

# ***Cleo* VersaLex<sup>®</sup>**

## **VersaLex API Guide**

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## 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

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**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
        }
    });
}
```

