



# *AAPM Dose Check Education Slides*

Neusoft Medical Systems USA



## *Disclaimer*

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## Disclaimer

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- Screen captures are **examples** of a common (or latest) software version only and all software versions are not represented
- The information contained herein is current as of the date shown on the title slide
- Modification of the content of these slides is **not allowed**.



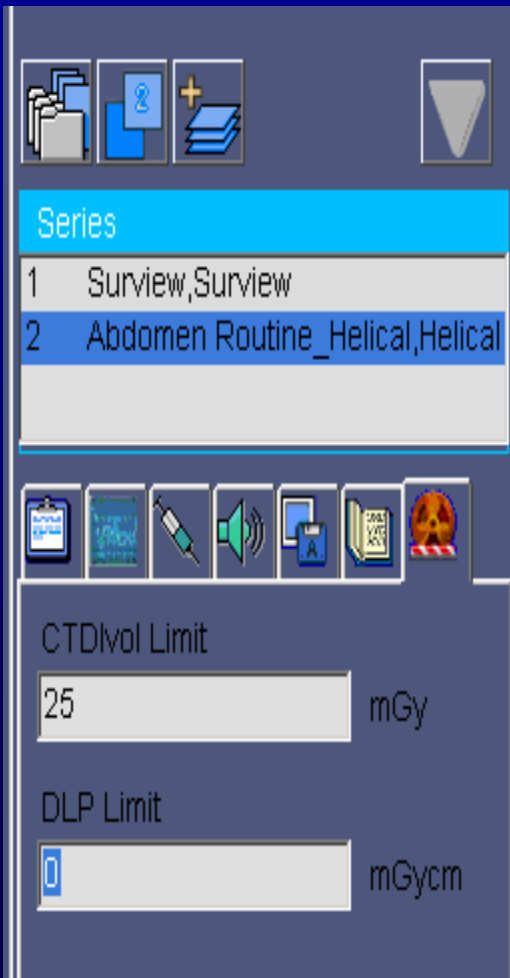
## User Access Controls

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- Access Control for Dose Notifications
- Changes to GLOBAL NOTIFICATION LEVELS can be made in System Settings--> Scan Miscellaneous Settings--> Dose Setting-->Max CTDIvol per series --> Max DLP per series(mGy\*cm)
- Access Control for Dose Alerts
- Changes to GLOBAL ALERT LEVELS can be made in System Settings--> Scan Miscellaneous Settings-->Dose Setting --> Max CTDIvol per study--> Max DLP per study (mGy\*cm)



# Configuring Dose Notifications-NeuViz 16



- Dose Notification Limits are set in Protocol Edit, per protocol.
- CTDIvol per series and DLP per series can be set.
- Note: Only users with Admin privileges can set the Dose Limits



# Configuring Dose Notifications-NeuViz 16

The screenshot shows the 'Procedure' list with 'Abdomen Routine, Helical' selected. Below the list is a toolbar with several icons, including a radiation warning icon highlighted with a red box. The main display area shows dose-related data for 'Head' and 'Body' sections.

Section	Parameter	Value
Head	Accumulated CTDIvol	0.00 mGy
	Accumulated DLP	0.00 mGycm
	Series	
Body	Accumulated CTDIvol	28.81 mGy
	Accumulated DLP	1269.54 mGycm
	CTDIvol	28.74 mGy
	DLP	1266.34 mGycm
	CTDIvol Limit	25.00 mGy
DLP Limit	0.00 mGycm	
Phantom Size		BODY 32cm

## Dose Check Tab

- This section displays all dose related values.
- If a value is red, the operator has exceeded a set limit



# Configuring Dose Notifications NeuViz 64

Dose Setting

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Max CTDIvol per study (mGy)

Max DLP per study (mGy-cm)

Max DLP per series (mGy-cm)

Use the value from setting only

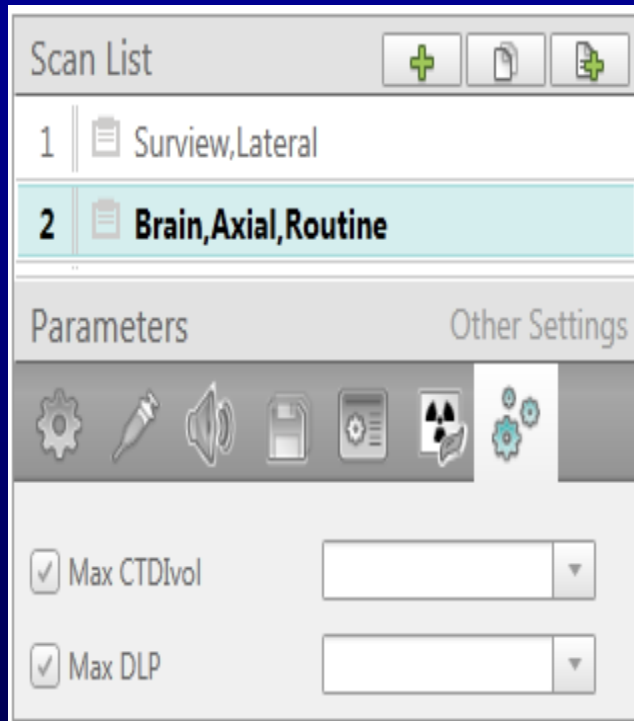
Max CTDIvol per series (mGy)

Use the value from setting only

- After checking “Use the value from setting only”, enter values in Max CTDIvol per series (mGy) and/or Max DLP per series (mGy\*cm)



## Configuring Dose Notifications per Protocol NeuVis 64



### Protocol Settings

After checking Max CTDIvol and/or Max DLP, enter desired values in dropdown.





# Configuring Dose Alerts- NeuViz 16

The screenshot shows the 'System Setting' interface for NeuViz 16. The 'Service' tab is selected in the top navigation bar. On the left, a sidebar menu lists various settings, with 'Dose Check Setting' highlighted. The main content area is divided into three sections: 'Dose Check Setting', 'Password Validation', and 'Dose Limit Setting'. The 'Dose Check Setting' section includes 'General Setting' with 'Perform Dose Check' set to 'On' and 'Password Validation' set to 'On'. The 'Dose Limit Setting' section, highlighted with a red border, contains four input fields: 'Head accumulated CTDIvol limit' (1000 mGy), 'Head accumulated DLP limit' (0 mGycm), 'Body accumulated CTDIvol limit' (1000 mGy), and 'Body accumulated DLP limit' (0 mGycm).

Setting	Value	Unit
Head accumulated CTDIvol limit	1000	mGy
Head accumulated DLP limit	0	mGycm
Body accumulated CTDIvol limit	1000	mGy
Body accumulated DLP limit	0	mGycm

Default Head and Body accumulated CTDIvol 1000mGy



# Configuring Dose Alerts NeuViz 64

Dose Setting

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Max CTDIvol per study (mGy)

Max DLP per study (mGy-cm)

Max DLP per series (mGy-cm)

Use the value from setting only

Max CTDIvol per series (mGy)

Use the value from setting only

## Global Dose Alert

- After checking Max CTDIvol per study (mGy) and/or Max DLP per study (mGy\*cm), enter desired values.



# Acknowledging Notifications-NeuViz 16

**DOSE NOTIFICATION** [X]

Information:

Series 2: Planned CTDI<sub>Vol</sub> is 93.86 mGy which exceeds the recommended limit of 75 mGy

You can continue scanning after fill all the blank fields and click "Proceed" button.

Diagnostic Reason

Radiologist requested more dose.

Proceed      Cancel

Dose Notification Pop-up

Diagnostic Reason may be entered, but it is not mandatory to proceed



# Acknowledging Notifications NeuViz 64

5... | CTDI 103.7 mGy DLP 1452.1 mGy-cm | Images 28

**DOSE NOTIFICATION**

Series	Plan CTDIvc	Maximum C	Plan DLP	Maximum D
2	103.7	N/A	1452.1	1000.0

Dose of the current series exceeds the set maximum dose. Enter a reason (optional) in order to continue to scan, or edit scan parameters within set dose limits.

Optional message may be entered in the text box above. Press Continue to scan or Return to edit scan parameters.



# Acknowledging Dose Alerts-NeuViz 16

**DOSE ALERT**

Information:

Series 2: Accumulated CTDIVol is 28.81 mGy which exceeds the recommended limit of 25 mGy

You can continue scanning after fill all the blank fields and click "Proceed" button.

Username: LR

Diagnostic Reason: MORE DOSE NEEDED FOR DIAGNOSTIC IMAGES

Password: \*\*\*\*\*

Proceed Cancel

- The default username and password location is left with the Admin or 'Super Users' who have Admin privileges. It is up to them to educate the rest of the staff on location of the default username and password.

The system default configuration for Dose Check:

- Dose Check ON
- Password: OFF

In this Dose Alert example, Password is on, so user must fill in Username and Password to continue



# Acknowledging Dose Alerts-NeuViz 16

**DOSE ALERT**

Information:

Series 1: Accumulated CTDIVol is 1031.42 mGy which exceeds the recommended limit of 1000 mGy

You can continue scanning after fill all the blank fields and click "Proceed" button.

Username: \*\*\*\*\*

Diagnostic Reason: NEED MORE IMAGES ABLATION

Proceed Cancel

- The default username and password location is left with the Admin or 'Super Users' who have Admin privileges. It is up to them to educate the rest of the staff on location of the default username and password.

The system default configuration for Dose Check:

- Dose Check ON
- Password: OFF

In this Dose Alert example, Password is off. The user has the option to fill in Username, Diagnostic Reason, then Proceed



# Acknowledging Dose Alerts NeuViz 64

DOSE ALERT (A dose alert value will be exceeded!)

The current study CTDIvol = 80.4 mGy, DLP = 1125.4 mGy-cm, maximum CTDIvol = 200.0 mGy, maximum DLP = 1000.0 mGy-cm. Because the dose has been close to or exceeds the maximum dose, please enter the operator name, password and reasons in order to continue to scan, otherwise re-edit the scanning parameters.

Username:

\* Password: [masked]

\* Operator: TC

Reason

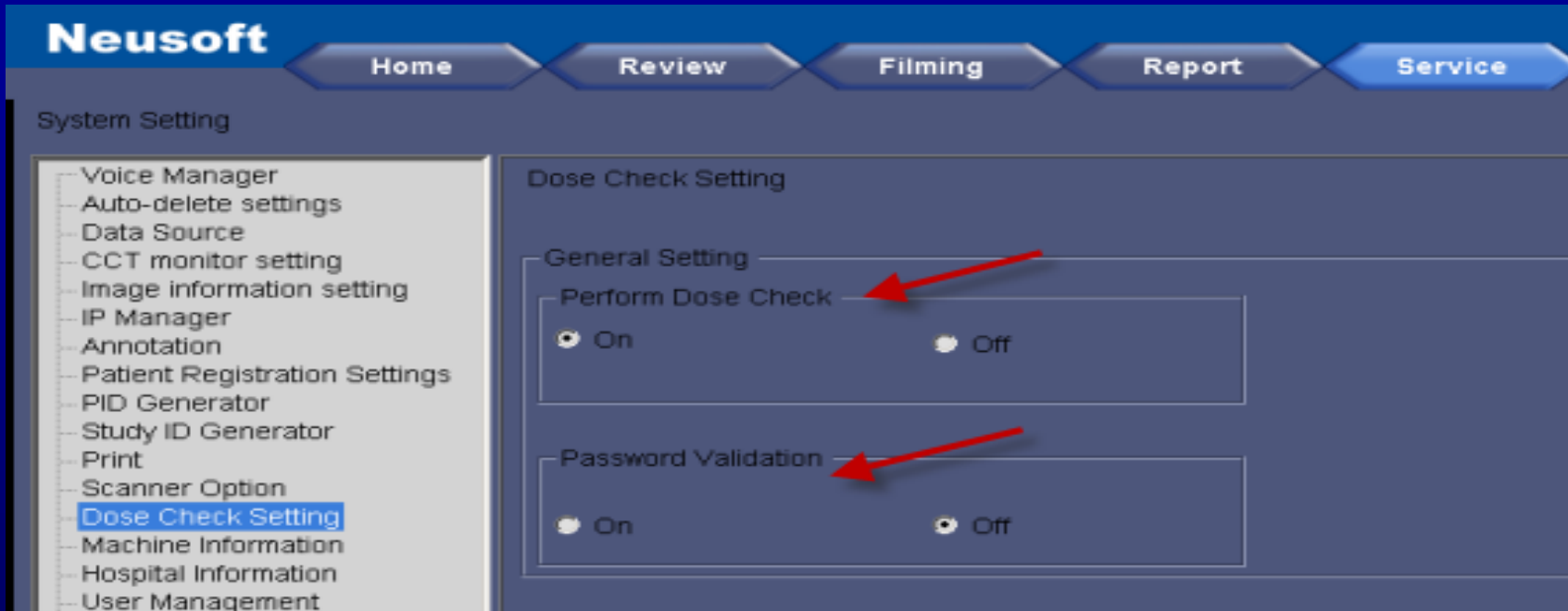
Continue Return

Password Validation

- The system is configured with Password Validation checked ON
- When checked, the operator must enter Password and Operator fields. Reason text field is optional



# Turning off Dose Alert Feature-NeuViz 16



To Turn Dose Check Off (Logged into Admin)

Service—Dose Check Setting—Perform Dose Check

Select Off





# Turning off Dose Alert Feature NeuViz 64

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Dose Setting

Max CTDIvol per study (mGy)  
15

Max DLP per study (mGy-cm)  
1000

Max DLP per series (mGy-cm)  
1000

Use the value from setting only

Max CTDIvol per series (mGy)  
200

Use the value from setting only

- Uncheck all boxes to turn off Dose Alert feature



## Location of Alert/Notification log-NeuViz 16

Neusoft

Home

Review

Filming

Report

Service

Help

Scanning>>

Report Viewer

### DOSE ALERT

Date	8/14/2013
Time	2:08:02 PM
Study ID	000633
Accepted CTDIvol	75.11
Accepted DLP	947.85
CTDIvol Limit	10
DLP Limit	0
Age Group	Adult
mAs	471
KV	120
Phantom Size	HEAD 16

Report Management


Date	Time	Study ID	First Name	Last Name	Type
2013-08-14	2:09:42 PM	000633	NADIA	RUSSELL	Alert
2013-08-14	2:09:55 PM	000633	NADIA	RUSSELL	Notification
2013-09-20	10:58:36 AM	000657	x	x	Notification
2013-09-20	11:09:09 AM	000657	x	x	Notification
2013-09-20	11:10:49 AM	000657	x	x	Notification
2013-09-20	2:14:31 PM	000662	Unknown	could be anyone	Notification
2013-09-30	11:42:58 AM	000669	Unknown	could be anyone	Alert
2013-09-30	11:50:48 AM	000670	Unknown	could be anyone	Notification
2014-03-18	11:47:37 AM	000720	ivory	donaldson	Notification
2014-04-11	1:36:16 PM	000733	Person	Unknown	Notification
2014-04-16	9:42:33 AM	000734	Person	Unknown	Notification
2014-04-29	2:34:01 PM	000750	dd	rus	Notification
2014-04-30	3:48:15 PM	000757	11	11	Alert
2014-04-30	3:10:18 PM	000754	11	11	Notification
2014-04-30	3:16:35 PM	000755	11	11	Notification
2014-05-02	11:12:46 AM	000762	11	11	Alert
2014-05-02	11:07:01 AM	000760	11	11	Notification
2014-05-02	11:08:25 AM	000761	11	11	Notification

To View Dose Check Report:  
Go to:  
Service  
Dose Check Report  
Select Patient  
View Report


Daily

  
 Tube Warm Up


  
 Air Calibration


  
 System Setting


  
 Protocol Edit


  
 Dose Check Report


  
 Virus Scan


  
 QA

  
 Bug Reports

  
 Disk Cleanup

  
 Remote Medicine

  
 Remote Service

  
 Switch User

  
 Function Test

04-14-15 16:06:18

Tube Heat Storage: 6.68%

140 Gb

Exit

Export

Review Dose Setting

Hide Factory Protocols



## Exporting of alert/notification log-NeuViz 16

Report Management

	Date	Time	Study ID	First Name	Last Name	Type
▶	2013-08-14	2:09:42 PM	000633	NADIA	RUSSELL	Alert
	2013-08-14	2:09:55 PM	000633	NADIA	RUSSELL	Notification
	2013-09-20	10:58:36 AM	000657	x	x	Notification
	2013-09-20	11:09:09 AM	000657	x	x	Notification
	2013-09-20	11:10:49 AM	000657	x	x	Notification
	2013-09-20	2:14:31 PM	000662	Unknown	could be anyone	Notification
	2013-09-30	11:42:58 AM	000669	Unknown	could be anyone	Alert
	2013-09-30	11:50:48 AM	000670	Unknown	could be anyone	Notification
	2014-03-18	11:47:37 AM	000720	ivory	donaldson	Notification
	2014-04-11	1:36:16 PM	000733	Person	Unknown	Notification
	2014-04-16	9:42:33 AM	000734	Person	Unknown	Notification
	2014-04-29	2:34:01 PM	000750	dd	rus	Notification
	2014-04-30	3:48:15 PM	000757	11	11	Alert
	2014-04-30	3:10:18 PM	000754	11	11	Notification
	2014-04-30	3:16:35 PM	000755	11	11	Notification
	2014-05-02	11:12:46 AM	000762	11	11	Alert
	2014-05-02	11:07:01 AM	000760	11	11	Notification
	2014-05-02	11:08:25 AM	000761	11	11	Notification

Exit      **Export**

**To Export Dose Check Report:**  
Go to:  
Dose Check Report  
Select Patients to Export  
Select Export  
Export to CD/DVD or Removable Disk.  
Select OK  
The Dose Check Report is an HTML file.

**Export** [X]

Export to:

Removable Disk    H:\    Refresh

CD/DVD Disc        F:\    Refresh

OK    Cancel



# Location of alert/notification log NeuViz 64

## Dose Check Log

ID	Patient ID	Time	Type	Operator	Scan Time	Real CTDIvol(mGy)	Max CTDIvol Thresh
1	P-201504150325	2015-04-15 13:43:08	Notification		2015-04-15 13:43:07	98.7	200.0
2	P-201504150325	2015-04-15 13:46:50	Alert	tc		98.7	200.0
3	P-201504150325	2015-04-15 13:49:42	Notification		2015-04-15 13:49:41	93.0	200.0
4	P-201504150325	2015-04-15 13:49:43	Alert	tc		93.0	200.0

To view Dose Check Log, go to Service -->System Setting-->  
Dose Check Log