

Oracle Application Express

Eftermiddagsmøde

Oracle/APEX Konsulent





Oracle/APEX Konsulent



- Startede som Oracle udvikler i 1988 (RDBMS Version 5)
- Startede MBNDATA i 1996
- APEX specialisering siden 1997



Agenda

- APEX - Et hurtigt overblik
- Real life APEX Applikation
- APEX 4.2 / Oracle Cloud
- APEX Listener 2.0 (og SQL Developer)
- RESTful Webservices i APEX



APEX - Kort fortalt

Oracle Application Express (APEX)

Database-centric Web application development tool



- Unique Rapid Application Development (RAD) tool for the Oracle Database
- Browser based for Development, Deployment & Use
- Declaratively build professional Web 2.0 applications that are fast and secure
- Leverages full Oracle database capabilities and existing SQL & PL/SQL skills
- Standard component of the database
- Fully supported, “no-cost” option with all editions of the Oracle Database

Easy to develop • Easy to deploy • Easy to manage

ORACLE

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Why APEX ?

- **Kort udviklingstid**: Rapid Application Development
- **Deklarativ udvikling**: Robust og konsistent brugerinterface
- **Let at lære**: Bygger på SQL og PL/SQL som grundsprog
- **Skalerer**: Sammen med Oracle databasen
- **Sjovt**: Der er langt imellem frustrationer (og ingen NULL Pointer exceptions)
- **Let at vedligeholde**: Live udvikling, Data dictionary
- **Populært**: Brugerne elsker det (da de kan så meget selv)
- **Support**: stort community, forum, plugins samt løbende videreudvikling.
- Oracle bruger det (Shop, Cloud...)

Produktets modenhed

Gartner

RESEARCH

Oracle APEX: Past, Present and Future

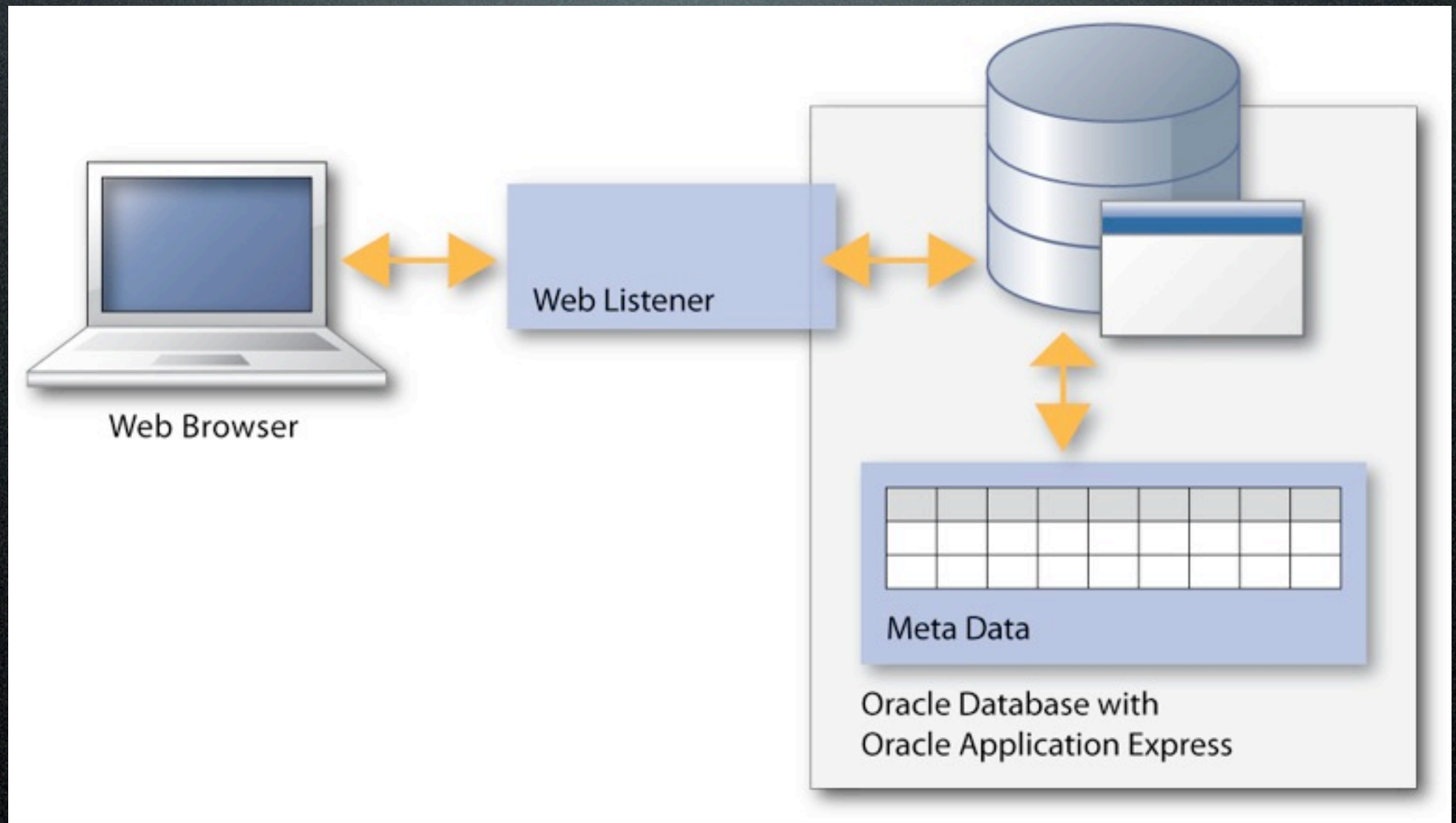
14 December 2009 | ID:G00173036

Eric Knipp

- *"Oracle APEX is in the **adult** stage of development:*
  - *APEX is updated at least annually with new releases that expand functionality*
  - *APEX training is widely available*
  - *APEX is used in many new projects*
  - *The volume of Gartner inquiries on APEX indicates growth*
  - *APEX has stable programming constructs based on PL/SQL and on JavaScript*
  - *APEX has outstanding community support."*

- *"Gartner believes that APEX will grow significantly among Oracle DBMS customers during the next 12 to 36 months."*

Arkitektur



(Live Demo)



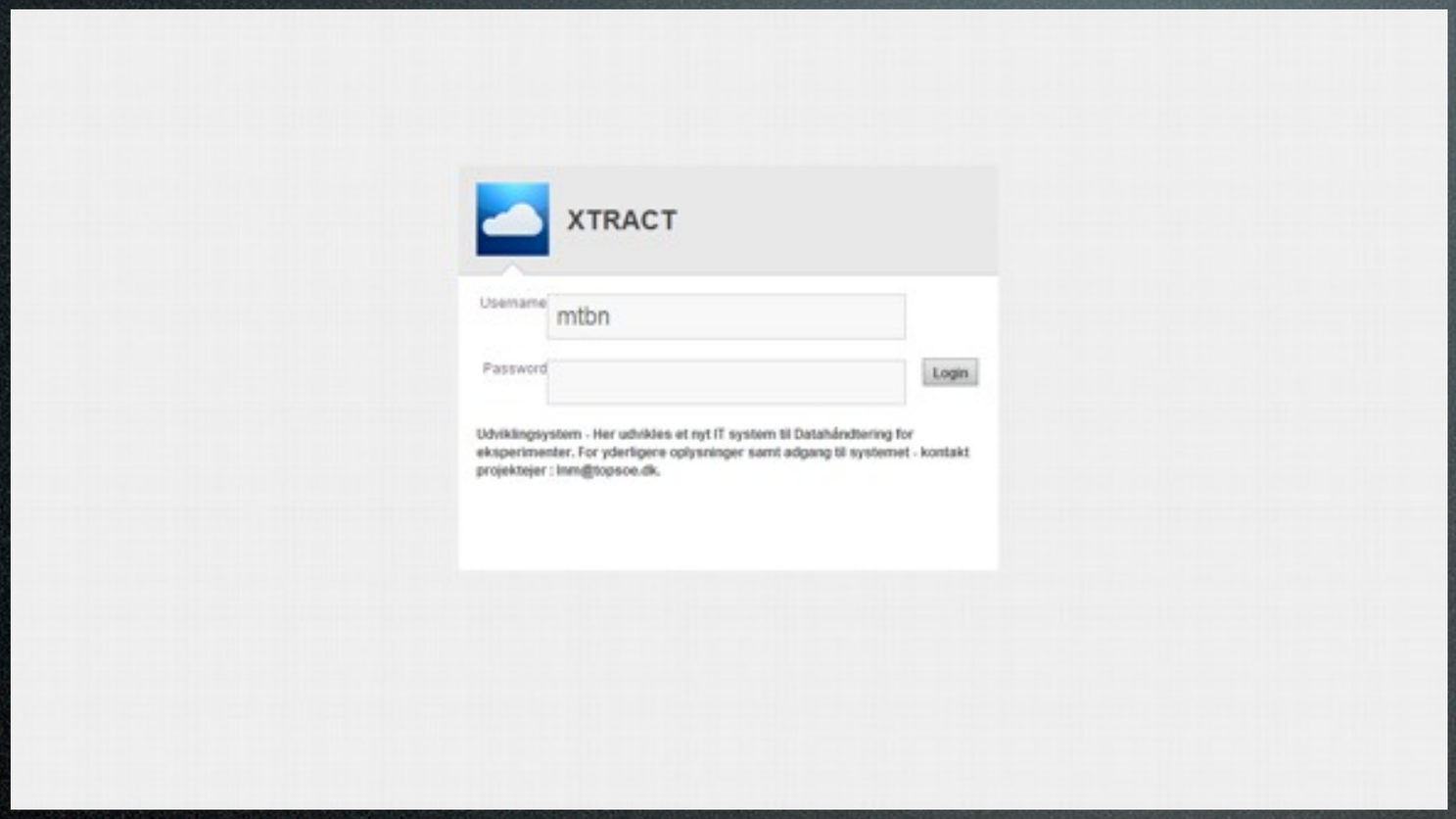
Real Life Applikation

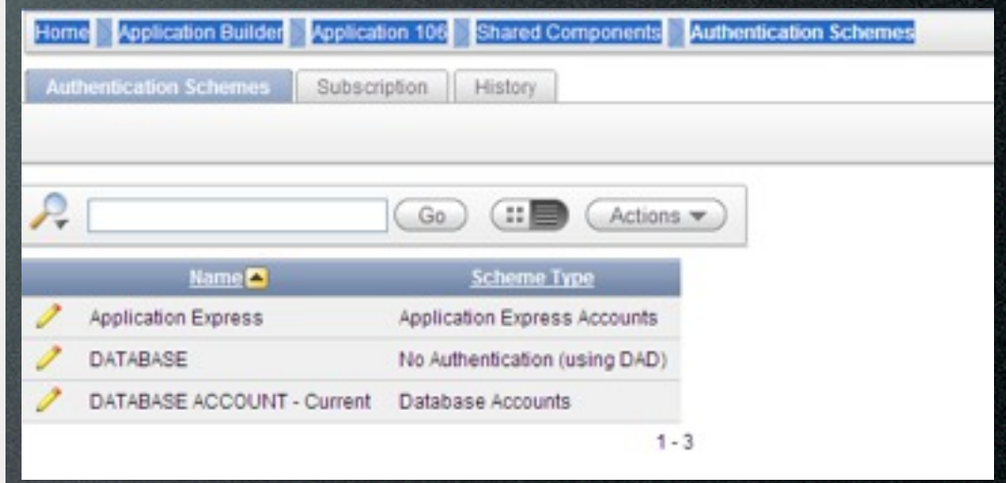
Kunde: Haldor Topsøe
Systemnavn: XTRACT
Formål: Planlægning og opsamling af forsøgsdata, samt rapporting.
Udviklingstid: 200 timer

Login


XTRACT
Username
mtbn
Password
Login
Udviklingsystem - Her udvikles et nyt IT system til Datahåndtering for eksperimenter. For yderligere oplysninger samt adgang til systemet - kontakt projektejer : lmm@topsoe.dk.

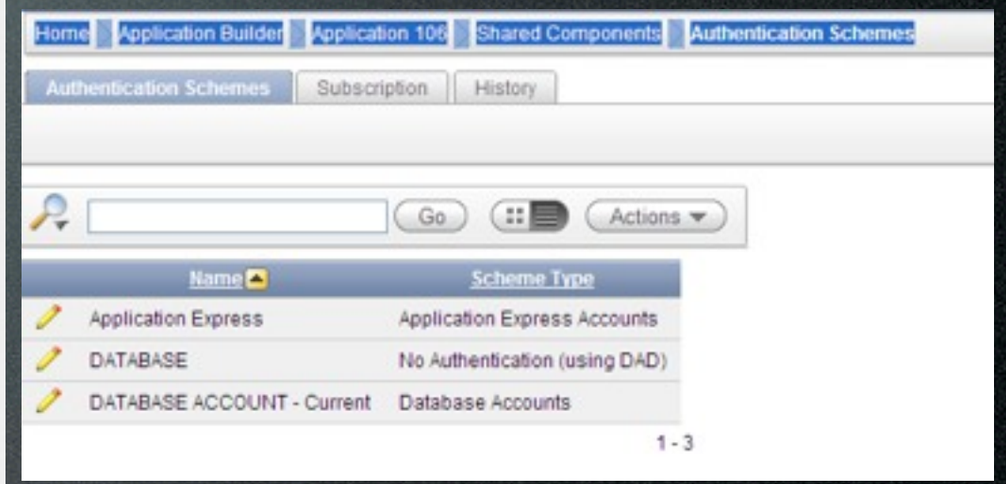
Login


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Home
Application Builder
Application 106
Shared Components
Authentication Schemes
Authentication Schemes
Subscription
History
Go
Actions
Name
Scheme Type
Application Express
Application Express Accounts
DATABASE
No Authentication (using DAD)
DATABASE ACCOUNT - Current
Database Accounts
1 - 3

Login



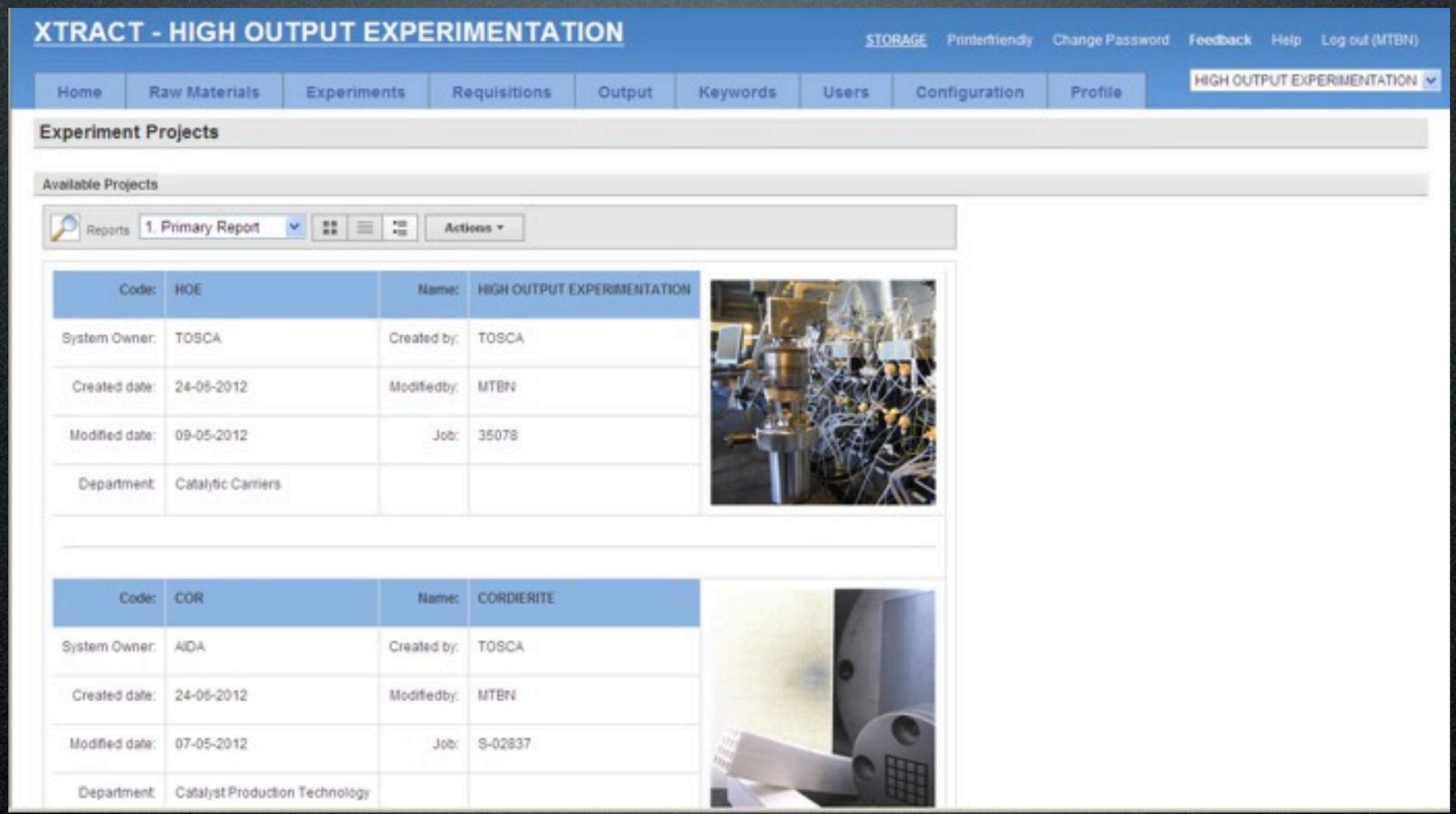


Kunden har eksisterende systemer kørende på samme database.
Derfor er alle brugere oprettet som database brugere.
DATABASE-ACCOUNT authentication skemaet benytter eksisterende DB username / password for at validere om brugeren må logge ind i systemet.

Note : Dette betyder IKKE at brugeren kører under sit eget skema under afvikling af APEX.
Når man benytter APEX Listener er det brugeren APEX_PUBLIC_USER som afvikler programmet.

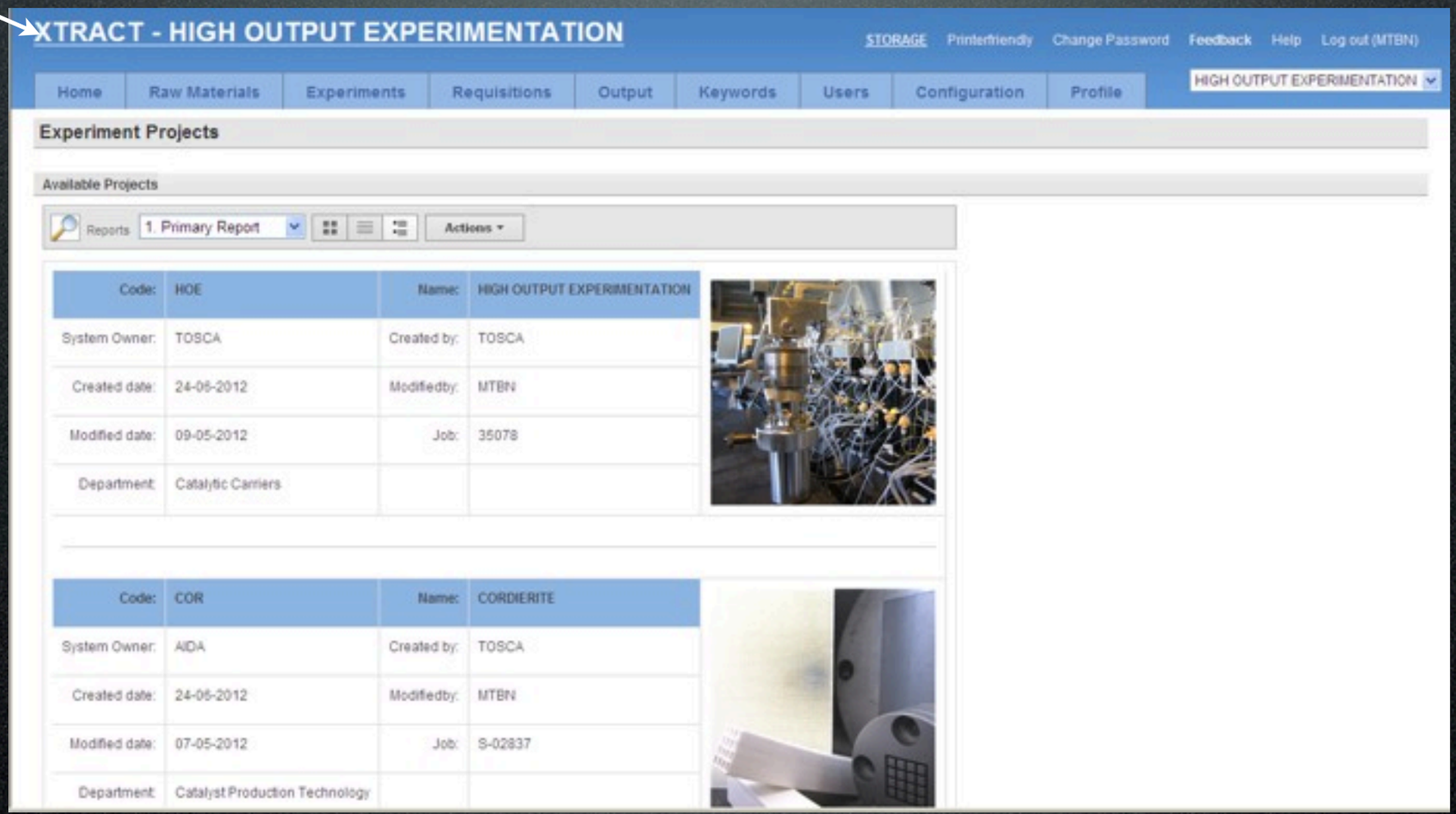
Det database skema som ligger bag workspacet benyttes på følgende måde:
ALTER SESSION **SET** CURRENT_SCHEMA=**schema**

Theme & Navigation



Theme & Navigation

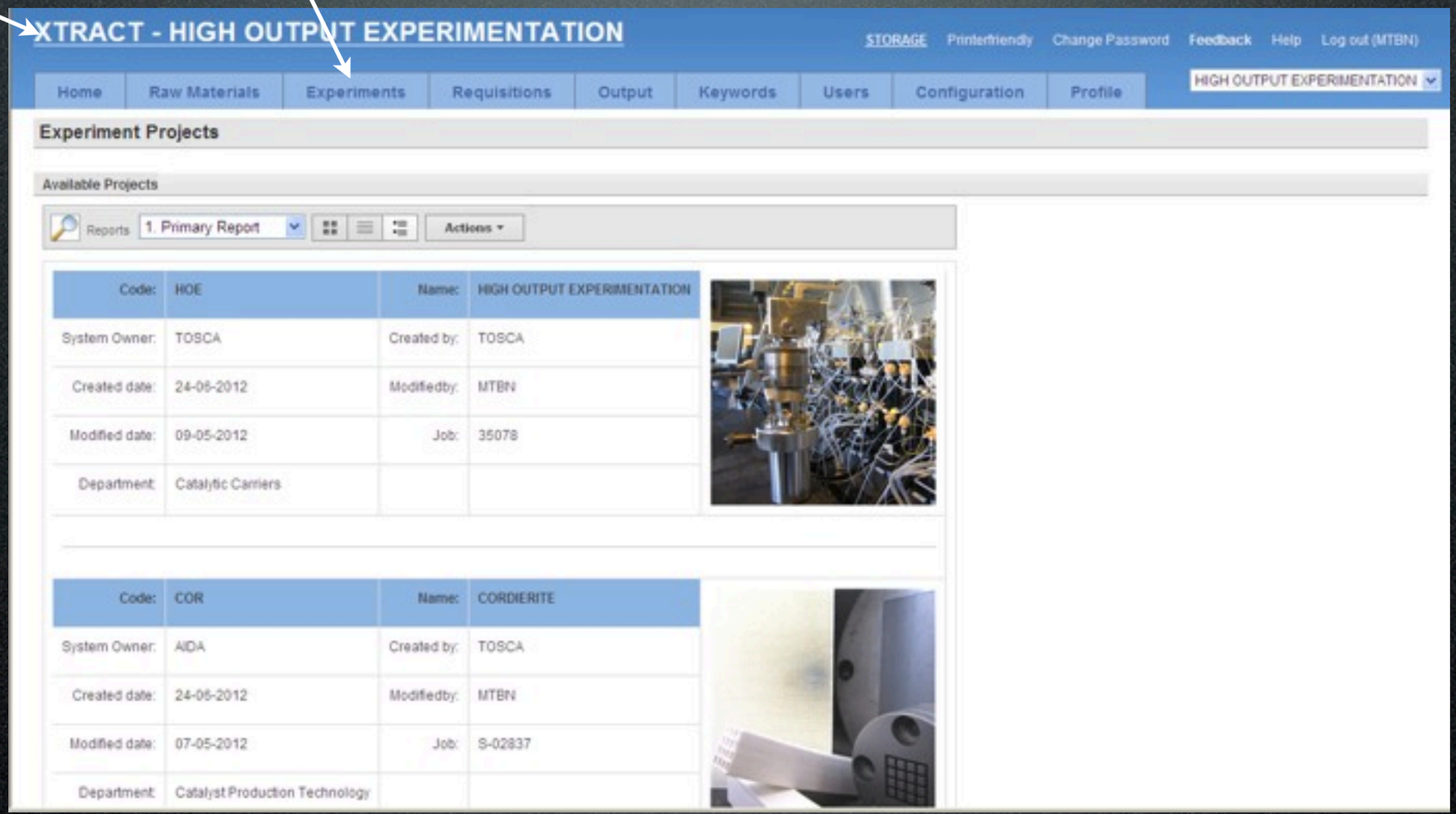
Home Link



Theme & Navigation

Home Link

Tabs

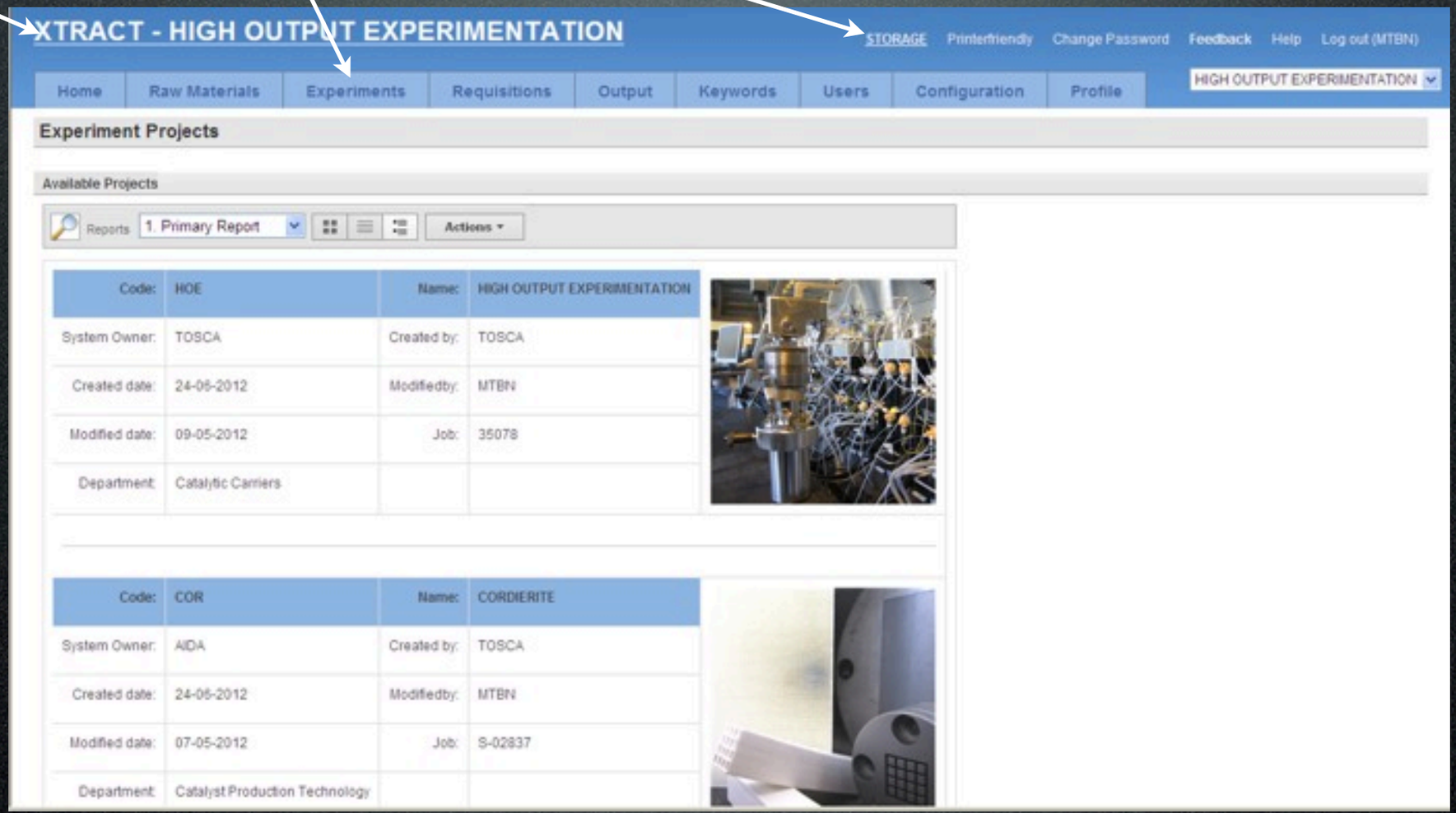


Theme & Navigation

Home Link

Tabs

Navigation Bar Entries



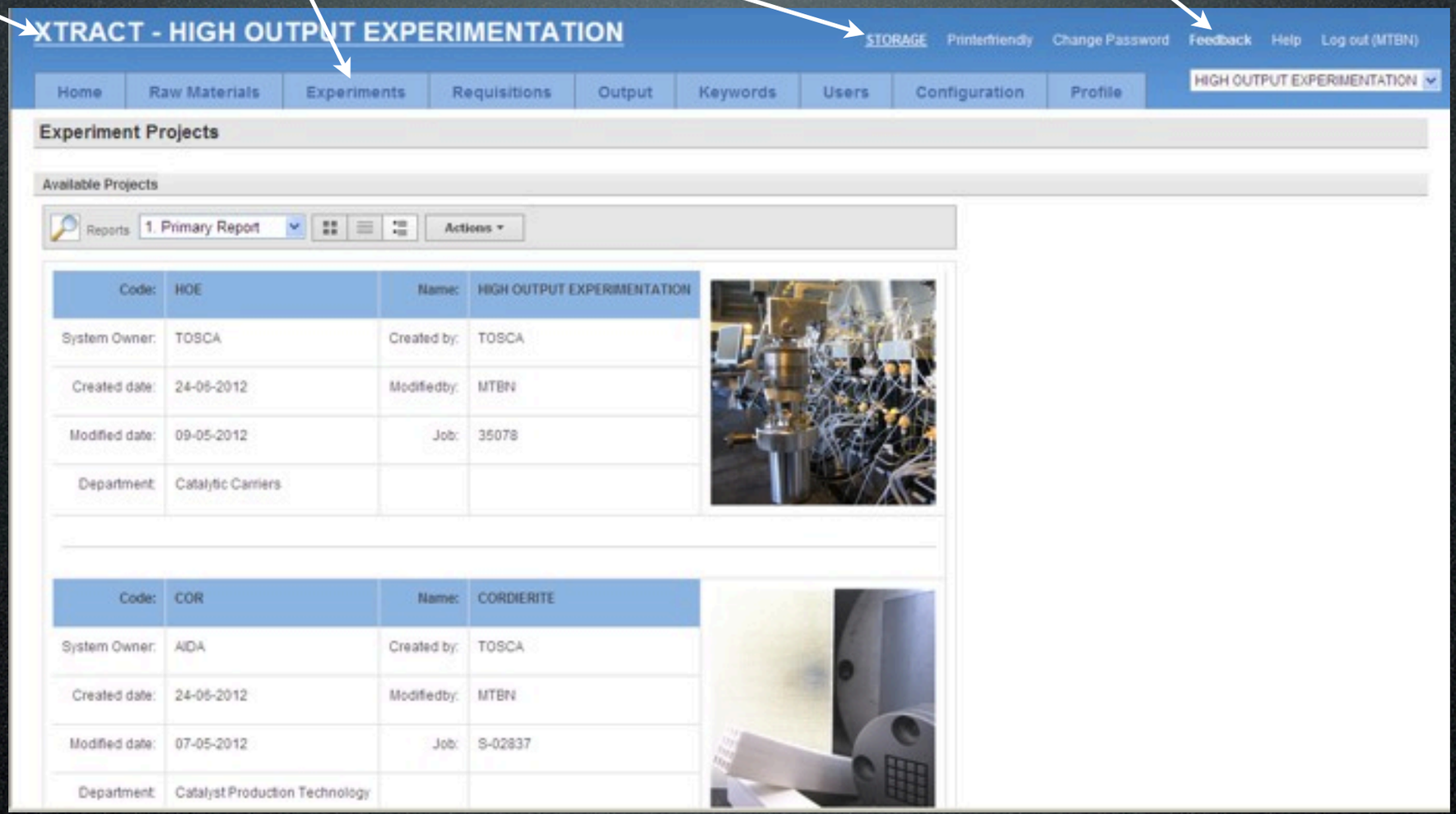
Theme & Navigation

Home Link

Tabs

Navigation Bar Entries

Feedback



Theme & Navigation

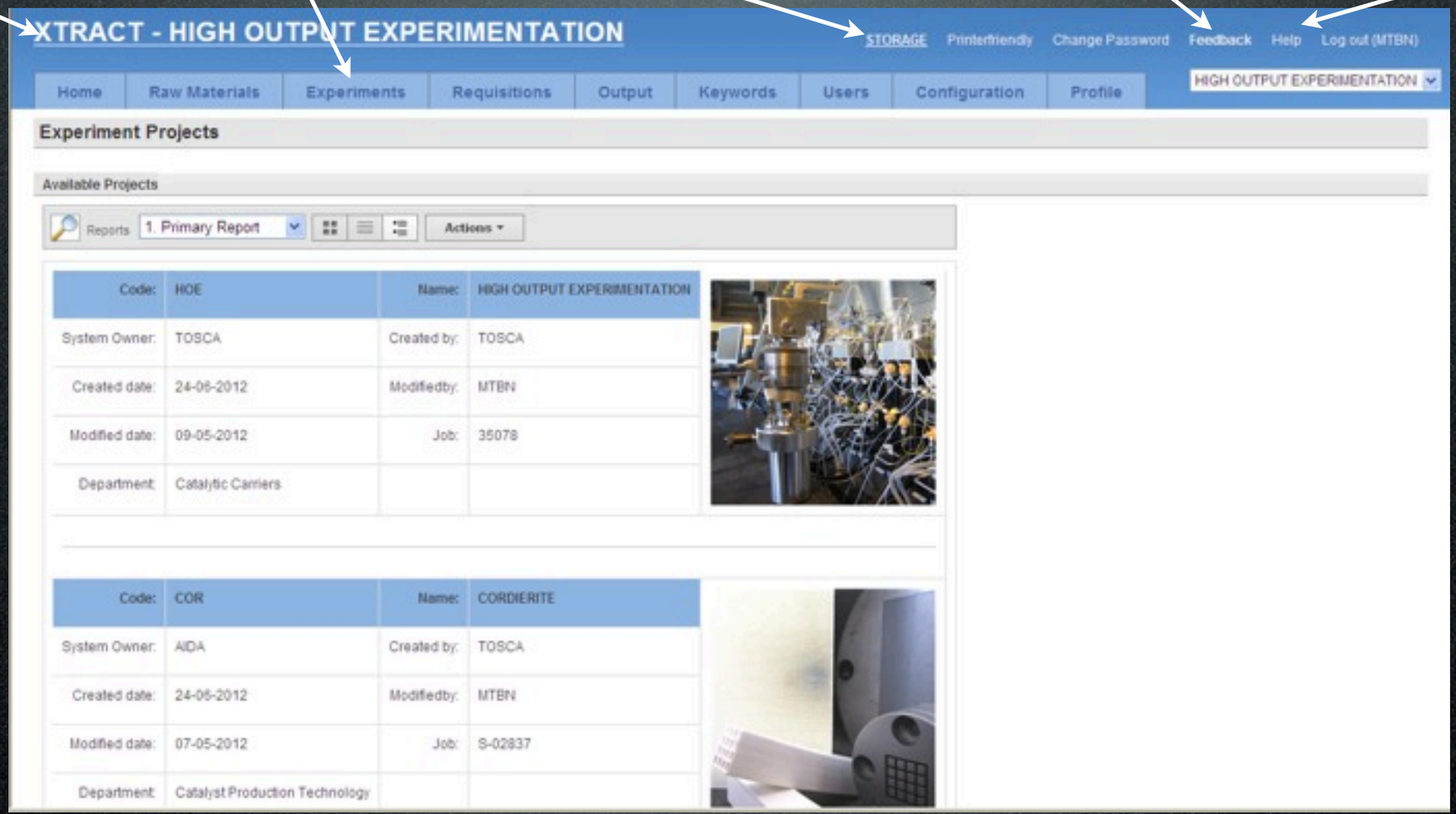
Home Link

Tabs

Navigation Bar Entries

Feedback

Hjælp (wiki)



Theme & Navigation

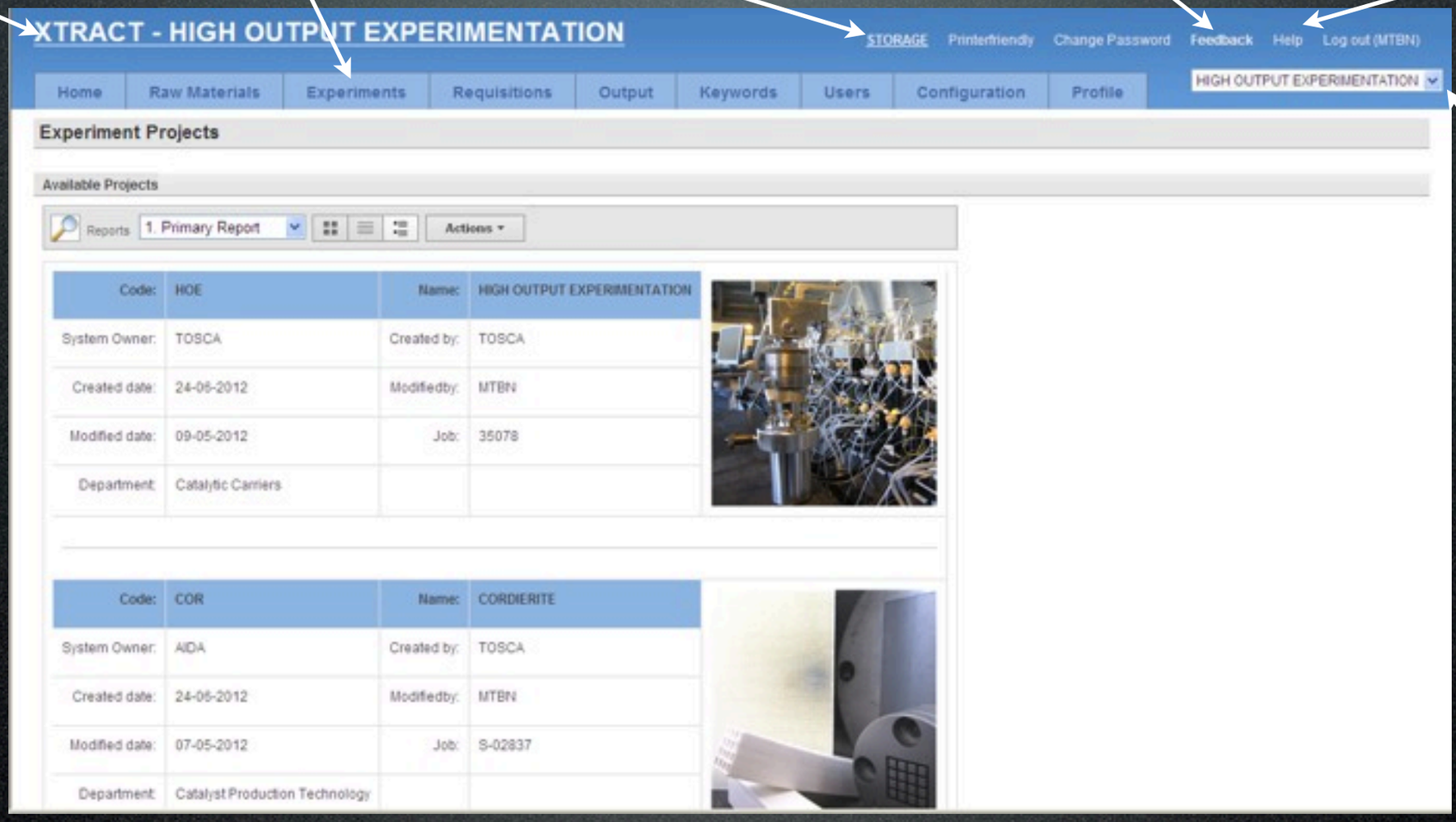
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Navigation Bar Entries

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Hjælp (wiki)



Skift af data “context”

Theme & Navigation

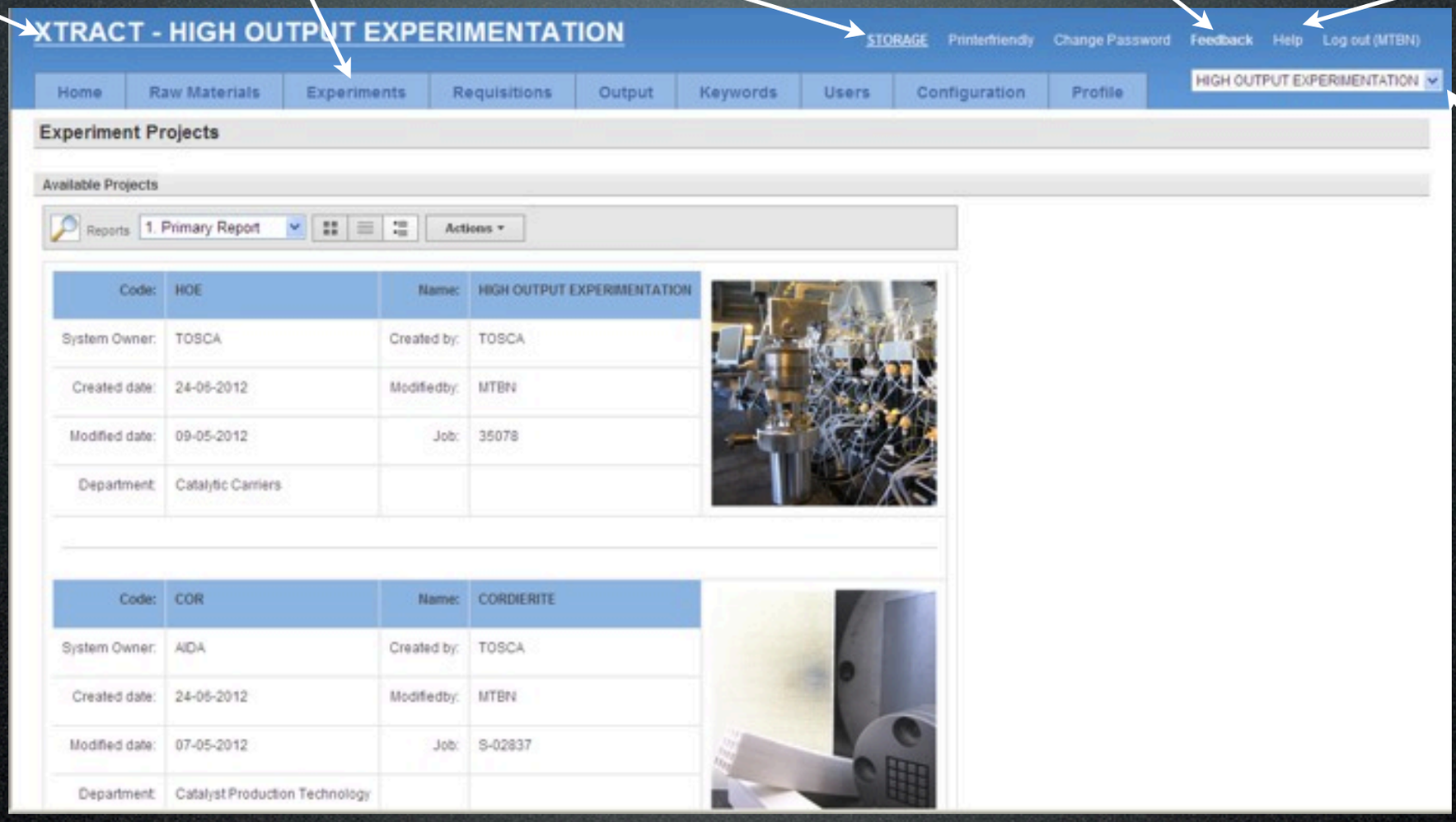
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Hjælp (wiki)



Skift af data “context”

Nyt “Cloud” Theme

Theme & Navigation

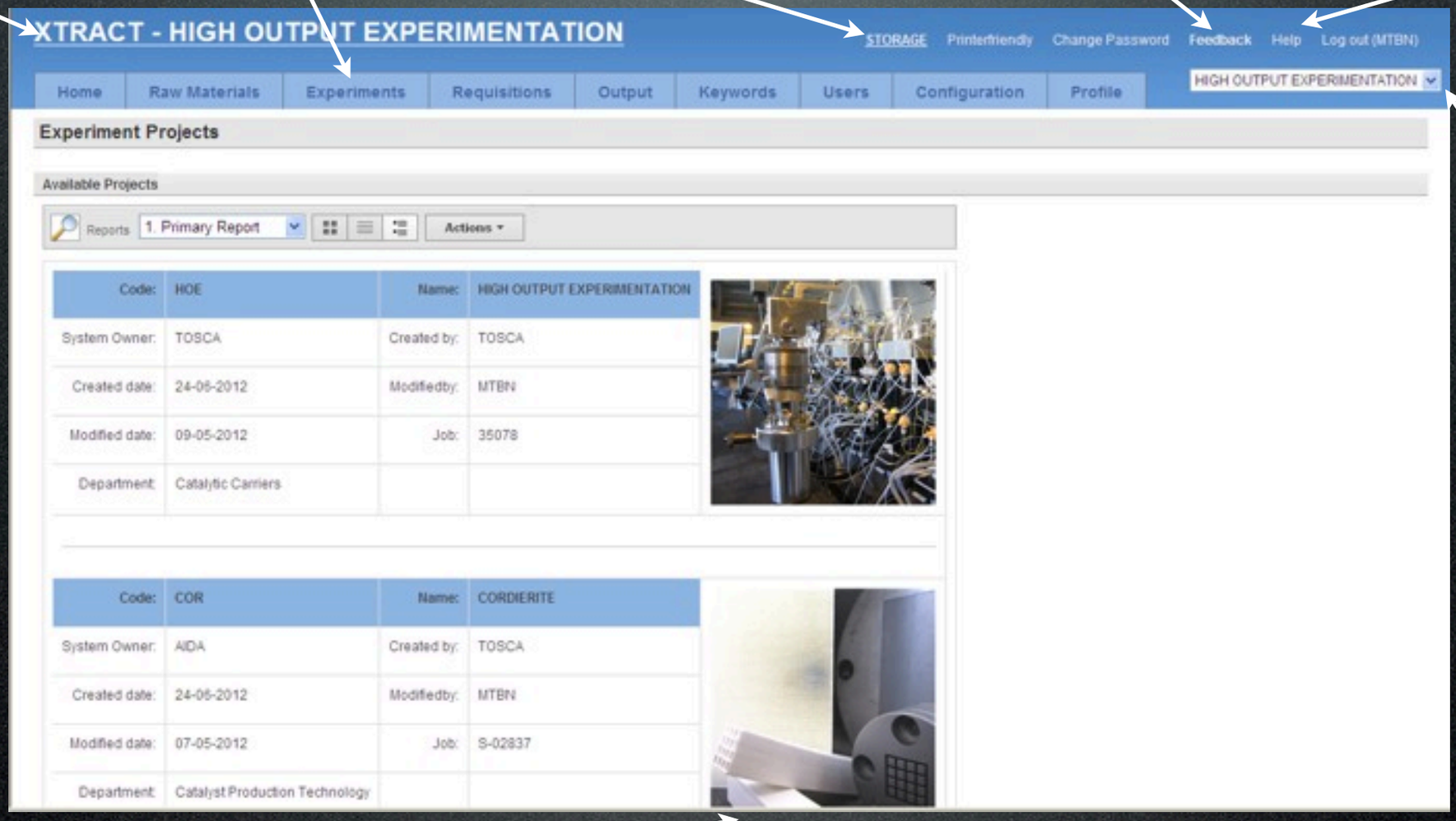
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Tabs

Navigation Bar Entries

Feedback

Hjælp (wiki)



Skift af data “context”

Aktive links på diverse data keywords samt images

Nyt “Cloud” Theme

Theme & Navigation

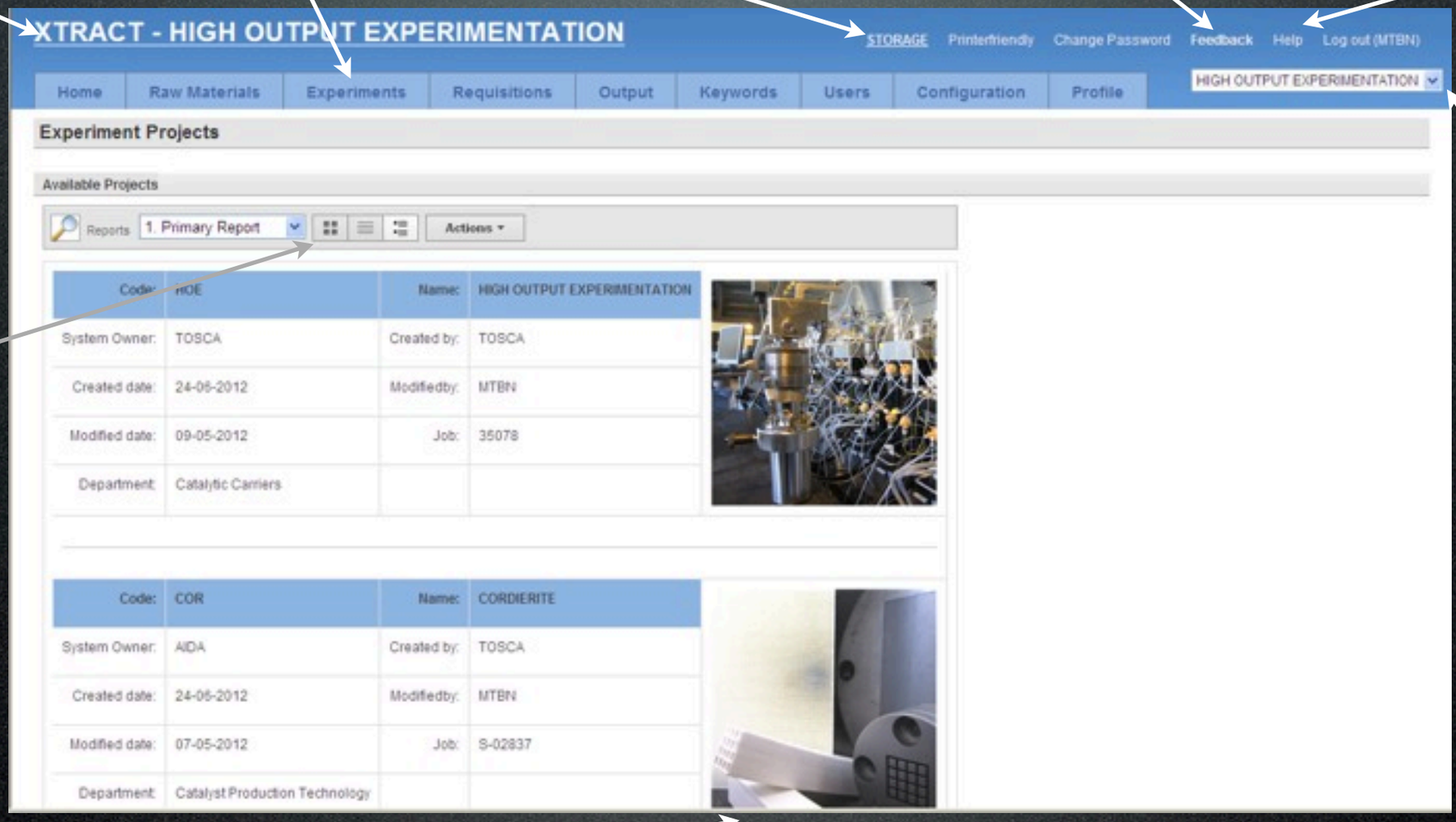
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Hjælp (wiki)



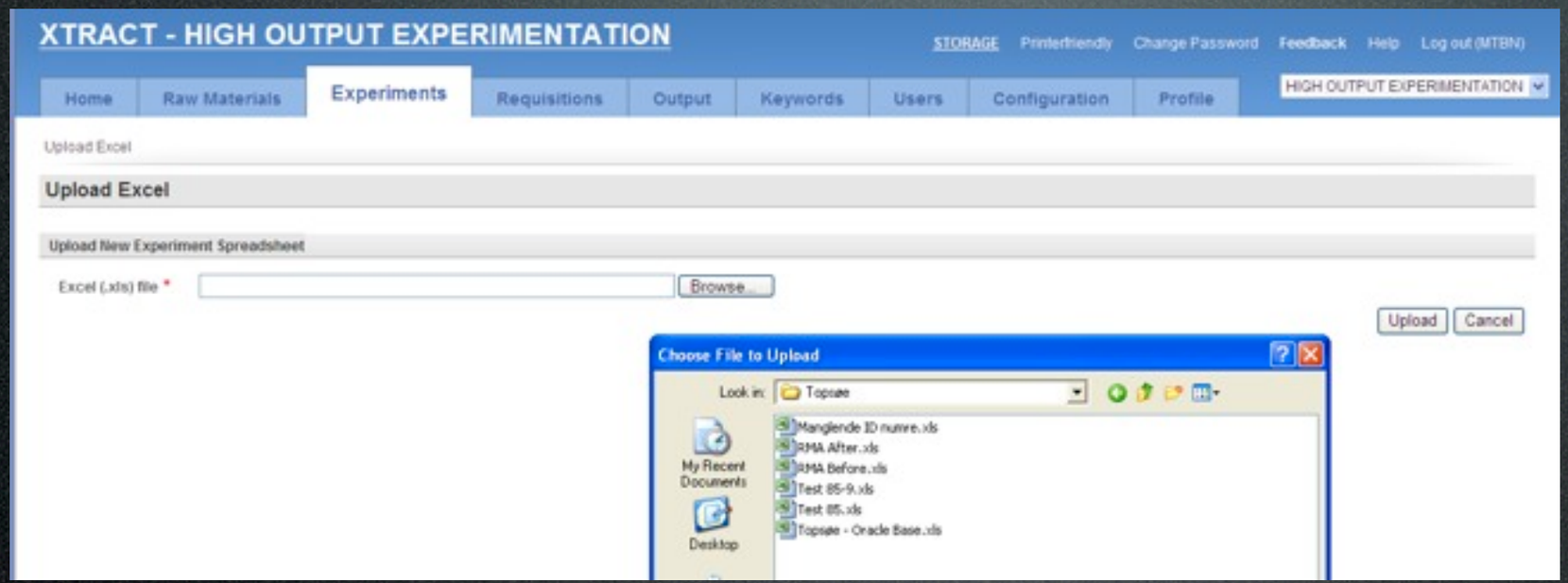
Icon, List, Detail views (Interactive Reports)

Skift af data “context”

Aktive links på diverse data keywords samt images

Nyt “Cloud” Theme

Excel Upload

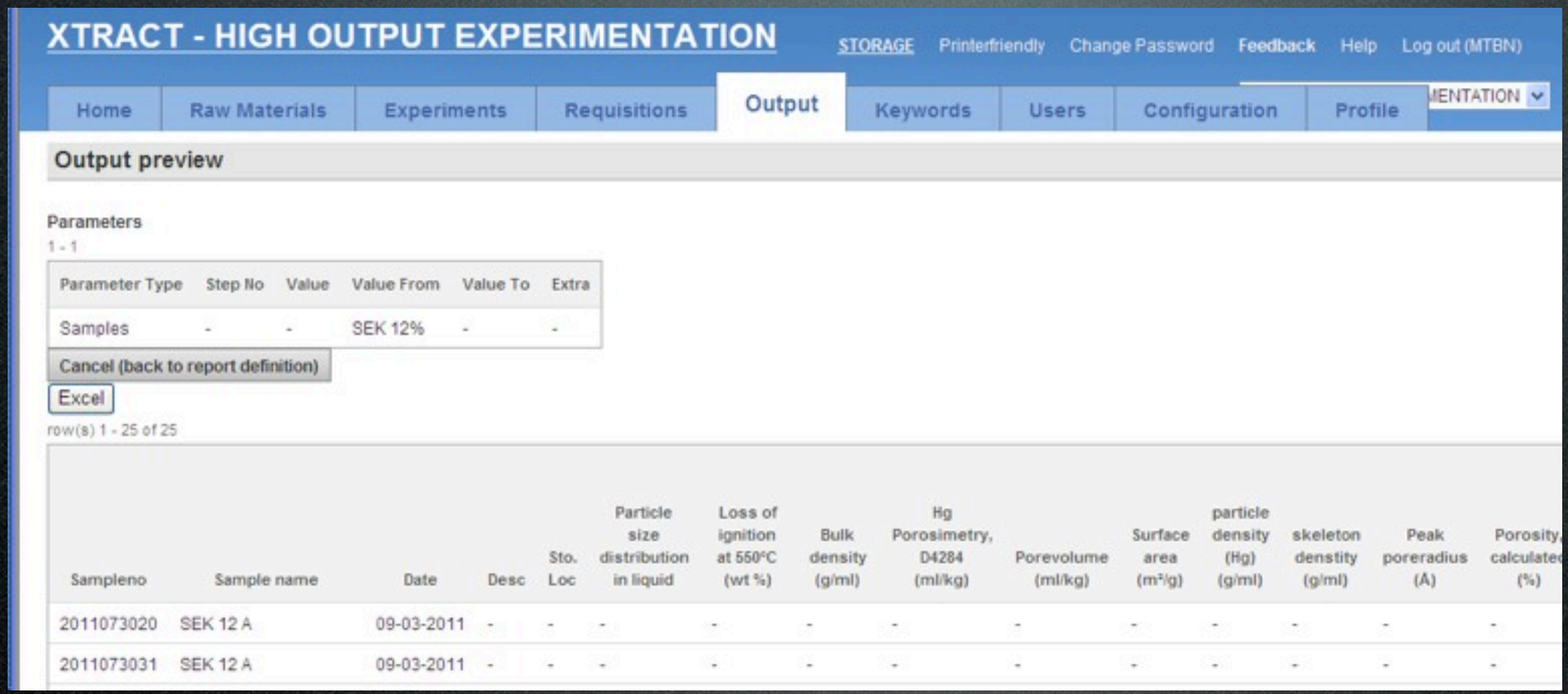


- Upload af Native Excel (.xls)
- Java baseret parsing.

```
FUNCTION f_excel_to_csv (p_xls IN VARCHAR2, p_delimiter IN VARCHAR2, p_eol IN VARCHAR2) return VARCHAR2 AS
LANGUAGE JAVA NAME 'JXLWorkbook.Convert2CSV(java.lang.String,java.lang.String,java.lang.String) return java.lang.String';
```

- Kan nu laves med APEX Listener

Avanceret Rapportering



1. Data trækkes ud af tabellerne og placeres i en APEX Collection

2. Der vises en rapport baseret på collection

```
apex_collection.create_or_truncate_collection(v_collection);
FOR i IN 1 .. LOOP
 apex_collection.add_member(v_collection);
END LOOP;
```

```
SELECT *
FROM apex_collections
WHERE collection_name = 'OUTPUT1'
```



APEX 4.2

Er p.t. i Early Adapter runde 2. Bliver sandsynligvis frigivet omkring Oracle open world (ultimo September 2012).

APEX 4.2 Nyt

- Mobile Development
- HTML5 Support (Charts, Items ...)
- Packaged Applications
- Enhancements (Features, API...)
- Forbedret Look and feel

(Live Demo)

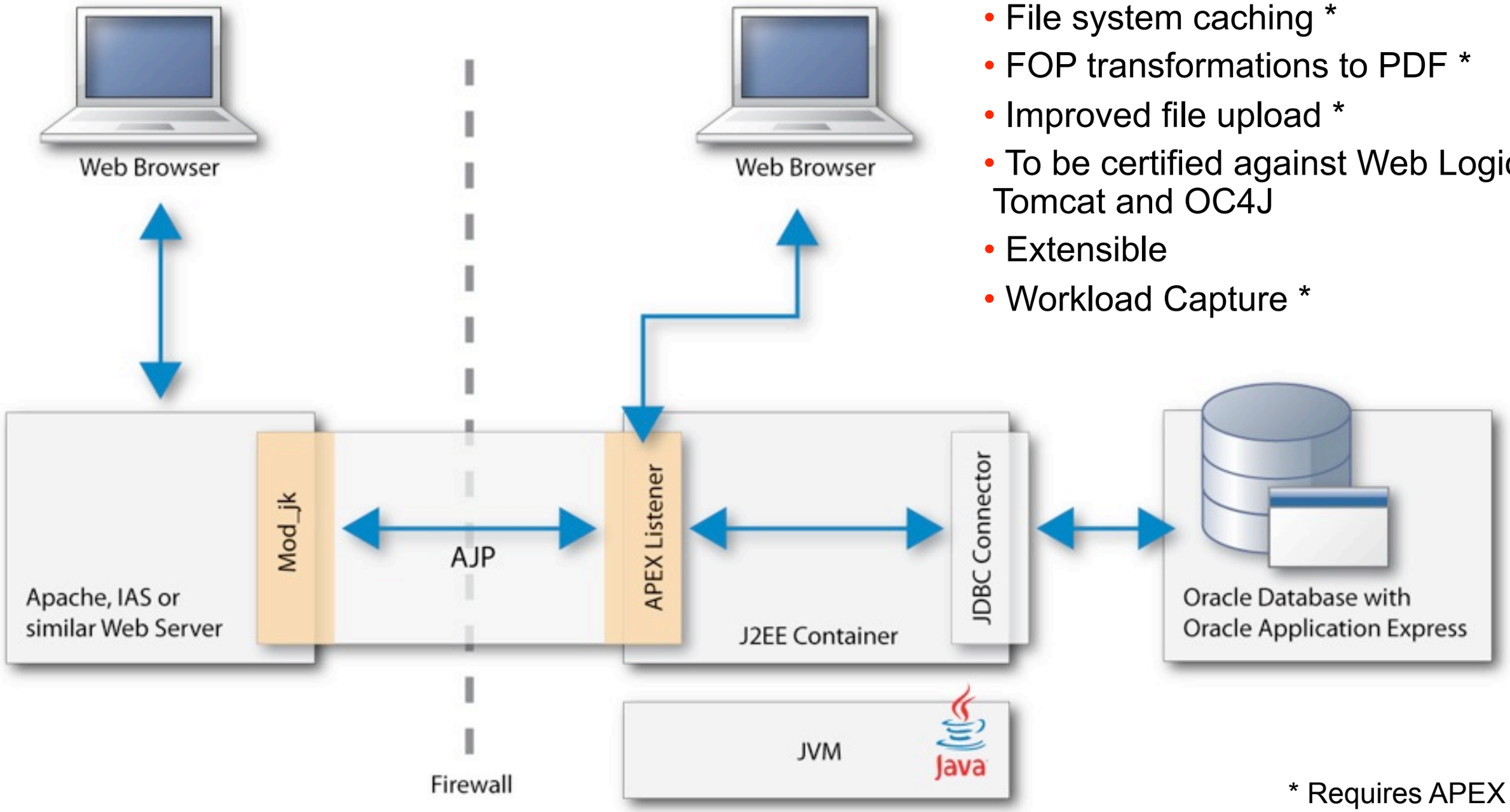


APEX Listener (2.0)

Java baseret J2EE Applikation som kan afvikles stand-alone (udvikling) eller deployes til J2EE Servere. Oracle understøtter Weblogic samt Glassfish.

"Will be powering the Cloud..."

Oracle APEX Listener



- Java based
- mod_plsql replacement
- Support latest APEX releases
- File system caching *
- FOP transformations to PDF *
- Improved file upload *
- To be certified against Web Logic, Tomcat and OC4J
- Extensible
- Workload Capture *

* Requires APEX 4.0

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Listener 2.0 Installation

1. Download Listener .zip fil
2. Extract .zip fil
3. Installer APEX Patch set (4.1.00.23)
4. Konfigurer .war samt conf filer
   java -jar apex.war setup
5. Deploy til J2EE Server
6. Zip APEX image filer sammen til i.war
   java -jar apex.war static (apex directory)/images
7. Deploy i.war til J2EE Server

SQL Developer

1. java -jar apex.war user adminlistener "Listener Administrator"
2. <entry key="security.verifySSL">false</entry>
3. Download SQL Developer 3.2
4. Connect til listeneren.

(Live Demo)



RESTfull Webservices

REST Web Services

- Incorporating new declarative APEX component
- Utilizes a simpler architecture than SOAP style Web services
- Typically parameters are passed to a REST Web service as part of the URL and an XML document is returned
- Many popular public Web services provided by Google, Yahoo, Amazon and PayPal use the REST architecture
- Some Web Service providers use the REST architecture exclusively


Yahoo! Flickr


Google Picasa


Amazon Products

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Setup RESTfull

- Forudsætninger:
  - APEX Listener 2.0
  - Patch 4.1.1.00.23 Installeret
- Enable REST WS i APEX Admin.

(Live Demo)



Spørgsmål ?



Tak