

FMSync

An Open Source Solution for Synchronising Distributed Archaeological Databases
in a Centralised Open Access System

Felix Kußmaul¹

CAA 2018, Tübingen

21 March 2018

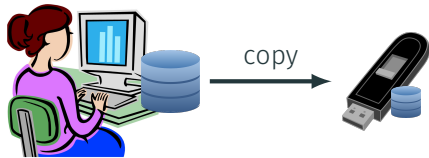
¹Archäologisches Institut, Universität zu Köln

Motivation

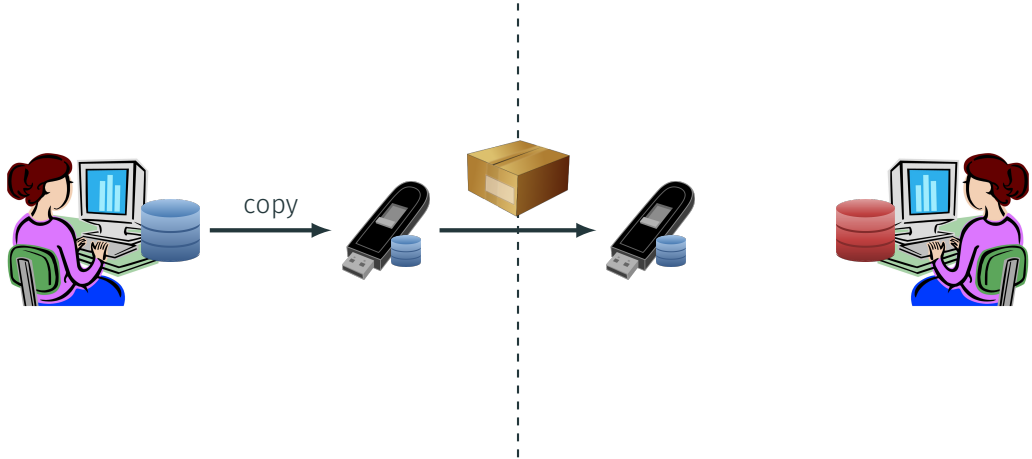
Before FMSync: Sharing Data



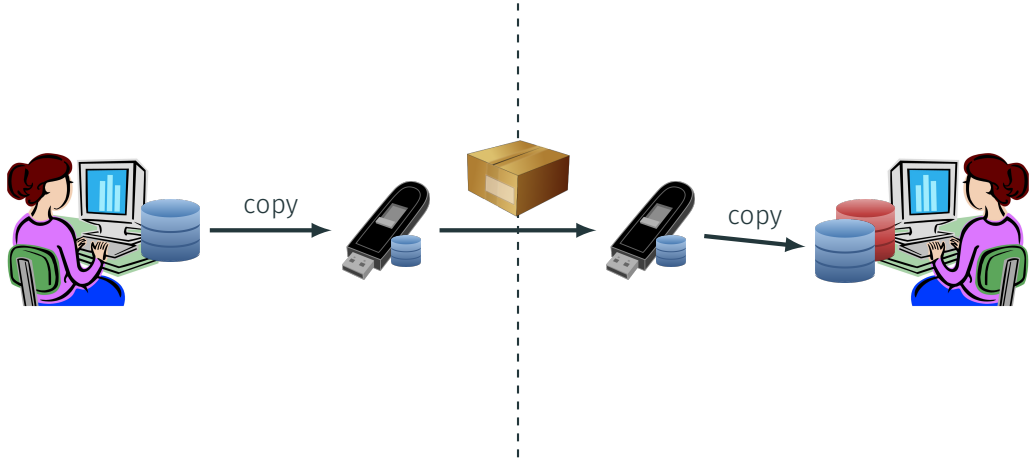
Before FMSync: Sharing Data



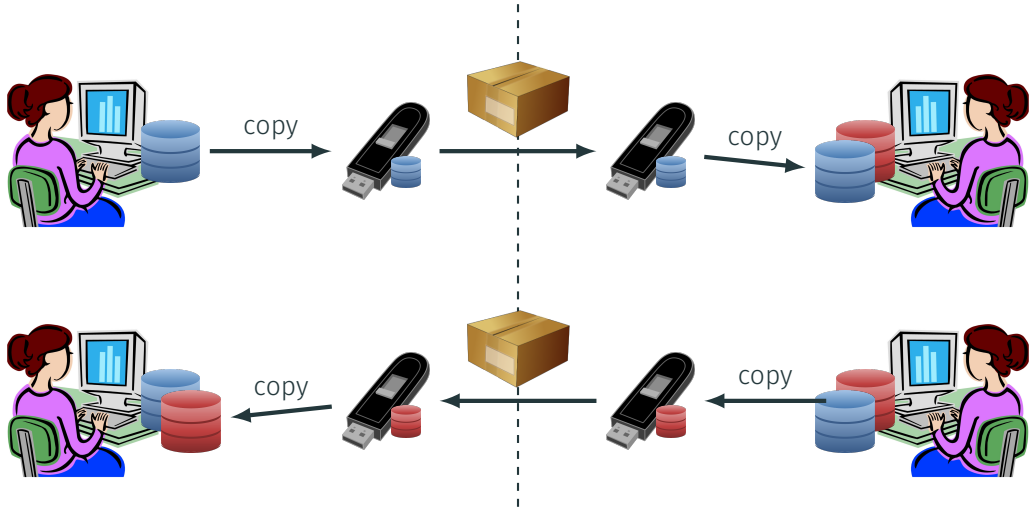
Before FMSync: Sharing Data



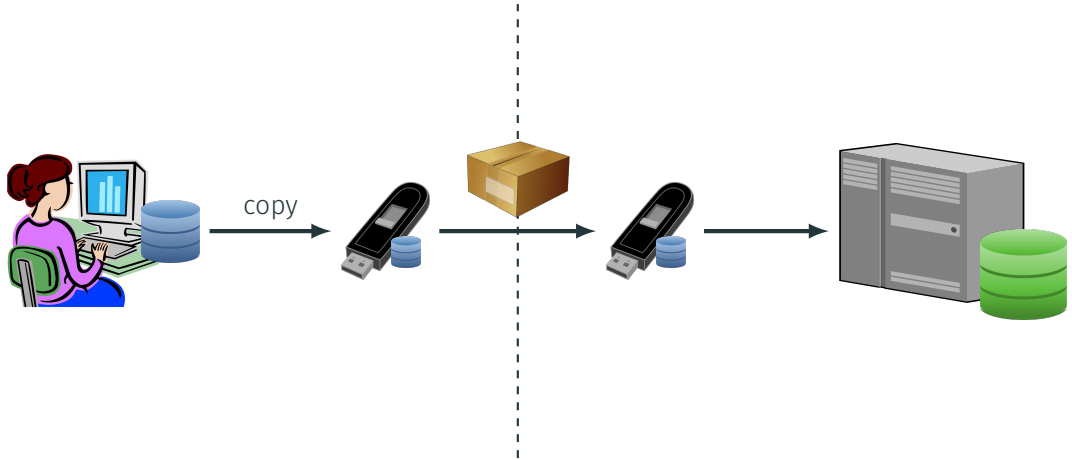
Before FMSync: Sharing Data



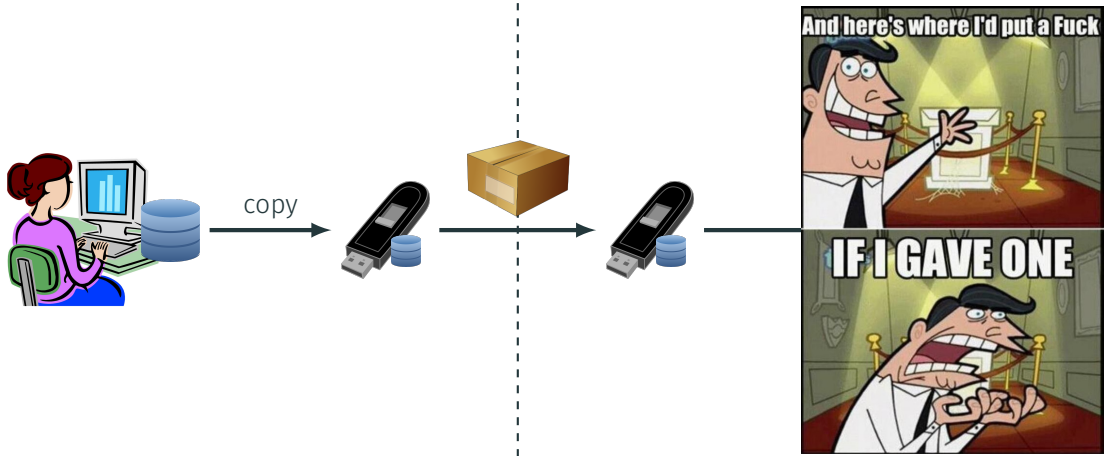
Before FMSync: Sharing Data



Before FMSync: Publishing Data

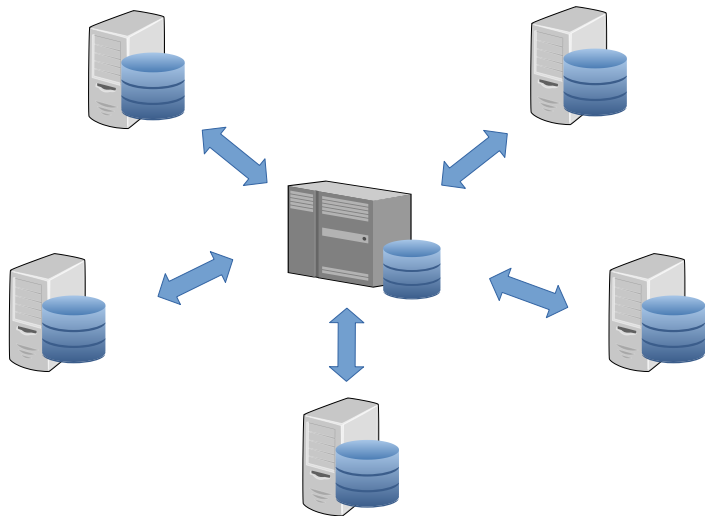


Before FMSync: Publishing Data



Approach

FMSync: Topology



Yo, Felix! 'Tis nuthin nu.

SymmetricDS supports [...] Oracle, MySQL, MariaDB, PostgreSQL, MS SQL Server (including Azure), IBM DB2 (UDB, iSeries, and zSeries), H2, HSQLDB, Derby, Firebird, Interbase, Informix, Greenplum, SQLite, Sybase ASE, Sybase ASA (SQL Anywhere), Amazon Redshift, MongoDB, and VoltDB databases.

<https://www.symmetricds.org/>

Yo, Felix! 'Tis nuthin nu.

*SymmetricDS supports [...] **Oracle**, **MySQL**, MariaDB, **PostgreSQL**, MS SQL Server (including Azure), IBM DB2 (UDB, iSeries, and zSeries), H2, HSQLDB, Derby, Firebird, Interbase, Informix, Greenplum, **SQLite**, Sybase ASE, Sybase ASA (SQL Anywhere), Amazon Redshift, **MongoDB**, and VoltDB databases.*

<https://www.symmetricds.org/>



Purchase Quote

				Quote Date	2018-03-09
				Quote Number	
				Expiration	2018-04-08
	Product	QTY	Unit Price	Extended Price	
FM160277LL	FileMaker Server 16 FLT Perpetual Volume License + 1 Year Maintenance (10 users)	1	US\$4,284.00	US\$4,284.00	
			Subtotal:	US\$4,284.00	
			Shipping:	US\$0.00	
			Estimated Tax:	US\$0.00	
			Total:	US\$4,284.00	

- Proprietary, badly written software
- Still totally not worth the price

open source (license!), free, platform independent (java)

Why underestimation is bad

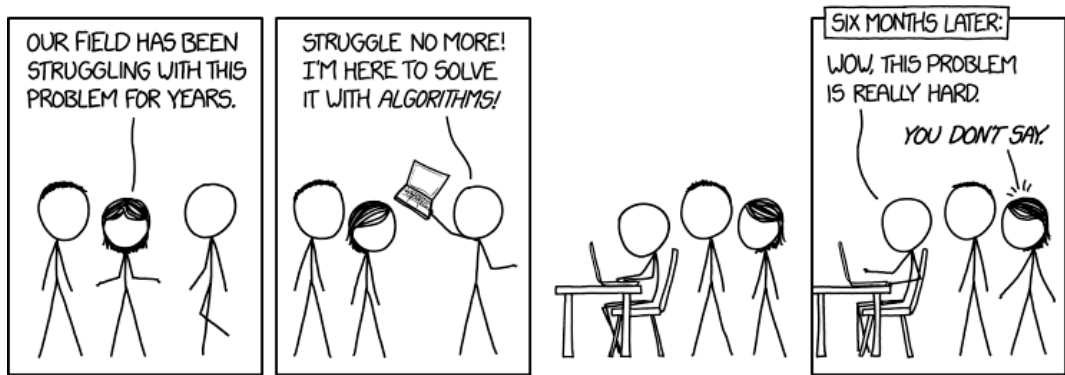


Figure 1: I can relate to this. [xkcd.com/1831]

Implementation

Foreign Key Difficulty

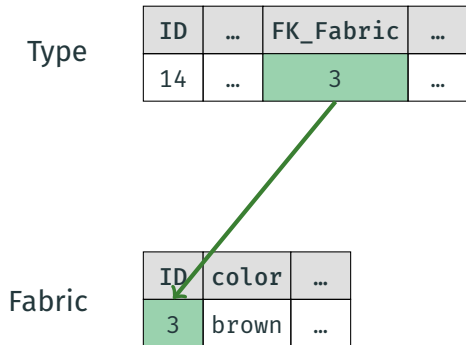
Type

ID	...	FK_Fabric	...
14	...	3	...

Fabric

ID	color	...
3	brown	...

Foreign Key Difficulty



Foreign Key Difficulty

Type

ID	...	FK_Fabric	...
14	...	3	...

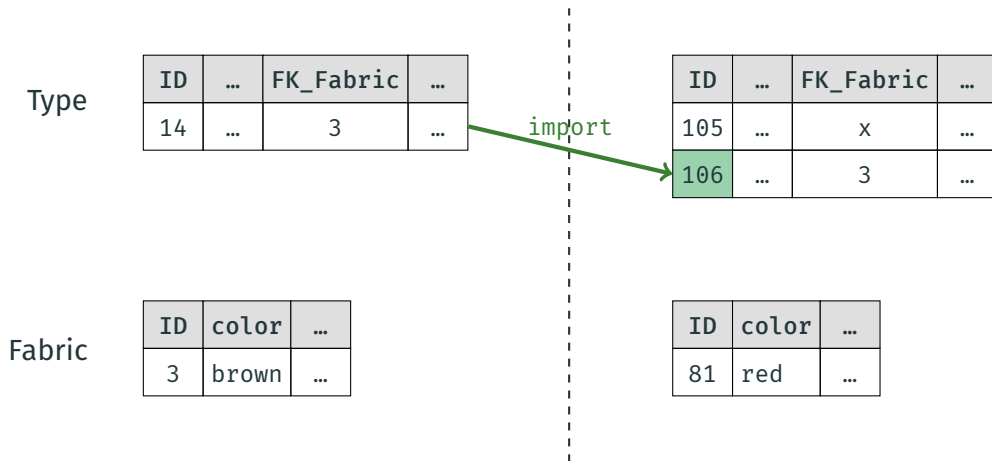
Fabric

ID	color	...
3	brown	...

ID	...	FK_Fabric	...
105	...	x	...

ID	color	...
81	red	...

Foreign Key Difficulty



Foreign Key Difficulty

Type

ID	...	FK_Fabric	...
14	...	3	...

ID	...	FK_Fabric	...
105	...	x	...
106	...	3	...

Fabric

ID	color	...
3	brown	...

import

ID	color	...
81	red	...
82	brown	...

Foreign Key Difficulty

Type

ID	...	FK_Fabric	...
14	...	3	...

Fabric

ID	color	...
3	brown	...

ID	...	FK_Fabric	...
105	...	x	...
106	...	3	...

ID	color	...
81	red	...
82	brown	...

Foreign Key Difficulty

Type

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Fabric

ID	color	...
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ID	...	FK_Fabric	...
105	...	x	...
106	...	3	...

ID	color	...
81	red	...
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Foreign Key Difficulty

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Thank you very much for your attention!

Questions?

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