|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **EOL Interface - JMCFS** | | | |  | | Bosch_Logo_NEU E 2004_320-74 |
| Title: | | EOL Interface - JMCFS | | | Document Type: | User Requirements |
| Document owner: | | AA-AS/PAO-EOL32 Zheng Wing | | | Version: | 0.**0.1**2 |
| Author: | | AA-AS/PAO-EOL32 Liang Chaonian | | | Date: | 15-Dec-20 |
| Classification: | | Confidential | | | Status: | ***Review*** |
| Storage Location: | | [Project SharePoint Library](https://sites.inside-share.bosch.com/sites/037971/Documents/Forms/AllItems.aspx?RootFolder=%2Fsites%2F037971%2FDocuments%2FProjects%2FCustomers%2FSOKON%2FWBS%200486%20%28SOKON%20EOL%29%2FTechnical%20Specifications&InitialTabId=Ribbon%2ELibrary&VisibilityContext=WSSTabPersistence) | | | | |
|  | |  | | |  |  |
| Document approver: | | AA-AS/PAO-EOL32 Wang Yuanjie | | | Date approved: | DD-MMM-YYYY |
|  | | | | | | |
| Change History | | | | | | |
| Version | Date | | Name | Description of changes | | |
| 0.1 | 15-Dec-20 | | Liang Chaonian | Created. | | |
| 0.2 | 15-Dec-20 | | Liang Chaonian | 1.Update mistake according to review  2.Add Item VIN in ECU PartDataType | | |
|  |  | |  |  | | |
|  |  | |  |  | | |
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# Subject matter, objective, and purpose主题，目标，目的

Work is required to enhance the VCATS™ System so that it can interface with the Manufacturing Execution System (MES) that will be used at the JMC FS Plant. The purpose of this document is to define the VCATS User Requirements for this work.

本文的目的是定义VCATS 系统和JMS FS 工厂MES系统之间接口的需求。

# Scope范围

The data interfaces covered between the VCATS system and the JMC FS MES include:

VCATS 和JMC FS MES系统之间的接口包含如下：

1. Vehicle Broadcast Data Batch广播文件接口
2. ECU Key Part Serial Numbers关键件信息
3. Request Vehicle Broadcast重新请求广播文件接口
4. ECU Part Numbers Data (Hardware ,Software, Configure Data)ECU零件信息（硬件，软件，配置字）
5. Overall Process Data工位的整体测试PASS or Fail结果

For transferring all the data– an ActiveMQ System will be used.

Active MQ 作为所有数据的传递接口。

# Definition of terms基本条款定义

The table below includes descriptions for the various terms, abbreviations, and acronyms used in the document.

下表包含了各种条款，缩写，缩略语的详细描述。

|  |  |
| --- | --- |
| **Term** | **Description** |
| ActiveMQ | An open source Measage Queue system开源消息队列系统 |
| EOL | End Of Line 下线 |
| MES | Manufacturing Execution System生产管理系统 |
| MQ | Message Queue消息队列 |
| VCATS | Vehicle Configuration and Test System 车辆配置和测试系统 |
| XML | eXtensible Mark-up Language |
| XSD | XML Schema Definition XML 模板文件 |

# References参考

|  |  |
| --- | --- |
| **Reference** | **Description** |
| [1] | MES to VCATS integration Data Format (Release Date 15-Dec-16) |

# General Description基本描述

A general description of the system is given in this section.

## General Capabilities基本能力

This sub-section defines the capabilities needed by users to solve a problem or achieve an objective. It is a summary of the capabilities of the required system.

本章节定义了系统需要的解决问题或者是达到目标的基本能力。

For the VCATS Server at the JMC FS Plant the Interfaces listed in section 2 will be used to transfer data between VCATS and the Plant MES. Rockwell Automation are responsible for implementing the MES System at the Plant and supplying and receiving data through ActiveMQ.

章节2列出的VCATS JMCFS 工厂的接口用来和MES之间交换数据，Rockwell Automation 负责MES 系统，通过ActiveMQ 来接收和提供数据。

A system diagram showing the VCATS Server and the Plant MES is shown in Figure 1.

图1展示了VCATS 服务器和工厂MES系统之间的框图。

Appendix A shows a data interface table.

附件A 展示了接口表

Rockwell and Bosch have already cooperated in another plant, proposed to use the same method.

Rockwell和Bosch已经在别的工厂已经进行了合作，建议基本还是沿用那个方法来实现。

Appendix B shows the data struct will use in JMC FS；

附件B 展示了JMC FS工厂数据结构。

|  |
| --- |
|  |
| Figure 1 – VCATS Server and MES System Diagram |

## General Constraints基本限制条件

This sub-section defines the constraints placed by the users or other systems on how the solution is to be solved or the objective achieved. It is a summary of the constraints (or restrictions) on the required system.

本章节是目标系统在实现或者是达成目标的过程中可能的限制条件。

Constraints on the system include:

系统限制如下：

* The use of MQ 使用MQ
* The data Message format used by each VCATS 🡨 🡪 MES Interface[[1]](#footnote-1) (defined in an XSD file).VCATS和MES之间的数据格式使用XSD来限制。

## User Characteristics用户角色

The following table lists the type and characteristics of the different users.

下表展示了不同用户的角色定义。

|  |  |
| --- | --- |
| **User** | **Characteristics** |
| EOL Operator | Operates the VCATS™ equipment to perform EOL testing.使用VCATS和设备进行下线测试 |
| IT Technician | Supports and maintains the VCATS Server维护VCATS服务器 |
| Manufacturing Engineer | Uses the Production Data and Administration interfaces hosted on the VCATS Server.使用VCATS服务器的数据和接口 |

## Operational Environment操作环境

The VCATS Production Server environments will consist of the following:

VCATS生产服务器包含如下：

• Microsoft Windows Server 2019 Standard Operating System

• Microsoft SQL Server 2016

The VCATS Production Test Station environments will consist of the following:

VCATS生产测试工位包含如下：

• Microsoft Windows 10 64-Bit Enterprise LTSC (IFLEX+)

• Microsoft Windows 10 64-Bit (PC)

## Assumptions, Limitations and Questions假设,限制,问题

This section details any assumptions, limitations and questions on which the User Requirements are based.

本章节定义了用户需求基于的基本假设，限制，问题等。

|  |  |
| --- | --- |
| **Assumption** | **Description** |
|  |  |
|  |  |

# User Requirements用户需求

User requirements are defined in this section.本章节定义了用户需求

## Capability Requirements能力需求

Capability requirements describe functions and operations needed by users, including any error handling sequences.

能力兵描述了用户功能和操作需求，包含错误处理流程。

| **User  Requirement** | **Description** |
| --- | --- |
| UR-1 | VCATS must use ActiveMQ to exchange data between JMCFS MES:  VCATS 和MES之间数据交换必须采用ActiveMQ |
| UR-2 | VCATS must have reconnection mechanism while lost connection with MES。  VCATS 必须具备与MES断掉重连的机制。 |
| UR-3 | Each Data interface will use different queen；各个数据接口采用不同的queue |
| UR-4 | VCATS can configure to collect Vehicle Broadcast Data from ActiveMQ topics;  VCATS可以配置成从ActiveMQ topic序列里面获取广播数据。 |
| UR-5 | VCATS must collect Vehicle Broadcast Data from the MES at a configurable regular frequency.  VCATS可以周期性从MES获取广播数据，该周期可以配置。 |
| UR-6 | Collected Vehicle Broadcast Data will be checked for validity and if OK, will be inserted into the VCATS SQL database.  获取的广播文件需要校验正确性，如果正确才可以插入VCATS 数据库 |
| UR-7 | A backup mechanism must be available for VCATS to request Vehicle Broadcast data from the MES for a single Vehicle.  必须有一个备份的机制去请求一个单一车辆的数据 |
| UR-8 | Broadcast data request interface only send out request, response data will be in broadcast data interface.  广播数据请求接口只是负责请求，应答的数据会在广播文件发送接口 |
| UR-9 | When Test Results Files are processed on the VCATS Server that contain special attribute data (Pubmsg), these data must be extracted and supplied to the MES.  当VCATS 服务器处理的结果文件包含特殊属性(Pubmsg)的数据,这些数据必须获取出来，然后发送给MES |
| UR-10 | Send raw special attribute data (Pubmsg) to MES through ECU Part Numbers Data interface;  通过ECU Part Numbers Data接口发送原始(Pubmsg)数据给MES，不需要进行额外处理 |
| UR-11 | ECU Part Numbers Data has retried mechanism to avoid some unnormal situation.  ECU Part Numbers Data 接口必须具备重试机制，避免一些不正常的情形发生 |
| UR-12 | ECU Part Numbers Data could not impact the result file processing.  ECU Part Numbers Data 不能影响结果文件处理。 |
| UR-13 | When Test Results Files are processed on the VCATS Server, Overall Process result must be extracted and supplied to the MES.  当VCATS 服务器处理的结果文件时，该结果文件对应的process最新的整体合格或者是失败的结果可以发送给MES |
| UR-14 | Overall Process result has retried mechanism to avoid some unnormal situation.  整体结果处理接口必须具备重试机制，避免一些不正常的情形发生 |
| UR-15 | Overall Process result could not impact the result file processing.整体结果处理不能影响结果文件处理 |
| UR-16 | VCATS must collect Key part Data from the MES at a configurable regular frequency.  VCATS 必须周期性的从MES 获取关键件信息，该周期可以配置。 |
| UR-17 | Key part Data need to attach to the end of the latest broadcast file in VCATS database.  关键件信息必须附加在VCATS 数据库最新的广播文件后面。 |
| UR-18 | Key part Data will remain in MES in case there is no broadcast file in VCATS database.  如果VCATS 数据库没有广播文件，关键件信息还是保留在MES里面不进行处理。 |
| UR-19 | Updated Broadcast files need to attach the key part information in last version broadcast files。  更新的广播文件必须附加上个版本的关键件信息； |
| UR-20 | Updated Key part Data will over written the existing ones ；  新的关键件信息会替代老的关键件信息 |
| UR-21 | Updated Key part Data will also update the broadcast file time.  更新关键件信息同时会更新广播文件的时间，可以保证客户端获取到新的广播文件。 |
| UR-21 | All the data between MES and VCATS need to validate according the XSD file agreed, only deal the validated OK data。  所有MES 和VCATS 之间的数据都必须参考双方定义好的XSD 模板文件进行校验，只处理校验通过的文件。 |
| UR-22 | VCATS must have configurable details log for all the data processing.  VCATS 必须有可配置的详细数据处理日志。 |
| UR-23 | Vehicle Broadcasts for JMCFS Vehicles will require TDDECNVP decoding on VCATS Test and Repair Stations.  车辆数据在VCATS 测试和返修设备上采用TDDECNVP方式进行解析。 |

For the above User Requirements: certain URs can be satisfied by parts of the existing VCATS System; others require software development; and some are dependent on third-party tools. The table below shows URs classed into these three categories.

上面的需求，一些已经在当前的VCATS 系统实现，一些需要额外软件开发，有些可能需要第三方支持，下表详细列出了具体：

| **UR** | **Use Existing System** | **Develop Software** | **Use Third Party Tools** |
| --- | --- | --- | --- |
| UR-1 | ✓ | ✓ |  |
| UR-2 | ✓ | ✓ |  |
| UR-3 | ✓ |  |  |
| UR-4 | ✓ | ✓ |  |
| UR-5 | ✓ | ✓ |  |
| UR-6 | ✓ | ✓ |  |
| UR-7 |  | ✓ |  |
| UR-8 | ✓ | ✓ |  |
| UR-9 | ✓ |  |  |
| UR-10 | ✓ |  |  |
| UR-11 |  | ✓ |  |
| UR-12 |  | ✓ |  |
| UR-13 |  | ✓ |  |
| UR-14 |  | ✓ |  |
| UR-15 |  | ✓ |  |
| UR-16 |  | ✓ |  |
| UR-17 |  | ✓ |  |
| UR-18 |  | ✓ |  |
| UR-19 |  | ✓ |  |
| UR-20 |  | ✓ |  |
| UR-21 |  | ✓ |  |
| UR-22 |  | ✓ |  |
| UR-23 |  | ✓ |  |
|  |  |  |  |
|  |  |  |  |

## Constraint Requirements

Constraint requirements place restrictions on how software can be built and operated, including any aspect of the user interface. For example, definitions of external communications, hardware and software interfaces may already exist, either because the software is a part of a larger system, or because the user requires that certain protocols, standards, computers, operating systems, and library or kernel software be used.

|  |  |
| --- | --- |
| **User  Requirement** | **Description** |
| UR-24 | The use of MQ for data transfer.使用MQ进行数据传输 |
| UR-25 | The data Message format used by each VCATS to MES Interface is constrained by a Schema Definition File.  消息数据格式严格按照XSD 模板文件来进行 |
|  |  |

## Documentation Requirements

These specify project-specific requirements for documentation.

|  |  |
| --- | --- |
| **User  Requirement** | **Description** |
| UR-26  UR-26.1  UR-26.2 | Documentation will be supplied for the updated system:  (UR-16.1) System Configuration Guide系统配置指导  (UR-16.2) System Troubleshooting Guide系统问题分析指导 |

# Contact Information联系信息

|  |  |
| --- | --- |
| **Name** | **Contact Details** |
| Liang Chaonian (Bosch China) | Chaonian.liang@cn.bosch.com |
| Wang Yuanjie (Bosch China) | david.butcher@uk.bosch.com |
| Yu Xiaomei (JMCFS ME) | xyu12@jmc.com.cn |

# Sign Off签署

On behalf of JMCFS:

代表JMCFS

|  |  |  |
| --- | --- | --- |
| **Name** | **Position** | **Date** |
| Yu Xiaomei | ME Manager | DD-MMM-YYYY |

On behalf of Bosch Automotive Service Solutions:

博世代表

|  |  |  |
| --- | --- | --- |
| **Name** | **Position** | **Date** |
| Wing Zheng | Customer Technical Interface | DD-MMM-YYYY |
| Wang Yuanjie | Project Manager | DD-MMM-YYYY |

# Appendix A: Data Interface Table

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Interface No. | Source System | Destination System | Interface Name | Data Description | Protocol | Data Format |
| 1 | MES | VCATS | Broadcast Batch Data | Batch of Vehicle Broadcasts一批广播文件 | MQ | XML |
| 2 | MES | VCATS | ECU Key Part Serial Numbers | Serial Numbers for ECU Key Parts一批关键零件号 | MQ | XML |
| 3 | VCATS | MES | Broadcast Request | Request for Missing Broadcast Data for a Vehicle请求丢失的广播文件 | MQ | XML |
| 4 | VCATS | MES | ECU Part Numbers | ECU Hardware and Software Part Numbers，Configure Data ECU的硬件，软件，配置等 | MQ | XML |
| 5 | VCATS | MES | Overall Process Result | Overall Process Result for a given Vehicle and a given Inspection Process指定工位的测试通过与否结果 | MQ | XML |

# Appendix B: Sample File

XSD File as Below shows:

*<?xml version="1.0" encoding="UTF-8"?>*

*<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified" attributeFormDefault="unqualified">*

*<xs:element name="Eig" type="EigType"/>*

*<xs:simpleType name="messageType">*

*<xs:annotation>*

*<xs:documentation>Defines the source of the message</xs:documentation>*

*</xs:annotation>*

*<xs:restriction base="xs:string">*

*<xs:enumeration value="Broadcast Data"/>*

*<xs:enumeration value="ECU Key Part SN"/>*

*<xs:enumeration value="Broadcast Request"/>*

*<xs:enumeration value="ECU Part Code"/>*

*<xs:enumeration value="Process Data"/>*

*</xs:restriction>*

*</xs:simpleType>*

*<xs:simpleType name="sourceType">*

*<xs:annotation>*

*<xs:documentation>Defines the source of the message</xs:documentation>*

*</xs:annotation>*

*<xs:restriction base="xs:string">*

*<xs:enumeration value="MES"/>*

*<xs:enumeration value="VCATS"/>*

*</xs:restriction>*

*</xs:simpleType>*

*<xs:simpleType name="ResultType">*

*<xs:annotation>*

*<xs:documentation>Defines the result of the message</xs:documentation>*

*</xs:annotation>*

*<xs:restriction base="xs:string">*

*<xs:enumeration value="Pass"/>*

*<xs:enumeration value="Fail"/>*

*</xs:restriction>*

*</xs:simpleType>*

*<xs:complexType name="RequestType">*

*<xs:choice>*

*<xs:element name="VIN" type="xs:string"/>*

*</xs:choice>*

*</xs:complexType>*

*<xs:complexType name="HeadType">*

*<xs:sequence>*

*<xs:element name="DocType" type="messageType"/>*

*<xs:element name="DocId" type="DocIdType"/>*

*<xs:element name="DocNum" type="xs:decimal"/>*

*<xs:element name="DocVersion" type="xs:decimal"/>*

*<xs:element name="CreationTime" type="xs:dateTime"/>*

*<xs:element name="SourceSystem" type="sourceType"/>*

*<xs:element name="RetryCount" type="xs:integer"/>*

*<xs:element name="DataCount" type="xs:integer"/>*

*<xs:element name="Test" type="xs:boolean"/>*

*</xs:sequence>*

*</xs:complexType>*

*<xs:complexType name="BroadcastDataType">*

*<xs:sequence>*

*<xs:element name="VIN" type="xs:string"/>*

*<xs:element name="MODEYEAR" type="xs:string"/>*

*<xs:element name="SAP" type="xs:string"/>*

*<xs:element name="EOC" type="xs:string"/>*

*<xs:element name="ECU" type="xs:string"/>*

*</xs:sequence>*

*</xs:complexType>*

*<xs:complexType name="VehicleType">*

*<xs:sequence>*

*<xs:element name="VIN" type="xs:string"/>*

*</xs:sequence>*

*</xs:complexType>*

*<xs:complexType name="ProcessDataType">*

*<xs:sequence>*

*<xs:element name="Process" type="xs:string"/>*

*<xs:element name="Timestamp" type="xs:dateTime"/>*

*<xs:element name="VIN" type="xs:string"/>*

*<xs:element name="Result" type="ResultType"/>*

*</xs:sequence>*

*</xs:complexType>*

*<xs:complexType name="KeyPartType">*

*<xs:sequence>*

*<xs:element name="VIN" type="xs:string"/>*

*<xs:element name="DATAS" type="DATASType"/>*

*</xs:sequence>*

*</xs:complexType>*

*<xs:complexType name="DATASType">*

*<xs:sequence>*

*<xs:element name="DATA" type="DATAType" maxOccurs="unbounded"/>*

*</xs:sequence>*

*</xs:complexType>*

*<xs:complexType name="DATAType">*

*<xs:sequence>*

*<xs:element name="Barcode" type="xs:int"/>*

*<xs:element name="CommodityCode" type="xs:string"/>*

*</xs:sequence>*

*</xs:complexType>*

*<xs:complexType name="MeasurementItemType">*

*<xs:sequence>*

*<xs:element name="Barcode" type="xs:string"/>*

*<xs:element name="CommodityCode" type="xs:string"/>*

*</xs:sequence>*

*</xs:complexType>*

*<xs:complexType name="PartDataType">*

*<xs:sequence>*

*<xs:element name="VIN" type="xs:string"/>*

*<xs:element name="ECUPartsData" type="xs:string"/>*

*</xs:sequence>*

*<xs:complexType name="ItemType">*

*<xs:sequence>*

*<xs:element name="BroadcastData" type="BroadcastDataType" minOccurs="0" maxOccurs="50"/>*

*<xs:element name="Vehicle" type="VehicleType" minOccurs="0"/>*

*<xs:element name="Request" type="RequestType" minOccurs="0" maxOccurs="50"/>*

*<xs:element name="ECUPartsData" type="PartDataType" minOccurs="0" maxOccurs="50"/>*

*<xs:element name="ProcessData" type="ProcessDataType" minOccurs="0"/>*

*<xs:element name="KeyPart" type="KeyPartType" minOccurs="0"/>*

*</xs:sequence>*

*</xs:complexType>*

*<xs:complexType name="ItemsType">*

*<xs:sequence>*

*<xs:element name="Item" type="ItemType" maxOccurs="unbounded"/>*

*</xs:sequence>*

*</xs:complexType>*

*<xs:simpleType name="DocIdType"> <!-- The last 3 digits reflect the message type currently valid values are 1-8 -->*

*<xs:restriction base="xs:string">*

*<xs:pattern value=".\*00[1-5]"/> <!-- The 1 to 5 values reflect the messageType enumeration. -->*

*</xs:restriction>*

*</xs:simpleType>*

*<xs:complexType name="EigType">*

*<xs:sequence>*

*<xs:element name="Head" type="HeadType"/>*

*<xs:element name="Items" type="ItemsType"/>*

*</xs:sequence>*

*</xs:complexType>*

*</xs:schema>*

Details informations as below shows:

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Column Name | Description | Sample |
| 1 | DocType | Documents type definition(文档类型定义) | “Process Data” |
| 2 | DocId | Documents ID（文档类型ID） | M07-001-005 |
| 3 | DocNum | Documents serial number (文档序列号) | 605417428532390000 |
| 4 | DocVersion | Documents type version(文档版本) | 1.0 |
| 5 | CreationTime | The china creation time of this document(本文档创建的中国时间) | 2020-06-29T14:47:30 |
| 6 | SourceSystem | The creation system of this document（本文档创建的系统） | MES/VCATS |
| 7 | RetryCount | The retry count before succeed to send out this document（本文档发送成功前的尝试次数） | 0 |
| 8 | DataCount | The Data included in the body of this document(本文包含的数据数量) | 1 |
| 9 | Test | Is this for test or not(本文档是做测试使用吗) | False\True |

Broadcast File as below shows:

*<?xml version="1.0" encoding="UTF-8" standalone="yes"?>*

*<Eig>*

*<Head>*

*<DocType>Broadcast Data</DocType>*

*<DocId>M07-001</DocId>*

*<DocNum>605417428532390000</DocNum>*

*<DocVersion>1.0</DocVersion>*

*<CreationTime>2020-06-29T14:47:30</CreationTime>*

*<SourceSystem>MES</SourceSystem>*

*<RetryCount>0</RetryCount>*

*<DataCount>1</DataCount>*

*<Test>false</Test>*

*</Head>*

*<Items>*

*<Item>*

*<BroadcastData>*

*<VIN>%VIN:LETDJECB3EH100124</VIN>--Value should strict to “%VIN:XXXX”*

*<MODEYEAR>%MODEYEAR:2018</MODEYEAR>--Value should strict to “%MODEYEAR:XXXX”*

*<SAP>%SAP:AJACAJ616ECKFJW000</SAP>--Value should strict to”%SAP:XXXX”*

*<EOC>%EOC:XXXXXXX</EOC>--Value should strict to “%EOC:XXXX”*

*<ECU>%BMS.HW:HW\_V%BMS.SW:34567%BMS.PN:PN%%ABS.HW:HW\_V%ABS.SW:34567%ABS.PN:PN</ECU>*

*</BroadcastData>*

*</Item>*

*</Items>*

*</Eig>*

Value in “ECU” contain a list of data like “*%XX. XX: XX*”, the first “XX” is the ECU name ,the second “XX” is the attribute of this ECU ,the third one is the value, the reality number depends on the vehicle type;

“ECU”这个字段的内容包含一大段“*%XX. XX:XXX*”这样的数据，第一个“XX”是ECU的名字，第二个为ECU的属性，第三个为值，实际的数据的多少取决车型定义。

Key Part SN:

*<?xml version="1.0" encoding="UTF-8" standalone="yes"?>*

*<Eig>*

*<Head>*

*<DocType>ECU Key Part SN</DocType>*

*<DocId>M07-002</DocId>*

*<DocNum>3333100043018716</DocNum>*

*<DocVersion>1.0</DocVersion>*

*<CreationTime>2020-11-28T15:47:30</CreationTime>*

*<SourceSystem>MES</SourceSystem>*

*<RetryCount>0</RetryCount>*

*<DataCount>1</DataCount>*

*<Test>false</Test>*

*</Head>*

*<Items>*

*<Item>*

*<KeyPart>*

*<VIN>LB37752Z1GC285109</VIN>*

*<DATAS>*

*<DATA>*

*<Barcode>A12345678</Barcode>--Barcode value*

*<CommodityCode>T001</CommodityCode>--Bracode name*

*</DATA>*

*<DATA>*

*<Barcode>A12222222</Barcode>*

*<CommodityCode>T002</CommodityCode>*

*</DATA>*

*/DATAS>*

*</KeyPart>*

*</Item>*

*</Items>*

*</Eig>*

Broadcast Request:

*<?xml version="1.0" encoding="utf-8" standalone="no"?>*

*<Eig>*

*<Head>*

*<DocType>Broadcast Request</DocType>*

*<DocId>M07-003</DocId>*

*<DocNum>000000000000008</DocNum>*

*<DocVersion>1.0</DocVersion>*

*<CreationTime>2018-06-29T10:27:09</CreationTime>*

*<SourceSystem>VCATS</SourceSystem>*

*<RetryCount>0</RetryCount>*

*<DataCount>1</DataCount>*

*<Test>false</Test>*

*</Head>*

*<Items>*

*<Item>*

*<Request>*

*<VIN>A1234567890123456</VIN>*

*</Request>*

*</Item>*

*</Items>*

*</Eig>*

ECU Part Data:

*<?xml version="1.0" encoding="utf-8" standalone="no"?>*

*<Eig>*

*<Head>*

*<DocType>ECU Part Code</DocType>*

*<DocId>M07-004</DocId>*

*<DocNum>000000000307748</DocNum>*

*<DocVersion>1.0</DocVersion>*

*<CreationTime>2018-06-29T14:40:57</CreationTime>*

*<SourceSystem>VCATS</SourceSystem>*

*<RetryCount>0</RetryCount>*

*<DataCount>1</DataCount>*

*<Test>false</Test>*

*</Head>*

*<Items>*

*<Item>*

*<ECUPartsData>*

*<VIN>L6T7752Z1JZ001546</VIN>*

*<PartsData>VEH=VIN|DATA=L6T7752Z1JZ001546; ECU=ABS|F187=1AC1C2D9FA|F195=DFFGGH|F193=DFFGGH;ECU=BCM|F187=1AC1C2D9FA|F195=DFFGGH|F193=DFFGGH;</PartsData>*

*</ECUPartsData>*

*</Item>*

*</Items>*

*</Eig>*

Process data:

*<?xml version="1.0" encoding="utf-8" standalone="no"?>*

*<Eig>*

*<Head>*

*<DocType>Process Data</DocType>*

*<DocId>M07-005</DocId>*

*<DocNum>000000000307758</DocNum>*

*<DocVersion>1.0</DocVersion>*

*<CreationTime>2018-06-29T14:45:49</CreationTime>*

*<SourceSystem>VCATS</SourceSystem>*

*<RetryCount>0</RetryCount>*

*<DataCount>1</DataCount>*

*<Test>false</Test>*

*</Head>*

*<Items>*

*<Item>*

*<ProcessData>*

*<Process>SWDL</Process>*

*<Timestamp>2018-06-29T14:45:28</Timestamp>*

*<VIN>L6T7752Z9JZ003433</VIN>*

*<Result>Fail</Result>*

*</ProcessData>*

*</Item>*

*</Items>*

*</Eig>*

1. [↑](#footnote-ref-1)