hyperactive/Impulsive Presentation
3	ADHD, Combined Presentation
4	ADHD, Unspecified
5	ADHD, Other Specified
6	Unspecified Neurodevelopmental Disorder
7	Mild Neurocognitive Disorder
8	No ADHD
9	Other Mental Diagnosis
10	Other Medical Diagnosis
-9	Not specified

## Test Validity Codes

This data is included in all of the data exports except the Raw Test Data.

1	Valid
2	Valid (Interpret with caution: excessive idiopathic errors)
3	Invalid (excessive idiopathic errors)

## Questionnaire Labels

This data is included in all of the data exports except the Raw Test Data. The data includes answers from the Background Information, Self-Report, Health Screening, and Behavioral Questionnaires.

<b>Column Label</b>	<b>Description</b>
Examiner	ID of examiner who oversaw the test.
EducationCompleted	Whether the individual has completed education or is still continuing it.
HighestGrade	Highest grade individual has completed.
FatherHighestGrade	Highest grade individual's father has completed.
MotherHighestGrade	Highest grade individual's mother has completed.
Race	Race of individual.
Region	Region of United States the individual lives.
SelfQ(#)	Answer to Self-Report Question
HealthQ(#)	Answer to Health Screening Question
BehavioralQ(#)	Answer to Behavioral Question.

## Primary Raw Scales

<b>Name</b>	<b>Scale</b>	<b>Description</b>
ACCA	Accuracy	Number of times correct response is made (Auditory)
ACCV	Accuracy	Number of times correct response is made (Visual)
CMPA	Comprehension	Measure of idiopathic errors of commission and omission (Auditory)
CMPV	Comprehension	Measure of idiopathic errors of commission and omission (Visual)
CONA	Consistency	Measure of ability to stay on task and sustain a reliable effort (Auditory)
CONV	Consistency	Measure of ability to stay on task and sustain a reliable effort (Visual)
ECAF	NA	Errors of commission – High demand (Auditory)
ECVF	NA	Errors of commission – High demand (Visual)
FOCA	Focus	Total variability of mental processing speed for all correct responses during the test (Auditory)
FOCV	Focus	Total variability of mental processing speed for all correct responses during the test (Visual)
HYP	Fine Motor Hyperactivity	Off-task behaviors with the mouse
IAA	Vigilance, Acuity	Errors of Omission – Low demand (Auditory)
IAV	Vigilance, Acuity	Errors of Omission – Low demand (Visual)
ICA	Comprehension, Reliability	Idiopathic Error of Commission (Auditory)
ICV	Comprehension, Reliability	Idiopathic Error of Commission (Visual)
IOA	Comprehension, Steadiness	Idiopathic Error of Omission (Auditory)
IOV	Comprehension, Steadiness	Idiopathic Error of Omission (Visual)
MNA	Speed	Average reaction time for all correct responses (Auditory)
MNV	Speed	Average reaction time for all correct responses (Visual)

MNAB	Stamina	Average reaction time of first 200 trials (Auditory)
MNVB	Stamina	Average reaction time of first 200 trials (Visual)
MNAE	Stamina	Average reaction time of last 200 trials (Auditory)
MNVE	Stamina	Average reaction time of last 200 trials (Visual)
MNAF	Quickness	Measure of response times when the targets are frequent (Auditory)
MNVF	Quickness	Measure of response times when the targets are frequent (Visual)
MNAL	Swiftness	Measure of response times when the targets are rare (Auditory)
MNVL	Swiftness	Measure of response times when the targets are rare (Visual)
POA	Vigilance, Elasticity	Propensity Errors of Omission (Auditory)
POV	Vigilance, Elasticity	Propensity Errors of Omission (Visual)
PRA	Prudence	Measure of impulsivity (Auditory)
PRV	Prudence	Measure of impulsivity (Visual)
SDA	Speed	Standard deviation of reaction times (Auditory)
SDV	Speed	Standard deviation of reaction times (Visual)



SDAF	Stability	Variability of reaction time when targets are frequent (Auditory)
SDVF	Stability	Variability of reaction time when targets are frequent (Visual)
SDAL	Dependability	Variability of reaction time when targets are rare (Auditory)
SDVL	Dependability	Variability of reaction time when targets are rare (Visual)
SMA	Sensory/Motor	Measure of gross motor speed during the Warm-Up (Auditory)
SMV	Sensory/Motor	Measure of gross motor speed during the Warm-Up (Visual)
STMA	Stamina	Identifies difficulty in maintaining speed and sustaining attention and effort over time (Auditory)
STMV	Stamina	Identifies difficulty in maintaining speed and sustaining attention and effort over time (Visual)
VIA	Vigilance	Measure of inattention as evidenced by two different types of errors of omission (Auditory)
VIV	Vigilance	Measure of inattention as evidenced by two different types of errors of omission (Visual)
MVPZ	Stillness	Percentage of non mouse movements versus mouse movements
MVPM	Calmness	How much (in pixels) the mouse moved per minute

ZRA	Zero Reaction Times	Number of zero reaction times recorded for responses (Auditory)
ZRV	Zero Reaction Times	Number of zero reaction times recorded for responses (Visual)

## Primary Quotient Scales

<b>Name</b>	<b>Scale</b>	<b>Description</b>
qACCA	Accuracy	Number of times correct response is made (Auditory)
qACCV	Accuracy	Number of times correct response is made (Visual)
qCMPA	Comprehension	Measure of idiopathic errors of commission and omission (Auditory)
qCMPV	Comprehension	Measure of idiopathic errors of commission and omission (Visual)
qCONA	Consistency	Measure of ability to stay on task and sustain a reliable effort (Auditory)
qCONV	Consistency	Measure of ability to stay on task and sustain a reliable effort (Visual)
qFOCA	Focus	Total variability of mental processing speed for all correct responses during the test (Auditory)
qFOCV	Focus	Total variability of mental processing speed for all correct responses during the test (Visual)
qHYP	Fine Motor Hyperactivity	Off-task behaviors with the mouse
qIAA	Vigilance, Acuity	Errors of Omission – Low demand (Auditory)
qIAV	Vigilance, Acuity	Errors of Omission – Low demand (Visual)
qICA	Comprehension, Reliability	Idiopathic Errors of Commission (Auditory)
qICV	Comprehension, Reliability	Idiopathic Errors of Commission (Visual)
qIOA	Comprehension, Steadiness	Idiopathic Errors of Omission (Auditory)
qIOV	Comprehension, Steadiness	Idiopathic Errors of Omission (Visual)
qMNA	Speed	Average reaction time for all correct responses (Auditory)
qMNV	Speed	Average reaction time for all correct responses (Visual)

qMNAF	Quickness	Measure of response times when the targets are frequent (Auditory)
qMNVF	Quickness	Measure of response times when the targets are frequent (Visual)
qMNAL	Swiftness	Measure of response times when the targets are rare (Auditory)
qMNVL	Swiftness	Measure of response times when the targets are rare (Visual)
qPOA	Vigilance, Elasticity	Propensity Errors of Omission (Auditory)
qPOV	Vigilance, Elasticity	Propensity Errors of Omission (Visual)
qPRA	Prudence	Measure of impulsivity (Auditory)
qPRV	Prudence	Measure of impulsivity (Visual)
qSDAF	Stability	Variability of reaction time when targets are frequent (Auditory)
qSDVF	Stability	Variability of reaction time when targets are frequent (Visual)
qSDAL	Dependability	Variability of reaction time when targets are rare (Auditory)
qSDVL	Dependability	Variability of reaction time when targets are rare (Visual)

qSMA	Sensory/Motor	Measure of gross motor speed during the Warm-Up (Auditory)
qSMV	Sensory/Motor	Measure of gross motor speed during the Warm-Up (Visual)
qSTMA	Stamina	Identifies difficulty in maintaining speed and sustaining attention and effort over time (Auditory)
qSTMV	Stamina	Identifies difficulty in maintaining speed and sustaining attention and effort over time (Visual)
qVIA	Vigilance	Measure of inattention as evidenced by two different types of errors of omission (Auditory)
qVIV	Vigilance	Measure of inattention as evidenced by two different types of errors of omission (Visual)
qMVPZ	Stillness	Percentage of non mouse movements versus mouse movements
qMVPM	Calmness	How much (in pixels) the mouse moved per minute

## Global and Special Analyses Quotient Scales

<b>Name</b>	<b>Scale</b>	<b>Description</b>
AAQ	Attention	Combination of Vigilance, Focus, and Speed (Auditory)
AGAQ	Agility	Combination of Quickness, Speed, and Swiftness (Auditory)
AGQ	Agility	Combination of Quickness, Speed, and Swiftness (Combined)
AGVQ	Agility	Combination of Quickness, Speed, and Swiftness (Visual)
ARCQ	Response Control	Combination of Prudence, Consistency, and Stamina (Auditory)
CACCQ	Accuracy	Number of times correct response is made (Combined)
CCOMQ	Competence	Measure of functioning under high demand conditions (Combined)
CCONQ	Consistency	Measure of ability to stay on task and sustain a reliable effort (Combined)
CFOCQ	Focus	Total variability of mental processing speed for all correct responses during the test (Combined)
CIAQ	Acuity	Measure of errors of omission under low demand conditions (Combined)
CMNLQ	Swiftness	Measure of response times when the targets are rare (Combined)
CMNQ	Speed	Average reaction time for all correct responses (Combined)
COMAQ	Competence	Measure of functioning under high demand conditions (Auditory)
COMVQ	Competence	Measure of functioning under high demand conditions (Visual)
CPOQ	Elasticity	Measure of the number of errors of omission occurring when a 1 is presented immediately after a 2 when the 1s are frequent (Combined)
CPRQ	Prudence	Measure of impulsivity (Combined)
CQUKQ	Quickness	Measure of response times when the targets are frequent (Combined)
CRELQ	Reliability	Measure of idiopathic errors of commission

CSDLQ	Dependability	Variability of reaction times to targets under low demand conditions (Combined)
CSTBQ	Stability	Variability of reaction time when targets are frequent (Combined)
CSTDQ	Steadiness	Measure of accuracy in clicking to targets under high demand conditions (Combined)
CSTMQ	Stamina	Identifies difficulty in maintaining speed and sustaining attention and effort over time (Combined)
CSUSQ	Maintainability	Measure of functioning under low demand conditions (Combined)
CVIQ	Vigilance	Measure of inattention as evidenced by two different types of errors of omission (Combined)
FAQ	Attention	Combination of Vigilance, Focus, and Speed (Combined)
FRCQ	Response Control	Combination of Prudence, Consistency, and Stamina (Combined)
MCAQ	Mental Concentration	Global measure of attentional functions (Auditory)
MCQ	Mental Concentration	Global measure of attentional functions (Combined)
MCVQ	Mental Concentration	Global measure of attentional functions (Visual)
PRAQ	Presence	Combination of Acuity, Elasticity, Steadiness, and Vigilance (Auditory)
PRQ	Presence	Combination of Acuity, Elasticity, Steadiness, and Vigilance (Combined)

PRVQ	Presence	Combination of Acuity, Elasticity, Steadiness, and Vigilance (Visual)
RSAQ	Resilience	Combination of Consistency, Dependability, Focus, and Stability (Auditory)
RSQ	Resilience	Combination of Consistency, Dependability, Focus, and Stability (Combined)
RSVQ	Resilience	Combination of Consistency, Dependability, Focus, and Stability (Visual)
SAAQ	Sustained Attention	Global measure of ability to respond to stimuli under low demand conditions accurately, quickly, and reliably (Auditory)
SCAQ	Self-Control	Combination of Prudence, Reliability, and Stamina (Auditory)
SCQ	Self-Control	Combination of Prudence, Reliability, and Stamina (Combined)
SCVQ	Self-Control	Combination of Prudence, Reliability, and Stamina (Visual)
SFAQ	Sustained Attention	Global measure of ability to respond to stimuli under low demand conditions accurately, quickly, and reliably (Combined)
SUSAQ	Maintainability	Measure of functioning under low demand conditions (Auditory)
SUSVQ	Maintainability	Measure of functioning under low demand conditions (Visual)
SVAQ	Sustained Attention	Global measure of ability to respond to stimuli under low demand conditions accurately, quickly, and reliably (Visual)



VAQ	Attention	Combination of Vigilance, Focus, and Speed (Visual)
VRCQ	Response Control	Combination of Prudence, Consistency, and Stamina (Visual)