



French banks sequester your data

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Overview

- What are bank data
- No standard way to access to your own data
- How banks prevent scrapping
- How weboob scaps them anyway
- What is possible with standard API



Paper statement





Online statement

Faire un virement | Dernier relevé | Rechercher une opération ▼ | Pointer mes opérations ▼ | Analyser mon budget ▼ | Etaler mes paiements

Pointer mes opérations
 Signaler mes opérations

Opérations comptabilisées Opération: Solde actualisé

<input checked="" type="checkbox"/>	<input type="checkbox"/>	Date de l'opération ▼	Date de valeur ▼	Libellé de l'opération (court <u>long</u>)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	21/07/2012	21/07/2012	VIR DEMONSTRATION DOMBANQUE
		21/07/2012	21/07/2012	VIR vir interne diff samedi
		20/07/2012	20/07/2012	VIR COMPTE CHEQUES 5
		19/07/2012	19/07/2012	VIR vers COMPTE CHEQUES 1



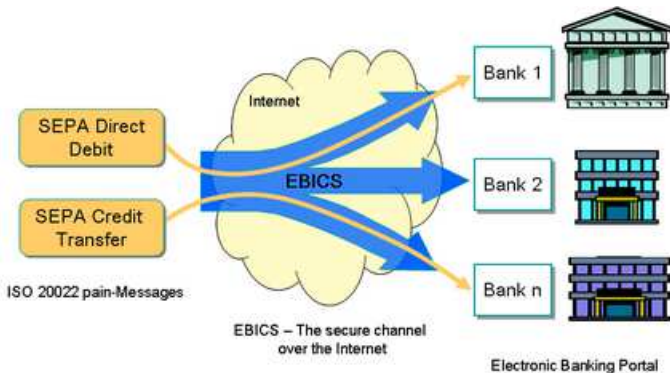
Downloadable files

QIF

CSV

OFX

Transpac & SEPA





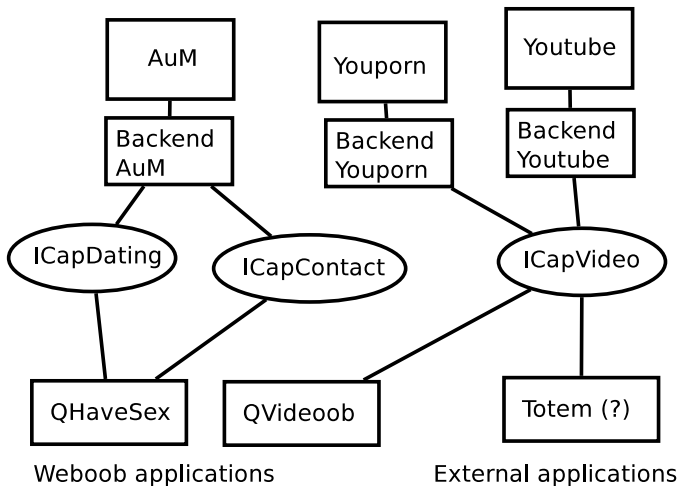
WEB OUTSIDE OF BROWSERS



Capabilities

- Common API
- Aggregation
- Examples: CapVideo, CapSubtitle, CapMessages, etc.

Diagram



CapBank

```

+-----+
| Account |
+-----+
| Name:    Check account |
| Balance: 5000           |
| Currency: EUR          |
| Coming:  290           |
| Type:    CHECKING      |
|          |
| Transactions[] |
+-----+

```

```

+-----+
| Transaction |
+-----+
| Date:       2013-07-01 |
| Raw: FACTURE CARTE DU 130613 SNCF
| Amount:    -118       |
| Rdate:     2013-06-13 |
| Type:      CARD       |
| Label:     SNCF INTERNET |
+-----+

```

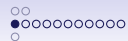


Difficultés du scrapping



Pierre Tramo

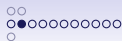




Bad HTML structure

- No IDs neither classes
- Inlined styles

Concerned banks:
About all of them.



Bad date format

Examples:

- 18 sep.
- 13/02
- hier

Concerned banks:

1. Crédit Agricole
2. ING

Limited historic

- Last 20 transactions
- Last 30 days

Concerned banks:

1. Crédit Agricole
2. Banque Postale

No ID for transactions

- Difficult to recognize them

Not concerned banks:

1. Paypal
2. HSBC
3. Crédit du Nord
4. Bred



Non integrity of data

- Shown transactions not considered in account balance
- Transactions details may change

Concerned banks:
About all of them.

Sequential navigation

- Java applications
- Sateful navigation

Concerned banks:

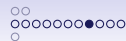
1. BNP
2. Banque Populaire
3. AXA Banque
4. Crédit Agricole

Javascript needed

- Set cookies
- Fill pages from arrays in js

Concerned banks:

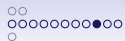
1. Banque Populaire
2. Barclays
3. BNP
4. Crédit Agricole
5. Crédit du Nord
6. ...



Headers checking

Concerned banks:

1. Banque Populaire
2. BNP Paribas
3. AXA Banque



Variants between regions

- Various version of the same software

Concerned banks:

1. Crédit Agricole
2. Banque Populaire

Numeric keypad

2 Cliquez pour composer les 6 chiffres de votre

	1			
	2	3		4
		5		
6	7	8		
		9		0

Code secret

X effacer

Concerned banks:

1. Crédit Agricole
2. BNP Paribas
3. AXA Banque
4. Banque Postale
5. ...

Authentication token



Concerned banks:

1. HSBC
2. Other banks soon



Ranking

1. Crédit Agricole
2. Banque Populaire
3. BNP Paribas
4. AXA Banque
5. HSBC



KMyMoney

File Edit View Institution Account Category Transaction Tools Settings Help

New Open Save Print New institution New account Open ledger Edit account Reconcile Update Show balance chart Find transaction Calculator

Ledgers

My Account Search Status Any status

No.	Date	Details	C	Payment	Deposit	Balance
Previous fiscal year						
01/01/11	Opening Balances				5,116.00	5,116.00
Current fiscal year						
01/26/12		YENDIS SARL PARIS	▲	7.89		5,108.11
01/26/12		LE RALDIE LA CELLE SAIN	▲	24.40		5,083.71
01/27/12		LE PETIT CHATEL PARIS	▲	14.75		5,068.96
01/27/12		TBAC CHATELET PARIS	▲	28.40		5,040.56
01/27/12		HOTEL POINT NEUF 001 PARIS	▲	91.84		4,948.72
01/28/12		PHARMACE POINT PARIS 1	▲	7.58		4,941.14
01/30/12		LE PETIT CHATEL PARIS	▲	30.00		4,911.14
02/01/12		RELAY 31 25 79 PUTEAUX	▲	24.40		4,886.74
02/01/12		SNCF PUTEAUX	▲	99.60		4,787.14
02/02/12		WWW.HETZNER.DE	▲	49.00		4,738.14
02/04/12		LE RALDIE LA CELLE SAIN	▲	24.40		4,713.74
02/05/12		GOADDDX.COM EUR	▲	16.51		4,697.23
02/06/12		CALL IN EUROPE PARIS 9	▲	27.71		4,669.52
02/09/12		LE RALDIE LA CELLE SAIN	▲	25.60		4,643.92
02/14/12		LE RALDIE LA CELLE SAIN	▲	24.40		4,619.52
02/16/12		LE PETIT CHATEL PARIS	▲	30.00		4,589.52
02/17/12		LE RALDIE LA CELLE SAIN	▲	27.20		4,562.32
02/21/12		LE RALDIE LA CELLE SAIN	▲	24.40		4,537.92
02/22/12		SM CASINO CS943 PARIS 12	▲	4.52		4,533.39
02/22/12		MONOPRIX LA CELLE ST C	▲	17.02		4,516.28
02/22/12		771 351 HSBC FRANCE PARIS	▲	56.00		4,460.28
02/24/12		CASA WILLMANN PARIS	▲	20.50		4,445.78

The statements have been processed with the following results:

Importing statement for account My Account
Statement balance on 2012-05-18 is reported to be 1,907.05

- Transactions
- 96 processed
- 96 added
- 0 matched
- 0 duplicates
- Payees
- 0 created

OK



BUDGETINSIGHT





Prévisionnel Juillet 2013

Solde actuel

0 629 €

Résultat actuel

1 000 €

Dépenses prévues

environ 880 € *

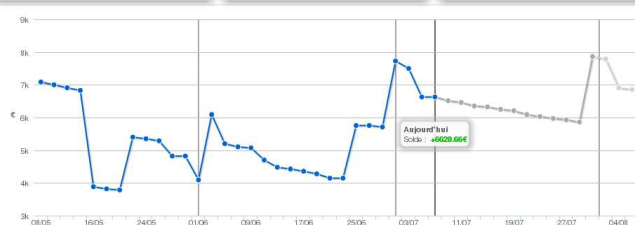
Revenus prévus

environ 2 100 € *

Solde anticipé au 31 juillet

Entre 7 773 € et 7 924 €

Résultat anticipé au 31 juillet

Entre 2 144 € et 2 295 €

Revenus

Reste à percevoir **environ 2 100 € ***

* En savoir plus sur ces prévisions.

Fixe

EUROPEEN SEPA RECU /IRM

Réalisée le 01/07

Reste 2100 €

2 100 €

EUROPEEN SEPA RECU /IRM

Prévue le 31/07

2 100 €

Salais

+ Prévoir un revenu

Dépenses

Reste à dépenser **environ 880 € ***

Fixe

COTISATION ESPRIT LIBRE

Réalisée le 02/07

Reste 141 €

-3 €

Frais bancaires

RATP PARIS CEDEX 1

Réalisée le 01/07

-84 €

RATP PARIS CEDEX 1

Prévue le 31/07

-84 €

Transport en commun

FREE MOBILE NUM 591778 EC

Prévue le 22/07

-16 €

Téléphone

VTL 04-07 20H50 V07042050 E

Réalisée le 04/07

-808 €

Loyer / Charges

EDF AVP SIMM BNPP NUM 001

Prévue le 23/05

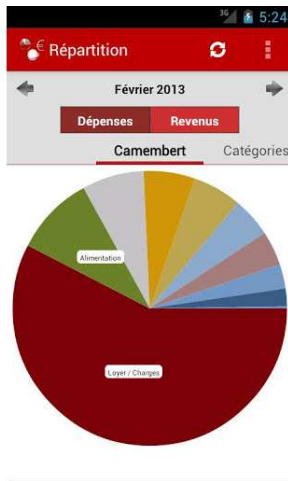
-41 €

Cette opération n'a pas été reprise.

EDF AVP SIMM BNPP NUM 001

Prévue le 08/07

-41 €





OFX

- Microsoft protocol
- Mostly in USA and Germany



Open Bank Project

- Standard API
- Nobody uses it



Crédit Agricole Store

- Crappy.



AXA Banque

- Open API
- Application register



French banks are outdated

- Open to use aggregation
- Closed to opening their data

Questions?



<http://weboob.org>
#weboob @ irc.freenode.net



<https://www.budgea.com>