

Joint Defense/Veterans Audiology Conference 2010

February 22, 2010

VA AUDIOMETRIC MANAGEMENT

Credits

- ⦿ ASPS Program Office
- ⦿ ROES 3 Task Force
- ⦿ ASPS Field Advisory Council (FAC)
- ⦿ FAC IT Road Map Task Force
- ⦿ VA Audiology community

Current State

Audiogram Edit for ZZTESTPATIENT.PAMS(3331) (Age 69) as seen on OCT 07, 2009 by QUITMEYER,KEVIN L

File Device Options/Graph Help

Audiogram Entry Pure Tones Speech Audiometry Acoustic Immittance Graph Display

Import Data

AIR CONDUCTION (Hz)

	250	500	750	1000	1500	2000	3000	4000	6000	8000
RIGHT										
Initial	40	45		45		45	50	55	85	
Retest										
Masked										
Masking Level										
LEFT										
Initial	30	30		40		40	45	55	75	
Retest										
Masked										
Masking Level										

BOHE CONDUCTION (Hz)

	250	500	750	1000	1500	2000	3000	4000
RIGHT								
Initial		30		40		40		45
Retest								
Masked								
Masking Level								
LEFT								
Initial								
Retest								
Masked								
Masking Level								

RIGHT INTER-TEST CONSISTENCY

Initial []

LEFT INTER-TEST CONSISTENCY

Initial []

PURE TONE AVERAGES

	RIGHT	LEFT
Two	45	35
Three	45	37
Four	49	45

SRT(Masking Level)

	RIGHT	LEFT
Initial		
(Masking Level 1)		
Final		
(Masking Level 2)		

Audiometer Not Configured

Current State

Audiogram Edit for ZZTESTPATIENT,PAMS(3331) (Age 69) as seen on OCT 07, 2009 by QUITMEYER,KEVIN L

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Masking Level										
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Initial	30	30		40		40	45	55	75	
Retest										
Masked										
Masking Level										

BONE CONDUCTION (Hz)

	250	500	750	1000	1500	2000	3000	4000
RIGHT								
Initial		30		40		40		45
Retest								
Masked								
Masking Level								
LEFT								
Initial								
Retest								
Masked								
Masking Level								

RIGHT INTER-TEST CONSISTENCY

LEFT INTER-TEST CONSISTENCY

PURE TONE AVERAGES

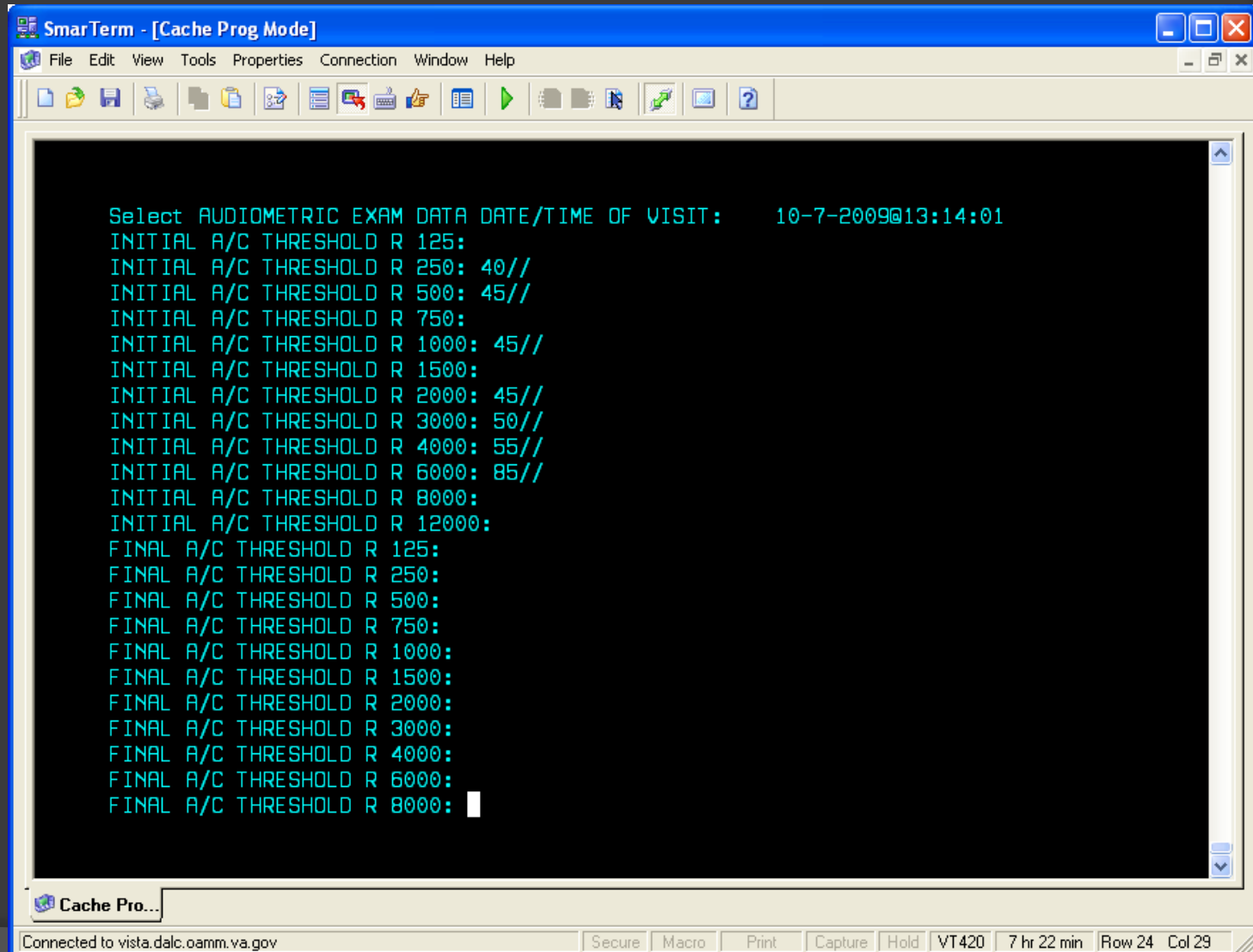
	RIGHT	LEFT
Two	45	35
Three	45	37
Four	49	45

SRT(Masking Level)

	RIGHT	LEFT
Initial		
(Masking Level 1)		
Final		
(Masking Level 2)		

Audiometer Not Configured

Retrospective



Eye Test

SmarTerm - [Cache Prog Mode]

File Edit View Tools Properties Connection Window Help

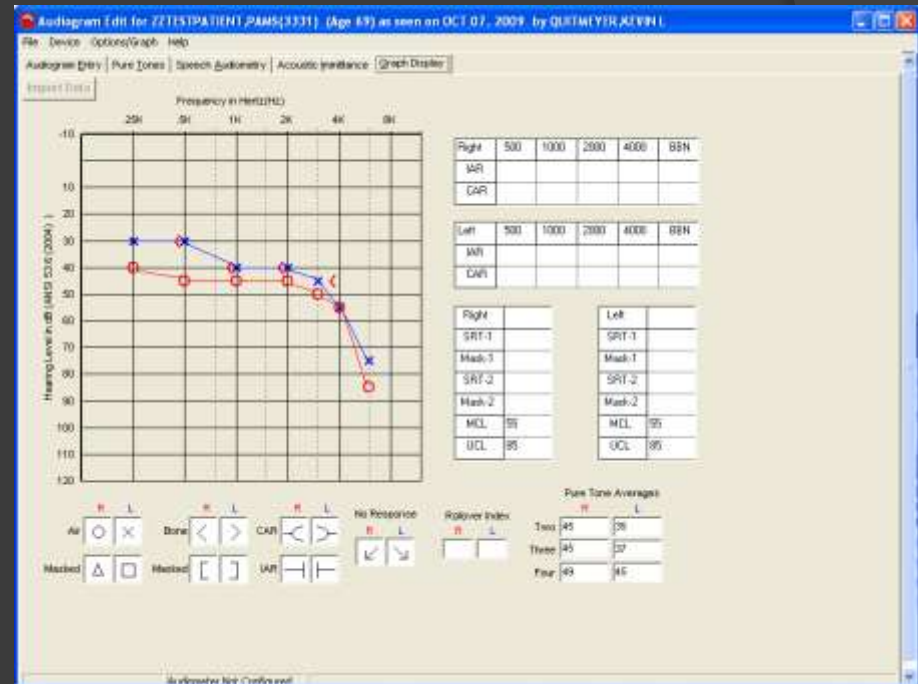
```

Select AUDIOMETRIC EXAM DATA DATE/TIME OF VISIT: 10-7-2009@13:14:01
INITIAL A/C THRESHOLD R 125:
INITIAL A/C THRESHOLD R 250: 40//
INITIAL A/C THRESHOLD R 500: 45//
INITIAL A/C THRESHOLD R 750:
INITIAL A/C THRESHOLD R 1000: 45//
INITIAL A/C THRESHOLD R 1500:
INITIAL A/C THRESHOLD R 2000: 45//
INITIAL A/C THRESHOLD R 3000: 50//
INITIAL A/C THRESHOLD R 4000: 65//
INITIAL A/C THRESHOLD R 6000: 85//
INITIAL A/C THRESHOLD R 8000:
INITIAL A/C THRESHOLD R 12000:
FINAL A/C THRESHOLD R 125:
FINAL A/C THRESHOLD R 250:
FINAL A/C THRESHOLD R 500:
FINAL A/C THRESHOLD R 750:
FINAL A/C THRESHOLD R 1000:
FINAL A/C THRESHOLD R 1500:
FINAL A/C THRESHOLD R 2000:
FINAL A/C THRESHOLD R 3000:
FINAL A/C THRESHOLD R 4000:
FINAL A/C THRESHOLD R 6000:
FINAL A/C THRESHOLD R 8000:
  
```

Cache Pro...

Connected to vista.dalc.oamv.va.gov

Secure Macro Print Capture Hold VT420 7 hr 22 min Row 24 Col 29



Guiding Vision

- ⦿ Efficient capture of audiometric records
- ⦿ Integration with VA patient records system
- ⦿ Genesis of a VA national audiometric repository

Overview of Repository

- ◎ Resident at DALC
 - Over 1.1 million records and growing
- ◎ Contributing drivers
 - VHA healthcare vision
 - Patient-centered care, not facility-centered
 - Health data residing on national or regional platforms, not facility-specific
 - Audiology Program vision
 - Broaden the usage and corporate value of audiometric information
- ◎ Why is a repository beneficial?
 - Because it allows us to do things like this... (the rest of the presentation)

Sharing of information between applications

Audiogram Editor for ZEPHYRUS PATIENT (Age 45) as seen on OCT 07, 2004 by DUTTMER, A/V/NL

File: Device: Options: Graph: Help

Audiogram View: [Pure Tone] Speech Audiometry Acoustic Immittance Graph Display

Insert Data

AIR CONDUCTANCE

	250	500	750	1000	1500	2000	3000	4000	6000	8000
RIGHT	40	45		45	45	50	55	65		
Rebut										
Masked										
Masking Level										
LEFT	30	30		40	40	45	55	75		
Rebut										
Masked										
Masking Level										

BONE CONDUCTANCE

	250	500	750	1000	1500	2000	3000	4000
RIGHT		30		40		40		45
Rebut								
Masked								
Masking Level								
LEFT								
Rebut								
Masked								
Masking Level								

**RIGHT LEFT
BITE TEST CONSISTENCY**

	Value	Masking Level
Two	45	35
Three	45	37
Four	49	40

SET Masking Levels

	Value	Masking Level
Two	45	35
Three	45	37
Four	49	40

Audiometer Not Configured

Order Form for Digital Hearing Aids - Windows Internet Explorer

HOES

Digital Hearing Aid Order Form - page 4
Audiometric Data/Vendor Information

RIGHT EAR

Air and Bone Conduction (dB HL)															
-25	-5	5	15	25	35	45	55	65	75	85	95	105	115	125	135
40	45		45	45	50	55	65	75	85	95	105	115	125	135	145
30	35	40	45	50	55	65	75	85	95	105	115	125	135	145	155

LEFT EAR

Air and Bone Conduction (dB HL)															
-25	-5	5	15	25	35	45	55	65	75	85	95	105	115	125	135
30	30		40	40	45	55	75	85	95	105	115	125	135	145	155
20	25	30	35	40	45	55	65	75	85	95	105	115	125	135	145

Speech Audiometry

VEL: 10 MCL: 10 SRT: 20 SRT: 20 PCL: 10 ASL: 10 SRT: 20 SRT: 20

Matrix Selection

Available Matrices: Vendor select

Available Matrices: Vendor select

Box Coupler Gain (dB HL)

-25	-5	5	15	25	35	45	55	65	75	85	95	105	115	125	135

Upload Screen Project File

Printing Formulas: None selected

Client Staff Comments: Who's DGA?

Special Instructions: no hearing

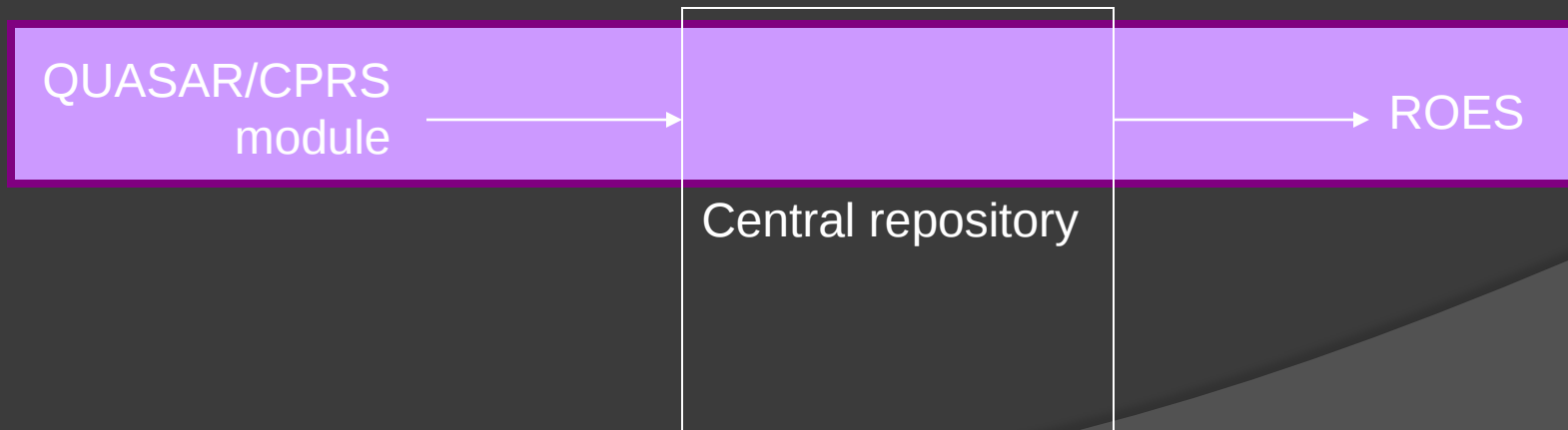
Please send: Shipping Labels: ☐ Estimated Order Form: ☐ Impression Boxes: ☐ Overnight Labels: ☐

Patient Delivery Address for Batteries:

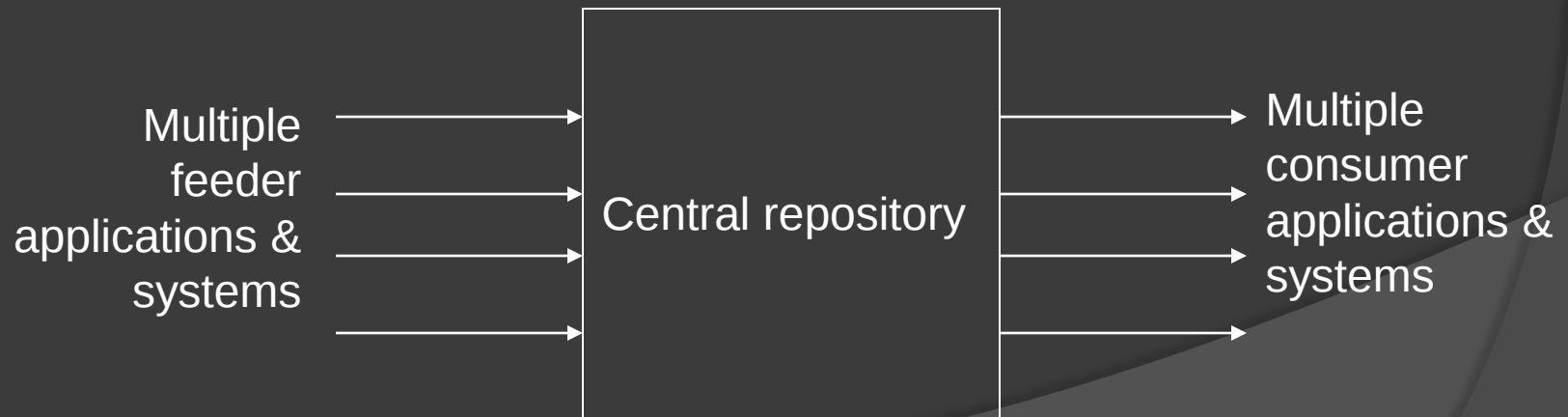
Station Delivery Address for Aids:

Versatility of the Repository

- Initial example of 'feeder' and 'consumer' applications using the repository



Versatility of the Repository



The NOAH – VA Link

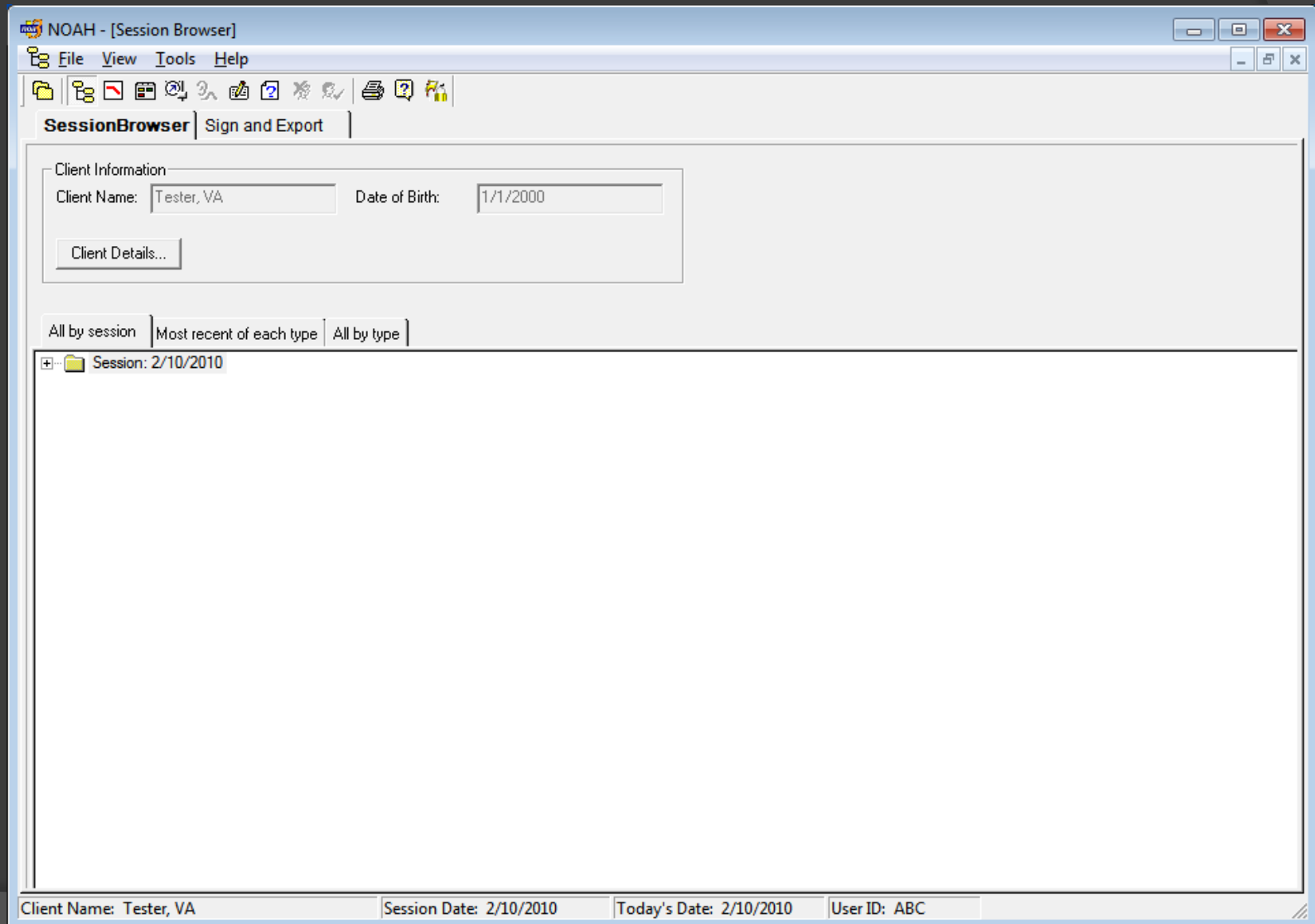
	Gold, Sarah	NOAH networks	Tue 11/24/2009 11:...	12 KB
	Chung, Carrie	BTM and Audiology	Thu 9/3/2009 7:32 ...	10 KB
	Morris, Lee	RE: NOAH v3 License Upgrade to 7+ (Phonak U.S.)	Tue 9/1/2009 6:18 ...	29 KB
	Quittmeyer, Ken...	RE: I left you a voicemail regarding below	Mon 8/31/2009 11:...	36 KB
	Dennis, Kyle C	Re: Hearing Repository Concept	Mon 8/6/2009 9:4...	13 KB
	Kelkar, Steven	RE: software and servers	Wed 12/10/2008 1...	14 KB
	Rouclan Parfya	RE: Data Exchange Specification	Sun 10/12/2008 2:...	20 KB
	Dennis, Kyle C	Re: On my mind	Fri 10/10/2008 5:4...	9 KB
	Gonzenbach, S...	RE: Data Exchange Specification	Thu 10/9/2008 11:...	21 KB
	Gonzenbach, S...	RE: Data Exchange Specification	Tue 10/7/2008 11:...	18 KB
	Dennis, Kyle C	RE: NOAH OMS	Tue 10/7/2008 7:3...	34 KB
	Martin, Kristin	RE: Sanctuary Walkers	Tue 9/23/2008 9:1...	40 KB
	Williams, Megh...	RE: AC440 and BTM	Wed 8/20/2008 1:...	20 KB
	Malone, Patrick	RE:	Thu 6/26/2008 7:4...	14 KB
	Dennis, Kyle C	Re:	Wed 6/25/2008 5:...	11 KB
	Malone, Patrick	FW:	Tue 6/24/2008 6:1...	39 KB
	Wesley, Steven G	Authority to Operate Specified Bluetooth Device for Audiology	Fri 2/28/2008 6:22 ...	202 KB
	Meesh, Alton	RE: NOAHLink & Bluetooth security	Tue 1/22/2008 7:1...	11 KB
	Dennis, Kyle C	FW: Update on replies regarding networking HA stations and NOAHlinks	Tue 11/27/2007 1:...	38 KB
	Allen, Daniel J.	RE: Audiology Provided Information with Diagrams	Thu 10/18/2007 1:...	312 KB
	Hess, Gail A.	Hearing Aid Industry Days	Thu 10/18/2007 12...	120 KB
	Johnson, Dar...	RE: Scale of DALC NOAH	Fri 10/12/2007 10...	10 KB
	Allen, Daniel J.	RE: NOAH & GFI Diagnostics Questions	Thu 10/11/2007 2:...	625 KB
	Quittmeyer, Ken...	RE: bluetooth security	Tue 9/25/2007 4:2...	140 KB
	Quittmeyer, Ken...	RE: NOAHLink/Bluetooth	Wed 6/20/2007 2:...	136 KB
	Quittmeyer, Ken...	RE: NOAHLink	Mon 4/30/2007 9:...	139 KB
	Thompson, Da...	RE: Use of NOAHLink Devices for Programming of Hearing Aids	Thu 3/15/2007 12:...	17 KB
	Kaufman, Renee	Data Storage	Thu 11/16/2006 5:...	8 KB
	Galizio, Chris L.	RE: Does anyone use NOAHLink and if so how did you work it out with IRM?	Tue 11/7/2006 5:3...	22 KB
	Quittmeyer, Ken...	RE: Quasar Bluetooth question	Fri 9/15/2006 12:5...	154 KB
	Renee, Jodie E.	RE: QUASAR Version 4 Service Requests	Wed 8/16/2006 3:...	14 KB
	Dennis, Kyle C	QUASAR Version 4 Service Requests	Wed 8/9/2006 9:1...	267 KB
	Cross, Michael...	RE: Blue Tooth VA Security Documents	Mon 5/8/2006 5:3...	24 KB
	Quittmeyer, Ken...	RE: Blue Tooth VA Security Documents	Fri 4/21/2006 3:22 ...	444 KB
	Dennis, Kyle C	RE: Audiology Bluetooth Applications	Mon 4/3/2006 1:3...	17 KB
	Dennis, Kyle C	FW: Bluetooth "certification"	Wed 2/1/2006 1:1...	64 KB
	Blumenthal, M...	RE: Data Transfer of RQES Audiogram Module Data into Quasar, etc.	Thu 12/22/2005 9:...	16 KB
	Walkup, Mita	FW: NOAH software/module problems	Wed 12/7/2005 11...	57 KB
	Shanks, Janet	RE: NOAH LINK	Tue 11/22/2005 12:...	13 KB
	Longinotti, Ch...	RE: NOAH LINK	Tue 11/22/2005 12:...	11 KB
	Dennis, Kyle C	RE: Blue tooth	Wed 10/12/2005 7:...	43 KB
	Dennis, Kyle C	Re: Blue tooth	Sat 10/8/2005 5:17...	24 KB
	Cobb, Frederick	FW: Blue tooth	Fri 10/7/2005 3:15...	129 KB

- NOAH data exchange under development
- DALC working with HIMSA developers
- What will this data exchange look like in VA?

Sequence/flow of data exchange (NOAH to VA)

- ⦿ Audiogram collected through NOAH (NOAHAud or 3rd party audiogram module)
- ⦿ Audiogram signed and exported to VA repository (similar to QUASAR module functionality)
- ⦿ Audiogram available to VA applications

NOAH v3.8



NOAH v3.8

NOAH - [Session Browser]

File View Window Help

SessionBrowser | **Sign and Export**

Client Information

Patient ID: 0000003

Name: VA Tester

Date of Birth: 1/1/2000

Sign and Export

Signature: [Signature Field]

Sign and Export

Static

Type of visit:

- ☒ C&P
- ☐ Audiological Evaluation
- ☐ Other: [Text Field]

Referral source: [Text Field]

☒ Insert : 'NOT ADEQUATE FOR RATING PURPOSES'

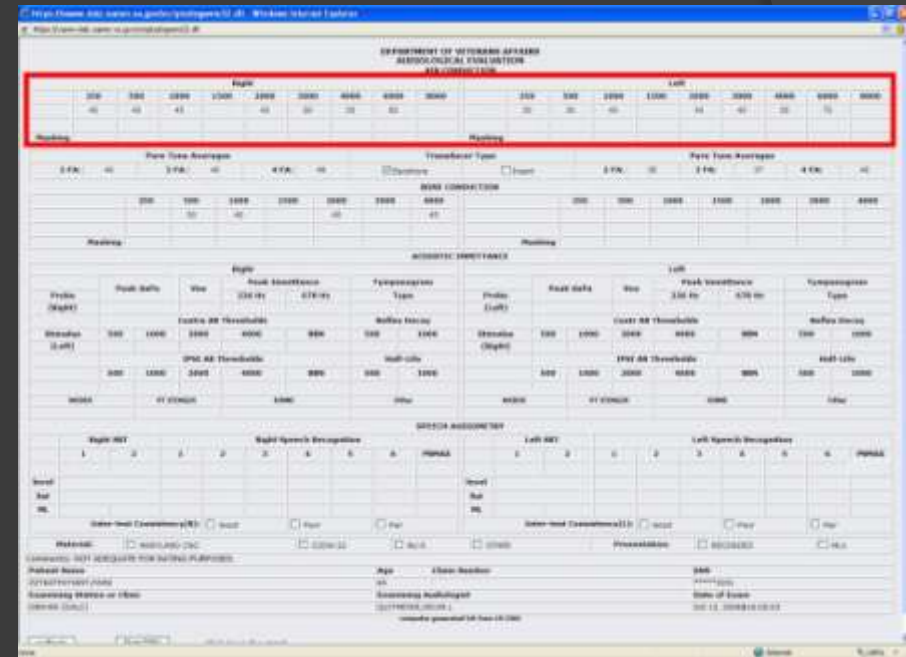
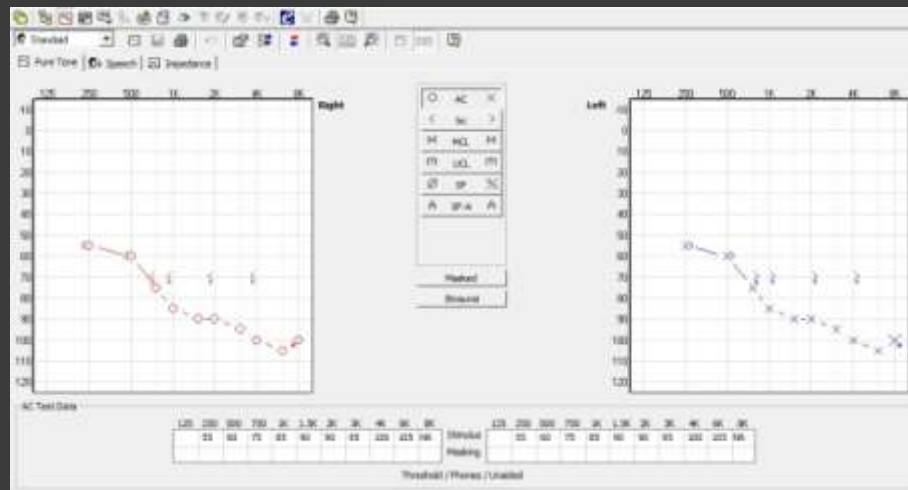
Comments: [Text Field]

2/10/2010 4:20:28 PM

- ☐ New Audiogram
- ☐ Sign and Export action
- ☒ Audiogram Changed
- ☐ New Audiogram

Client Name: Tester, VA Session Date: Today's Date: 2/10/2010 User ID: ABC

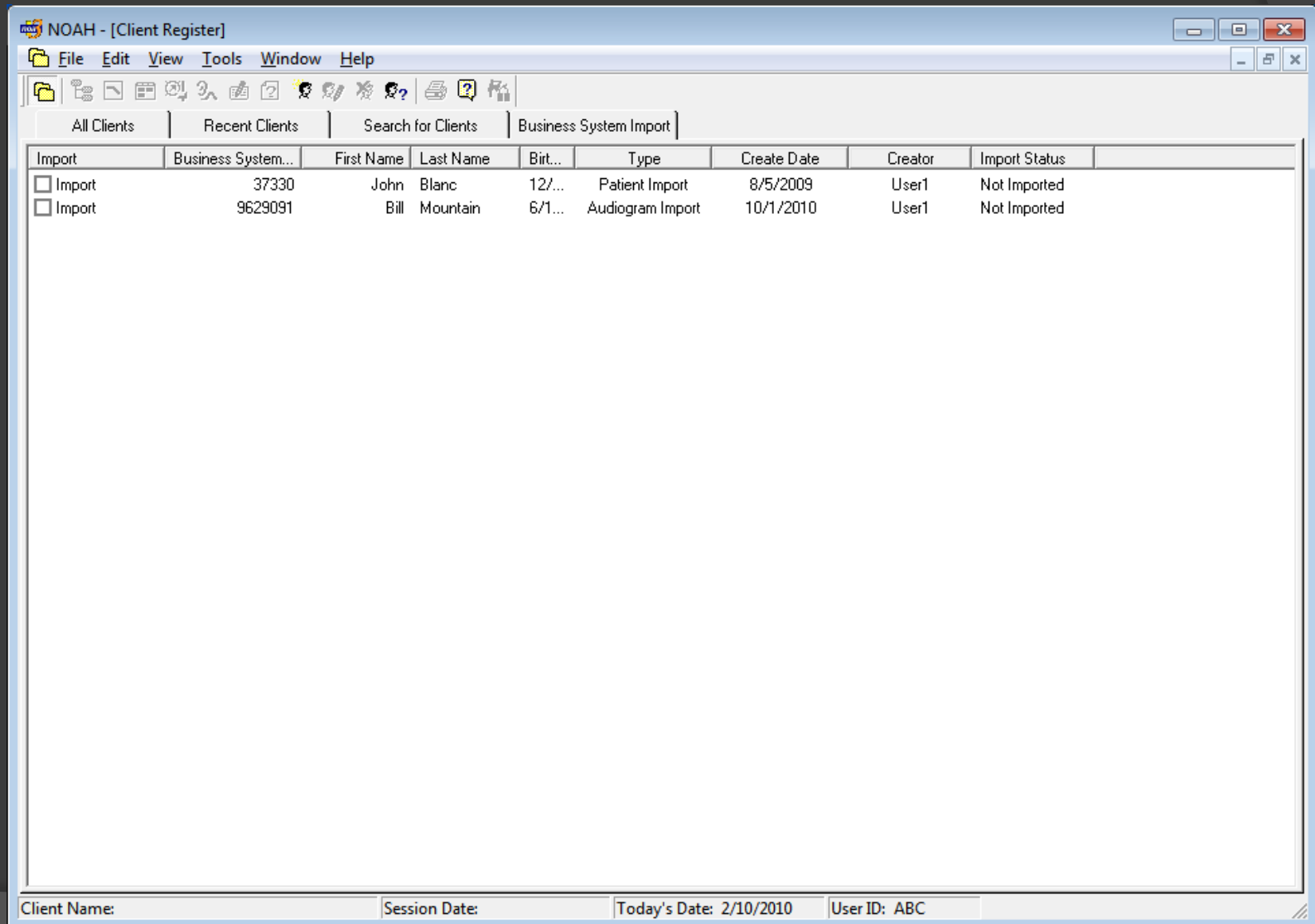
Data collected in NOAH is available to VA



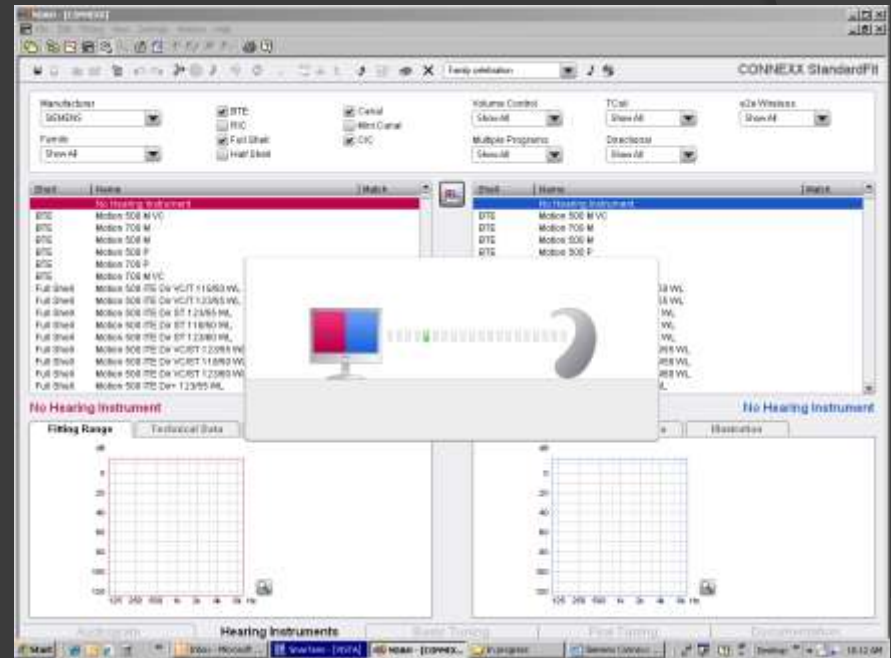
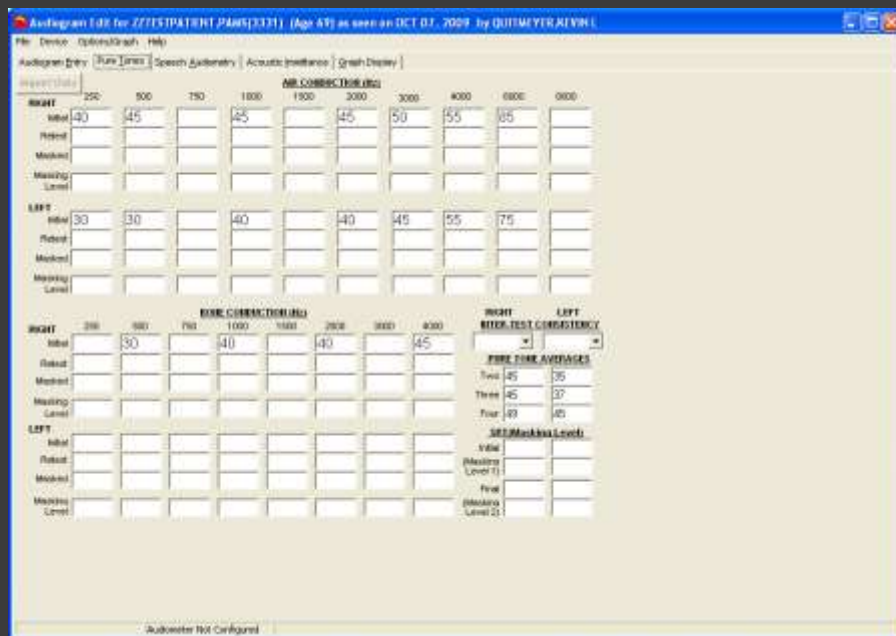
Sequence/flow of data exchange (VA to NOAH)

- ⦿ Audiogram collected through VA/QUASAR module
- ⦿ Audiogram signed and exported to VA repository
- ⦿ Audiogram delivered to originating station's NOAH database
 - (also available to NOAH at other stations)
- ⦿ Audiogram available in NOAH for fitting modules, etc.

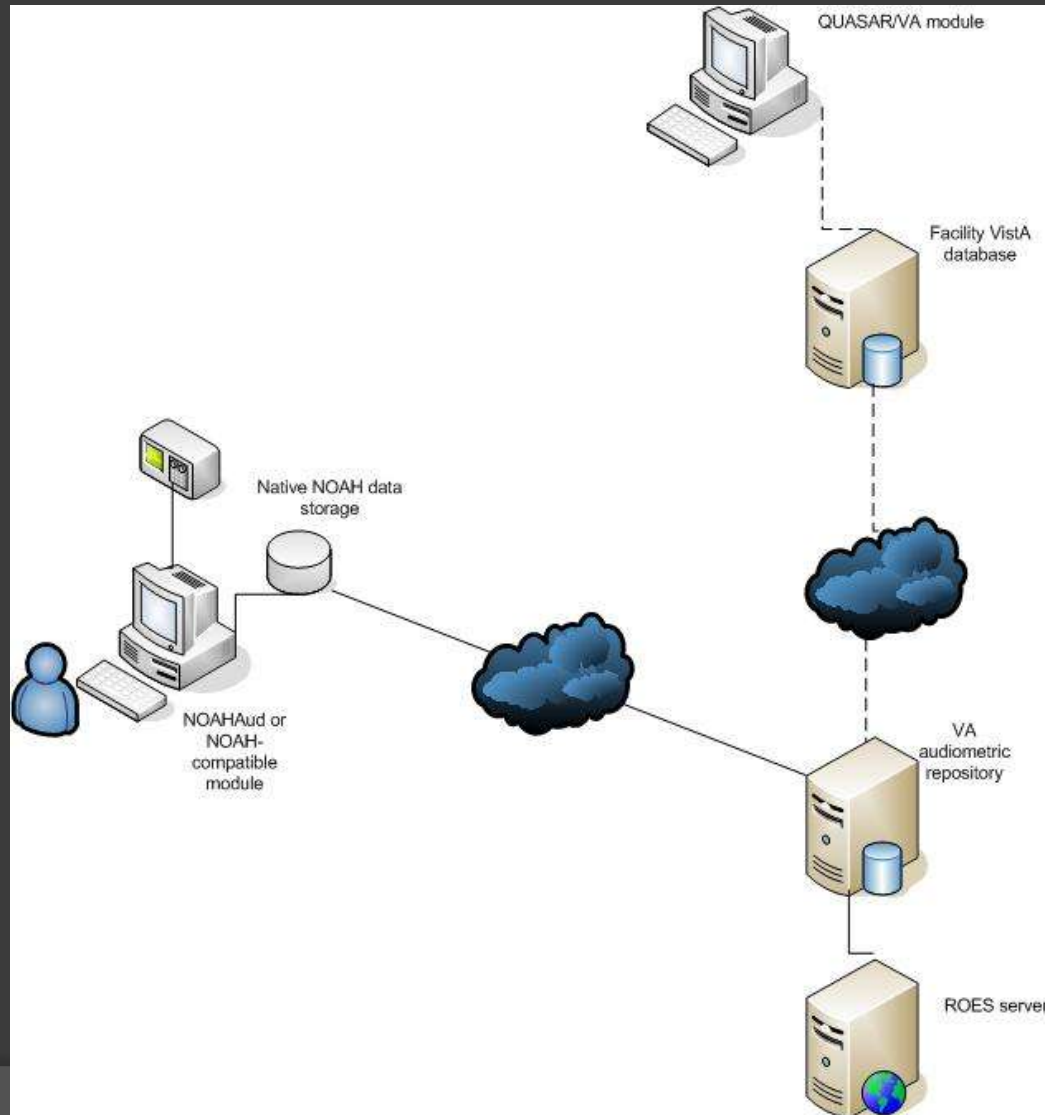
NOAH v3.8



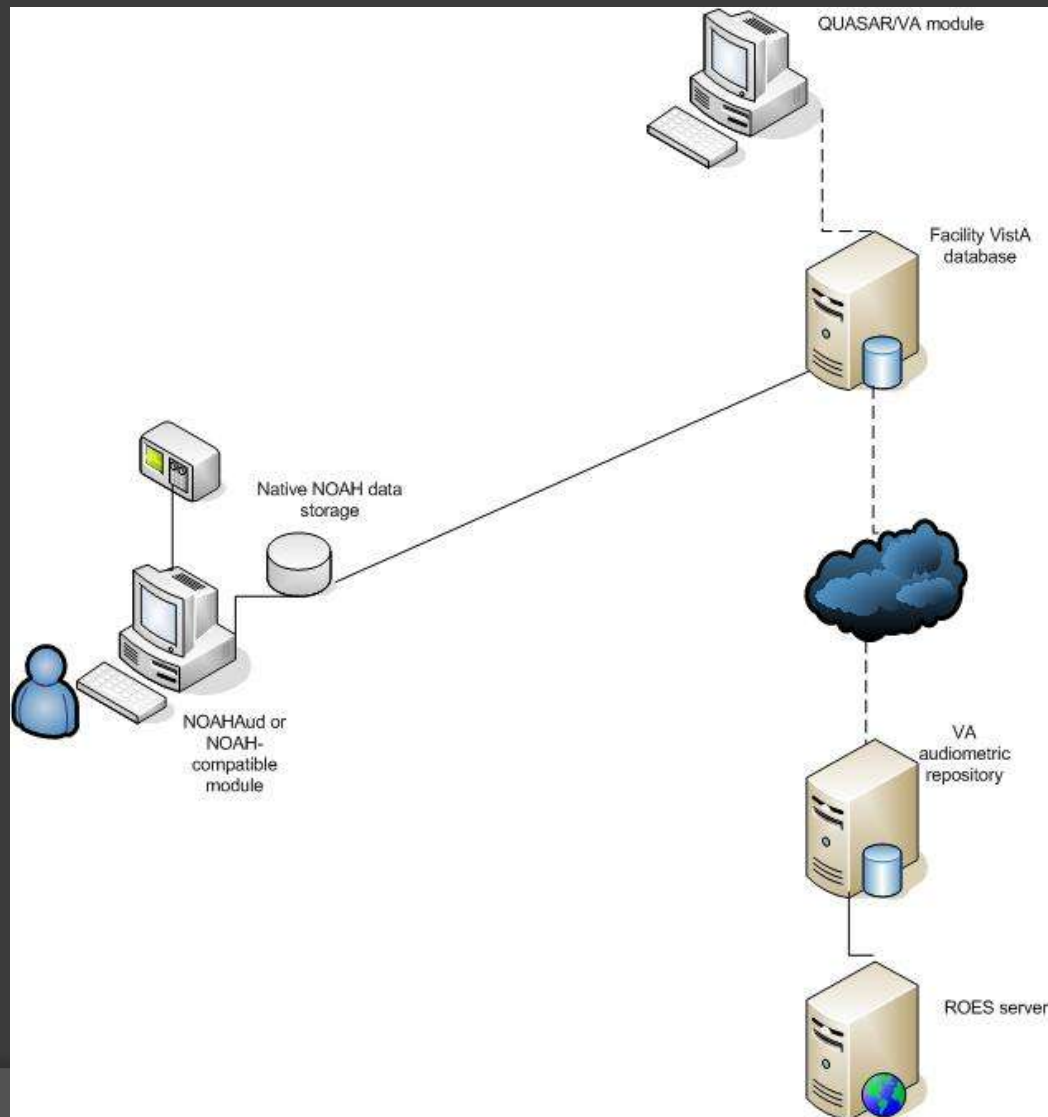
Data collected in VA module is used by NOAH fitting module



NOAH Link to DALC/Repository

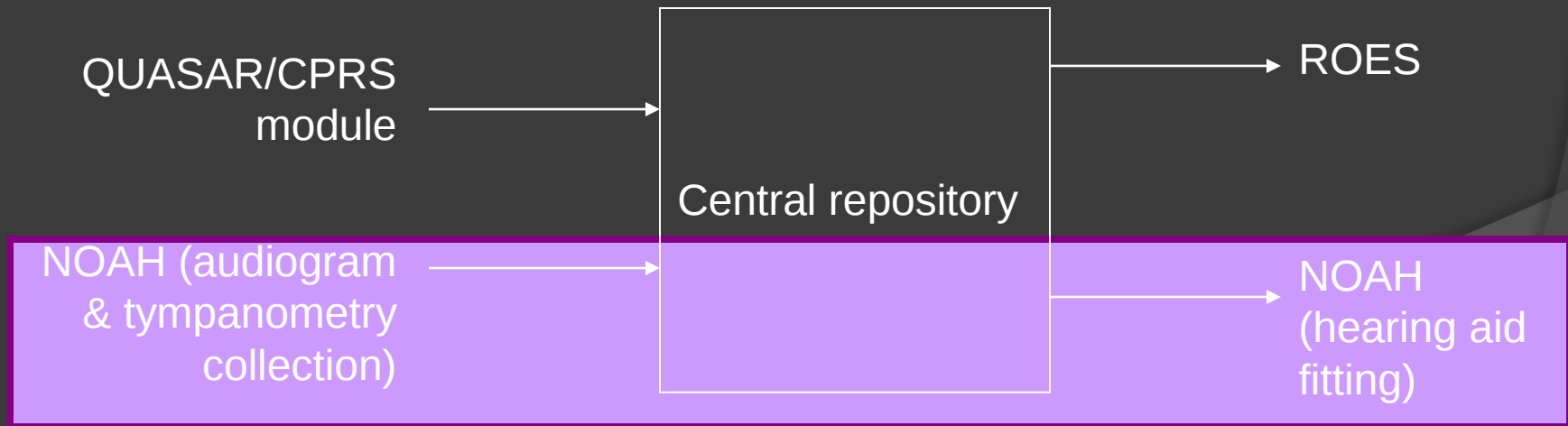


Why not direct link to local VistA?



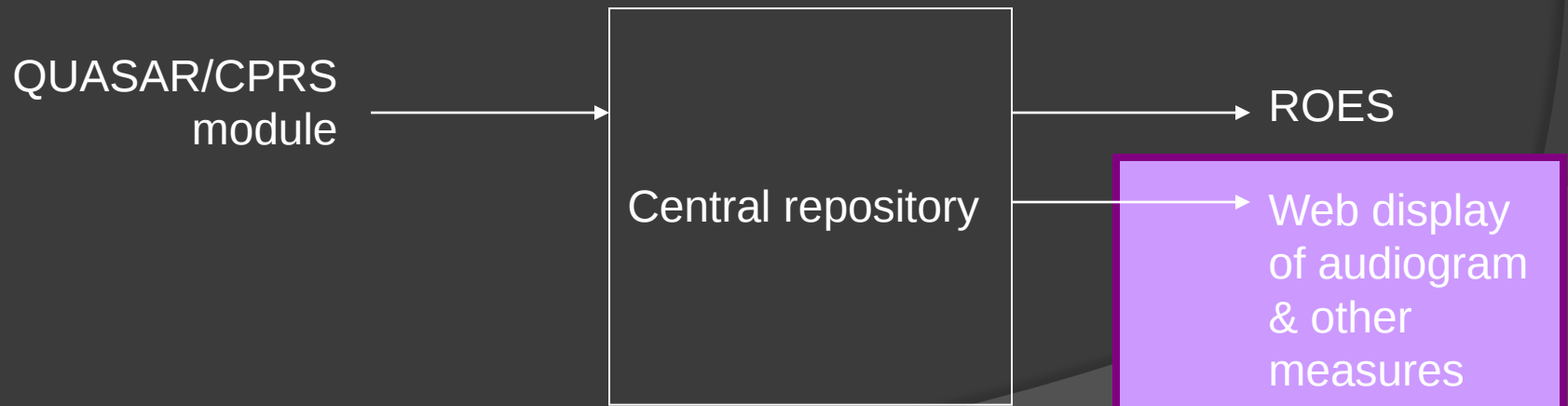
Versatility of the Repository

- ⦿ Goals of the NOAH Data Exchange initiative
 - NOAH will feed data into the repository
 - NOAH will consume data from the repository



Versatility of the Repository

- A web-based display/output application accessible from the desktop or CPRS will replace or augment the current QUASAR display
- Advantages:
 - access to any audiogram in the repository, rather than only those available locally
 - Access by authorized providers independent of the QUASAR module



https://vaww.dalc.oamm.va.gov/scripts/mgwms32.dll - Windows Internet Explorer

https://vaww.dalc.oamm.va.gov/scripts/mgwms32.dll

AUDIOLOGICAL EVALUATION AIR CONDUCTION

Right									Left										
	250	500	1000	1500	2000	3000	4000	6000	8000		250	500	1000	1500	2000	3000	4000	6000	8000
	40	45	45		45	50	55	65			30	30	40		40	45	55	75	

Masking

2 FA: 45

3 FA: 37 4 FA: 45

Pure Tone Averages

35	1000	1500	2000	3000	4000
----	------	------	------	------	------

Left

Peak Immittance		Tympanogram	
226 Hz	678 Hz	Type	

AR Thresholds

4000	BBN	500	1000
------	-----	-----	------

AR Thresholds

4000	BBN	500	1000
------	-----	-----	------

Left Speech Recognition

2	3	4	5	6	PBMAX

Right SRT

1

level

list

ML

Inter-test Consistency(R): ☐ Good ☐ Poor ☐ Fair

Inter-test Consistency(L): ☐ Good ☐ Poor ☐ Fair

Material: ☐ MARYLAND CNC ☐ CIDW-32 ☐ NU-6 ☐ OTHER

Presentation: ☐ RECORDED ☐ MLV

Comments: NOT ADEQUATE FOR RATING PURPOSES.

Patient Name ZZTESTPATIENT,PAMS

Examining Station or Clinic DENVER (DALC)

Age 69

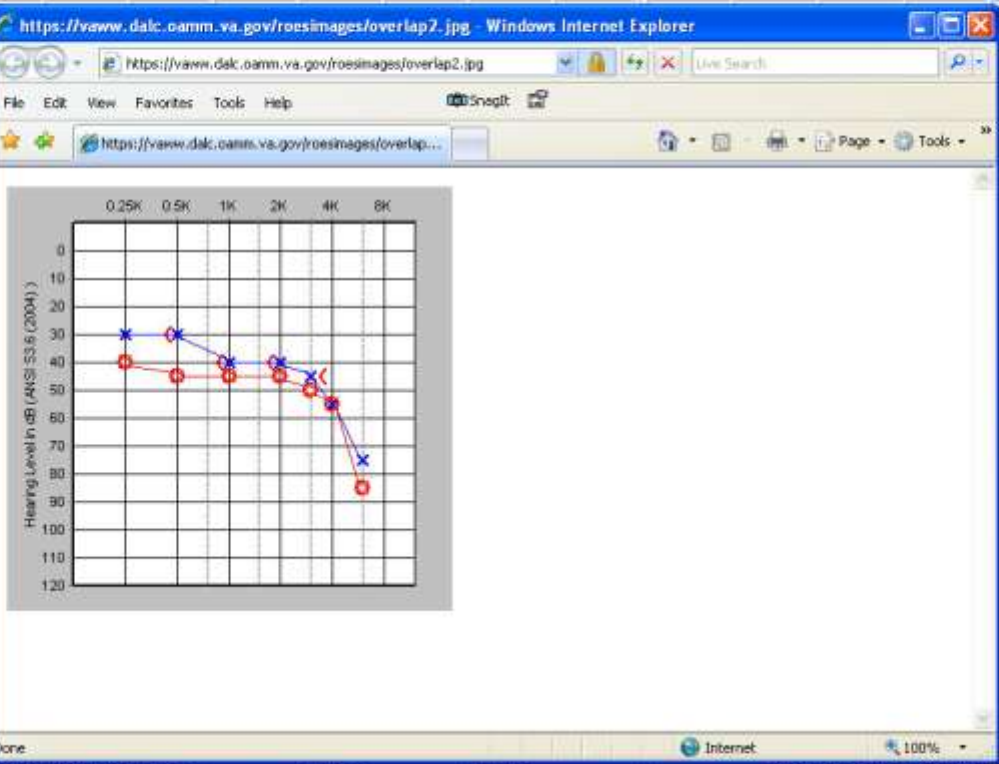
Claim Number *****33331

Examining Audiologist QUITMEYER,KEVIN L

Date of Exam Oct 13, 2009@16:00:03

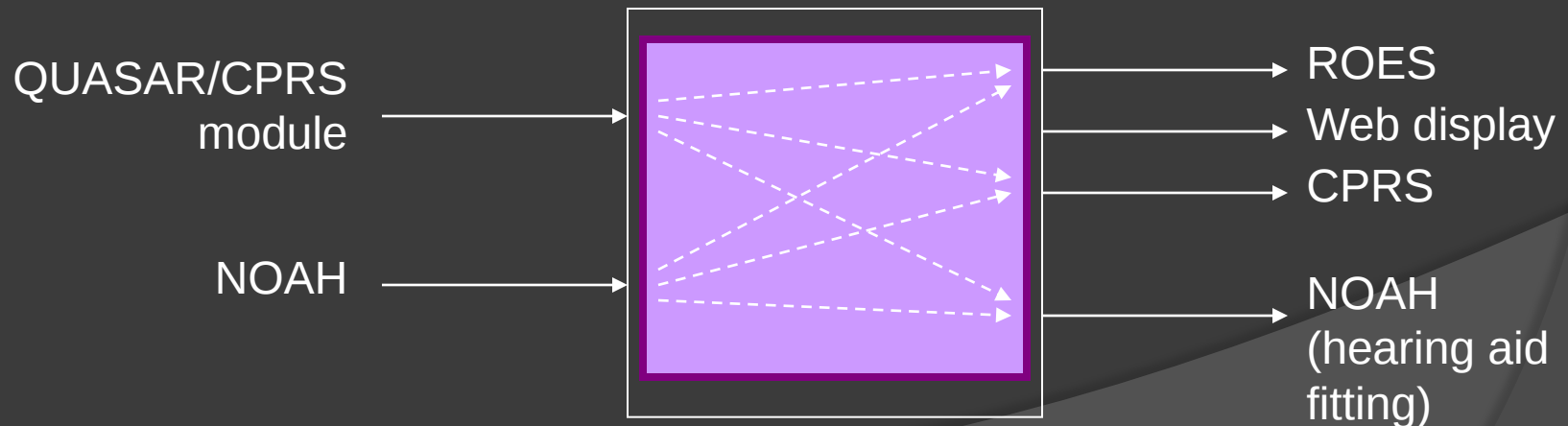
computer generated VA form 10-3364

<< Back Print 2364 [Click here for graph](#)



Versatility of the Repository

- Note that any consumer system will be able to consume data fed into the repository by any feeder system



Business Intelligence Preview

- ⦿ Business Intelligence pilot
 - Audiometric data
 - DALC Supply Fund data
- ⦿ Test drive...

DeepSee - /VAH - demo (demo) - Windows Internet Explorer
 http://10.157.6.114:57772/csp/sys/bi/%25cspapp.bi.index.cls

DEEPSEE Main Data Modeler Controls Administrator Home | Log Off

Rank : Top Grand Sub Find

Subject Area: PatientHearingLoss

Dimension:

- Age Group At Visit
 - L 1000 Loss
 - L 2000 Loss
 - L 250 Loss
 - L 4000 Loss
 - L 500 Loss
 - L 8000 Loss
 - R 1000 Loss
 - R 2000 Loss
 - R 250 Loss
 - R 4000 Loss
 - R 500 Loss
 - R 8000 Loss
 - Age At Visit
 - L 1000 dB
 - L 2000 dB

Computation:

Measures:

- Count
- AverageAgeOfPatientAtVisit
- L 1000 dB
- L 2000 dB
- L 4000 dB
- L 500 dB
- L 8000 dB

Drill Down

Others

Filter: Clear | Edit

[L 250 Loss = Mild loss] AND [R 250 Loss = Mild loss] AND [L 500 Loss = Mild loss] AND [R 500 Loss = Mild loss] AND [L 1000 Loss = Mild loss] AND [R 1000 Loss = Mild loss] AND [L 2000 Loss = Mild loss] AND [R 2000 Loss = Mild loss] AND [L 4000 Loss = Mild loss] AND [R 4000 Loss = Mild loss] AND [L 8000 Loss = Mild loss] AND [R 8000 Loss = Mild loss]

4,356 0.30%

Row X Column X Metrics X

Age Group At Visit
TotalNumberOfPatients

Requirement2MildHearingLossAllFreqByAge

Level 0 of 0

	20-39	40-59	60-79	Over 80	TotalNumberOfPatients
	Count	Count	Count	Count	
All	1,568	2,272	503	13	4,356

Done Internet 100%

DeepSee - /VAH : demo (demo) - Windows Internet Explorer
<http://10.157.6.114:57772/csp/sys/bi/%25cspapp.bi.index.ds>

DEEPSÉE Main Data Modeler Controls Administrator Home | Log Off

Rank: Top Grand Sub Find

Subject Area: PatientHearingLoss

Dimension:

- Age Group At Visit
- L 1000 Loss
- L 2000 Loss
- L 250 Loss
- L 4000 Loss
- L 500 Loss
- L 8000 Loss
- R 1000 Loss
- R 2000 Loss
- R 250 Loss
- R 4000 Loss
- R 500 Loss
- R 8000 Loss
- Age At Visit
- L 1000 dB
- L 2000 dB

Computation:

Measures:

- Count
- AverageAgeOfPatientAtVisit
- L 1000 dB
- L 2000 dB
- L 4000 dB
- L 500 dB
- L 8000 dB

Drill Down:

Others:

Filter: Clear | Edit
 4,356 0.30%

Row X Column X Metrics X

Age Group At Visit

Requirement1ASDataMidLossAFrequencies

	20-39	40-59	60-79	Over 80
	Count	Count	Count	Count
All	1,568	2,272	503	13

Detail Listing (PatientResults) - Windows Internet Explorer
<http://10.157.6.114:57772/csp/sys/bi/%25cspapp.bi.detail.ds?detID=3>

PatientResults

Age At Visit	L 250 dB	L 500 dB	L 1000 dB	L 2000 dB	L 4000 dB	L 8000 dB	R 250 dB	R 500 dB	R 1000 dB	R 2000 dB	R 4000 dB
84	5	5		10	20	30	5	10		5	1
88											
89											
90											
90	10	15	20	15	20	20	15	15	20	20	2
90			5	5	10	20			5		1
92	15	10	10	15	20	20	15	20	15	10	2
91	20	25	25	25	30	25	25	25	30	30	3
91	20	25	25	10	25	25	20	25	20	10	2
91	10	5	5	5	25	25	10	5	5	10	1
90											
92	15	20	20	25	30	25	15	15	20	20	2
93	10	5	5	10	10	15	10	10	5	10	1

Page 1 of 1 Record 1 of 13

Done Internet 100%

DeepSee - /VAH - demo (demo) - Windows Internet Explorer

http://10.157.6.114:57772/csp/sys/bi/%25cspapp.bi.index.cls

DEEPSEE

MainData ModelerControlsAdministrator

Home | Log Off

Subject Area

PatientHearingLoss

Dimension

Age Group At Visit

L 1000 Loss

L 2000 Loss

L 250 Loss

L 4000 Loss

L 500 Loss

L 8000 Loss

R 1000 Loss

R 2000 Loss

R 250 Loss

R 4000 Loss

R 500 Loss

R 8000 Loss

Age At Visit

L 1000 dB

L 2000 dB

Computation

Measures

Count

AverageAgeOfPatientAtVisit

L 1000 dB

L 2000 dB

L 4000 dB

L 500 dB

L 8000 dB

Drill Down

Others

Filter

Clear | Edit

[L 250 Loss = Severe loss] AND [R 250 Loss = Severe loss] AND [L 500 Loss = Severe loss] AND [R 500 Loss = Severe loss] OR [L 250 Loss = Profound loss] AND [R 250 Loss = Profound loss] AND [L 500 Loss = Profound loss] AND [R 500 Loss = Profound loss]

3,2800.23%

Row

Column

Metrics

Age Group At Visit

Total Patients

pvtSevereOrProfoundLow

Level 0 of 0

	20-39	40-59	60-79	Over 80	Total Patients
	Count	Count	Count	Count	
All	8	219	1,225	1,828	3,280

DoneInternet100%

DeepSee - /VAH - demo (demo) - Windows Internet Explorer
 http://10.157.6.114:57772/csp/sys/bi/%25cspapp.bi.index.cls

DEEPSEE Main Data Modeler Controls Administrator Home | Log Off

Rank : Top Grand Sub Find

Subject Area
 AudiometricExam

Dimension
 Age of Patient At Visit
 Date of Visit
 Examiner
 L 1000 Loss
 L 2000 Loss
 L 250 Loss
 L 4000 Loss
 L 500 Loss
 L 8000 Loss
 R 1000 Loss
 R 2000 Loss
 R 250 Loss
 R 4000 Loss
 R 500 Loss
 R 8000 Loss
 Testing Station

Computation
Measures
 Count
 Age at Visit
 Age of Patient At Visit
 Avg L 8000
 Avg L 1000
 Avg L 2000
 Avg L 250

Drill Down
Others
Filter Clear | Edit
 1,100,561 100.00%

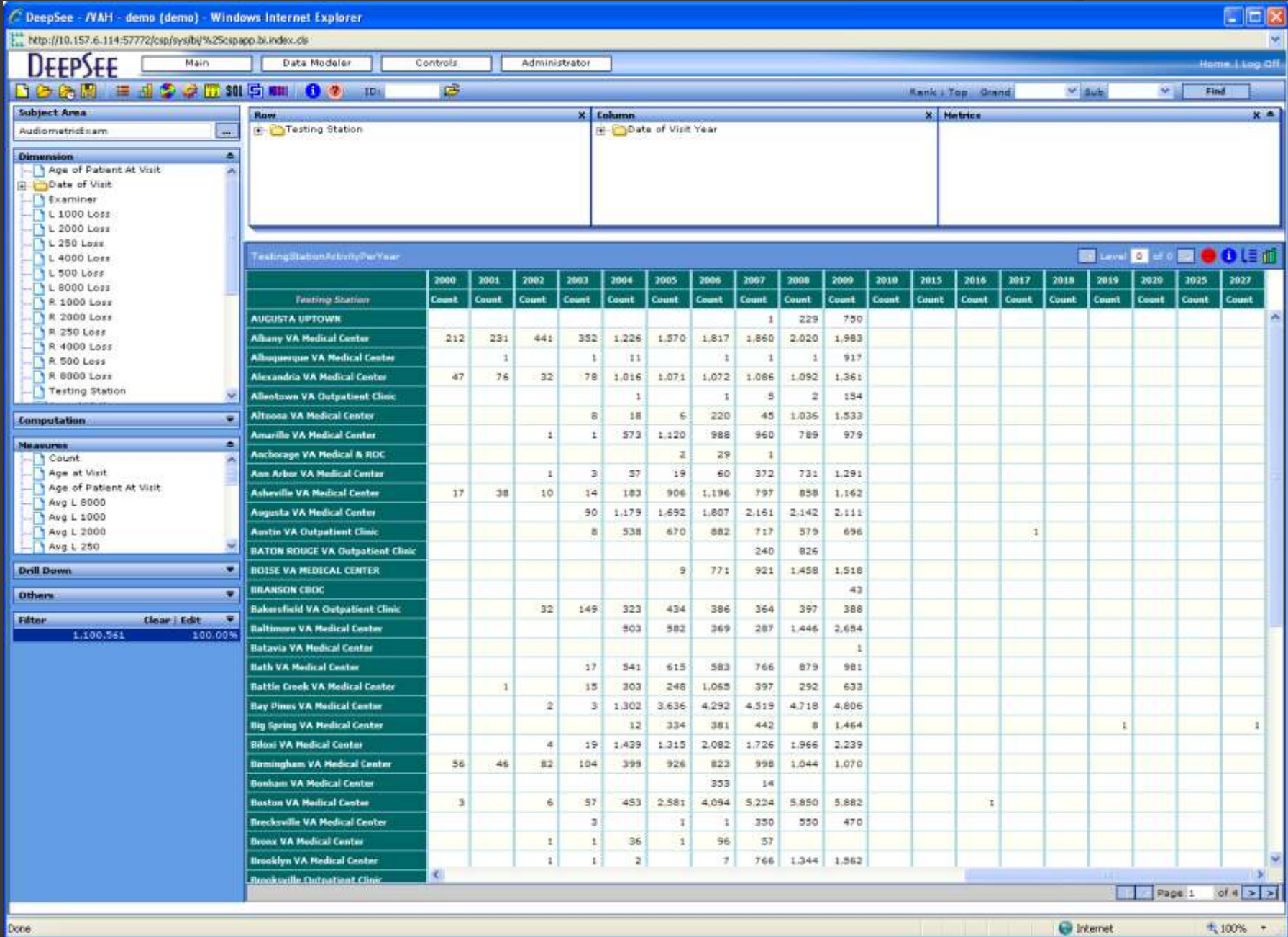
Row X **Column** X **Metrics** X

Age of Patient At Visit

Requirement3MeanThresholdFrequencydBLR Level 0 of 0

Age of Patient At Visit	Avg L 250	Avg L 500	Avg L 1000	Avg L 2000	Avg L 4000	Avg L 8000	Avg R 250	Avg R 500	Avg R 1000	Avg R 2000	Avg R 4000	Avg R 8000
Under 20	14.75	15.88	15.92	17.22	20.11	21.20	13.35	14.23	13.91	17.22	17.11	19.40
20-39	12.94	12.98	13.08	14.26	21.38	20.13	13.06	13.06	13.20	14.26	18.74	18.70
40-59	20.11	21.58	24.07	32.13	49.95	49.82	20.03	21.38	23.81	32.13	47.42	48.25
60-79	26.75	29.49	35.12	49.75	67.83	69.90	26.65	29.31	34.62	49.75	66.34	69.37
Over 80	36.23	40.53	47.80	60.89	74.96	78.16	36.19	40.41	47.40	60.89	74.64	78.58

Done Internet 100%



DeepSee - /VAH - demo (demo) - Windows Internet Explorer
http://10.157.6.114:57772/csp/sys/bi/%25cspapp.bi.index.ds

DEEPSEE Main Data Modeler Controls Administrator Home | Log Off

Subject Area: AudiometricExam

Dimension:

- Age of Patient At Visit
- Date of Visit
- Examiner
- L 1000 Loss
- L 2000 Loss
- L 250 Loss
- L 4000 Loss
- L 500 Loss
- L 8000 Loss
- R 1000 Loss
- R 2000 Loss
- R 250 Loss
- R 4000 Loss
- R 500 Loss
- R 8000 Loss
- Testing Station

Computation:

Measures:

- Count
- Age at Visit
- Age of Patient At Visit
- Avg L 8000
- Avg L 1000
- Avg L 2000
- Avg L 250

Drill Down

Others

Filter: 1,100,561 100.00%

Row: Examiner

Column: Date of Visit Year

Metrics

ExaminerActivityPerYear

Examiner	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2016	2017	2018	2019	2020	2025	2027
153										1									
AAEN,TANYA B									1										
ABALOS,EDWARD						55	14												
ABALOS,EDWARD C							26	115	583	401									
ABDO,CHARLES J						1													
ABRAHAMSON,JUDY E				3	143	141	120	156	172	186				1					
ABRAMOWITZ,JACQUELINE					5	2													
ABRAMS,HARVEY B				1	73	80	35	20		59									
ABRAMS,MICHELE R									48	35									
ACKER,KYLE N								68											
ADAMS,DEANNE R								22	236	478									
ADAMSON,SHAYLA D										3									
ADKINS,MICHAEL B								1											
AGAPIOS,LAUREN MARIE		1				3		4	279	298									
AHUMADA,ALEJANDRO G									176	283									
AHUMADA,ALEX									66										
AKIN,FAITH W				1															
ALBERT,LU-ANNE M							72	186	427	430									
ALEXANDER,AHMAD BRANDELLE										2									
ALEXANDER,ELIZABETH N									1	348									
ALIYEVA,CARMEN E	6	3	4	12	11					107									
ALLEN,COLLEEN G					519	538	507	583	575	525									
ALLEN,JANE M										127									
ALLISON,JANICE									1										
ALLISON,SHIRLEY								4	539										
ALMOND,LISA M							8	7	323	451									
ALVAREZ,INDIRA						11													
AMORNONGCHAI,AUNYAPORN										19									
AMSEL,LYNN J							1	88	182	294									
ANDENAS,ALICADA,KIRSTEN M																			

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Patient Populatation by Varying Hearing Loss (Either Ear)

Patients who have mild hearing loss across all frequency ranges

pvtMildLossAllfreq					
Level 0 of 0					
	20-39	40-59	60-79	Over 80	Total Patients
	Count	Count	Count	Count	
All	1,568	2,272	503	13	4,356

Patients who have mild high frequency hearing loss

pvtMildHigh					
Level 0 of 0					
	20-39	40-59	60-79	Over 80	Total Patients
	Count	Count	Count	Count	
All	1,789	2,696	749	163	5,397

Patients who have severe or profound low frequency hearing loss

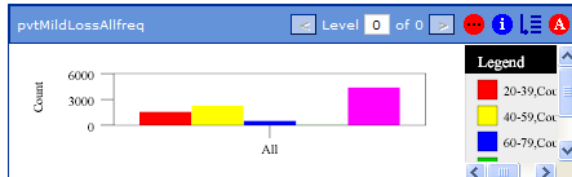
pvtSevereOrProfoundLow					
Level 0 of 0					
	20-39	40-59	60-79	Over 80	Total Patients
	Count	Count	Count	Count	
All	8	219	1,225	1,828	3,280

Patients who have moderate mid-frequency and severe high-frequency hearing loss

pvtModMidAndSevereHig					
Level 0 of 0					
	20-39	40-59	60-79	Over 80	Total Patients
	Count	Count	Count	Count	
All	10	489	2,088	1,167	3,754

Patient Population by Varying Hearing Loss (Either Ear)

Patients who have mild hearing loss across all frequency ranges



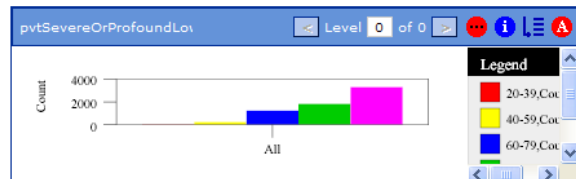
Patients who have mild high frequency hearing loss

pvtMildHigh

Level 0 of 0

	20-39	40-59	60-79	Over 80	Total Patients
	Count	Count	Count	Count	
All	1,789	2,696	749	163	5,397

Patients who have severe or profound low frequency hearing loss



Patients who have moderate mid-frequency and severe high-frequency hearing loss

pvtModMidAndSevereHig

Level 0 of 0

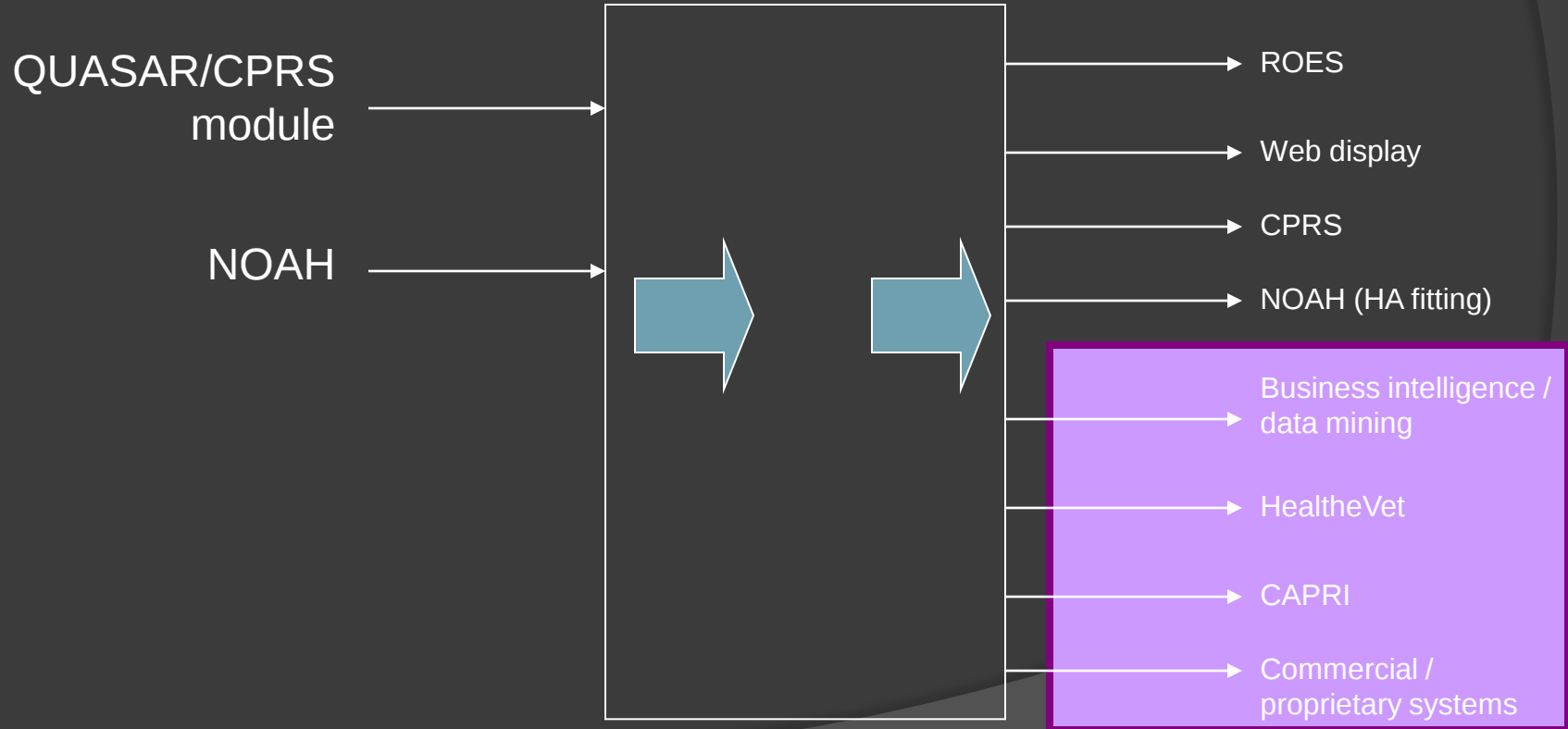
	20-39	40-59	60-79	Over 80	Total Patients
	Count	Count	Count	Count	
All	10	489	2,088	1,167	3,754

Where we want to go with BI

- ⦿ Lessons learned – organization of data
- ⦿ Transition toward production environment
- ⦿ Dashboard access for all VA Audiologists
- ⦿ Analyzer access for core SME's
 - DALC SME's
 - VA Audiology SME's
- ⦿ BI objective
 - Put the 'body of knowledge' to work to improve hearing care in VA and beyond

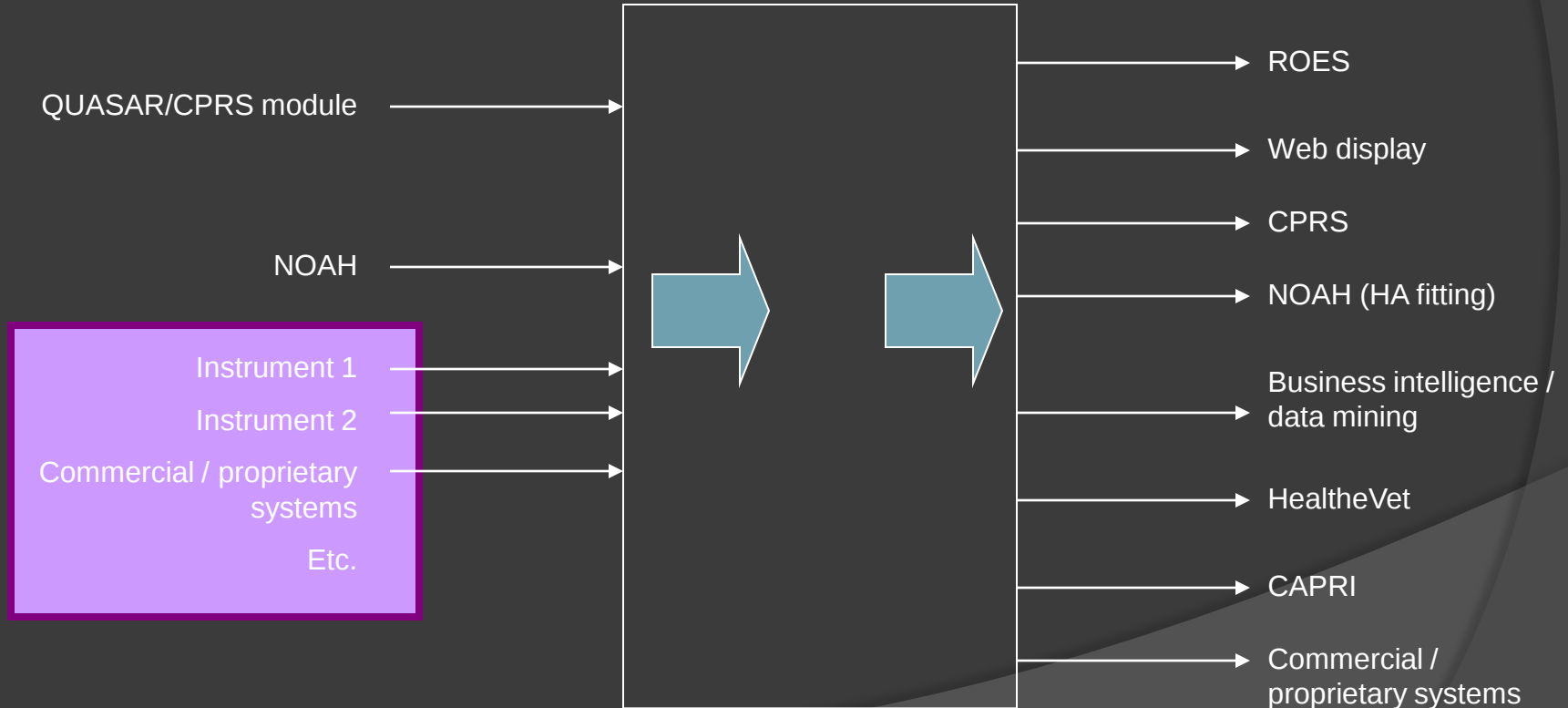
Versatility of the Repository

● Potential additional consuming applications



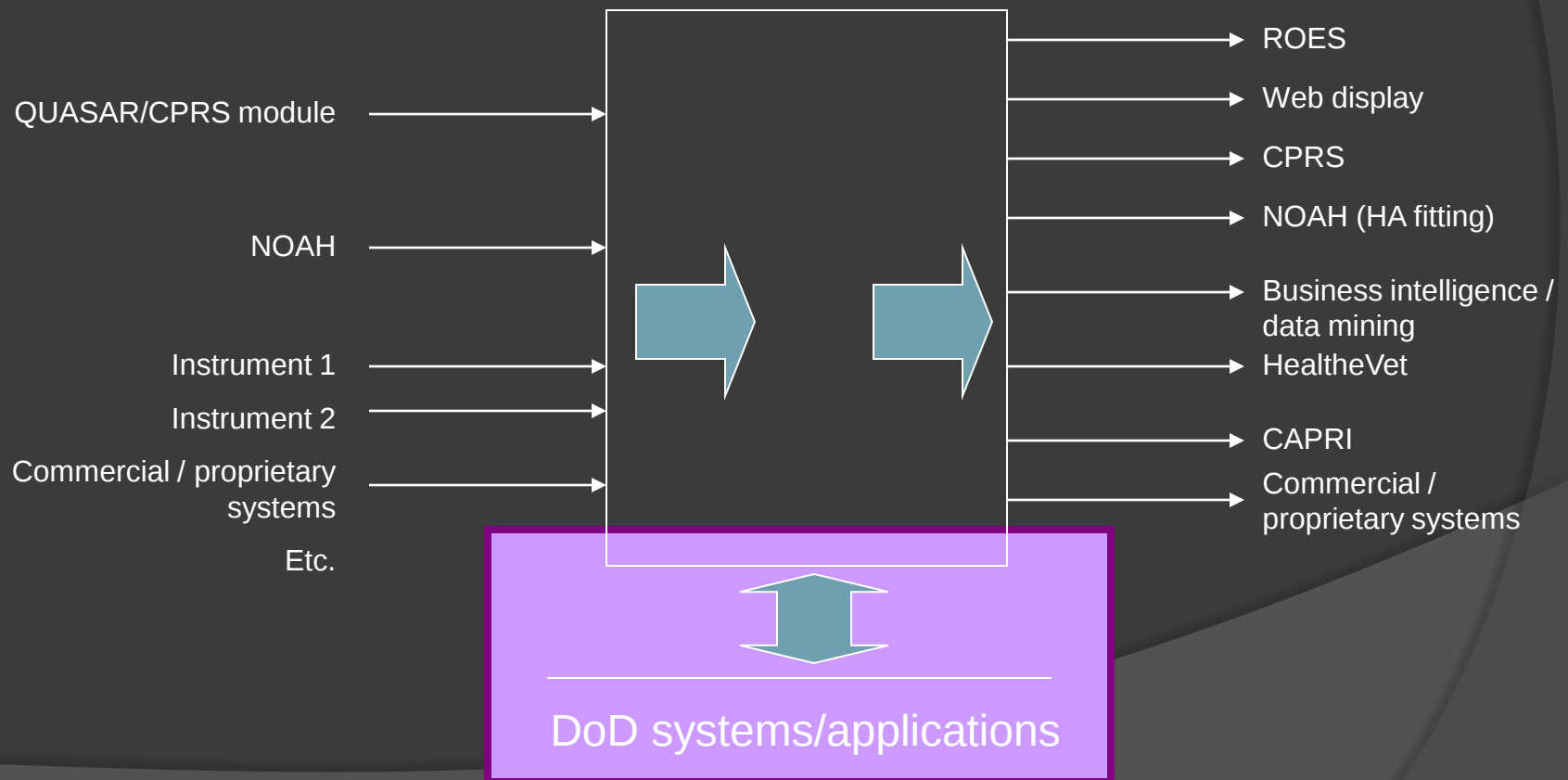
Versatility of the Repository

- Potential additional feeder applications, including diagnostic instruments or proprietary systems
- Repository model extended to management of tympanometry, Real Ear Measures, etc.



Versatility of the Repository

- Extending applicable technologies and tools to DoD Audiologists



DALC Presence at JDVAC 2010

- ◉ DALC Contract Award Process
 - Monday @ 1:00
- ◉ ROES for DoD
 - Wednesday @ 11:00
- ◉ DALC Future Applications
 - Wednesday @ 3:00
- ◉ Kim Whorton
- ◉ Roy Horne
- ◉ Ray Blomquist
- ◉ Gail Hixon
- ◉ Steve Wilson
- ◉ Tim Grauer
- ◉ Linda Hofferica
- ◉ Don Siewert
- ◉ Pam Urrutia
- ◉ Mary Ann Blumenthal
- ◉ Kevin Quitmeyer

Conclusion

- ▣ Kevin Quitmeyer
- ▣ ROES Program Director
- ▣ VA Denver Acquisition & Logistics Center
- ▣ 303-914-5160
- ▣ kevin.quitmeyer@va.gov