

# SAP Adapter



This page explains the **SAP Adapter** in Bridge context. If you were looking for the same information regarding the [PAS Designer](#), refer to [SAP Adapter](#) in the Designer guide.

The E2E Bridge is able to communicate with SAP servers via RFC and to exchange data via IDocs out of the box. You do not need any additional client libraries.

## RFC Communication

The SAP RFC (Remote Function Call) protocol is the most basic way of communicating with SAP offered by the Bridge. The Bridge enables the modeler to invoke RFC functions as well as to provide RFC interfaces called by SAP systems. For example, RFC enabled ABAP programs are called as RFC functions. On the other hand, Bridge RFC services can be called within ABAP programs like a remote ABAP function.

When calling RFC functions, the Bridge acts as RFC client. If the Bridge is called by SAP, it acts as SAP RFC server. Besides RFC, the Bridge supports the tRFC protocol as well. This protocol allows for transactional control of RFC calls. The following chapters explain how to use the Bridge as (t)RFC client and server

This chapter contains information on how to invoke RFC functions. Refer to [SAP Service](#) for information on how to provide an RFC interface that can be called by SAP systems.

### On this Page:

- [RFC Communication](#)
- [IDoc Communication](#)
- [SAP Adapter Session Handling](#)

### Related Pages:

- [RFC Client](#)
- [RFC Arguments](#)
- [tRFC Client](#)
- [IDoc Handling](#)
- [SAP Adapter Troubleshooting](#)
- [SAP Adapter Reference](#)
- [xUML Runtime Transaction Concepts](#)

## IDoc Communication

**IDocs** (Interface **D**ocuments) are the most common way of interchanging data asynchronously with SAP systems. The Bridge enables the modeler to import the IDoc classes from SAP parse grammars using the E2E Builder and to parse and compose IDocs.

## SAP Adapter Session Handling

The **E2E xUML Runtime** works with the concept of **sessions**. Sessions are equivalent to units of work, that can be committed or rolled back depending on the status at the end of the session. A session corresponds to one concrete instance of an execution of a service, namely of

- SOAP services,
- timer services
- schedulers
- HTTP services
- SAP RFC services
- JMS services
- Java services

Refer to [xUML Runtime Transaction Concepts](#) for more information on session and transaction handling in general.

The first SAP adapter call within a session takes an SAP connection from the SAP connection pool. All subsequent adapter calls within this session will reuse this SAP connection, means the connection is blocked until session end. Take this into account when defining the connection pool size (**poolSize**) on the SAP alias.