

FIELD NOTES: 書を持って街へ出よう [A](#) [RSS](#) [Twitter](#)

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合同会社フィールドワークス(<http://www.field-works.co.jp/>)プログラマー兼代表

最新タイトル

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2011-06-29

CSVから帳票を生成するツールを作ってみました [💬](#) [📧](#) [📧](#) [📧](#)[製品情報](#) | [編集](#) | [編集](#)

弊社のLL言語用PDF帳票ツール[Field Reports](#)を使って、CSVファイルを元にPDF帳票を生成するツールを試作してみました。同様の処理はMS WordとExcelの「差し込み印刷」機能を使ってもできますが、このツールには以下の特長があります。

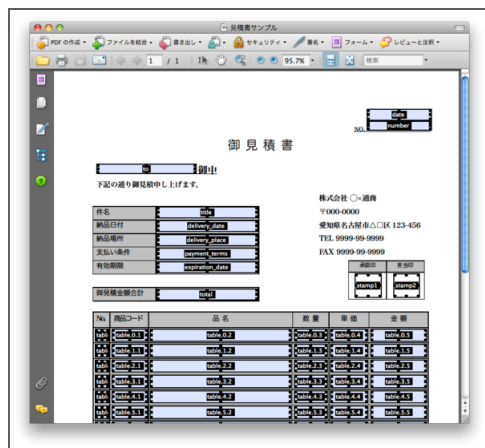
- 雛形の作成手段がWordに限定されない（PDF化できる文書ならなんでも使える）。
- Linux, Mac OS X環境で動作する（逆に、現在のところWindows環境では動作しません）。
- 他のツールと組み合わせて処理を自動化するのが比較的簡単（例えば、どこかのWebサイトから取得したHTMLからデータを抜き出して、レポートを自動生成するなど）。
- サーバサイドでの運用も問題ない（マイクロソフトでは、Officeをサーバサイドで使用することはお勧めしていないようです：[Officeのサーバサイドオートメーションについて](#)）。

テンプレートの準備

テンプレート（雛形）となるPDFファイルを用意します。

今回は、OpenOffice.orgで請求書のフォーマットを作成し、「PDFとしてエクスポート...」でPDF化しました。

次に、作成したPDFをAdobe Acrobatで開き、テキストを流し込みたい位置にフォーム・フィールドを配置していきます。



CSVファイルの準備

PDFテンプレートに流し込むデータを作成し、CSV形式のファイルとして保存します。

CSVファイルの1行目はヘッダ行として使用し、データは2行目以降に置きます。

ヘッダ行の見出しは、PDFテンプレートに配置したフィールド名と一致させます。

テキストの文字コードはSJISとします。

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"date","number","to","title","delivery_date","delivery_place","payment_terms","expiration_date","table.0.0","table.0.1","table.0.2","table.0.3","table.0.4","table.0.5","table.0.6","table.0.7","table.0.8","table.0.9","table.0.10","table.0.11","table.0.12","table.0.13","table.0.14","table.0.15","table.0.16","table.0.17","table.0.18","table.0.19","table.0.20","table.0.21","table.0.22","table.0.23","table.0.24","table.0.25","table.0.26","table.0.27","table.0.28","table.0.29","table.0.30","table.0.31","table.0.32","table.0.33","table.0.34","table.0.35","table.0.36","table.0.37","table.0.38","table.0.39","table.0.40","table.0.41","table.0.42","table.0.43","table.0.44","table.0.45","table.0.46","table.0.47","table.0.48","table.0.49","table.0.50","table.0.51","table.0.52","table.0.53","table.0.54","table.0.55","table.0.56","table.0.57","table.0.58","table.0.59","table.0.60","table.0.61","table.0.62","table.0.63","table.0.64","table.0.65","table.0.66","table.0.67","table.0.68","table.0.69","table.0.70","table.0.71","table.0.72","table.0.73","table.0.74","table.0.75","table.0.76","table.0.77","table.0.78","table.0.79","table.0.80","table.0.81","table.0.82","table.0.83","table.0.84","table.0.85","table.0.86","table.0.87","table.0.88","table.0.89","table.0.90","table.0.91","table.0.92","table.0.93","table.0.94","table.0.95","table.0.96","table.0.97","table.0.98","table.0.99","table.0.100","table.0.101","table.0.102","table.0.103","table.0.104","table.0.105","table.0.106","table.0.107","table.0.108","table.0.109","table.0.110","table.0.111","table.0.112","table.0.113","table.0.114","table.0.115","table.0.116","table.0.117","table.0.118","table.0.119","table.0.120","table.0.121","table.0.122","table.0.123","table.0.124","table.0.125","table.0.126","table.0.127","table.0.128","table.0.129","table.0.130","table.0.131","table.0.132","table.0.133","table.0.134","table.0.135","table.0.136","table.0.137","table.0.138","table.0.139","table.0.140","table.0.141","table.0.142","table.0.143","table.0.144","table.0.145","table.0.146","table.0.147","table.0.148","table.0.149","table.0.150","table.0.151","table.0.152","table.0.153","table.0.154","table.0.155","table.0.156","table.0.157","table.0.158","table.0.159","table.0.160","table.0.161","table.0.162","table.0.163","table.0.164","table.0.165","table.0.166","table.0.167","table.0.168","table.0.169","table.0.170","table.0.171","table.0.172","table.0.173","table.0.174","table.0.175","table.0.176","table.0.177","table.0.178","table.0.179","table.0.180","table.0.181","table.0.182","table.0.183","table.0.184","table.0.185","table.0.186","table.0.187","table.0.188","table.0.189","table.0.190","table.0.191","table.0.192","table.0.193","table.0.194","table.0.195","table.0.196","table.0.197","table.0.198","table.0.199","table.0.200","table.0.201","table.0.202","table.0.203","table.0.204","table.0.205","table.0.206","table.0.207","table.0.208","table.0.209","table.0.210","table.0.211","table.0.212","table.0.213","table.0.214","table.0.215","table.0.216","table.0.217","table.0.218","table.0.219","table.0.220","table.0.221","table.0.222","table.0.223","table.0.224","table.0.225","table.0.226","table.0.227","table.0.228","table.0.229","table.0.230","table.0.231","table.0.232","table.0.233","table.0.234","table.0.235","table.0.236","table.0.237","table.0.238","table.0.239","table.0.240","table.0.241","table.0.242","table.0.243","table.0.244","table.0.245","table.0.246","table.0.247","table.0.248","table.0.249","table.0.250","table.0.251","table.0.252","table.0.253","table.0.254","table.0.255","table.0.256","table.0.257","table.0.258","table.0.259","table.0.260","table.0.261","table.0.262","table.0.263","table.0.264","table.0.265","table.0.266","table.0.267","table.0.268","table.0.269","table.0.270","table.0.271","table.0.272","table.0.273","table.0.274","table.0.275","table.0.276","table.0.277","table.0.278","table.0.279","table.0.280","table.0.281","table.0.282","table.0.283","table.0.284","table.0.285","table.0.286","table.0.287","table.0.288","table.0.289","table.0.290","table.0.291","table.0.292","table.0.293","table.0.294","table.0.295","table.0.296","table.0.297","table.0.298","table.0.299","table.0.300","table.0.301","table.0.302","table.0.303","table.0.304","table.0.305","table.0.306","table.0.307","table.0.308","table.0.309","table.0.310","table.0.311","table.0.312","table.0.313","table.0.314","table.0.315","table.0.316","table.0.317","table.0.318","table.0.319","table.0.320","table.0.321","table.0.322","table.0.323","table.0.324","table.0.325","table.0.326","table.0.327","table.0.328","table.0.329","table.0.330","table.0.331","table.0.332","table.0.333","table.0.334","table.0.335","table.0.336","table.0.337","table.0.338","table.0.339","table.0.340","table.0.341","table.0.342","table.0.343","table.0.344","table.0.345","table.0.346","table.0.347","table.0.348","table.0.349","table.0.350","table.0.351","table.0.352","table.0.353","table.0.354","table.0.355","table.0.356","table.0.357","table.0.358","table.0.359","table.0.360","table.0.361","table.0.362","table.0.363","table.0.364","table.0.365","table.0.366","table.0.367","table.0.368","table.0.369","table.0.370","table.0.371","table.0.372","table.0.373","table.0.374","table.0.375","table.0.376","table.0.377","table.0.378","table.0.379","table.0.380","table.0.381","table.0.382","table.0.383","table.0.384","table.0.385","table.0.386","table.0.387","table.0.388","table.0.389","table.0.390","table.0.391","table.0.392","table.0.393","table.0.394","table.0.395","table.0.396","table.0.397","table.0.398","table.0.399","table.0.400","table.0.401","table.0.402","table.0.403","table.0.404","table.0.405","table.0.406","table.0.407","table.0.408","table.0.409","table.0.410","table.0.411","table.0.412","table.0.413","table.0.414","table.0.415","table.0.416","table.0.417","table.0.418","table.0.419","table.0.420","table.0.421","table.0.422","table.0.423","table.0.424","table.0.425","table.0.426","table.0.427","table.0.428","table.0.429","table.0.430","table.0.431","table.0.432","table.0.433","table.0.434","table.0.435","table.0.436","table.0.437","table.0.438","table.0.439","table.0.440","table.0.441","table.0.442","table.0.443","table.0.444","table.0.445","table.0.446","table.0.447","table.0.448","table.0.449","table.0.450","table.0.451","table.0.452","table.0.453","table.0.454","table.0.455","table.0.456","table.0.457","table.0.458","table.0.459","table.0.460","table.0.461","table.0.462","table.0.463","table.0.464","table.0.465","table.0.466","table.0.467","table.0.468","table.0.469","table.0.470","table.0.471","table.0.472","table.0.473","table.0.474","table.0.475","table.0.476","table.0.477","table.0.478","table.0.479","table.0.480","table.0.481","table.0.482","table.0.483","table.0.484","table.0.485","table.0.486","table.0.487","table.0.488","table.0.489","table.0.490","table.0.491","table.0.492","table.0.493","table.0.494","table.0.495","table.0.496","table.0.497","table.0.498","table.0.499","table.0.500","table.0.501","table.0.502","table.0.503","table.0.504","table.0.505","table.0.506","table.0.507","table.0.508","table.0.509","table.0.510","table.0.511","table.0.512","table.0.513","table.0.514","table.0.515","table.0.516","table.0.517","table.0.518","table.0.519","table.0.520","table.0.521","table.0.522","table.0.523","table.0.524","table.0.525","table.0.526","table.0.527","table.0.528","table.0.529","table.0.530","table.0.531","table.0.532","table.0.533","table.0.534","table.0.535","table.0.536","table.0.537","table.0.538","table.0.539","table.0.540","table.0.541","table.0.542","table.0.543","table.0.544","table.0.545","table.0.546","table.0.547","table.0.548","table.0.549","table.0.550","table.0.551","table.0.552","table.0.553","table.0.554","table.0.555","table.0.556","table.0.557","table.0.558","table.0.559","table.0.560","table.0.561","table.0.562","table.0.563","table.0.564","table.0.565","table.0.566","table.0.567","table.0.568","table.0.569","table.0.570","table.0.571","table.0.572","table.0.573","table.0.574","table.0.575","table.0.576","table.0.577","table.0.578","table.0.579","table.0.580","table.0.581","table.0.582","table.0.583","table.0.584","table.0.585","table.0.586","table.0.587","table.0.588","table.0.589","table.0.590","table.0.591","table.0.592","table.0.593","table.0.594","table.0.595","table.0.596","table.0.597","table.0.598","table.0.599","table.0.600","table.0.601","table.0.602","table.0.603","table.0.604","table.0.605","table.0.606","table.0.607","table.0.608","table.0.609","table.0.610","table.0.611","table.0.612","table.0.613","table.0.614","table.0.615","table.0.616","table.0.617","table.0.618","table.0.619","table.0.620","table.0.621","table.0.622","table.0.623","table.0.624","table.0.625","table.0.626","table.0.627","table.0.628","table.0.629","table.0.630","table.0.631","table.0.632","table.0.633","table.0.634","table.0.635","table.0.636","table.0.637","table.0.638","table.0.639","table.0.640","table.0.641","table.0.642","table.0.643","table.0.644","table.0.645","table.0.646","table.0.647","table.0.648","table.0.649","table.0.650","table.0.651","table.0.652","table.0.653","table.0.654","table.0.655","table.0.656","table.0.657","table.0.658","table.0.659","table.0.660","table.0.661","table.0.662","table.0.663","table.0.664","table.0.665","table.0.666","table.0.667","table.0.668","table.0.669","table.0.670","table.0.671","table.0.672","table.0.673","table.0.674","table.0.675","table.0.676","table.0.677","table.0.678","table.0.679","table.0.680","table.0.681","table.0.682","table.0.683","table.0.684","table.0.685","table.0.686","table.0.687","table.0.688","table.0.689","table.0.690","table.0.691","table.0.692","table.0.693","table.0.694","table.0.695","table.0.696","table.0.697","table.0.698","table.0.699","table.0.700","table.0.701","table.0.702","table.0.703","table.0.704","table.0.705","table.0.706","table.0.707","table.0.708","table.0.709","table.0.710","table.0.711","table.0.712","table.0.713","table.0.714","tab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.1.072","table.1.073","table.1.074","table.1.075","table.1.076","table.1.077","table.1.078","table.1.079","table.1.080","table.1.081","table.1.082","table.1.083","table.1.084","table.1.085","table.1.086","table.1.087","table.1.088","table.1.089","table.1.090","table.1.091","table.1.092","table.1.093","table.1.094","table.1.095","table.1.096","table.1.097","table.1.098","table.1.099","table.1.100","table.1.101","table.1.102","table.1.103","table.1.104","table.1.105","table.1.106","table.1.107","table.1.108","table.1.109","table.1.110","table.1.111","table.1.112","table.1.113","table.1.114","table.1.115","table.1.116","table.1.117","table.1.118","table.1.119","table.1.120","table.1.121","table.1.122","table.1.123","table.1.124","table.1.125","table.1.126","table.1.127","table.1.128","table.1.129","table.1.130","table.1.131","table.1.132","table.1.133","table.1.134","table.1.135","table.1.136","table.1.137","table.1.138","table.1.139","table.1.140","table.1.141","table.1.142","table.1.143","table.1.144","table.1.145","table.1.146","table.1.147","table.1.148","table.1.149","table.1.150","table.1.151","table.1.152","table.1.153","table.1.154","table.1.155","table.1.156","table.1.157","table.1.158","table.1.159","table.1.160","table.1.161","table.1.162","table.1.163","table.1.164","table.1.165","table.1.166","table.1.167","table.1.168","table.1.169","table.1.170","table.1.171","table.1.172","table.1.173","table.1.174","table.1.175","table.1.176","table.1.177","table.1.178","table.1.179","table.1.180","table.1.181","table.1.182","table.1.183","table.1.184","table.1.185","table.1.186","table.1.187","table.1.188","table.1.189","table.1.190","table.1.191","table.1.192","table.1.193","table.1.194","table.1.195","table.1.196","table.1.197","table.1.198","table.1.199","table.1.200","table.1.201","table.1.202","table.1.203","table.1.204","table.1.205","table.1.206","table.1.207","table.1.208","table.1.209","table.1.210","table.1.211","table.1.212","table.1.213","table.1.214","table.1.215","table.1.216","table.1.217","table.1.218","table.1.219","table.1.220","table.1.221","table.1.222","table.1.223","table.1.224","table.1.225","table.1.226","table.1.227","table.1.228","table.1.229","table.1.230","table.1.231","table.1.232","table.1.233","table.1.234","table.1.235","table.1.236","table.1.237","table.1.238","table.1.239","table.1.240","table.1.241","table.1.242","table.1.243","table.1.244","table.1.245","table.1.246","table.1.247","table.1.248","table.1.249","table.1.250","table.1.251","table.1.252","table.1.253","table.1.254","table.1.255","table.1.256","table.1.257","table.1.258","table.1.259","table.1.260","table.1.261","table.1.262","table.1.263","table.1.264","table.1.265","table.1.266","table.1.267","table.1.268","table.1.269","table.1.270","table.1.271","table.1.272","table.1.273","table.1.274","table.1.275","table.1.276","table.1.277","table.1.278","table.1.279","table.1.280","table.1.281","table.1.282","table.1.283","table.1.284","table.1.285","table.1.286","table.1.287","table.1.288","table.1.289","table.1.290","table.1.291","table.1.292","table.1.293","table.1.294","table.1.295","table.1.296","table.1.297","table.1.298","table.1.299","table.1.300","table.1.301","table.1.302","table.1.303","table.1.304","table.1.305","table.1.306","table.1.307","table.1.308","table.1.309","table.1.310","table.1.311","table.1.312","table.1.313
```

```
import csv
from field import reports

param = {
    "template": [
        {"*": {"src": "./mitumori.pdf", "rows": 10}}
    ],
    "style": [
        {"*.stamp1": {"icon": "./stamp.png"}}
    ]
}

def dset(d, keys, value):
    if len(keys) == 0:
        return value
    else:
        if d.has_key(keys[0]):
            dset(d[keys[0]], keys[1:], value)
        else:
            d[keys[0]] = dset({}, keys[1:], value)
        return d

def read_csv(fname):
    result = []
    reader = csv.reader(file(fname, "rb"))
    header = reader.next()
    for row in reader:
        item = {}
        for key, value in zip(header, row):
            if key and value:
                keys = unicode(key, 'sjis').split('.')
                dset(item, keys, unicode(value, 'sjis'))
        result.append(item)
    return result

if __name__ == "__main__":
    if len(sys.argv) == 3:
        context = read_csv(sys.argv[1])
        param['context'] = context
        reports.set_log_level(3)
        reports.render(param, sys.argv[2])
    else:
        print("usage: %s <csvfile> <outfile>" % (sys.argv[0], ))
```

処理結果

使い方は、コマンドラインから以下のコマンドを実行します。

```
$ python csv2pdf.py data.csv out.pdf
```

作成されたPDFを以下に示します。

No.	商品コード	品名	数量	単価	金額
1	N001	牛肉 (契約用とし)	200g	250円	500円
2	Y001	じゃがいも (風刺り)	3個	30円	90円
3	Y002	にんじん (風刺り)	1本	40円	40円
4	Y003	たまねぎ (くし刺り)	1個	50円	50円
5	Y004	しらす	1個	80円	80円
6	Y005	いんげん	1個	40円	40円
小計					800円
消費税					40円
税込合計					840円

今回の例では1ページの帳票を作成しましたが、データが複数行あれば複数ページのPDFが作成されます。

いいね

いいね!

[Permalink](#) | [コメント\(0\)](#) | [トラックバック\(0\)](#) | 11:36  