Version 2.0 (Released June 16, 2008)

Eliminated use of argument unitsize (known sum of size-weights) by library
functions. Restricted argument popsize to provide only the known size of the
resource for use in ratio adjustment of estimators. Created a new argument
named pcfsize to provide resource size for calculation of finite and continuous
population correction factors for single-stage samples.

Modified function irs to eliminate checking for existence of x-coordinates and
y-coordinates when the type of frame is "finite" and the frame is included in
the att.frame data frame.

Modified functions cat.analysis, cont.analysis, cont.cdftest, and
relrisk.analysis to add logical variables to their argument lists that specify
use of finite or continuous population correction factors or use of size weights
in analysis routines.

Modified functions category.est, cdf.decon, cdf.est, cdf.test, relrisk.est and
total.est to add logical variables to their argument lists that specify use of
finite or continuous population correction factors or use of size-weights.

Modified C functions parseFields and readDbfFile to ensure that blank values in
the shapefile attributes (dbf) file are converted to R missing values (NA).

Modified C function writeDbfFile to output blank values for R missing values
(NA) when creating the shapefile attributes (dbf) file.

Modified functions grts, irs, and sp2shape to ensure that an output shapefile
attributes (dbf) file containing character variables with missing values can be
read without error.

Version 1.7 (Released November 9, 2007)

Created a function named cont.cdftest that tests for differences between
cumulative distribution functions (CDFs) for pairs of subpopulations within a
population Type for a collection of response variables generated by a
probability survey. Also, modified function cdf.test so that it is
consistent with functions that are called by high-level functions cat.analysis
and cont.analysis.

Modified C functions intersect, linSampleIRS, lintFcn, and linSample to
eliminate warning messages that were generated during package creation.

Modified function grts so that argument do.sample provides a value for each
stratum.

Modified function grtspts so that, when source of the frame equals "att.frame",
the current number of grid levels for hierarchical randomization and the final
number of grid levels is printed to the console while the function is executing.

Created a function named relrisk.analysis that conducts relative risk analysis
for a collection of response variables generated by a probability survey. Also,
renamed function relrisk to relrisk.est and modified the function so that it is
consistent with functions that are called by high-level functions cat.analysis
and cont.analysis.

Modified function grtspts and C function numLevels to terminate the algorithm for determining the number of grid levels for hierarchical randomization when the maximum value of total inclusion probability for the grid cells stops changing as the number of levels increases.

Created functions named cdf.plot and cont.cdfplot that create cumulative distribution function (CDF) plots using the data frame named "CDF" contained in the output object created by fucntion cont.analysis. Function cdf.plot creates a single CDF plot, and function cont.cdfplot creates a set of CDF plots.

Created a function named read.sas that can read SAS datasets or a SAS XPORT (transport) file.

Modified C functions getRecordShapeSizes, readDbfFile, parsePoints, parsePointsZ, parsePointsM, parsePolygon, parsePolygonZ, and parsePolygonM to generate error messages and terminate execution when a shapefile containing a Null record is encountered.

Modified functions irslin and irsarea in addition to C function getRecordIDs to ensure that sample points are selected in random order for linear and areal IRS designs.

Modified the grts function to ensure that, when the type of random selection is "unequal", an oversample is apportioned correctly whenever the category sample sizes are proportional to the oversample size.

Version 1.6 (Released January 18, 2007)

For C functions that read shapefiles from the current directory, replaced calls to _findfirst and _findnext with code using calls to readdir. Also, created a C function named matchFiles that determines whether file names in the current directory have a desired file extension. These changes were implemented to facilitate portability of the package.

Modified functions grts and irs to accommodate use of a factor for the ID variable in the attributes data frame.

Modified functions grts and irs to ensure that sample weights are correctly adjusted when an oversample is present and the type of random selection is "Continuous".

Version 1.5 (Released December 6, 2006)

Modified C functions getRecordShapeSizes and lintFcn to accommodate Polyline shapefiles that have multiple parts.

Version 1.4 (Released October 10, 2006)

Modified functions dsgnsum and sp2shape to accommodate the change in representation from AttributeList to data.frame for the data slot of sp package objects belonging to class SpatialPointsDataFrame.

Modified functions grts and irs to print a warning message when the type of frame equals "finite" and a stratum name in the design list matches only a

single value in the stratum column of the attributes data frame. For this case, function grtspts is not called since the sample will be composed of a single point.

Modified functions grts, grtspts, grtslin, and grtsarea to change the maximum value allowed for arguments startlev (the initial number of hierarchical levels to use for the GRTS grid) and maxlev (the maximum number of hierarchical levels to use for the GRTS grid) from 12 to 11.

Added an example polylines dataset to the data directory.

Modified functions grts and irs to allow use of an sp package object as the source of the frame. An argument named sp.object was added to the argument list for grts and irs.

Modified functions grts, grtspts, grtslin, grtsarea, irs, irspts, irslin, and irsarea to remove use of argument xy.frame as an option for source of the frame. Then modified functions grts, grtspts, irs, and irspts to allow incorporation of frame coordinates in the attributes data frame when the type of frame equals "finite". Also, removed argument elmsize from functions grts and irs since the argument no longer was required.

Modified functions grts and irs to ensure that the ID values for elements of the frame provided in att.frame are unique.

Modified functions grts and irs to ensure that valid values are provided for the panel and caty.n arguments in the design list.

Version 1.3 (Released August 1, 2006)

Added an example polygons dataset to the data directory.

Incorporated the CHANGES, README, and UserGuide files into the help page.

Version 1.2 (Released June 27, 2006)

Modified function irsarea and created a C function named getRecordIDs to ensure that an IRS sample is selected when argument type.frame is set to "area" in function irs.

Created a function named sp2shape and a C function named writeShapeFilePolygon that convert objects created by the R package "sp" to ESRI shapefiles. Also, renamed the C function writeShapeFile to writeShapeFilePoint.

Version 1.1 (Released May 31, 2006)

Modified functions grts and irs to ensure that the levels of mdcaty (the variable in the attributes data frame that specifies the unequal probability category for each element in the frame) are equivalent to the names in caty.n (the vector of sample sizes for each category in mdcaty, which is required for each element of the design list for which the selection type is "Unequal").

Modified functions grts and irs to ensure that the columns of xy.frame are named "x" and "y" when xy.frame is provided and type.frame equals "finite".

Modified functions grts and irs so that the sample weights are correctly adjusted when an oversample is requested and when the realized sample size is less than the desired sample size.

Modified the C functions so that the library can accommodate M-type shapefiles.

Version 1.0 (Released May 5, 2006)

This is the original version of the library.