

2015 Survey Solutions
Washington DC, USA

Survey Solutions: Miscellaneous Functions

Sergiy Radyakin

sradyakin@worldbank.org

Research Department (DECRG),
The World Bank

Nov 22, 2015

Miscellaneous Functions

This reference describes the functions that don't fall into any of the other major categories of functions:

- Selection functions:
SelectKish1949(), SelectKishllo()
- Distance functions:
GpsDistance(), GpsDistanceKm()
- Date utilities:
IsDate(), CenturyMonthCode(), FullYearsBetween(), FullYearsSince()
- Intervals functions:
InRange(), InRectangle()
- Other:
Quest.IRnd(), IsAnswered()

SelectKish1949()

SelectKish1949(tableNumber, size) - returns selected index based on a Kish grid.

Example:

```
SelectKish1949(t,s)==@rowindex
```

SelectKishIlo()

SelectKishIlo(householdNumber, size) - returns selected index based on a Kish grid (ILO version).

Example:

```
SelectKishIlo(t,s)==@rowindex
```

GpsDistance()

A.GpsDistance(B) - computes the distance between two points A and B in meters.

Example:

```
hhlocation.GpsDistance(citycntr)<3300
```

```
hhlocation.GpsDistance(50.0, 36.23)<3300
```

GpsDistanceKm()

A.GpsDistanceKm(B) - computes the distance between two points A and B in kilometers.

Example:

```
hhlocation.GpsDistance(clustercntr)<80
```

```
hhlocation.GpsDistance(50.0, 36.23)<80
```

IsDate()

`IsDate(year, month, day)` - verifies if the date specified by the three components is a valid date. Returns *true* if a combination of the three date components makes a valid date, and *false* otherwise.

Example:

```
IsDate(2000,2,29)
```

(returns *true* since the date of 29 February 2000 existed).

```
IsDate(q23y,2,29)
```

(checks *true* whether year entered as an answer to question *q23y* was a leap year.).

CenturyMonthCode()

`CenturyMonthCode(month, year)` - computes the century month code based on the month and the year.

Example:

```
CenturyMonthCode(mgrad, ygrad) > CenturyMonthCode(mborn, yborn)
```


FullYearsBetween()

FullYearsBetween(A, B) - computes full years elapsed between an earlier date A and a later date B.

Example:

```
FullYearsBetween(borndate, graddate) > 18
```

FullYearsSince()

A.FullYearsSince(B) - computes full years elapsed between a later date A since an earlier date B.

Example:

```
marriedate.FullYearsSince(borndate) > 15
```

InRange()

`X.InRange(L,H)` - checks if value `X` is between the bounds `L` and `H`.

Example:

```
age.InRange(0,120)
```

```
agemarried.InRange(0,agedied)
```

```
datemarried.InRange(dateborn,datedied)
```

InRectangle()

`Location.InRectangle(n,w,s,e)` - checks if location point is within the specified coordinate bounds.

Example:

```
location.InRectangle(52.50,22,44.25,40.30)
```

Quest.IRnd()

Quest.IRnd() - returns a random number [0;1) associated with the current questionnaire.

Example:

```
Quest.IRnd()>0.5
```

IsAnswered()

`IsAnswered(varname)` - returns *true* if the question is answered or *false* otherwise.

Example:

```
IsAnswered(age)
```

Practice

1. The following pages indicate the extreme geographical points for different countries of the World:

https://en.wikipedia.org/wiki/List_of_countries_by_northernmost_point

https://en.wikipedia.org/wiki/List_of_countries_by_southernmost_point

https://en.wikipedia.org/wiki/List_of_countries_by_easternmost_point

https://en.wikipedia.org/wiki/List_of_countries_by_westernmost_point

Identify the extreme points for the country of St.Lucia. Create a questionnaire with a GPS location question. Add a validation condition to this question to signal to the interviewer if she records location outside of the box determined by the extreme points. Check how it works from your current location.

Practice

2. Create a questionnaire, which asks an additional group of questions for respondents located within the following distance from the capital:
- 1 30,000 meters;
 - 2 70 kilometers;
 - 3 40 miles.

Practice

3. Create a questionnaire for migrant workers returning back to their home country. Record the date of the interview and the date when the worker has left the country. Add a condition that would enable a group of questions that are asked only to workers that have spent more than 2 full calendar years outside of their home country.