

INTER-Mediator

Simple and Extensible

Web Application Framework

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Masayuki Nii
nii@msyk.net

 **MasayukiNii**
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Who am I ? Masayuki Nii



Developer, Consultant and Trainer

- Independent (self-employed) based on Japan (close to Tokyo).
- iOS, OS X, OS X Server, Linux and Web.
- FileMaker, MySQL, PostgreSQL.
- Teaching at two universities (Keio and Senshu univ.).

Works about FileMaker

- Internationalized FX.php.
- Author of the Japanese book “Relational DB for FileMaker”.
- Mainly web integration.
- NOT FBA (FM Japan doesn't allow it to self-employed people.)

Agenda



The Concept of INTER-Mediator

Demo of Development

The Key Features of INTER-Mediator

The Concept



Requires:

- Web server with PHP
- Modern Browser (NO Internet Explorer 6)
- FileMaker Server, MySQL, PostgreSQL, SQLite

Simplified Development:

- Almost no programming to bind the database and web page.
- Automatic updating to the database.
- Listing and paging of records are supported.
- Authentication supported.

Extensible Options:

- Extend the server side with PHP programming.
- Extend the client side with JavaScript programming.

Demo

Demo



The screenshot shows a web browser window with the following details:

- Browser tabs: 管理画面, Miami-D, miami, Facebook, 12 The H
- Address bar: localhost/im/Demo-Script/demo2.html
- Navigation bar: アップル, Remember The Milk, Evernote Web, INTER-Mediator - Sa, Facebook
- Table header: 更新 レコード番号1-10 / 20
- Table columns: Postal Code, Prefecture, Address

Postal Code	Prefecture	Address	
1600000	東京都	新宿区 以下に掲載がない場合	<input type="text"/>
1600005	東京都	新宿区 愛住町	<input type="text"/>
1600007	東京都	新宿区 荒木町	<input type="text"/>
1600013	東京都	新宿区 霞ヶ丘町	<input type="text"/>
1600001	東京都	新宿区 片町	<input type="text"/>
1600021	東京都	新宿区 歌舞伎町	<input type="text"/>
1600002	東京都	新宿区 坂町	<input type="text"/>
1600017	東京都	新宿区 左門町	<input type="text"/>
1600008	東京都	新宿区 三栄町	<input type="text"/>
1600016	東京都	新宿区 信濃町	<input type="text"/>

Demo



更新 レコード番号1-10 / 3654 << < > >>

Postal Code	Prefecture	Address	
1000000	東京都	千代田区 以下に掲載がない場合	<input type="text" value="today is shine."/>
1020072	東京都	千代田区 飯田橋	<input type="text" value="next"/>
1020082	東京都	千代田区 一番町	<input type="text" value="next 2"/>
1010032	東京都	千代田区 岩本町	<input type="text"/>
1010047	東京都	千代田区 内神田	<input type="text"/>
1000011	東京都	千代田区 内幸町	<input type="text"/>
1000004	東京都	千代田区 大手町 (次のビルを除く)	<input type="text"/>
1006890	東京都	千代田区 大手町 JAビル (地階・階層不明)	<input type="text"/>
1006801	東京都	千代田区 大手町 JAビル (1階)	<input type="text"/>
1006802	東京都	千代田区 大手町 JAビル (2階)	<input type="text"/>

Demo



更新 レコード番号1-10 / 20 << < > >>

Postal Code	Prefecture	Address				
1600000	東京都	新宿区 以下に掲載がない場合	<input type="text"/>			
1600005	東京都	新宿区 愛住町	<input type="text"/>			
1600007	東京都	新宿区 荒木町	<input type="text"/>	1600007	AGITO	03-3355-7133
				1600007	アルマヴィーヴァ	03-3351-3881
				1600007	キッチンたか	03-3356-2646
1600013	東京都	新宿区 霞ヶ丘町	<input type="text"/>			
1600001	東京都	新宿区 片町	<input type="text"/>	1600001	ビリー・ザ・キッド - 市ヶ谷店	03-3341-2951
1600021	東京都	新宿区 歌舞伎町	<input type="text"/>	1600021	ResortDiningCASCADE新宿	0120-706734
				1600021	うみ	03-3202-5615
				1600021	おいた	03-3208-7973
				1600021	さんるーむ新宿サブナード店	03-5919-0981
				1600021	すずや新宿本店	03-3209-4480
				1600021	ねぎし - 歌舞伎町店	03-3232-8077
				1600021	ねぎし - 靖国通り店	03-5292-0977
				1600021	アジト(AJITO)	03-3207-4222
				1600021	アリアブルTOKYO	03-5155-5633
				1600021	アンドケィ(&K)	03-3205-1888
				1600021	ガルーダ	03-3207-1175
				1600021	グリル&スイーツカフェスコール	0120-759356
				1600021	ケナリ	03-3200-2278

Recap of the Demo



Basic Procedure:

- Create PHP file with the definitions of context (database access information).
- Create HTML file with “Binding” tags.

Page Generation:

- The field data are inserted into the tag element.
- Multiple-records repeat the row of the table.
- Paging feature is available.

Update Data:

- Text fields can be updated automatically.

Relationship

- Relationship works.

The Key Features

HTML Generation



Text Field

- Set data from a database
- Update when the data is modified.

Checkbox, Radio Buttons

- Synchronized with a numeric field.

Popup Menus

- Options can be from database.
- Conditional options available.

Other than form elements

- Set the data to attributes, styles and text node.
- Can be set to innerHTML property.
- Appending, Replacing and Scripting

Client-Side Script

JavaScript

- No conflicts with other libraries.

INTER-Mediator API

- Get the id of generated elements.
- Direct access to the database server.

Controlling Database Access

- Add query conditions and sort fields dynamically.

Calculation on the Client-Side

- ex. unit price x qty.
- Calculate just in time to modify the data.

Server-Side Script



Processing:

- Before database processing.
- After database processing.

For One single field data

- ex. Date and time format conversion

For Whole recordset

- Aggregation
- Sending email

Scripting

- PHP's method.
- Get the array as the recordset, and return as the array.

Activation

- Just settings, no program.
- User can change thier own password.
- Account Management web page is available.

Authentication Support

- Custom user/group table or db engine's users
- Challenge-Response way for custom account table.
- PKI encryption for db engine's user.

Authorization

- Set for each CRUD operations or ALL.

Other Features



Validation

- Set the JavaScript program for each text fields.

Browser Detection

- Possible to access with specific browsers, versions and platforms.

Batch Update

- Updating data on the page after clicking a button.

In the Future...



Media Support

- Images or anything media with authentication.
- File uploading.

Database Support

- Cloud: ex. Amazon SimpleDB
- Local: HTML5's local database
- Others: Hadoop.

Client-Side Caching

English Documentation

Target of INTER-Mediator



Custom Solutions

- Want to be a web application.
- Low budget.

For Small Organizations or Divisions

- Just start with mock HTML page.
- Should make a valid design about database.
- Bind with them.
- If you want to do other than binding, you should make programs with JavaScript/PHP.

Summary



You can make a web page just like FileMaker.
Binding a page to database without programming.
Extensible both client and server-side with some programming.

MIT License (it means mostly free!)

<http://inter-mediator.info/>

INTER-Mediator Web Site

<http://inter-mediator.info/>

INTER-Mediator

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Web Application Framework

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