Germinate 2

A Platform for Storage and Analysis of Experimental Plant Data.

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germinate 2.0

Introduction

Germinate is a generic plant data management system designed to hold a wide variety of information types such as passport, phenotype and molecular marker data. It is implemented using the freely available MySQL relational database management system and utilises a web interface written in Perl as well as allowing connectivity via external programs using our in house web-services generation application DSG (Data Service Generator).

Implementations

Germinate has been implemented for a number of plant species including;

SCRI CPC Potato Database (1500 accessions)

John Innes Pea Collection (3500 accessions)

BioExploit Genetic Resources Database

   *Wheat 160 000 accessions

   *Aegilops 7900 accessions

   *Potato 5200 accessions

SCRI AGOUEB Barley Database

Illumina genotype data (currently ~5 million genotypes) and UK trials phenotype data.
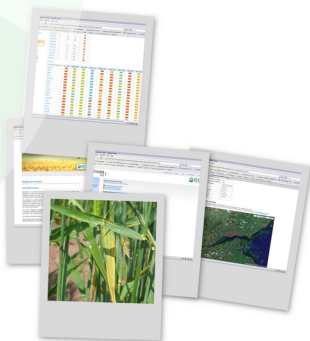
We also have groups involved in using **Germinate** for the storage of data from other species such as Cow Pea and Chickpea.

Analysis Tools

We have developed a number of analysis tools in Java which interface with the Germinate platform. These include GVT (Genotype Visualisation Tool) and Flapjack our new massive dataset high performance visualization tool.
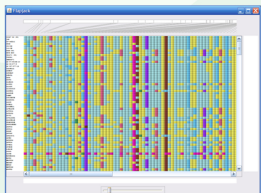
Flapjack provides high-performance graphical real time genotype visualization on large scale datasets. Currently we can visualize in excess of 50 000 lines by 5 000 markers.