# Data Format Description Language (DFDL) v1.0

**Experience Document 7**

**Experimental Feature: emptyElementParsePolicy**

Status of This Document

Grid Working Document (GWD)

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Abstract

This document provides experience information to the OGF community on the Data Format Description Language (DFDL) 1.0 specification (GFD-P-R.207).

It documents an experimental property feature: dfdlx:emptyElementParsePolicy.

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# Introduction & Description

Compatibility and interoperability between two different implementations is required for success of the DFDL standard.

The IBM DFDL implementation in their AppConnect product has a behaviour for empty elements that is not in compliance with the DFDL v1.0 draft standard as of the Sept 2014 draft [DFDL]. However, the behaviour of the IBM DFDL implementation is considered useful and desirable. A property is proposed to enable selection of this behaviour in any DFDL implementation. The property was implemented experimentally as dfdlx:emptyElementParsePolicy in the Daffodil DFDL implementation with good success at improving interoperability of DFDL schemas with IBM DFDL.

|  |  |
| --- | --- |
| Property | Description |
| dfdlx:emptyElementParsePolicy | Enum  Valid values are "treatAsMissing" or "treatAsEmpty"  This property describes the behavior of the DFDL processor for empty elements of type xs:string or xs:hexBinary.  When 'treatAsEmpty' an empty string/hexBinary that conforms to the dfdl:emptyValueDelimiterPolicy and which is required, the representation is understood to be empty, and it will be substituted with a default value (if defined). If no default value is defined the representation is understood to be normal, and the value will be an empty string, or zero-length xs:hexBinary. If the element occurrence is optional, nothing is added to the infoset. If the empty string/hexBinary does not conform to the emptyValueDelimiterPolicy, then if the element occurrence is required, no defaulting is performed, the representation is understood to be normal, and an empty string or zero-length hexBinary is added to the infoset. If the element occurrence is optional, then if the representation is zero-length the representation is understood to be absent, and, nothing is added to the infoset. However, if the representation is non-zero-length, the representation is understood to be normal, and an empty string or zero-length hexBinary is added to the infoset.  When 'treatAsMissing' empty string/hexBinary values are never added to the infoset. When an empty string/hexBinary that conforms to the dfdl:emptyValueDelimiterPolicy and which is required is encountered, then if there is a default value to substitute, it is substituted. Otherwise a parse error is raised. If the element occurrence is optional nothing is added to the infoset. If the empty string/hexBinary does not conform to dfdl:emptyValueDelimiterPolicy, then no default value will be considered for a required occurrence, but otherwise the behavior is the same. An empty required occurrence causes a parse error, and an empty optional occurrence adds nothing to the infoset. |

1. Security Considerations

No security issues have been raised.

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1. References

[DFDL] OGF DFDL 1.0 specification: <http://www.ogf.org/documents/GFD.207.pdf/>