ArcGIS Server and FME in symphony – producing documents

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Introduction

- Fully-fledged E&P company on the Norwegian Continental Shelf (NCS)
- Operator of the producing Alvheim field and for the Ivar Aasen field development. Partner in the Johan Sverdrup field.
- Active exploration program
- Headquarters in Trondheim
In excess of 500 employees.

Operator of 5 fields; Alvheim, Vilje, Volund, Bøyla og Jette.

Approx. 87 licences, 43 as operator.

Operator for Ivar Aasen field development.

2016 Q1 Production: 60,6 Mboepd.

2015 Reserves: 498 Mmboe.

Listed on Oslo Børs with ticker ‘DETNOR’.

Largest shareholder is Aker with 49,99%.
GIS at Det norske oljeselskap

- Full-stack Esri + FME from Safe Software
- Ongoing Portal for ArcGIS roll-out
- Desktop users, web-users, app-users
- Extensive automation

- Frequent user groups
  - Exploration
  - Business Development
  - HSE
  - Communication
The licence sheet

- **Fact-sheet for quick info about a particular licence**
  - Location
  - Work-program (deadlines)
  - Geo-section
  - Wells
  - Prospects and volumes

- **Pulls on data from**
  - Norwegian Petroleum Directorate’s online FactPages
  - Det norske’s prospect database (GeoX)
  - The internal GIS database

- **Standardised maps**
Map automation with arcpy.mapping

Map templates

Python Toolbox

Definition queries
Extent
Highlights

Maps
Application architecture

• Prospect outlines and cultural data from ArcSDE

• Configuration, additional input and output available from network drive

• GeoX integration through custom views
FME from Safe Software
Excel template

- Formatting
- Named ranges
FME Workspace

Input: Published params

- FeatureReader
- Joiner
- FeatureMerger
- StatisticsCalculator
- ListExploder, ListSlicer
- DateDifferenceCalculator
ArcGIS Server workflow

User opens JavaScript application

1. JavaScript queries ArcGIS Server
2. GP tool reads config
3. App generates UI

User has made a selection

1. Selection is sent to ArcGIS Server
2. GP tool generates maps
3. FME generates Excel sheet
4. Results are zipped

Download
Front end
Conclusion

- All repetitive tasks should be automated if possible
- Automation of none-spatial workflows
  - Our automation tools can also be applied elsewhere
- Possible improvements:
  - Database driven front-end (configuration)
  - Possible for user to store changes to config
  - Write to PDF directly? New functionality