

### Class ActivityUserGraphPlugin of package up.visulog.analyzer :

The goal of this plugin is to plot a graph for each user, plus Total (being the total activity of the repository) to represent their number of commits per day for every day from the first commit stored in the log, up to the latest.

### Dependencies :

```
java.util.ArrayList;  
java.util.Collection;  
java.util.HashMap;  
java.util.HashSet;  
java.util.LinkedList;  
java.util.List;  
java.util.Map;  
java.util.Set;
```

```
up.visulog.config.Configuration;  
up.visulog.gitrawdata.Commit;
```

### Attributes :

Type and name	Description
private final Configuration configuration	Configuration entry for the plugin.
private Result result	Instance of the Result local class to store computed results.

### Methods :

Signature	Description
static Result processLog(List<Commit> gitLog)	Log parser for the plugin. Maps parsed data towards result attribute, then returns result attribute.
private static String deux_chiffres(int n)	Auxiliary function used to add the zero in front of a single Integer when converted to String.
static Map<String, Integer> createEmptyCalendar(Date firstDay, Date lastDay)	Generates a map whose keys are all the days (in String format) from firstDay to lastDay, and values are initialized to zero.
static String getDay(String date)	Parses the corresponding day for the given String date of the log towards a String format.
static Date[] getBoundsDays(List<Commit> gitLog)	Gets the first and last active days of the repository from the

	reading of the log.
public void run()	Runs the plugin and computes the value of result.
public Result getResult()	Getter method for result attribute.
static <T extends Collection<String>> ArrayList<String> tri_dates_StringtoString(T keySet)	Sorts and ArrayList of String dates into another ArrayList of String dates.
static <T extends Collection<String>> ArrayList<String> tri_dates_DatetoString(T keySet)	Sorts and ArrayList of Date dates into another ArrayList of String dates.
static <T extends Collection<String>> ArrayList<String> tri_dates_StringtoDate(T keySet)	Sorts and ArrayList of String dates into another ArrayList of Date dates.
static <T extends Collection<String>> ArrayList<String> tri_dates_DatetoDate(T keySet)	Sorts and ArrayList of Date dates into another ArrayList of Date dates.

#### Subclasses :

- static class Date with following attributes and methods :

Type and name	Description
int annee	Year of the stored day.
int mois	Month of the stored day
int jour	Day of the stored day.

Signature	Description
Date(String expr)	Constructs a Date object from a String date.
Date(int annee, int mois, int jour)	Constructs a Date object of given attributes.
public String toString()	Returns a String output of the Date object on a YYYY MM DD format.
boolean estAnterieure(Date d2)	Tests whether Date 'this' is anterior to Date d2.
boolean pendantAnneeBissextile()	Tests whether the year of Date 'this' has 366 days.
Date nextDay()	Returns the Date object for the day following the one represented by 'this'.

- static class Result with following attributes and methods :

Type and name	Description
private Date firstDay	First active day of the repository.
private Date lastDay	Last active day of the repository.
LinkedList<Map<String, Integer>> AuthorDailyActivityData	Stores the calendar of daily activity for every author.
private Map<Integer, String> IndexToAuthor	Stores the n-th author for given n. Zero is always user Total.
private Map<String, Integer> AuthorToIndex	Stores the number corresponding to every author.

Signature	Description
public String getResultAsString()	Inherited from the AnalyzerPlugin.Result interface. Unused.
public String getResultAsHtmlDiv()	Inherited from the AnalyzerPlugin.Result interface. Returns an HTML div who can directly be read and plot a graph from the result.