

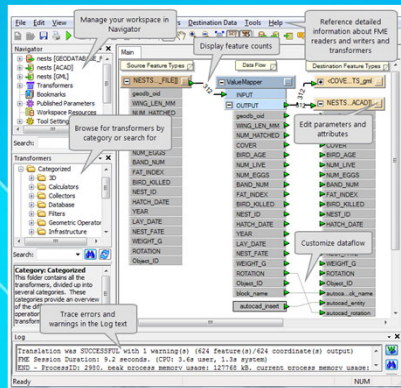
# Product Presentation

## Applicant Name:

Esri China (Hong Kong) Limited

## Product Name: ArcGIS Data Interoperability

**Specification:** ArcGIS Data Interoperability extension for Desktop is an integrated spatial extract, transform, and load (ETL) toolset that runs within the geoprocessing framework using Safe Software's FME technology. With ArcGIS Data Interoperability, user can launch the Workbench application directly to author FMW files that can be directly attached to an ETL tool.



**Core Functions:** Provide data conversion and integration across multiple sources and formats

**Technology Used:** Esri ArcGIS and Safe Software FME

## Construction Process Involved:

Planning and Construction

## Key Improvement in Construction Process:

- Productivity – Data Interoperability allow quick conversion of data in a variety of formats includes BIM data into ArcGIS’s GIS environment.
- Quality – Data Interoperability ensures data integrity and avoids data loss throughout the data conversion process.
- Environmental – Data Interoperability supports full digital workflow in the data conversion and integration processes.

## Job References:

[Data Conversion of Central Kowloon Route – Buildings, Electrical and Mechanical Works (HY/2019/13) for RDMS of Highways Department, Hong Kong, Adoption, 2020]

[A99 Motorway Expansion and Environmental Planning, Germany, Adoption, 2017]

## Innovative Features

**Core Technology:** Esri ArcGIS and Safe Software FME

**Comparison with current practice and popular models:**

- Remove data format barriers by allowing conversion of data in a variety of formats includes BIM data into ArcGIS data format for further spatial analysis and asset management
- The Workbench application allows users to diagram their business logic with hundreds of available transformations that are applied to streams of features that are connected how user want without coding.
- Enables scaling and democratizing users' work by sharing extraction, transformation, and loading (ETL) tools to ArcGIS Enterprise. Web tools deliver data interoperability across your entire system.

**First Launch Date:** June 30, 2010 (ArcGIS Data Interoperability 10)

## Adoption Example

### Project for illustration:

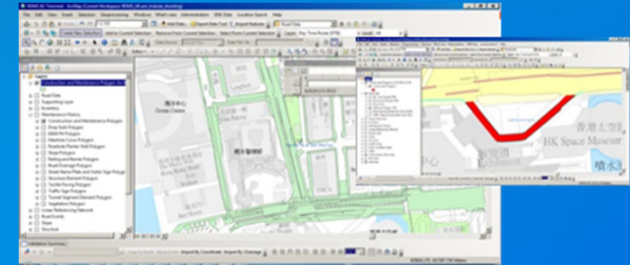
Data Conversion of Central Kowloon Route – Buildings, Electrical and Mechanical Works (HY/2019/13) for Road Data Maintenance System of Highways Department (Hong Kong, 2020)

### Work Process:

Planning and Construction

### Use / Function in project:

- Providing a data conversion function in ArcGIS Desktop to convert CAD (in Autodesk DWG format) graphical data and related textual attributes (in Microsoft Excel 97-2003 xls format) for those Highways Inventories specified in the “Annex 1 - GIS Specifications for Engineering Surveys of Highways Department” to ArcGIS File Geodatabase format for the submission to Highways Department.
- Providing integrity checking in converting the data to ArcGIS File Geodatabase format to meet Highways Department GIS Specifications.



*Historical Records on Road  
Surface Reconstruction*

## Benefits – Productivity

### Improve productivity by:

1. Allowing quick conversion of data in a variety of formats includes BIM data into ArcGIS's GIS environment.
2. Avoiding Complex and repetitive data conversion workflow can be avoided.
3. Strengthening ArcGIS as a common data environment (CDE) as data format barriers are removed.
4. The extraction, transformation, and loading (ETL) tools can be shared as web tools across the organization.

## Benefits – Quality

### Improve Quality by:

1. Ensuring data integrity and avoiding data loss throughout the data conversion process.
2. Strengthening ArcGIS as a common data environment (CDE) as a wide range of data sources can be integrated into the GIS platform for visualization and analysis. GIS workflows often rely on data generated by outside sources in a variety of formats.

## Benefits – Environmental

### Improve Environmental Performance by:

1. Supporting full digital workflow in the data conversion and integration processes.
2. Avoiding repetitive data collection (sometimes on-site) and relative resources wastage with power data conversion tool to ensure interoperability.