

# Preparing EntireX Components for Internationalization

It is assumed that you have read the chapter *Introduction to Internationalization* and are familiar with the various internationalization approaches described there.

This chapter summarizes how to prepare or configure EntireX components to force a locale string to be sent. Sending locale strings by EntireX components is strongly recommended for the internationalization approaches ICU conversion and SAGTRPC user exit. It is not necessary for other internationalization approaches.

This chapter covers the following topics:

- Rules and Defaults
  - Table of Components and Locale String Handling
  - Troubleshooting
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## Rules and Defaults

Preparing EntireX components for internationalization basically means configuring or providing a locale string, i.e. telling the broker the codepage to be used by the EntireX component. This can be a programming or an administration issue depending on the component used.

It may not be necessary to prepare or configure locale strings

- if the broker's locale string defaults already match (see *Broker's Locale String Defaults*)
- if the locale string is sent by default to the broker. See column "Locale string sent by default" in the table below

The codepage determined by the broker's locale string processing must be one that is supported by the broker. See *Locale String Mapping*. This depends on the internationalization approach:

- For ICU conversion it must be an ICU converter.
- For SAGTRPC user exit, the code points implemented must match the code points defined by your application environment's original codepage. See *Writing SAGTRPC User Exits* under z/OS | UNIX | Windows.

If these rules are not observed, results will be unpredictable.

## Table of Components and Locale String Handling

EntireX Component	Locale String sent by Default			Responsibility	Additional information
	Windows	UNIX	z/OS		
Broker ActiveX Control	yes, default Windows "ANSI Codepage" if communicating with all broker version	./.	./.	Programmer	See <i>Using Internationalization with Broker ActiveX Control</i> .
EntireX Broker ACI	yes, default Windows "ANSI Codepage"	no	no	Programmer	See <i>Using Internationalization</i> .
EntireX Broker Agent	same as on incoming locale string	same as on incoming locale string	./.	not applicable	There is no need to consider anything regarding internationalization. The broker agent does not convert payload data, nor does it suppress, change or add a locale string. The ACI request is rerouted "as is" to the target.
EntireX Broker	not applicable	not applicable	not applicable	Administrator	For information on how to prepare the broker for internationalization, see <i>Configuring Broker for Internationalization</i> under z/OS   UNIX   Windows   BS2000/OSD   z/VSE.
EntireX DCOM Wrapper	yes, default Windows "ANSI Codepage"	./.	./.	Programmer and Administrator	See <i>Using Internationalization with the DCOM Wrapper</i> .
EntireX Java ACI	yes, default file encoding of JVM	yes, default file encoding of JVM	./.	Programmer	See <i>Using Internationalization with Java ACI</i> .

EntireX Component	Locale String sent by Default			Responsibility	Additional information
	Windows	UNIX	z/OS		
EntireX Java Wrapper	yes, default file encoding of JVM	yes, default file encoding of JVM	./.	Programmer	See <i>Using Internationalization with Java ACI</i> .
EntireX Wrapper for Enterprise JavaBeans	yes, default file encoding of JVM	yes, default file encoding of JVM	./.	Programmer and Administrator	See <i>Using Internationalization with Wrapper for EJB</i> .
EntireX Java RPC Server	yes, default file encoding of JVM	yes, default file encoding of JVM	./.	Administrator	See <i>Using Internationalization with Java RPC Server under UNIX   Windows</i> .
EntireX IDL Tester	yes, default file encoding of JVM	yes, default file encoding of JVM	./.		It is not possible to send a locale string to a broker version 7.1.x and below.
EntireX .NET Wrapper	yes, default Windows "ANSI Codepage"	./.	./.	Programmer and Administrator	See <i>Using Internationalization with the .NET Wrapper</i> .
EntireX .NET RPC Server	yes, default Windows "ANSI Codepage"	./.	./.	Administrator	See <i>Using Internationalization with the .NET Wrapper</i> .
C Wrapper	yes, default Windows "ANSI Codepage"	no	./.	Programmer and Administrator	See <i>Using Internationalization with the C Wrapper</i>
EntireX RPC Server	yes, default Windows "ANSI Codepage"	no	no	Administrator	See <i>Using Internationalization with the RPC Server under UNIX   Windows</i>

EntireX Component	Locale String sent by Default			Responsibility	Additional information
	Windows	UNIX	z/OS		
Broker HTTP(S) Agent (formerly Tunnel Servlet)	same as on incoming locale string	same as on incoming locale string	./.	not applicable	There is no need to consider anything regarding internationalization. The Broker HTTP(S) Agent does not convert payload data, nor does it suppress, change or add a locale string. The ACI request is rerouted "as is" to the target.
EntireX XML/SOAP RPC Server	yes, default file encoding of JVM	yes, default file encoding of JVM	./.	Administrator	See <i>Command-line Parameters</i> in <i>Administering the EntireX XML/SOAP RPC Server</i> under UNIX   Windows and <i>Using Internationalization with EntireX XML Components</i> .
EntireX XML Tester	yes, default file encoding of JVM	yes, default file encoding of JVM	./.		It is not possible to send a locale string to a broker version 7.1.x and below.
EntireX XML/SOAP Listener			./.	Administrator	See <i>Using Internationalization with EntireX XML Components</i> .
EntireX XML/SOAP Wrapper	yes, default file encoding of JVM	yes, default file encoding of JVM	./.	Programmer	See <i>Using Internationalization with EntireX XML Components</i> .
EntireX RPC-ACI Bridge	yes, default file encoding of JVM	yes, default file encoding of JVM	./.	Administrator	See <i>Configuring the RPC Server Side</i> .

## Legend

- **EntireX component**

This is the EntireX component for which the information is provided.

- **Locale string sent by default**

Whether a locale string is sent to the broker depends on the operating system the component is running on and whether the broker being communicated with is version 7.2.x and later. Locale strings are never sent by default to earlier brokers; they must be enabled manually.

- **Responsibility**

This column specifies who is responsible for allowing locale strings to be sent. The fact that an administrator can change the default codepage of an environment, i.e. the Windows "ANSI codepage" or the file encoding property of a JVM is not documented - this can always be done.

- **Programmer**

means that the programmer has control of and responsibility for the locale strings. The programmer can force a fixed codepage to be used and define the default codepage of the environment that is to be used. In the first case no administration tasks remain and in the latter case the administrator can change the codepage but cannot prevent use of locale strings.

- **Administrator**

means that an administrator can enable or disable whether locale strings are sent or not after an application has been built.

- **Programmer and administrator**

means that the administrator can enable or disable locale strings to be sent after an application has been built, if the programmer has left the item open.

See the component documentation for details.

- **Additional Information**

This column indicates where you can find additional information.

## Troubleshooting

It is important to know the locale strings of both components (sender and receiver) to predict conversion behavior accurately. See *Locale String Mapping*. The quickest and easiest place to check this and the place where both locale strings are captured and are visible is the broker kernel trace.

We recommend using a broker kernel trace with level 1 to find out and observe whether both sides of an application (sender and receiver) send locale strings.