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/** ----- SETUP -----
/**
/** FILE NAME:          02_Setup.txt
/** AUTHOR:            RENEE SCHICKER
/** SCRIPT CREATED:    15 DECEMBER 2008
/** LAST UPDATED/MODIFIED: 07 December 2009
/** SCRIPT USED BY:    00_MASTER_org.txt
/**
/** The scripts may be supplied in a more readily useable format if the work is acknowledged
/** CONTACT:    Renee_Schicker@hotmail.com
/**
/** ---- Check existance and if do not exist then create from shapefile ----
/**
/** INPUT SHAPEFILES:    Island_mask    Rotorua_mask    1millfaults
/**                      ni_roads      Waikato_lsi      grid_clipbnd
/**                      xywaik2500m
/**
/** TEMP. COVERS:       Mask1          Mask_Islands    mask_temp
/**
/** OUTPUT COVERS:      region_bnd     mask_Rotorua    faults
/**                      roads          LSI_Waikato
/**
/** OUTPUT GRIDS:       RegionGrid     TempClipBnd
/**
/** ---- Check existance only -----
/**
/** INPUT COVERS:       lc_ni_nzmg     geol_units (QMAP Auckland)
/**                      nzfsi         geol_units (QMAP Waikato)
/**                      nzgeology     Landslides (QMAP Waikato)
/**                      river_cl
/**
/** INPUT GRIDS:        north25         mean_rain      max_rain
/**
/** -----
/**
/** FUNCTIONS USED:      &IF &THEN &ELSE    &TYPE      &DO
/**                      &END                &RETURN    [EXIST]
/**                      SHAPEARC            BUILD      CLEAN
/**                      KILL                POLYGRID
/**
/** PURPOSE:            Check all required coverages and grids exist before
/**                      proceeding to the parameter processing stages. This script
/**                      checks the existence of coverages and grids. It will
/**                      create these if they do not already exist.
/**
/** ..... HISTORY.....
/**
/** 15 DECEMBER 2008    1_convert_shp.txt created specifically to be run from a master script
/**                      and as part of the processing of parameters for Waikato region
/**                      through the conversion of shapefiles to coverages 2_prepare.txt
/**                      (for Waikato region) made to be run from the master script

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/**      (0_parent.txt), and the process itself is not written in the master
/**      script. 7_region_grid.txt individual script for Waikato region created
/**      specifically to be run by a master script (0_parent.txt) which would
/**      make it easier to look through scripts and locate which exact
/**      process fails (if there is an ERROR) and narrow down to which piece
/**      of code.
/**      12 FEBRUARY 2009      Added alternative region boundary (RS_Waikato_R.shp) conversion
/**      to coverage. The EW one was not representative of the coast, so I
/**      created a digitised version based on the coastal areas in TLA_Name
/**      (district council boundaries layer on \\liby-travis\gis_data)
/**      16 FEBRUARY 2009      Added Waikato_lsi shp conversion to lsi_Waikato coverage
/**      Added existence check for lsi_Waikato coverage
/**      27 FEBRUARY 2009      Added existence check for mean_rain and max_rain grids
/**      11 MARCH 2009      Added Rotorua_mask shp conversion to mask_Rotorua coverage.
/**      mask is to cut area from nzgeology coverage (from \\liby-t
/**      ravis\gis_data)to the area not covered in the QMAP data.
/**      Added existence check for mask_Rotorua coverage.
/**      mask is used to cut area from nzgeology coverage (from \\liby-
/**      travis\gis_data) to the area not covered in the QMAP data.
/**      Added nzfsl (NZ soil).
/**      16 MARCH 2009      Tested the conversion for rotorua mask and fixed it so now it works.
/**      30 MARCH 2009      Added an existance check for qmap_a_geol_u, qmap_w_geol_u,
/**      qmap_a_landsl, qmap_w_landsl to check the copied QMAP covers
/**      for geology units (geol_units) and landslides are present in
/**      the set workspace.
/**      27 APRIL 2009      Checked all scripts are consistent with each other and updated
/**      script information.
/**      11 MAY 2009      Modified conversion of region to clip out/exclude the islands.
/**      Finding there isn't always spatial data covering them.
/**      was getting different count in total pixels when rasterising.
/**      13 MAY 2009      region_grid wasn't working so changed name to RegionGrid, now
/**      works
/**      13-14 MAY 2009      Trying out different masking methods, excluding islands and
/**      excluding coves. Excluding Islands alone appears to work best.
/**      20 MAY 2009      Separate Input data and output data directories, so workspace is set
/**      to a separate output folder, this reduces the chance of deleting
/**      input data by accident.
/**      10 JUNE 2009      Combined what I had as three separate scripts (01_Convert.txt,
/**      02_Existance.txt and 11_RegionGrid.txt) into one (02_Setup.txt)
/**      18 JUNE 2009      Added the conversion of grid_clipbnd to grid format TempClipBnd
/**      to clip the Rain raster layers at a wider extent prior to
/**      conversion to 25 m pixels. With the aim to include as much as
/**      possible.
/**      30 September 2009      Added smaller version of landslide inventory.
/**      *****
/**      *****

/* ..... COVERAGES.....

/* area boundary
&IF [EXIST region_bnd -COVER] &THEN

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&TYPE The coverage region_bnd exists
&ELSE &DO
&TYPE the coverage region_bnd does not already exist. Creating now...
SHAPEARC D:\renee_gis\input_data\Island_mask Mask1
BUILD Mask1 POLY
CLEAN Mask1 Mask_Islands
KILL Mask1
SHAPEARC D:\renee_gis\input_data\RS_Waikato_R waik_bnd_RS region DEFAULT
CLEAN waik_bnd_RS temp_bnd # 1 POLY
KILL waik_bnd_RS
CLIP temp_bnd Mask_Islands region_bnd POLY
&IF [EXIST temp_bnd -COVER] &THEN KILL temp_bnd
&IF [EXIST Mask_Islands -COVER] &THEN KILL Mask_Islands
&TYPE region_bnd using modified boundary created
&END

/* Rotorua mask
&IF [EXIST mask_Rotorua -COVER] &THEN
&TYPE The coverage mask_Rotorua exists
&ELSE &DO
&TYPE The coverage mask_Rotorua does not exist. Creating now...
SHAPEARC D:\renee_gis\input_data\Rotorua_mask mask_temp /* MASK I MADE (renee)
BUILD mask_temp POLY
CLEAN mask_temp mask_Rotorua
KILL mask_temp
&TYPE mask_Rotorua created
&END

/*fault lines
&IF [EXIST faults -COVER] &THEN
&TYPE The coverage faults exists
&ELSE &DO
&TYPE The coverage faults does not exist. Creating now...
SHAPEARC D:\renee_gis\input_data\1millfaults faults
&END

/* North Island roads
&IF [EXIST roads -COVER] &THEN
&TYPE The coverage roads exists
&ELSE &DO
&TYPE The coverage roads does not exist. Creating now...
SHAPEARC D:\renee_gis\input_data\ni_roads roads
&END

/* GeoNet Waikato Landslide inventory
&IF [EXIST LSI_Waikato -COVER] &THEN
&TYPE The coverage LSI_Waikato exists
&ELSE &DO
&TYPE The GeoNet Waikato Landslide inventory coverage LSI_Waikato does not exist
&Type Creating now...
SHAPEARC D:\renee_gis\input_data\Waikato_Lsi LSI_Waikato

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&END

```
/* GeoNet Waikato Landslide inventory radius less than or equal to 2.5 km radius selection
&IF [EXIST MyLandslides -COVER] &THEN
  &TYPE The coverage MyLandslides exists
&ELSE &DO
  &TYPE The 2.5km radius or less selection (MyLandslides) from the GeoNet Waikato Landslide
inventory coverage does not exist
  &Type Creating now...
  SHAPEARC D:\renee_gis\input_data\xywaik2500m MyLandslides
&END
```

/\* ----- Existing Coverages -----

```
/* QMAP - Auckland Geol_Units
&IF [EXIST D:\renee_GIS\input_data\GNS_QMAP\Auckland\covers\geol_units -COVER] &THEN
  &TYPE The Auckland coverage geol_units exists
&ELSE &DO
  &TYPE The Auckland coverage geol_units does not exist
&END
```

```
/* QMAP - Waikato Geol_Units
&IF [EXIST D:\renee_GIS\input_data\GNS_QMAP\Waikato\covers\geol_units -COVER] &THEN

  &TYPE The Waikato coverage geol_units exists
&ELSE &DO
  &TYPE The Waikato coverage geol_units does not exist
&END
```

```
/* QMAP - Auckland landslides
&IF [EXIST d:\renee_gis\input_data\GNS_QMAP\Auckland\covers\landslides -COVER] &THEN
  &TYPE The Auckland coverage landslides exists
&ELSE &DO
  &TYPE The Auckland coverage landslides does not exist
&END
```

```
/* QMAP - Waikato landslides
&IF [EXIST d:\renee_gis\input_data\GNS_QMAP\Waikato\covers\landslides -COVER] &THEN
  &TYPE The Waikato coverage landslides exists
&ELSE &DO
  &TYPE The Waikato coverage landslides does not exist
&END
```

```
/* Landcover 2
&IF [EXIST D:\renee_GIS\input_data\lc_ni_nzmg -COVER] &THEN
  &TYPE The coverage lc_ni_nzmg exists
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```
&ELSE &DO
  &TYPE The coverage lc_ni_nzmg does not exist
&END
```

```
/* NZ geology
&IF [EXIST D:\renee_GIS\input_data\nzgeology -COVER] &THEN
  &TYPE The coverage nzgeology exists
&ELSE &DO
  &TYPE The coverage nzgeology does not exist
&END
```

```
/* Rivers
&IF [EXIST D:\renee_GIS\input_data\river_cl -COVER] &THEN
  &TYPE The coverage river_cl exists
&ELSE &DO
  &TYPE The coverage river_cl does not exist
&END
```

```
/* NZ Soil
&IF [EXIST D:\renee_GIS\input_data\nzfsl -COVER] &THEN
  &TYPE The coverage nzfsl exists
&ELSE &DO
  &TYPE The coverage nzfsl does not exist
&END
```

```
/* NZ Land Resource Inventory
&IF [EXIST D:\renee_GIS\input_data\nzlri -COVER] &THEN
  &TYPE The coverage nzlri exists
&ELSE &DO
  &TYPE The coverage nzlri does not exist
&END
```

```
/*..... GRIDS.....
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```
/* DEM 25 M NORTH ISLAND
&IF [EXIST D:\renee_GIS\input_data\north25 -GRID] &THEN
  &TYPE The grid north25 exists
&ELSE &DO
  &TYPE The grid north25 does not exist
&END
```

```
/* 1998 MEAN RAIN
&IF [EXIST D:\renee_GIS\input_data\mean_rain -GRID] &THEN
  &TYPE The grid mean_rain exists
&ELSE &DO
  &TYPE The grid mean_rain does not exist
&END
```

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/* 1998 MAX RAIN
&IF [EXIST D:\renee_GIS\input_data\max_rain -GRID] &THEN
  &TYPE The grid max_rain exists
&ELSE &DO
  &TYPE The grid max_rain does not exist
&END

/* Initial Region Grid
&IF [EXIST RegionGrid -GRID] &THEN
  &TYPE RegionGrid exists
&ELSE &DO
  &TYPE RegionGrid does not exist. Creating it now...
  POLYGRID region_bnd RegionGrid
  25
  Y
  &TYPE created a grid version of the regional boundary
&END

&IF [EXIST TempClipBnd -GRID] &THEN
  &TYPE TempClipBnd exists
&ELSE &DO
  &TYPE TempClipBnd does not exist. Creating it now...
  &RUN D:\renee_gis\scripts\checkprogGrid.txt
  TempClipBnd = SHAPEGRID(D:\renee_GIS\input_data\grid_clipbnd, # , 25)
  Q
&END

&RETURN

```