



## **VersaLex API Guide**

**Version 5.5**



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### **Cleo**

4949 Harrison Avenue, Suite 200  
Rockford, IL 61108 USA  
Phone: +1.815.654.8110  
Fax: +1.815.654.8294  
Email: [sales@cleo.com](mailto:sales@cleo.com)  
[www.cleo.com](http://www.cleo.com)

**Support:** 1.815.282.7894, 1.866.444.2536 (US only), 02038653439 (UK), or [support@cleo.com](mailto:support@cleo.com)

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## Chapter

## 1

## VersaLex API modes

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Visit [Javadoc](#) for information about each available Java class and interface.

### Client

API application process attaches to VersaLex server process over RMI; must have access to LexiCom/VLTrader/Harmony install directory. Use `LexiComFactory.getVersaLex(..., LexiComFactory.CLIENT_ONLY)` to vend.

### Server

VersaLex server runs inside of API application process. Use `LexiComFactory.getVersaLex(..., LexiComFactory.SERVER_ONLY)` to vend.

### Embedded

Available with the Cleo Harmony and Cleo VLTrader applications only.

- API implementation runs inside of the Cleo Harmony or Cleo VLTrader server process. Use `LexiComFactory.getCurrentInstance()` to vend. Copy the .jar file to `lib/api` and activate the class using one of the custom class properties in the Other Properties page in the Cleo Harmony, Cleo VLTrader and Cleo LexiCom applications.
- You can write URI schemes to access payload outside of the standard file system or database payload.
- The JavaScript option via the `SCRIPT` command also offers access to the VersaLex API using the `ISessionScript` interface.

Available with the Cleo Harmony application only.

- In addition to the `SCRIPT` command within actions, actions themselves can be fully JavaScript, either as host/mailbox actions or as standalone actions. And unlike host/mailbox actions, standalone actions can access other host/mailboxes and their events and payload.

## Possibilities

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### Trading partner configuration

Configure trading partner relationship, including certificate generation, export/import, and schedule. Associate external trading partner IDs.

- *ILexiCom*.{activateHost(), setProperty(), addID(), create(), clone(), save()}
- *ICertManagerRunTime*
- *CertificateInfo*
- *ISchedule*

### Sending/receiving files/streams

Through trading partner mailboxes/actions using:

- Higher-level
  - *IMailboxController* – uses default mailbox <send> and <receive> actions and their commands to send and receive via temporary actions (which allows concurrency). VersaLex router, DB payload, integration web service, and resend features make use of IMailboxController.
  - *ActionController* – execute action commands (*LexCommand*) one-by-one. May or may not be a temporary action.
  - *IListenerController* – for reacting to and influencing receives only.
- Lower-level
  - *LexiComOutgoing* – outgoing file or stream wrapper
  - *ILexiComIncoming* – incoming file or stream interface
  - *ILexiComMultipartIncoming* – incoming multipart message file or stream interface
  - *LexURIFile* – Customer-written or Cleo-provided URI scheme(s) used to access payload. URI schemes may be used for the host Inbox and Outbox and as the source or destination of action commands.

### System log listener

*LexiComLogListener* – watch all system XML log events to process newly received files (similar to ExecuteOnSuccessfulReceive advanced property), to send an alert on failure (similar to EmailOnFail advanced property), to monitor traffic...

### System options

*Options* – default in/out directories, database connection parameters, branding, misc. properties...

### High-availability synchronization status

*ISyncer*, *Sync* – for checking if this VersaLex is currently active or passive and, if active, whether it is the master VersaLex.

### Recovering from server restart

*ILexiCom*.noop() – for detecting if VersaLex server has been restarted.

### Licensing and registration

*ILicense*, *ILicenser*, *SystemInfo*, *RegistrationInfo* – for automating registration and licensing so not necessary by operator.

### EDI parser

*EDI*, *EDIFilterInputStream*, *EDISegment*, *EDIElement* – parses X12, EDIFACT, TRADACOMS.

### Utility functions

*LexUtil* – send email (non-payload), db connection pool, get debug writer.

## Java API Examples

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This section contains examples from `src/examples/`.

### Configure trading partner mailboxes

```
ConfigureAS2HostMailbox.java
```

```
ConfigureFTPHostMailbox.java
```

```
ConfigureOFTPHostMailbox.java
```

### Configure AS2 service

```
ConfigureAS2Listener.java
```

### Configure trading partner mailbox and then send files via IMailboxController

```
CreateAndUseFTPHost.java
```

```
CreateAndUseSSHFTPHost.java
```

### IActionController example

```
ActionController.java
```

### Embedded incoming classes

```
EmbeddedILexiComIncoming.java
```

```
EmbeddedFilterOutputStream.java
```

### Embedded outgoing class

```
EmbeddedLexiComOutgoingThread.java
```

### Example log listeners

```
EmbeddedLexiComLogListener.java
```

```
ServerOrClientLogListener.java
```

### Example showing VersaLex as a streaming integration proxy

```
EmbeddedSMGILexiComIncoming.java
```

### For client mode, demonstrates how to test for VersaLex restart and reconnect

```
TestAPI.java
```

### Automated product registration and licensing example

```
RegisterProduct.java
```

```
AcquirePermanentLicense.java
```

```
UnregisterProduct.java
```



## Standalone JavaScript action examples

---



**Note:** For both the incoming file filter and log listener, the expectation is that the incoming and log functions return in a timely fashion.

### Incoming File Filter Template

```
importPackage(com.cleo.lexicom.external);
incomingfilter();
/*
 * Filter in-scope incoming files
 */
function incomingfilter() {
    ISessionScript.getIncomingFilters().add(new LexiComIncomingFilter() {
        incoming: function(mailbox, file, map) {
            // do some prep work for the incoming file and/or return an output
            stream to be used
            return null;
        }
    });
}
```

### Log Listener Template

```
importPackage(com.cleo.lexicom.external);
loglistener();
/*
 * Listen for in-scope log events
 */
function loglistener() {
    ISessionScript.getLogListeners().add(new LexiComLogListener() {
        log: function(event) {
            // do something with the log event
        }
    });
}
```