

Version 25



Trapeze

Enterprise Asset Management

Zonar

MAXQueue Module Guide

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Customer Care is available Monday through Friday, 8:00 a.m. to 8:00 p.m., Eastern Standard Time.

Toll-Free Telephone: 1-877-411-8727

E-mail: cc@trapezegroup.com

FTP Site: <https://ftps.trapezegroup.com/>

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Product Compatibility

Refer to the latest [Product Compatibility](#) information on Trapeze Collaborate for requirements including operating system information, databases, Crystal reports, network protocol, HTTP servers and browsers that are supported.

Zonar - Configuration Guide

Version 25.x

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Contents

1. Overview.....	1
Inbound from Zonar.....	1
Outbound to Zonar	1
Zonar Integration Assumptions	1
2. Configuring the Zonar MAXQueue Module	3
Configuring the Zonar to System Service.....	4
Configuring the System Service to Zonar Service	8
Configuring the Zonar Odometer to System Service	10
Appendix A. Zonar Setup.....	13
A.1 Multiple Zonar Customer Setup.....	13

1. Overview

The Zonar Services provides integration with Zonar Systems Electronic Verified Inspection Report (EVIR) system. On the Zonar side, the product that handles interaction with external systems is referred to as the Ground Traffic Control (GTC) server. Both Zonar EVIR/GTC and MAXQueue typically reside within the customer's firewall, however there may be some cases where one or both of the systems are remote (ASP hosted environment).

The interface, if configured in whole, performs the following:

Inbound from Zonar

- Zonar defects and related meter readings are passed to the system as Service Requests and Meter 1 and Meter 2 Updates. The interface has the option to create work orders and auto assigned the service request to the work order for critical defects.
- Zonar odometer readings (from no-defect inspections) and engine hours are passed to the system as Meter 1 and Meter 2 updates (corresponding to the meter to which each option is set).

Outbound to Zonar

Completed or rejected service requests are passed to Zonar after the service request status changes to FINISHED, CLOSED, or REJECTED.

Zonar Integration Assumptions

1. Assets will be communicated using valid Asset Management System Equipment IDs.
2. The Zonar interface will not be responsible for keeping Zonar and Asset Management System vehicle details in sync (i.e., when a new asset is added to one system, it must also be added to the other system).
3. This Zonar interface will not be responsible for keeping Zonar and Asset Management System mechanics/employees in sync (i.e., when a new mechanic/technician is added to one system, it must also be added to the other system).
4. Zonar meter updates will be processed in the system as Meter 1 updates and Meter 2 updates.
5. Service Requests/Defects number of occurrences is the sum of all recurrences and the service request/defect. If a user manually deletes a recurrence, the Service Request/Defect number of occurrences will not reflect the correct amount.

6. Service Requests/Defects will not (by default) automatically be assigned to a Work Order. If a user updates the SR/Defect Status to CLOSED or FINISHED, it will result in a SR/Defect being updated in Zonar with no Work Order number.
7. Two Services
 - Zonar to Asset Management System
 - a. Process Meters
 - b. Process Defects
 - Asset Management System to Zonar
 - a. Updates Zonar when a service request is closed, finished, or rejected.
8. The Asset Management System will enforce all meter validation rules.
9. All fields that will be passed to Zonar (during the Update Defects process) cannot contain any ^ characters.
10. The concatenation of the Work Order location (up to 10 characters) plus the Work Order number (up to 9,999,999) cannot exceed a total of 14 characters due to Zonar OMI limitations.
11. Odometer readings from Zonar are populated into the Equipment Meter Update screen (versions 15.0.9 and forward only)

2. Configuring the Zonar MAXQueue Module

MAXQueue needs to have the proper services configured in order to process the incoming/outgoing events. In the MAXQueue Designer, open the Settings tab.



Settings Notes

☐ Requires Review

Instance Configuration

Description:

Instance Variables:

Variable	Value	IsEncrypted
vars.FAUser		☐
vars.FAPassword		☒

In the Instance Configuration section (shown above) define these variables:

Variable	Definition
vars.FAUser	Enter a valid system User
vars.FAPassword	Enter the password for vars.FAUser

❗ Caution: Once entered, this information needs to be saved. From the Select Config Action drop-down, select **COMMIT**. Then proceed to configure each individual service. The **Requires Review** checkbox must be unchecked before saving changes.

⚠ Important: The user account specified during configuration should not be used by anyone for a standard user login or activity, it should be dedicated to MAXQueue only.

Configuring the Zonar to System Service

1. In MAXQueue Designer, select Zonar: Zonar to system from the services list box, then open the Setting tab.

Service Variables:		
Variable	Value	Encrypt
vars.ZonarUrl	[Enter Zonar URL for Custom	
vars.ZonarCustomer	[Enter customer name for Zoi	
vars.ZonarUserId	[Enter user-name utilized for	
vars.ZonarPassword	[Enter password utilized for Z	
vars.ZonarCustomParame...	[Enter custom parameters for	
vars.UseProxyServer	[TRUE or FALSE]	
vars.ProxyPort	[Proxy Port or blank]	
vars.ProxyUserId	[Proxy User name or blank]	
vars.ProxyPassword	[Proxy password or blank]	
vars.ProcessOdometerRe...	[TRUE or FALSE]	
vars.MeterSource	[Meter Source for Meter Upd;	
vars.ProcessDefects	[TRUE or FALSE; TRUE crea	
vars.CreateOutOfService...	[TRUE or FALSE; TRUE crea	
vars.SymptomIDDefault	[FA symptom when SR create	
vars.ServiceStatusCodeD...	[FA service status when WO	
vars.RepairReasonCodeD...	[FA repair reason when WO c	
vars.WorkClassCodeDefault	[FA work class when WO cre	
vars.PriorityCodeDefault	[FA priority code when WO ci	
vars.ProcessHoursReadings	[TRUE or FALSE]	
vars.ZonarEngineHoursVe...	2 [See installation guide]	
vars.ZonarEngineHoursType	TOTALHOURS [See installati	

2. In the Services Variables section (shown above), define the terms as shown in the table below.

Variable	Definition
vars.ZonarUrl	Enter the web address that you received from Zonar. Example: https://omi0001.zonarsystems.net/interface.php
Vars.ZonarCustomer	The customer name that you received from Zonar. See the Appendix if you have more than one customer name and are provided with more than one customer name and credentials.
vars.ZonarUserId	Enter user-name used for web service authentication
vars.ZonarPassword	Enter password used for web service authentication

Variable	Definition
vars.ZonarCustomParameters	Enter custom API query parameters to be added to Zonar API request. This will be passed as a semi-colon list of additional query parameters in the form &<field>=<value>. Example: &field1=value1;&field2=value2 Leave this value blank unless instructed to change it by a developer.
vars.ZonarReportingSourceId	Entered a valid Reporting Source ID that the interface will use for all service requests created. See Reporting Sources screen.
vars.UseProxyServer	Enter TRUE your organization requires a proxy server to access the Zonar server. Check with your network administrator for all proxy server settings or if your organization requires a proxy server authentication.
Vars.ProxyUrl	Enter the proxy address you received from your network administrator.
vars.ProxyPort	Enter the proxy port you received from your network administrator.
vars.ProxyUserId	Enter the proxy user name you received from your network administrator.
vars.ProxyPassword	Enter the proxy password you received from your network administrator.
Vars.ProcessOdometerReadins (previously vars.ProcessMeter1Reading)	Enter TRUE if your organization will be processing odometer meter updates from Zonar. If this is set to FALSE, be sure vars.ProcessInspections is set to TRUE. If vars.ProcessInspections is not set, then the meter reading will always be updated.
vars.MeterSource	Entered the meter source as your organization would like it to appear during meter updates. Example: Zonar Interface
vars.ProcessDefects	Enter TRUE if your organization will be processing defects from Zonar.
vars.CreateOutOfServiceWO	Enter TRUE if your organization desires the interface to create work orders that are critical defects. If the defect is critical and this is set to FALSE, no work order will be created. See note for creating a work order below this table.
vars.SymptomIDDefault	Entered a valid system symptom that the interface will use for all service requests created.

Variable	Definition
vars.ServiceStatusCodeDefault	The service status code that will be used for all work orders. This is optional depending on the requirements set up in your system.
vars.RepairReasonCodeDefault	The repair reason code that will be used for all work orders. This is required.
vars.WorkClassCodeDefault	The work class code that will be used for all work orders. This is optional depending on the requirements set up in your system.
vars.PriorityCodeDefault	The priority code that will be used for all work orders. This is optional depending on the requirements set up in your system.
Vars.ProcessHoursReadings (previously vars.ProcessMeter2Reading)	Enter TRUE if your organization will be processing engine updates from Zonar.
vars.ZonarEngineHoursVersion	For this system, enter 2 . The Engine Hours report version to use when querying for engine hours data. Valid values are 1 and 2.
vars.ZonarEngineHoursType	Enter TOTALHOURS . Valid values are ACCRUEDHOURS and TOTALHOURS . Accrued engines hours is the total amount of vehicle time recorded as by the GPS, while the total engine hours are that number plus whatever offset was generated when they set up the Meter reading in the GPS engine hours report.
vars.ProcessInspections	This variable is new to 15.0.9. If this value is true then Inspection events in Zonar are communicated to the asset management system (note: as of now only meter info is processed). For backwards compatibility, if this configuration variable is missing and ProcessMeter1 is true, inspections are processed.  Note: When vars.ProcessInspections is configured, processMeter1 and 2 apply to processing inspection data from Zonar as well as Defects. Enter TRUE or FALSE. This defaults to False. If true, then Zonar inspections will update equipment meter readings. For backwards compatibility, this value must be set to TRUE in order to set vars.ProcessMeter1Reading to FALSE.

Variable	Definition
vars.NewSRForEachInspectionWithDefect	This variable determines if a related Zonar inspection is used as a filter to create a new service request or merge defects to matching zone, component, or condition items on open or pending service request. • If this variable is set to TRUE, a new service request (SR) is created for each inspection that contains a defect. • If this variable is set to FALSE, the system will merge inspection defects to existing SRs that are OPEN or PENDING, matching zone, matching component, or matching condition. For example: If a Zonar inspection comes in with the same equipment ID, symptom zone, component, and condition, and the service request is pending, and the option is set to FALSE (recommended), the system adds 1 to the Number of occurrences field on the Service Request/Defects screen. This is done so that if a driver keeps sending the same defect, the system does not continue to create new service requests for the same item each time.
vars.HoursMeterTypes	Blank or semi-colon separated list of meter types considered Hours. For example: HOURS;TIME. If blank, defaults to HOURS.
vars.OdometerMeterTypes	Blank or semi-colon separated list of meter types considered Miles. i.e. MILES;KILOMETERS. If blank, default to MILES



Notes

- The Fitness for Duty (FFD) sent from Zonar indicates if the asset can be used safely without repairing the defect. A work order is created when the vars.CreateOutOfServiceWO is set to TRUE and the Fitness for Duty (FFD) sent from Zonar is FALSE.
- All meters (1 or 2) will be submitted with the system default (no validation is entered). If a meter error does occur, then the transaction (service request or work order) is resubmitted with a meter (1 or 2) validation of **NO EQ UPD**. If a meter error occurs (either a PR-ERR: 49 or PR-ERR: 437) then it gets resubmitted with a meter validation of **NO EQ UPD**.

3. From the **Select Config Action** drop-down, select **COMMIT**.

Configuring the System Service to Zonar Service

1. In MAXQueue Designer, select Zonar: FA to Zonar from the services list box, then open the Setting tab:

Service Variables:		
Variable	Value	Encrypt
vars.ZonarUrl	[Enter Zonar URL for Custom	
vars.ZonarCustomer	[Enter customer name for Zoi	
vars.ZonarUserId	[Enter user-name utilized for	
vars.ZonarPassword	[Enter password utilized for Z	
vars.ZonarCustomParame...	[Enter custom parameters for	
vars.UseProxyServer	FALSE	
vars.ProxyPort	[TRUE or FALSE]	
vars.ProxyUserId	[Proxy User name or blank]	
vars.ProxyPassword	[Proxy password or blank]	
vars.ZonarMechanicID	[Zonar Mechanic ID that will t	
vars.SymptomID	[FA symptom when SR create	
vars.ZonarReportingSourc...	[Enter ReportingSourceID for	

2. In the Services Variables section (shown above), define the terms as shown in the table below.

Variable	Definition
vars.ZonarUrl	Enter the web address that you received from Zonar. Example: https://omi0001.zonarsystems.net/interface.php
vars.ZonarCustomer	The customer name that you received from Zonar. See the Appendix if you have more than one customer name and are provided with more than one customer name and credentials.
vars.ZonarUserId	Enter user-name used for web service authentication
vars.ZonarPassword	Enter password used for web service authentication
vars.ZonarCustomParameters	Enter custom API query parameters to be added to Zonar API request. This will be passed as a semi-colon list of additional query parameters in the form &<field>=<value>. Example: &field1=value1;&field2=value2 Leave this value blank unless instructed to change it by a developer.
vars.ZonarReportingSourceId	Entered a valid FA Reporting Source ID that the interface will use for all service requests created. See Reporting Sources screen.

Variable	Definition
vars.UseProxyServer	Enter TRUE your organization requires a proxy server to access the Zonar server. Check with your network administrator for all proxy server settings or if your organization requires a proxy server authentication.
Vars.ProxyUrl	Enter the proxy address you received from your network administrator
vars.ProxyPort	Enter the proxy port you received from your network administrator
vars.ProxyUserId	Enter the proxy user name you received from your network administrator
vars.ProxyPassword	Enter the proxy password you received from your network administrator
vars.SymptomIDDefault	Entered a valid FA symptom that the interface will use for all service requests created. This needs to be the same SymptomIDDefault as defined in the Zonar to FA service.
vars.ZonarMechanicID	Enter the valid Mechanic ID that will be used for all updates to the Zonar server. The Mechanic ID must exist in the Zonar system.

 Once entered, be sure to save this information.

- From the Select Config Action drop-down menu, select COMMIT.

Configuring the Zonar Odometer to System Service



This service is only available in 15.0.9 and forward.

1. In MAXQueue Designer, select Zonar: Zonar Odometer to FA from the services list box, then open the Setting tab and scroll to the bottom:

Service Variables:		
Variable	Value	Encrypt
vars.ZonarUrl	[Enter Zonar URL for Customr	
vars.ZonarCustomer	[Enter customer name for Zoi	
vars.ZonarUserId	[Enter user-name utilized for	
vars.ZonarPassword	[Enter password utilized for Z	
vars.ZonarCustomParame...	[Enter custom parameters for	
vars.UseProxyServer	[TRUE or FALSE]	
vars.ProxyPort	[Proxy Port or blank]	
vars.ProxyUserId	[Proxy User name or blank]	
vars.ProxyPassword	[Proxy password or blank]	
vars.ProxyUrl	[Proxy Address]	
vars.MeterSource	[Meter Source for Meter Upd	
vars.EnableEngineHours	[TRUE or FALSE; TRUE will :	
vars.ZonarEngineHoursVe...	2 [See installation guide]	
vars.ZonarEngineHoursType	TOTALHOURS [See installati	
vars.HoursMeterTypes	[Blank or semi-colon separa	
vars.OdometerMeterTypes	[Blank or semi-colon separa	

2. In the Services Variables section (shown above), define the terms as shown in the table below.

Variable	Definition
vars.ZonarUrl	Enter the web address that you received from Zonar. Example: https://omi0001.zonarsystems.net/interface.php
vars.ZonarCustomer	The customer name that you received from Zonar. See the Appendix if you have more than one customer name and are provided with more than one customer name and credentials.
vars.ZonarUserId	Enter user-name used for web service authentication.
vars.ZonarPassword	Enter password used for web service authentication.

Variable	Definition
vars.ZonarCustomParameters	Enter custom API query parameters to be added to Zonar API request. This will be passed as a semi-colon list of additional query parameters in the form <code>&<field>=<value></code>. Example: <code>&field1=value1;&field2=value2</code> Leave this value blank unless instructed to change it by a developer.
vars.UseProxyServer	Enter TRUE if your organization requires a proxy server to access the Zonar server. Check with your network administrator for all proxy server settings or if your organization requires a proxy server authentication.
Vars.ProxyUrl	Enter the proxy address you received from your network administrator.
vars.ProxyPort	Enter the proxy port you received from your network administrator.
vars.ProxyUserId	Enter the proxy user name you received from your network administrator.
vars.ProxyPassword	Enter the proxy password you received from your network administrator.
vars.MeterSource	Enter the meter source as your organization would like it to appear during meter updates. Example: Zonar Interface
vars.EnableEngineHours	Enter TRUE if your organization wants to have latest engine hours included when updating the Odometer reading.
vars.ZonarEngineHoursVersion	If vars.EnableEngineHours is TRUE, then this field is required. This is set to 2 by default. See http://docs.zonarsystems.net/manuals/OMI/en/showopen-showusage.html for discussion on what enginehoursversion means. Valid values are 1 and 2.
vars.ZonarEngineHoursType	If vars.EnableEngineHours is TRUE, then this field is required. Enter the TOTALHOURS. See the example replies on http://docs.zonarsystems.net/manuals/OMI/en/showopen-showusage.html. Valid values are ACCRUEDHOURS and TOTALHOURS. Accrued engine hours is the total amount of vehicle time recorded as by the GPS, while the Total engine hours are that number plus whatever offset was generated when they set up the Meter reading in the GPS engine hours report.



In the MAXQueue designer, you may set the timer set to adjust the frequency which this service should run. If not adjusted, the service will run at its default of every four hours.

- Every time this run, an entry is created in the Equipment Meter Update screen, even if the meter is unchanged.
- We recommend the default of four hours as any more frequent timing of this service can cause excessive entries on the Equipment Meter Update screen.



Once entered, be sure to save this information.

3. From the Select Config Action drop down, select **COMMIT**.

Appendix A. Zonar Setup

A.1 Multiple Zonar Customer Setup

Some clients have more than one Zonar customer and are provided with more than one customer name and login credentials. Previously clients might have more than one Zonar site.

If fleet equipment in Zonar is kept as more than one Zonar account, you may need to set up a combination of multiple customer names, user IDs, and password sets.

For these types of setups, the following variables accept semi-colon separated lists. Set up multiple customer logins as follows:

- vars.ZonarCustomer: omi0001; omi0002; omi0003
- vars.ZonarUserId:
zonarUserldForCustomer1;ZonarUserldForCustomer2;ZonarUserldForCustomer3
- vars.ZonarPassword:
ZonarPasswordForCustomer1;ZonarPasswordForCustomer2;ZonarPasswordForCustomer3
- vars.ZonarReportingSourceId:
ZonarReportingSourceForCustomer1;ZonarReportingSourceForCustomer2;
ZonarReportingSourceforCustomer3 *

 Important: Each entry in the vars.ZonarReportingSourceId must be unique and must be the same number of entries in each of the four above variable fields; the first entry in ZonarReportingSourceId corresponds to the first customer; the second to the second customer, etc. When a service request is made for equipment in the first customer, then the first Reporting Source ID is used; when the service request is made for equipment in the second customer, then the second Reporting Source ID is used, etc.