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Purpose and Audience

Anyone developing PIM applications or applications using PIM data on the KDE platform.

Background

KPIM has progressed much over time such that data management is achieved with multiple applications; KMail, KAddressBook, KOrganizer, KPilot, Kandy, KArm, KNotes, KAlarm. Each application stores its configuration and PIM data using a different file formats and unique datastore. This is currently very functional and appreciated by all, however, it would be desirable to place all PIM data in single file with a common format and provide an easy API for extracting data.

Overview

Functional Requirements

- A common API for KDE applications to access/set PIM data.
- The datastore be accessible on another computer for public calendars.
- Methods to perform common data manipulation.

General Data Access

There should be a common methods for ALL applications to access PIM data. I envision the use of a lightweight client/server relational database.

DATABASE SERVER PROCESS <----> DATABASE CLIENT PROCESS

Let the DB server be present on the machine running PIM applications. Each application uses the appropriate DB client methods to access data in the datastore.

When using a database for accessing and storing data, many uncertainties and debug efforts are elimanted from development.

KPIM API for Data Access

I propose the 'database client' be abstracted into the form of a DATA PROXY. This would be a wrapper class around database access methods and public to all developing applications for KDE.

Class Heirarchy

```

                                +--->KORG DATA PXY
                                |
SQL CLIENT API-->KPIM DATA PXY--+->KNOTES DATA PXY
                                |
                                +--->KMAIL DATA PXY
```

Object Interactions

```
KORG DATA PXY    <---+- 1..n --> KORGANIZER IO
```

```
KNOTES DATA PXY <---+- 1..n --> KNOTES IO
```

Data Flow

```
DBSERVER --- Read Cal Data --> KORG DATA PXY
DBSERVER <-- Set Cal Data --- KORG DATA PXY
```

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