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AFFILIATION

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PROJECTS

KEGG, TogoWS, BioRuby

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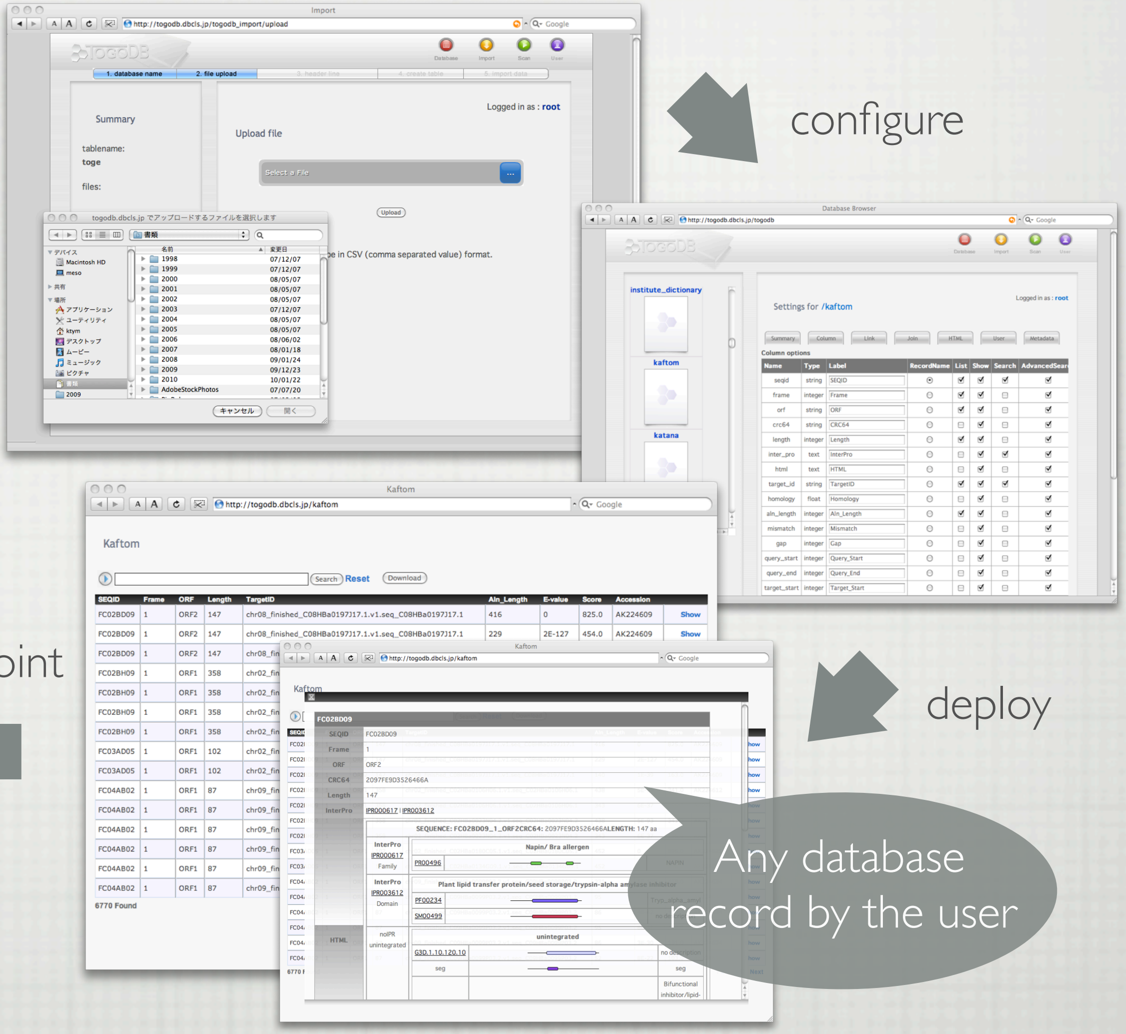
Research interests

TogoDB

deploy your DB in 5min

upload



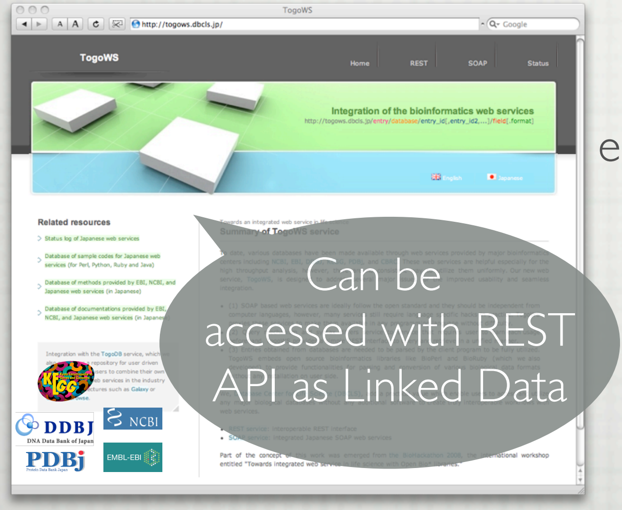
configure

deploy

endpoint

TogoWS

integrated REST/SOAP services



http://togows.dbcls.jp/entry/togodb-foobardb/123.rdf

http://togodb.dbcls.jp/foobardb/show/123

On-the-fly to Linked Data

TogoWS REST interface

Retrieve/parse entries

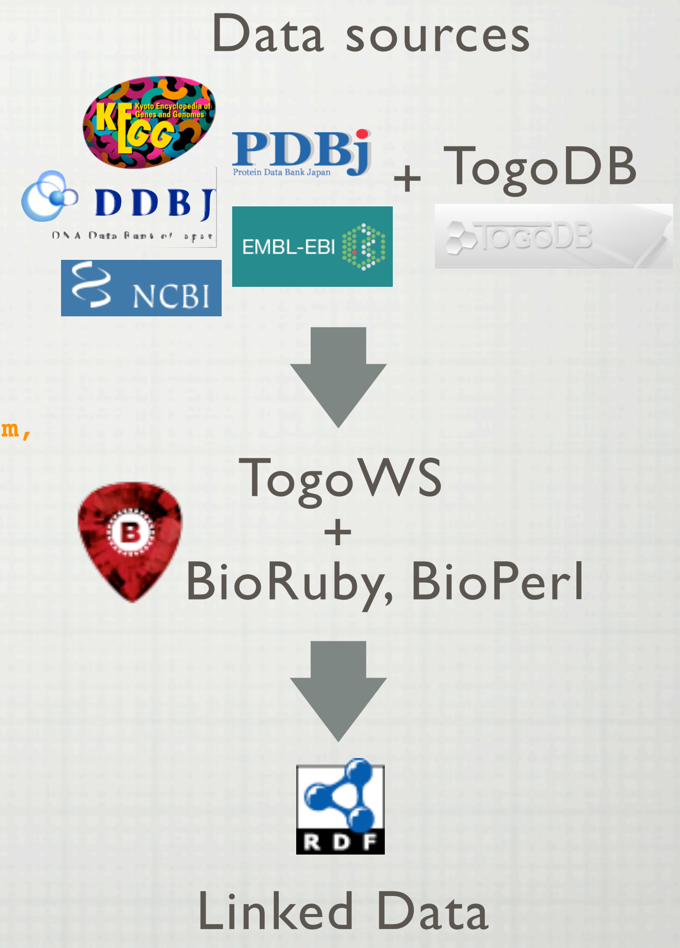
```
/entry/database/entry_id[,entry_id2,...][/field][.format]
  http://togows.dbcls.jp/entry/uniprot/A1AG1_HUMAN,A1AG1_MOUSE
  http://togows.dbcls.jp/entry/uniprot/A1AG1_HUMAN,A1AG1_MOUSE.fasta
  http://togows.dbcls.jp/entry/uniprot/A1AG1_HUMAN,A1AG1_MOUSE.gff
  http://togows.dbcls.jp/entry/pubmed/16381885
  http://togows.dbcls.jp/entry/pubmed/16381885/authors
  http://togows.dbcls.jp/entry/pubmed/16381885/authors.json
  database:
    KEGG: gene, orthology, enzyme, compound, drug, glycan, reaction
    DDBJ: ddbj, dad
    PDBj: pdb
    NCBI: gene, genome, genomeprj, geo, journals, mesh, nucleotide, omim,
          pmc, protein, pubmed, taxonomy, cdd, popset, snp, unigene,
          homologene, nuccore, nucest, nucgss, unists
    EBI:  biomodels, chebi, ensembl, go, interpro, reactome, uniprot,
          uniparc, uniref100, uniref90, uniref50, msdchem, msdpdb
  format:
    rdf, ttl, xml, json, gff, fasta etc.
```

Search entries

```
/search/database/query+string[/offset,limit][.format]
  http://togows.dbcls.jp/search/uniprot/lung+cancer/count
  http://togows.dbcls.jp/search/uniprot/lung+cancer/1,10
```

Convert data format

```
/convert/source.format
  http://togows.dbcls.jp/convert/blast.gff
  source: genbank, blast, fasta, psl, sim4, hmmer, exonerate, wise etc.
  format: gff etc.
```



Data sources

+ TogoDB

TogoWS
+
BioRuby, BioPerl

Linked Data

In BioHackathon 2010

- ☐ BioRuby extention - Support for Semantic Web
  - ☐ RDF converters for TogoWS (ActiveRDF?)
  - ☐ Modular system (BioRuby shell plug-in)
- ☐ Integration of data from KEGG Ortholog Clusters (OC) and KEGG MODULE with Semantic Web technology
  - ☐ Phylogenetic profile
  - ☐ KEGG in RDF, BioPAX
- ☐ Genome annotation + NGS data
  - ☐ Queries to Semantic Web