Quality Control Verification Database: Database assist to data entry quality control

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Pasadena, CA
18-21 May 2014

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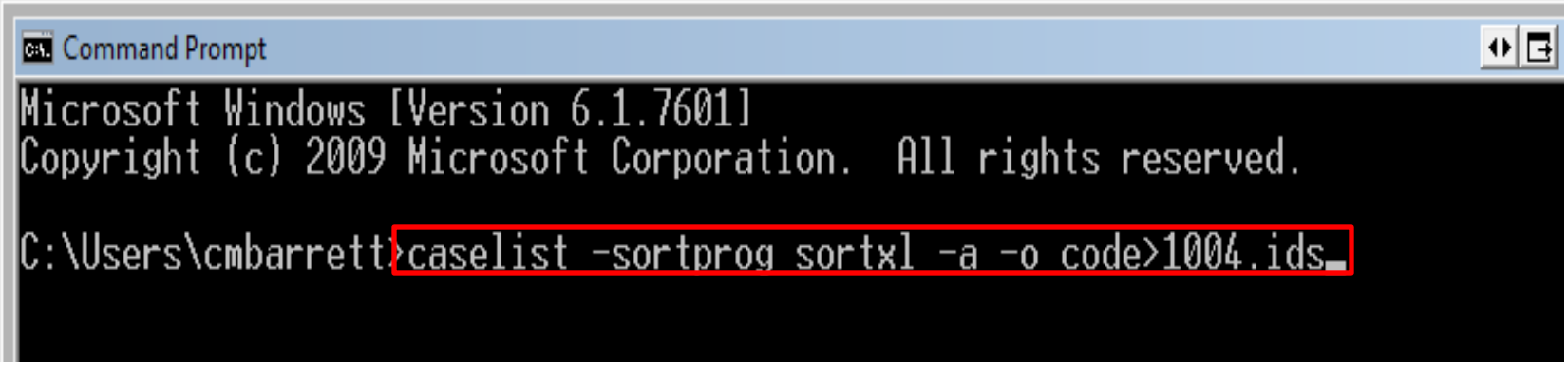
Maintain Data Accuracy

- Quality Control of Data Entry
  - Identify entry and protocol errors
  - Present feedback
  - Produce reports

Data Entry Quality Control (QC) Process

- Perform quality control on 10%-100% of cases
- A case is verified (re-entered / 2nd pass entry)
  - CASES *UWSC SAQ data entry software program*
  - Line Command example:



- Discrepancies, average times, and case statistics are analyzed and logged

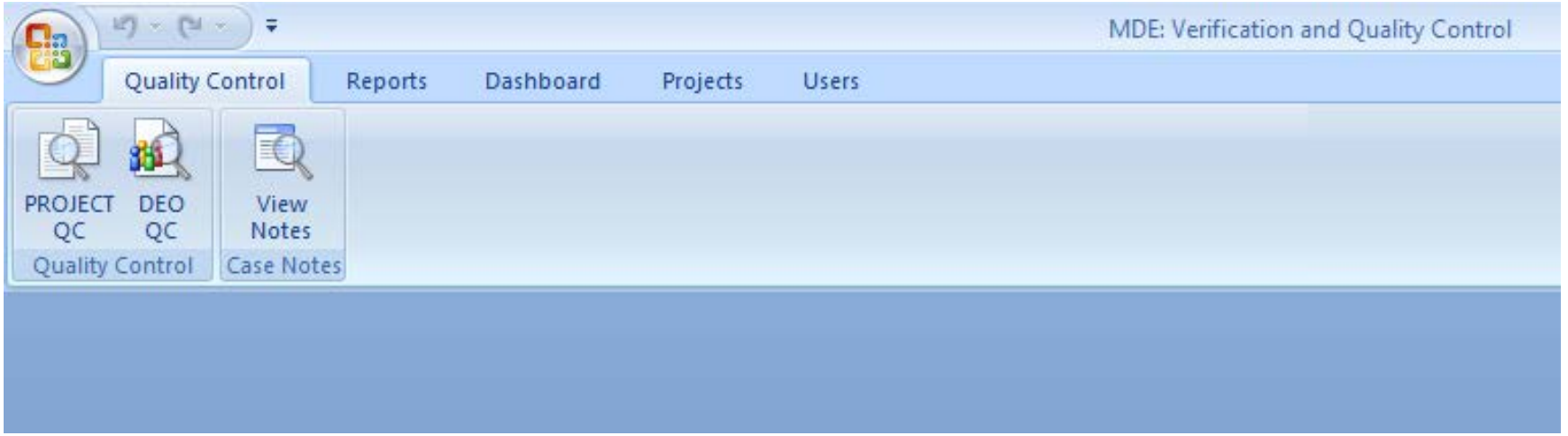
The Quality Control and Verification Database

- The Quality Control and Verification Database

  - Microsoft Access database
  - User friendly interface
  - Pulls paradata directly from CASES in real time

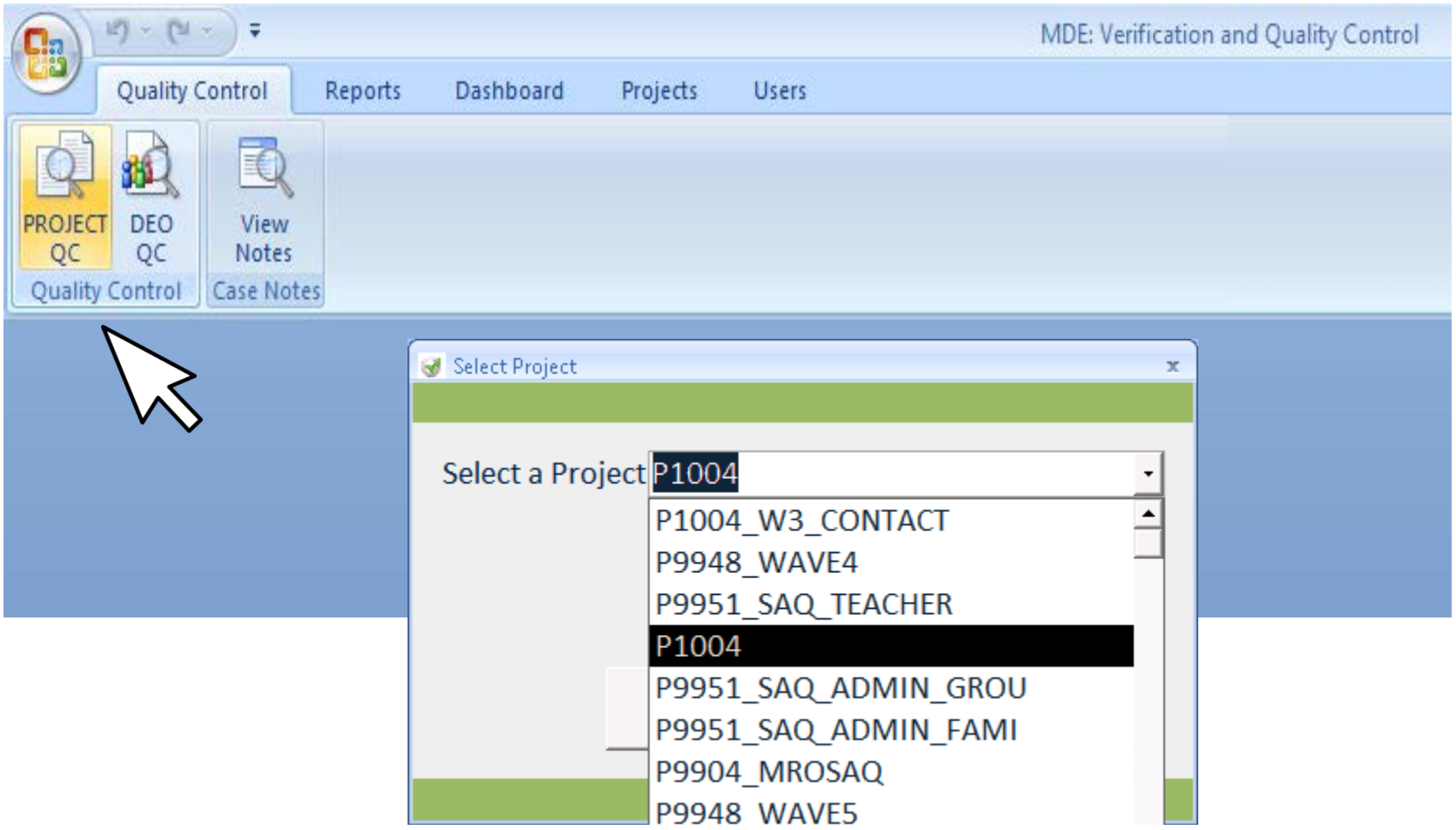
The Quality Control and Verification Database

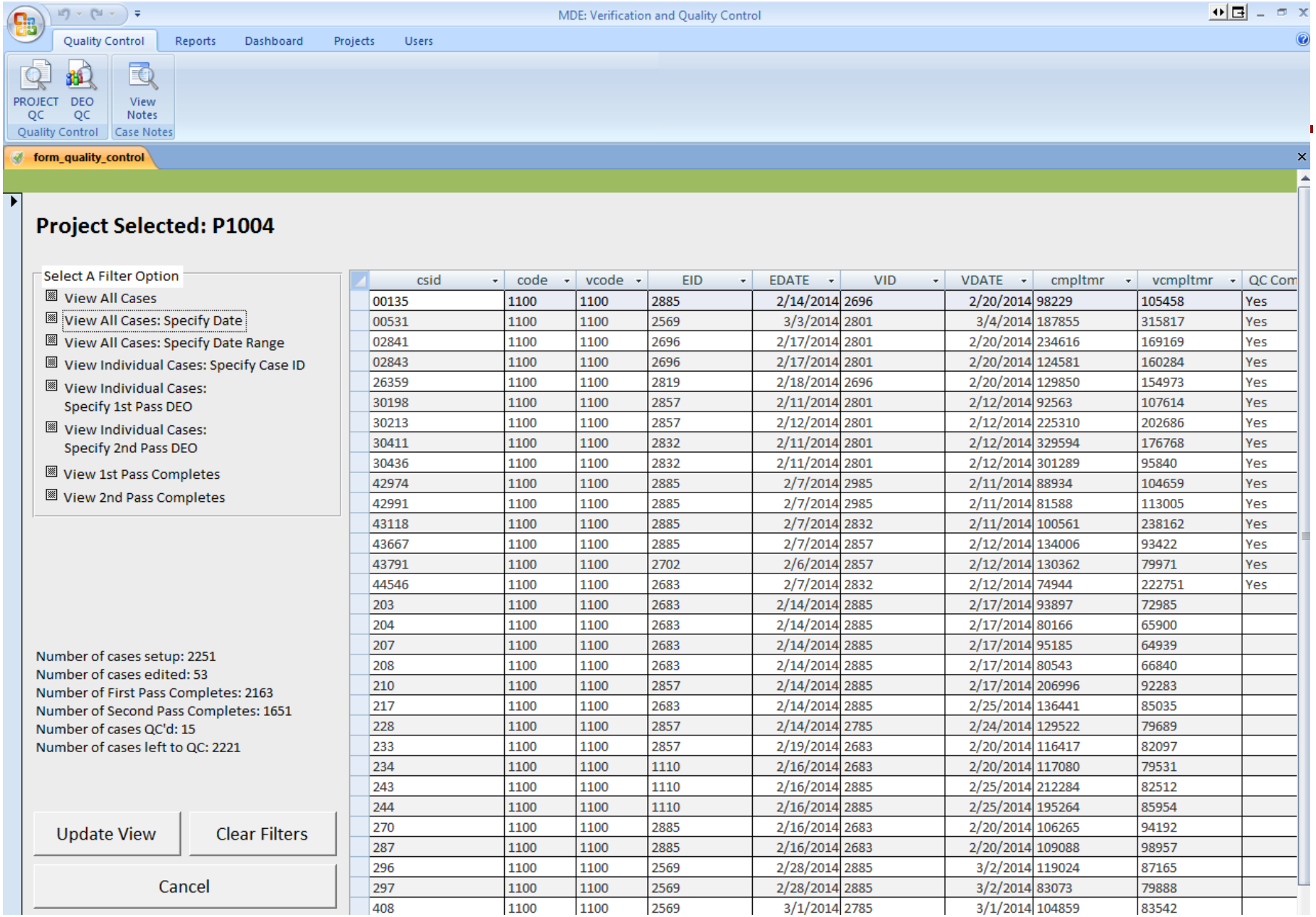
- Main Menu



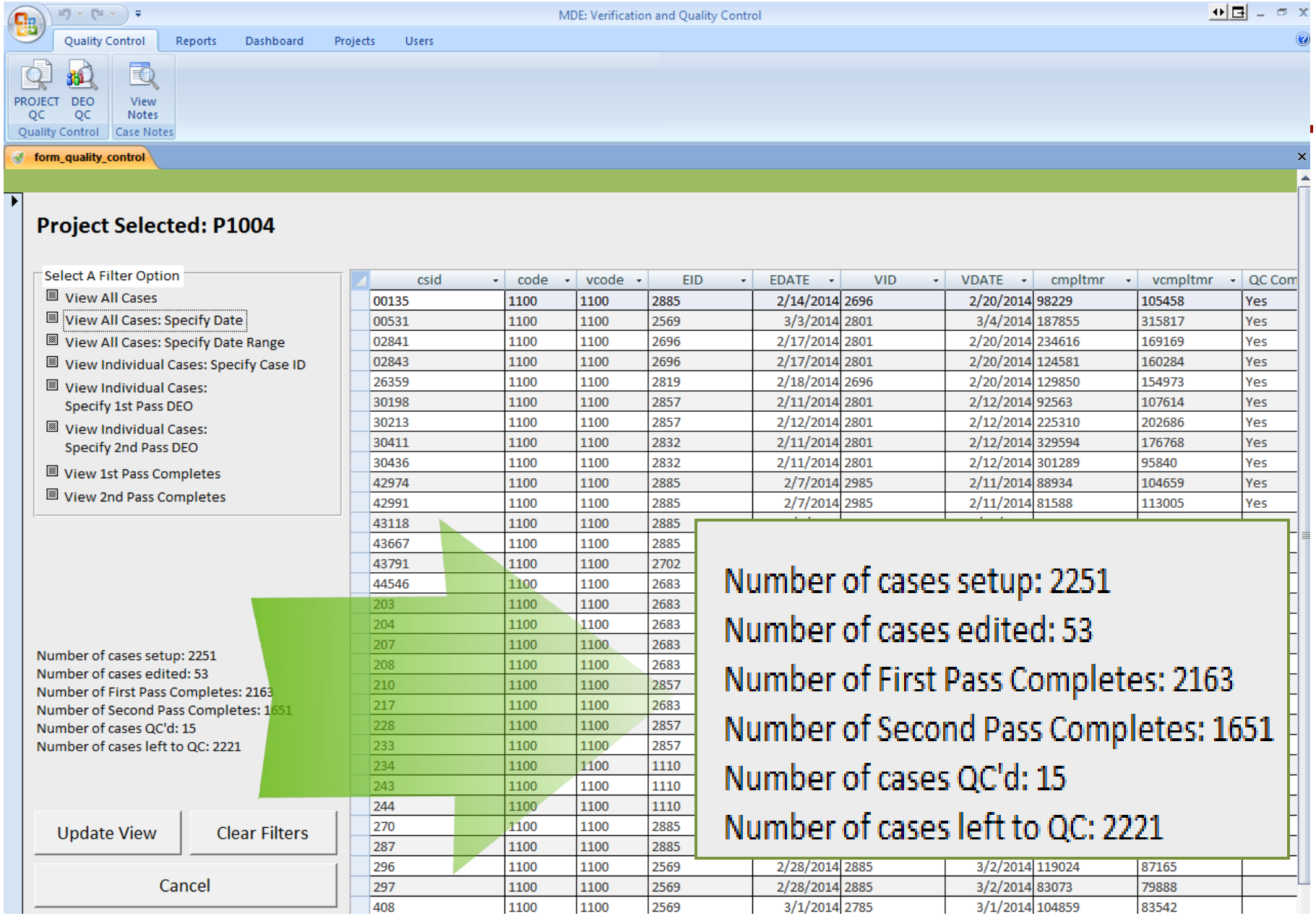
  - With just a few clicks, the user can:
    - Review project status
    - Review respondent notes
    - Leave quality control notes
    - Create reports

The Quality Control and Verification Database





csid	code	vcode	EID	EDATE	VID	VDATE	cmpltmr	vcmpltmr	QC Com
00135	1100	1100	2885	2/14/2014	2696	2/20/2014	98229	105458	Yes
00531	1100	1100	2569	3/3/2014	2801	3/4/2014	187855	315817	Yes
02841	1100	1100	2696	2/17/2014	2801	2/20/2014	234616	169169	Yes
02843	1100	1100	2696	2/17/2014	2801	2/20/2014	124581	160284	Yes
26359	1100	1100	2819	2/18/2014	2696	2/20/2014	129850	154973	Yes
30198	1100	1100	2857	2/11/2014	2801	2/12/2014	92563	107614	Yes
30213	1100	1100	2857	2/12/2014	2801	2/12/2014	225310	202686	Yes
30411	1100	1100	2832	2/11/2014	2801	2/12/2014	329594	176768	Yes
30436	1100	1100	2832	2/11/2014	2801	2/12/2014	301289	95840	Yes
42974	1100	1100	2885	2/7/2014	2985	2/11/2014	88934	104659	Yes
42991	1100	1100	2885	2/7/2014	2985	2/11/2014	81588	113005	Yes
43118	1100	1100	2885	2/7/2014	2832	2/11/2014	100561	238162	Yes
43667	1100	1100	2885	2/7/2014	2857	2/12/2014	134006	93422	Yes
43791	1100	1100	2702	2/6/2014	2857	2/12/2014	130362	79971	Yes
44546	1100	1100	2683	2/7/2014	2832	2/12/2014	74944	222751	Yes
203	1100	1100	2683	2/14/2014	2885	2/17/2014	93897	72985	
204	1100	1100	2683	2/14/2014	2885	2/17/2014	80166	65900	
207	1100	1100	2683	2/14/2014	2885	2/17/2014	95185	64939	
208	1100	1100	2683	2/14/2014	2885	2/17/2014	80543	66840	
210	1100	1100	2857	2/14/2014	2885	2/17/2014	206996	92283	
217	1100	1100	2683	2/14/2014	2885	2/25/2014	136441	85035	
228	1100	1100	2857	2/14/2014	2785	2/24/2014	129522	79689	
233	1100	1100	2857	2/19/2014	2683	2/20/2014	116417	82097	
234	1100	1100	1110	2/16/2014	2683	2/20/2014	117080	79531	
243	1100	1100	1110	2/16/2014	2885	2/25/2014	212284	82512	
244	1100	1100	1110	2/16/2014	2885	2/25/2014	195264	85954	
270	1100	1100	2885	2/16/2014	2683	2/20/2014	106265	94192	
287	1100	1100	2885	2/16/2014	2683	2/20/2014	109088	98957	
296	1100	1100	2569	2/28/2014	2885	3/2/2014	119024	87165	
297	1100	1100	2569	2/28/2014	2885	3/2/2014	83073	79888	
408	1100	1100	2569	3/1/2014	2785	3/1/2014	104859	83542	


MDE: Verification and Quality Control
Quality Control
Reports
Dashboard
Projects
Users
PROJECT QC
DEO QC
View Notes
Quality Control
Case Notes
form_quality_control
Project Selected: P1004
Select A Filter Option
View All Cases
View All Cases: Specify Date
View All Cases: Specify Date Range
View Individual Cases: Specify Case ID
View Individual Cases: Specify 1st Pass DEO
View Individual Cases: Specify 2nd Pass DEO
View 1st Pass Completes
View 2nd Pass Completes
Number of cases setup: 2251
Number of cases edited: 53
Number of First Pass Completes: 2163
Number of Second Pass Completes: 1651
Number of cases QC'd: 15
Number of cases left to QC: 2221
Update View
Clear Filters
Cancel
csid code vcode EID EDATE VID VDATE cmpltmr vcmpltmr QC Com
00135 1100 1100 2885 2/14/2014 2696 2/20/2014 98229 105458 Yes
00531 1100 1100 2569 3/3/2014 2801 3/4/2014 187855 315817 Yes
02841 1100 1100 2696 2/17/2014 2801 2/20/2014 234616 169169 Yes
02843 1100 1100 2696 2/17/2014 2801 2/20/2014 124581 160284 Yes
26359 1100 1100 2819 2/18/2014 2696 2/20/2014 129850 154973 Yes
30198 1100 1100 2857 2/11/2014 2801 2/12/2014 92563 107614 Yes
30213 1100 1100 2857 2/12/2014 2801 2/12/2014 225310 202686 Yes
30411 1100 1100 2832 2/11/2014 2801 2/12/2014 329594 176768 Yes
30436 1100 1100 2832 2/11/2014 2801 2/12/2014 301289 95840 Yes
42974 1100 1100 2885 2/7/2014 2985 2/11/2014 88934 104659 Yes
42991 1100 1100 2885 2/7/2014 2985 2/11/2014 81588 113005 Yes
43118 1100 1100 2885
43667 1100 1100 2885
43791 1100 1100 2702
44546 1100 1100 2683
203 1100 1100 2683
204 1100 1100 2683
207 1100 1100 2683
208 1100 1100 2683
210 1100 1100 2857
217 1100 1100 2683
228 1100 1100 2857
233 1100 1100 2857
234 1100 1100 1110
243 1100 1100 1110
244 1100 1100 1110
270 1100 1100 2885
287 1100 1100 2885
296 1100 1100 2569 2/28/2014 2885 3/2/2014 119024 87165
297 1100 1100 2569 2/28/2014 2885 3/2/2014 83073 79888
408 1100 1100 2569 3/1/2014 2785 3/1/2014 104859 83542
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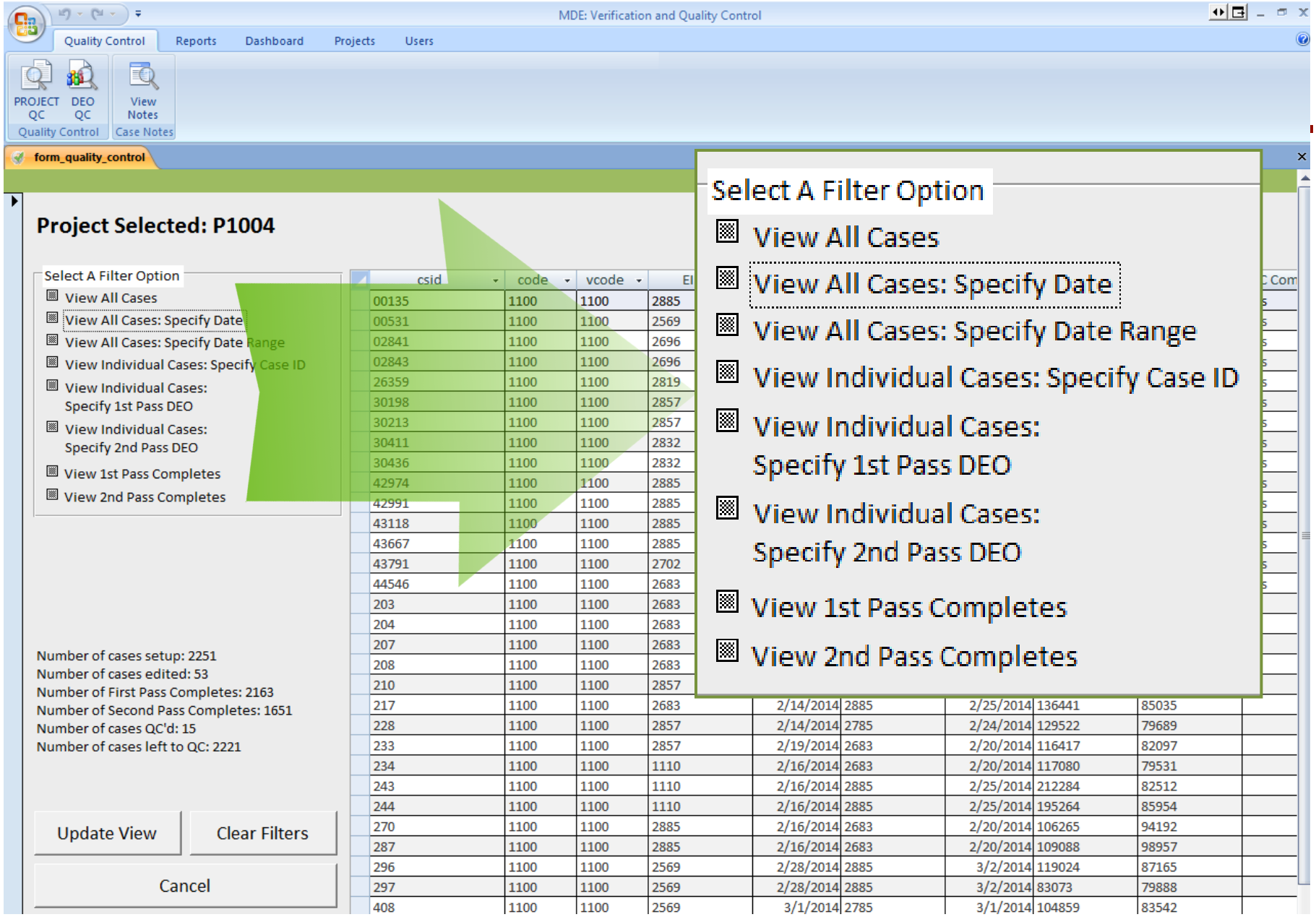
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vcode
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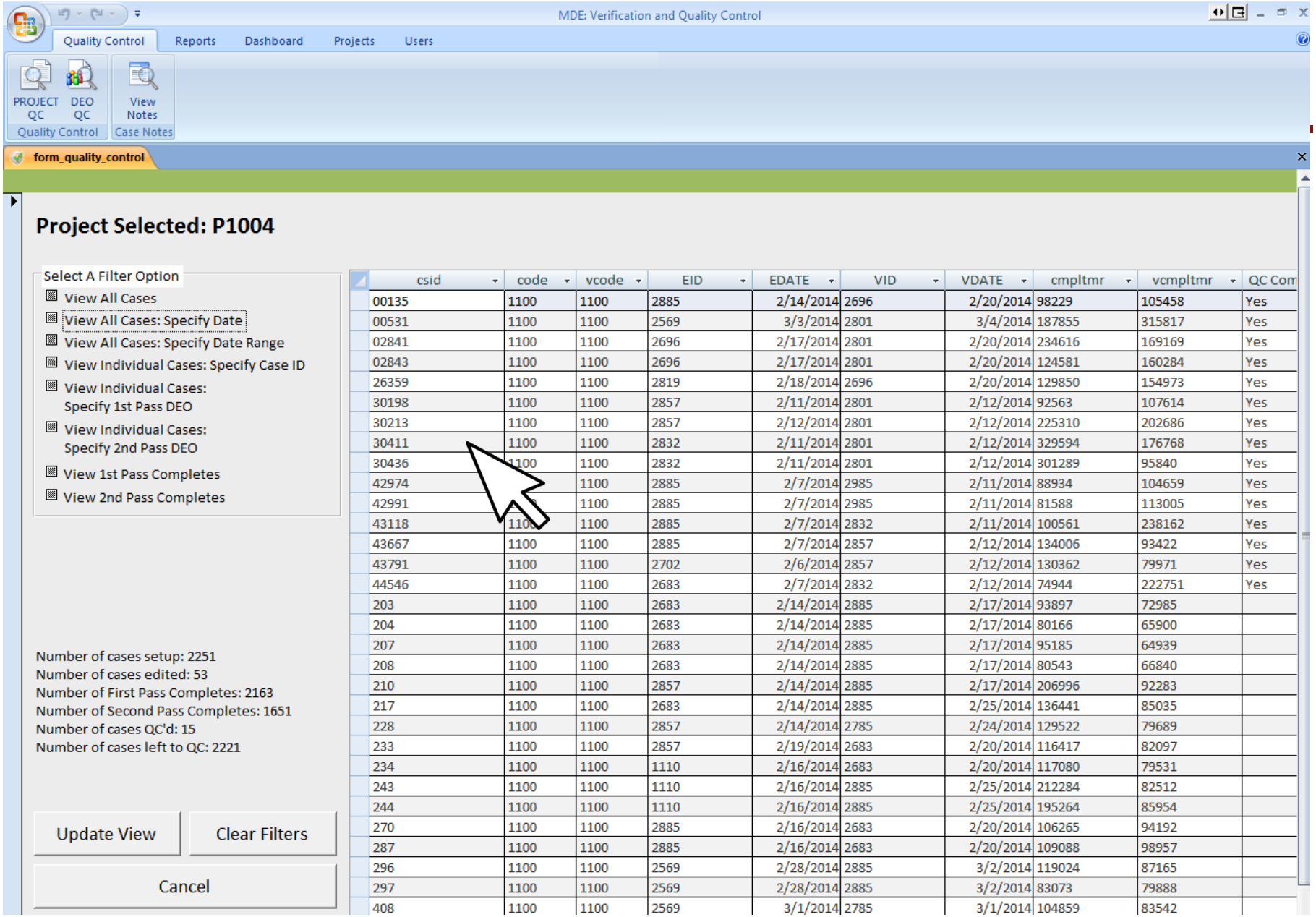

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30436	1100	1100	2832	2/11/2014	2801	2/12/2014	301289	95840	Yes
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42991	[illegible]	1100	2885	2/7/2014	2985	2/11/2014	81588	113005	Yes
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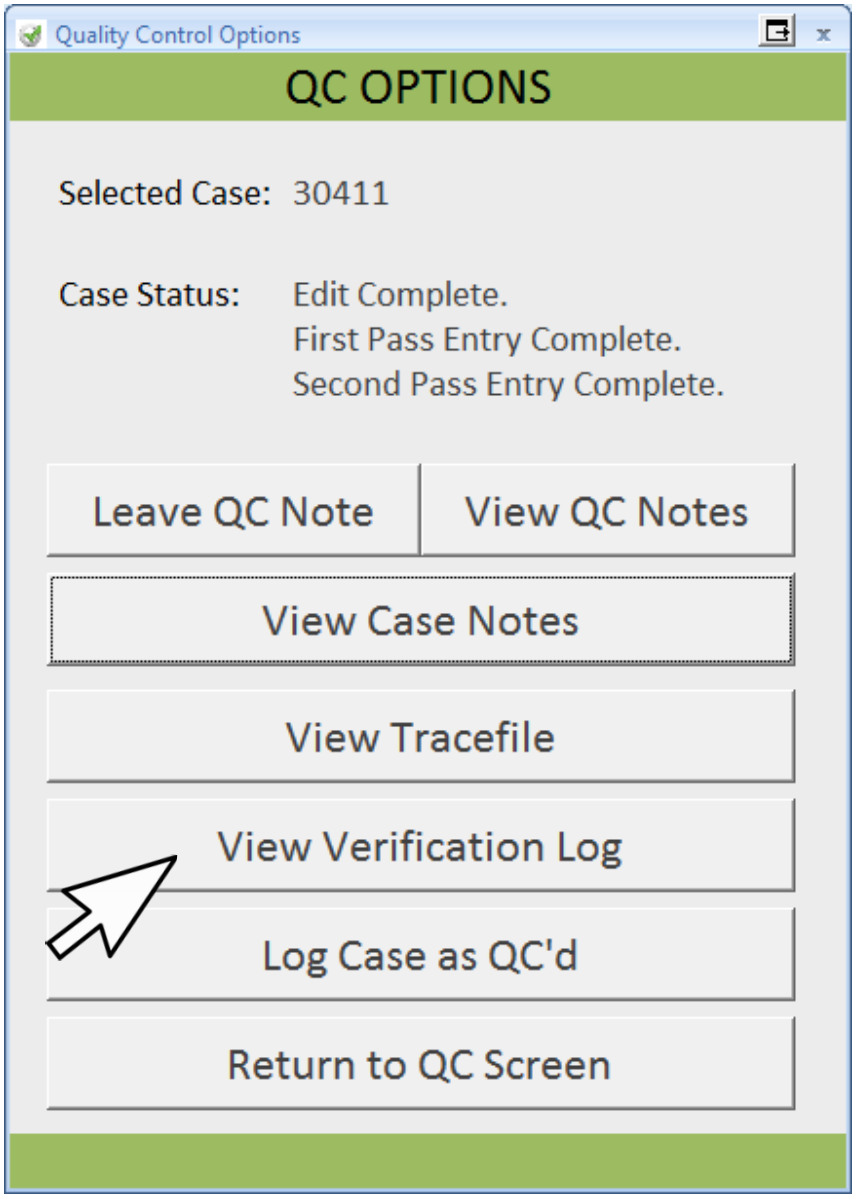
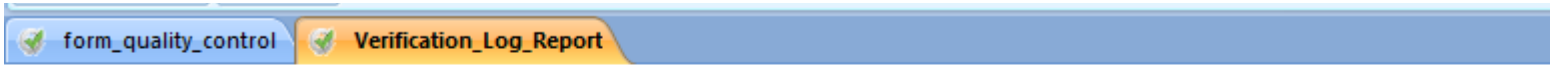
The Quality Control and Verification Database

- QC Options Menu
  - View Verification Log



The Quality Control and Verification Database

- Verification Log



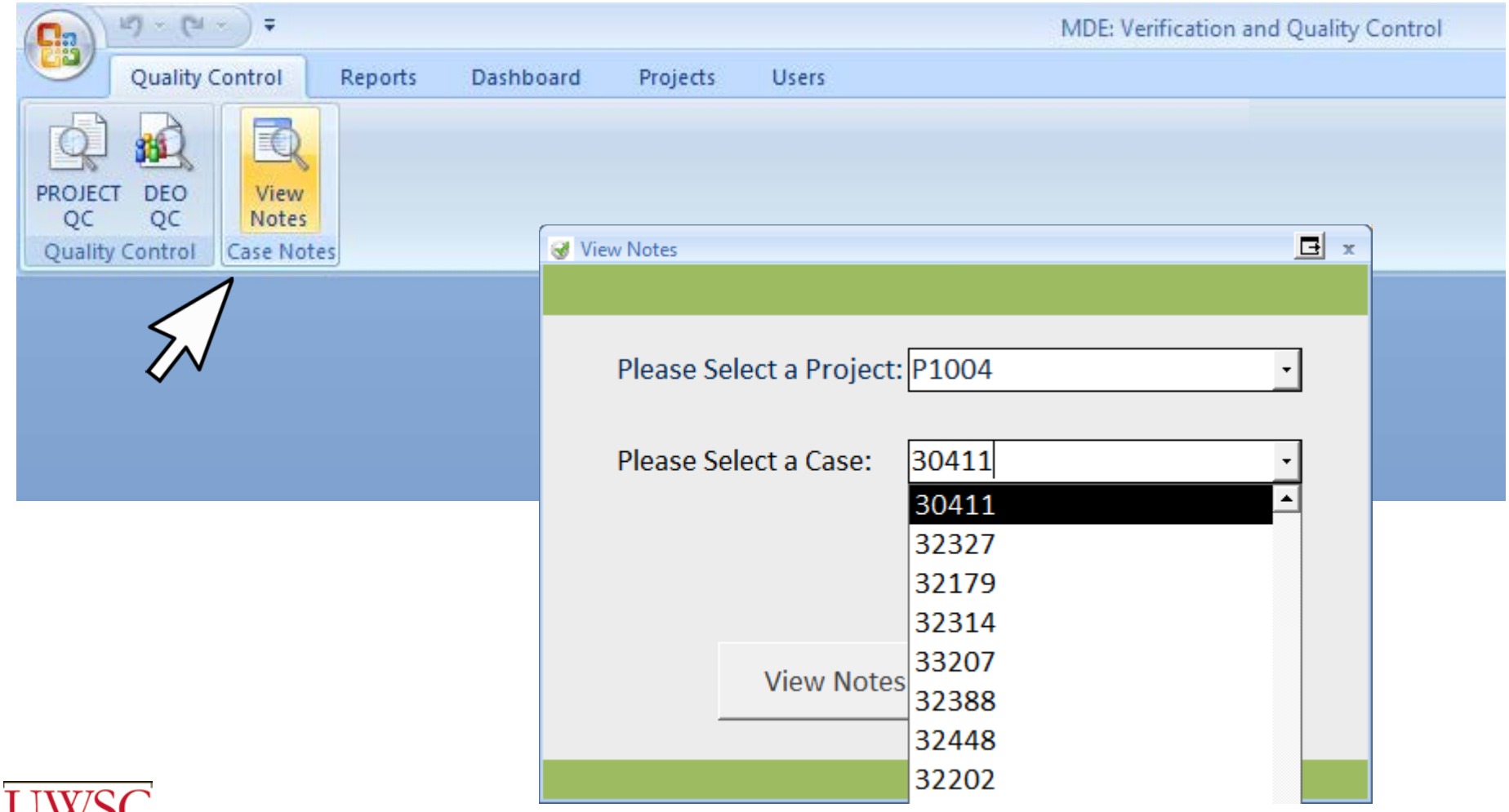
Verification Data Report STUDY: P1004

CASE: 30411

item	EID	EDATE	VID	VDATE	Answer1	Answer2	Change_made
A20@i	2832	2/11/2014	2801	2/12/2014	4	5	yes
A20@j	2832	2/11/2014	2801	2/12/2014	5	4	yes
A20@k	2832	2/11/2014	2801	2/12/2014	4	5	yes
A42	2832	2/11/2014	2801	2/12/2014	0	b	yes
A52@l	2832	2/11/2014	2801	2/12/2014	2	5	yes
A52@m	2832	2/11/2014	2801	2/12/2014	5	2	yes
G45	2832	2/11/2014	2801	2/12/2014	375000	375	yes
H7@d	2832	2/11/2014	2801	2/12/2014	0	6	yes

The Quality Control and Verification Database

- View Notes

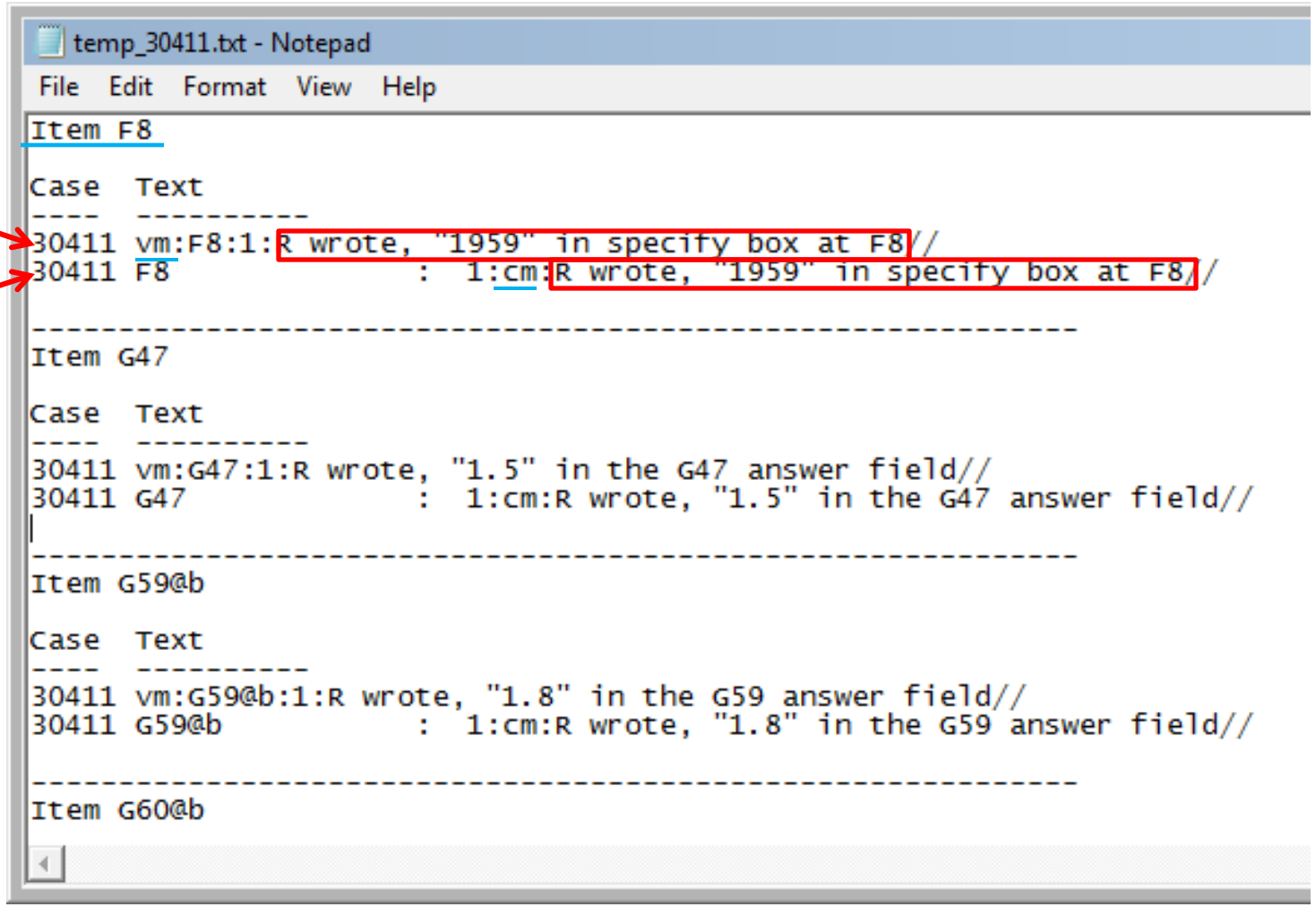


The Quality Control and Verification Database

- View Notes

Line 1

Line 2



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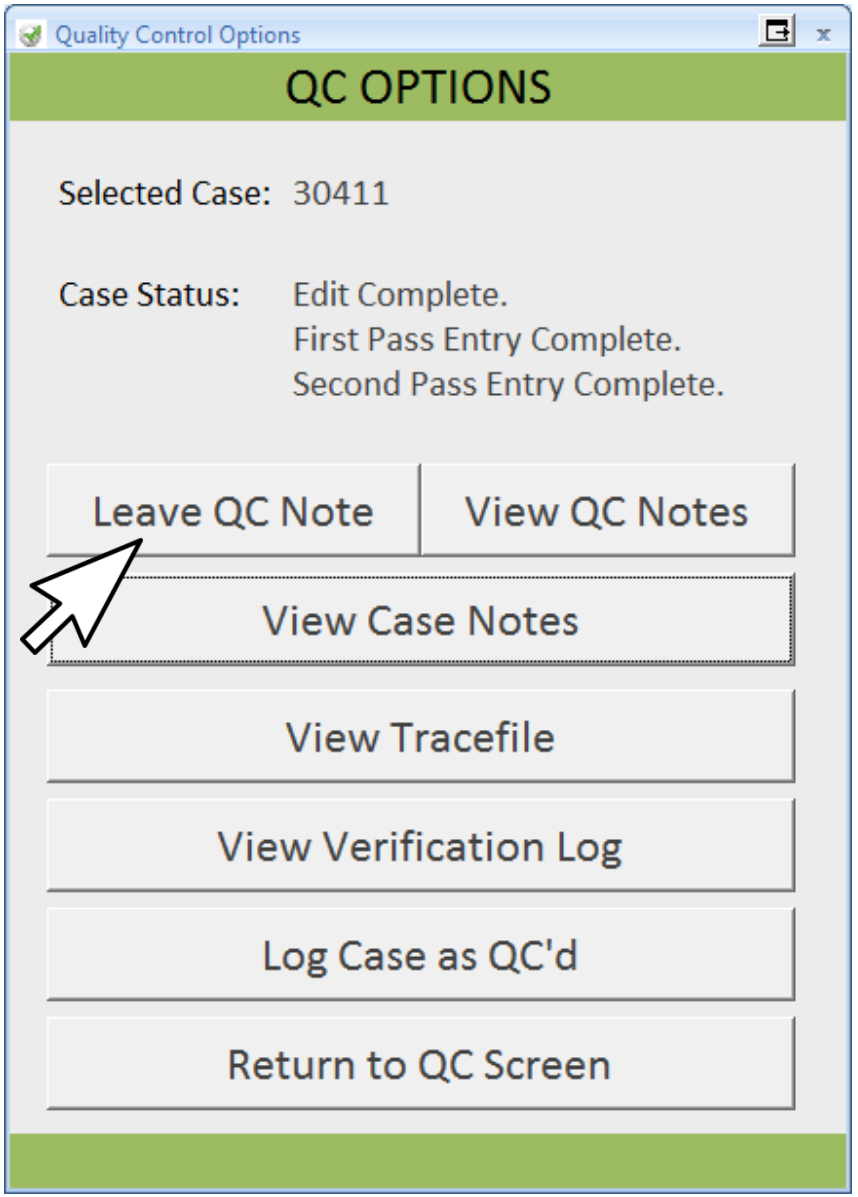
The Quality Control and Verification Database

- QC Options Menu
  - Leave QC Note



The Quality Control and Verification Database

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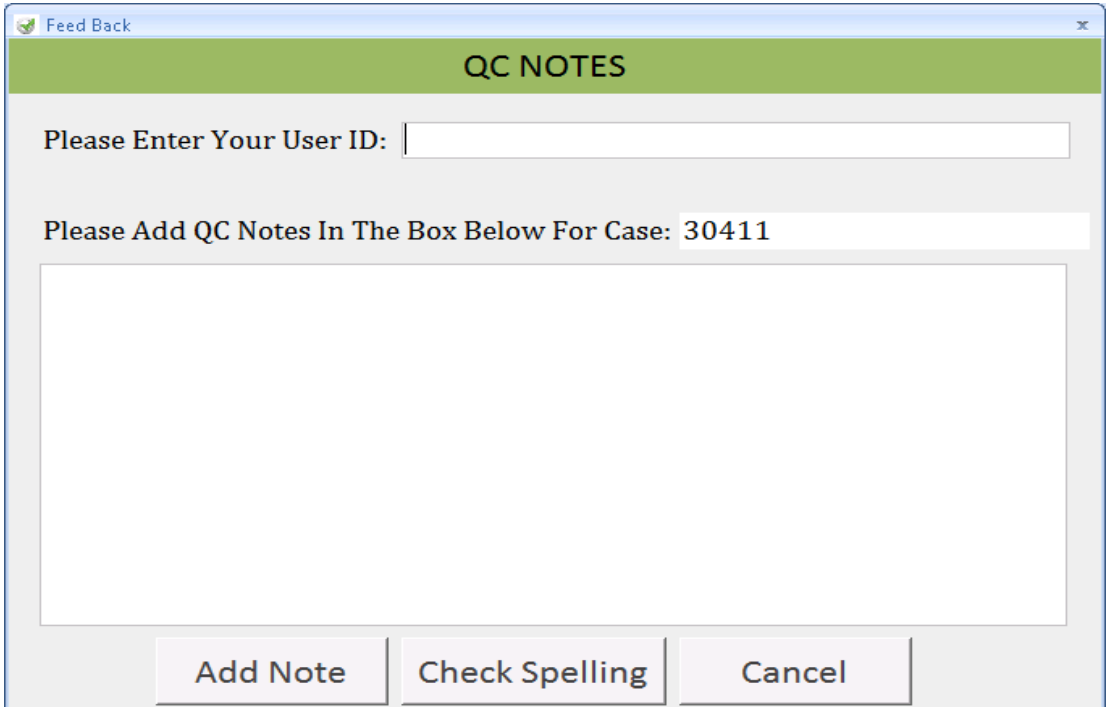

QC NOTES

CASE ID	NOTE	DATE/TIME NOTE WAS LEFT:	NOTE LEFT BY:
30411	SL 2nd pass: Multiple entry errors by 1st pass DEO, most were a result of getting one off on items with many subquestions; also missed one editor error (missed EAC), KEM 2/12/2014	2/12/2014 12:29:02 PM	2801

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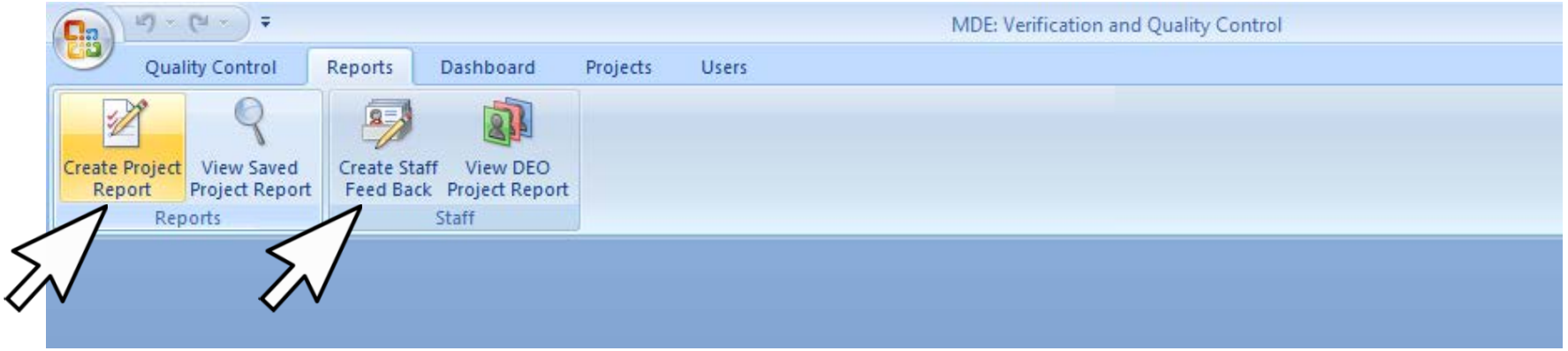
The Quality Control and Verification Database

- The Report Menu
  - Create Project Report
  - Create Staff Feedback Report



The Quality Control and Verification Database

- Project Report

Project Data
Number of DE'd cases: 2211
Number of items in instrument: 1634

Verification Data
Number of cases verified: 1688
Percent of cases verified: 76.35

Average Time per Initial Entry (minutes): 21.89
Average Time per Verification (minutes): 17.35
Total Time per Initial Entry (minutes): 48390.53
Total Time per Verification (minutes): 29279.47
Total Time for Project (hours): 1613.02

Number of errors per case: 1.22
Number of initial entry DEOs: 21
Number of verification DEOs: 23

Initial Entry (First Pass) Data:

INUM	# CASES	TOT TIME	MINUTES/CASE	# VER	% VER	# ERR	# ITEMS	ERR/ITEMS
1110	233	5994.3	25.73	167	71.67	432	1634	0.001583
2072	7	146.59	20.94	7	100	8	1634	0.000699
2470	38	1171.33	30.82	32	84.21	106	1634	0.002027
2543	194	4559.21	23.5	138	71.13	275	1634	0.00122
2569	108	2398.98	22.21	94	87.04	133	1634	0.000866
2606	20	404.89	20.24	14	70	27	1634	0.00118
2655	30	672.95	22.43	29	96.67	35	1634	0.000739
2672	1	32.77	32.77	1	100	2	1634	0.001224
2683	172	2918.54	16.97	139	80.81	76	1634	0.000335
2696	217	4529.43	20.87	152	70.05	249	1634	0.001003
2702	130	3062.18	23.56	111	85.38	212	1634	0.001169
2763	41	950.9	23.19	11	26.83	26	1634	0.001447
2785	198	4305.21	21.74	177	89.39	198	1634	0.000685
2819	58	1593.87	27.48	50	86.21	35	1634	0.000428
2832	82	2899.28	35.36	61	74.39	53	1634	0.000532
2857	91	1885.21	20.72	72	79.12	90	1634	0.000765

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2683	172	2918.54	16.97	139	80.81	76	1634	0.000335
2696	217	4529.43	20.87	152	70.05	249	1634	0.001003
2702	130	3062.18	23.56	111	85.38	212	1634	0.001169
2763	41	950.9	23.19	11	26.83	26	1634	0.001447
2785	198	4305.21	21.74	177	89.39	198	1634	0.000685
2819	58	1593.87	27.48	50	86.21	35	1634	0.000428
2832	82	2899.28	35.36	61	74.39	53	1634	0.000532
2857	91	1885.21	20.72	72	79.12	90	1634	0.000765

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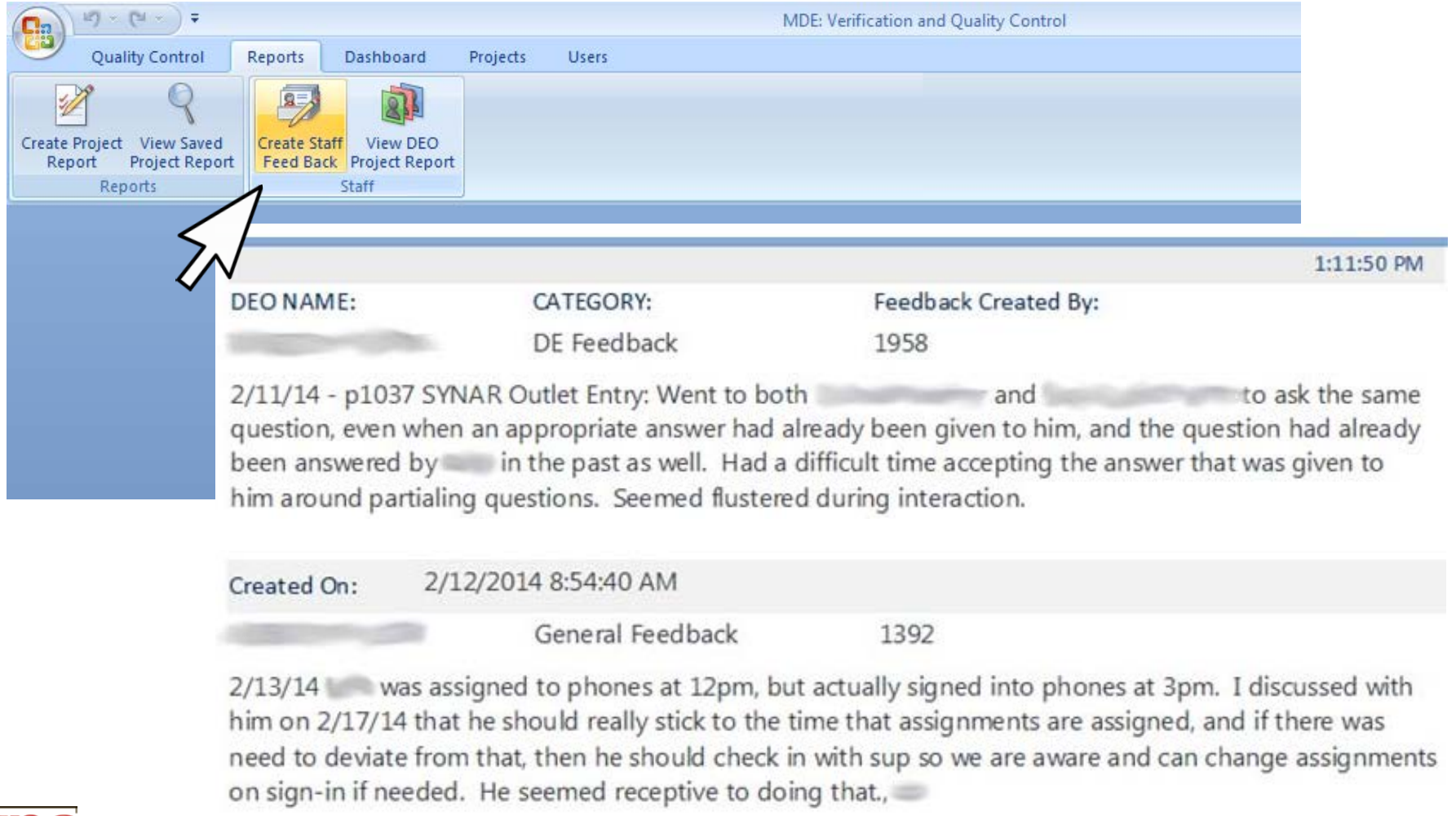
The Quality Control and Verification Database

- Create Staff Feedback



The Quality Control and Verification Database

- Continuing development
  - Additional reporting functions
  - Additional possible uses
  - Interface modifications

- Overall, the implementation of the Quality Control and Verification Database has been instrumental in creating the efficiency and organization we needed and were seeking to quality control data entry projects.

Thank You!

For copies of this presentation or more information, contact:

Carrie Barrett

cbarrett@ssc.wisc.edu

Special thanks to
Daniel Lawrence, UWSC Programmer Developer of the Quality Control and Verification Database

Please visit us at:
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