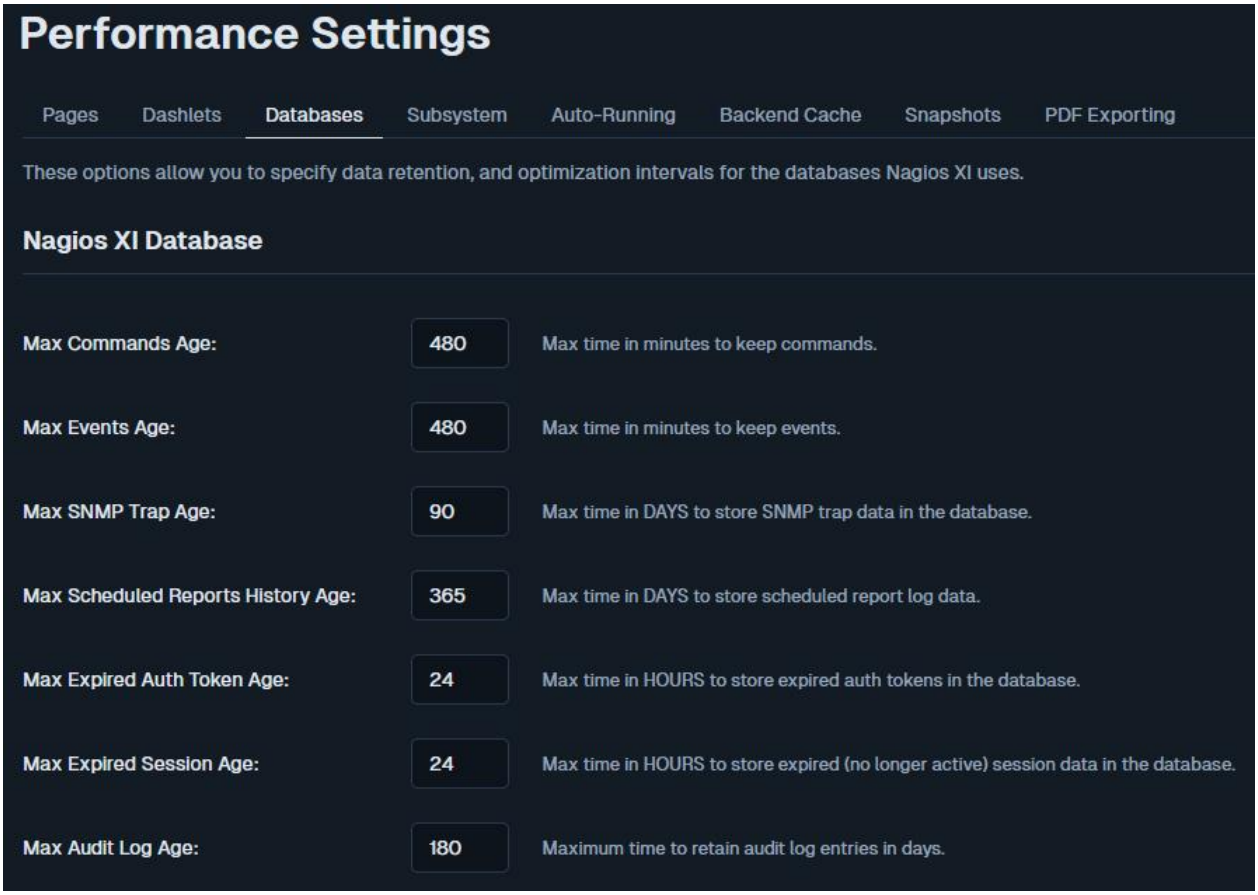
How To Optimize the Nagios XI Database

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.**



Several options are available for tuning database performance settings.

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.

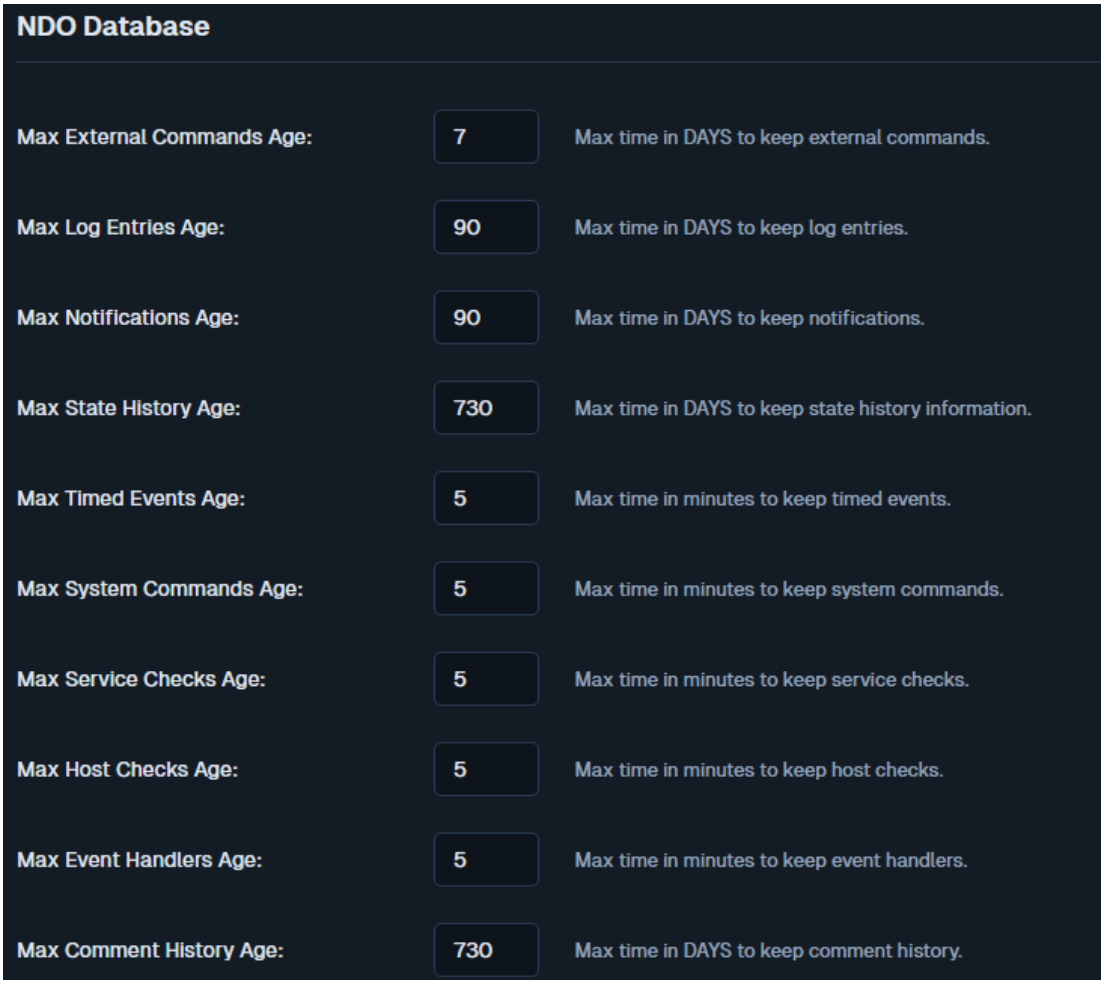
NDOUtils Database Settings

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.

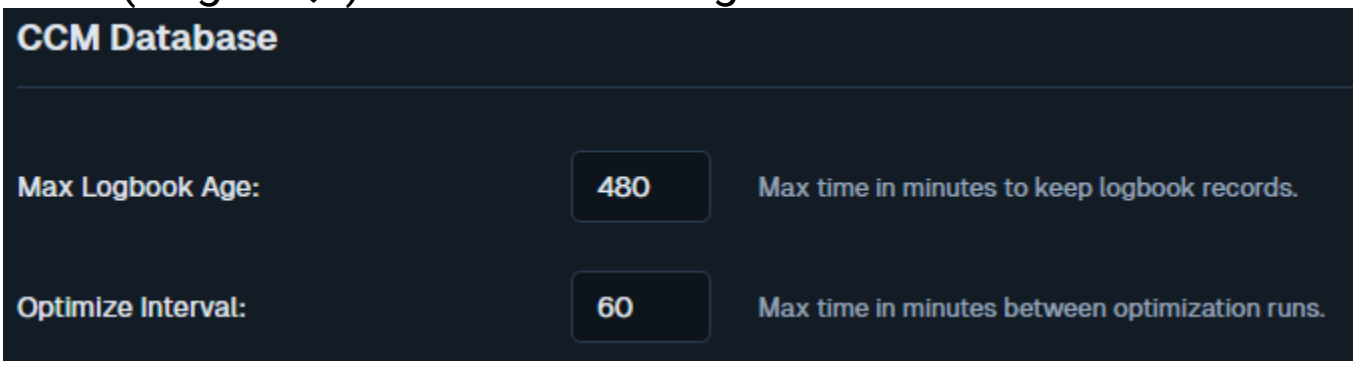
How To Optimize the Nagios XI Database

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



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

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