

## FV21 Finished vehicles - Compound Geo Fence Data

OEMs and LSPs often use geo-fenced areas on their premises, where they park vehicles with the same process status. This way, by knowing the exact position of a vehicle in a compound, the process status can be automatically determined.

VERSION No: V1R1  
DATE: SEPTEMBER 2022  
Author: ECG/Odette/VDA

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**CHANGE HISTORY**

No	Changes
01	Date Version Change Description Path 2022-05-12 1.1 optional -> required Envelope/Header/ReceiverID/@Agency
02	Date Version Change Description Path 2022-05-12 1.1 optional -> required Envelope/Header/SenderID/@Agency
03	Date Version Change Description Path 2022-05-05 1.1 extension of integer changed to extension of string to match added formats. Envelope/Body/CompoundGeoFenceData/IssueDate
04	Date Version Change Description Path 2022-09-13 1.1 Deleted CCYYMMDDhhmmZ and CCYYMMDDhhmmssZ - no appropriate EDIFACT codes available. Use corresponding format with CCYYMMDDhhmmssZZZ and CCYYMMDDhhmmssZZZ with UTC to denominate zulu-time Envelope/Body/CompoundGeoFenceData/IssueDate/@Format
05	Date Version Change Description Path 2022-05-12 1.1 optional -> required Envelope/Body/CompoundGeoFenceData/IssueDate/@Format
06	Date Version Change Description Path 2022-05-12 1.1 optional -> required Envelope/Body/CompoundGeoFenceData/Header/SenderID/@Agency
07	Date Version Change Description Path 2022-05-12 1.1 optional -> required Envelope/Body/CompoundGeoFenceData/Header/ReceiverID/@Agency
08	Date Version Change Description Path 2022-02-17 1.1 Comment amended Envelope/Body/CompoundGeoFenceData/Line/ID
09	Date Version Change Description Path 2022-05-05 1.1 extension of integer changed to extension of string to match added formats. Envelope/Body/CompoundGeoFenceData/Line/ValidFromDate
10	Date Version Change Description Path 2022-09-13 1.1 Deleted CCYYMMDDhhmmZ and CCYYMMDDhhmmssZ - no appropriate EDIFACT codes available. Use corresponding format with CCYYMMDDhhmmssZZZ and CCYYMMDDhhmmssZZZ with UTC to denominate zulu-time Envelope/Body/CompoundGeoFenceData/Line/ValidFromDate/@Format
11	Date Version Change Description Path 2022-05-12 1.1 optional -> required Envelope/Body/CompoundGeoFenceData/Line/ValidFromDate/@Format

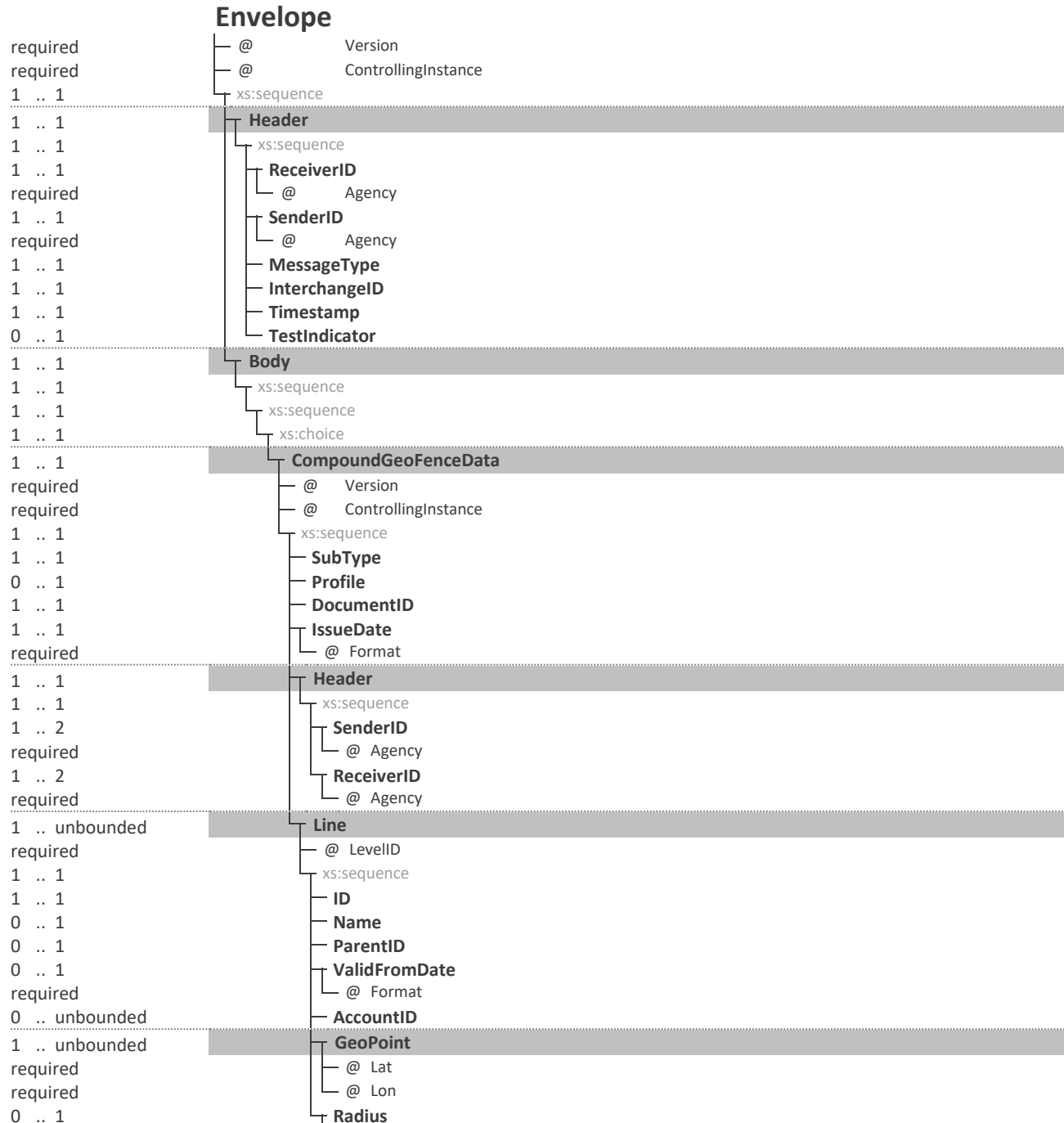
## CHANGE HISTORY

No	Changes	
12	Date	2022-02-17
	Version	1.1
	Change Description	New element AccountID
	Path	Envelope/Body/CompoundGeoFenceData/Line/AccountID

## STRUCTURE

## Occurrence

## Element/Attribute



Bold = Simple Element, Bold on grey background = Complex Element, @ + Italic = Attribute, Grey = Group

## STRUCTURE

Occurrence	Element/Attribute
required	L @ UoM

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## GUIDELINE

Element/Attribute	Annotation
<b>Envelope</b>	<p><b>Type</b> extension (EnvelopeType)</p> <p><b>Remark</b> The Envelope element provides a wrapper around the message that can be used by traditional EDI-systems and web-services to identify the message sender and receiver on a technical level rather than the commercial level. It contains also a unique interchange number for tracking, tracing and reference, a timestamp and an indicator, whether the interchange is a test.</p> <p>To keep it simple each envelope contains exactly one specified business message in its Body sub-element. For technical reasons (e.g. to select the correct converter-procedure in the EDI-system) this business message type must be specified in the Envelope/Header element as well.</p>
@ <i>Version</i>	<p><b>Type</b> xs:normalizedString</p> <p><b>Fixed</b> 2022A</p> <p><b>Use</b> required</p> <p><b>WhiteSpace</b> replace</p> <p><b>Remark</b> Schema version</p> <p><b>Applicable Codes</b></p> <p>2022A</p>
@ <i>ControllingInstance</i>	<p><b>Type</b> xs:string</p> <p><b>Fixed</b> Odette</p> <p><b>Use</b> required</p> <p><b>Remark</b> To indicate the author (fixed: Odette)</p>
xs:sequence	<b>Occurrence</b> 1 .. 1
<b>Header</b>	<p><b>Occurrence</b> 1 .. 1</p> <p><b>Type</b> EnvelopeHeaderType</p> <p><b>Remark</b> This element contains the interchange information of the data exchange.</p>
xs:sequence	<b>Occurrence</b> 1 .. 1
<b>ReceiverID</b>	<p><b>Occurrence</b> 1 .. 1</p> <p><b>Type</b> PartyIdentifierType</p> <p><b>Length</b> 1 .. 70</p> <p><b>Remark</b> Technical ID of the receiver - e.g. address of a web-service or OFTP2-ID</p>
@ <i>Agency</i>	<p><b>Type</b> IdentifierAssigningAgencyCode</p> <p><b>Use</b> required</p> <p><b>Remark</b> Responsible agency or organisation assigning the identifier.</p> <p><b>Applicable Codes</b></p> <p><b>Buyer</b> Identifier assigned by the buyer (customer)</p> <p><b>DUNS</b> D.U.N.S. number, assigned by Dun and Bradstreet</p> <p><b>Odette</b> Assigned by Odette</p>

Bold = Element, @ + Italic = Attribute, Grey = Group

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## GUIDELINE

Element/Attribute	Annotation
<b>SenderID</b>	<b>Applicable Codes</b>
	<b>Operator</b> Assigned by the owner of the operation
	<b>Seller</b> Identifier assigned by the supplier
	<b>Occurrence</b> 1 .. 1
	<b>Type</b> PartyIdentifierType
<b>@ Agency</b>	<b>Length</b> 1 .. 70
	<b>Remark</b> Technical ID of the sender - e.g. address of a web-service or OFTP2-ID
	<b>Type</b> IdentifierAssigningAgencyCode
	<b>Use</b> required
	<b>Remark</b> Responsible agency or organisation assigning the identifier.
	<b>Applicable Codes</b>
	<b>Buyer</b> Identifier assigned by the buyer (customer)
	<b>DUNS</b> D.U.N.S. number, assigned by Dun and Bradstreet
	<b>Odette Operator</b> Assigned by Odette
	<b>Seller</b> Identifier assigned by the supplier
<b>MessageType</b>	<b>Occurrence</b> 1 .. 1
	<b>Type</b> ElectronicDocumentTypeCode
	<b>Remark</b> The message type as identified in the web service.
<b>InterchangeID</b>	<b>Applicable Codes</b>
	<b>CompoundGeoFenceData</b>
	<b>Occurrence</b> 1 .. 1
	<b>Type</b> xs:string
<b>Timestamp</b>	<b>Remark</b> The unique ID assigned by the connector to the interchange. Recommended: combination of sender's URL+timestamp
	<b>Occurrence</b> 1 .. 1
	<b>Type</b> xs:dateTime
<b>TestIndicator</b>	<b>Remark</b> Date and time of generation of the envelope (may differ from the message date itself), local time CCYY-MM-DDTHH:MM:SS - example: 2010-10-04T10:15:32
	<b>Occurrence</b> 0 .. 1
	<b>Type</b> xs:boolean
	<b>Default</b> false
<b>Body</b>	<b>Remark</b> To mark the interchange as test (true).
	<b>Occurrence</b> 1 .. 1
	<b>Type</b> EnvelopeBodyType
	<b>Remark</b> The Body element contains the business message and - in some cases - Attachments.

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## GUIDELINE

Element/Attribute	Annotation
xs:sequence	Occurrence 1 .. 1
xs:sequence	Occurrence 1 .. 1
xs:choice	Occurrence 1 .. 1
	Remark Here, exactly one of the defined message elements follows.
<b>CompoundGeoFenceData</b>	Occurrence 1 .. 1
	Type extension (ElectronicDocumentType_2)
@ <i>Version</i>	Type xs:normalizedString
	Fixed 1.1
	Use required
	WhiteSpace replace
	Remark Schema version
	<b>Applicable Codes</b>
	1.1
@ <i>ControllingInstance</i>	Type ControllingInstanceCode
	Fixed Odette
	Use required
	Remark To indicate the author.
	<b>Applicable Codes</b>
	Odette
	VDA
xs:sequence	Occurrence 1 .. 1
<b>SubType</b>	Occurrence 1 .. 1
	Type ElectronicDocumentSubTypeCode
	Remark To define the sub-type of the document - see codes
	<b>Applicable Codes</b>
	<b>CompoundGeoFenceData</b> A message to define areas or zones with specific meaning in the finished vehicle distribution process.
<b>Profile</b>	Occurrence 0 .. 1
	Type xs:string
	Name To identify the implementation profile of the message (e.g. the underlying business process etc.)
<b>DocumentID</b>	Occurrence 1 .. 1
	Type string_1_35
	Length 1 .. 35
	Remark The number issued by the creator of the document.
<b>IssueDate</b>	Occurrence 1 .. 1
	Type DateType2
	Remark Issue date / time of this message
@ <i>Format</i>	Type DateTypeFormatCode
	Use required
	Remark Format of date / date + time , coded
	<b>Applicable Codes</b>
	CCYYMMDD Date

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## GUIDELINE

Element/Attribute	Annotation
	<b>Applicable Codes</b> <b>CCYYMMDDhhmm</b> Date and time <b>CCYYMMDDhhmmZhmm</b> Date & time with time zone offset, e. g. 20190124153000+0100 => 24.01. 2019 15:30:00 Berlin time zone (UTC +1 hour) <b>CCYYMMDDhhmmss</b> Date & time including seconds <b>CCYYMMDDhhmmssZhmm</b> Date & time including seconds with time zone
<b>Header</b>	<b>Occurrence</b> 1 .. 1 <b>Type</b> VehicleGeofenceHeaderType
<b>xs:sequence</b>	<b>Occurrence</b> 1 .. 1
<b>SenderID</b>	<b>Occurrence</b> 1 .. 2 <b>Type</b> PartyIdentifierType <b>Length</b> 1 .. 70 <b>Remark</b> Commercial ID of the sender of the message
<b>@ Agency</b>	<b>Type</b> IdentifierAssigningAgencyCode <b>Use</b> required <b>Remark</b> Responsible agency or organisation assigning the identifier.
	<b>Applicable Codes</b> <b>Buyer</b> Identifier assigned by the buyer (customer) <b>DUNS</b> D.U.N.S. number, assigned by Dun and Bradstreet <b>Odette Operator</b> Assigned by Odette Assigned by the owner of the operation
<b>ReceiverID</b>	<b>Occurrence</b> 1 .. 2 <b>Type</b> PartyIdentifierType <b>Length</b> 1 .. 70 <b>Remark</b> Commercial ID of the receiver of the message.
<b>@ Agency</b>	<b>Type</b> IdentifierAssigningAgencyCode <b>Use</b> required <b>Remark</b> Responsible agency or organisation assigning the identifier.
	<b>Applicable Codes</b> <b>Buyer</b> Identifier assigned by the buyer (customer) <b>DUNS</b> D.U.N.S. number, assigned by Dun and Bradstreet <b>Odette Operator</b> Assigned by Odette Assigned by the owner of the operation
<b>Line</b>	<b>Occurrence</b> 1 .. unbounded <b>Type</b> VehicleGeofenceLineType

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## GUIDELINE

Element/Attribute	Annotation
<b>@</b> <i>LevelID</i>	<b>Remark</b> Each line defines one functional area including its boundaries (geo-coordinates).
	<b>Type</b> xs:string
	<b>Use</b> required
	<b>Remark</b> Level of the area / zone: 1 - plant, compound, facility 2 - functional area within the boundaries of a level 1 area 3 - functional sub-area within the boundaries of a level 2 area
<b>xs:sequence</b>	<b>Applicable Codes</b>
	<b>1</b> plant, compound. facility
	<b>2</b> functional area within the boundaries of a level 1 area
	<b>3</b> functional sub-area within the boundaries of a level 2 area
<b>ID</b>	<b>Occurrence</b> 1 .. 1
	<b>Occurrence</b> 1 .. 1
	<b>Type</b> string_1_35
	<b>Length</b> 1 .. 35
	<b>Remark</b> Area identification: For level 2 zones, the following zone identification terms shall be used: - Production - Factory handover - Storage - Non-conform products - Pre-loading area - Workshop standby - Workshop - Workshop done - Customs import - Customs export - Shipment - First place of rest (FPOR) - Transport For further details, see the process description: If necessary, index numbers or values can be added to differentiate several level 2 areas of the same function (e.g. Workshop 1, Workshop 2 or the like). It is strongly recommended to apply the following scheme to build the IDs of zones: a. L1 : CENTREXXXX b. L2 : L2_CENTREXXXX_STORAGE1 c. L3 : L3_CENTREXXXX_STORAGE1_AREA1 (name of Level 3 is free)

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## GUIDELINE

Element/Attribute	Annotation
<b>Name</b>	<b>Occurrence</b> 0 .. 1 <b>Type</b> string_1_35 <b>Length</b> 1 .. 35 <b>Remark</b> Name of the area or zone
<b>ParentID</b>	<b>Occurrence</b> 0 .. 1 <b>Type</b> string_1_35 <b>Length</b> 1 .. 35 <b>Remark</b> ID of the next higher level area, this area belongs to. Required for level 2 and level 3 areas.
<b>ValidFromDate</b>	<b>Occurrence</b> 0 .. 1 <b>Type</b> DateType2
<b>@ Format</b>	<b>Type</b> DateTypeFormatCode <b>Use</b> required <b>Remark</b> Format of date / date + time , coded
<b>Applicable Codes</b>	
	CCYYMMDD Date
	CCYYMMDDhhmm Date and time
	CCYYMMDDhhmmZZZ Date & time with time zone
	CCYYMMDDhhmmZhmm Date & time with time zone offset, e. g. 20190124153000+0100 => 24.01. 2019 15:30:00 Berlin time zone (UTC +1 hour)
<b>AccountID</b>	<b>Occurrence</b> 0 .. unbounded <b>Type</b> string_1_35 <b>Length</b> 1 .. 35 <b>Name</b> Associated account ID
<b>GeoPoint</b>	<b>Occurrence</b> 1 .. unbounded <b>Type</b> extension (xsd:anyType) <b>Remark</b> Coordinates of a vertex point defining the shape (outline) of the area or the centre (when used with radius).
<b>@ Lat</b>	<b>Type</b> xs:decimal <b>FractionDigits</b> 6 <b>Use</b> required <b>Inclusive</b> -90 .. 90
<b>@ Lon</b>	<b>Type</b> xs:decimal <b>FractionDigits</b> 6 <b>Use</b> required <b>Inclusive</b> -180 .. 180
<b>Radius</b>	<b>Occurrence</b> 0 .. 1 <b>Type</b> QuantityType <b>Remark</b> Radius around the identified point
<b>@ UoM</b>	<b>Type</b> MeasurementUnitCode <b>Use</b> required
<b>Applicable Codes</b>	
KMT	Kilometre

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## GUIDELINE

### Element/Attribute

### Annotation

#### Applicable Codes

MTR

Metre

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## EXAMPLE(S)

## Vehicle geo-fence data (area with corner points)

```
<?xml version="1.0" encoding="UTF-8"?>
<Envelope Version="2022A" ControllingInstance="Odette">
  <Header>
    <ReceiverID>ReceiverID</ReceiverID>
    <SenderID>SenderID</SenderID>
    <MessageType>VehicleGeoFenceData</MessageType>
    <InterchangeID>www.abc.com_201010151433</InterchangeID>
    <Timestamp>2020-01-20T14:33:55</Timestamp>
  </Header>
  <Body>
    <VehicleGeoFenceData Version="1.1" ControllingInstance="Odette">
      <SubType>VehicleGeoFenceData</SubType>
      <Profile>CCC Profile</Profile>
      <DocumentID>1234567</DocumentID>
      <IssueDate Format="CCYYMMDD">20200120</IssueDate>
      <Header>
        <SenderID Agency="DUNS">123456789</SenderID>
        <ReceiverID Agency="DUNS">987654321</ReceiverID>
      </Header>
      <Line LevelID="1">
        <ID>123456789</ID>
        <Name>COMPOUND ABC</Name>
        <GeoPoint Lat="53.59129" Lon="8.539605"/>
        <GeoPoint Lat="53.590121" Lon="8.527117"/>
        <GeoPoint Lat="53.578606" Lon="8.536301"/>
        <GeoPoint Lat="53.578321" Lon="8.556601"/>
      </Line>
      <Line LevelID="2">
        <ID>ZONE A</ID>
        <Name>FPOR</Name>
        <ParentID>123456789</ParentID>
        <ValidFromDate Format="CCYYMMDDhhmm">202001200800</ValidFromDate>
        <GeoPoint Lat="53.592132" Lon="8.530138"/>
        <GeoPoint Lat="53.593125" Lon="8.532541"/>
        <GeoPoint Lat="53.589890" Lon="8.531897"/>
        <GeoPoint Lat="53.590833" Lon="8.534858"/>
      </Line>
    </VehicleGeoFenceData>
  </Body>
</Envelope>
```

## Vehicle geo-fence data (radius)

```
<?xml version="1.0" encoding="UTF-8"?>
<Envelope Version="2020A" ControllingInstance="Odette">
  <Header>
    <ReceiverID>ReceiverID</ReceiverID>
    <SenderID>SenderID</SenderID>
    <MessageType>VehicleGeoFenceData</MessageType>
    <InterchangeID>www.abc.com_201010151433</InterchangeID>
    <Timestamp>2020-01-20T14:33:55</Timestamp>
  </Header>
  <Body>
    <VehicleGeoFenceData Version="1.0" ControllingInstance="Odette">
      <SubType>VehicleGeoFenceData</SubType>
      <Profile>CCC Profile</Profile>
      <DocumentID>1234567</DocumentID>
      <IssueDate Format="CCYYMMDD">20200120</IssueDate>
      <Header>
        <SenderID Agency="DUNS">123456789</SenderID>
        <ReceiverID Agency="DUNS">987654321</ReceiverID>
      </Header>
      <Line LevelID="1">
        <ID>123456789</ID>
        <Name>Dealership XYZ</Name>
        <GeoPoint Lat="53.59129" Lon="8.539605"/>
        <Radius UoM="MTR">100</Radius>
      </Line>
    </VehicleGeoFenceData>
  </Body>
</Envelope>
```