



MANAGING A LAND REGISTER WITH XML DB

Customer success

DOAG 2015 Conference

Ronald van Luttikhuizen | eProseed
Anjo Kolk | Kadaster

November 2015



AGENDA

- 1 Introduction
- 2 Kadaster & BRK
- 3 Oracle XML DB
- 4 Lessons learned
- 5 Integrating XML DB into your Landscape

INTRODUCTION

- About Anjo
 - Founding Member Oaktable Network
 - Performance Specialist
 - Oracle ACE Director Alumni
- About Kadaster
 - Founded 1811 by Napoleon Bonaparte
 - 8 Offices
 - HQ Apeldoorn
 - Agile and DevOps focus

INTRODUCTION

- About Ronald
 - Managing partner at eProseed
 - Oracle Ace Director, working with Oracle tooling since 1998
 - Author of SOA Made Simple
 - Experience with Oracle SOA Suite since version 10g
- About eProseed
 - HQ in Luxemburg
 - Local offices in several parts of the world
 - Award winning Oracle partner



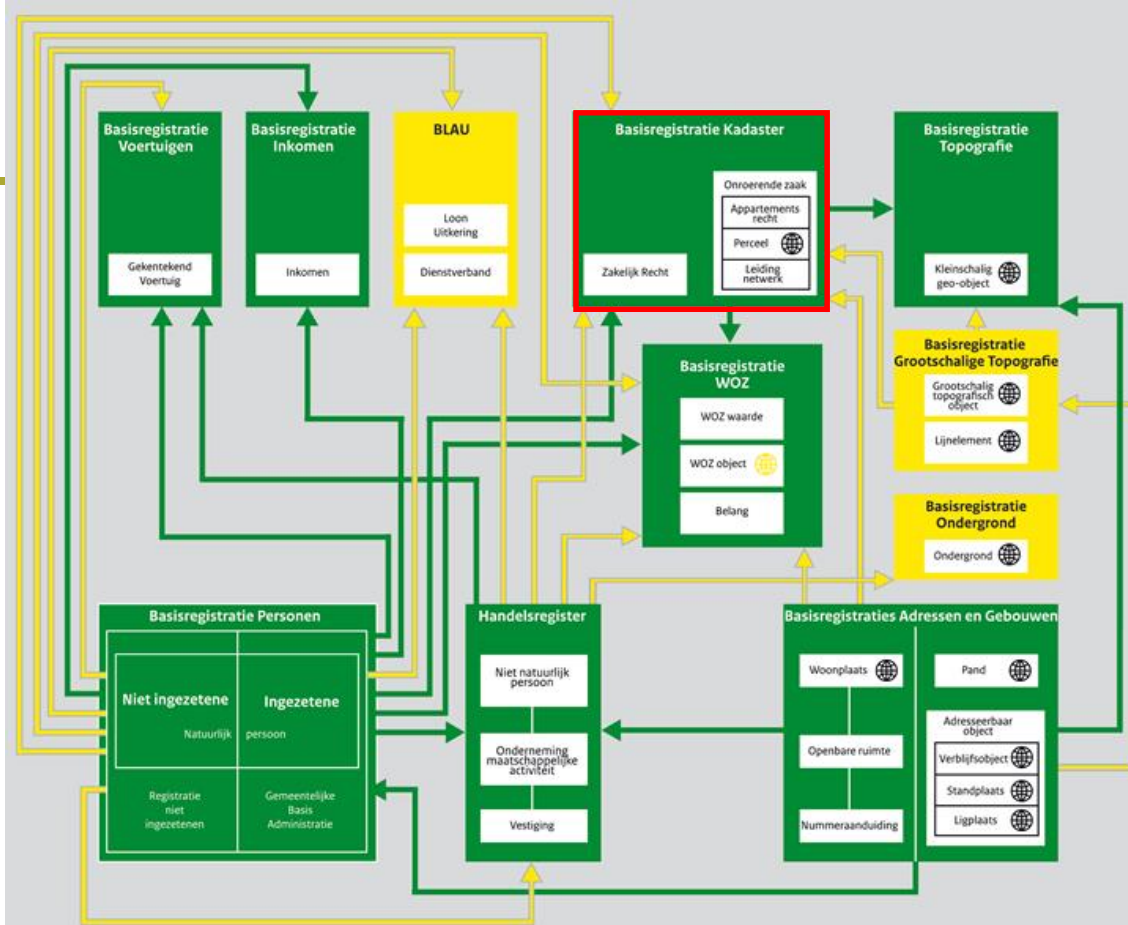
AGENDA

- 1 Introduction
- 2 Kadaster & BRK**
- 3 Oracle XML DB
- 4 Lessons learned
- 5 Integrating XML DB into your Landscape

DUTCH REGISTRIES

- Persons
- Organisations
- Property
- Adresses
- Geometry
- Tax

- Single source of truth
- Required to use



Legenda

Yellow box: Basisregistratie niet gereed

Green box: Basisregistratie gereed

Yellow arrow: Verbinding niet gereed

Green arrow: Verbinding gereed



BR bevat geometrie



BR bevat nog geen geometrie

BRK | HISTORY

- Paper
 - 1811 Napoleon
- Mainframe
 - 1989
 - Maintainability
 - Modernization
- Next
 - 201x
 - Relational vs Document-Based vs Hybrid



Object Snapshot

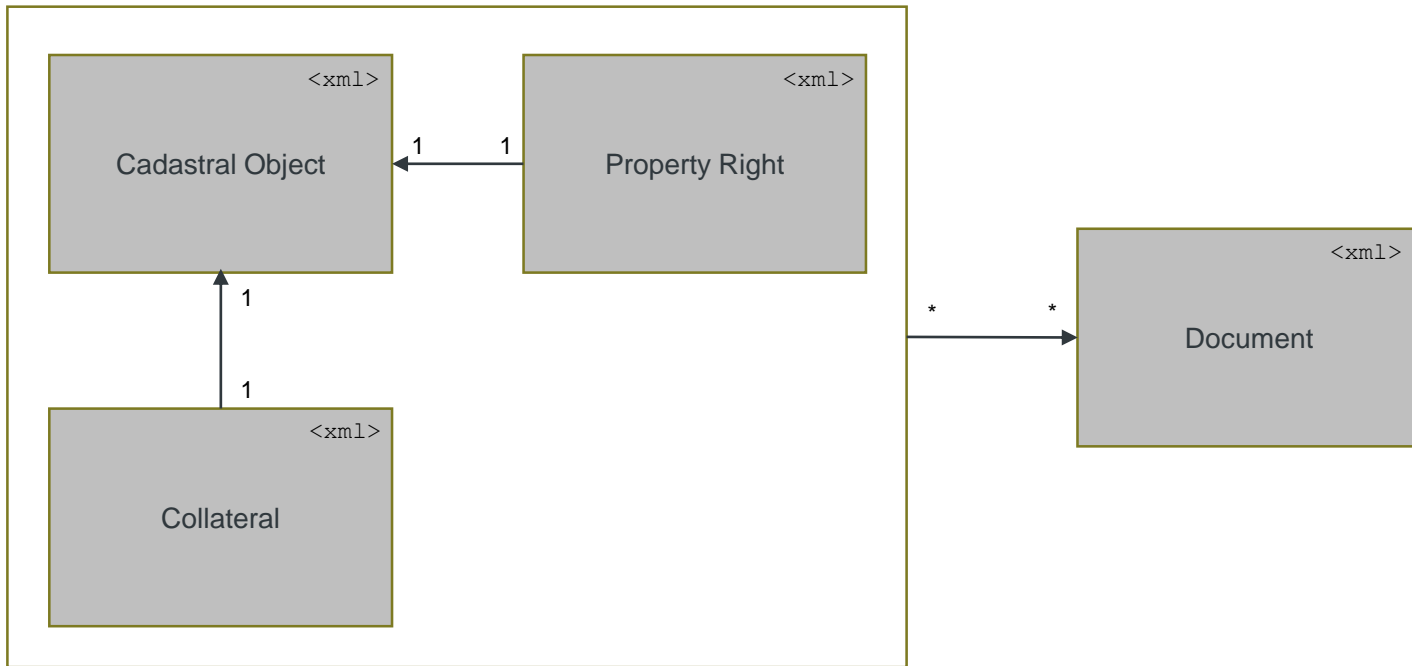
PK

Utrecht

T_{start} 3-nov-2015

T_{end}

<XML>



LESSONS LEARNED

- Non Technical
 - What is XML DB?
 - Learning curve
 - Who else is using it (in the Netherlands)?
 - Product Maturity (stability and experience in the markt)
- Technical
 - Best Practices
 - Performance
 - (Online) Maintenance
 - Complexity



LESSONS LEARNED | TECHNOLOGY

- Performance
 - Different type of indexes (unstructured vs structured)
 - Unstructured index can give bad performance with multiple predicates
 - SQL used by developers must match XML index columns
 - Initial Load performance (bad with small uniform extent size)
- Maintenance
 - Dev Ops means frequent releases, can we do that with XML DB?
 - Online index maintenance
 - Partitioning
 - Possible online reorgs?
 - Monitoring



INTEGRATING XML DB

	Oracle XML DB	Java	Oracle Fusion Middleware
I want to ...			
... serve XML documents	<ul style="list-style-type: none"> • WebDAV • HTTP Server • FTP Server • DBFS • DBUriServlet • SQL*Loader 	<ul style="list-style-type: none"> • Java XDK 	
... use XML documents in PL/SQL apps	<ul style="list-style-type: none"> • XMLType • PL/SQL APIs • XQuery/XSLT/Xpath 		
... use XML documents in Java apps	<ul style="list-style-type: none"> • Java in DB • Own Java Servlet via HTTP 	<ul style="list-style-type: none"> • JDBC and XMLType • JPA (EclipseLink) 	<ul style="list-style-type: none"> • ADF XML DataControl
... expose content in XML documents using Web Services	<ul style="list-style-type: none"> • Native Database Web Services 	<ul style="list-style-type: none"> • JAX-RS and JAX-WS (e.g. combined with JPA) 	<ul style="list-style-type: none"> • Integrate into SOA Composites and Service Bus projects using DB Adapter



eProseed

ORACLE EXCELLENCE, DELIVERED.



Mobile



Fusion
Middleware



Big Data &
Business Analytics



Database &
Data Management



Identity & Access
Management



Cloud