



Universidade do Minho
Escola de Engenharia

KEEPSOLUTIONS
University of Minho SPIN-OFF

Database Preservation Toolkit

Ferramenta de conversão e
normalização de bases de dados

Encontro de Curadoria Digital 2016
Estratégias e experiências

Bruno Ferreira bferreira@keep.pt
KEEP SOLUTIONS

29 de Junho, 2016

Bases de Dados

Usadas para persistência de informação digital

Essenciais para os sistemas digitais

Informação deverá continuar acessível

A sua recuperação poderá ser impossível ou dispendiosa

Preservação de Bases de Dados (relacionais)

Objetos digitais complexos

Dados heterogêneos e estruturados

Técnicas existentes podem levar a perdas de dados

Como preservar?

Usando um formato especializado

SIARD — Software Independent Archiving of Relational Databases

Formato criado pelos Arquivos Federais da Suíça para **preservação de bases de dados**

Norma suíça eCH-0165

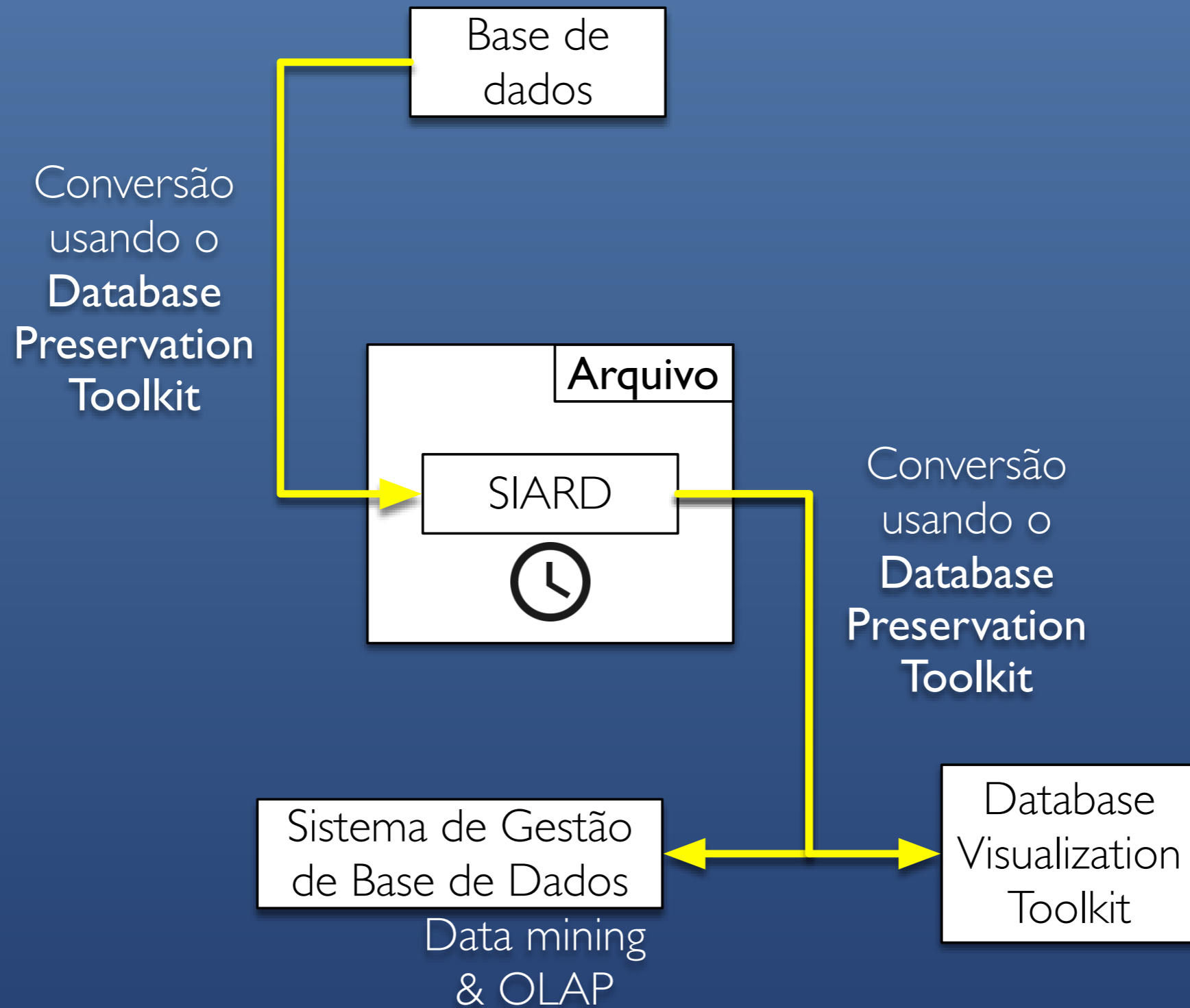
Versão 2 em desenvolvimento no contexto do projeto E-ARK

Inclui **sugestões e experiências de vários arquivos europeus**

(Arquivo Nacional da Torre do Tombo, Arquivos Federais da Suíça e Arquivos Nacionais da Dinamarca, Eslovénia, Estónia, Hungria e Noruega)

Preserva as **propriedades significativas** das bases de dados

Utilização em contexto de arquivo





Database Preservation Toolkit

Converte bases de dados para SIARD

Converte SIARD para base de dados

Suporta os **cinco principais** Sistemas de Gestão de Bases de Dados:
Oracle, Microsoft SQL Server, MySQL, PostgreSQL, MS Access, e mais...

www.databasepreservation.com





[View on GitHub](#)

[Download v2-beta3.2.5](#)

Database Preservation Toolkit

The Database Preservation Toolkit allows conversion between Database formats, including connection to live systems, for purposes of digitally preserving databases. The toolkit allows conversion of live or backed-up databases into preservation formats such as **SIARD**, a XML-based format created for the purpose of database preservation. The toolkit also allows conversion of the preservation formats back into live systems to allow the full functionality of databases. For example, it supports a specialized export into MySQL, optimized for PhpMyAdmin, so the database can be fully experimented using a web interface.



Database Visualization Toolkit

Plataforma Web

Acesso a bases de dados arquivadas

Permite explorar e pesquisar a base de dados

Não requer conhecimentos técnicos

Exportar resultados da pesquisa (formatos CSV, Excel, PDF)

Database Visualization Toolkit

Search in all tables

Databases / sakila

- Database
 - Information
 - Users & Roles
- Schema sakila
 - Structure
 - Routines
 - Triggers
 - Check constraints
 - Views
 - Data
 - actor
 - address
 - category
 - city
 - country
 - customer
 - film
 - film_actor
 - film_category
 - film_text
 - inventory
 - language
 - payment

Database information

Database Name
sakila

Archival Date
2016-06-17T01:00:00.000+0100

Archivist
Bruno Ferreira

Archivist contact
email: bferreira@keep.pt, phone: 912345678

Client machine
Brunos-MacBook-Pro.local (fetched automatically)

Database product
MySQL 5.5.42

Data origin time span
Early 2005 to March 2006

Data owner
MySQL team

Description
The Sakila sample database was initially developed by Mike Hillyer, a former member of the MySQL AB documentation team, and is intended to provide a standard schema that can be used for examples in books, tutorials, articles, samples, and so forth. Sakila sample database also serves

Database Visualization Toolkit

Search in all tables

Databases / sakila / sakila / film

Database

- Information
- Users & Roles

Schema sakila

- Structure
- Routines
- Triggers
- Check constraints

Views

Data

- actor
- address
- category
- city
- country
- customer
- film
- film_actor
- film_category
- film_text
- inventory
- language
- payment

Table: film

Search...

film_id	title	description	release_year	language_id	original_language_id
1	ACADEMY DINOSAUR	A Epic Drama of a Family and their pet dinosaur.	2006	1	1
2	ACE GOLDFINGER	A Astounding Epistle of a Hero's quest.	2006	1	1
3	ADAPTATION HOLES	A Astounding Reflection of a Hero's quest.	2006	1	1
4	AFFAIR PREJUDICE	A Fanciful Document of a Hero's quest.	2006	1	1
5	AFRICAN EGG	A Fast-Paced Document of a Hero's quest.	2006	1	1
6	AGENT TRUMAN	A Intrepid Panorama of a Hero's quest.	2006	1	1
7	AIRPLANE SIERRA	A Touching Saga of a Hero's quest.	2006	1	1
8	AIRPORT POLLOCK	A Epic Tale of a Moose's quest.	2006	1	1
9	ALABAMA DEVIL	A Thoughtful Panorama of a Hero's quest.	2006	1	1
10	ALADDIN CALENDAR	A Action-Packed Tale of a Hero's quest.	2006	1	1
11	ALAMO VIDEOTAPE	A Boring Epistle of a Hero's quest.	2006	1	1
12	ALASKA PHANTOM	A Fanciful Saga of a Hero's quest.	2006	1	1
13	ALI FOREVER	A Action-Packed Drama of a Hero's quest.	2006	1	1
14	ALICE FANTASIA	A Emotional Drama of a Hero's quest.	2006	1	1
15	ALIEN CENTER	A Brilliant Drama of a Hero's quest.	2006	1	1

Database Visualization Toolkit

Search in all tables

Databases / sakila / sakila / film

- Database
 - Information
 - Users & Roles
- Schema sakila
 - Structure
 - Routines
 - Triggers
 - Check constraints
 - Views
 - Data
 - actor
 - address
 - category
 - city
 - country
 - customer
 - film
 - film_actor
 - film_category
 - film_text
 - inventory

Table: film

dinosaur

film_id	title	description	release_year	language_id	original_language_id
1	ACADEMY DINOSAUR	A Epic Drama of a Fe	2006	1	
131	CENTER DINOSAUR	A Beautiful Characte	2006	1	
231	DINOSAUR SECRETA	A Action-Packed Dra	2006	1	

1-3 of 3

Database Visualization Toolkit

Search in all tables

Databases / sakila / sakila / actor

- Database
 - Information
 - Users & Roles
- Schema sakila
 - Structure
 - Routines
 - Triggers
 - Check constraints
 - Views
 - Data
 - actor
 - address
 - category
 - city
 - country
 - customer
 - film
 - film_actor
 - film_category
 - film_text
 - inventory
 - language
 - payment

Table: actor

Search...

<input type="checkbox"/>	actor_id		x
<input checked="" type="checkbox"/>	first_name	Jo*	x
<input checked="" type="checkbox"/>	last_name		x
<input type="checkbox"/>	last_update		x

ADD SEARCH FIELD

SEARCH

first_name	last_name
JOHNNY	LOLLOBRIGIDA
JOE	SWANK
JOHNNY	CAGE
JODIE	DEGENERES
JON	CHASE
JOHN	SUVARI

Database Visualization Toolkit

Search in all tables

Databases / sakila / sakila / film / Record

- Database
 - Information
 - Users & Roles
- Schema sakila
 - Structure
 - Routines
 - Triggers
 - Check constraints
 - Views
 - Data
 - actor
 - address
 - category
 - city
 - country
 - customer
 - film
 - film_actor
 - film_category
 - film_text
 - inventory
 - language
 - payment

Record details

film_id	15 Explore related records
title	ALIEN CENTER
description	A Brilliant Drama of a Cat And a Mad Scientist who must Battle a Feminist in A MySQL Convention
release_year	2006
language_id	1 Explore related records
original_language_id	NULL
rental_duration	5
rental_rate	2.99
length	46



Universidade do Minho
Escola de Engenharia

KEEPSOLUTIONS
University of Minho SPIN-OFF

Database Preservation Toolkit

Ferramenta de conversão e
normalização de bases de dados

Encontro de Curadoria Digital 2016
Estratégias e experiências

Bruno Ferreira bferreira@keep.pt
KEEP SOLUTIONS

29 de Junho, 2016