



Easy Databases On Maemo

Part 1: Stop Writing Code

Part 2: Glom

Part 3: Handheld Glom

Part 1: Stop Writing Code

Developers are incredibly ineffective

Developers Are Difficult

- Argue about editors
- Argue about version control
- Argue about programming languages
- Argue about code style
- Argue about toolkits
- Argue about build tools
- Nice to have: Implement features

The Best Is Not Enough

- People say the best developers are 10 x more productive than other developers
- That's true
- That's still 1000 x not good enough

Please

Stop The Developers

Code

- Code crashes
- Code works but you don't know why
- Code does something but you don't know what
- Code stops working if you look at it.

100 Ways To Be Slightly Better

- Development methodologies
- Specifications
- IDEs
- New programming languages
- Regression Testing

After everything, code is still mostly awful.

Please

Stop Writing Code

Estimates Are Always Wrong

- Always 2 weeks until it's finished.
Translation: "We have no idea".
- First month: Version 0.5, 0.6, 0.7, 0.8, 0.9
- Last two years: 0.91, 0.92 ... 0.9991 ... 0.9999, 2.0
- Requirements Always Change

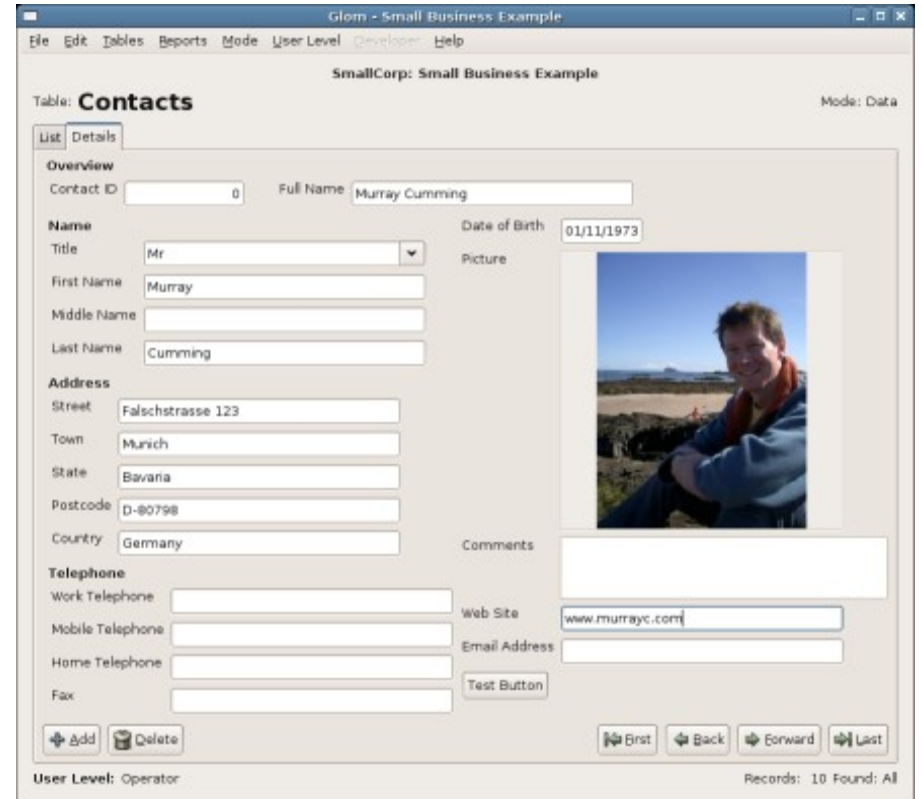
Please

Stop Planning

Show useful results early. Move on.

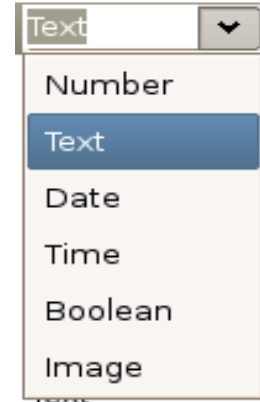
Part 2: Glom

- Design database systems
- UI and structure together
- Self-contained in one folder
- For normal users
- No code. No SQL.
(You can if you must)



Features (1)

- Simple field types
- Automatic layout
- Find
- Relationships:
 - Related records
 - Field lookups
 - Related fields
 - Drop-down choices



Desktop Uses

Anything that people would (ab)use Excel for.

- Order Taking and Invoicing
- Project Management
- Membership Databases
- Bookings, Reservations
- Film Production Management

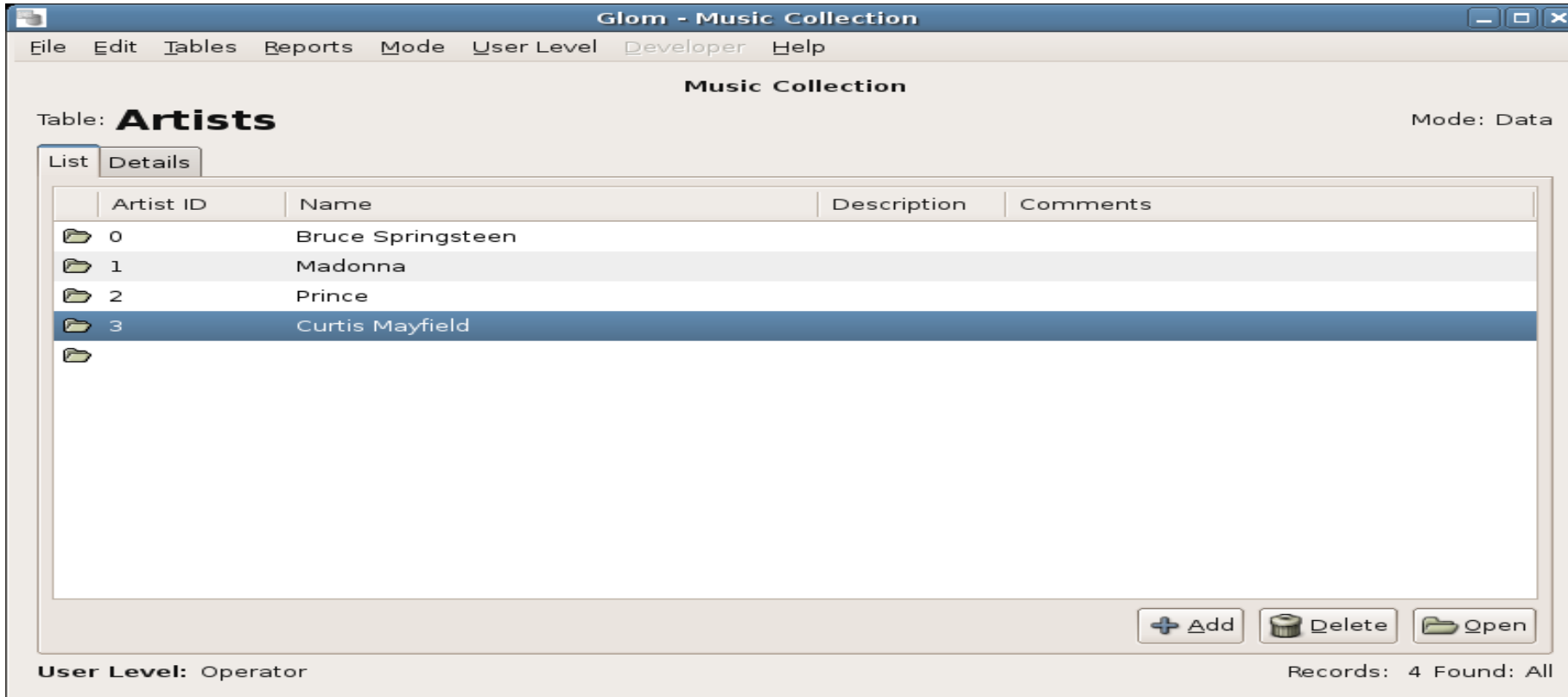
Handheld Uses

Jobs without computers: People who work on their feet.

- Restaurant Orders
- Deliveries
- Stock Taking
- Warehouse Order Picking
- Garage Billing
- School Attendance

Layout: List

- Shows many records:



The screenshot shows the Glom application window titled "Glom - Music Collection". The window has a menu bar with "File", "Edit", "Tables", "Reports", "Mode", "User Level", "Developer", and "Help". Below the menu bar, the title "Music Collection" is centered. On the left, it says "Table: **Artists**". On the right, it says "Mode: Data". There are two tabs: "List" (selected) and "Details". The main area contains a table with the following columns: "Artist ID", "Name", "Description", and "Comments". The table has four rows of data, with the third row (Curtis Mayfield) highlighted. Below the table, there are three buttons: "+ Add", "Delete", and "Open". At the bottom left, it says "User Level: Operator". At the bottom right, it says "Records: 4 Found: All".

Artist ID	Name	Description	Comments
0	Bruce Springsteen		
1	Madonna		
2	Prince		
3	Curtis Mayfield		

Layout: Details

- Show more details for one record.

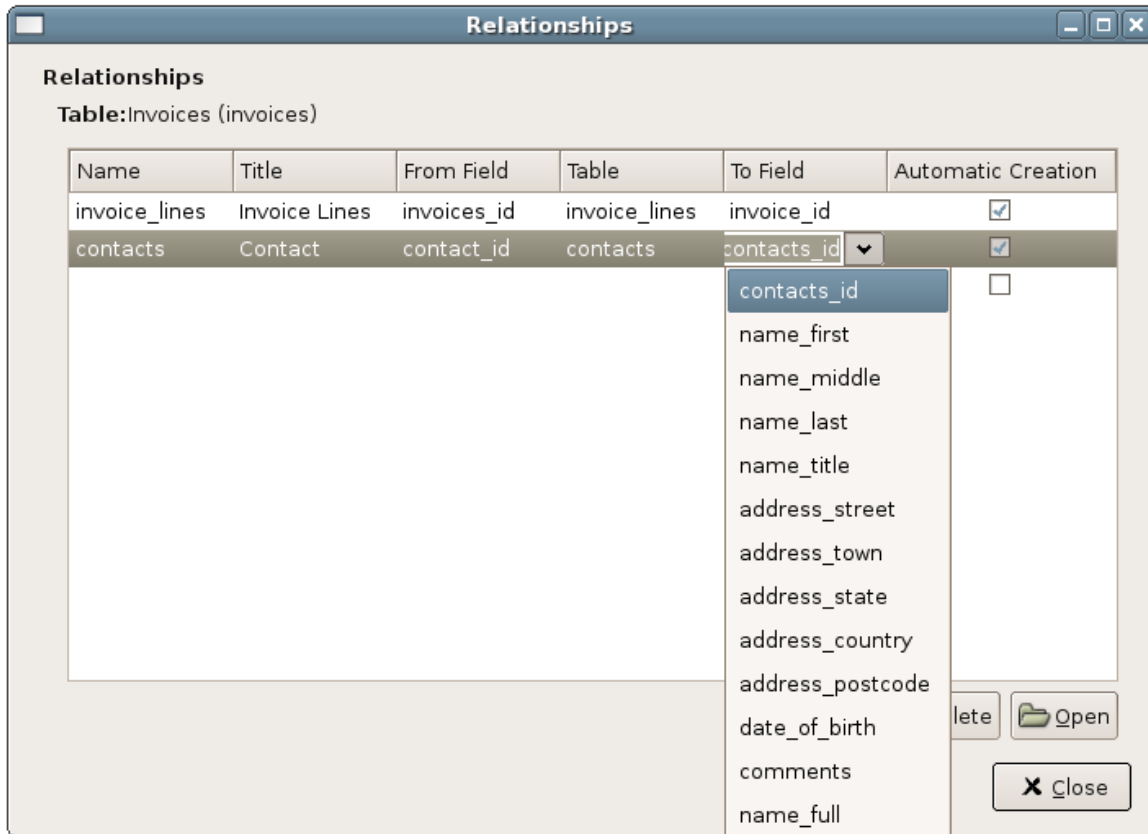
The screenshot shows the Glom application window titled "Glom - Music Collection". The menu bar includes "File", "Edit", "Tables", "Reports", "Mode", "User Level", "Developer", and "Help". The main window displays the "Music Collection" table in "Data" mode. The "Table: Artists" is selected, and the "Details" tab is active. The "Overview" section shows "Artist ID" as 0 and "Name" as "Bruce Springsteen". The "Details" section has a "Description" field and a "Comments" field. The "Albums" section contains a table with the following data:

Name	Year
Born To Run	1975
The Wild, the Innocent, & the E-Street	1973

At the bottom of the window, there are buttons for "+ Add", "Delete", and "Open". The "User Level" is "Operator" and "Records: 4 Found: All" is displayed.

Relationships

- Identify records based on a field value.



Using Relationships

- View related records
- View a related field
- Lookup a value from a related field
- Show list of possible values from a related record

Invoice Lines

Product Id	Product Name	Product Price	VAT Percentage	Number Of	Total Price	Total VAT
1	Sprocket	EUR 2.99	16	1	EUR 2.99	EUR 0.48
<input type="text" value="0"/>	Brezl	EUR 0.99	16	2	EUR 1.98	EUR 0.32

0 Brezl

1 Sprocket

2 Widget

No need for SQL

- This is pain:

```
SELECT "invoices"."invoice_id", "invoices"."date",  
"invoices"."contact_id", "relationship_contacts"."name_full",  
"invoices"."price_total", "invoices"."vat_total",  
"invoices"."price_total_with_vat", "invoices"."comment",  
"invoices"."invoice_id" FROM "invoices" LEFT OUTER JOIN  
"contacts" AS "relationship_contacts" ON  
("invoices"."contact_id" = "relationship_contacts"."contact_id")  
WHERE "invoices"."invoice_id" = 0
```

- Glom does it for you.

Extend via Python

- Define **Field calculations** using Python.
To calculate a value based on other fields.
- Add a **button** that runs a Python script.
To do something based on the field values,
Use SQL if you like, via the provided pygda connection.

Extend via SQL

- Glom uses PostgreSQL or SQLite.
- So you can access the data directly, without even using Glom.
- Just don't use unusual features that Glom doesn't expect.

Extend via XML

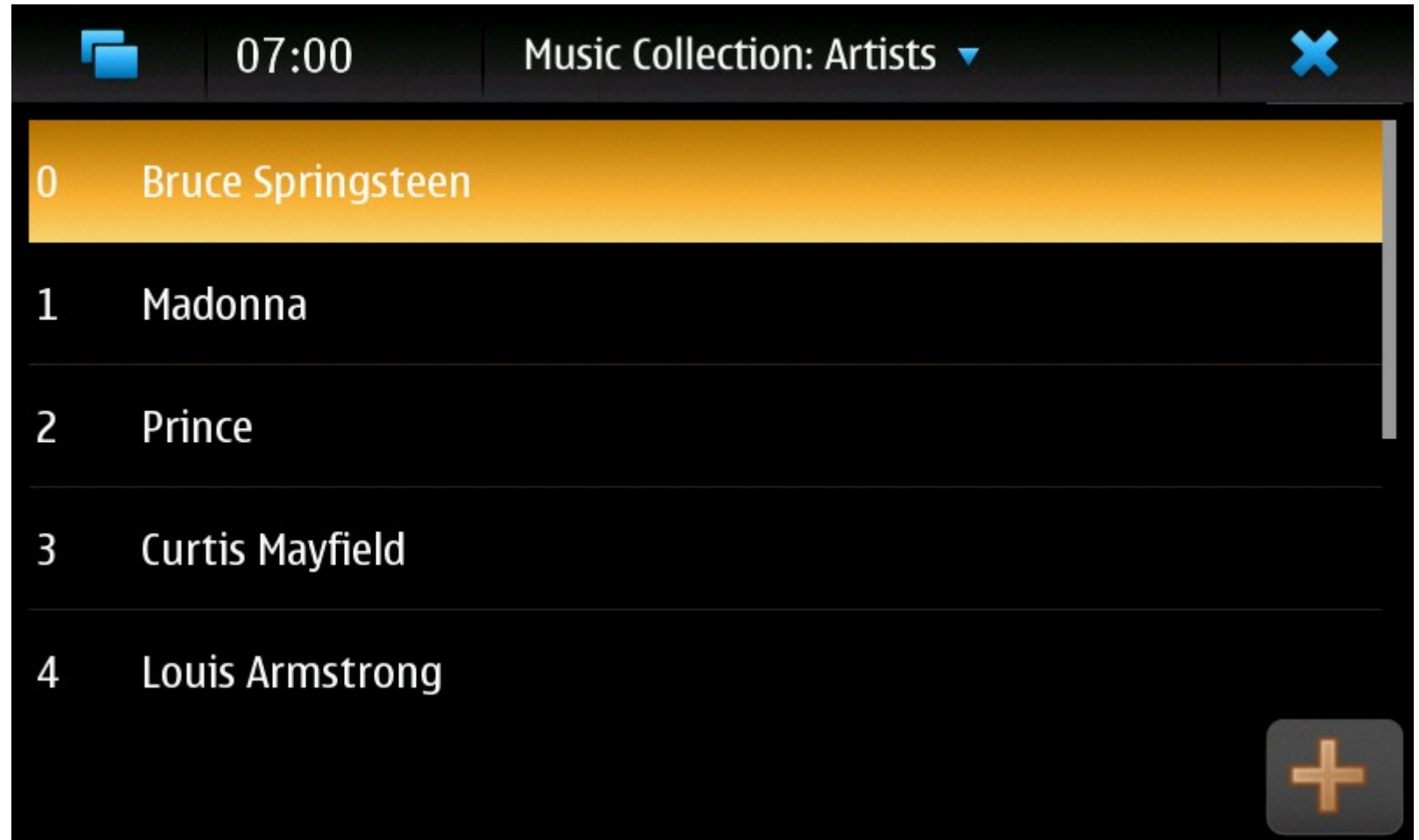
- .glom files are XML.
- The format is obvious and documented.
- Libglom helps you to read the XML.
Qlom (Qt) uses it. We have a Java JSP test too.

Part 3: Handheld Glom

- Client-only: Just viewing and Editing of data
- TouchSelector instead of TreeView
- PickerButton+TouchSelector instead of ComboBox
- Hide some labels
- Use single-columned layouts by default
- Use Hildon Buttons, Entries, Windows
- ifdefastic

Simpler UI

List:



Simpler UI

Details:

The screenshot shows a 'Details' window with a dark background and a light blue header bar. The header bar contains a folder icon, the time '07:55', the title 'Details', and a close button (X). The main content area is a form with the following fields and controls:

- Album ID:** A text input field containing the Greek letter beta (β).
- Name:** A text input field containing 'Sign 'O' The Times'.
- Artist ID:** A text input field containing the number '5', followed by 'Open' and 'Find' buttons.
- Name:** A text input field containing 'fdf'.
- Publisher ID:** A text input field containing the number '1', followed by 'Open' and 'Find' buttons.
- Name:** A text input field containing 'Warner Bros'.

A vertical scrollbar is visible on the right side of the form area.

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We Fight Entropy**



Glom

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Part 1: Stop Writing Code

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Developers are incredibly ineffective

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Glom helps you to quickly write database-based applications..

Developing software is insanely difficult. But for these types of applications you often have a good idea of what it should do, and you don't want a mass of code between you and finding out if you are right about what it should do.

You need to quickly show a UI to the user and get some feedback. Then you need to quickly adapt the system and show it again before the user has forgotten what they wanted or thought of something extra.

Developers get in the way of this.

Developers Are Difficult

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- Argue about editors
- Argue about version control
- Argue about programming languages
- Argue about code style
- Argue about toolkits
- Argue about build tools
- Nice to have: Implement features

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Developers have the strangest priorities.

Any 2 developers will disagree.

If a developer has nobody to disagree with then he'll disagree with his manager instead.

Developers are obsessed with the little things they can understand. They don't mention the vague things they can't have an opinion about. Users are vague. Customers are vague. Deadlines are vague. Non-Developers cannot decide which developer is correct. Don't try.

Developers say you must do things you don't understand.

You have no way of knowing if it's really worth the time.

You have a 50% chance of getting it wrong. The

The Best Is Not Enough

- People say the best developers are 10 x more productive than other developers
- That's true
- That's still 1000 x not good enough

Please

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Stop The Developers

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Developers create far more problems than they solve.
Be in the happy user business, not the coding
business.

Code

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- Code crashes
- Code works but you don't know why
- Code does something but you don't know what
- Code stops working if you look at it.

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More code means more problems.

Developers say: "It's only 1000 lines of code".
It will have at least 1000 bugs.

100 Ways To Be Slightly Better

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- Development methodologies
- Specifications
- IDEs
- New programming languages
- Regression Testing

After everything, code is still mostly awful.

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Developers say "You just need to ..."
Followed by a huge amount of incomprehensible
stuff. This is not understanding. This is pretending
to understand. It's voodoo. Don't lie to yourself.

Please

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Stop Writing Code

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I don't mean it personally. You're all nice people. You're from good families. You've just got mixed up with some bad people and developed some nasty habits.

OK, so some of you are creating new platforms or applications with unique Uis. Most developers are just like visual basic developers – I think we can agree that they should stop. The world doesn't need their code.

Estimates Are Always Wrong

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Translation: "We have no idea".
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- Requirements Always Change

Glom

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Openismus uses the Scotty technique. We overestimate wildly so the customer is insanely happy when you finish early. Because developers never finish early.

In summary, estimates are science fiction.

Please

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Stop Planning

Show useful results early. Move on.

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Stop lying to yourselves.

Refactoring:

- New requirements can require massive rewrites.
You don't know how disruptive until you start.
- More code means more code to change, test, fix.

Part 2: Glom

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- Design database systems
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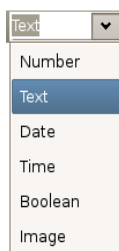
The screenshot shows a web browser window titled 'Glom - Small Business Example'. The main content area displays a form for editing a contact record. The form is organized into sections: Overview, Name, Address, Telephone, and Web Site. The contact's name is 'Murray Cumming', and the address is 'Falschstrasse 123, Munich, Bavaria, D-80798, Germany'. A photo of a man is shown next to the name. The form includes various input fields, a dropdown menu for the title, and a 'Test Button'. The interface is simple and user-friendly, with a clear layout and easy-to-use controls.

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Features (1)

- Simple field types
- Automatic layout
- Find
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 - Drop-down choices



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Also reports, users/groups.

Desktop Uses

Anything that people would (ab)use Excel for.

- Order Taking and Invoicing
- Project Management
- Membership Databases
- Bookings, Reservations
- Film Production Management

Glom

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So what might you use Glom for?

Also roughly equivalent to Access, but far less painful. Very similar to FileMaker Pro.

Handheld Uses

Jobs without computers: People who work on their feet.

- Restaurant Orders
- Deliveries
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Layout: List

15

- Shows many records:



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Layout: Details

16

- Show more details for one record.

The screenshot shows the Glom Music Collection application window. The title bar reads "Glom - Music Collection". The menu bar includes "File", "Edit", "Tables", "Reports", "Mode", "User Level", "Developer", and "Help". The main content area is titled "Music Collection" and "Table: Artists". It features a "List" tab and a "Details" tab. The "Details" view is active, showing an "Overview" section with "Artist ID" (0) and "Name" (Bruce Springsteen). Below this is a "Details" section with "Description" and "Comments" text boxes. An "Albums" section contains a table with columns "Name" and "Year":

Name	Year
Born To Run	1975
The Wild, the Innocent, & the E-Street	1973

At the bottom of the application, there are "Add", "Delete", and "Open" buttons for the albums table, and "Add", "Delete", "First", "Back", "Forward", and "Last" buttons for the main data table. The status bar at the bottom indicates "User Level: Operator" and "Records: 4 Found: All".

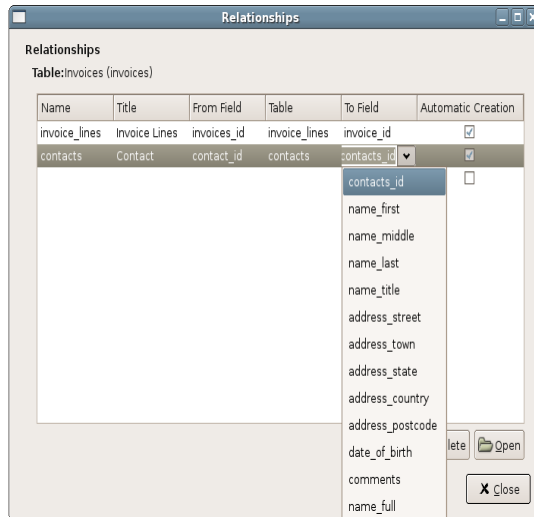
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Relationships

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0 Brezl
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2 Widget

+ Add - Delete

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Simpler UI

24

List:

The screenshot shows a mobile application interface for a music collection. At the top, there is a dark header bar with a blue icon on the left, the time '07:00' in the center, and the text 'Music Collection: Artists' on the right with a dropdown arrow. A blue 'X' icon is in the top right corner. Below the header is a list of five artists, each on a separate line with a dark background and white text. The first item, '0 Bruce Springsteen', is highlighted with a yellow-to-orange gradient bar. The other items are '1 Madonna', '2 Prince', '3 Curtis Mayfield', and '4 Louis Armstrong'. A small grey button with a white plus sign is located in the bottom right corner of the list area.

0	Bruce Springsteen
1	Madonna
2	Prince
3	Curtis Mayfield
4	Louis Armstrong

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Simpler UI

25

Details:

07:55 Details

Album ID:

Name:

Artist ID:

Name:

Publisher ID:

Name:

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