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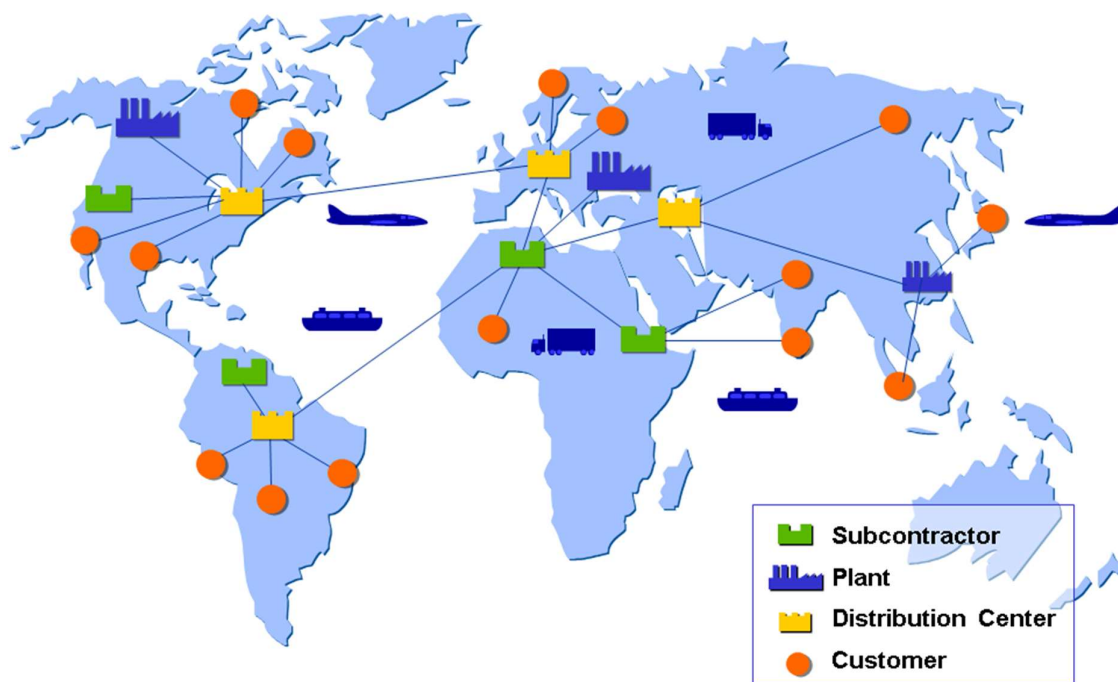
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# Time Zones Use

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Processes which cover more than one time zone primarily affect logistic functions such as availability checks, production planning, delivery scheduling, statistics and service provision, but they also affect financial accounting in areas such as treasury, inter-company transactions, and so on. This function enables you to use dates and times that are comparable and exchangeable in applications that are implemented worldwide. For time-related applications, the SAP system can use local dates and times for proposed dates and validations (for example, to ensure that a requested delivery date is not in the past).

## Time Zone Management in Global Systems



# Global Application

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Generally, users think and act in terms of their local time, and they also expect to use their local time in business transactions. When the SAP System is used for global transactions that span time zones, business partners and systems will have different local times. These differences in local times can lead to problems such as late postings and missed background processing. Local times can be compared and exchanged as long as they share the same time zone. However, for business processes spanning time zones, inaccuracies of up to 24 hours could occur. By normalizing date and time internally, this function eliminates problems that can arise from users working in different local time zones. For some transactions, the system normalizes dates and times by storing a time zone and a time stamp.

## Time Zone Management in Global Systems

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### Internal and External Representations of Time

To compare the local times of users in different time zones, the SAP system represents times differently externally and internally.

The external representation of the time corresponds to a context-dependent local time. For example, in Germany, the time is represented in Central European Time (CET) and in New York in Eastern Standard Time (EST). In some instances, the SAP system normalizes the internal

system time to Universal Coordinated Time (UTC) which serves as a reference time. UTC corresponds to Greenwich Mean Time (GMT). By converting all local, relative times to absolute times based on UTC, the system can compare times and use them in calculations.

### Times Stored with Dates

Considering dates alone is not sufficient to ensure exact time calculations. For time-critical processes, dates with times replace dates without times. A date standing alone, could easily result in a one day inaccuracy (for example, depending on the time of day, 3 February in Japan may still be 2 February in New York). For a date without a time, an inaccuracy related to time zones can be as long as 48 hours in an extreme case. Therefore the system replaces a date without a time specification automatically with a date with a time specification for time-critical processes.

For time calculations, an accurate duration (for example, hours and minutes instead of days) must be used. Otherwise, chain calculations such as the following could be inaccurate by several days:

#### Times and Their References to Locations of Objects

All local times are relative to a particular location, and this location has a relationship to an object. This relationship is not explicit and the SAP system can derive it only from system data such as in the Customizing tables (for example, Table T001W for plants), master data, such as the data for ship-to parties, and document data that overrides Customizing and master data (such as a one-time address).

Examples of typical objects and their relationships to locations include:

- Company code

A posting date is relative to the location of the company code.

- Plant

A goods issue or goods receipt date is relative to the location of the plant.

The Time Zone function is fully integrated into the SAP system kernel. This integration allows for faster conversions between system and local dates and times.

#### Prerequisites

For this function to work properly you need to

- Maintain customizing data for time zones
- Define default time zone assignments for both the system and for user

## More Information

You can find the description of some application scenarios from the FI and MM aread in the ERP documentation.

# Time Zone Support Function

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In today's distributed business environment, plant maintenance does not just take place in one location. The most important process steps in plant maintenance, such as planning, execution, and confirmation, may be performed at different locations, in different systems, with different business partners, and therefore in different time zones.

## Activation of Business Function LOG\_EAM\_TZS\_1

This business function **LOG\_EAM\_TZS\_1** allows you to use the functions of time zone support. You can switch from one time zone to another in no time at all. This is useful if you have processes that cover different time zones, for example, if you plan maintenance work at a different location to where it is executed or confirmed.

The activation of Business Function LOG\_EAM\_TZS\_1 allow time zone support function the following objects:

- Notification
- Order
- Confirmation
- Measuring point
- Measurement document

## Activation of Business Function LOG\_EAM\_TZS\_2

This business function allows you to use the functions of time zone support for additional objects in plant maintenance. You can switch from one time zone to another in no time at all. This is useful if you have processes that cover different time zones, for example, if you plan maintenance work at a different location to where it is executed or confirmed.

The activation of Business Function LOG\_EAM\_TZS\_2 allow time zone support function the following objects:

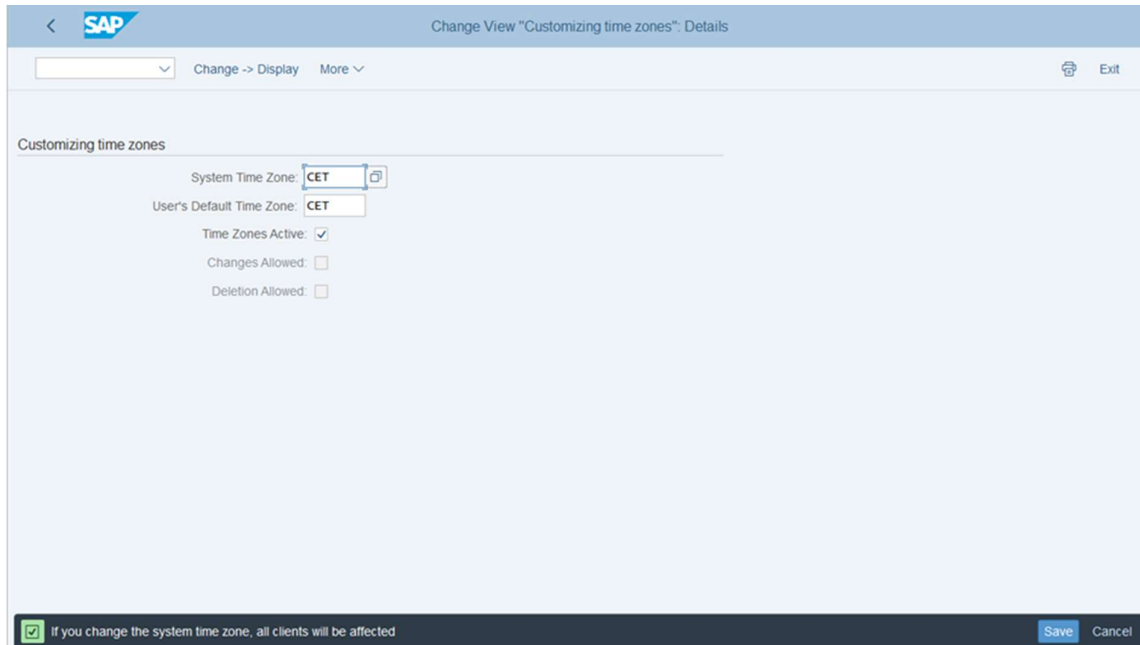
- Notification
- Order
- Confirmation
- Measuring point
- Measurement document

# Time Zone Support Configuration

Since the geographical assignments are supplied with the SAP system, you no longer need to maintain these assignments.

However, you should check your own geographical areas to make sure that they do not contain any errors. If a geographical assignment is missing, enter a customer message and pass it on to SAP.

- **Img → SAP NetWeaver → General settings. → Time Zones → Maintain System Settings**



- **Img → SAP NetWeaver → General settings. → Time Zones → Maintain Time Zones**

Change View "Time zones": Overview

Dialog Structure

- Time zones
- Time zone rules
- Summer time rules
- Variable Summer time rules
- Fixed Summer time rules

Time Zone	Time Zone Text	TZ Rule	Difference from UTC	DST Rule	Daylight Saving Rule	A
<input type="checkbox"/> CAT	Central Africa	P0200	+ 2 hours	NONE	NO daylight saving	<input type="checkbox"/>
<input type="checkbox"/> CET	Central Europe	P0100	+ 1 hour	EUROPE	Europe	<input type="checkbox"/>
<input type="checkbox"/> CHILE	Chile	M0400	- 4 hours	CHILE	Chile	<input type="checkbox"/>
<input type="checkbox"/> CHILEE	Chile Easter Island	M0600	- 6 hours	CHILE	Chile	<input type="checkbox"/>
<input type="checkbox"/> CHILEM	Chile Magallanes	M0300	- 3 hours	NONE	NO daylight saving	<input type="checkbox"/>
<input type="checkbox"/> CST	Central Time (Dallas)	M0600	- 6 hours	USA	USA	<input type="checkbox"/>
<input type="checkbox"/> CSTNO	Central Time No DST	M0600	- 6 hours	NONE	NO daylight saving	<input type="checkbox"/>

→ Position... Entry 22 of 131

Save Cancel

- **Img → SAP NetWeaver → General settings. → Time Zones → Maintain Geographical Assignments**

Change View "Time zones in country": Overview

Dialog Structure

- Time zones in country
- Time zones in country/region
- Generic time zones to postal code

Ctr	Time Zone	DefTimeZon
<input type="checkbox"/> AD	CET	<input checked="" type="checkbox"/>
<input type="checkbox"/> AE	UTC+4	<input checked="" type="checkbox"/>
<input type="checkbox"/> AF	AFGHAN	<input checked="" type="checkbox"/>
<input type="checkbox"/> AG	UTC-4	<input checked="" type="checkbox"/>
<input type="checkbox"/> AI	UTC-4	<input checked="" type="checkbox"/>
<input type="checkbox"/> AL	CET	<input checked="" type="checkbox"/>
<input type="checkbox"/> AM	RUS04	<input checked="" type="checkbox"/>

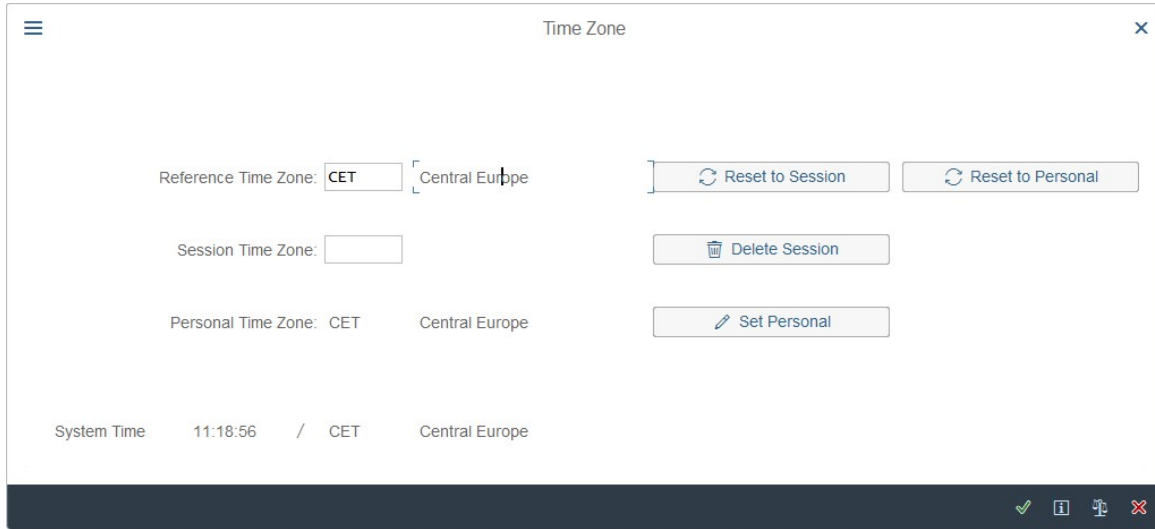
→ Position... Entry 1 of 230

Save Cancel



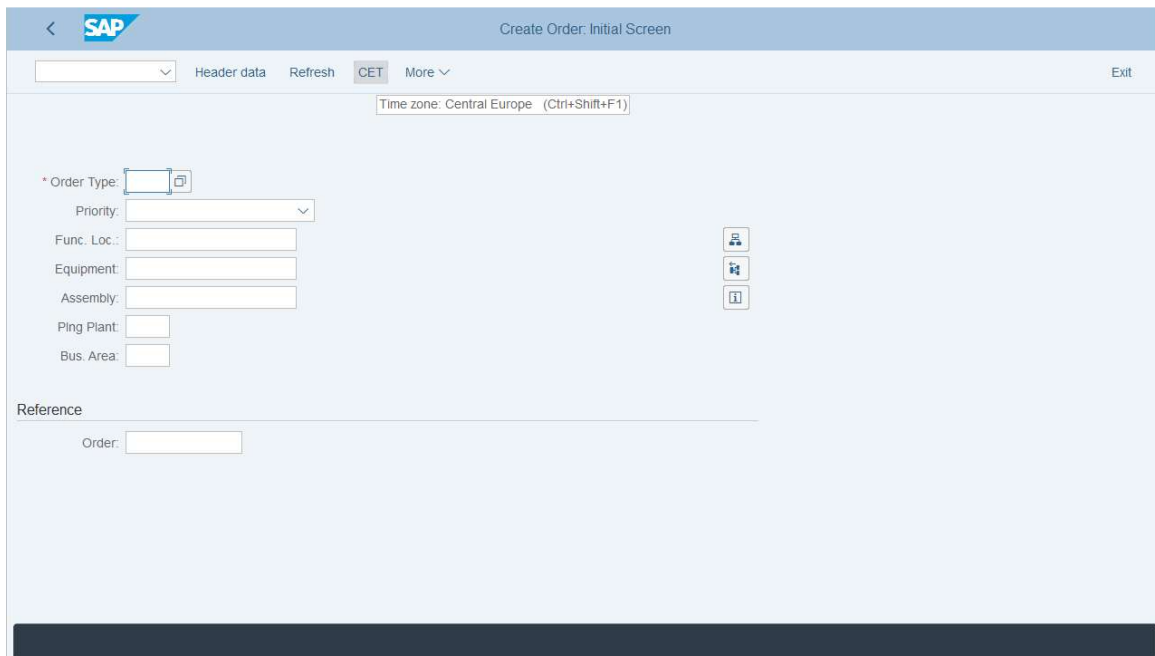


- **Details the time zone screen**



- **Create service Order**

- **The Time zone appear on the creation screen**



- The Time zone appear on the List and report screen

## Open Points

**One open question regarding time zone support is the management of the time zone of the used object. Currently the time zone is triggered for object such plant for supply chain activities, company code for financial activities, however the request is to manage the time zone based on the used object (master data) such as piece of equipment, functional location, vendor, customer, ...**

**If you need also to manage the time zone at line level for lists and reports and not at the header level for EMA PLM PM or CS modules, we can help to provide you with on the box solution**

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