

ASX 04 (Code 5094)

Data Acquisition API

Interface for interactive control of Recorder of ArtemiS SUITE from customer-specific software solutions

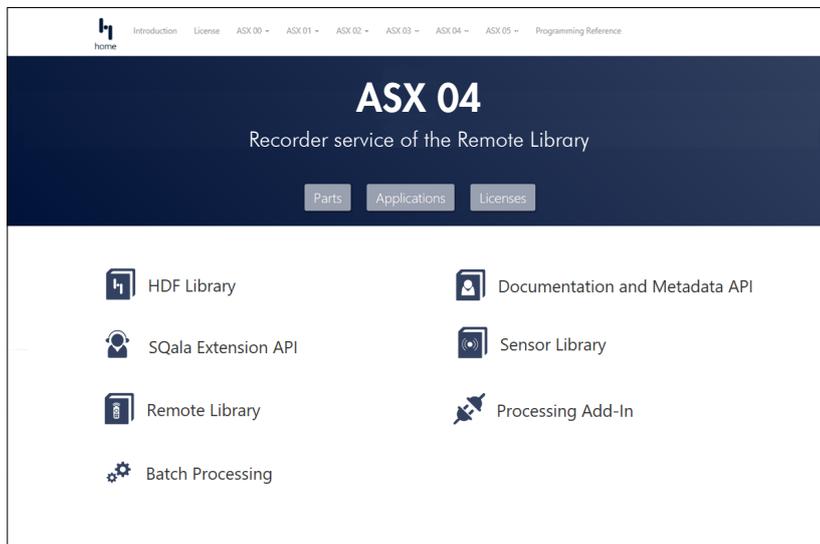
Übersicht

The ASX 04 interface allows users to control various functions of Recorder of ArtemiS SUITE.

For easy access to Recorder, users are able to program their own user interface, for example. This allows the Recorder to be seamlessly integrated into a user's own software solution, e.g. to perform mobile tasks, test bench measurements, etc.

The options provided from the interface include starting ArtemiS SUITE and Recorder, selecting and connecting a frontend, as well as starting and stopping recordings. This also includes Recorder configurations, that can be loaded partially or completely, so that an individual Recorder environment is available on restart.

Using the detailed documentation provided by the API, programming of own applications is easy. In addition, clear programming examples are available to help users creating their own applications quickly and securely.



Features

HEADacoustics.API.Remote.Recorder

- Interactive control of Recorder of ArtemiS SUITE from customer-specific software solutions
- Programming platform
 - .Net
 - Python (examples in preparation)
 - MATLAB® (examples in preparation)
- Currently, remote control is only available if Recorder of ArtemiS SUITE and the remote software using ASX 04 are executed on the same PC.
- Specifying file name and storage directory
- Storing Recorder settings
- Loading Recorder settings partially or completely
- Setting, editing, or deleting start and stop triggers
 - The use of different trigger variants is possible
- Starting and stopping monitoring / playback

Future-proof

ASX will be extended with more interfaces from HEAD acoustics in future releases.

The interfaces are based on state-of-the-art technologies and offer reliability, investment protection, compatibility, and stability for all users - also in future versions.

Functions

- Starting ArtemiS SUITE
 - No ASX 02 (Data Processing and Representation API) licence is required to start ArtemiS SUITE.
- Starting Recorder of ArtemiS SUITE
- Selecting and connecting a frontend
 - Users select and connect the required frontend from a list of available frontends
- Starting and stopping recordings / measurements

Scope of Supply

- License file:
ASX 04 (Code 5094)
Data Acquisition API

Requirements and recommendations

- ASX 04
 - Required
 - ASM 04 (Code 5004)
ArtemiS SUITE Recorder Module
Rekorder von ArtemiS SUITE
 - ASM 00 (Code 5000)
ArtemiS SUITE Basic Framework

- Recommended

- ASX 00 (Code 5090)
System Integration and
Extension Guidelines

With ASX 00, users are provided with comprehensive documentation including a number of practical application examples and programming references for all ASX interfaces.

The documentation is enhanced with programming examples that clearly explain how the interfaces can be used.

- ASX 02 (Code 5092)
Data Processing and
Representation API
Interface for interactive control of ArtemiS SUITE and ArtemiProc.exe from customer-specific software solutions.

Examples

• Programming example: Starting and stopping a recording.

```
using System.Threading;
using HEADacoustics.API.Remote;
using HEADacoustics.API.License;
using License = HEADacoustics.API.License.License;

namespace Examples
{
    internal static class StartAndStopRecorderExample
    {
        public static void Main(string[] args)
        {
            using (License.Create(ProductCode.ASX_04_DataAcquisitionAPI))
            {
                var remoteClient = ArtemiSuiteRemote.ForLatestApplication();
                if (!remoteClient.Application.IsAvailable)
                    remoteClient.Application.Start().Wait();

                var recorder = remoteClient.Application.Recorder;
                recorder.GetControlService().SetFileNamePattern("My_first_Record_01.hdf");
                recorder.GetControlService().StartRecord();
                Thread.Sleep(3000);
                recorder.GetControlService().StopRecord();
            }
        }
    }
}
```

• Programming example: Activating a start and a stop trigger and changing the start trigger condition

```
using System.Threading;
using System.Windows;
using HEADacoustics.API.License;
using HEADacoustics.API.Remote;
using HEADacoustics.API.Remote.Recorder;
using License = HEADacoustics.API.License.License;

namespace Examples
{
    internal static class TriggerExample
    {
        public static void Main(string[] args)
        {
            using (License.Create(ProductCode.ASX_04_DataAcquisitionAPI))
            {
                var remoteClient = ArtemiSuiteRemote.ForLatestApplication();
                if (!remoteClient.Application.IsAvailable)
                    remoteClient.Application.Start().Wait();

                var recorder = remoteClient.Application.Recorder;
                recorder.GetTriggerService().SetStartSignalTrigger(
                    0, SlopeType.Rising, "axis1", 1);
                recorder.GetControlService().SetFileNamePattern("Rising_Slope_Axis1_01.hdf");
                recorder.GetTriggerService().SetStopDurationTrigger(0, 10);
                recorder.GetControlService().StartRecord();
                while (!recorder.GetControlService().GetIsRecordingEnabled())
                { }
                recorder.GetTriggerService().SetStartSignalTrigger(
                    0, SlopeType.Falling, "axis1", 4);
                recorder.GetControlService().SetFileNamePattern("Falling_Slope_Axis1_01.hdf");
                recorder.GetControlService().StartRecord();
            }
        }
    }
}
```

System Requirements

- Windows 10 x64 (Pro, Enterprise, Education; version: 1809 or later; languages: US/Western European)
- .NET Framework 4.8 (in order to use the libraries)
- HASP Dongle driver (in order to use the libraries)
- Internet Explorer 11

In order to install software and drivers from HEAD acoustics, administrator rights are required. To operate the software, only standard user rights are needed.

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