

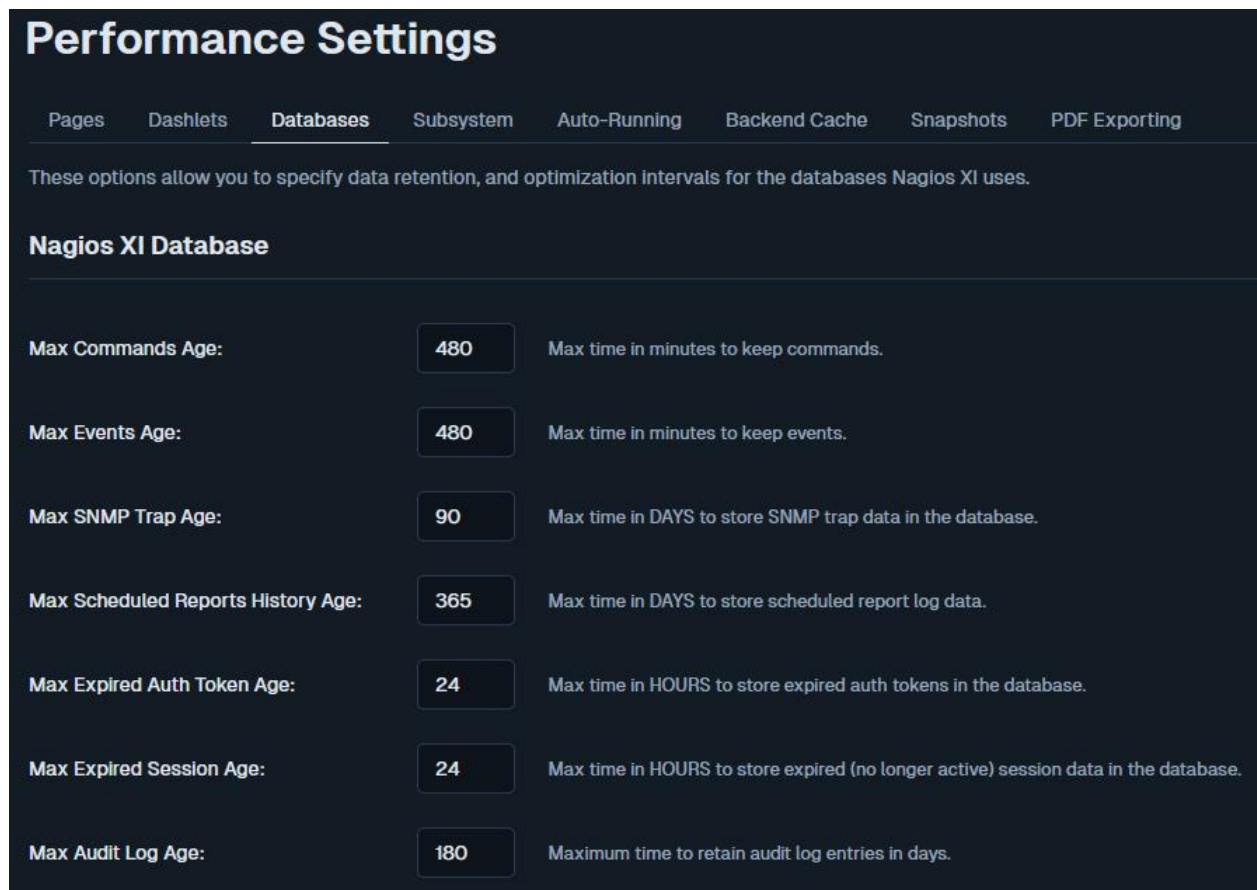
# How To Optimize the Nagios XI Database

## Purpose

This document describes how to configure optimal database settings for Nagios XI to help increase performance. Nagios XI stores current and historical information in various databases to facilitate reports and provide users with instant information on monitored elements. Over time the Nagios XI database tables may grow to excessive size, resulting in poor performance and high disk space and disk I/O utilization. This document is intended for use by Nagios XI Administrators looking to optimize their installation for increased monitoring performance.

## Accessing Performance Settings

You configure database performance settings by navigating to **Admin > System Config > Performance Settings > Databases** tab.



The screenshot shows the 'Performance Settings' interface with the 'Databases' tab selected. Below the navigation tabs, a note states: 'These options allow you to specify data retention, and optimization intervals for the databases Nagios XI uses.' The 'Nagios XI Database' section contains the following settings:

Setting	Value	Description
Max Commands Age:	480	Max time in minutes to keep commands.
Max Events Age:	480	Max time in minutes to keep events.
Max SNMP Trap Age:	90	Max time in DAYS to store SNMP trap data in the database.
Max Scheduled Reports History Age:	365	Max time in DAYS to store scheduled report log data.
Max Expired Auth Token Age:	24	Max time in HOURS to store expired auth tokens in the database.
Max Expired Session Age:	24	Max time in HOURS to store expired (no longer active) session data in the database.
Max Audit Log Age:	180	Maximum time to retain audit log entries in days.

Several options are available for tuning database performance settings.

# How To Optimize the Nagios XI Database

## Nagios XI Database Settings

The Nagios XI database is where the Nagios XI applications settings are stored.

- **Max Commands Age** and **Max Events Age** both decide how long Nagios XI will retain processed subsystem commands and events for review.
- **Max SNMP Trap Age** is how long Nagios XI will store SNMP trap data.
- **Max Expired Auth Token Age** is how long Nagios XI will store expired auth tokens.
- **Max Expired Session Age** is how long Nagios XI will store expired session data.
- **Max Audit Log Age** is the number of days that audit log entries will be kept.

The Optimize Interval determines how often the database optimization script is run.

## NDOUtils Database Settings

The NDOUtils database is used to store current and historical monitoring information. Depending on how many objects are being monitored by your Nagios XI server will affect how large this database can grow too.

The NDOUtils database can have the most effect on the overall performance of your Nagios XI server, hence adjusting these options can improve the overall performance of your Nagios XI server.

# How To Optimize the Nagios XI Database

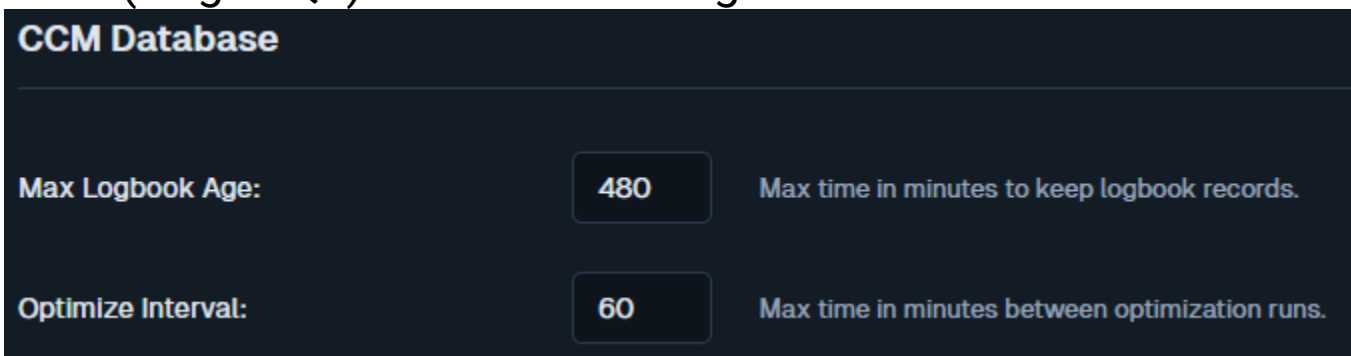
Recommended values for various NDOUtils database settings are provided in the table below.

NDO Database		
Max External Commands Age:	7	Max time in DAYS to keep external commands.
Max Log Entries Age:	90	Max time in DAYS to keep log entries.
Max Notifications Age:	90	Max time in DAYS to keep notifications.
Max State History Age:	730	Max time in DAYS to keep state history information.
Max Timed Events Age:	5	Max time in minutes to keep timed events.
Max System Commands Age:	5	Max time in minutes to keep system commands.
Max Service Checks Age:	5	Max time in minutes to keep service checks.
Max Host Checks Age:	5	Max time in minutes to keep host checks.
Max Event Handlers Age:	5	Max time in minutes to keep event handlers.
Max Comment History Age:	730	Max time in DAYS to keep comment history.

# How To Optimize the Nagios XI Database

Option	Recommended Setting	Description
Max External Commands Age	7	Retains last 7 days of external commands
Max Log Entries Age	90	Retains last 90 days of log entries
Max Notifications Age	90	Retains last 90 days of notifications
Max State History Age	730	Retains last 2 years of state history
Max Timed Events Age	5	Retains last 5 minutes of timed events
Max System Commands Age	5	Retains last 5 minutes of system commands
Max Service Checks Age	5	Retains last 5 minutes of service checks
Max Host Checks Age	5	Retains last 5 minutes of host checks
Max Event Handlers Age	5	Retains last 5 minutes of event handlers
Optimize Interval	60	Optimizes the database every 60 minutes

## CCM (NagiosQL) Database Settings



The screenshot shows the 'CCM Database' settings interface. It features two configuration rows. The first row is for 'Max Logbook Age', with a value of 480 and a description: 'Max time in minutes to keep logbook records.' The second row is for 'Optimize Interval', with a value of 60 and a description: 'Max time in minutes between optimization runs.'

The NagiosQL database is where **Core Configuration Manager** stores the Nagios XI object configurations.

# How To Optimize the Nagios XI Database

The available settings are as follows:

- Max Logbook Age – How long to retain logbook records for the audit log
- Optimize Interval – Similar to the other databases, specifies how often to run the optimization script

The defaults of 480 minutes and 60 minutes respectively are likely sufficient for most environments.

## Database Repair

If you experience high load on your Nagios XI server and the MySQL process (mysqld) appears to be consuming large amounts of CPU, your Nagios XI database may require repair.

Instructions on repairing the Nagios XI MySQL database can be found in the following documentation:

[Repairing the Nagios XI Database](#)

## Finishing Up

This completes the documentation on how to optimize the Nagios XI Database. If you have additional questions or other support-related questions, please visit us at our Nagios Support Forum, Nagios Knowledge Base, or Nagios Library:

[Visit Nagios Support Forum](#)

[Visit Nagios Knowledge Base](#)

[Visit Nagios Library](#)