



Log levels

Fatal	Error	Warn	Info	Debug	Trace
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Logging messages

```
Logger log = LogManager.GetCurrentClassLogger();

// Log levels logging
log.Trace("This is a trace message");
log.Debug("This is a debug message");
log.Info("This is an info message");
log.Warn("This is a warning message");
log.Error("This is an error message");
log.Fatal("This is a fatal message");

// Logging exceptions
log.Error(new Exception(), "This is an error message");

// Logging with LogEventInfo
var msg = new LogEventInfo(LogLevel.Info, "", "This is a message");
msg.Properties.Add("User", "John");
log.Info(msg);

// Structured logging
log.Info("This is a message from {user}", "Mia");

// Logging fluently
log
    .Info()
    .Message("This is a message")
    .Property("User", "Donna")
    .Write();
```

Contexts

```
GlobalDiagnosticsContext.Set("Application", "My cool app");
MappedDiagnosticsLogicalContext.Set("User", "some@user.com");
NestedDiagnosticsLogicalContext.Push("Something");
NestedDiagnosticsLocicalContext.Pop();
using (NestedDiagnosticsLogicalContext.Push("Something"))
{
    // ...
}
```

Layouts

```
$(longdate)
$(level:uppercase=true)
$(logger)
$(message)
$(stacktrace)
$(gdc:item=Application)
$(mdlc:item=User)
$(ndlc:topFrames=3)
$(aspnet-request-url)
$(aspnet-request-contenttype)
$(aspnet-response-statuscode)
```

Configuration

```
<?xml version="1.0" encoding="utf-8" ?>
<nlog
  xmlns="http://www.nlog-project.org/schemas/NLog.xsd"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

  <targets>
    <target
      xsi:type="Console"
      name="console"
      layout="$(longdate)|$(level:uppercase=true)|$(logger)|$(message)"
    />
    <target xsi:type="Database"
      name="database"
      dbProvider="System.Data.SqlClient"
      connectionString="data source=.;Initial Catalog=nlog;Integrated
Security=True;"
      commandText="INSERT INTO [logs](datetime,message,lvl) VALUES
(getutcdatetime(),@msg,@level)">
      <parameter name="@msg" layout="$(message)" />
      <parameter name="@level" layout="$(level)" />
    </target>
  </targets>
  <rules>
    <logger name="*" minlevel="Debug" writeTo="console" />
    <logger name="*" minlevel="Trace" writeTo="database" />
  </rules>
</nlog>
```

```
using NLog;
using NLog.Config;
using NLog.Targets;

...

var config = new LoggingConfiguration();
var consoleTarget = new ConsoleTarget
{
    Name = "console",
    Layout = "$(longdate)|$(level:uppercase=true)|$(logger)|$(message)",
};
var sqlServerTarget = new DatabaseTarget
{
    Name = "database",
    DBProvider = "System.Data.SqlClient",
    ConnectionString = "data source=.;Initial Catalog=nlog;Integrated
Security=True;",
    CommandText = "INSERT INTO [logs](datetime,message,lvl) VALUES
(getutcdatetime(),@msg,@level)",
};
sqlServerTarget.Parameters.Add(new DatabaseParameterInfo("@msg",
"$(message)"));
sqlServerTarget.Parameters.Add(new DatabaseParameterInfo("@level",
"$(level)"));

config.AddRule(LogLevel.Debug, LogLevel.Fatal, consoleTarget, "*");
config.AddRule(LogLevel.Trace, LogLevel.Fatal, sqlServerTarget, "*");
LogManager.Configuration = config;
```