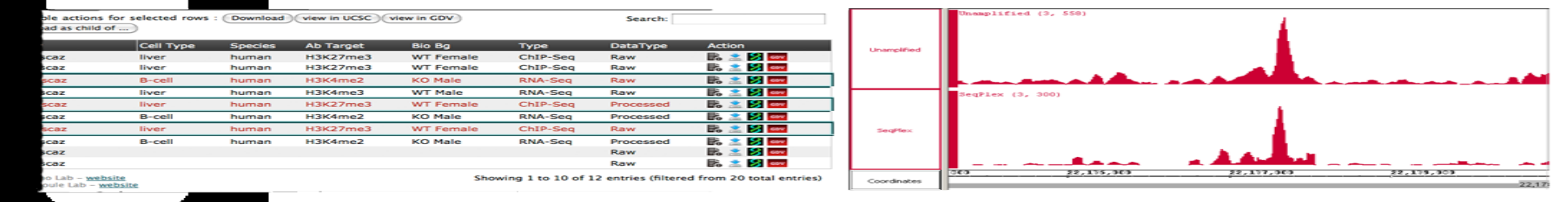


BioRepe



Introduction

The expansion of High Throughput Sequencing technologies forces biologists and bioinformaticians to find efficient solutions for managing and storing their data. BioRepo (Biological data Repository) addresses those needs : it allows to store, manage and share data amongst collaborators, but also facilitates visualisation in publicly available genome browsers.



Functionalities

All file formats are accepted

Two ways to upload data : internet browser or command line

It is possible to apply a common action to several selected measurements :

- Download
- Visualise (UCSC or GDV)
- Create new from existing

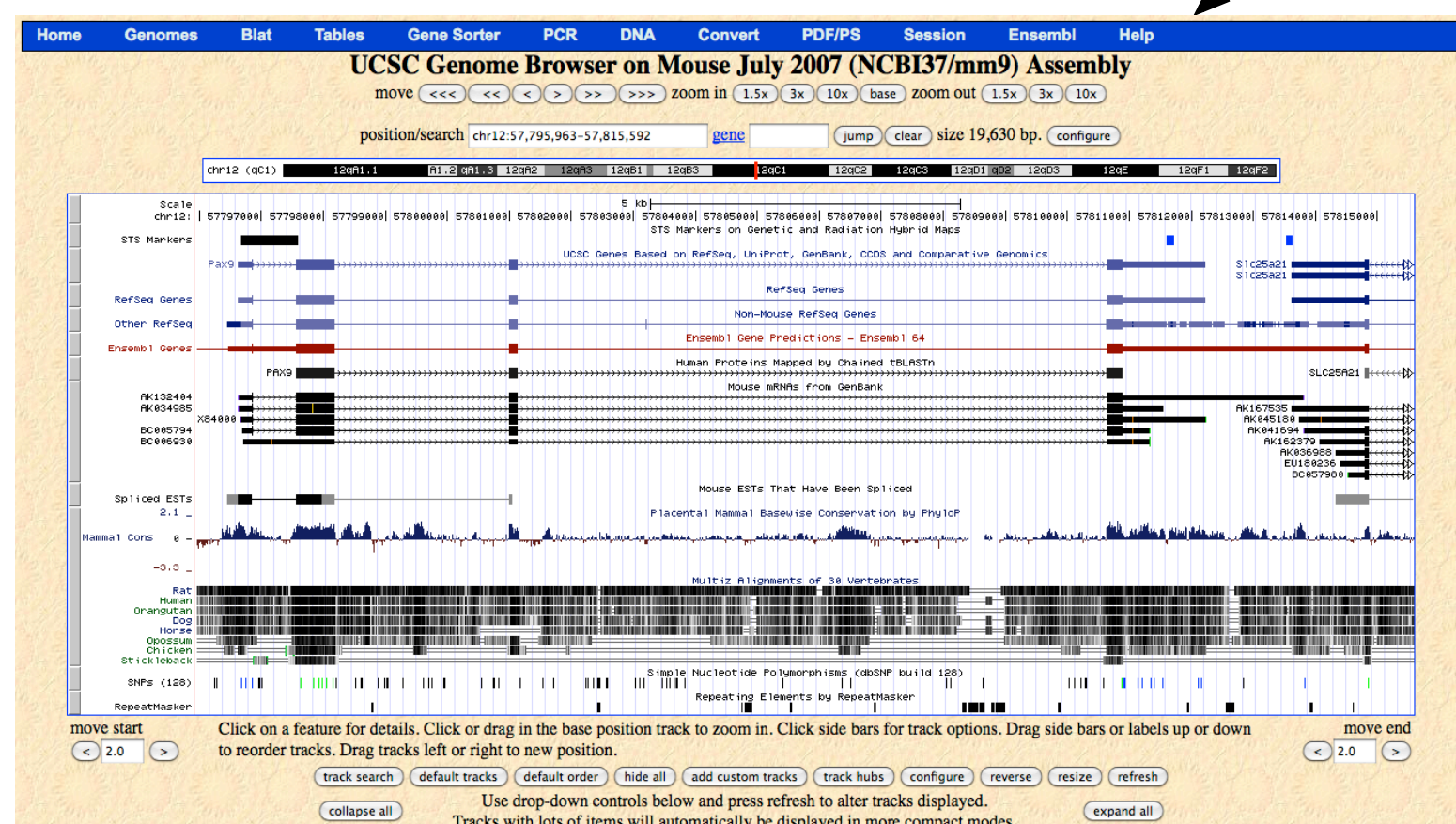
User	Samples	Type	Cell Type	Target	Bio Bg	Stage	Measurements	Assembly	Data Type	Date	Final Action
Montavon	Brain_H3K4me3 (mouse)	ChIP-ChIP	forebrain	H3K4me3	E12.5	Brain_H3K4me3_rep1_raw	mm8	Raw	29/05/2012	Yes	Download Visualise UCSC GDV
Montavon	Brain_H3K4me1 (mouse)	ChIP-ChIP	forebrain	H3K4me1	E12.5	Brain_H3K4me1_rep2_raw	mm8	Raw	29/05/2012	Yes	Download Visualise UCSC GDV
Montavon	Brain_H3K4me3 (mouse)	ChIP-ChIP	forebrain	H3K4me3	E12.5	Brain_H3K4me3_rep2_raw	mm8	Raw	29/05/2012	Yes	Download Visualise UCSC GDV
Montavon	Brain_H3K27Ac (mouse)	ChIP-ChIP	forebrain	H3K27Ac	E12.5	Brain_H3K27Ac_rep1_raw	mm8	Raw	29/05/2012	Yes	Download Visualise UCSC GDV
Montavon	Brain_H3K27Ac (mouse)	ChIP-ChIP	forebrain	H3K27Ac	E12.5	Brain_H3K27Ac_rep2_raw	mm8	Raw	29/05/2012	Yes	Download Visualise UCSC GDV
Montavon	Brain_RNAP2 (mouse)	ChIP-ChIP	forebrain	RNAP2	E12.5	Brain_RNAP2_rep1_raw	mm8	Raw	29/05/2012	Yes	Download Visualise UCSC GDV
Montavon	Brain_RNAP2 (mouse)	ChIP-ChIP	forebrain	RNAP2	E12.5	Brain_RNAP2_rep2_raw	mm8	Raw	29/05/2012	Yes	Download Visualise UCSC GDV
Montavon	Brain_H3K4me3 (mouse)	ChIP-ChIP	forebrain	H3K4me3	E12.5	Brain_H3K4me3_processed	mm8	Processed	29/05/2012	Yes	Download Visualise UCSC GDV
Montavon	Brain_H3K27Ac (mouse)	ChIP-ChIP	forebrain	H3K27Ac	E12.5	Brain_H3K27Ac_processed	mm8	Processed	29/05/2012	Yes	Download Visualise UCSC GDV
Montavon	Brain_H3K4me1 (mouse)	ChIP-ChIP	forebrain	H3K4me1	E12.5	Brain_H3K4me1_processed	mm8	Processed	29/05/2012	Yes	Download Visualise UCSC GDV
Montavon	Brain_RNAP2 (mouse)	ChIP-ChIP	forebrain	RNAP2	E12.5	Brain_RNAP2_processed	mm8	Processed	29/05/2012	Yes	Download Visualise UCSC GDV

efficient search :
free text and/or
category-based
search

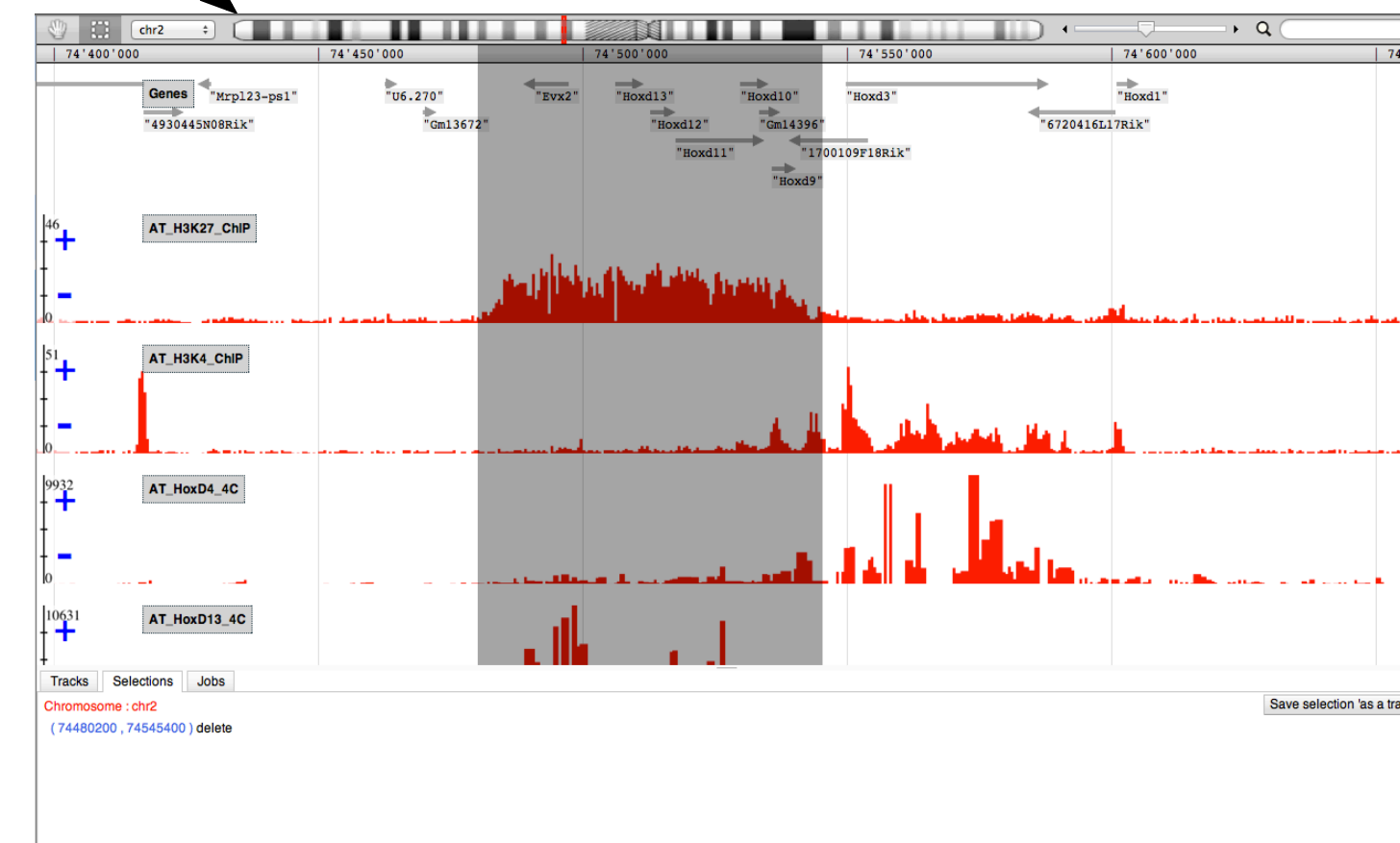
Icons : additional
information,
download,
visualisation in
genome browser
(UCSC or GDV)

Visualisation

in UCSC



in GDV



Sharing and Tracking

Three main levels : **Project**, **Sample** and **Measurement**.

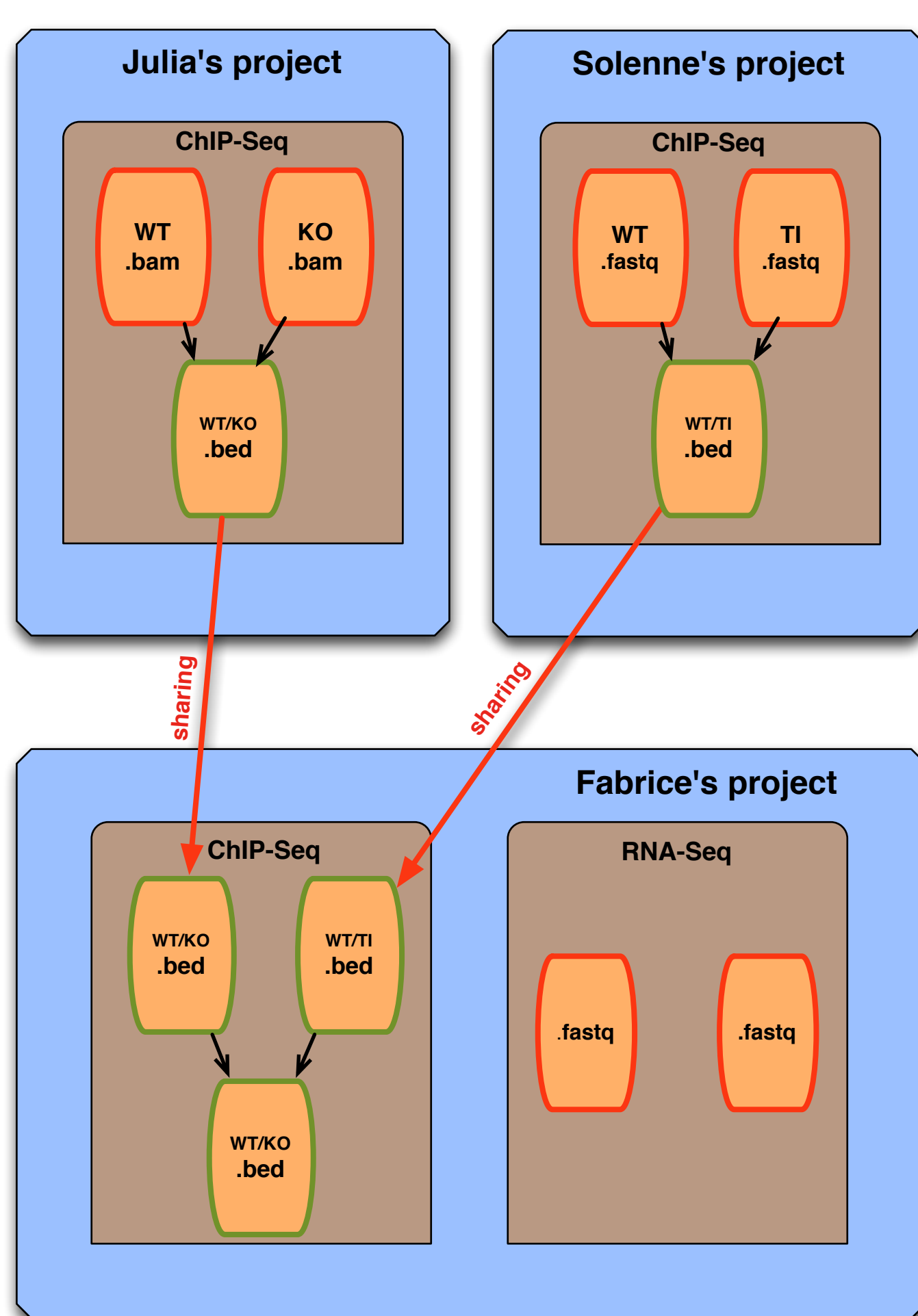
A **measurement** represents a dataset (for e.g. .bed file, raw data) and can be associated to one or several samples (containing ChIP-Seq data for e.g.). One or many measurements create a sample.

A **sample** is always attached to a unique **project** (which can involve RNA-Seq and/or ChIP-Seq data for e.g.).

Here, Fabrice uses **public** measurements from Julia's and Solenne's projects and produces a new one by combining them.

Moreover, they can choose to keep some other measurements as **private**.

If a measurement combines several previous measurements, BioRepo keeps track of their filiation.



WT = Wild Type; TI = Total Input; KO = Knock Out

References

- <http://www.turbogears.org>
- <http://www.sqlachemy.org>
- <http://www.jquery.com>
- <http://www.datatables.net>

