

## **ICAO & ADEXP ATS Message to FIXM Translator**

The ICAO & ADEXP ATS Message to FIXM Translator is provided as a Java™ software library that takes an ATS ICAO or ADEXP format message as input and returns an FIXM compliant XML document to the caller. The caller is also provided a list of one or more errors that the ATS Message Parser may have produced when parsing a message.

The ATS Message Parser is able to process ATS messages in both ICAO and ADEXP formats. The ICAO & ADEXP ATS Message to FIXM Translator also produces FIXM output for ADEXP format messages.

The ATS Message Parser performs the following syntactic and semantic checks:

- Analyses all ICAO and ADEXP fields for correct syntax and semantics;
- Analyses field 15/ROUTE for correct syntax and semantics;
- Performs route extraction on field 15;
- Reports accurate and meaningful errors should any fields not conform to ICAO/ADEXP standards;

The software provides a solution for a relatively complex problem relieving your organisation from having to spend time and money in re-inventing the wheel.

## **Design Paradigm**

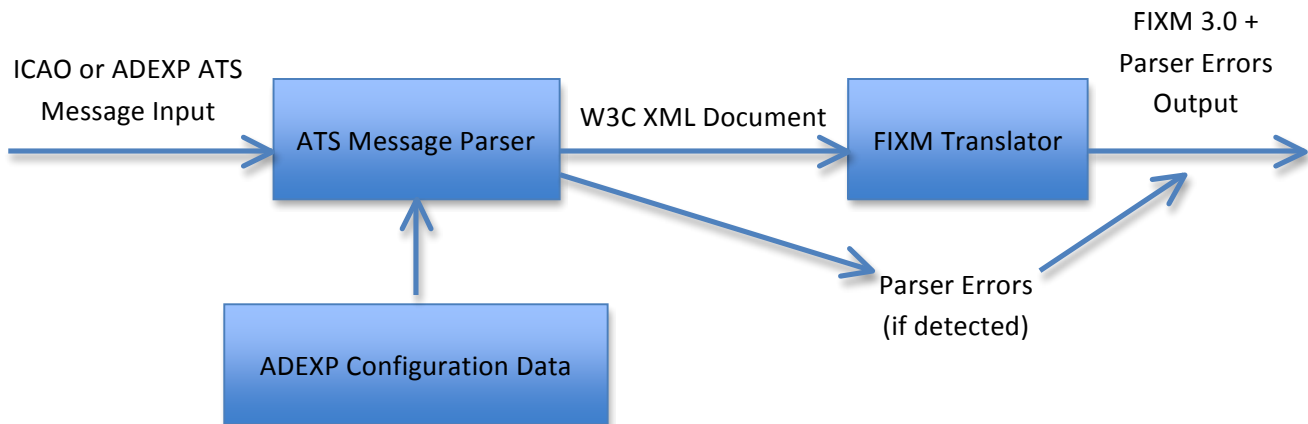
The ICAO & ADEXP ATS Message to FIXM Translator has been implemented using industry standard compiler and XML technologies. The FIXM output is fully compliant with the FIXM version 3.0 specification.

It is the objective of Flight ATM Systems to make their software, hardware and OS independent, which is why the ICAO & ADEXP ATS Message to FIXM Translator is written in Java™.

Because the ATS Parser performs route extraction on the route field (ICAO F15, ADEXP ROUTE), the FIXM translator is able to populate the FIXM Route->RouteSegment structures. Both F18 DLE and route constraints given in the F15/ROUTE fields are applied as required to the appropriate RouteSegment structures.

## FIXM Translator Internal Overview

The FIXM Translator architecture is shown in the following diagram.



The API consists of two methods, one accepts an ATS message with an AFTN header, the other without the AFTN header. An FIXM document along with any errors detected by the ATS parser are returned to the caller.

## Licensing

The libraries are available for a one off licence cost, in addition, maintenance support can also be provided upon request. The maintenance support is foreseen to assist with integration and customisation, the latter is not uncommon in the ATM domain.