GEORGIA DEPARTMENT OF REVENUE

LOCAL GOVERNMENT SERVICES DIVISION

WinGAP Technical Workshop

For Educational Purposes Only:

The material within is intended to give the course participant a solid understanding of general principles in the subject area. As such, the material may not necessarily reflect the official procedures and policies of the Georgia Department of Revenue or the Department's official interpretation of the laws of the State of Georgia. The application of applicability to specific situations of the theories, techniques, and approaches discussed herein must be determined on a case-by-case basis.

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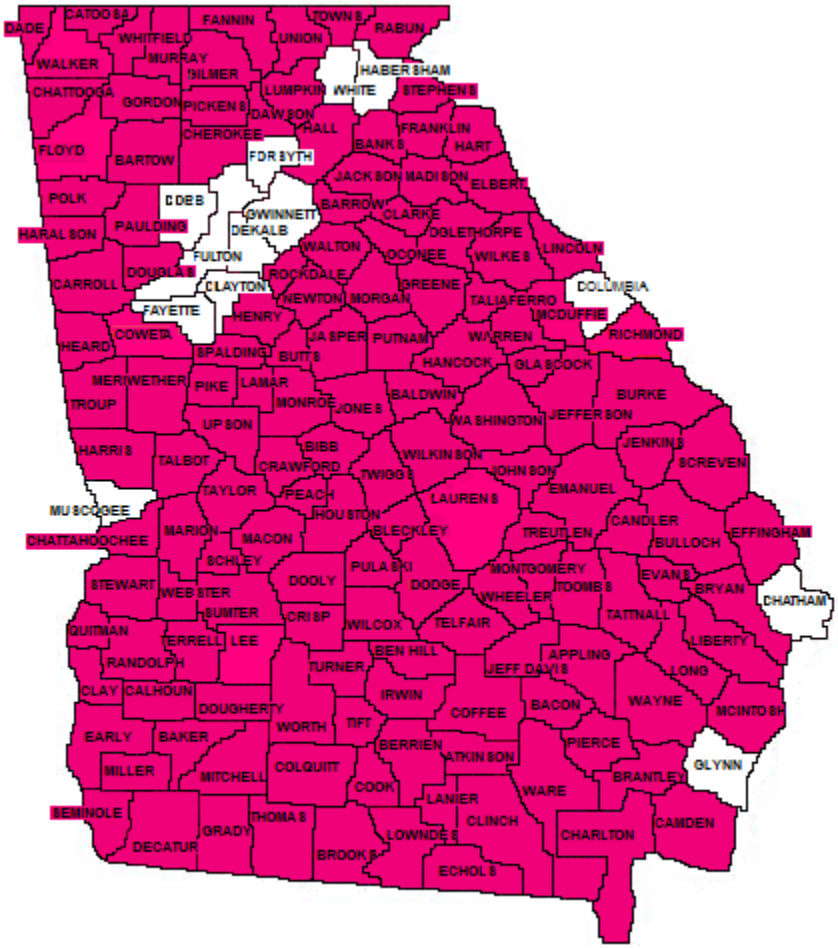
WinGAP Technical Workshop Manual



Revised July 18, 2018
WinGAP SQL Version 4.7.8.48

WinGAP Technical Workshop

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WinGAP Tables

WinGAP is a relational database system comprised of over 200 databases or tables. There are over 50 additional tables that are used as templates in creating reports such as PRCs and PT-50Rs. As WinGAP continues to change, additional tables will be added and some of the current ones will be modified. Below are listed the current tables that are used in WinGAP.

NOTE: the legend for the Type column is as follows: **D** represents an active Database table, **S** represents a Schedule table, **T** represents a Template table, and **I** represents an Inactive table, or a table not currently used in WinGAP.

Table	Type	Description
A299C_TEMP	T	Temporary table used during Year End Cleanup for the addition of assessment reasons to parcels where 299C values are removed by the YEC process.
ABOSNOHIT	S	Table used to list those boats priced by ABOS yet the MFG+MODEL are not found in ABOS tables during a given reappraise batch
ACO	D	Table used to store Account Corrections (located in the PT61 folder)
ACC_CTRL	S	Accessory control schedule
ACC_IMPR	S	Accessory size adjustment
ACC_TBLS	S	Accessory table pricing
ACCDES	S	Accessibility/Desirability land factors
ACESSORY	D	Accessory Improvements, Commercial Extra Features, and Manufactured Housing Add-Ons
AGENT	S	Table containing the names, addresses and contact information for Agents that are assigned to property
AGENT_BRIDGE	D	Table containing the Real, Personal, and Prebilled MH property linked to one or more Agents
AIRCRAFT	D	Aircraft
APMDEPR	S	Appraisal Procedures Manual depreciation table
APPEALS	D	Appeals information
APPRSER	I	Not currently used
APPRAISE_LOG	D	Table containing the date, time, property type, user id and database table (s) used when reappraise is run
ASMT_CHG_LIST	T	Table used when running digest submission reports. Contains accounts with value changes
ASMTRSN	D	Change of Assessment reasons assigned to parcels and personal property accounts
AUDIT	D	Audit information for personal property
AUDIT_DETL	D	Information concerning follow-ups, correspondence, and responses to audits
AUDIT_INFO	D	Reasons for changes to audit status
AUDITPREP	T	Audit Department preparation table
AVIONICS	D	Avionic equipment
BASECTRL	S	Base schedule control for real, mfg housing, and personal property
BOAT	D	Boat data
BOATMULT	I	Not currently used
BUSI_LICENSE	D	Business License Data
BUSI_TYPE	S	Business License Types
CALCEXEMPTIONS	S	Estimated Taxes Tax Exemptions table
CAREAPRM	S	Commercial improvement area/perimeter factors
COA_PP	S	Template table used during printing of Notices of Assessment for Personal Property

WinGAP Tables

Table	Type	Description
COA_RP	S	Template tables used during printing of Notices of Assessment for Real Property
COMMADDS	S	Commercial improvement structural element $/SF adjustments
COMMBASE	S	Commercial improvement base schedule
COMMIMP	D	Commercial improvement data
CONAMES	S	Listing of the county names and numbers
CONMAI	D	Conservation use history data
CONS_VALUE	D	Table populated with class & strata information during running of consolidation sheets.
COST	D	Cost/Market data for personal property items
COSTDEPR	S	Cost depreciation factors used w/ audit appraisal method
COSTINDX	S	Cost trending factors used w/ audit appraisal method
COVREG	T	Used for the export of the covenant registry at digest submission time.
CU_OWNERS	I	Not currently used
CU_RES	I	Not currently used
CUSTOMFLAGS	D	Holds all custom flags added to real parcels.
CUVLAND	S	Conservation use schedule
CWALLHT	S	Commercial wall height adjustment factors
D_ACCSRY	T	Accessory digest prep table
D_AGENT	T	Agent digest prep table
D_AGENTBRIDGE	T	Agent Bridge digest prep table
D_APPLS	T	Appeals digest prep table
D_CALCEXEMPTIONS	T	Property exemptions digest prep table
D_COMIMP	T	Commercial improvement digest prep table
D_CONMAI	T	Conservation Use digest prep table
D_FLPAMAIN	T	Forest Land Protection Act digest prep table
D_INVN	T	Inventory digest prep table
D_LSUBS	T	Land subrecord digest prep table
D_NEWOWNERS	T	New owner digest prep table
D_OWNER	T	Owner digest prep table
D_PERS	T	Personal property general information digest prep table
D_REAL	T	Real property general information digest prep table
D_REASON	T	Change of assessment reason digest prep table
D_REPROP	T	Residential improvement digest prep table
D_SALES	T	Sales information digest prep table
D_TAXDETAIL	T	Estimated Taxes tax details digest prep table
D_TAXMASTER	T	Estimated Taxes master file for property owners
DATAEDITS	D	Data Edits holding table
DATA_MIN_MAX	S	Minimum-Maximum values used in Data Edits
DEFAULTS	S	Default data for county
DEFAULTS2	S	Additional default data for county
DEL_ACESSORY	D	Holding table for deleted Accessory Improvements
DEL_AIRCRAFT	D	Holding table for deleted Aircraft
DEL_APPEALS	D	Holding table for deleted Appeals
DEL_BOAT	D	Holding table for deleted Boats
DEL_COMMIMP	D	Holding table for deleted Commercial Improvements
DEL_CONMAI	D	Holding table for deleted Conservation Use history data
DEL_COST	D	Holding table for deleted Cost/Market Personal Property items
DEL_FIREPL	D	Holding table for deleted Fireplaces

WinGAP Tables

Table	Type	Description
DEL_FLPAMAIN	D	Holding table for deleted Forest Land Protection Act history/valuation data
DEL_INC_DETAIL	D	Holding table for deleted Income valuation information for a parcel
DEL_INVN	D	Holding table for deleted Personal Property Inventory data
DEL_LANDSUBS	D	Holding table for deleted Land subrecord information
DEL_MOBILE	D	Holding table for deleted Manufactured Housing information
DEL_OTHER	D	Holding table for Other stratified items for Personal Property accounts
DEL_OWNER	D	Holding table for deleted Owner information for all property types
DEL_PERMITS	D	Holding table for deleted Building Permits for Real Property
DEL_PERSONAL	D	Holding table for Personal Property general information
DEL_REALPROP	D	Holding table for deleted Real Property general information
DEL_REPROP	D	Holding table for deleted Residential Improvement information
DEL_SALEINFO	D	Holding table for deleted Sales information
DEL_WGSKETCH	D	Holding table for deleted Sketch information
DEPR	S	Depreciation factors for Residential Improvements/Commercial Improvements/Manufactured Housing/Accessories
DEPTHTBL	S	Depth factors for urban land front foot pricing
DISCOVR	S	Discovery sources for Personal Property
DNR	D	Department of Natural Resources boat information
DNRNEW	D	Department of Natural Resources boat information for New Boats
DOR_CUV	T	Data for DOR CUV Market Study
DOR_CUV_SUBS	T	Land data for DOR CUV Market Study
EDITLOG	D	Edit/Add/Delete activity log
EXEMPTCODE	S	Estimated Taxes Exemptions Code table
F_AIR	T	Template table used in the printing of Personal Property reporting forms
F_AVION	T	Template table used in the printing of Personal Property reporting forms
F_BOAT	T	Template table used in the printing of Personal Property reporting forms
F_COST	T	Template table used in the printing of Personal Property reporting forms
F_COST_PRN	T	Template table used in the printing of Personal Property reporting forms to in-house PRN text file
F_DEF	T	Template table used in the printing of Personal Property reporting forms
F_DEF_PRN	T	Template table used in the printing of Personal Property reporting forms to in-house PRN text file
F_DEPR	T	Template table used in the printing of Personal Property reporting forms
F_DEPR_PRN	T	Template table used in the printing of Personal Property reporting forms to in-house PRN text file
F_DNR	T	Template table used in the printing of Personal Property reporting forms
F_OWNER	T	Template table used in the printing of Personal Property reporting forms
F_OWNER_PRN	T	Template table used in the printing of Personal Property reporting forms to in-house PRN text file
F_PERS	T	Template table used in the printing of Personal Property reporting forms
F_PERS_PRN	T	Template table used in the printing of Personal Property reporting forms to in-house PRN text file
FIELDEDITS	D	Contains a list of the recorded field edits
FIREPL	D	Fireplace data for residential improvements
FLPAINDEX	S	Forest Land Protection Act index for base year
FLPALAND	S	Forest Land Protection Act land schedule
FLPAMAIN	D	Forest Land Protection Act history/valuation data

WinGAP Tables

Table	Type	Description
HOMESTD	S	Homestead exemption codes/amounts per tax districts
IMPLABEL	S	Improvement labels w/ valuation factors and amounts
INC_CATEGORY	S	Defines the categories for income models.
INC_DETAIL	D	Income valuation information for a parcel
INC_MODEL	S	Schedule of income models
INDTYPE	I	Not currently used
INEDIT	D	Holds listing of all currently open accounts/parcels. Only used when the “InEdit” feature is enabled in preferences.
INVN	D	Inventory data for personal property accounts
IO	S	ABOS Inboard/Outboard boat valuation schedule
IO_LOG	I	Log table for check in / check out (located in the PT61 folder) – Not currently used
IRSCLASS	S	IRS classifications w/ APM group and life expectancies
KBB_APPEAL	S	Copyright Infringement
KBB_CATEGORY	S	Copyright Infringement
KBB_CATEGORYRELATIONSHIP	S	Copyright Infringement
KBB_CONVERSIONSET	S	Copyright Infringement
KBB_CONVERSIONSETITEM	S	Copyright Infringement
KBB_DATAVERSION	S	Copyright Infringement
KBB_EDITORIALCONTENT	S	Copyright Infringement
KBB_EDITORIALCONTEXT	S	Copyright Infringement
KBB_EDITORIALGROUP	S	Copyright Infringement
KBB_EDITORIALSECTIONHEADER	S	Copyright Infringement
KBB_EDITORIALTEXT	S	Copyright Infringement
KBB_GENERATIONGROUP	S	Copyright Infringement
KBB_GENERATIONTRIM	S	Copyright Infringement
KBB_MAKE	S	Copyright Infringement
KBB_MILEAGEGROUPADJUSTMENT	S	Copyright Infringement
KBB_MILEAGERANGE	S	Copyright Infringement
KBB_MODEL	S	Copyright Infringement
KBB_MODELYEAR	S	Copyright Infringement
KBB_MODELYEARCATEGORYNOTE	S	Copyright Infringement
KBB_NCBBRULE	S	Copyright Infringement
KBB_NEWCARSTANDARDEQUIPMENT	S	Copyright Infringement
KBB_OPTIONREGIONPRICEADJUSTMENT	S	Copyright Infringement
KBB_OPTIONRELATIONSHIP	S	Copyright Infringement
KBB_OPTIONRELATIONSHIPCONDITION	S	Copyright Infringement
KBB_OPTIONRELATIONSHIPCONDITIONSET	S	Copyright Infringement
KBB_OPTIONRELATIONSHIPSET	S	Copyright Infringement
KBB_OPTIONSPECIFICATIONSET	S	Copyright Infringement
KBB_OPTIONSPECIFICATIONSETITEM	S	Copyright Infringement
KBB_OPTIONSPECIFICATIONSETVALUE	S	Copyright Infringement
KBB_OPTIONSPECIFICATIONVALUE	S	Copyright Infringement
KBB_PRICETYPE	S	Copyright Infringement
KBB_PROGRAMCONTEXT	S	Copyright Infringement

WinGAP Tables

Table	Type	Description
KBB_REGION	S	Copyright Infringement
KBB_REGIONADJUSTMENTTYPEPRICETYPE	S	Copyright Infringement
KBB_REGIONBASEPRICE	S	Copyright Infringement
KBB_REGIONGROUPADJUSTMENT	S	Copyright Infringement
KBB_REGIONZIPCODE	S	Copyright Infringement
KBB_SPECIFICATION	S	Copyright Infringement
KBB_SPECIFICATIONCATEGORY	S	Copyright Infringement
KBB_SPECIFICATIONVALUE	S	Copyright Infringement
KBB_TRIM	S	Copyright Infringement
KBB_VALUETYPE	S	Copyright Infringement
KBB_VEHICLE	S	Copyright Infringement
KBB_VEHICLECATEGORY	S	Copyright Infringement
KBB_VEHICLECOMPETITIVESET	S	Copyright Infringement
KBB_VEHICLEGROUP	S	Copyright Infringement
KBB_VEHICLEMARKETCONDITION	S	Copyright Infringement
KBB_VEHICLENOTE	S	Copyright Infringement
KBB_VEHICLEOPTION	S	Copyright Infringement
KBB_VEHICLEOPTIONCATEGORY	S	Copyright Infringement
KBB_VEHICLEPRICERANGE	S	Copyright Infringement
KBB_VEHICLEREGION	S	Copyright Infringement
KBB_VINMAKEPATTERN	S	Copyright Infringement
KBB_VINOPTIONEQUIPMENT	S	Copyright Infringement
KBB_VINOPTIONEQUIPMENTPATTERN	S	Copyright Infringement
KBB_VINVEHICLEPATTERN	S	Copyright Infringement
KBB_YEAR	S	Copyright Infringement
KBB_ZIPCODE	S	Copyright Infringement
LABLTYPE	S	Improvement label types w/ line styles & colors
LANDSUBS	D	Land subrecord information
LESSOR	D	Lessor data for personal property accounts
LGS_AUDIT	T	Contains data for LGS audit export
LIFE	S	Life Expectancy schedule for Commercial Improvements
M_ACESSY	T	Mfg Housing digest export template table
M_CTRL	T	Mfg Housing digest export template table
M_MOBILE	T	Mfg Housing digest export template table
M_OWNER	T	Mfg Housing digest export template table
M_PREVADDON	T	Mfg Housing digest export template table
M_PREVMOBILE	T	Mfg Housing digest export template table
M_PREVOWNER	T	Mfg Housing digest export template table
M_PREVREALPROP	T	Mfg Housing digest export template table
M_PREVREPROP	T	Mfg Housing digest export template table
M_REAL	T	Mfg Housing digest export template table
M_REPROP	T	Mfg Housing digest export template table
MILLRATE	S	Estimated Taxes Millage Rate table
MOBILE	D	Manufactured housing information
MOBMFGTA	S	Manufactured housing table w/ manufacturer and model
MSIZADJ	S	Manufactured housing size adjustment table
NADA_DEP	S	NADA depreciation schedule

WinGAP Tables

Table	Type	Description
NADA_MFG	S	NADA manufacturer listing
NADA_MODEL	S	NADA model listing
NADA_MODIFIERS	S	NADA age and condition modifiers
NADA_NOHITLIST1	T	Mfg Housing records not conforming to the NADA standards
NADA_NOHITLIST2	T	Mfg Housing records not conforming to the NADA standards
NADA_NOMATCH	S	Table used to list those MH priced by NADA yet the MFG+MODEL are not found in NADA tables during a given reappraise batch.
NADA_OLDHOME	S	NADA depreciation chart for older homes
NADA_SVS	S	NADA Special Valuation Section used for obtaining chart number for older homes or homes not in mfg list
NADA_SVS_CATEGORY	S	NADA Special Valuation Section category listing
NADA_TIPOUT	S	NADA schedule for tipouts
NADA_WHITE	S	NADA White Section containing chart numbers for various widths/age combinations
NADA_YELLOW	S	NADA Yellow Section containing the a value for a width/length/Yellow Chart # combination
NAICS	S	NAICS codes
NEIGHBOR	S	Neighborhood adjustment factors
NEWOWNER	D	New owner data
NOTICES	D	Notice data for printed change of assessments
OB	S	ABOS valuation schedule for boats with outboard motor
OM	S	ABOS valuation schedule for outboard motors
OTHER	D	Other stratified items for personal property accounts
OVR299C	D	Property items true override value before 299C override value is put in place
OWNER	D	Owner information for all property types
PERMITS	D	Permit data for buildings
PERMTYPE	S	Permit types
PERSONAL	D	Personal property general information
PH	S	ABOS valuation schedule for house boats, pontoons, deck boats, etc
PHOTOAUDIT_COM	T	Template tables used for the photo audit reporting.
PHOTOAUDIT_RES	T	Template tables used for the photo audit reporting.
PKEYS	S	Primary keys for all tables (located in the PT61 folder)
PPDEPR	I	Not currently used
PPF_AIR	T	Template for printing personal property forms
PPF_AVION	T	Template for printing personal property forms
PPF_BOAT	T	Template for printing personal property forms
PPF_COST	T	Template for printing personal property forms
PPD_DEF	T	Template for printing personal property forms
PPF_DEPR	T	Template for printing personal property forms
PPF_DNR	T	Template for printing personal property forms
PPF_OWNER	T	Template for printing personal property forms
PPF_PERS	T	Template for printing personal property forms
PRCMH	T	PRC table for manufactured housing
PRCPERS	T	PRC table for personal property general information
PRCREAL	T	PRC table for real property general information
PT283	D	Timber sales information
PT50R	D	Real property return table
PT61_ACTOR	D	List of Buyers, Sellers, and Additional Buyers

WinGAP Tables

Table	Type	Description
PT61_ACTOR_TEMP	T	Template table used during the weekly download, extract, append, merge of PT61 data into PT61_ACTOR table above
PT61_FILING	D	Core filing information for the pt61
PT61_FILING_TEMP	T	Template table used during the weekly download, extract, append, merge of PT61 data into PT61_FILING table above
PT61_LIEN	D	PT61 table holding lien info of the transaction
PT61_LIEN_TEMP	T	Template table used during the weekly download, extract, append, merge of PT61 data into PT61_LIEN table above
PT61_LOOKUP	D	Index/lookup table used inside wingap for PT61 matching
PT61_PROP	D	PT61 table holding parcel specific data (acres, PIN, etc)
PT61_PROP_TEMP	T	Template table used during the weekly download, extract, append, merge of PT61 data into PT61_PROP table above
PT61_TAX	D	PT61 table holding tax info of the transaction
PT61_TAX_TEMP	T	Template table used during the weekly download, extract, append, merge of PT61 data into PT61_TAX table above
PTVALUES	S	Schedule for the valuation of timber
PUSHEX	S	Push exclusions configuration table.
PUSHLIST	D	List of database tables where property data is pushed
PUSHLIST_APPEALS	D	List of database tables where appeals data is pushed
PW	S	ABOS valuation schedule for personal watercraft (jet skis)
RANK	S	Rank adjustment factors for commercial extra features
RATIO	D	Ratio data for sales analysis
RATIO_NH	D	Ratio data for neighborhood sales analysis
REAL_LAND_BACKUP	I	Not currently used
REALPROP	D	Real property general information
REASON	S	Reason codes & descriptions for change of assessments, sales, overrides, and audit tracking
REPORT_DESC	D	Table created for future use in reports designed to hold brief text description of a report for feedback to the users on screen to aid in selection of a canned report.
REPROP	D	Residential improvements
RURLAND	S	Rural land base pricing schedule
SALEINFO	D	Sales information
SB	S	ABOS valuation schedule for sailboats
SNAPSHOT3_APPEALS	D	Snapshot files to keep evidence of digest and appeal data statistics to prove county surpassed the 3% threshold identified in 48-5-311 providing the county with an additional 180 days to process appeals.
SNAPSHOT3_DIGESTLUMPSUM	D	Snapshot files to keep evidence of digest and appeal data statistics to prove county surpassed the 3% threshold identified in 48-5-311 providing the county with an additional 180 days to process appeals.
SNAPSHOT3_PERSONAL	D	Snapshot files to keep evidence of digest and appeal data statistics to prove county surpassed the 3% threshold identified in 48-5-311 providing the county with an additional 180 days to process appeals.
SNAPSHOT3_REALPROP	D	Snapshot files to keep evidence of digest and appeal data statistics to prove county surpassed the 3% threshold identified in 48-5-311 providing the county with an additional 180 days to process appeals.

WinGAP Tables

Table	Type	Description
STREET	S	Street directory
SUBDIVIS	S	Urban land pricing schedules
SUBDIVISIONS	S	Subdivision list
TAXDETAIL	D	Line item tax details for each taxtype for each parcel / account
TAXDIST	S	Tax districts
TAXFEE	S	Schedule table containing all lump sum ‘fee’ items
TAXMASTER	D	Summary tax item for each parcel / account
TAXTYPE	S	Listing of all tax types defined for the county
TAXTYPE_EXEMPT	S	Listing of each exemption / covenant applicable for each tax type.
TC_SUBA	D	Consolidation of tax type and exemption information
TRANSFER_LOG	I	Not currently used
USERLOG	D	Log table of each user logging in / out of WinGAP
USERS	S	User list w/ logins and passwords
VIEWLOG	D	Records indicating when an owner, parcel, mfg home or personal property account was viewed.
WEBEX_OWNER	T	Table used in web export
WEBEX_REALPROP	T	Table used in web export
WGSKETCH	D	Sketch information for residential / commercial improvements
WILDSEARCH_QUERY	D	Listing of Wild Search queries
WINGAP_FILES	D	Listing of core tables used by WinGAP broken down by Data vs Schedule
WINGAPMAD_WG	S	Master Address Database table – used in conjunction with WINGAPMAD_GIS view (if available) to provide MAD master list.
ZIP	S	Zip code directory

WinGAP Table Structures

Acessory				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
ACCKEY	N	10	0	Accessory Key
REALKEY	N	10	0	Real Property Acct Number
MOBILEKEY	N	10	0	Mobile Key
COMMKEY	N	10	0	Commercial Improvement Key
ACC_TYPE	C	1	0	Accessory Type: A = Accessory Improvement, C= Commercial Extra Feature, M = Manufactured Housing Add-on
COMP_NO	C	4	0	Component Number
RANK	C	1	0	Quality Code
DIM1	N	4	0	Dimension 1
DIM2	N	4	0	Dimension 2
COMP_UNIT	N	7	0	Units
GRADE	N	4	2	Grade
PHY_DEP	N	4	2	Phy Depreciation Calculated
FUNC_OBSL	N	4	2	Functional Obsolescence
OTHER_FACT	N	4	2	Other Adjustment
IMP_VAL	N	9	0	Improvement Value Calculated
YEAR_BUILT	C	4	0	Year Built
DIGCLASS	C	1	0	Digest Class
DIGSTRAT	C	1	0	Digest Strat
OVR_VAL	N	10	0	Override Value
PHY_OVR	N	4	2	Phy Depreciation Override
COMMENTS	M	10	0	Comments
IDUNITS	N	10	0	Number of Identical Units
APPRNAME	C	30	0	Accessory Appraiser
CALC_VALUE	N	10	0	Last Calculated Value
PCOM	N	4	2	Percent Complete
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
SKETCH	L	1	0	Flag indicating the existence of a sketch (.T. – True)
PHOTO	L	1	0	Flag indicating an attached photo. (.T. – True)
STATEHSFLG	L	1	0	Flag indicating the improvement is eligible for the State 65 & Over homestead exemption. (.T. – Yes, .F. – No)
MAVORIG	N	10	0	Previous Year's Moratorium Appraised Value (MAV)
MAV	N	10	0	HB 233 Frozen Moratorium Appraised Value
MAVOVR	L	1	0	If True, Flag indicates that MAV is an Override Value
MKT_RISK	N	4	2	<Not Used>
SB346VAL	N	10	0	Allocated value of improvement existing at time of sale
LOCALHSFLG	L	1	0	Flag for local homestead exemption

Acessory (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
SB346ADD	N	10	0	Non-allocated value of new construction after sale
ECON_OBSL	N	4	2	Economic Obsolescence
OVRDATE	D	8	0	Override date for the Improvement
OVR_RSN	C	2	0	Override reason for the Improvement
ABATE_EX	N	4	2	Abatement percentage applied to the value of the improvement
EFYR_BUILT	C	4	0	Effective year built for the improvement
LAT	C	50	0	Latitude location for the improvement
LON	C	50	0	Longitude location for the improvement

Aircraft				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
AIRKEY	N	10	0	Air Key
PERSKEY	N	10	0	Personal Property Account Number
CITY	C	25	0	City
COUNTY	C	25	0	County
STATE	C	2	0	State
MAKE	C	25	0	Make
MODEL	C	25	0	Model
YEARBUILT	C	4	0	Year Built
NEW_USED	C	1	0	New or Used
SERIAL_NUM	C	20	0	Serial Number
REG	C	20	0	FAA Registration Number
DATEPURCH	D	8	0	Date Purchased
COST	N	9	0	Cost
TBO	C	10	0	Time Between Overhaul
TIME_LAST	C	10	0	Time of Last Overhaul
MAJORTOP	C	1	0	Overhaul Type
LAST_OVER	D	8	0	Overhaul Date
TIME_SINCE	C	10	0	Time Since Last Overhaul
VALUE	N	9	0	Value
BOOK	C	15	0	Pricing Guide
PAGE	C	5	0	Pricing Guide Page
BOOKVAL	N	11	0	Book Value
COMMENTS	M	10	0	Comments
VALMETHOD	C	1	0	Valuation Method
MARKETVAL	N	9	0	Market Value
INCOMEVAL	N	9	0	Income Value
SMOH	N	4	0	Since last Major Overhaul

Aircraft (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
DPH	N	7	2	Dollars per Hour for SMOH
APPRNAME	C	30	0	Aircraft Appraiser
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
PLANE_VAL	N	10	0	Value of plane excluding avionics value
MAVORIG	N	10	0	Previous Year's Moratorium Appraised Value
MAV	N	10	0	HB 233 Frozen Moratorium Appraised Value
ABATE_EX	N	4	2	Abatement percentage applied to the value of the improvement
UNABATEDVAL	N	10	0	Aircraft value before abatement applied
LOCATION	C	25	0	Actual location of the aircraft

Appeals				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
APPEALKEY	N	10	0	Appeal Key
REALKEY	N	10	0	Real Property Account Number
PERSKEY	N	10	0	Personal Property Account Number
MOBILEKEY	N	10	0	Mobile Key
APPEAL_NO	C	7	0	Appeal Number
APPEALTYPE	C	1	0	Appeal Type
APP_DATE	D	8	0	Appeal Date
APPEAL_YR	C	4	0	Appeal Year
LASTNAME	C	40	0	Last Name
FIRSTNAME	C	20	0	First Name
MIDDLE	C	1	0	Middle Initial
CORPNAME	C	40	0	Corporate Name
AGENT	C	25	0	Agent
ADDRESS1	C	40	0	Address Line 1
ADDRESS2	C	40	0	Address Line 2
ADDRESS3	C	40	0	Address Line 3
CITY	C	20	0	City
STATE	C	2	0	State
ZIP	C	10	0	Zip
LEGAL_DESC	C	45	0	Legal Description
RETURNMADE	L	1	0	Return Made Flag
CURR_VAL	N	12	0	Current Value
RETURN_VAL	N	12	0	Returned Value
VID	N	10	0	Value in Dispute
MAIL_DATE	D	8	0	Mail Date for Notice

Appeals (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
APLSTAT	C	1	0	Appeal Status
COMMENTS	M	10	0	Comments
APPRAISER	C	2	0	Appraiser Code
APLCLASS	C	1	0	Appeal Class
TOTALACRES	N	8	2	Total Acres
HOMEPHONE	C	14	0	Home Phone
WORKPHONE	C	14	0	Work Phone
DECALYR	C	4	0	Decal Year for Mfg Housing
DECALNUM	C	6	0	Decal Number for Mfg Housing
YEARBUILT	C	4	0	Year Built for Mfg Housing
WIDTH	N	2	0	Width for Mfg Housing
LENGTH	N	2	0	Length for Mfg Housing
MFG	C	30	0	Manufacturer for Mfg Housing
MODEL	C	30	0	Model for Mfg Housing
ANDATE	D	8	0	Assessment Notice Date
MAIL21	D	8	0	21-Day Notice Date
M21PRNT	L	1	0	21-Day Notice Printing Date
BOEDATE	D	8	0	Date Appeal fwd to BOE
SUPDATE	D	8	0	Date Appeal fwd to Superior Court
MVDECALYR	C	4	0	Motor Vehicle Decal Year
TAGNO	C	8	0	Motor Vehicle Tag Number
MVDECAL	C	15	0	Motor Vehicle Decal Number
VIN	C	20	0	Motor Vehicle Identification Number
MILEAGE	N	6	0	Mileage
VEHCOND	C	9	0	Motor Vehicle Condition
ARBDATE	D	8	0	Date of Arbitration
BOA_VAL	N	12	0	Value assigned by Board of Assessors after appeal
D21_VAL	N	12	0	Value on the 21-day Notice
ARB_VAL	N	12	0	Value assigned by Arbitrator after appeal
SC_VAL	N	12	0	Value assigned by Superior Court after appeal
RESOLV_VAL	N	12	0	Value assigned if appeal is resolved
PARCEL_NO	C	20	0	Parcel number of property under appeal
APPRNAME	C	30	0	Appeal appraiser
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
CHO_VAL	N	12	0	Value Assigned by the County Hearing Officer
CHO_DATE	D	8	0	Date the Appeal is heard by the County Hearing Officer
RESOLVDATE	D	8	0	Date the Appeal is finally resolved
TBILL_VAL	N	12	0	Temporary Bill Value
TBILL_CODE	C	2	0	Temporary Bill Code

Appeals (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
BOE_NOSHOW	L	1	0	Board of Education Appeal No Show
ARB_NOSHOW	L	1	0	Arbitration Hearing Appeal No Show
CHO_NOSHOW	L	1	0	County Hearing Officer Appeal No Show
A299C	L	1	0	If checked, indicates an A299C Event
ASSERT_VAL	N	12	0	Value asserted by taxpayer at time of appeal
APPRAISAL_RECEIVE	D	8	0	Date the certified appraisal from the taxpayer was received
APPRAISAL_DECIDE	D	8	0	Date the certified appraisal was either accepted or rejected
APPRAISAL_ACCEPT	L	1	0	If checked, indicates the appraisal was accepted
APPRAISAL_REJECT	L	1	0	If checked, indicates the appraisal was rejected
NOCHGDATE_BOE	D	8	0	Date the BOA sent the No-Change letter, triggering the appeal to be forwarded to BOE
NOCHGDATE_ARB	D	8	0	Date the BOA sent the No-Change letter, triggering the appeal to be forwarded to ARB
NOCHGDATE_CHO	D	8	0	Date the BOA sent the No-Change letter, triggering the appeal to be forwarded to CHO
APPRAISAL_VAL	N	12	0	Appraised value of the property as determined by the …
SC_NOSHOW	L	1	0	Superior Court Hearing Taxpayer No Show
GFA_VAL	L	1	0	If checked, indicates that the Grounds for Appeal is the value of the property
GFA_UNI	L	1	0	If checked, indicates that the Grounds for Appeal is the uniformity of the property
GFA_TAX	L	1	0	If checked, indicates that the Grounds for Appeal is the taxability of the property
GFA_EXDENY	L	1	0	If checked, indicates that the Grounds for Appeal is the denying of an exemption for the property
GFA_CVBRCH	L	1	0	If checked, indicates that the Grounds for Appeal is that the taxpayer breached a covenant on the property
GFA_CV_DENY	L	1	0	If checked, indicates that the Grounds for Appeal is that a covenant was denied for the property
EVIDENCE	L	1	0	If checked, indicates that evidence was presented to justify the taxpayer’s assertion of value
SC_CONFERENCE	D	8	0	Date of the Superior Court conference
SC_NO_AGREEMENT	L	1	0	If checked, indicates that no agreement was reached at the Superior Court conference
SC_CONFTIME	C	12	0	Time of the Superior Court conference
CO_ID_NUM	C	20	0	County Identification Number
BOE	L	1	0	If checked, indicates that the appeal will be heard by the Board of Equalization
ARB	L	1	0	If checked, indicates that the appeal will be heard by the Arbitrator
CHO	L	1	0	If checked, indicates that the appeal will be heard by the County Hearing Officer
SUP	L	1	0	If checked, indicates that the appeal will be heard in the Superior Court
INTERVIEW	L	1	0	If checked, indicates that the taxpayer has requested an Interview with the Appraiser

Appeals (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
POSTMARK	D	8	0	Generic field to allow county to record any significant postmark date.
DECISION	D	8	0	Generic field to allow county to record any significant decision date.
FWD_CERT	D	8	0	Generic field to allow county to record any significant forward / certification date.

Audit				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
AUDITKEY	N	10	0	Audit Key
PERSKEY	N	10	0	Personal Property Account Number
AUDITTYPE	C	1	0	Audit Type
NO_YEARS	C	3	0	Audit Years
AUDFLAG	L	1	0	If checked, indicates that the account is being audited
LASTNAME	C	40	0	Last name or corporate name of owner at time of audit
FIRSTNAME	C	40	0	Owner’s first name
MIDDLE	C	40	0	Owner’s middle initial
ADDRESS1	C	40	0	Owner’s address line 1
ADDRESS2	C	40	0	Owner’s address line 2
ADDRESS3	C	40	0	Owner’s address line 3
CITY	C	20	0	Owner’s city
STATE	C	20	0	Owner’s state
ZIP	C	10	0	Owner’s zip code
WORKPHONE	C	14	0	Owner’s work phone
FAXNUMBER	C	14	0	Owner’s fax number
FEI	C	15	0	Owner’s FEI number
SST	C	15	0	Owner’s State Sales Tax number
CONTACT	C	30	0	Contact name
NAICS	C	6	0	NAICS code
LAST_AUDIT	D	8	0	Last Audit Date
NEXT_AUDIT	D	8	0	Next Audit Date
AUDITOR	C	30	0	Individual leading audit process
PERFORM_BY	C	30	0	Individual performing account audit
COMMENTS	M	10	0	Comments
YR1RETINV	N	10	0	Year 1 returned inventory value
YR1AUDINV	N	10	0	Year 1 audit inventory value
YR2RETINV	N	10	0	Year 2 returned inventory value
YR2AUDINV	N	10	0	Year 2 audit inventory value

Audit (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
YR3RETINV	N	10	0	Year 3 returned inventory value
YR3AUDINV	N	10	0	Year 3 audit inventory value
YR1RETFF	N	10	0	Year 1 returned machinery, equipment, furniture and fixtures (MEFF) value
YR1AUDFF	N	10	0	Year 1 audit MEFF value
YR2RETFF	N	10	0	Year 2 returned MEFF value
YR2AUDFF	N	10	0	Year 2 audit MEFF value
YR3RETFF	N	10	0	Year 3 returned MEFF value
YR3AUDFF	N	10	0	Year 3 audit MEFF value
RECORDSLOC	M	10	0	Location of audit records
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
REVIEWFLAG	L	1	0	If checked, indicates that the account is being reviewed
NEXTREVIEW	D	8	0	Date of the next scheduled review
LASTREVIEW	D	8	0	Date of the last review
AUDITYEAR1	N	4	0	The first year that is currently being audited
AUDITYEAR2	N	4	0	The second year that is currently being audited
AUDITYEAR3	N	4	0	The third year that is currently being audited
YR1_DIFF_INVN	N	10	0	The difference between the Year 1 return value of inventory and the audit value
YR2_DIFF_INVN	N	10	0	The difference between the Year 2 return value of inventory and the audit value
YR3_DIFF_INVN	N	10	0	The difference between the Year 3 return value of inventory and the audit value
YR1_DIFF_MEFF	N	10	0	The difference between the Year 1 return value of MEFF and the audit value
YR2_DIFF_MEFF	N	10	0	The difference between the Year 2 return value of MEFF and the audit value
YR3_DIFF_MEFF	N	10	0	The difference between the Year 3 return value of MEFF and the audit value
YR1_RETURN_MARINE	N	10	0	Year 1 returned marine value
YR2_RETURN_MARINE	N	10	0	Year 2 returned marine value
YR3_RETURN_MARINE	N	10	0	Year 3 returned marine value
YR1_AUDIT_MARINE	N	10	0	Year 1 audit marine value
YR2_AUDIT_MARINE	N	10	0	Year 2 audit marine value
YR3_AUDIT_MARINE	N	10	0	Year 3 audit marine value
YR1_DIFF_MARINE	N	10	0	The difference between the Year 1 return value of marine and the audit value
YR2_DIFF_MARINE	N	10	0	The difference between the Year 2 return value of marine and the audit value
YR3_DIFF_MARINE	N	10	0	The difference between the Year 3 return value of marine and the audit value
YR1_RETURN_AIRCRAFT	N	10	0	Year 1 returned aircraft value
YR2_RETURN_AIRCRAFT	N	10	0	Year 2 returned aircraft value

Audit (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
YR3_RETURN_AIRCRAFT	N	10	0	Year 3 returned aircraft value
YR1_AUDIT_AIRCRAFT	N	10	0	Year 1 audit aircraft value
YR2_AUDIT_AIRCRAFT	N	10	0	Year 2 audit aircraft value
YR3_AUDIT_AIRCRAFT	N	10	0	Year 3 audit aircraft value
YR1_DIFF_AIRCRAFT	N	10	0	The difference between the Year 1 return value of aircraft and the audit value
YR2_DIFF_AIRCRAFT	N	10	0	The difference between the Year 2 return value of aircraft and the audit value
YR3_DIFF_AIRCRAFT	N	10	0	The difference between the Year 3 return value of aircraft and the audit value

Avionics				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
AVKEY	N	10	0	Avionics Key
AIRKEY	N	10	0	Air Key
YEARBUILT	C	4	0	Year Model
COST	N	9	0	Cost
DESC	C	30	0	Description
PURDATE	D	8	0	Purchase Date
VALUE	N	9	0	Value
COMMENTS	M	10	0	Comments
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
MAVORIG	N	10	0	Previous Year's Moratorium Appraised Value
MAV	N	10	0	HB 233 Frozen Moratorium Appraised Value

Boat				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
PERSKEY	N	10	0	Personal Property Account Number
BOATKEY	N	10	0	Boat Key
TAX_YEAR	C	4	0	Tax Year
MFG_NAME	C	25	0	Boat Manufacturer
MODEL_NAME	C	25	0	Boat Model
GA_REG	C	6	0	Ga Registration Number
YEAR_BUILT	C	4	0	Boat Year Model

Boat (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
FEET	N	3	0	Boat Feet
INCH	N	2	0	Boat Inches
HULL_MATER	C	15	0	Hull Material
HULL_NO	C	25	0	Hull Number (HIN)
DATE_PURCH	D	8	0	Date Purchased for Boat
NEW_USED	C	1	0	Boat Purchased New or Used
BOAT_COST	N	8	0	Boat Cost
MOTOR_MFG	C	25	0	Motor Manufacturer
MOTOR_MODL	C	25	0	Motor Model
MOTOR_YEAR	C	4	0	Motor Year Model
HORSEPOWER	C	4	0	Horsepower
MOTOR_STRT	C	1	0	Motor Starting Mechanism
MOTOR_PUR	C	1	0	Motor Purchased New or Used
MOTOR_DATE	D	8	0	Motor Purchased Date
MOTOR_COST	N	8	0	Motor Cost
MOTOR_VAL	N	8	0	Motor Value
MOTOR_BOOK	C	10	0	Motor Pricing Guide
MOTOR_PAGE	C	5	0	Motor Pricing Guide Page
BOAT_TYPE	C	1	0	Boat Type
BOAT_VALUE	N	8	0	Boat Value
BOAT_BOOK	C	10	0	Boat Pricing Guide
BOAT_PAGE	C	5	0	Boat Pricing Guide Page
MOTORBKVAL	N	8	0	Motor Book Value
BOATBKVAL	N	8	0	Boat Book Value
BTCOMMENT	M	10	0	Comments
BTMTVALUE	N	8	0	Boat and Motor Combined Value
LOCATION	C	25	0	Location
AUTOVAL	L	1	0	<Not Used>
BTBKYEAR	N	4	0	<Not Used>
MTBKYEAR	N	4	0	<Not Used>
BTAUTOVAL	N	10	0	<Not Used>
MTAUTOVAL	N	10	0	<Not Used>
ABOS_BOAT	N	10	0	ABOS Boat Value
ABOS_MOTOR	N	10	0	ABOS Motor Value
ABOS_BT	L	1	0	T/F Flag: if T, ABOS Boat Value passed to digest
ABOS_MT	L	1	0	T/F Flag: if T, ABOS Motor Value passed to digest
APPRNAME	C	30	0	Boat appraiser
ABOS_COND	C	1	0	Condition of boat assigned during ABOS appraisal
ABOS_ADJ	N	4	2	ABOS adjustment
BOAT_PRICE	C	1	0	ABOS boat pricing code

Boat (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
MTR_PRICE	C	1	0	ABOS motor pricing code
SALT	L	1	0	Salt water flag (T/F)
TRAILER	N	10	0	Boat trailer value
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
BTCONTROL	C	9	0	ABOS Control Number for boats
MTCONTROL	C	9	0	ABOS Control Number for motors
MOTOR_COND	C	1	0	Motor condition
MOTOR_ADJ	N	4	2	Adjustment for motor condition
MAVORIG	N	10	0	Previous Year's Moratorium Appraised Value
MAV	N	10	0	HB 233 Frozen Moratorium Appraised Value
ABATE_EX	N	4	2	Abatement percentage applied to the value of the improvement
ABOSMOTOR_ADJ	N	10	0	Value of adjustment applied to ABOS motor value
UNABATEDVAL	N	10	0	Boat value before abatement was applied

Busi_License				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
BUSIKEY	N	10	0	Business License Account Number
REALKEY	N	10	0	Real Property Account Number
PERSKEY	N	3	0	Personal Property Account Number
PARCEL_NO	C	20	0	Parcel Number of Account
CO_ID_NUM	C	8	0	County Identification Number
BUSI_ID	C	40	0	Doing Business As Description
BUSI_ADD1	C	40	0	Business Address Line 1
BUSI_ADD2	C	40	0	Business Address Line 2
BUSI_ADD3	C	40	0	Business Address Line 3
BUSI_CITY	C	20	0	City the Business Is Located In
BUSI_STATE	C	2	0	State the Business Is Located In
BUSI_ZIP	C	10	0	Zip Code the Business is Located In
BUSI_PHONE	C	14	0	Work Phone Number of the Business
SST	C	15	0	Business State Sales Tax Number
ST_NUM	N	6	0	Street Number of Business
ST_EXT	C	4	0	Street Extension of Business
ST_DIRECT	C	3	0	Street Direction of Business
ST_NAME	C	25	0	Street Name of Business
ST_TYPE	C	4	0	Street Type of Business
ST_UNIT	C	4	0	Street Unit of Business

Busi_License (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
QUAD	C	2	0	Street Quad of Business
ST_ZIP	C	10	0	Street Zip Code of Business
LASTNAME	C	40	0	Owners Last Name
FIRSTNAME	C	20	1	Owners First Name
MIDDLE	C	1	0	Owners Middle Name
ADDRESS1	C	40	0	Owners address line one
ADDRESS2	C	40	0	Owners address line two
ADDRESS3	C	40	0	Owners address line three
CITY	C	20	0	Owners city
STATE	C	2	0	Owners state
ZIP	C	10	0	Owners zip code
HOMPHONE	C	14	0	Owners home phone
SSN	C	11	0	Owners social security number
ACCOUNTANT	C	40	0	Name of Accountant for Business
CONTACT	C	40	0	Contact Person for Business
EMAIL	C	60	0	Email Address of Business
RENEWAL	C	1	0	New or Renewal License
TYPEKEY	N	10	0	Business Type Account Number
BUSI_TYPE	C	40	0	Business Type Description
NAICS	C	6	0	NAICS Code
ACCTSTATUS	C	1	0	Active / Inactive Account
BUSI_FEE	N	10	0	Business License Fee
CREATEDATE	D	8	0	Date Business License Account Created
ISSUEDATE	D	8	0	Date Business License Issued
PAIDDATE	D	8	0	Date Business License Paid
EMPLOYEES	N	5	0	Number of Employees
LATE_FEE	N	10	2	Amount of Late Fee Paid If Any
ISSUEDBY	C	20	0	Name of Person Issuing License
EXPIREDATE	D	8	0	Date Business License Expires
COMMENTS	M	10	0	Comments assigned to Business License
BUSI_LICNO	C	20	0	Business License Number

WinGAP Table Structures

Commimp				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
COMMKEY	N	10	0	Commercial Improvement Key
REALKEY	N	10	0	Real Property Account Number
IMPROV_NO	N	3	0	Improvement Number
SECTION_NO	N	2	0	Section Number
COMMENT1	M	10	0	Comments
COMIMPOVR	N	10	0	Value Override
OVR_RSN	C	2	0	Override Reason
DIGCLASS	C	1	0	Digest Class
DIGSTRAT	C	1	0	Digest Strat
USEDAS_COD	C	4	0	Used As Code
BILTAS_COD	C	4	0	Built As Code
WALL_HGHT	N	2	0	Wall Height
CONST_TYPE	N	1	0	Construction Type
LIFE_EXP	N	2	0	Life Expectancy
YR_BILT	C	4	0	Year Built
EFYR_BILT	C	4	0	Effective Year Built
GRADE	N	4	2	Grade
PHY_DEP	N	4	2	Physical Depreciation Calculated
PHY_DEPOVR	N	4	2	Physical Depreciation Override
ECON_OBSL	N	4	2	Economic Obsolescence
FUNC_OBSL	N	4	2	Functional Obsolescence
OTHER_FACT	N	4	2	Other Factor
PCT_COMP	N	4	2	Percent Complete
FOUND_1	C	2	0	Foundation 1 Type
FOUNDPCT1	N	3	0	Foundation 1 % Coverage
FOUNDQC1	C	1	0	Foundation 1 Quality
FOUND_2	C	2	0	Foundation 2 Type
FOUNDPCT2	N	3	0	Foundation 2 % Coverage
FOUNDQC2	C	1	0	Foundation 2 Quality
FOUND_3	C	2	0	Foundation 3 Type
FOUNDPCT3	N	3	0	Foundation 3 % Coverage
FOUNDQC3	C	1	0	Foundation 3 Quality
WALLFR_1	C	2	0	Wall Frame 1 Type
WALLFRPCT1	N	3	0	Wall Frame 1 % Coverage
WALLFRQC1	C	1	0	Wall Frame 1 Quality
WALLFR_2	C	2	0	Wall Frame 2 Type
WALLFRPCT2	N	3	0	Wall Frame 2 % Coverage
WALLFRQC2	C	1	0	Wall Frame 2 Quality
WALLFR_3	C	2	0	Wall Frame 3 Type
WALLFRPCT3	N	3	0	Wall Frame 3 % Coverage

Commimp (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
WALLFRQC3	C	1	0	Wall Frame 3 Quality
EXWALL_1	C	2	0	Exterior Walls Type 1
EXWALLPCT1	N	3	0	Exterior Walls 1 % Coverage
EXWALLQC1	C	1	0	Exterior Walls 1 Quality
EXWALL_2	C	2	0	Exterior Walls 2 Type
EXWALLPCT2	N	3	0	Exterior Walls 2 % Coverage
EXWALLQC2	C	1	0	Exterior Walls 2 Quality
EXWALL_3	C	2	0	Exterior Walls 3 Type
EXWALLPCT3	N	3	0	Exterior Walls 3 % Coverage
EXWALLQC3	C	1	0	Exterior Walls 3 Quality
ROOFFR_1	C	2	0	Roof Frame 1 Type
ROOFFRPCT1	N	3	0	Roof Frame 1 % Coverage
ROOFFRQC1	C	1	0	Roof Frame 1 Quality
ROOFFR_2	C	2	0	Roof Frame 2 Type
ROOFFRPCT2	N	3	0	Roof Frame 2 % Coverage
ROOFFRQC2	C	1	0	Roof Frame 2 Quality
ROOFFR_3	C	2	0	Roof Frame 3 Type
ROOFFRPCT3	N	3	0	Roof Frame 3 % Coverage
ROOFFRQC3	C	1	0	Roof Frame 3 Quality
ROOFCV_1	C	2	0	Roof Cover 1 Type
ROOFCVPCT1	N	3	0	Roof Cover 1 % Coverage
ROOFCVQC1	C	1	0	Roof Cover 1 Quality
ROOFCV_2	C	2	0	Roof Cover 2 Type
ROOFCVPCT2	N	3	0	Roof Cover 2 % Coverage
ROOFCVQC2	C	1	0	Roof Cover 2 Quality
ROOFCV_3	C	2	0	Roof Cover 3 Type
ROOFCVPCT3	N	3	0	Roof Cover 3 % Coverage
ROOFCVQC3	C	1	0	Roof Cover 3 Quality
FLRCON_1	C	2	0	Floor Construction 1 Type
FLRCONPCT1	N	3	0	Floor Construction 1 % Coverage
FLRCONQC1	C	1	0	Floor Construction 1 Quality
FLRCON_2	C	2	0	Floor Construction 2 Type
FLRCONPCT2	N	3	0	Floor Construction 2 % Coverage
FLRCONQC2	C	1	0	Floor Construction 2 Quality
FLRCON_3	C	2	0	Floor Construction 3 Type
FLRCONPCT3	N	3	0	Floor Construction 3 % Coverage
FLRCONQC3	C	1	0	Floor Construction 3 Quality
FLRFIN_1	C	2	0	Floor Finish 1 Type
FLRFINPCT1	N	3	0	Floor Finish 1 % Coverage
FLRFINQC1	C	1	0	Floor Finish 1 Quality
FLRFIN_2	C	2	0	Floor Finish 2 Type

Commimp (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
FLRFINPCT2	N	3	0	Floor Finish 2 % Coverage
FLRFINQC2	C	1	0	Floor Finish 2 Quality
FLRFIN_3	C	2	0	Floor Finish 3 Type
FLRFINPCT3	N	3	0	Floor Finish 3 % Coverage
FLRFINQC3	C	1	0	Floor Finish 3 Quality
INTWAL_1	C	2	0	Interior Wall 1 Type
INTWALPCT1	N	3	0	Interior Wall 1 % Coverage
INTWALQC1	C	1	0	Interior Wall 1 Quality
INTWAL_2	C	2	0	Interior Wall Type 2
INTWALPCT2	N	3	0	Interior Wall 2 % Coverage
INTWALQC2	C	1	0	Interior Wall 2 Quality
INTWAL_3	C	2	0	Interior Wall 3 Type
INTWALPCT3	N	3	0	Interior Wall 3 % Coverage
INTWALQC3	C	1	0	Interior Wall 3 Quality
CLGFIN_1	C	2	0	Ceiling Finish 1 Type
CLGFINPCT1	N	3	0	Ceiling Finish 1 % Coverage
CLGFINQC1	C	1	0	Ceiling Finish 1 Quality
CLGFIN_2	C	2	0	Ceiling Finish 2 Type
CLGFINPCT2	N	3	0	Ceiling Finish 2 % Coverage
CLGFINQC2	C	1	0	Ceiling Finish Quality
CLGFIN_3	C	2	0	Ceiling Finish 3 Type
CLGFINPCT3	N	3	0	Ceiling Finish 3 % Coverage
CLGFINQC3	C	1	0	Ceiling Finish 3 Quality
WIRE_1	C	2	0	Wire 1 Type
WIREPCT1	N	3	0	Wire 1 % Coverage
WIREQC1	C	1	0	Wire 1 Quality
WIRE_2	C	2	0	Wire 2 Type
WIREPCT2	N	3	0	Wire 2 % Coverage
WIREQC2	C	1	0	Wire 2 Quality
WIRE_3	C	2	0	Wire 3 Type
WIREPCT3	N	3	0	Wire 3 % Coverage
WIREQC3	C	1	0	Wire 3 Quality
LIGHT_1	C	2	0	Lighting 1 Type
LIGHTPCT1	N	3	0	Lighting 1 % Coverage
LIGHTQC1	C	1	0	Lighting 1 Quality
LIGHT_2	C	2	0	Lighting 2 Type
LIGHTPCT2	N	3	0	Lighting 2 % Coverage
LIGHTQC2	C	1	0	Lighting 2 Quality
LIGHT_3	C	2	0	Lighting 3 Type
LIGHTPCT3	N	3	0	Lighting 3 % Coverage
LIGHTQC3	C	1	0	Lighting 3 Quality

Commimp (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
HEATAC_1	C	2	0	Heat/Ac 1 Type
HEATACPCT1	N	3	0	Heat/Ac 1 % Coverage
HEATACQC1	C	1	0	Heat/Ac 1 Quality
HEATAC_2	C	2	0	Heat/Ac 2 Type
HEATACPCT2	N	3	0	Heat/Ac 2 % Coverage
HEATACQC2	C	1	0	Heat/Ac 2 Quality
HEATAC_3	C	2	0	Heat/Ac 3 Type
HEATACPCT3	N	3	0	Heat/Ac 3 % Coverage
HEATACQC3	C	1	0	Heat/Ac 3 Quality
ONE_FIX	N	3	0	# of One Fixture Baths
TWO_FIX	N	3	0	# of Two Fixture Baths
THREE_FIX	N	3	0	# of Three Fixture Baths
BATH_KIT	N	3	0	# of Bath/Kitchen Combos
BATH_KIT15	N	3	0	# of 1.5 Bath/Kitchen Combos
BATH_KIT20	N	3	0	# of 2.0 Bath/Kitchen Combos
STRUC_VAL	N	10	0	Structure Value
EXFEAT_VAL	N	7	0	Extra Feature Value
BLDG_VAL	N	10	0	Total Section Value
IDUNITS	N	10	0	# of Identical Units
APPRNAME	C	30	0	Commercial improvement appraiser
OVRDATE	D	8	0	Date of override value
CALC_VALUE	N	10	0	Last calculated value
EXPENSE	N	10	0	<Not Used>
CAPREATE	N	10	0	<Not Used>
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
COMM_WALL	N	6	0	Common wall length
BLDG_AREA	N	10	0	Total area of all building sections
SEC_AREA	N	10	0	Area of section
SKETCH	L	1	0	Flag indicating the existence of a sketch (.T. – True)
PHOTO	L	1	0	Flag indicating an attached photo. (.T. – True)
STATEHSFLG	L	1	0	Flag indicating the improvement is eligible for the State 65 & Over Homestead Exemption. (.T. – Yes, .F. – No)
MAVORIG	N	10	0	Previous Year's Moratorium Appraised Value For Commercial Structure
MAV	N	10	0	HB 233 Frozen Moratorium Appraised Value of Structure
MAVEF	N	10	0	Moratorium Appraised Value of Extra Features
HOUSE_NO	N	5	0	Street Number of Improvement
EXTENSION	C	3	0	Street Extension of Improvement
STDIRECT	C	2	0	Street Direction of Improvement
STREET_NAM	C	25	0	Street Name of Improvement

Commimp (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
STTYPE	C	4	0	Street Type of Improvement
UNIT	C	4	0	Street Unit of Improvement
QUAD	C	2	0	Street Quad of Improvement
MAVBLDG	N	10	0	Section Moratorium Appraised Value (MAV+MAVEF)
MAVOVR	L	1	0	If True, Flag indicates that MAV is an Override Value
MKT_RISK	N	4	2	Market Risk adjustment as authorized by APM
SB346VAL	N	10	0	Allocated value of improvement existing at time of sale
LOCALHSFLG	L	1	0	Flag for local homestead exemption
SB346ADD	N	10	0	Non-allocated value of new construction after sale
SITEADDID	C	20	0	Site Address ID for usage with Master Address Database
UNITTYPE	C	10	0	Description of the type of unit (part of situs address)
NUM_UNITS	N	9	0	Number of apartment units, captured to assist in the selection of comparable properties
ABATE_EX	N	4	2	Abatement percentage applied to the value of the commercial improvement

Conmai				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
CONMAIKEY	N	10	0	Conservation Use Key
REALKEY	N	10	0	Real Property Account Number
PARENTPARC	C	20	0	Parent Parcel Identifier
ORIGCONVAL	N	10	0	Original Conservation Use Value
TCONACRES	N	8	2	Total Conservation Use Acres
DAT0	N	4	0	Original Conservation Use Year
DAT1	N	4	0	Second Year of Conservation Use
DAT2	N	4	0	Third Year of Conservation Use
DAT3	N	4	0	Fourth Year of Conservation Use
DAT4	N	4	0	Fifth Year of Conservation Use
DAT5	N	4	0	Six Year of Conservation Use
DAT6	N	4	0	Seventh Year of Conservation Use
DAT7	N	4	0	Eighth Year of Conservation Use
DAT8	N	4	0	Ninth Year of Conservation Use
DAT9	N	4	0	Tenth and Final Year of Conservation Use
VAL0	N	10	0	Original Conservation Use Value
VAL1	N	10	0	Conservation Use Value, Second Year
VAL2	N	10	0	Conservation Use Value, Third Year
VAL3	N	10	0	Conservation Use Value, Fourth Year

Conmai (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
VAL4	N	10	0	Conservation Use Value, Fifth Year
VAL5	N	10	0	Conservation Use Value, Sixth Year
VAL6	N	10	0	Conservation Use Value, Seventh Year
VAL7	N	10	0	Conservation Use Value, Eighth Year
VAL8	N	10	0	Conservation Use Value, Ninth Year
VAL9	N	10	0	Conservation Use Value, Tenth Year
ORIGCONDAT	N	4	0	Beginning Conservation Use Date
BASECONDAT	N	4	0	Base Yr – Used in calculating change limitations
CURR_CUV	N	10	0	Adjusted Current Year's value for Conservation Use
UNADJ_CUV	N	10	0	Unadjusted Current Year's value for Conservation Use
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
EX0	N	10	0	Exemption in first year
EX1	N	10	0	Exemption in second year
EX2	N	10	0	Exemption in third year
EX3	N	10	0	Exemption in fourth year
EX4	N	10	0	Exemption in fifth year
EX5	N	10	0	Exemption in sixth year
EX6	N	10	0	Exemption in seventh year
EX7	N	10	0	Exemption in eighth year
EX8	N	10	0	Exemption in ninth year
EX9	N	10	0	Exemption in tenth year
CURR_EX	N	10	0	The Conservation Use 100% exemption in the current year
DEEDPAGE	C	10	0	Page in deed book

Cost				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
COSTKEY	N	10	0	Cost Key
PERSKEY	N	10	0	Personal Property Account Number
ITEM_DESC	C	30	0	Description of cost item
ITEM	C	2	0	Item code
ACQ_YEAR	N	4	0	Acquisition year of item
GROUP	N	1	0	Depreciation group
DISPOSALS	N	10	0	Total value of Item when sold
COST	N	10	0	Cost of item
DEPR	N	4	2	Depreciation factor assigned to item
FUNC_OBS	N	4	2	Functional obsolescence factor of item
MFG	C	15	0	Manufacturer of item

Cost (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
MODEL	C	15	0	Model of item
TYPE	C	15	0	Type of item
MODYEAR	C	4	0	Year item was manufactured
NEWUSED	C	1	0	Code for item, purchased new or used
SERIALNO	C	20	0	Serial number of item
EDITDATE	D	8	0	Last date item was added/edited
ECON_OBS	N	4	2	Economic Obsolescence factor of item
COMMENTS	M	10	0	Comments assigned to this item
REL	N	4	0	Remaining Economic Life
ASSET_CLAS	N	6	3	Asset class of item
BOOK_VAL	N	10	0	Book value of item
BOOK	C	15	0	Book the book value was obtained from
PAGE	C	5	0	Page in the book value was obtained from
VALMETHOD	C	1	0	Valuation method
COSTVAL	N	10	0	Cost value of item
MARKETVAL	N	10	0	Market value of item
INCOMEVAL	N	10	0	Income value of item
APMCOST	L	1	0	APM cost of item
OVRDEP	N	4	2	Override depreciation factor for item
APPRNAME	C	30	0	Cost appraiser
EDITTIME	C	12	0	Date/time of last edit
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
EDITED	L	1	0	Flag indicating cost record has been edited
MAVORIG	N	10	0	Previous Year’s Moratorium Appraised Value
MAV	N	10	0	HB 233 Frozen Moratorium Appraised Value
WIRELESS	L	1	0	If checked, indicates wireless asset
MANUALLABOR	L	1	0	If checked, indicates asset is a “tool of manual labor”
ABATE_EX	N	4	2	Abatement percentage applied to the value of the MEFF item
UNABATED_VAL	N	10	0	MEFF item value before the abatement was applied
TRANSFERIN	N	10	0	MEFF value of the item if transferred to the account
EST_VALUE	L	1	0	MEFF value if estimated

WinGAP Table Structures

Dnr				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
DNRKEY	N	10	0	DNR Key
PERSKEY	N	10	0	Personal Property Account Number
BOATKEY	N	10	0	Boat key
GA_REG	C	6	0	Georgia registration number of boat
CERTNUM	C	7	0	Certificate number of boat
NAME	C	40	0	Stores the Last and First Names and Middle Initial when combined into a single Corporate Name
LNAME	C	20	0	Owners last name
FNAME	C	20	0	Owners first name
MIDDLEINIT	C	1	0	Owners middle initial
SUFFIX	C	3	0	Name suffix such as Jr, II, III
STREET	C	30	0	Street address where boat is located
CITY	C	15	0	City where boat is located
STATE	C	2	0	State where boat is located
ZIP	C	10	0	Zip code where boat is located
CNTY	C	3	0	County where boat is located
BIRTH	C	8	0	Owners birth date
OWNER	C	1	0	Code for owner
EXPIRE	C	8	0	Registration Expiration Date
PROCESS	C	8	0	Date of Processing
HULLID	C	20	0	Hull ID number of boat
MFG	C	20	0	Manufacturer of boat
LENGTH	C	5	0	Length of boat
YEAR	C	2	0	Year boat was manufactured
CLASS	C	1	0	DNR class of boat
TOILET	C	1	0	Code for whether boat has a toilet or not
HULL	C	1	0	Hull type of boat
PROPUL	C	1	0	Type of propulsion of boat
BTUSE	C	1	0	Boat Use
FUEL	C	1	0	Type of fuel used by boat
BOATTYPE	C	1	0	Type of boat
STATEPR	C	1	0	State Permit Code
STOLEN	C	1	0	Flag to denote if boat was stolen
CGDOCNO	C	10	0	Coast Guard Document #
TRANSTYPE	C	2	0	Transaction type
DNRSTATUS	C	1	0	DNR Status Code
REASON	C	1	0	Inactive Reason Code
COMMENT	M	10	0	Comments assigned to boat
TAXDISTRIC	C	2	0	Tax District boat is located in
TAXCLS	C	1	0	Digest Classification

Dnr (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
ACCOUNT_NO	N	10	0	<Not Used>
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout

Firepl				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
FIREKEY	N	8	0	Fireplace key
REPROPKEY	N	8	0	Improvement number
ITEM_NO	C	3	0	Type of fireplace
NUMBER	N	5	0	Number of fireplaces of this type
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout

Flpamain				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
FLPAKEY	N	10	0	Forest Land Protection Act (FLPA) Key
REALKEY	N	10	0	Real Property Account Number
FLAPPNUM	C	13	0	FLPA Covenant Application Number
COVACRES	N	8	2	Total FLPA Acres under this Covenant
ORIGDATE	N	4	0	Beginning FLPA Date
BASEDATE	N	4	0	Base Year – Indicates year in which change limitations were exceeded due to allowable circumstances
CURRCOVVAL	N	10	0	Current FLPA Covenant Value
UNADJVAL	N	10	0	Unadjusted Current Year's value for FLPA
CURREX	N	10	0	The FLPA 100% exemption in the current year
CURRFLPA	N	10	0	Indexed FLPA Base FMV for Current Year
TOTCOVAC	N	8	2	Total Acres for all parcels under the same FLPA Covenant Number
DAT1	N	4	0	First FLPA Year
DAT2	N	4	0	Second Year of FLPA
DAT3	N	4	0	Third Year of FLPA
DAT4	N	4	0	Fourth Year of FLPA
DAT5	N	4	0	Fifth Year of FLPA
DAT6	N	4	0	Six Year of FLPA
DAT7	N	4	0	Seventh Year of FLPA

Flpamain (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
DAT8	N	4	0	Eighth Year of FLPA
DAT9	N	4	0	Ninth Year of FLPA
DAT10	N	4	0	Tenth Year of FLPA
DAT11	N	4	0	Eleventh Year of FLPA
DAT12	N	4	0	Twelfth Year of FLPA
DAT13	N	4	0	Thirteenth Year of FLPA
DAT14	N	4	0	Fourteenth Year of FLPA
DAT15	N	4	0	Fifteenth and Final Year of FLPA
VAL1	N	10	0	FLPA Value, First Year
VAL2	N	10	0	FLPA Value, Second Year
VAL3	N	10	0	FLPA Value, Third Year
VAL4	N	10	0	FLPA Value, Fourth Year
VAL5	N	10	0	FLPA Value, Fifth Year
VAL6	N	10	0	FLPA Value, Sixth Year
VAL7	N	10	0	FLPA Value, Seventh Year
VAL8	N	10	0	FLPA Value, Eighth Year
VAL9	N	10	0	FLPA Value, Ninth Year
VAL10	N	10	0	FLPA Value, Tenth Year
VAL11	N	10	0	FLPA Value, Eleventh Year
VAL12	N	10	0	FLPA Value, Twelfth Year
VAL13	N	10	0	FLPA Value, Thirteenth Year
VAL14	N	10	0	FLPA Value, Fourteenth Year
VAL15	N	10	0	FLPA Value, Fifteenth and Final Year
EX1	N	10	0	FLPA Exemption Amount in First Year
EX2	N	10	0	FLPA Exemption Amount in Second Year
EX3	N	10	0	FLPA Exemption Amount in Third Year
EX4	N	10	0	FLPA Exemption Amount in Fourth Year
EX5	N	10	0	FLPA Exemption Amount in Fifth Year
EX6	N	10	0	FLPA Exemption Amount in Sixth Year
EX7	N	10	0	FLPA Exemption Amount in Seventh Year
EX8	N	10	0	FLPA Exemption Amount in Eighth Year
EX9	N	10	0	FLPA Exemption Amount in Ninth Year
EX10	N	10	0	FLPA Exemption Amount in Tenth Year
EX11	N	10	0	FLPA Exemption Amount in Eleventh Year
EX12	N	10	0	FLPA Exemption Amount in Twelfth Tear
EX13	N	10	0	FLPA Exemption Amount in Thirteenth Year
EX14	N	10	0	FLPA Exemption Amount in Fourteenth Year
EX15	N	10	0	FLPA Exemption Amount in Fifteenth and Final Year
FLFMV1	N	10	0	FLPA Fair Market Land Value, First Year
FLFMV2	N	10	0	FLPA Fair Market Land Value, Second Year
FLFMV3	N	10	0	FLPA Fair Market Land Value, Third Year

Flpamain (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
FLFMV4	N	10	0	FLPA Fair Market Land Value, Fourth Year
FLFMV5	N	10	0	FLPA Fair Market Land Value, Fifth Year
FLFMV6	N	10	0	FLPA Fair Market Land Value, Sixth Year
FLFMV7	N	10	0	FLPA Fair Market Land Value, Seventh Year
FLFMV8	N	10	0	FLPA Fair Market Land Value, Eight Year
FLFMV9	N	10	0	FLPA Fair Market Land Value, Ninth Year
FLFMV10	N	10	0	FLPA Fair Market Land Value, Tenth Year
FLFMV11	N	10	0	FLPA Fair Market Land Value, Eleventh Year
FLFMV12	N	10	0	FLPA Fair Market Land Value, Twelfth Year
FLFMV13	N	10	0	FLPA Fair Market Land Value, Thirteenth Year
FLFMV14	N	10	0	FLPA Fair Market Land Value, Fourteenth Year
FLFMV15	N	10	0	FLPA Fair Market Land Value, Fifteenth Year
FLINDEX1	N	8	6	FLPA Index, First Year
FLINDEX2	N	8	6	FLPA Index, Second Year
FLINDEX3	N	8	6	FLPA Index, Third Year
FLINDEX4	N	8	6	FLPA Index, Fourth Year
FLINDEX5	N	8	6	FLPA Index, Fifth Year
FLINDEX6	N	8	6	FLPA Index, Sixth Year
FLINDEX7	N	8	6	FLPA Index, Seventh Year
FLINDEX8	N	8	6	FLPA Index, Eighth Year
FLINDEX9	N	8	6	FLPA Index, Ninth Year
FLINDEX10	N	8	6	FLPA Index, Tenth Year
FLINDEX11	N	8	6	FLPA Index, Eleventh Year
FLINDEX12	N	8	6	FLPA Index, Twelfth Year
FLINDEX13	N	8	6	FLPA Index, Thirteenth Year
FLINDEX14	N	8	6	FLPA Index, Fourteenth Year
FLINDEX15	N	8	6	FLPA Index, Fifteenth and Final Year
NOINDEX1	L	1	0	Flag If No Index for FLPA Land, First Year
NOINDEX2	L	1	0	Flag If No Index for FLPA Land, Second Year
NOINDEX3	L	1	0	Flag If No Index for FLPA Land, Third Year
NOINDEX4	L	1	0	Flag If No Index for FLPA Land, Fourth Year
NOINDEX5	L	1	0	Flag If No Index for FLPA Land, Fifth Year
NOINDEX6	L	1	0	Flag If No Index for FLPA Land, Sixth Year
NOINDEX7	L	1	0	Flag If No Index for FLPA Land, Seventh Year
NOINDEX8	L	1	0	Flag If No Index for FLPA Land, Eighth Year
NOINDEX9	L	1	0	Flag If No Index for FLPA Land, Ninth Year
NOINDEX10	L	1	0	Flag If No Index for FLPA Land, Tenth Year
NOINDEX11	L	1	0	Flag If No Index for FLPA Land, Eleventh Year
NOINDEX12	L	1	0	Flag If No Index for FLPA Land, Twelfth Year
NOINDEX13	L	1	0	Flag If No Index for FLPA Land, Thirteenth Year
NOINDEX14	L	1	0	Flag If No Index for FLPA Land, Fourteenth Year

Flpamain (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
NOINDEX15	L	1	0	Flag If No Index for FLPA Land, Fifteenth Year
DEEDPAGE	C	10	0	Page in deed book

Invn				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
PERSKEY	N	10	0	Personal Property Account Number
INVNKEY	N	10	0	Inventory key
MERCHANDIS	N	9	0	100% value of merchandise
RAW_MATER	N	9	0	100% value of raw materials
PROCESS	N	9	0	100% value of goods in process
FINISHED	N	9	0	100% value of finished goods
TRANSIT	N	9	0	100% value of goods in transit
WAREHOUSE	N	9	0	100% value of goods warehoused
CONSIGNED	N	9	0	100% value of goods consigned
FLOOR_PLAN	N	9	0	100% value of floor planned goods
SPARE_PART	N	9	0	100% value of spare parts
PACKING	N	9	0	100% value of packaging materials
GROSS_RAW	N	9	0	100% value of raw materials eligible for Freeport
GROSS_MFG	N	9	0	100% value of mfg goods eligible for Freeport
GROSS_OUT	N	9	0	100% value of out-of-state goods eligible for Freeport
NET_RAW	N	9	0	Net value of raw materials eligible for Freeport
NET_MFG	N	9	0	Net value of mfg goods eligible for Freeport
NET_OUT	N	9	0	Net value of out-of-state goods eligible for Freeport
TOTAL_GRS	N	10	0	100% total of inventory eligible for Freeport
TOTAL_NET	N	10	0	100% total of net inventory eligible for Freeport
TOTAL_INVN	N	10	0	Total value of inventory
FREXMPTPCT	N	6	4	Freeport percentage
LIVESTOCK	N	10	0	Value of livestock
FSUPPLY	N	10	0	Value of farm supplies
FRPORTDATE	D	8	0	Date Freeport was applied for
APPRNAME	C	30	0	Inventory appraiser
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
COMMENTS	M	10	0	Notes and comments concerning the inventory record
CI_NET_RAW	N	10	0	Net value of raw materials eligible for Freeport in City
CI_NET_MFG	N	10	0	Net value of mfg goods eligible for Freeport in City
CI_NET_OUT	N	10	0	Net value of out-of-state goods eligible for Freeport in City

Invn (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
MAVORIG	N	10	0	Previous Year's Moratorium Appraised Value
MAV	N	10	0	HB 233 Frozen Moratorium Appraised Value
MAVGRS	N	10	0	Moratorium Appraised Value for Inventory Eligible for Freeport
MAVNET	N	10	0	Net Moratorium Appraised Value for Freeport
ABATE_EX	N	4	2	Abatement percentage applied to the value of the INVN item
GROSS_FULFILL	N	12	0	Gross value of inventory categorized as "Fulfillment Center"
GROSS_RETAIL2	N	12	0	Gross value of inventory categorized as "Retail Level 2"
FULFILL_NET	N	12	0	Net value of inventory categorized as "Fulfillment Center"
RETAIL2_NET	N	12	0	Net value of inventory categorized as "Retail Level 2"
FULLFILL_NET_CITY	N	12	0	Net value in CITY of inventory categorized as "Fulfillment Center"
RETAIL2_NET_CITY	N	12	0	Net value in CITY of inventory categorized as "Retail Level 2"
UNABATEDVAL	N	12	0	INVN item value before abatement was applied
UNABATEDVAL_FP	N	12	0	Freeport INVN item value before abatement was applied

Landsubs				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
LANDKEY	N	10	0	Land subrecord key
REALKEY	N	10	0	Real Property Account Number
CONMAIKEY	N	10	0	Conservation use key
SUB_TYPE	C	3	0	Subrecord type
LTYPE	N	1	0	Land type
LCLASS	N	1	0	Land class
ACRES	N	8	2	Subrecord acres
PREF	L	1	0	Code for whether subrecord is preferential or not
SUBOVERIDE	N	7	0	Subrecord override value
URBVALUE	N	10	0	Urban land value
SUBRECINFL	N	4	2	Subrecord influence
TABLE1	N	1	0	Depth Table Code
LANDMETHOD	N	2	0	Method of valuation
SUBDIVCODE	N	4	0	Subdivision code
TOTALDEPTH	N	6	0	Total depth of subrecord
FROMFRONT	N	6	0	Depth from the front
FRONTFEET	N	6	0	Front footage
EFF_FRONT	N	6	0	Effective front footage
SQUAREFEET	N	7	0	Square feet of subrecord

Landsubs (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
LOTS	N	2	0	Number of identical lots
RURVALUE	N	10	0	Rural land value
SUBRECNO	N	3	0	Subrecord number
CALCACRES	N	8	2	Calculated acres based on the subrecord dimensions
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
UNITVALUE	N	10	0	Unit value from valuation schedule
DESCRIP	C	30	0	Description associated with schedule item
STATEHSFLG	L	1	0	<Not Used>
FLPAKEY	N	10	0	FLPA Key

Lessor				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
LESKEY	N	10	0	Lessor key
PERSKEY	N	10	0	Personal Property Account Number
OWNKEY	N	10	0	Owner key
LASTNAME	C	40	0	Owners last name
FIRSTNAME	C	20	0	Owners first name
MIDDLE	C	1	0	Owners middle initial
DESCRIP	M	10	0	Description of leased property item
MFG	C	30	0	Manufacturer of leased property item
MODEL	C	30	0	Model of leased property item
YEAR	C	4	0	Year item was manufactured
COMMENT	M	10	0	Comments about item
QUANTITY	N	4	0	Number of identical items
ASSETNUM	C	15	0	Asset number of item
SERIALNUM	C	20	0	Serial number of item
EDITDATE	C	10	0	Date item was added or last edited
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout

Mobile				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
MOBILEKEY	N	10	0	Mobile key
REPROPKEY	N	10	0	Residential Improvement number
OWNKEY	N	10	0	Owner key
PREBMAPID	C	20	0	Prebill map ID number
MOBTYPE	N	1	0	Manufactured Housing type in WinGAP. The number 1 designates a Manufactured Home calculated as a Residential Improvement, 2 designates a Non-Prebilled Manufactured Home, 3 designates a Prebilled Manufactured Home
DECALYR	C	4	0	Decal year of Manufactured Home
DECALNUM	C	6	0	Decal number of Manufactured Home
YEARBUILT	C	4	0	Year built of Manufactured Home
WIDTH	N	2	0	Width of Manufactured Home
LENGTH	N	2	0	Length of Manufactured Home
SWMW	C	2	0	Single wide or multi wide Manufactured Home
MFG	C	30	0	Manufacturer of Manufactured Home
MODEL	C	30	0	Model of Manufactured Home
MOBCLASS	C	2	0	Quality Class of Manufactured Home
COMMENT	M	10	0	Comments about Manufactured Home
SERIALNUM	C	20	0	Serial number of Manufactured Home
YEARPURCH	C	4	0	Year Manufactured Home was purchased
PURPRICE	N	6	0	Purchase price of Manufactured Home
EXTWALL	N	3	0	Exterior wall type
ROOFING	N	3	0	Roofing type
FOUNDATION	N	3	0	Foundation type
FULLBATHS	N	2	0	Number of full baths
HALFBATHS	N	2	0	Number of half baths
EXTRAFEAT	N	2	0	Number of extra fixtures
BEDROOMS	N	2	0	Number of bedrooms
HEATAIR	N	3	0	Type of heating/air conditioning
FIREPLACE	N	3	0	Type of fireplace
REPLACOST	N	6	0	Replacement cost of Manufactured Home
ACTLAGE	N	2	0	Actual age of Manufactured Home
EFFYRBUILT	C	4	0	Effective year built
CONDITION	C	1	0	Observed condition
DEPREC	N	4	2	Calculated depreciation factor
OVRIDEDEP	N	4	2	Override depreciation factor
FUNCOBSOL	N	4	2	Functional obsolescence factor
ECONOBSOL	N	4	2	Economic obsolescence factor
TAXDIST	C	3	0	Tax district Manufactured Home is located in
HOUSE_NO	N	5	0	Street number

Mobile (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
EXTENSION	C	3	0	Street extension
STDIRECT	C	2	0	Street direction
STTYPE	C	4	0	Street type
STREET_NAM	C	20	0	Street name
PARKNAME	C	20	0	Manufactured Home park the Manufactured Home is in
LOTNUMBER	C	5	0	Lot number within the Manufactured Home park
DEALER	L	1	0	Dealer Flag (T/F)
SUBRECNO	N	3	0	<Not Used>
VALUE	N	10	0	Calculated value of the Manufactured Home
OVRVALUE	N	10	0	Override value of the Manufactured Home
ADDONVAL	N	10	0	Total add-on value for add-ons to the Manufactured Home
TIP_WIDTH	N	2	0	Tip out width
TIP_LENGTH	N	2	0	Tip out length
TIP_ADJ	N	4	2	Tip out adjustment factor
STHT_CODE	N	2	0	Story height code for the Manufactured Home
TIP	L	1	0	Whether or not the Manufactured Home has tip out area
TIPAREA	N	6	0	Tip out area of the Manufactured Home
ACCTSTATUS	L	1	0	Inactive field
GUIDE	L	1	0	Flag used to define if NADA value is used is used on digest (T = Yes; F = No)
GUIDEVALUE	N	10	0	NADA pricing guide market value
GUIDEKEY	N	10	0	NADA pricing guide page key
APPRNAME	C	30	0	Mobile home appraiser
EXEMPT	L	1	0	Whether or not mobile home is tax exempt (T/F)
CALC_VALUE	N	10	0	Non-truncated value of Manufactured Home
NADA_COND	C	1	0	NADA condition code
QUAD	C	2	0	USPS post-direction (NE, SE, etc)
PREV_BOX	N	10	0	Previous Manufactured Home value
PREV_ADDON	N	10	0	Previous add-ons value
NADA_SVS	L	1	0	Flag defining the use of the NADA Special Valuation Section (T = Yes; F = No)
NADA_QUAL	C	3	0	NADA quality assignment
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
REVIEWDATE	D	8	0	Date Manufactured Home was last reviewed/edited
NADA_WIDTH	N	2	0	Valid width in NADA table
CREATEDATE	D	8	0	Date record was added
SKETCH	L	1	0	Flag indicating the existence of a sketch (.T. – True)
PHOTO	L	1	0	Flag indicating an attached photo. (.T. – True)
CALC_GUIDE	N	10	0	Non-truncated value from NADA schedules

Mobile (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
MAVORIG	N	10	0	Previous Year's Moratorium Appraised Value of MH Box
MAV	N	10	0	HB 233 Frozen Moratorium Appraised Value of MH Box
MAVCURR	N	10	0	Current Moratorium Appraised Value (sum of MAV and MAVADD)
MAVPREV	N	10	0	Previous Total Moratorium Appraised Value
MAVADD	N	10	0	Moratorium Appraised Value for Add-Ons
MAVOVR	L	1	0	If True, Flag indicates that MAV is an Override Value
SB346VAL	N	10	0	Allocated value of improvement existing at time of sale
SB346ADD	N	10	0	Non-allocated value of new construction after sale
RETURNMAIL	L	1	0	If True, Flag indicates the Assessment Notice or Other mail was returned by the Post Office to the Assessors Office
TITLENUM	C	20	0	Title Number of the Manufactured Home
PARCEL_NO2	C	20	0	Parcel Number used to link the Prebilled Manufactured Home to a Real Parcel
SITEADDID	C	20	0	Site Address ID used as part of Master Address Database
UNIT	C	4	0	Address Unit
UNITTYPE	C	10	0	Description of type of unit
COMMENTFLG	L	1	0	Used to bring special attention to the comments by highlighting the Comment field in red. When the value is True (1), the Comment field will be highlighted
OVRDATE	D	8	0	Override Date
OVR_RSN	C	2	0	Override Reason
ABATE_EX	N	4	2	Abatement percentage applied to the value of the MH
TAGALONG	L	1	0	If checked, indicates the MH has a Tag-A-Long
TAG_WIDTH	N	2	0	Tag-A-Long width
TAG_LENGTH	N	2	0	Tag-A-Long length
TAG_ADJ	N	4	2	Tag-A-Long quality adjustment
TAG_AREA	N	4	0	Tag-A-Long area
COPL	L	1	0	Flag to indicate the Prebilled Manufactured Home has a Certificate of Permanent Location
TITLE_NAME	C	40	0	Name on Title for the Prebilled Manufactured Home

WinGAP Table Structures

Newowner				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
NEWKEY	N	10	0	Newowner key
REALKEY	N	10	0	Real Property Account Number
OWNKEY	N	10	0	Owner key
LASTNAME	C	40	0	Owners last name
FIRSTNAME	C	20	0	Owners first name
MIDDLE	C	1	0	Owners middle initial
ADDRESS1	C	40	0	Address line one
ADDRESS2	C	40	0	Address line two
ADDRESS3	C	40	0	Address line three
CITY	C	20	0	Owners city
STATE	C	2	0	Owners state
ZIP	C	10	0	Owners zip code
HOMEPHONE	C	14	0	Owners home phone
WORKPHONE	C	14	0	Owners work phone
FAXNUMBER	C	14	0	Owners fax number
FEI	C	15	0	Owners federal tax ID number
SSN	C	11	0	Owners social security number
SSN1	C	11	0	Spouses social security number
SST	C	15	0	Owners state sales tax number
TAXRETURN	C	1	0	Type of tax return
ACCTSTATUS	L	1	0	Active or Inactive
MULTIOWNER	M	10	0	Multiple Owners field
LEGAL_DESC	C	45	0	Legal description of property
DATENOW	D	8	0	Date record was added or last edited
HOMEEXEMPT	C	2	0	Homestead exemption code
HOMEDATE	D	8	0	Homestead exemption date
ASSESS_RSN	C	2	0	Assessment reason code
TRANSFER	L	1	0	Flag designating if the newowner record is a transfer to an existing owner
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout

WinGAP Table Structures

Notices				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
OWNKEY	N	10	0	Owner key
REALKEY	N	10	0	Real Property Account Number
PERSKEY	N	10	0	Personal Property Account Number
MOBILEKEY	N	10	0	Mobile key
LASTNAME	C	40	0	Last name of person receiving notice
FIRSTNAME	C	20	0	First name of person receiving notice
MIDDLE	C	1	0	Middle initial of person receiving notice
ADDRESS1	C	40	0	Address line one
ADDRESS2	C	40	0	Address line two
ADDRESS3	C	40	0	Address line three
CITY	C	20	0	City
STATE	C	2	0	State
ZIP	C	10	0	Zip code
PARCEL_NO	C	20	0	Parcel number of property receiving notice
ASSESS_RSN	M	10	0	Assessment reason codes for property
REASON	M	10	0	Assessment reasons for property
CURR_VAL	N	10	0	Current value of property
PREV_VAL	N	10	0	Previous value of property
TOTALACRES	N	8	2	Total acres of property receiving notice
LEGAL_DESC	C	45	0	Legal description of property
HOMEEXEMPT	C	2	0	Homestead exemption code
TAXDISTRIC	C	2	0	Tax district of property
ANPRINT	D	8	0	Date notice printed
ANDATE	D	8	0	Date notice mailed
PREVASSMNT	N	10	0	Previous assessed value
CURRASSMNT	N	10	0	Current assessed value
TAXYEAR	N	4	0	Tax year
VAL_CHG	L	1	0	Real property flag for notice
NOTICE	L	1	0	Personal property flag for notice
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
MAVORIG	N	10	0	Previous Year’s Moratorium Appraised Value
MAVCURR	N	10	0	Current Moratorium Appraised Value
MAVPREV	N	10	0	Previous Moratorium Appraised Value

WinGAP Table Structures

Other				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
OTHERKEY	N	10	0	Other property key
PERSKEY	N	10	0	Personal Property Account Number
DESCRIP	C	20	0	Description of other property
YEAR	C	4	0	Year other property was purchased
MFG	C	15	0	Manufacturer of other property
MODEL	C	15	0	Model of other property
COST	N	10	0	Cost of other property
BOOK_VAL	N	10	0	Book value of other property
BOOK	C	15	0	Name of Book value derived from
PAGE	C	5	0	Page number in book value derived from
VALUE	N	10	0	Market value of property
COMMENTS	M	10	0	Comments about other property
APPRNAME	C	30	0	Other appraiser
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
MAVORIG	N	10	0	Previous Year's Moratorium Appraised Value
MAV	N	10	0	HB 233 Frozen Moratorium Appraised Value
ABATE_EX	N	4	2	Abatement percentage applied to the value of the Other item
UNABATEDVAL	N	12	0	Other item value before abatement was applied

Owner				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
OWNKEY	N	10	0	Owner key
LASTNAME	C	40	0	Owners last name
FIRSTNAME	C	20	0	Owners first name
MIDDLE	C	1	0	Owners middle initial
ADDRESS1	C	40	0	Owners address line one
ADDRESS2	C	40	0	Owners address line two
ADDRESS3	C	40	0	Owners address line three
CITY	C	20	0	Owners city
STATE	C	2	0	Owners state
ZIP	C	10	0	Owners zip code
HOMEPHONE	C	14	0	Owners home phone
WORKPHONE	C	14	0	Owners work phone
FAXNUMBER	C	14	0	Owners fax number
FEI	C	15	0	Owners federal tax identification number

Owner (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
SSN	C	11	0	Owners social security number
SSN1	C	11	0	Spouses social security number
SST	C	15	0	Owners state sales tax number
TAXRETURN	C	1	0	Whether or not a tax return has been filed
ACCTSTATUS	L	1	0	Active or inactive
MULTIOWNER	M	10	0	Multiple owners field
BIRTHDATE1	D	8	0	Owners birthdate
BIRTHDATE2	D	8	0	Spouses birthdate
EXISTS	L	1	0	Flag used in the Check In/Check Out Process to see if the Record existed prior to checkout
NO_RELEASE	L	1	0	Flag used to designate if the owner record comes under the Open Records Act and information should not be released
CREATEDATE	D	8	0	Date owner record was added
EMAIL	C	50	0	Owners email address
CELLPHONE	C	14	0	Owners cell phone number
COUNTRY	C	40	0	Country the owner resides in
SITEADDID	C	20	0	Site Address ID used as part of Master Address Database
COMMENTS	M	10	0	Comments about Owner

Permits				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
PERMKEY	N	10	0	Permit key
REALKEY	N	10	0	Real Property Account Number
PARCEL_NO	C	20	0	Parcel number of property
LEGAL_DESC	C	45	0	Legal description of property
JOBADDRESS	C	40	0	Permit location address
PERM_NUM	C	10	0	Permit number
PERM_TYPE	C	20	0	Permit type
PERM_AMNT	N	20	2	Permit fee
SQUARE_FT	N	5	0	Square footage covered by permit
FIREPLACES	N	2	0	Number of fireplaces of property
DATE_ISSUE	D	8	0	Date permit issued
ISSUED_BY	C	15	0	Individual issuing permit
DATE_INSP	D	8	0	Date of first inspection
DATE_SCHED	D	8	0	Date construction is scheduled to be Completed
DATE_COMPL	D	8	0	Date construction was completed
APPROVD_BY	C	15	0	Permit approved by

Permits (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
COMMENTS	M	10	0	Comments about permit
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
PERMYEAR	C	4	0	Year Building Permit Issued
PERMOWNER	C	40	0	Owner of the Property the Permit was issued for
PHONE	C	14	0	Phone Number of the Owner
CONTACT	C	40	0	Contact Person for the Permit
PERMCODE	C	5	0	Building Permit Code Number
WORKCOST	N	10	0	Cost of work performed
PERSKEY	N	10	0	Personal Property Account Number
MOBILEKEY	N	10	0	Mobile key
PERMITNUMBER_EX	C	50	0	Permit Number (primary key) from Permit Staging external database

Personal				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
PERSKEY	N	10	0	Personal Property Account Number
OWNKEY	N	10	0	Owner key
CO_ID_NUM	C	8	0	County identification number
PARCEL_NO	C	20	0	Parcel number of account
ACCTEDIT	D	8	0	Date account was added or last edited
VALUEEDIT	D	8	0	Last date value was changed
PROPCLASS	C	1	0	Digest class of account
STRATA	C	1	0	Digest strat of account
ST_NUM	N	5	0	Street number of account
ST_EXT	C	4	0	Street extension of account
ST_DIRECT	C	3	0	Street direction of account
ST_NAME	C	23	0	Street name of account
ST_TYPE	C	4	0	Street type of account
UNIT	C	4	0	Condo/Apartment Unit #
RECORDS	M	10	0	Comments
BUSI_ID	C	40	0	Doing business as description
TAXDISTRIC	C	2	0	Tax district
BUSPHONE	C	14	0	Business phone
HOMPHONE	C	14	0	Home phone
FAXNUM	C	14	0	Fax number
RETURNMADE	L	1	0	Whether or not a return has been made
RETURN_VAL	N	12	0	Return value

Personal (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RETURNDATE	D	8	0	Date tax return filed
PREV_VAL	N	12	0	Previous value
LAST_VAL	N	12	0	Last value
CURR_VAL	N	12	0	Current value
MEFF_VAL	N	12	0	Machinery, equipment, furnishings, and fixtures value of account
INVN_VAL	N	12	0	Inventory value of account
BOAT_VAL	N	12	0	Boat value of account
PLANE_VAL	N	12	0	Aircraft value of account
OTHER_VAL	N	12	0	Other equipment value of account
FRPORT_VAL	N	12	0	Freeport value of account
PENALTYVAL	N	12	0	Penalty fee assessed against account
NAICS	C	6	0	NAICS code
BLDGSF	N	8	0	Square footage of building
SALESF	N	8	0	Sales square footage
NOTICE	L	1	0	Whether or not an assessment notice has been assigned to account
REASON	C	2	0	Assessment reason code
FIELDAUDIT	L	1	0	Whether or not a field audit is scheduled
DESKAUDIT	L	1	0	Whether or not a desk audit is scheduled
FIELDCHECK	L	1	0	Whether or not a field check is scheduled
LASTAUDIT	D	8	0	Date account was last audited
FREEPRTFLG	L	1	0	Whether or not the account has Freeport
ANDATE	D	8	0	Date assessment notice was printed
CHGAPPR	C	10	0	<Not Used>
ACCTAPPR	C	10	0	Appraiser/user that last modified the account
ACCTAUD	C	10	0	<Not Used>
ORGYEAR	C	4	0	Year account was established
BUSYEAR	C	4	0	Year Business was started
ACCTSTATUS	L	1	0	Active or inactive account
DSVSOURCE	N	4	0	Discovery source for account
PORETURN	L	1	0	Post Office Return Flag (T/F)
CONTACT	C	40	0	Contact name for account
EMAIL	C	60	0	Email address of account
SPDIST	L	1	0	Whether or not account is in a special District
APPRNAME	C	30	0	Appraiser name that will appear as primary contact on COA notice
ALTERNATE	C	30	0	Alternate appraiser for COA notice
AUDITOR	C	30	0	Auditor for account

Personal (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
EZY	C	4	0	Year account was assigned to an Enterprise Zone
EZ_EXEMPT	N	10	0	Enterprise Zone exemption
QUAD	C	2	0	USPS post-direction (NS, SE, etc)
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
REVIEWDATE	D	8	0	Date of last review of account
WEB_ADD	C	50	0	Internet address for account
EST_VALUE	L	1	0	Flag to determine if an estimated value was used (T = Yes; F = No)
NO_PT50	L	1	0	Flag indicating whether a PT50 form should be printed for the account
CREATEDATE	D	8	0	Date personal record was added
PHOTO	L	1	0	Flag which indicates the assignment of a photo to the personal property account (T = Yes; F = No)
ZIP	C	9	0	Zip code of the account's situs
MAVORIG	N	10	0	Previous Year's Moratorium Appraised Value
MAVCURR	N	10	0	Current Moratorium Appraised Value
MAVPREV	N	10	0	Previous Moratorium Appraised Value
MAVMEFF	N	10	0	Moratorium Appraised Value of the machinery, equipment, furnishings, and fixtures value of account
MAVINVN	N	10	0	Moratorium Appraised Value of the Inventory on the account
MAVBOAT	N	10	0	Moratorium Appraised Value of the Boats on the account
MAVPLANE	N	10	0	Moratorium Appraised Value of the Aircraft on the account
MAVOTHER	N	10	0	Moratorium Appraised Value of the Other equipment on the account
MAVFRPORT	N	10	0	Moratorium Appraised Value of the Freeport Inv on the account
HDE_EXEMPT	N	10	0	Exempt Value of Heavy Duty Equipment on the account
SST	C	15	0	State Sales Tax Number on the account
RETURNMAIL	L	1	0	If True, Flag indicates the Assessment Notice or other mail was returned by the Post Office to the Assessors Office
MEFF_ADJ	N	6	4	Obsolescence Factor applied to all MEFF Cost valued assets
ADJ_DESC	C	20	0	Description of the basis for the adjustment made in MEFF_ADJ
SITEADDID	C	20	0	Site Address ID used as part of Master Address Database
UNITTYPE	C	10	0	Description of type of unit
BUSPHONE_EXT	C	4	0	Extension for the Business phone
ONSITE_REVIEW	L	1	0	Flag to indicate that an onsite review should be or has been conducted
ONSITEDATE	D	8	0	Date of the onsite review
COMMENTFLG	L	1	0	Used to bring special attention to the comments by highlighting the Comment field in red. When the value is True (1), the Comment field will be highlighted
REVIEW	L	1	0	If checked, indicates that the account has been reviewed

Personal (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
ABATEMENT	L	1	0	If checked, indicates that an Abatement percent is applied to the account
ABATE_EX	N	4	2	Abatement percentage applied to the value of the account items

Realprop				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
REALKEY	N	10	0	Real Property Account Number
OWNKEY	N	10	0	Owner key
HOUSE_NO	N	5	0	Street number of parcel
EXTENSION	C	3	0	Street extension of parcel
STDIRECT	C	2	0	Street direction of parcel
STTYPE	C	4	0	Street type of parcel
STREET_NAM	C	20	0	Street name of parcel
UNIT	C	4	0	Condo/Apartment #
LANDLOT	C	3	0	Land lot of parcel
LANDDIST	C	2	0	Land district of parcel
LANDGMD	C	4	0	Georgia militia district of parcel
ZONINGCODE	C	4	0	Zoning code of parcel
COMMENT1	M	10	0	Comments about parcel
RETURN_VAL	N	10	0	Return value of parcel
ASSESS_RSN	C	2	0	Assessment reason code for parcel
PARCEL_NO	C	20	0	Parcel number of parcel
LEGAL_DESC	C	45	0	Legal description of parcel
VAL_CHG	L	1	0	Whether or not the value has changed
PREV_VAL	N	10	0	Previous value of parcel
CURR_VAL	N	10	0	Current value of parcel
VALCHGDATE	D	8	0	Date of value change
LAND_TYPE	N	1	0	Land type
TAXDISTRIC	C	2	0	Tax district code
HOMEEXEMPT	C	5	0	Homestead exemption code
CUV_RENEW	L	1	0	Conservation Use renewal flag
ORIGHOMVAL	N	10	0	Original floating homestead value
CURRHOMVAL	N	10	0	Current floating homestead value
REVIEWDATE	D	8	0	Date parcel was last reviewed
DATENOW	D	8	0	Date parcel was last edited
APPRAISER	C	3	0	Chief appraiser for parcel
PCY	C	4	0	Preferential covenant year of parcel

Realprop (cont)				
Field Name	Type	Length	Dec	Alias
CCY	C	4	0	Conservation use year of parcel
HCY	C	4	0	Historic covenant year of parcel
OVRIDEVAL	N	10	0	Override value of parcel
INFLUENCE1	N	4	2	Influence factor 1
INFLUENCE2	N	4	2	Influence factor 2
INFLUENCE3	N	4	2	Influence factor 3
INFLUENCE4	N	4	2	Influence factor 4
INFLUENCE5	N	4	2	Influence factor 5
INFLUENCE6	N	4	2	Influence factor 6
INFLUENCE7	N	4	2	Influence factor 7
INFLTYPE1	C	3	0	Influence type 1
INFLTYPE2	C	3	0	Influence type 2
INFLTYPE3	C	3	0	Influence type 3
INFLTYPE4	C	3	0	Influence type 4
INFLTYPE5	C	3	0	Influence type 5
INFLTYPE6	C	3	0	Influence type 6
INFLTYPE7	C	3	0	Influence type 7
DIGCLASS	C	1	0	Digest class of parcel
DIGSTRAT	C	1	0	Digest strat of parcel
TOPOGRAPHY	C	3	0	Topography code
WATER	C	3	0	Water code
SEWER	C	3	0	Sewer code
GAS	C	3	0	Gas code
ELECTRICTY	C	3	0	Electricity code
ROADSTREET	C	3	0	Type of road code
ROADCLASS	C	3	0	Type of road class code
DISTDRAIN	C	3	0	Drainage type code
NBRSTATUS	C	3	0	Neighborhood type code
ZONING	C	3	0	Zoning type code
ACC	N	1	0	Accessibility code
DESIRE	C	1	0	Desirability code
A_VALUE	N	10	0	Non-preferential value
P_VALUE	N	10	0	Preferential value
WOODACRES	N	8	2	Total wooded acres of parcel
TOTALACRES	N	8	2	Total acres of parcel
VENDNO	C	8	0	Lendor code
HISTVAL	N	10	0	Historic value of property
FUSERID	C	3	0	Id of user parcel is checked out to
NEIGHBHOOD	C	5	0	Neighborhood code for property
NEWOWNRFLG	L	1	0	Whether or not there is a new owner
SPLITSFLG	L	1	0	Whether or not property has split

Realprop (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
HOMEDATE	D	8	0	Date of Homestead Application
SPDIST	L	1	0	Whether or not property is in a special district
REALGROWTH	N	10	0	Real growth value
INFLGROWTH	N	10	0	Inflationary growth value
ACCTSTATUS	L	1	0	Active or inactive
HISTYR1	N	4	0	Year 2 years prior from Current Year
HISTVAL1	N	10	0	Value of property 2 years from Current Yr
HISTYR2	N	4	0	Year 3 years prior to Current Yr
HISTVAL2	N	10	0	Value of property 3 years from Current Yr
HISTYR3	N	4	0	Year 4 years prior to Current Yr
HISTVAL3	N	10	0	Value of property 4 years from Current Yr
LAT	C	11	0	Latitude of parcel
LON	C	9	0	Longitude of parcel
APPRNAME	C	30	0	Parcel appraiser
ALTERNATE	C	30	0	Alternate parcel appraiser
LAND_APPR	C	30	0	Parcel land appraiser
OVRDATE	D	8	0	Override date
OVR_RSN	C	2	0	Override reason code
A_CALC	N	10	0	Last calculated non-preferential value
P_CALC	N	10	0	Last calculated preferential value
EZY	C	4	0	Year parcel was assigned to an Enterprise Zone
EZ_EXEMPT	N	10	0	Enterprise Zone exemption
QUAD	C	2	0	USPS post-direction (NE, SE, etc)
INCOME	L	1	0	Flag defining if the value generated from the Income approach will be used on the digest (T = Yes, F = No)
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
SUBD_NAME	C	40	0	Name of subdivision parcel is in
SUBD_LOT	C	6	0	Lot of subdivision parcel is in
SUBD_BLK	C	4	0	Block of subdivision parcel is in
SUBD_SEC	C	4	0	Section of subdivision parcel is in
SUBD_PHSE	C	4	0	Phase of subdivision parcel is in
IO_NAME	C	3	0	Initials of user who checked parcel out
IO_DATE	D	8	0	Date parcel was checked out
OVR_ACRES	N	8	2	Override acres of parcel
LNDCOMMENT	M	10	0	Comment field for land
PARCEL_NO2	C	20	0	Previous parcel id
BOE_YEAR	N	4	0	Year BOE decision was made
BOE_VALUE	N	10	0	Value determined by BOE
CREATEDATE	D	8	0	Date parcel record was added
ZIP	N	9	0	Zip code of the parcel's situs

Realprop (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
STATEHSVAL	N	10	0	Total value (100%) of all property components eligible for State 65 & Over homestead
FLCY	C	4	0	FLPA Covenant Year
FL08VAL	N	10	0	FLPA 2008 Value
FLBASEVAL	N	10	0	FLPA Base Year Value
FL08ACRES	N	8	2	FLPA 2008 Total Acres
FLAPPNUM	C	13	0	FLPA Covenant Application Number
FL08PERAC	N	10	2	FLPA 2008 Per Acre Value
MAVORIG	N	10	0	Previous year's Moratorium Appraised Value
MAVCURR	N	10	0	Current Moratorium Appraised Value
MAVAG	N	10	0	Moratorium Appraised Value for Ag Land
MAVPREF	N	10	0	Moratorium Appraised Value for Pref Land
MAVPREV	N	10	0	Previous Moratorium Appraised Value
MAVOVR	L	1	0	If True, Flag indicates that MAV is an Override Value
FMVRES	N	10	0	Residential Improvement Fair Market Value
FMVCOM	N	10	0	Commercial Improvement Fair Market Value
FMVACC	N	10	0	Accessory Improvement Fair Market Value
MAVRES	N	10	0	Residential Improvement Moratorium Appraised Value
MAVCOM	N	10	0	Commercial Improvement Moratorium Appraised Value
MAVACC	N	10	0	Accessory Improvement Moratorium Appraised Value
SALE_VAL	L	1	0	Flag, if True, indicating that parcel will use sales CS/Value fields for Digest
SALELAND1	N	10	0	Non-Pref Land Value when Sale_Val is True
SALELAND2	N	10	0	Pref Land Value when Sale_Val is True
SALEIMP1	N	10	0	Total of all allocated improvement values (SB346Val)
SALEIMP2	N	10	0	Total of all non-allocated improvement values (SB346Add)
SALEIMPCS1	C	2	0	<Not Used>
SALEIMPCS2	C	2	0	<Not Used>
ADFACTOR	N	15	6	Accessibility / Desirability Factor for the parcel
RETURNMAIL	L	1	0	If True, Flag indicates the Assessment Notice or other mail was returned by the Post Office to the Assessors Office
ORIGHSVAL2	N	10	0	Base value for second floating or frozen exemption
CURRHSVAL2	N	10	0	Current value for second floating or frozen exemption
COVHS	L	1	0	Designates if a parcel is a split from a covenant for the purpose of establishing a homesite. 0 = No, 1 - Yes
COVPARENT	C	20	0	The parent parcel from which the split was created
COVREALKEY	N	10	0	The realkey for the parent parcel from which the split was created
SITEADDID	C	20	0	Site Address ID used as part of Master Address Database
UNITTYPE	C	10	0	Description of type of unit.

Realprop (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
COMMENTFLG	L	1	0	Used to bring special attention to the comments by highlighting the Comment field in red. When the value is True (1), the Comment field will be highlighted
A299C	L	1	0	Flag that when True (1) indicates that the value is 299C
FIELDCHECK	L	1	0	If checked, indicates that the parcel is under field review
ABATEMENT	L	1	0	If checked, indicates that an Abatement percent is applied to the parcel
ABATE_EX	N	4	2	Abatement percentage applied to the value of the property items
ABATE_EX_LAND	N	4	2	Abatement percentage applied to the land value
GROWTHOVR	L	1	0	Flag indicating the local appraiser has manually overridden the inflationary and real growth calculations for this parcel. This flag will be removed at year end cleanup.
MASKPHOTO	L	1	0	Flag indicating the local appraiser wants their website provider (qpublic, etc) to NOT SHOW photos for this parcel online.

Reprop				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
REPROPKEY	N	10	0	Residential Improvement number
REALKEY	N	10	0	Real Property Account Number
DIGCLASS	C	1	0	Digest class
DIGSTRAT	C	1	0	Digest strat
OCCUPANCY	N	1	0	Occupancy code
YR_BUILT	N	4	0	Year built
EFYR_BUILT	N	4	0	Effective year built
GRADE	N	4	2	Grade
OBSV_COND	N	1	0	Observed condition
NO_BEDRMS	N	2	0	Number of bedrooms
NO_ROOMS	N	2	0	Number of rooms
FOUNDATION	N	2	0	Foundation code
EXT_WALLS	N	2	0	Exterior walls code
ROOFING	N	2	0	Roofing code
ROOF_SHAPE	N	2	0	Roof shape code
FLOOR_CONS	N	2	0	Floor construction code
B_A_OPT	N	1	0	Basement/attic type
SQB_AREA	N	5	0	Basement square footage
SQB_FIN	N	4	2	Basement % finished

Reprop (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
SQA_AREA	N	5	0	Attic square footage
SQA_FIN	N	4	2	Attic % finished
DB_DESC	N	2	0	Basement size, descriptive method
DB_FIN	N	2	0	Basement finish, descriptive method
BASEMTQUAL	N	1	0	Basement quality code
D_ATTIC	N	2	0	Attic size, descriptive method
ATTICQUAL	N	1	0	Attic quality code
FLOOR_FIN	N	2	0	Floor finish code
INT_WALL	N	2	0	Interior wall code
INT_CEIL	N	2	0	Interior ceiling code
HEAT	N	2	0	Heating/AC code
PL_STD	N	2	0	Number of standard complements
PL_XTRA	N	2	0	Number of extra fixtures
FULLBATHS	N	2	0	Number of full baths
HALFBATHS	N	2	0	Number of half baths
STHT_CODE	N	2	0	Story height code
HEATEDAREA	N	6	0	Total heated area
PFUNC_DEP	N	4	2	Functional obsolescence factor
PEC_DEP	N	4	2	Economic obsolescence factor
PCOM	N	4	2	Percent complete factor
PHY_DEP	N	4	2	Calculated physical depreciation
PHY_OVR	N	4	2	Physical depreciation override
OVR_VAL	N	10	0	Override value
TIMP_VAL	N	10	0	Total improvement value
COMMENT	M	10	0	Comments about improvement
OVR_RSN	C	2	0	Override reason code
CDU	N	4	2	Cost and design factor
OVRDATE	D	8	0	Override date
ADJ_POINTS	N	13	2	Adjusted Points
APPRNAME	C	30	0	Residential Improvement appraiser
RCN	N	10	0	Replacement cost new
CALC_VALUE	N	10	0	Non-truncated value of improvement
EXISTS	L	1	0	Flag used in the Check In/Check Out Process to see if the record existed prior to checkout
SKETCH	L	1	0	Flag indicating the existence of a sketch (.T. – True)
PHOTO	L	1	0	Flag indicating an attached photo. (.T. - True)
STATEHSFLG	L	1	0	Flag indicating the eligibility of the improvement for the State 65 & Over homestead exemption (.T. - 'Yes'; .F. - 'No')
MAVORIG	N	10	0	Previous year's Moratorium Appraised Value
MAV	N	10	0	HB 233 Frozen Moratorium Appraised Value
HOUSE_NO	N	5	0	Street Number of Improvement
EXTENSION	C	3	0	Street Extension of Improvement

Reprop (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
STDIRECT	C	2	0	Street Direction of Improvement
STREET_NAM	C	25	0	Street Name of Improvement
STTYPE	C	4	0	Street Type of Improvement
UNIT	C	4	0	Street Unit of Improvement
QUAD	C	2	0	Street Quad of Improvement
MAVOVR	L	1	0	If True, Flag indicates that MAV is an Override Value
MKT_RISK	N	4	2	<Not Used>
SB346VAL	N	10	0	Allocated value of improvement existing at time of sale
LOCALHSFLG	L	1	0	Flag for local homestead exemption
SB346ADD	N	10	0	Non-allocated value of new construction after sale
BASEPSF	N	8	6	Base points per square foot
HEATPSF	N	8	6	Heat points per square foot
SITEADDID	C	20	0	Site Address ID used as part of Master Address Database
UNITTYPE	C	10	0	Description of type of unit
ABATE_EX	N	4	2	Abatement percentage applied to the value of the residential improvement item

Saleinfo				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
SALEKEY	N	10	0	Sales key
REALKEY	N	10	0	Real Property Account Number
GRANTEE	C	40	0	Grantee
GRANTOR	C	40	0	Grantor
SALEDATE	D	8	0	Sale date
DEEDPAGE	C	10	0	Page in deed book
PLOTPAGE	C	10	0	Page in plat book
SALEPRICE	N	11	0	Sales price
SALECLASS	C	1	0	Digest class
STRAT	N	1	0	Digest strat
REASON	C	2	0	Sales reason
QUALIFIER	C	2	0	Sales qualifier
MKTVAL	N	10	0	Fair market value
COMMENT	M	10	0	Comments about sale
PTD	C	1	0	Whether or not sale is selected by State Audit Dept (Y/N)
EXISTS	L	1	0	Flag used in the Check In/Check Out process to see if the record existed prior to checkout
PT61_NUM	C	21	0	PT-61 Number
RETT	N	12	2	Real Estate Transfer Tax

Saleinfo (cont)				
Field Name	**Type**	**Length**	**Dec**	**Alias**
INSTRUMENT	C	4	0	Instrument of transfer (Warranty Deed, Quitclaim Deed, etc)
SALES_ADJ	N	11	0	Value deducted from sales price
NET_SP	N	11	0	Sales price less adjustment
MAVVAL	N	10	0	MAV of parcel (only used if changes made to property after sale and prior to 12/31 in the year of the sale)
DIGEST_VAL	L	1	0	If True, Sale Price is to be used as Digest Value
SURVEYSENT	L	1	0	Flag that when True (1) indicates that a survey has been printed and mailed
SURVEYRECEIVED	L	1	0	Flag that when True (1) indicates that a survey has been received by the Assessors Office
SALEACRES	N	8	2	Number of acres sold

Wgsketch				
Field Name	**Type**	**Length**	**Dec**	**Alias**
RECID	N	10	0	WinGAP assigned record number for each record in the table
REPROPKEY	N	10	0	Residential Improvement number
COMMKEY	N	10	0	Commercial improvement number
ACCKEY	N	10	0	Accessory key
MOBILEKEY	N	10	0	Mobile home key
REALKEY	N	10	0	Real property key
RECNUM	N	10	0	Sketch Record Number
IMPKEY	C	4	0	Improvement label
VERTICES	M	10	0	Coordinates of Points (begin/end of line segments)
LABELS	M	10	0	Coordinates of line length
IMPLABEL	M	10	0	Coordinates, label & pt size of label
AREA	N	10	0	Area of improvement
PERIMETER	N	10	0	Perimeter of improvement
EXISTS	L	1	0	Flag used in the Check In/Check Out Process to see If the record existed prior to checkout
SKETCH	M	10	0	Used by new sketch module to store sketch Information in XML data format
DRAW_AREA	N	4	0	Base polygon area – ignores any area / story height multipliers

WinGAP Table Relationships

The 196 WinGAP tables are related or connected to at least one other database via a field called a key. The value in the "key" field will be the same in the related databases, and in most cases the field name will be the same.

There are two types of "key" fields: a PRIMARY key field, and a FOREIGN key field. A primary key field is unique in the table it is found, meaning the number in that field exists only once in that table. For instance, the Primary key Ownkey is unique in the Owner table; Ownkey number 12555 exists only one time in that table. But Ownkey is also found in other tables, such as Realprop and Personal, and there it is called a Foreign key. The data found in a Foreign key field can exist multiple times in a table. For example, the Owner with Ownkey 12555 may own five parcels in Realprop. Each of those records in Realprop would have 12555 in the Ownkey field in that table. But each of those records would also have a Primary key called Realkey, and that number would exist only once in the Realprop table.

In the examples below, different types of WinGAP relational situations are depicted.

Example 1:

For example, Tom Smith owns parcel 001-002 and personal property that is identified as account 2778. The ownership information for Tom Smith is stored in the Owner table. The record that contains the ownership data is given a unique number by WinGAP (in this case let's say the number was 5663). That number is stored in the field called ownkey. When real parcel 001-002 is added to the system, that information is stored in a table called Realprop. The name of Tom Smith is not saved in the Realprop table but instead the number of 5663 is stored in the table Realprop in the field called ownkey.

The same situation occurs with the personal property account 2778 that is owned by Tom Smith. The account is added to the table called Personal where 5663 is saved in the field called ownkey thus relating the account to the ownership information.

Again, to emphasize this point, the field Ownkey that is found in Owner is defined as a *primary key,* meaning the value in the ownkey field is unique. It will occur only once in the Owner table. Tom Smith's record in Owner is known as a *parent*. In the tables Realprop and Personal, the ownkey field is known as a *foreign key.* If Tom Smith owns multiple real property parcels and/or personal property accounts, his ownkey will appear in the Realprop table the same number of times as the number of parcels he owns. It will also appear in the Personal table the same number of times as the number of personal property accounts he has been assigned. In this case, the parcels and personal accounts are known as *child* records with relation to the Owner table.

Example 2:

In some relational situations the relating key is not necessarily a number. This situation exists with tax districts. In the case of tax districts, the schedule table, taxdist, which contains the tax district description along with other data is related to the data record in realprop, personal or mobile through a non-numeric field. The taxdist field is a character data type with two positions for storing the tax district code. When the tax district is selected for a property record the tax district code is stored in the realprop.taxdistric, personal.taxdistric or mobile.taxdist field. The table is dependent upon the property type. The presence of the tax district code in the property record enables the tax district description to be displayed along with the use of other tax district specific information such as Freeport percentages for a particular tax district.

Example 3:

In some situations a much more complicated relationship exists than in the two examples above. This type of situation exists with accessory improvements and the schedule that is used to value such improvements. In the accessory schedule, found in the table called Acc_ctrl, a field called comp_no is given a unique value when a schedule item is added. The value of comp_no is not necessarily a number but it is unique. Also, depending on the accessory type (accessory, extra feature or manufactured home add-on), a value is stored in the acc_ctrl.acctype field. In the process of adding an accessory improvement, the user selects the improvement type from a list of available accessory items found in Acc_ctrl. When the accessory is saved in the table called Acessory, the comp_no that was assigned to that schedule item in Acc_ctrl is stored in the Acessory field also called comp_no. In addition, the accessory type (A, C, M) determined by the screen from which the accessory is added is stored in the acc_type field. This becomes the link back to the schedule so that descriptions that are saved in acc_ctrl can be printed on PRCs, and later schedule updates can be passed down to the Acessory records when reappraise is run. The parent records here are found in Acc_ctrl where comp_no + acctype is a primary key. Acessory contains the child records with the foreign key of comp_no + acc_type.

Another example of such a situation is in the relationship between reason codes for change of assessments, overrides, and sales qualifications and the table that holds the codes and associated descriptions. In this case, the relationship is not a simple field-to-field association. The table called Reason contains all of the codes and descriptions so it is the parent table. Realprop and Personal are the tables that hold the child records. However, all types of reasons for real and personal property are contained in the Reason table so additional information must be used in order to locate and present the correct description for the reason code.

If the description for a change of assessment reason is to be found in the Reason table, the following information must be known:

- reason code
- property type
- reason type

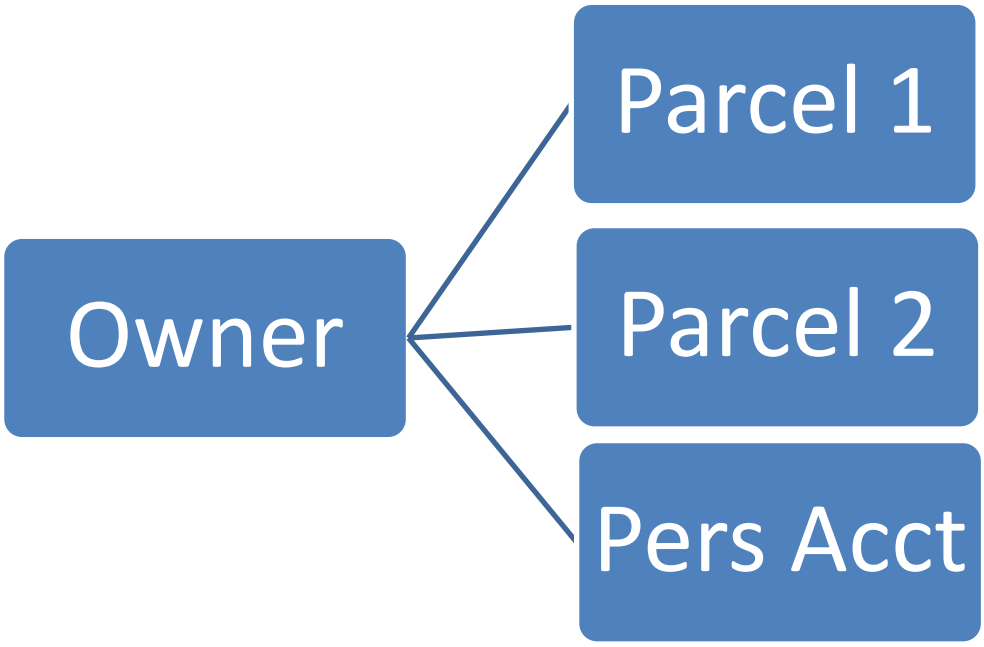
If the assessment reason code for change of ownership is assigned to a real property parcel and that code is CO, then the reason code is CO, the property type is R for real, and the reason type is A for change of assessment. There is no one field found in the parent table of Reason that contains those three items. Three fields, proptype, reasontype, and reasoncode, are put together or concatenated to create the primary key that can be located along with the associated description.

All relationships can be defined as one of three types, one-to-many, many-to-one or one-to-one. In the Example One above, if you have an owner's name and are looking for the properties that are in the owner's possession then the relationship is one-to-many. The single owner may own multiple parcels, personal property accounts and prebilled mfg homes.

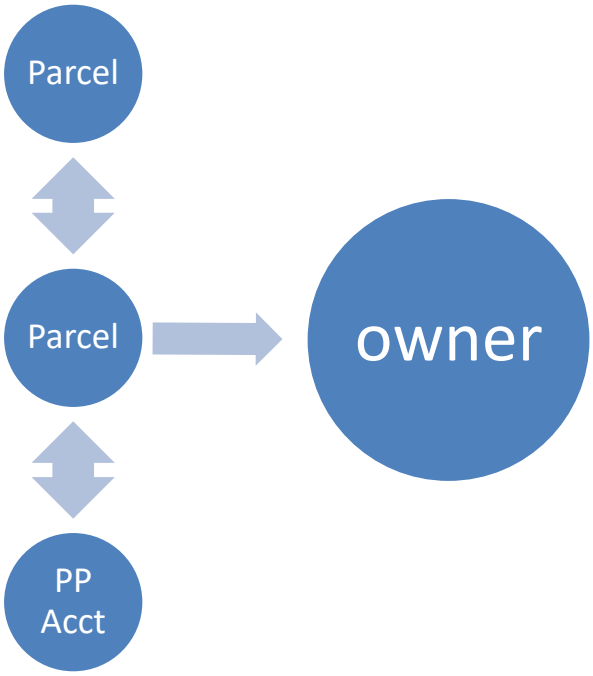
However, if you have parcel ids and are trying to locate the owner, that becomes a many-to-one relationship. In this case, you may have multiple parcel records that may have a single owner record linked to them.

When using the reporting tools and database management tools in WinGAP SQL, the user must understand these three different relationships. Appropriate steps must be taken to set the relationship properly or incorrect information may be applied or presented. The relationship type and the end product desired will dictate which of the three different types of SQL "joins", inner, right or left, will be used. The joins will be more fully discussed later.

One-to-Many Example:

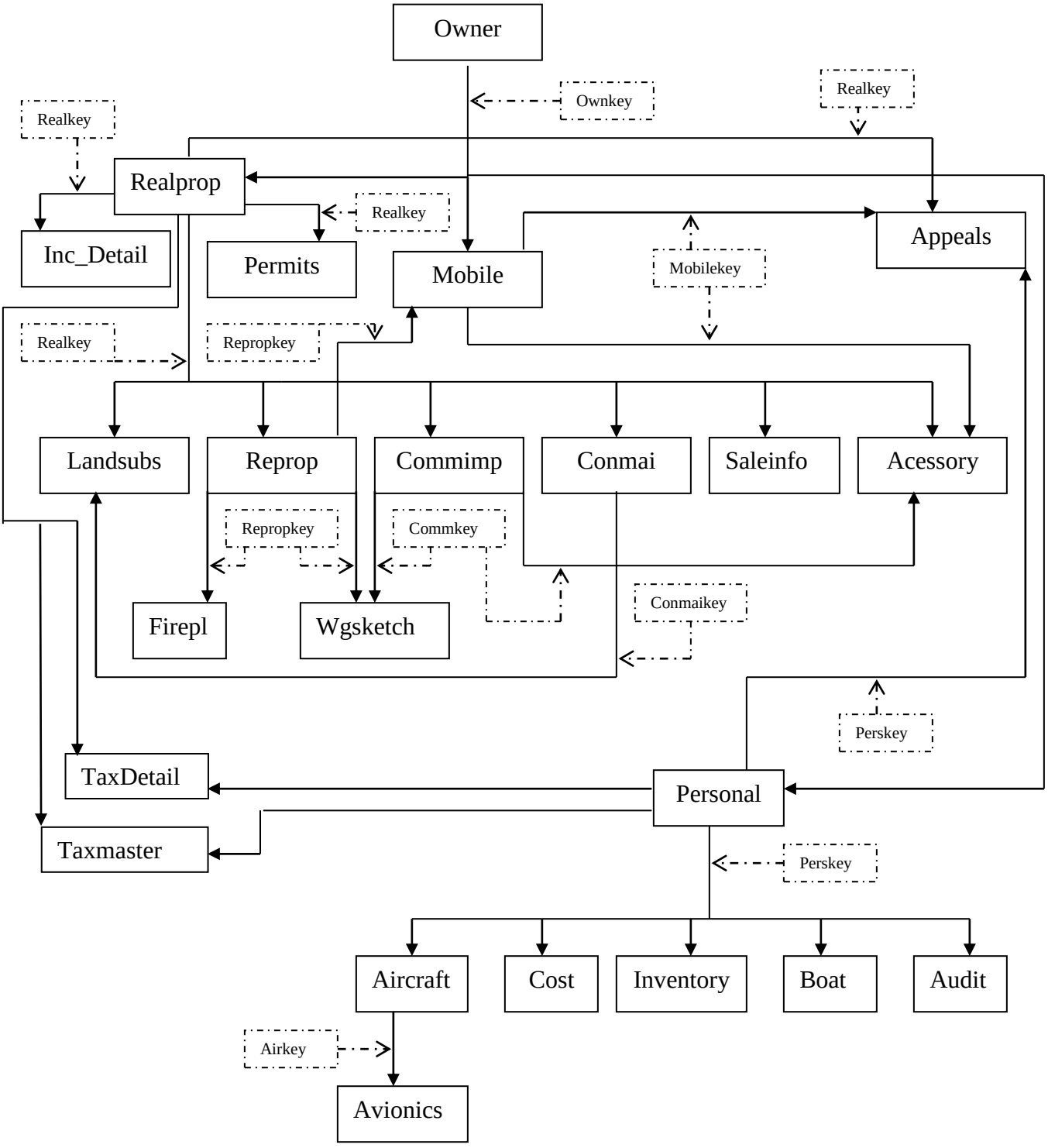


Many-to-One Example:



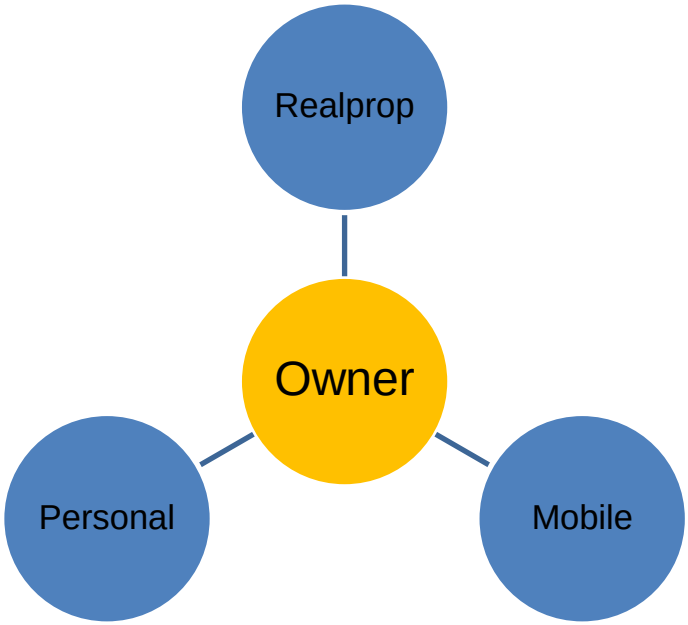
WinGAP Relationship Chart for Data Tables

Below is a graphical representation of the major tables in WinGAP and their association with other tables. The tables are found in the solid-lined boxes and the solid arrows point to the child table(s). The information found in the broken-lined boxes is the key that links the tables. The broken arrows point to the relationship line that the key is associated with.



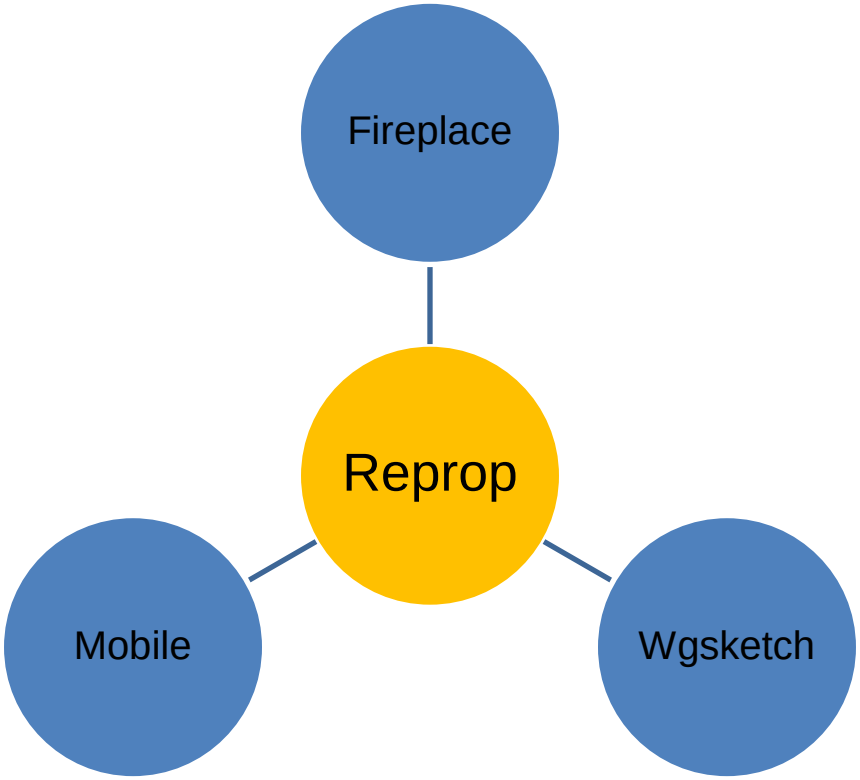
WinGAP Data Table Relationships

Owner and Child Tables:

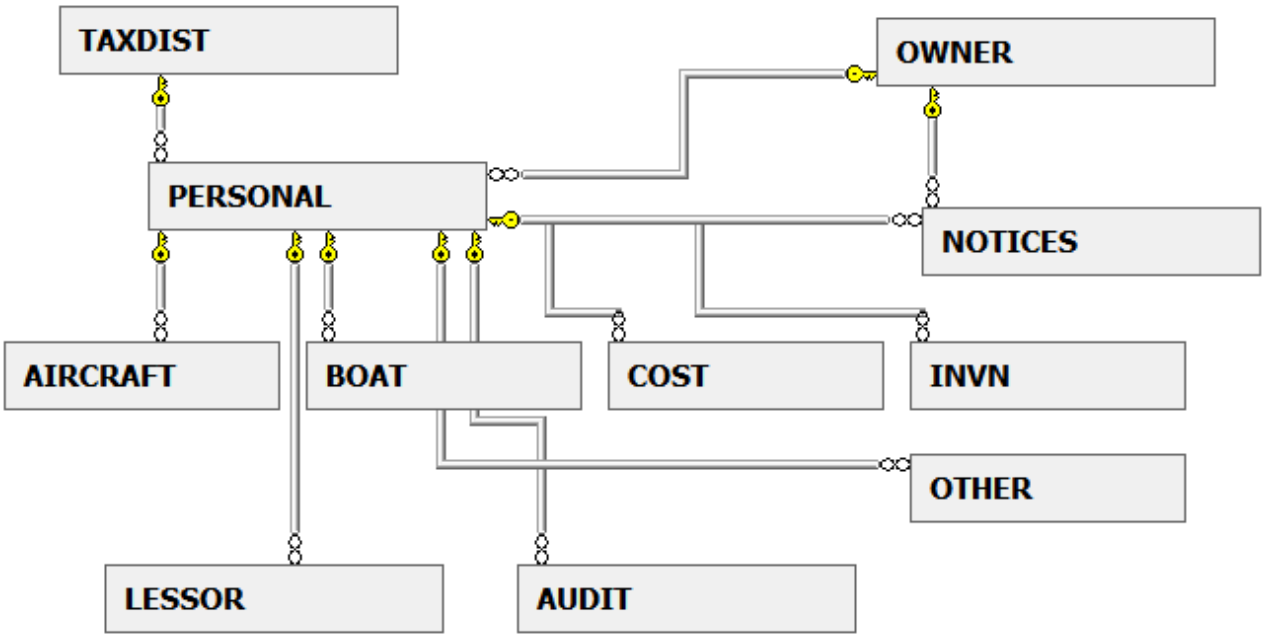


Realprop and Child Tables:

Reprop and Child Tables:



Personal and Associated Tables:



WinGAP Table Relationships Exercise

1. **Is the owner to realprop relationship a one-to-many or a many-to-one ?**

2. **What would be the relationship type for boat records associated with personal property accounts?**

3. **List the table(s) that may contain child records for mfg homes:**

4. **List the table(s) that may contain a parent record for mfg homes:**

5. **Create a table relationship path that would allow one to locate the owner of avionics equipment:**

6. **Define a table relationship path that would show the owner of a deck attached to a non-prebilled mfg home.**

WinGAP Database Management

There are two primary database management tools that can be used with WinGAP SQL tables: Microsoft SQL Server Management Studio (hereafter called SSMS), and SQL Master. Both of these programs are graphical applications that allow the user to open tables, make modifications to data, and perform some of the more routine database functions.

While graphical in nature and appearance, SSMS and SQL Master are still command line oriented database managers. Both offer the user the full range of database management tools, WinGAP compatibility, and speed. SSMS comes with SQL Express at the time WinGAP SQL is installed. Since SQL Master is the integrated database manager in WinGAP, the database management portion of the class will be primarily dedicated to the use of SQL Master and its command line oriented system. SSMS will also be demonstrated if time permits.

It should be noted that many of the SQL commands that will be discussed can be used in Visual FoxPro on the current WinGAP Version 3 data. With that, VFP can, also, be listed as a database management tool.

The remainder of the discussion in this manual that relates to Database Management will deal with using SQL Master and SSMS to manage WinGAP data. References will be made to Visual FoxPro when appropriate. Before effectively working with SQL Master or SSMS, the user must become familiar with the terminology and commands. On the following pages, some of the most used terms and commands will be explained.

WinGAP Database Management

Data/Field Types

There are 5 basic data/field types that are used in the WinGAP databases, character, numeric, date, logical, and memo. The user must be aware of the type of data that is stored in a field and apply the applicable rules before performing any type of operation on the data. Below are the five data types and any rules that should be applied:

1. **Character** - Fields of this data type can hold any characters that can be keyed from the keyboard. Letters, numbers, punctuation and special symbols can all be stored in this field type. The basic rules for working with character data/fields are:
    a. Character data cannot be placed in a numeric, date, or logical field without being converted to the other data type
    b. Character data in a SQL command must be delimited with the apostrophe, ‘ , or single quote delimiter (immediately left of the Enter key on most keyboards). Do not use the " double quote delimiter that can be used in Fox.
2. **Numeric** – Numeric data/fields only hold numbers, minus signs, or decimal points. The basic rules for working with number data/fields are:
    a. Numeric data cannot be placed in character fields without delimiting it with ‘ or “.
    b. Int, BigInt and TinyInt are all considered as numeric data types
3. **Date** – Date data/fields are special types that hold data formatted as yyyy-mm-dd. The same basic rules for working with character data apply to date fields when querying for a year. However, the special functions year(), month() and day(), must be used to query dates.
4. **Logical** – Logical data/fields consist of True or False values if working in FoxPro. With SQL Master or SSMS, logical values are translated as 0 for False and 1 for True. The applicable rules for working with logical data/fields are**:**
    a. Logical operator of ! is used when false values are sought in FoxPro. (!val_chg for Fox and val_chg = 0 for SQL)
    b. For True queries, use field name (val_chg in Fox or val_chg = 1 for SQL)
    c. Only a .T. or .F. may be placed in a logical field
5. **VarChar(max)** – VarChar(max) fields are special character (memo) fields that have no fixed length. They will accept the same type of data as a character field.

WinGAP Database Management

Operators

Operators are functions that allow the user to perform operations on data and combine data or expressions. There are three primary operator types used in WinGAP database management. Each will be discussed below:

1. **Arithmetic** – used in mathematical operations with the exception of the plus sign (+) which can be used to combine text
    a. + : adds numbers or fields and concatenates character fields
        i. 7 + 2 = 9
        ii. a_value + p_value = land value
        iii. digclass + digstrat = digest code (R + 1 = R1)
    b. - : subtracts numbers of fields
        i. 6 – 4 = 2
        ii. total_invn – total_net = taxable inventory
    c. * : multiplies numbers or fields
        i. 8 * 7 = 56
        ii. curr_val * .40 = assessment
    d. / : divides numbers or fields
        i. 10 / 2 = 5
        ii. invn_val / bldgsf = inventory per square foot
    e. SQRT(n), SQUARE(n), POWER(n,y) : exponentiation of numbers or fields
        i. POWER(3,4) = 81 (3 raised to the 4th power)
        ii. SQRT(timp_val) = square root of improvement value
    f. () : groups expressions; otherwise, hierarchy of MDAS is used
        i. (6 + 4) / 2 = 5
        ii. (a_value + p_value) / totalacres = land $ per acre

2. **Comparison** – used to compare two values
    a. < : less Than
        i. 6 < 8
        ii. heatedarea < 1000
    b. > : greater than
        i. 10 > 9
        ii. curr_val > a_value + p_value
    c. = : equals to
        i. 3 = 3
        ii. lastname = ‘SMITH’
    d. <> : not equal to
        i. a <> b
        ii. parcel_no <> ‘001’
    e. <= : less than or equal to
        i. meff_val <= 50000
    f. >= : greater than or equal to
        i. invn_val > = 100000

3. **Logical** - compares two or more expressions to determine if data is selected
    a. and : all compared expressions must be true
        i. grade > 1.00 and heatedarea < 1000
    b. or : either of the expressions may be true
        i. lastname = ‘SMITH’ or lastname = ‘JOHNSON’
    c. not : expression is not true
        i. not notice
    d. () : used for grouping
        i. (propclass=’C’ or propclass=’I’) and invn_val > 100000

As can be seen in some of the examples above, all 3 operators can be used in various combinations to produce the desired results.

WinGAP SQL Database Management

Commands and Syntax

In order to perform operations in SQL the user must issue commands and use the proper syntax. The commands and syntax are very structured and must be adhered to or the user will receive error messages and/or undesirable results. Below is a list of the most commonly used commands with accompanying syntax:

1. **SELECT** (Command)**:** Retrieves data from one or more tables.

   Syntax

   SELECT Select_List
   FROM Table_List
   [WHERE Conditions]
   [ORDER BY Column_List]

2. **WHERE**: the WHERE clause specifies conditions that determine the rows that the query returns.

   Comparison:

=	Equal
<>	Not equal (or)
!=	Not equal
>	Greater than
>=	Greater than or equal to
<	Less than
<=	Less than or equal to
LIKE	SQL LIKE operation – values must match the expression, which can contain wild card characters (%) for inclusion in the results.

   Syntax

   Fieldname Comparison Expression

   or

   Fieldname [NOT] LIKE *Expression* | IS [NOT] NULL | [NOT] BETWEEN *Start_Range* AND *End_Range* | [NOT] IN *Value_Set*

   Usage

   Curr_val > 1000
   Curr_val BETWEEN *1000* AND *5000*
   DigClass IN ('R','A','C')
   DigClass NOT IN ('U','E')
   Lastname = 'SMITH'
   Lastname LIKE 'SMIT%'

3. **ORDER BY**: the ORDER BY clause specifies one or more items used to sort the final query result set and the order for sorting the results. If you do not specify an order in the ORDER BY clause, query results appear in no order (Natural Order). Ascending (ASC) order is the default order.

   Syntax

   [ORDER BY *Order_Item* [ASC | DESC] [, …]]

   Usage

   ORDER BY *lastname* DESC, firstname ASC

4. **SELECT** (clause): the SQL **SELECT** clause specifies the fields, constants, and expressions to display in the query results.

   Syntax

   SELECT [ALL | DISTINCT] [TOP *nExpr* [PERCENT]] *Select_List_Item* [AS *Column_Name*] [, …]

   [ALL | DISTINCT] – display all rows in the query results, by default, or exclude duplicates of any rows from the query results. You can use DISTINCT only once per select clause.

   [TOP *nExpr* [PERCENT]] – specifies that the query result contain a specific number of rows or a percentage of rows of the query result. ***ORDER BY clause is required when using TOP***

   Select_List_Item – specifies one or more items to match and include in the query results. Each item in the list generates one column in the query results. *Select_List_Item* can specify the following items:

   > a constant value that appears in every row of the query result

   > an expression that can contain user-defined functions or sub queries

   [AS Column_Name] – specifies a name for a column in the query output.

   Usage

   SELECT TOP 25 *curr_val* FROM *realprop* ORDER BY *curr_val desc*
   SELECT TOP 5 PERCENT *curr_val* FROM *realprop* ORDER BY *curr_val desc*
   SELECT *curr_val* AS *Current_Value* FROM *realprop*
   SELECT *curr_val * .4* AS *AssessedValue* FROM *realprop*

5. **UPDATE**: updates records in a table with a new value

   Syntax

   UPDATE *Target*
   SET *Column_Name1 = eExpression1* [, *Column_Name2 = eExpression2* …]
   [FROM *Table_List_Item*
   WHERE *FilterCondition*]

Usage

```
UPDATE realprop
        SET middle = upper(middle)

UPDATE owner SET zip = '30664' WHERE city = 'XYZ'

UPDATE personal SET curr_val = invn_val + meff_val + boat_val + plane_val + other_val

UPDATE realprop SET comment1 = comment1 + 'COA NOTICE SENT 04/01/2010' WHERE
val_chg
```

6. **SUM**: The sum command provides the user with the ability to calculate the total of a numeric field or list of fields. The command is used as part of the select's Field_List_Item arguments list. As such, the sum command can be used in conjunction with any criteria valid for use with the normal SELECT clause.

   Syntax

   SELECT SUM(*nNumericField*) [, …] FROM TableName [WHERE *cCondition*]

   Usage

   SELECT SUM(*curr_val*) FROM *personal*
   SELECT SUM(*curr_val)*,SUM(*prev_val*), SUM(*curr_val*.4*) FROM *realprop*
   SELECT SUM(*totalacres*),SUM(*curr_val*) FROM *realprop* WHERE *digclass='V'*
   SELECT SUM(*boat_value*) FROM *boat*

7. **AVG**: The average command provides the user with the ability to calculate the average of a numeric field or list of fields. The command is used as part of the select's Field_List_Item arguments list. As such, the AVG command can be used in conjunction with any criteria valid for use with the normal SELECT clause.

   Syntax

   SELECT AVG(*nNumericField*) [, …] FROM TableName [WHERE *cCondition*]

   Usage

   SELECT AVG(*curr_val*) FROM *personal*
   SELECT AVG(*curr_val)*,AVG(*prev_val*), AVG(*curr_val*.4*) FROM *realprop*
   SELECT AVG(*totalacres*),SUM(*curr_val*) FROM *realprop* WHERE *digclass='V'*
   SELECT AVG(*boat_value*) FROM *boat*

8. **COUNT**: The count command is used to determine how many records meet a specified set of criteria. The command is used as part of the select's Field_List_Item arguments list. As such, the COUNT command can be used in conjunction with any criteria valid for use with the normal SELECT clause.
Syntax

SELECT COUNT(*) FROM TableName [WHERE *cCondition*]

Usage

SELECT COUNT(*) FROM *personal*
SELECT COUNT(*) FROM *realprop*
SELECT COUNT(*) FROM *realprop* WHERE *digclass='V'*
SELECT COUNT(*) FROM *boat*

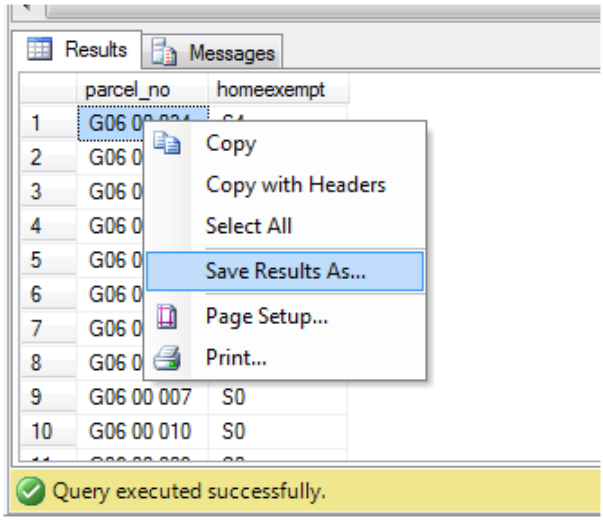
9. **COPY TO:** FoxPro uses the Copy To command to create a new table from the contents of the currently selected table. SSMS and SQLMaster use a graphical interface to do this. The process is slightly different for each database manager and will be discussed separately below. The creation of an Excel table will be used to demonstrate each process.

SSMS

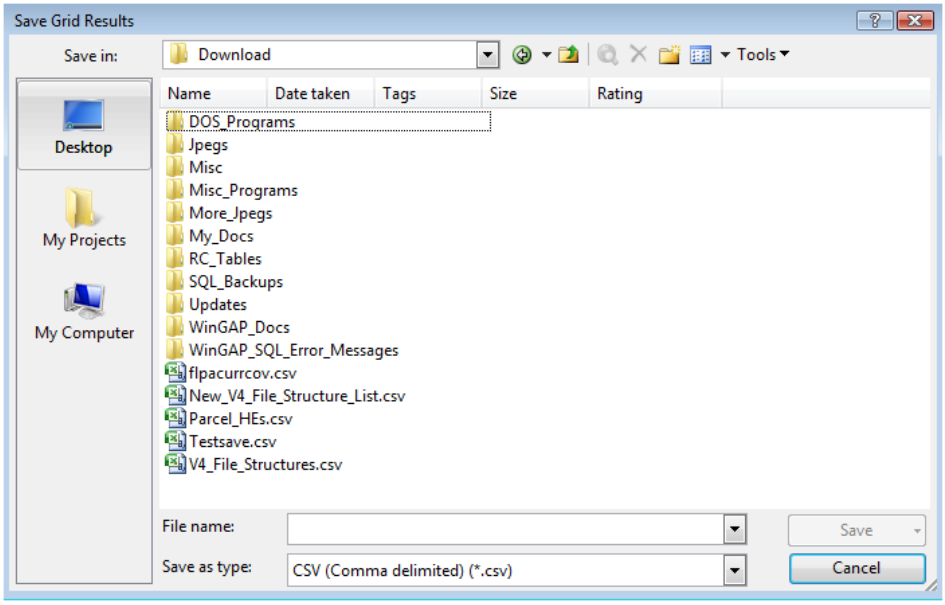
First, execute the SQL query to create the data that is to be used. In the example below, the data in the fields Parcel Number and Homestead Exemption are obtained from Realprop.

Method One

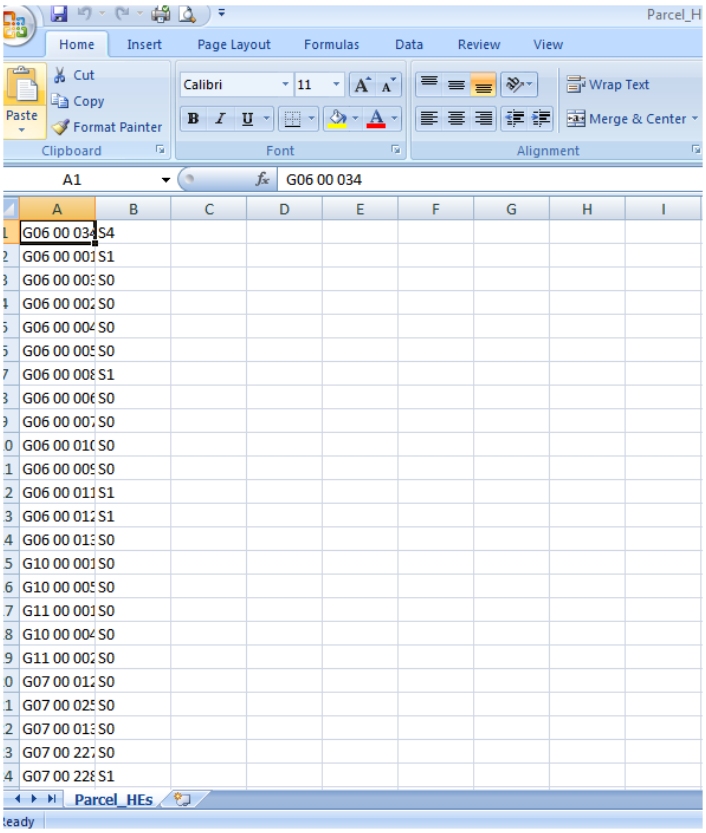
Right click on the resulting record set and select Save Results As…



In the window that appears, seen below, select the appropriate location where the new table is to be saved. Then key the table name of the new table in the File Name field, and click Save. This example will create a type of Excel table known as a Comma Separated Values table, also known as a Comma Delimited table.

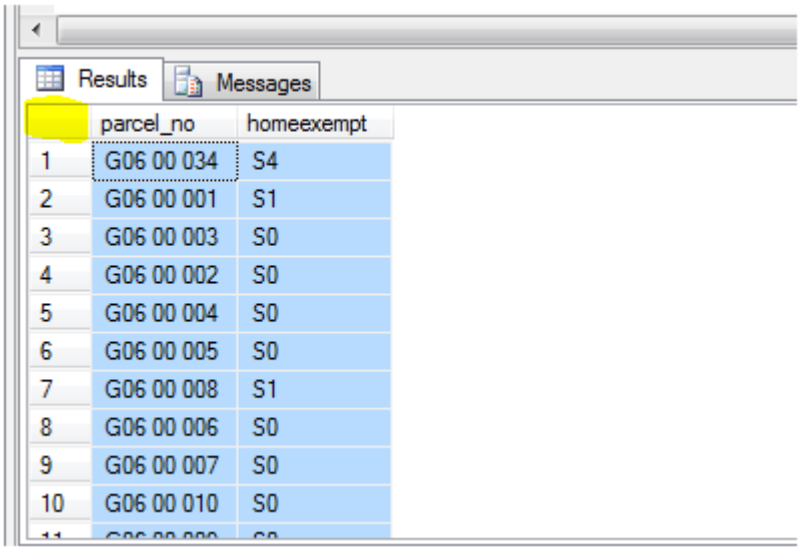


If you open this new table, it will appear similar to the image below.

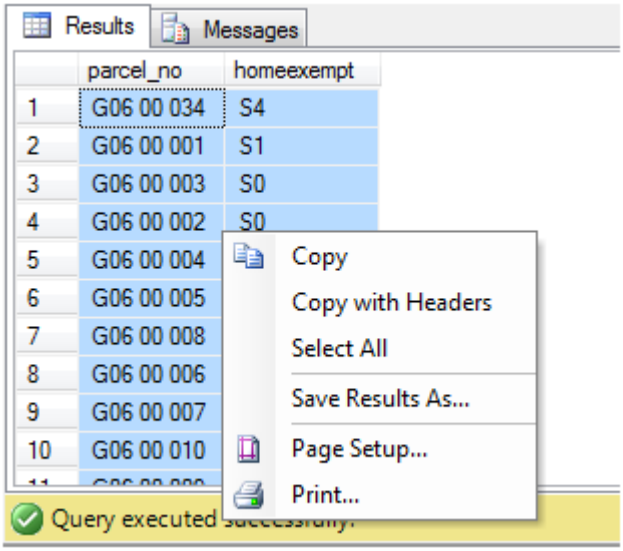


Method Two

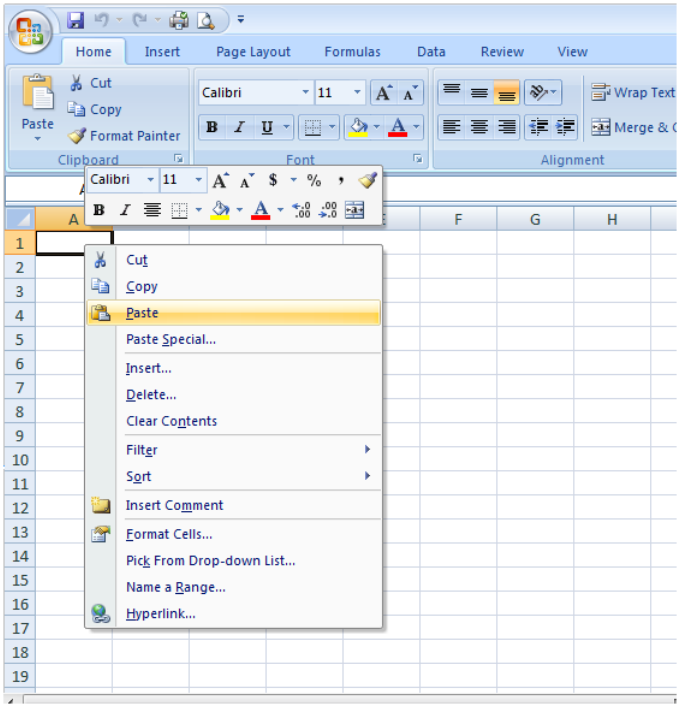
Select the entire record set by clicking in the section highlighted in yellow, as seen below. The selected columns and rows will turn blue.



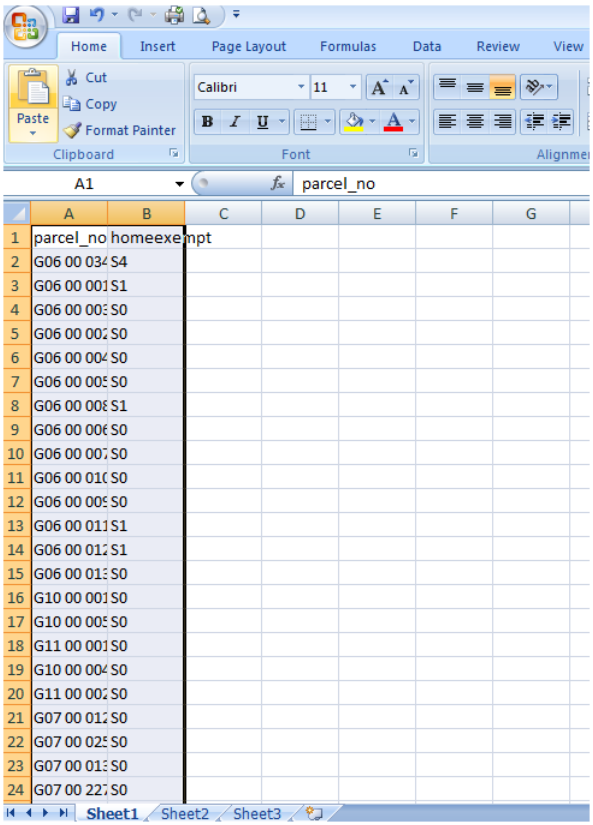
Right click on the selected blue area. On the menu that appears, select either Copy or Copy with Headers, depending on what the user wants in the new table.



Open Excel and select Paste.



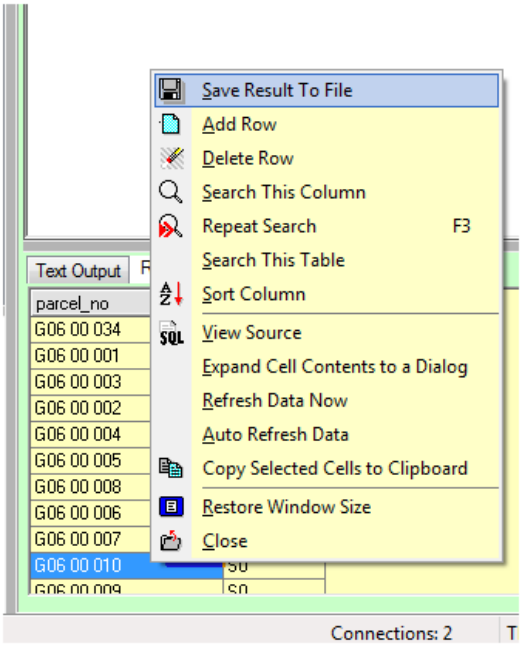
The copied records should appear. The new table can be saved with the appropriate file name.



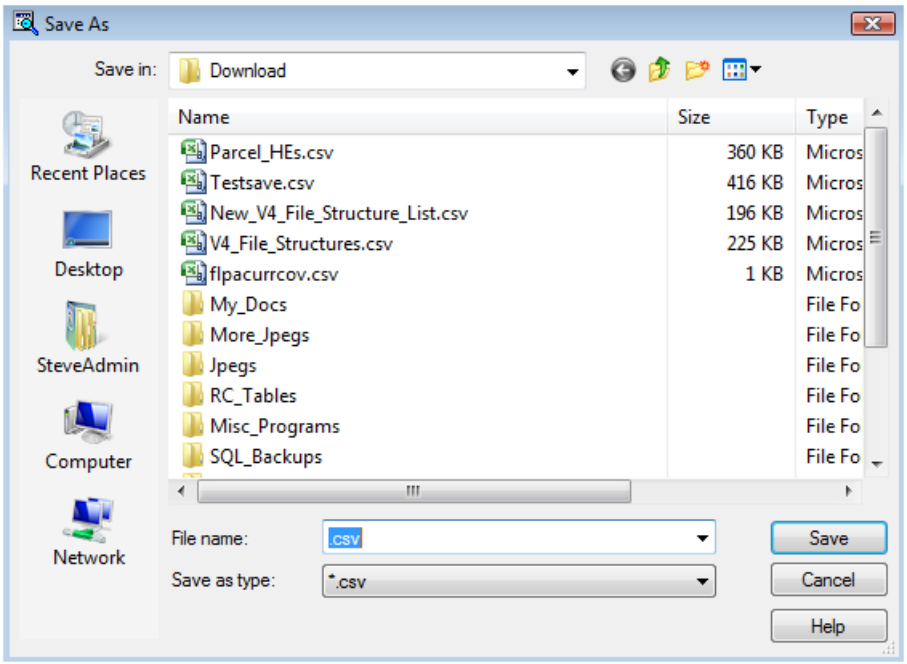
SQLMaster

As with SSMS, execute the SQL query to create the data that is to be used. In the example below, the fields Parcel Number and Homestead Exemption are obtained from Realprop.

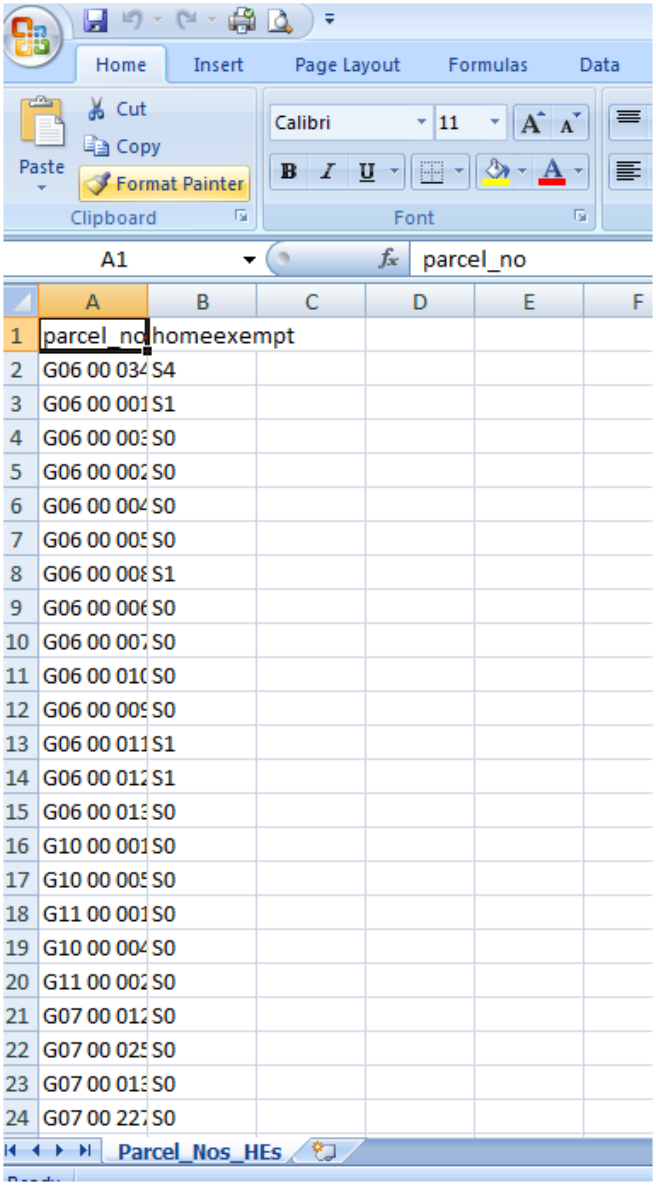
Right click on a record in a data row (not the column header) and on the menu that appears, select Save Result To File, as seen below.



As discussed previously with SSMS, select a location for the table, key a table name in the File Name field, and click Save.



Open the table with Excel.



Note: The maximum number of records that can be copied to an Excel table varies according to the version of Excel being used, as follows:

Excel 2003: 65,536 rows by 256 columns
Excel 2007: 1,048,576 rows by 16,384 columns
Excel 2010: 1,048,576 rows by 16,384 columns
Excel 2013: 1,048,576 rows by 16,384 columns
Excel 2016: 1,048,576 rows by 16,384 columns

WinGAP Database Management

Functions

Functions are variants of commands that provide enhanced functionality in the management of databases. Functions are always followed by () with some expression, value or field usually contained within the parenthesis. Functions always return a value after the data within the parenthesis is evaluated.

1. **ABS():**
    a. Purpose - To calculate the absolute value of a number
    b. Syntax - Abs(<nNumber>) nAbsValue
    c. Argument - <nNumber> is the number to determine the absolute value of
    d. Returns - Abs() returns the absolute value of <nNumber>.

    Example:

    a. Obtain the absolute total of the value in dispute

    i. select sum(abs(vid)) from appeals

2. **CHARINDEX():**
    a. Purpose – Searches cSearchIn for cSeachFor and returns its starting position if found. The search starts at nLocation
    b. Syntax - CharIndex(<cSearchFor>, <cSearchIn>) nLocation
    c. Argument - <cSearchFor> is the character string to search for <cSearchIn> is the character string to search
    d. Returns - Charindex() returns a numeric indicating the location of <cSearchFor> within <cSearchIn>. If <cSearchFor> is not found, Charindex() returns 0.

    Example:

    a. Find all parcels with a notation in comments that there is a locked gate on the property

    i. select parcel_no from realprop where charindex ('locked gate',lower(comment1)) > 0

3. LEFT():

a. Purpose – Returns the left part of a character string with the specified number of characters

b. Syntax - Left(<character_expression>, <integer_expression>)

c. Argument – <character_expression> is an expression of character or binary data, and can be a constant, variable, or column. <integer_expression> is a positive integer that specifies how many characters of the character expression will be returned.

d. Returns - Left() returns a character string or binary data type.

Example:

b. Find all parcels with where the word “Lot” is the first 3 characters in the Legal Description

i. select parcel_no, legal_desc from realprop where left(legal_desc, 3) = ‘Lot’

4. RIGHT():

a. Purpose – Returns the right part of a character string with the specified number of characters

b. Syntax - Right(<character_expression>, <integer_expression>)

c. Argument – <character_expression> is an expression of character or binary data, and can be a constant, variable, or column. <integer_expression> is a positive integer that specifies how many characters of the character expression will be returned.

d. Returns - Right() returns a character string or binary data type.

Example:

a. Find all parcels with where the word “Farm” is the last 4 characters in the Legal Description

i. select parcel_no, legal_desc from realprop where right(legal_desc, 4) = ‘Farm’

5. GETDATE():

a. Purpose - Returns the current system date and time

b. Syntax - GETDATE()

Examples:

a. Replace reviewdate with today's date for all accounts for taxdistrict = 01

   i. Update personal set reviewdate = getdate() where taxdistric = '01'

b. Replace reviewdate with today's date for all parcels on map number = 001

   ii. Update realprop set reviewdate = getdate() where left(parcel_no,3) = '001'

6. INT(): (must be used with the Convert() function)

a. Purpose - INT() returns only the integer portion of a number or numeric field. No rounding takes place. It is useful in situations where values need to be truncated instead of rounded or other times when only the integer portion of a number is needed

b. Syntax - INT(*nExpression*)

c. Argument - <nExpression> specifies the numeric expression for which INT( ) returns the integer portion.

d. Returns – Numeric

Example:

a. Replace the second year value of a conservation use covenant with a value that does not exceed the 3% maximum change

   i. update conmai set val1 = convert(int,(val0)) * 1.03 where val1 = 0

7. ROUND()

a. Purpose - To return a numeric value rounded to a specified number of digits.

b. Syntax - Round(<nNumber> , <nDecimals>) nRounded

c. Arguments –

   i. <nNumber> is the numeric value to round.

   ii. <nDecimals> is the number of decimal places to retain.

d. Returns - Round() returns a numeric value rounded to <nDecimals> decimals.

Example:

a. Browse the per acre value rounded to 2 decimal positions for rural land with non-overridden land values

i. Select parcel_no, round((a_value+p_value)/totalacres,2) as PerAcre from realprop where totalacres > 0 and land_type = 3

8. SPACE():

a. Purpose - To return a string of spaces

b. Syntax - Space(<nCount>) cString

c. Arguments - <nCount> is the number of spaces to return.

d. Returns - Space() returns a string of <nCount> spaces.

Example:

a. Replace all SSN's with spaces in a table called owner_temp

i. Select * into owner_temp from owner
ii. Update owner_temp set ssn=space(11), ssn1=space(11)

9. STR():

a. Purpose - To convert a numeric expression to a character string

b. Syntax - Str(<nNumber> , <nLength> , <nDecimals>) cNumber

c. Arguments –

i. <nNumber> is the numeric value to convert

ii. <nLength> is the length of string to return including decimals and decimal point

iii. <nDecimals> number of decimals to return

d. Returns - Str() returns <nNumber> formatted as a character string

Example:

a. Replace county id number in personal with the owner key

i. update personal set co_id_num = right(str(ownkey,10,0),8)

10. SUBSTRING():

a. Purpose - To extract a substring from a character string

b. Syntax - SubString(<cString> , <nStart> , <nCount>) cSubString

c. Arguments -

i. <cString> is the character string in which to extract a substring

ii. <nStart> is the starting position in <cString>

iii. <nCount> is the number of characters to extract

d. Returns - SubString() returns a substring of <cString>.

Example:

a. Determine the number of zip codes that have a zip+4 code

i. Select count(*) from owner where substring(zip,6,4) > space(4)

11. YEAR():

a. Purpose - To retrieve the year from a date

b. Syntax - Year(<dDate>) nYear

c. Arguments - <dDate> is the date to determine the year from

d. Returns - Year() returns the year of the specified date.

Example:

a. Determine the number of sales that took place in 2003

i. Select count(*) from saleinfo where year(saledate) = 2003

12. MONTH():

a. Purpose - To convert a date value to a month number

b. Syntax - Month(<dDate>) nMonth

c. Arguments - <dDate> is the date to convert.

d. Returns - Month() returns a numeric value in the range of 1 to 12 representing the month of <dDate>

Example:

a. Determine the number of sales that took place in 2003 within the month of January

i. Select count(*) from saleinfo where year(saledate) = 2003 and month(saledate) = 1

13. DAY():

a. Purpose - To calculate the day of the month as a numeric value.

b. Syntax - Day(<dDate>) nDay

c. Argument - <dDate> is the date to convert.

d. Returns - Day() returns a number in the range of 1 to 31 as a numeric value

Example:

a. Determine the number of sales that took place on the 15th day of any month in 2003

i. Select count(*) from saleinfo where year(saledate) = 2003 and day(saledate) = 15

14. UPPER():

a. Purpose - To convert lower case characters to upper case

b. Syntax - Upper(<cString>) cUpperString

c. Arguments -<cString> is the character string to convert

d. Returns - Upper() returns a copy of <cString> with all alphabetic characters converted to uppercase.

Example:

a. Determine the number of owners whose last name begins with “SMITH”

i. Select count(*) from owner where upper(lastname) = ‘SMITH’

15. LOWER():

a. Purpose - To convert upper case characters to lower case

b. Syntax - Lower(<cString>) cLowerString

c. Arguments -<cString> is the character string to convert

d. Returns - Lower() returns a copy of <cString> with all alphabetic characters converted to lowercase.

Example:

a. Determine the number of owners whose last name begins with “smith”

i. Select count(*) from owner where lower(lastname) = ‘smith’

16. LTRIM, RTRIM():

a. Purpose - Returns the specified character expression with leading (Ltrim) or trailing (Rtrim) blanks removed.

b. Syntax - LTRIM(*cExpression*), RTRIM(cExpression)

c. Arguments – *cExpression* specifies the character expression from which leading (Ltrim) trailing (Rtrim) blanks are removed.

d. Returns – Character

Example:

a. Display an owner’s name as you would typically write it with a single space between the different segments of the name.

i. Select rtrim(lastname) as ownername from owner

ii. Select rtrim(ltrim(lastname)) as ownername from owner

17. LEN():

a. Purpose - Returns the length, or number of characters in a character expression.

b. Syntax - Len(*cExpression*)

c. Arguments -<cExpression> specifies the character expression for which LEN( ) returns the number of characters.

d. Returns – Numeric

Example:

a. Count the number of parcel ids that contain a sub parcel identifier. The map and parcel number occupy the first 11 characters of the parcel number field.

i. select count(*) from realprop where len(parcel_no) = 11

18. CONVERT():

a. Purpose - allows you to convert an expression from one datatype to another datatype.

b. Syntax - Convert(int,*cExpression*)

Or

Convert*(float,cExpression)*

c. Arguments – *cExpression* specifies the character expression that is to be converted to the other datatype. The Int and Float variables are used depending on what is to be converted.

d. Returns – Character

Example:

a. Display the owner key, the mobile key, the width, the length and the calculated area of all prebilled manufactured homes.

i. Select ownkey, mobilekey, width, length, convert(int,width) * convert(int,length) as calcarea from mobile where mobtype = 3

WinGAP Reporting Services

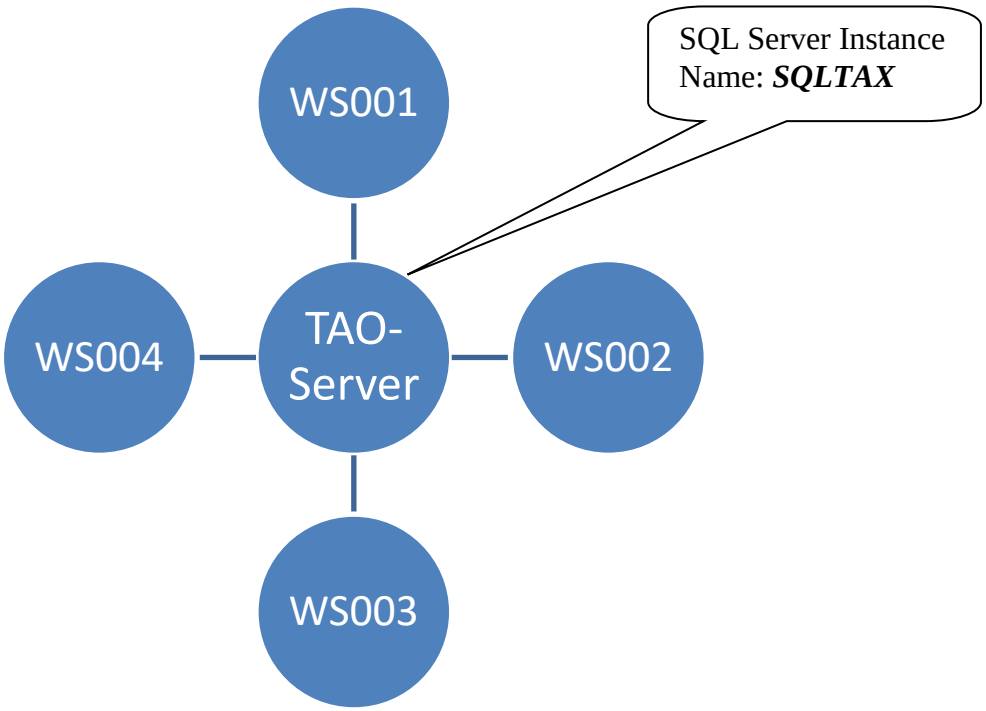
Reporting services (RS) is a Microsoft ® product and is bundled with SQL Server. Reporting Services (RS) is a complete reporting tool. RS enables the user to deal with report creation, report maintenance, report delivery, and report access control.

Report creation and maintenance will be discussed in detail in this course. Report delivery and report access are beyond the concepts and time available in this entry level course and will be discussed in the next course.

Before discussion of how to add and maintain reports, let's discuss some preliminary topics first. The first topic we should address is data access. It is necessary and imperative to ***"know your data"*** and know how to find your data. The first portion of this course discussed database design and table relationships. The knowledge obtained in that segment of the course will really pay dividends in this section of reporting. You've already see the term *database.* Some additional terms you'll see in RS are *data source* and *data set.*

RS will need to know where your data is found. SQL Server is installed somewhere on your network or on your local PC. Databases are found in SQL Server. So how do we find SQL Server? When SQL Server is installed on a PC, it (SQL Server) is given an instance name. Instance names can be basically any normal name; in our training environment, the instance name used for SQL Server is "sqlexpress". Instance names allow multiple instances of SQL Server to run simultaneously on the same server. This is a good thing as often times GIS will want their data separate and secure from the TAO's CAMA data, and vice-versa. The SQL Server instance, combined with the PC name on which SQL Server is installed is the information we need to connect to SQL Server.

Take the following example network. In this example SQL Server was installed with an instance name of ***SQLTAX***. The PC name where SQL Server is installed is named ***TAO-SERVER***.



Using the information we learned in the previous paragraph, the location of SQL Server, and hence, the databases attached to our SQL Server instance is ***TAO-SERVER\SQLTAX***. Equipped with this information any of the four workstations above can connect to SQL Server using that connection name information ***TAO-SERVER\SQLTAX***.

In our classroom training configuration, the PC name is "wingap" and the SQL Server instance name is ***sqlexpress***. Therefore our training machine's SQL Server and databases attached thereto, are located at ***WINGAP-PC\SQLEXPRESS***.

Now that we've identified the location of our 'databases' we are ready to discuss the RS specific terms of *data source* and *data set*. Data sources are the same as the databases. When RS asks you to identify a data source, RS is really asking you "***where***" the data is located. The data set answers the "what data do you want to see" question. The data set is created using the report query. Learning to build report queries is an art unto itself, we'll learn that in time. For now, we simply need to understand that the data set is going to ask for fields from specific tables as shown in the examples below.

Example one:

WHERE: User wants a listing from the 2010 digest
WHAT: User wants a listing of owner's names
DATA SOURCE = AY2010
DATA SET = SELECT LASTNAME FROM OWNER

Example two:

WHERE: User wants a listing from the 2011 digest
WHAT: User wants a listing of house grades
DATA SOURCE = AY2010
DATA SET = SELECT GRADE FROM REPROP

The version of RS installed is directly related to which version of SQL Server you installed.

- SQL Server Express with Advanced Services – free, limited functionality
- SQL Server workgroup – economy version – avoid if possible
- SQL Server Standard – Core features and functionality – minimum
- SQL Server Enterprise – Fully featured and priced as such – this version will do it all.
- SQL Server Developer – Same as enterprise but not licensed for multi-users – developers only
- SQL Server Evaluation – 180 day evaluation of the Enterprise version

Most of our discussion will focus on SQL Server Express 2008. There are some limitations of the express version of RS, namely, the ability to query remote data and the ability to schedule events on the report server.

In production environments, you may be exposed to the full array of available reporting tools, depending on your version of SQL Server / Reporting Services as well as the configuration of your tools by your IT department. We might be smart to at least introduce you to some of the tools that are [potentially] available to you as part of Reporting Services and SQL Server. We will briefly introduce you to four of those tools below: Report Designer, Report Builder 1.0, Report Builder 2.0, Report Builder 3.0.

- Report Designer
  - Most powerful, full featured report designer engine for SQL Server.
- Report Builder 1.0
  - ad-hoc reporting
  - useful for non-technical users
  - no transact SQL (t-sql) experience required

- limited functionality

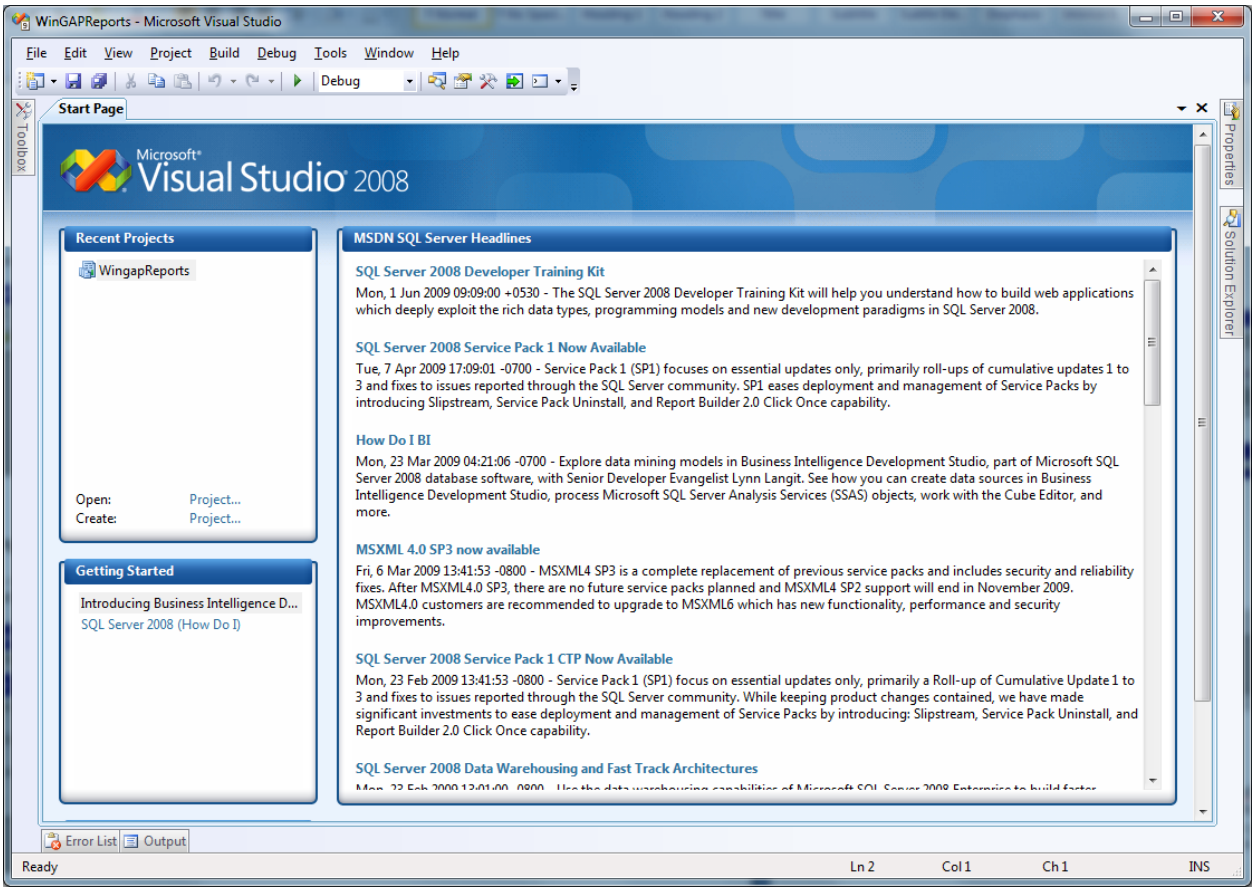
- Report Builder 2.0
  - Slightly different but very similar to 1.0

- Report Builder 3.0
  - Yet another ad-hoc reporting engine, does require some t-sql experience

Our training course will focus on the report designer of Reporting Services. From this point forward the term Reporting Services will be synonymous with Reporting Services - Report Designer and simply referenced by "RS".

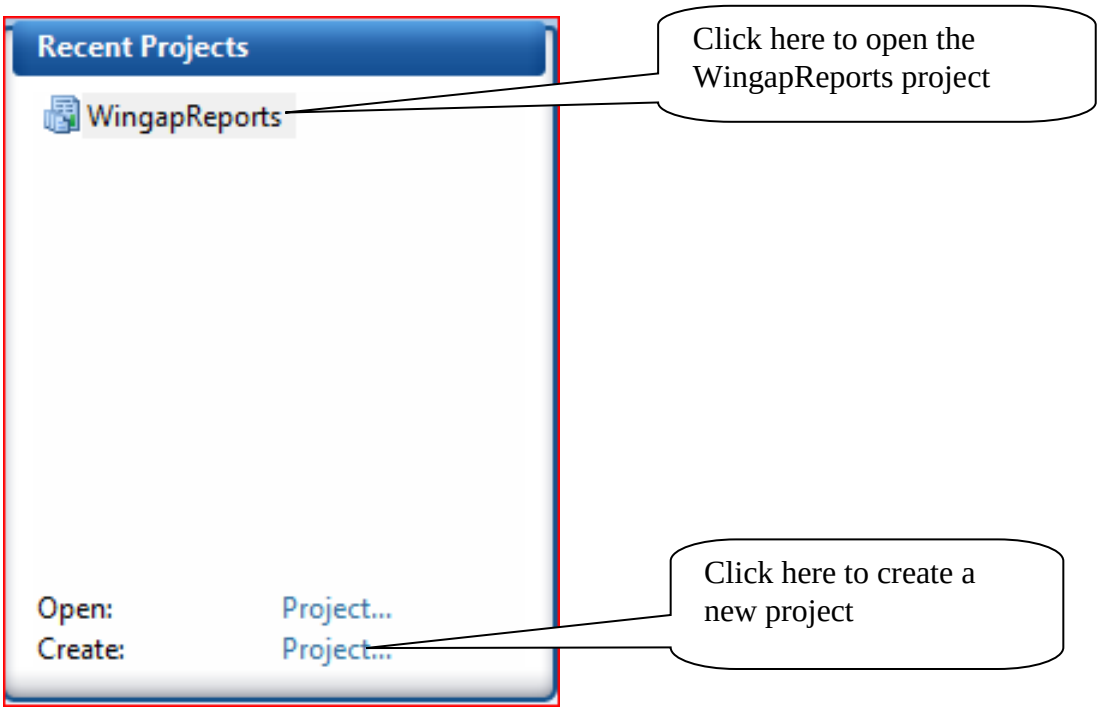
Let's get started by opening RS. RS will be listed under Start > All Programs > Microsoft SQL Server 2008 > SQL Server Business Intelligence Development Studio.

The RS start screen is shown below. As you can see the interface is vastly different from our old reporting software. You will notice a bright big title under the 'Start Page' tab titled Microsoft Visual Studio 2008. Reporting Services (RS) does indeed run in Visual Studio, however, you don't need to purchase or install Visual Studio 2008. RS runs in a Visual Studio shell that is installed when SQL Server and RS are installed. RS is installed when you install SQL Server.



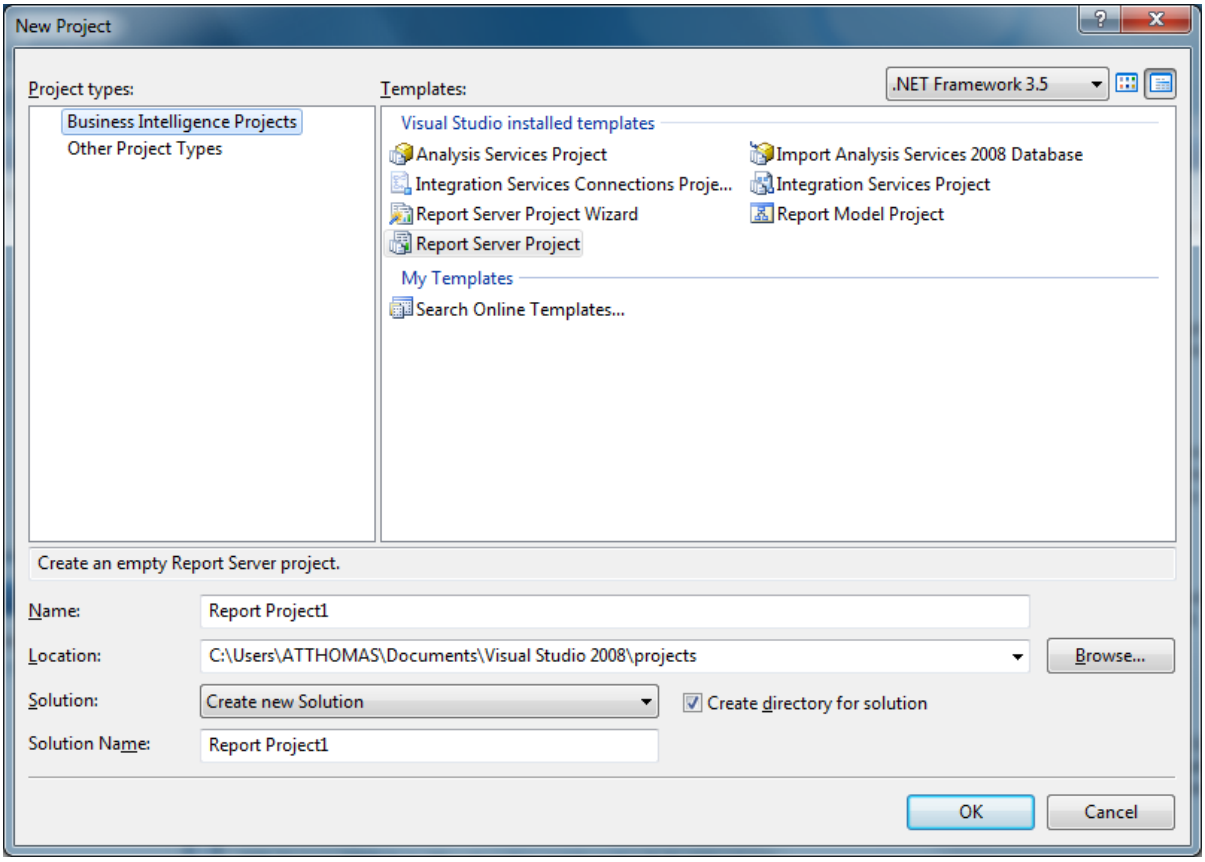
The welcome screen above has several points we need to emphasize. First is the RECENT PROJECTS section (upper-left, zoom-view shown on next page) where you'll find any projects you've recently opened or

created. If nothing is listed in the recent project section, we will need to create a project. If a project is listed (as shown) you simply need to click the desired project from those listed to open the project.



Creating New Projects

The creation of a new project is very simple in RS. Above is an expanded view of the RECENT PROJECTS screen. To create a new project, we click the word ‘project’ adjacent to the ‘create’ text. The user is then presented with the screen on the next page to setup the new project.



For our usage, users will select REPORT SERVER PROJECT in the list of Visual Studio installed templates. The user should then supply a name for the project. Enter ***WingapReports*** as the project name. All other defaults can be accepted and the user can click OK at this point to complete the project creation.

Visual Studio, SQL Server, and Reporting Services are all very powerful pieces of software, as such; many tools and properties are exposed and available to the software user. The consequences of these massive tools are the need to show these tools on the screen. If you are a user who still lives in the 90s with an 800x600 screen resolution, you may be in for some long frustrating days. Generally speaking, the higher resolution you've got the more fun using RS is going to be.

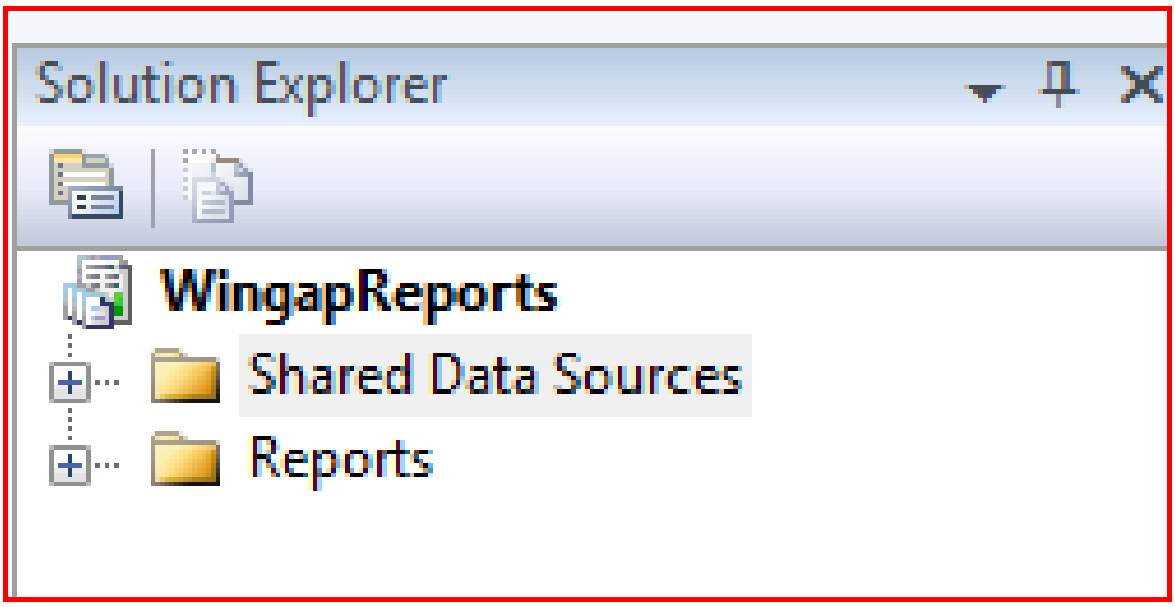
Just be forewarned.

Connecting to Data

The first order of business after creating our Report Server Project is connecting to our data. Without a data connection, we cannot build reports. The way we connect to data is by the creation of a Data Source.

Creating New Data Source

Before we can create a data source, we have to locate our SOLUTION EXPLORER which can be seen in the screen image below.

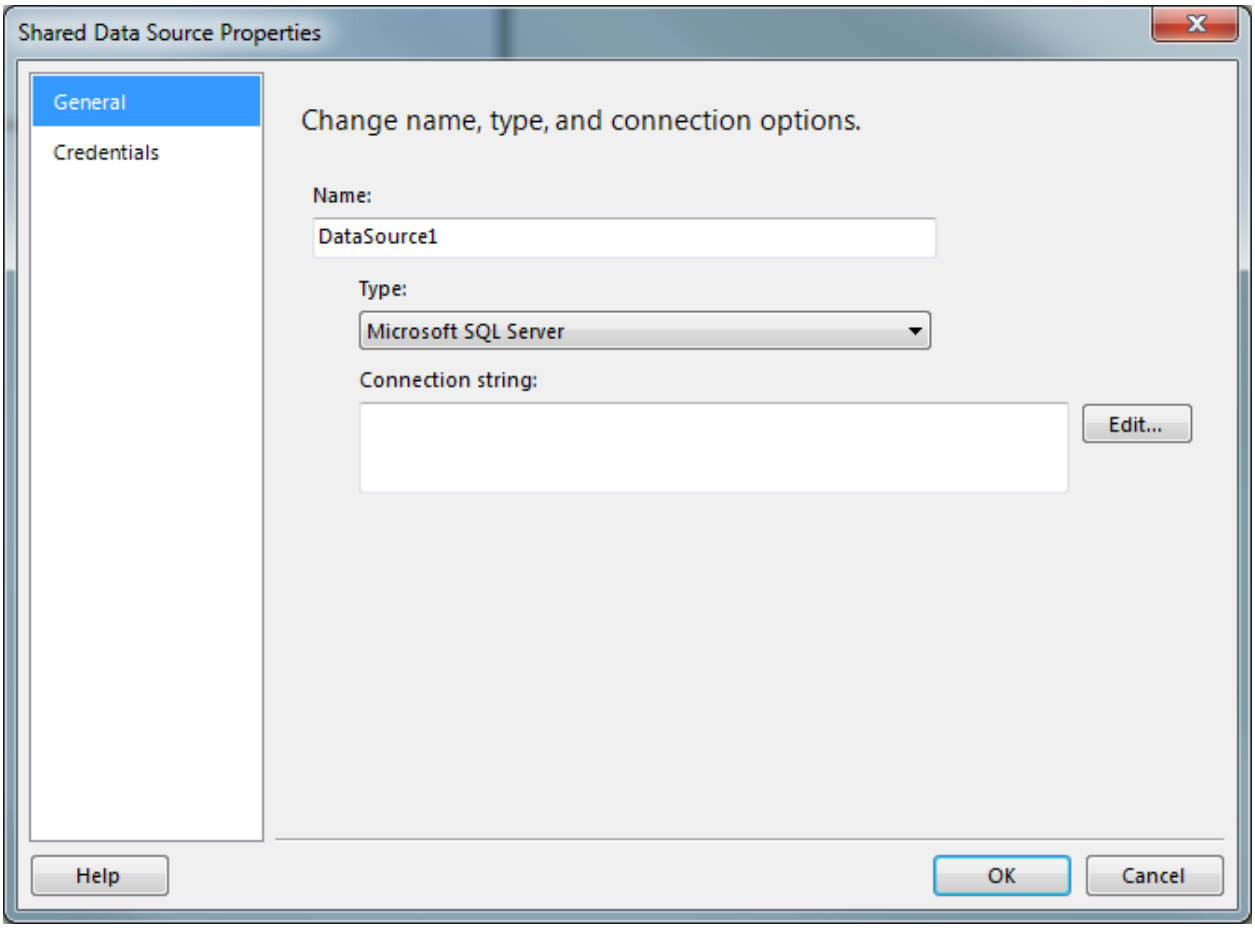


To add a data source, right-click on the folder named ***Shared Data Sources*** and a context menu will appear with two options.

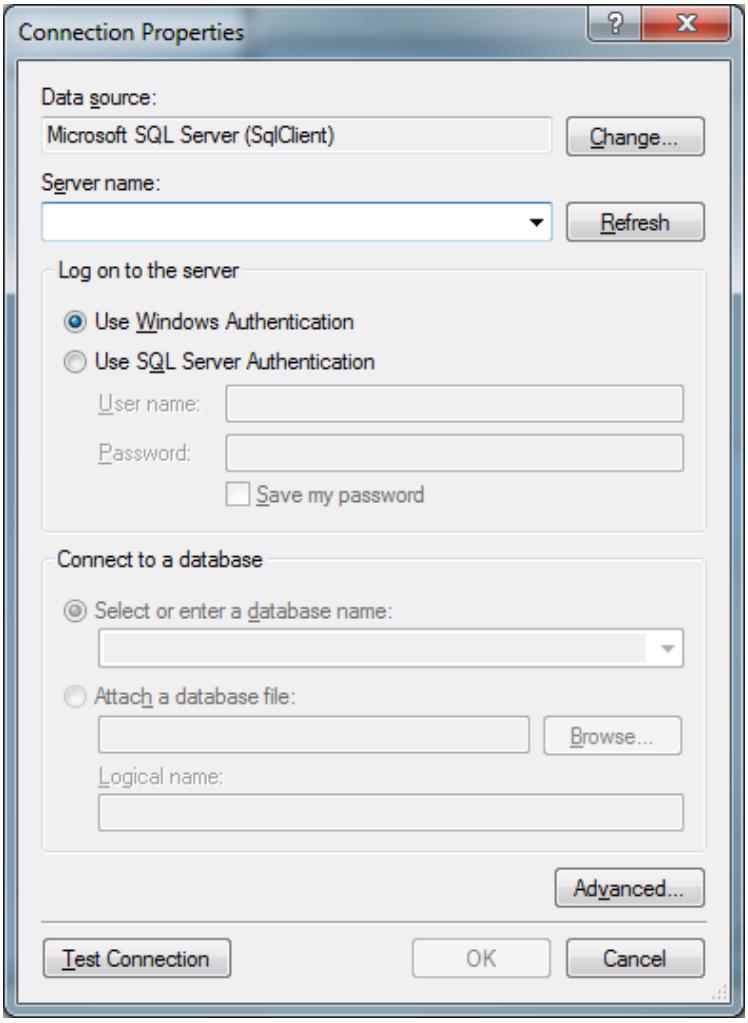
1. Add New Data Source
2. Add (this option has a sub-menu with two choices for (1) New Item and (2) Existing Item

To add a data source using a wizard, select option one ***Add New Data Source***. However, if you wish to add a new data source without the assistance of the wizard, select option two and use the first sub-menu item named ***New Item***. The course manual will show how to add a data source using the wizard that is loaded using the first option above titled ***Add New Data Source***.

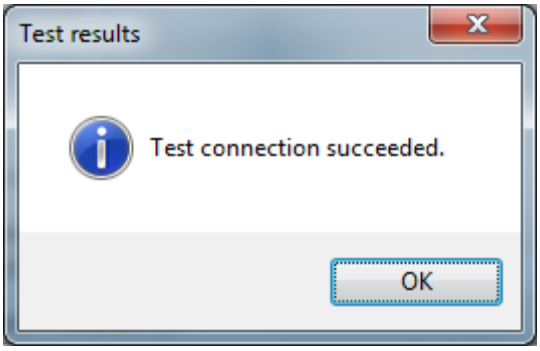
The first screen that appears is shown on the next page.



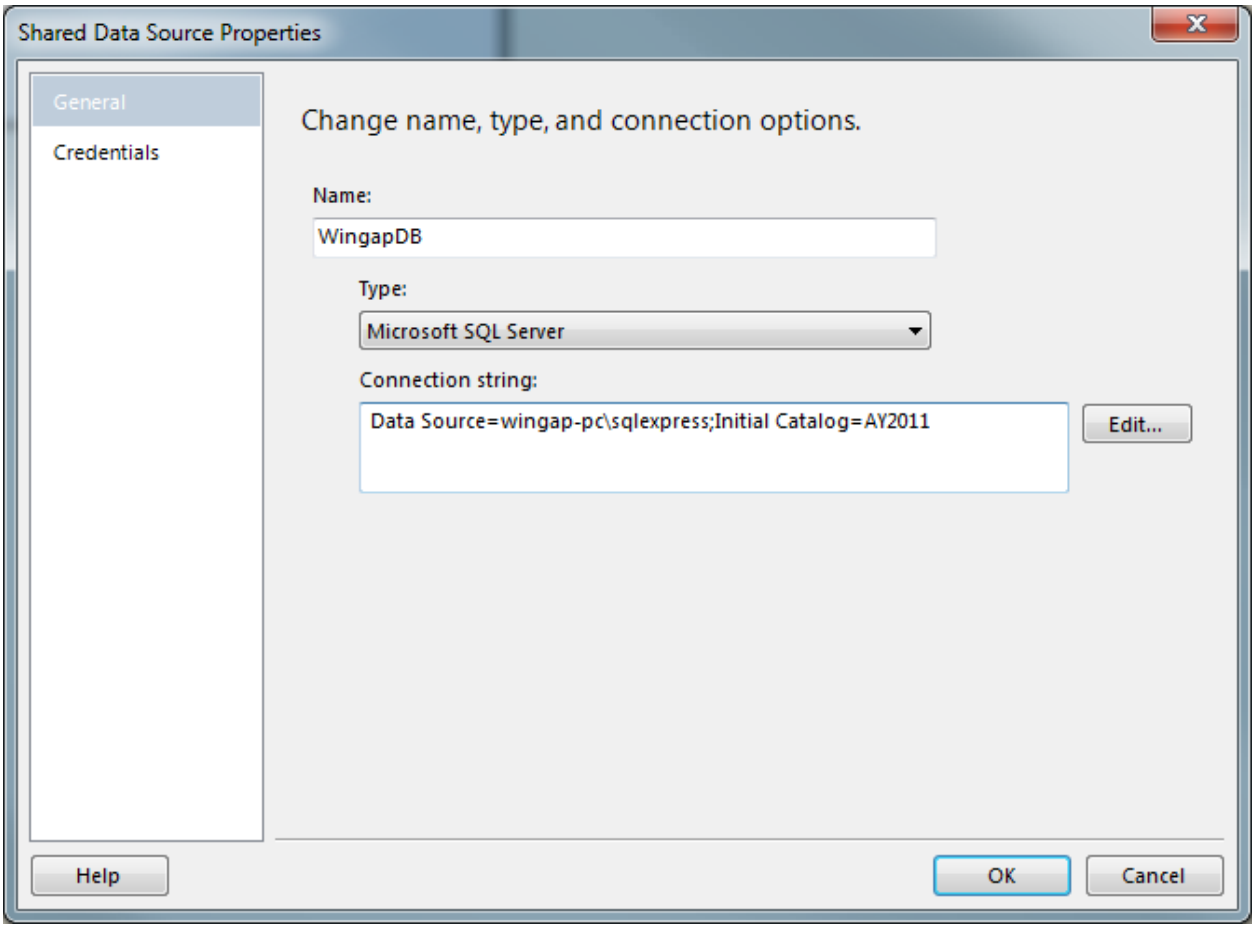
We need to pick a name for our data source, in our example and in this course, we will use the name ***WingapDB***. After entry of the name, click the ***EDIT*** button to continue to the next step, which is the Connection Properties screen, as shown on the next page.



The Connection Properties screen appears after clicking ***EDIT***. We must first provide a ***server name***. We should enter our SQL Server name, in class that is ***wingap-pc\sqlexpress***. Next is the *Log on to the Server* section. We want to leave the default choice of *Use Windows Authentication* selected. After entering the server name, the Connect to a database section of the screen will become enabled. We now have to provide the name of the database we wish to connect to. You *can* use the drop down arrow to select databases from a list. However, if we know the name of our database, it is much easier and faster to simply type in the name of the database. Type in the name ***AY2011*** as our database name. Next, click *Test Connection* to confirm our credentials and connection configuration is valid. If successful, you will see this screen.

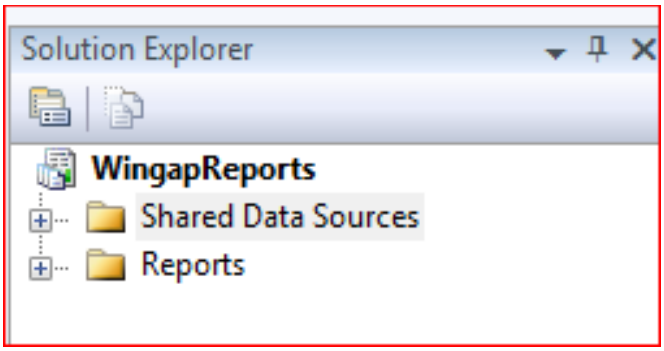


At this point, we are ready to click **OK** to close the *Test Results* window and click **OK** on the *Connection Properties* window also. We will be returned to the ***Shared Data Source Properties*** window. We are ready to click OK to complete the creation of our data source.



Creating New Reports

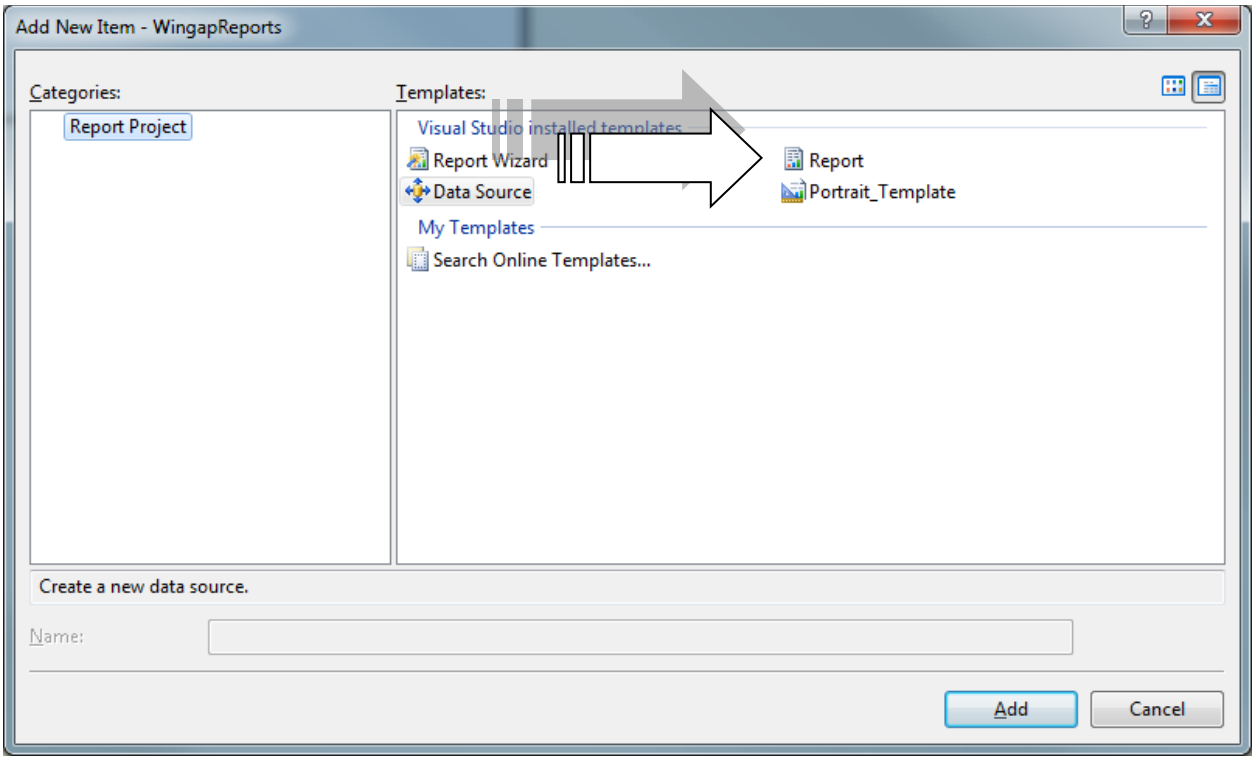
There are two primary methods of creating new reports. Again from the Solution Explorer …



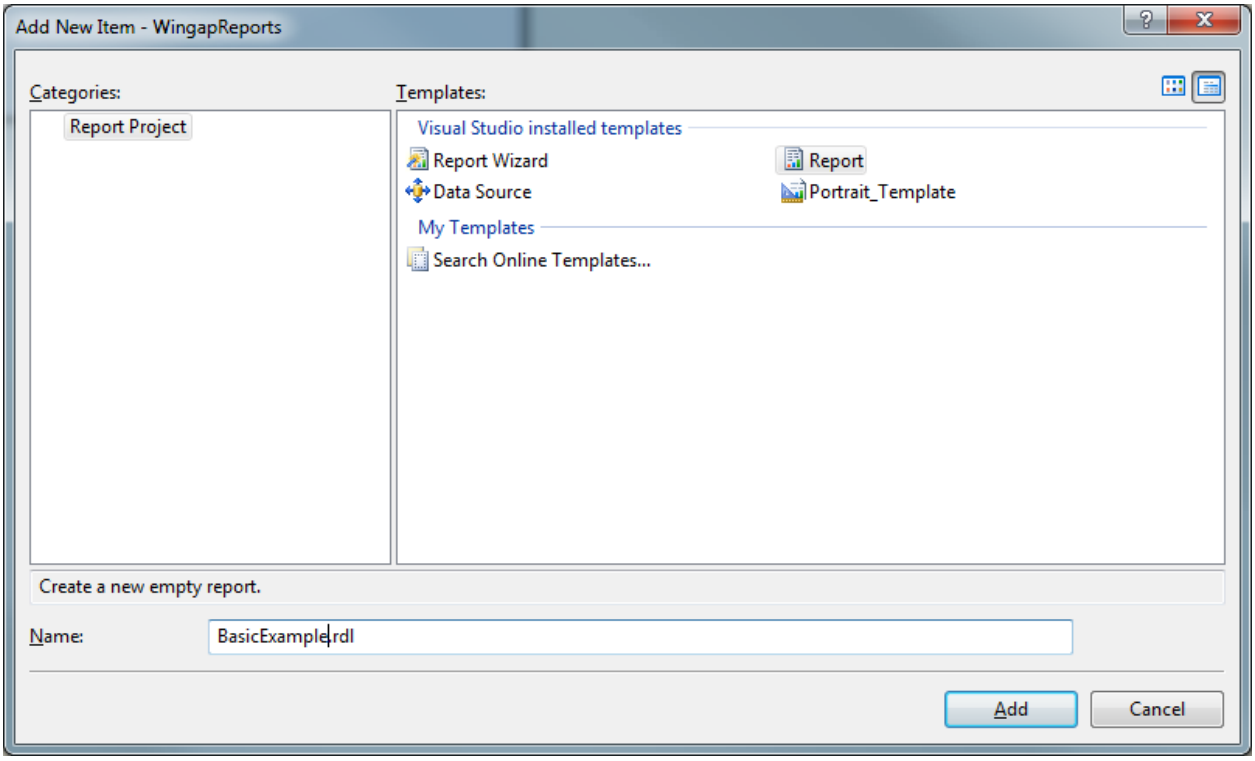
… right-click REPORTS and you'll be presented with a context menu with two items:

1. Add New Reports (opens the wizard)
2. Add (this option has a sub-menu with two choices for (1) New Item and (2) Existing Item

To add a data source using a wizard, select option one ***Add New Report***. However, if you wish to add a new data source without the assistance of the wizard, select option two and use the first sub-menu item named ***New Item***. The course manual will show how to add a data source using both options. First, we will be adding a report without *the* wizard using the *ADD > NEW ITEM* menu. The first screen presented is below.

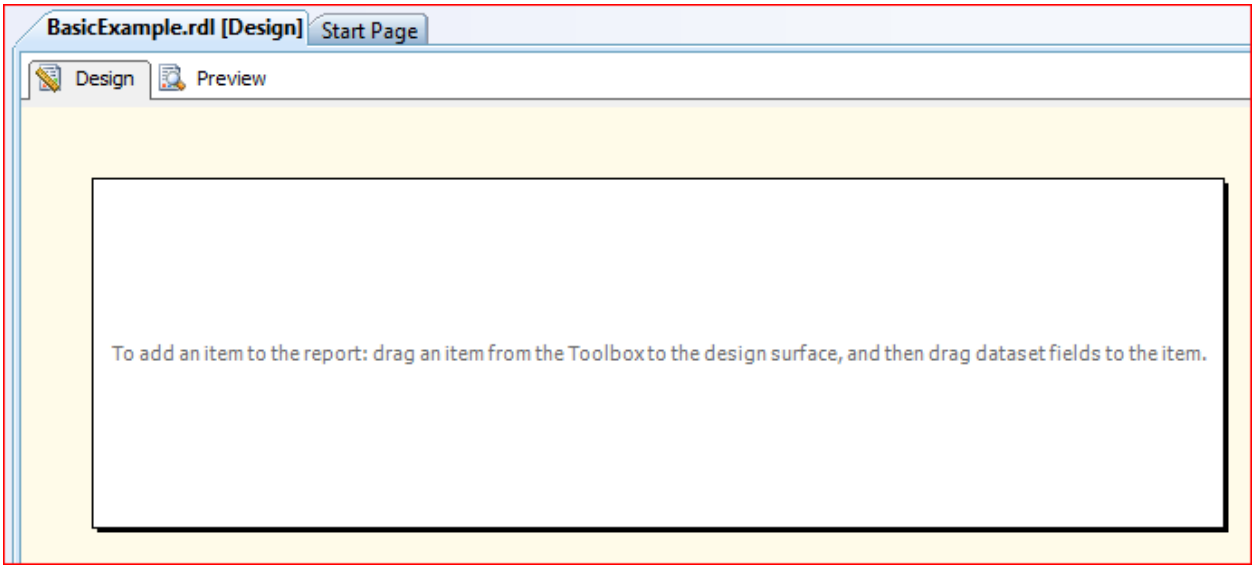


Click ***Report*** and enter a name for the report such as ***BasicExample.rdl*** as shown in the screen image on the next page.



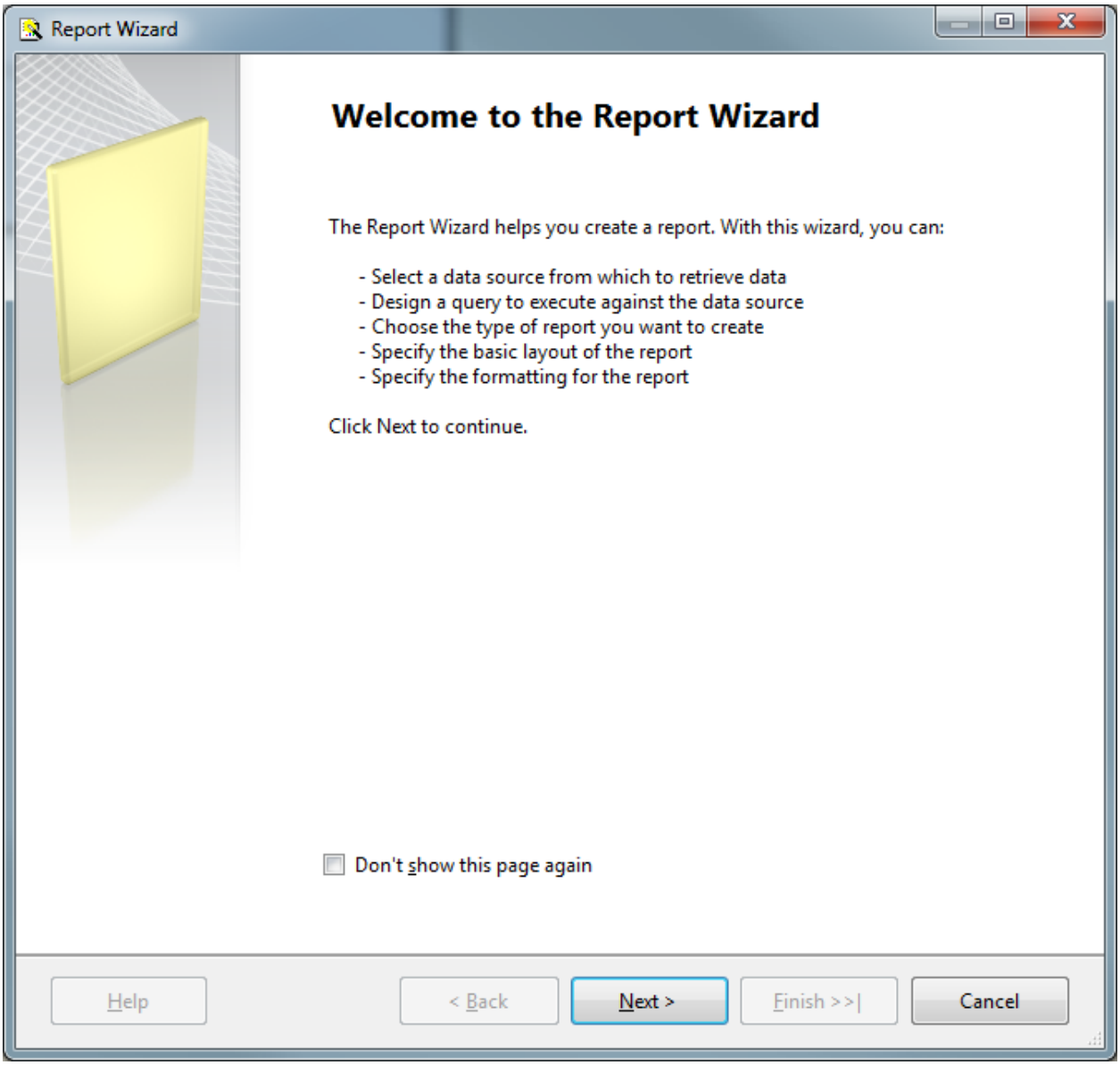
Click ***ADD*** button.

At this stage the blank design canvas appears.

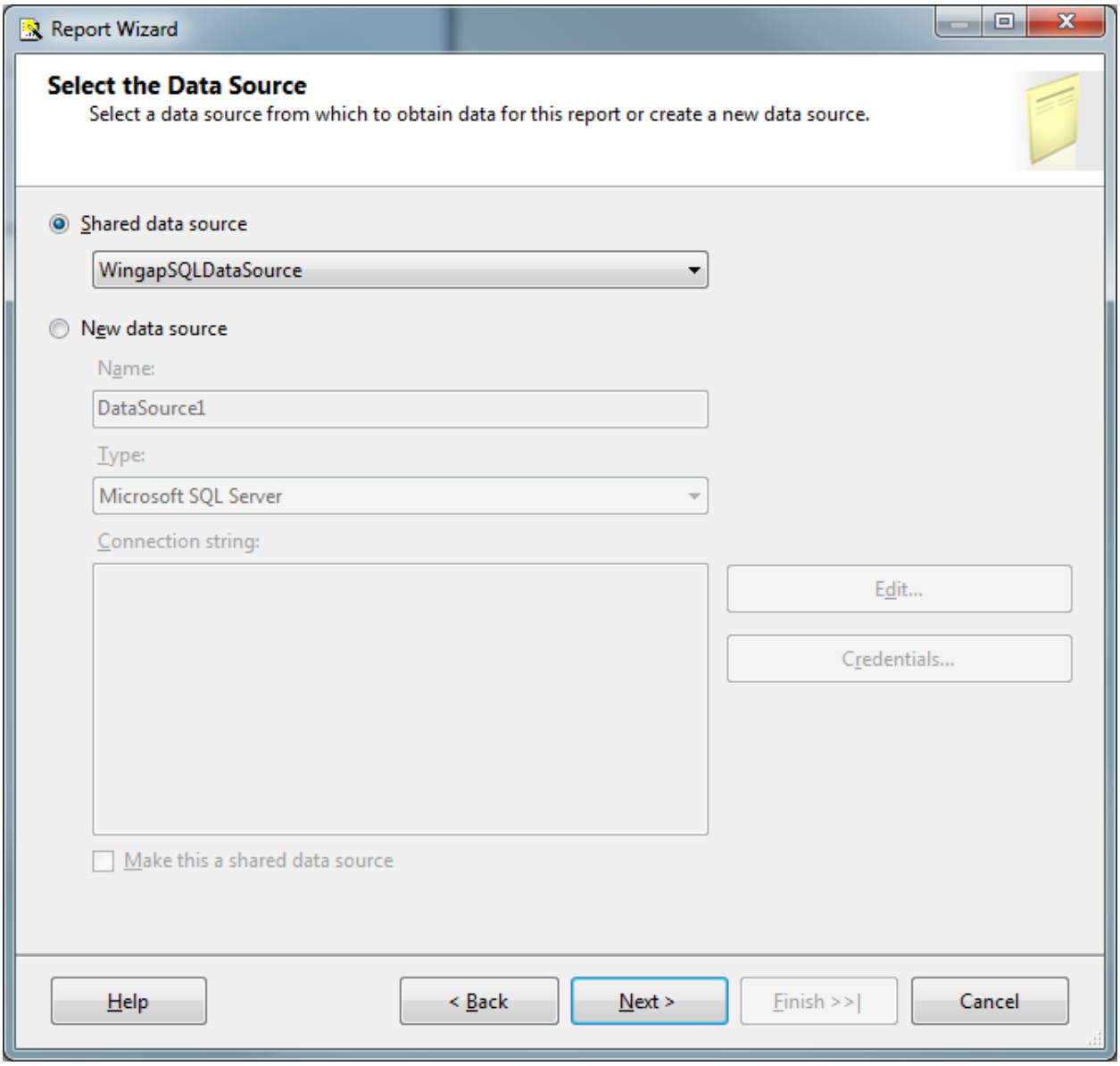


The user can continue with the creation of their report using the ToolBox (shown below) as is demonstrated in the class room exercises and PowerPoint slide show (available via email from rgreese@wingap.net or atthomas@wingap.net.)

The second method of adding a report is using a ***wizard***. The report wizard is accessed from the *Solution Explorer* by right-clicking the *Reports* folder and selecting the menu option ***Add New Report***. The first screen presented to the user is shown below.

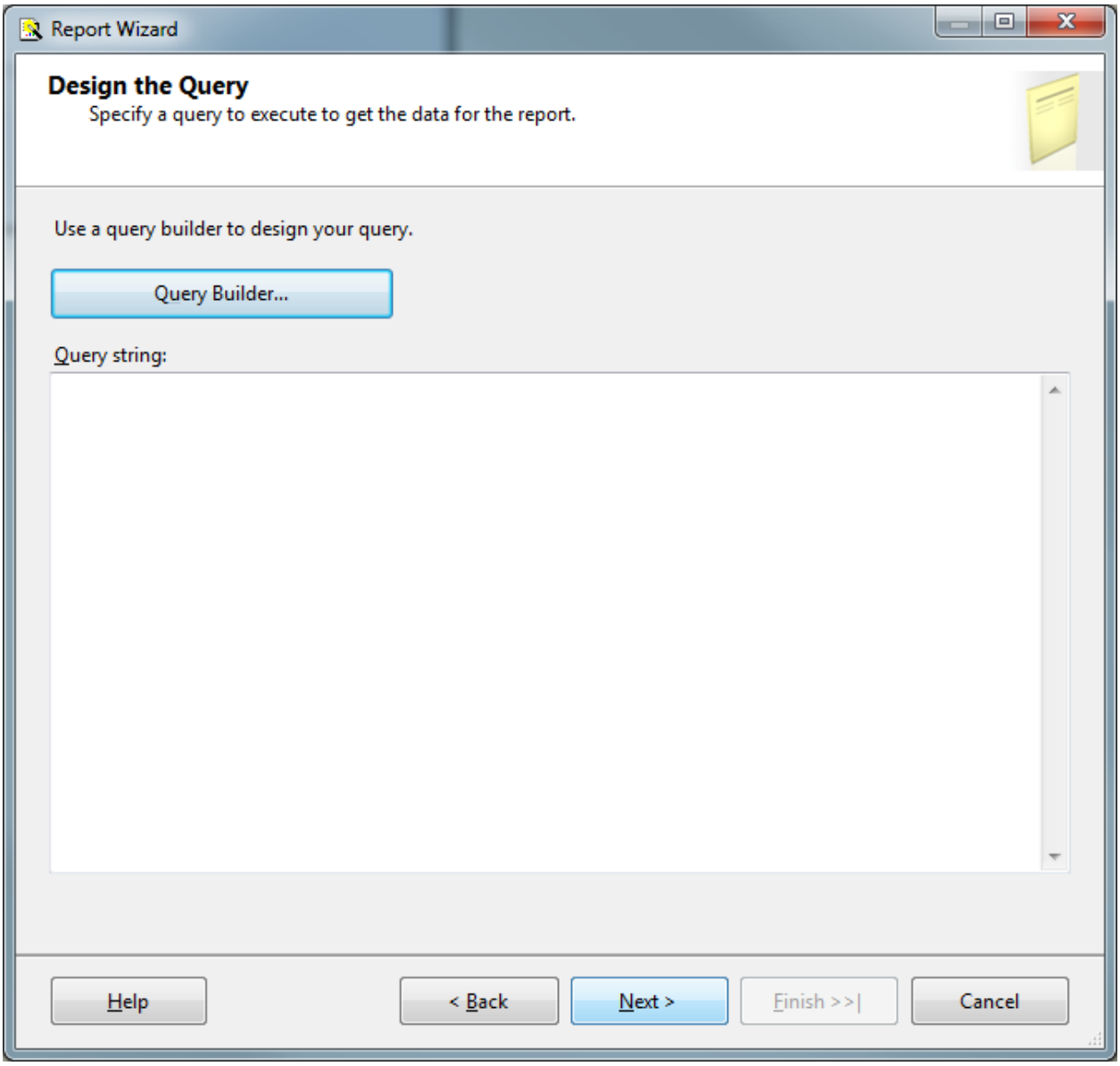


Click ***Next*** to continue.

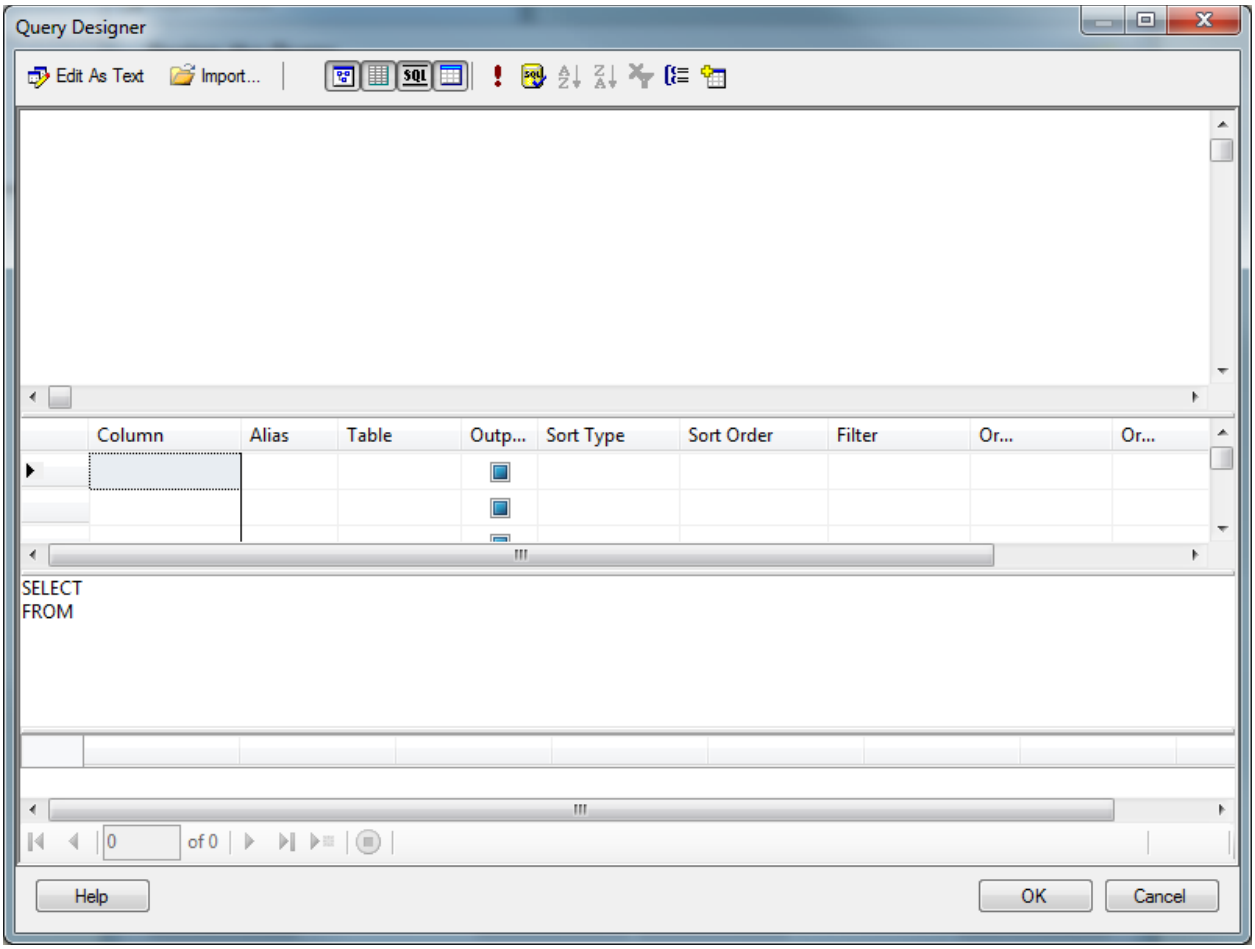


The user has the option to use a shared data source (which we created in the previous section) or define a new data source. In class, we should use the ***shared*** data source.

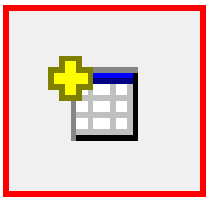
Click ***Next*** to continue.



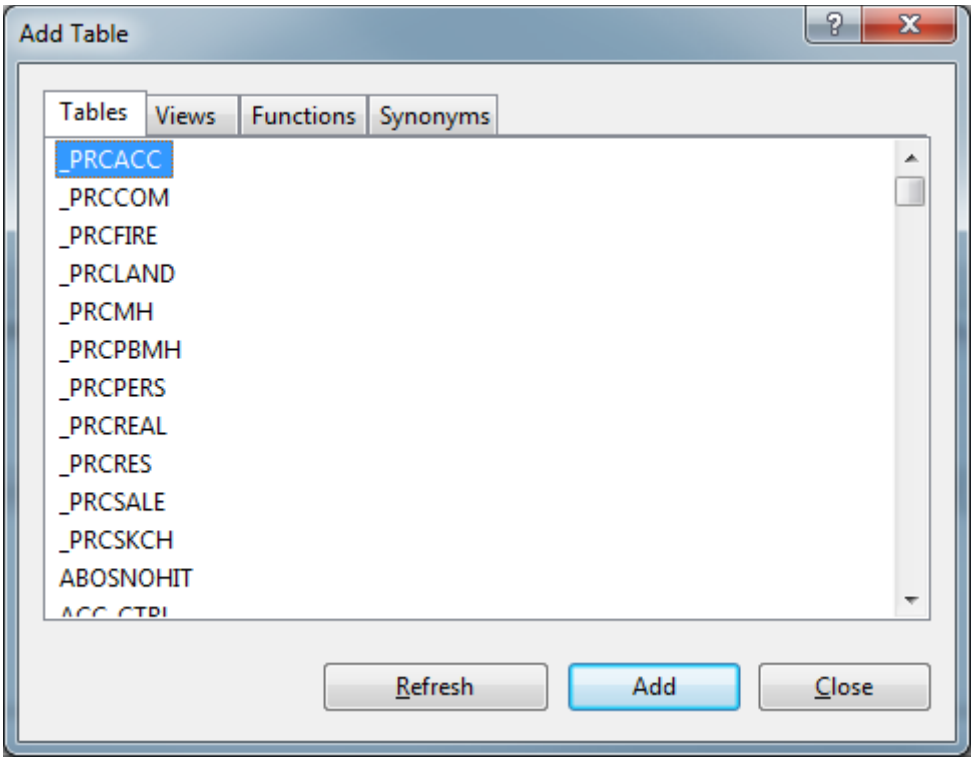
When the ***Design the Query*** window appears the options really begin to open up to the user depending on their level of expertise. Advanced Transact-SQL users can simply enter their ***query string*** directly on this screen. Novice users can click the ***Query Builder*** button to build their query using the wizard's assistance. The Query Builder button opens the screen shown on the next page.



The Query Designer allows users to build queries using the RS GUI. The first step in using the query designer is to add the desired tables. The user can select their desired tables by clicking the add table toolbar button.

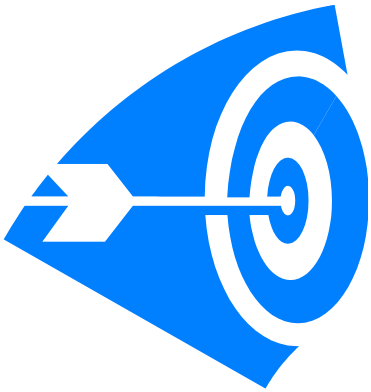


Upon clicking the add table button, the user is presented with the following screen, as shown on the next page.

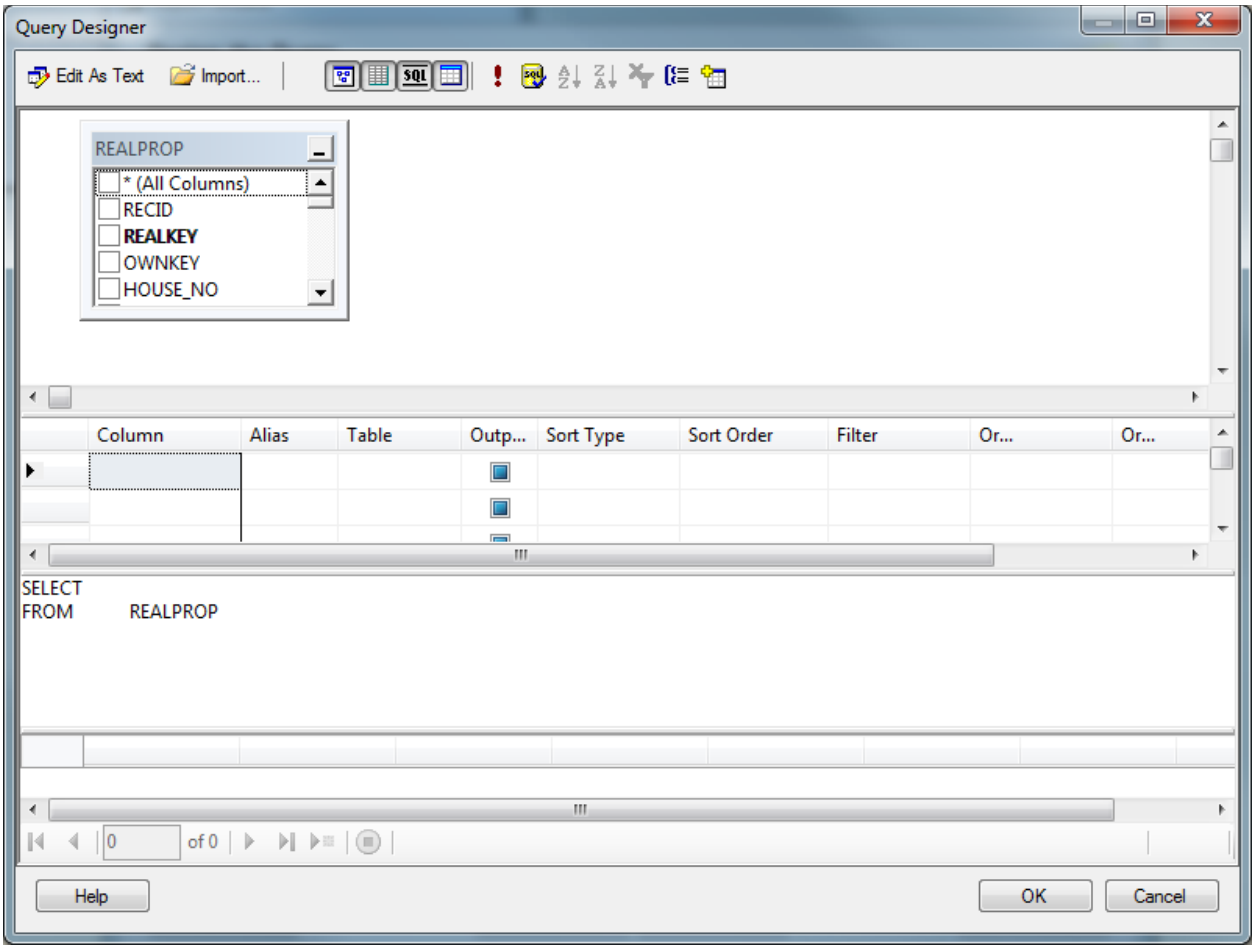


The user simply needs to navigate to the desired table and click the ***Add*** button. In this example we will select the *realprop* table and click add. After selection of the *realprop* table, we can click the ***Close*** button.

Adding Additional Tables

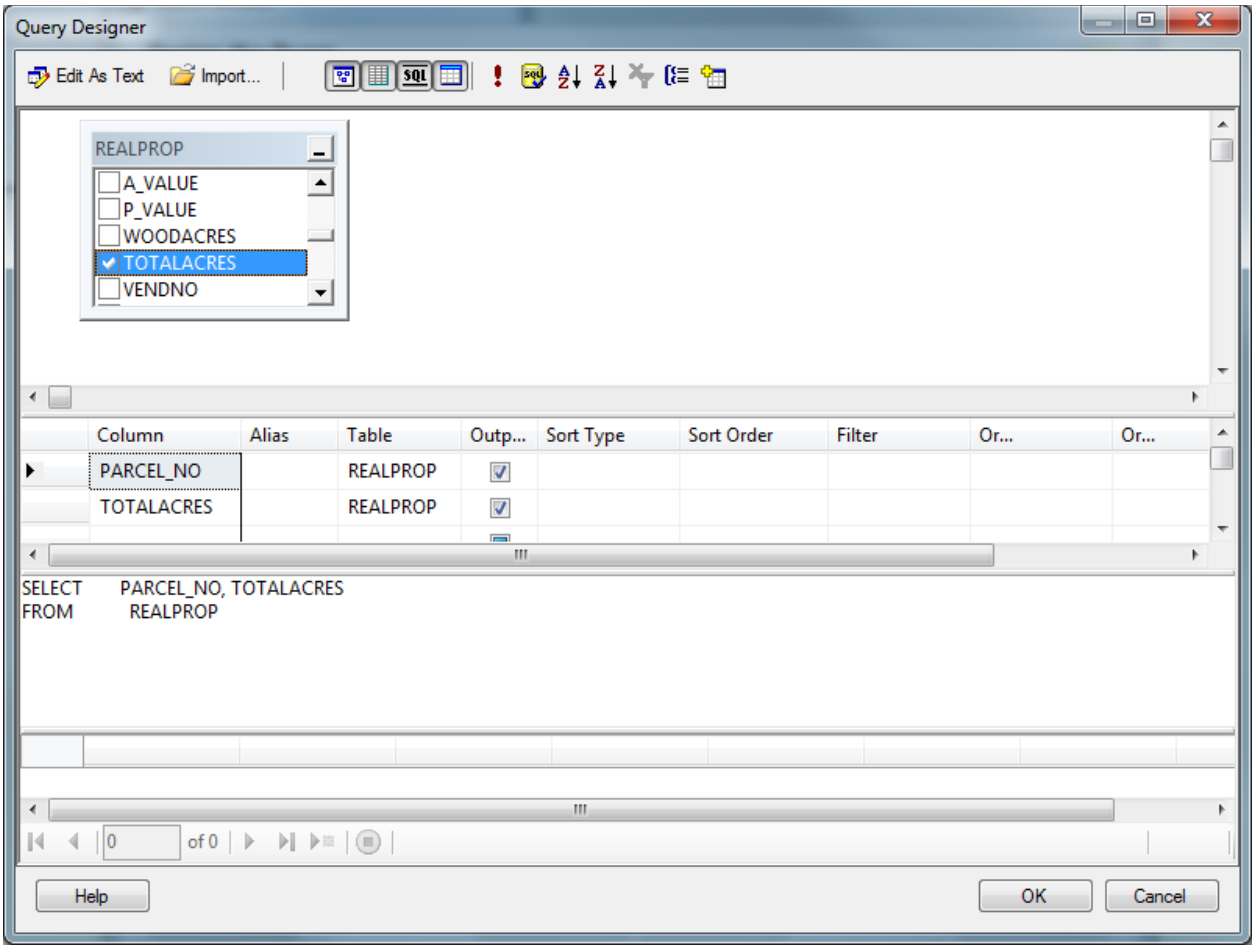


If the user wants to add multiple tables, select the desired additional tables from this list, click ***Add***. Once the user has added every desired table, we can click ***Close***. As users enhance their t-sql skills, adding additional tables can also be handled through the text version of the query statement rather than the GUI interface shown here. The t-sql text version of the query statement will be demonstrated during class.



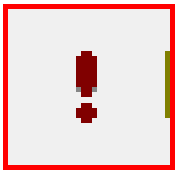
Notice the selected table(s) are graphically added to the Query Designer window. Also, notice in the bottom-middle of the screen, the Query Designer is beginning to compose the t-sql statement with the entry of ***select from realprop***. As the user clicks and adds options using the query designer this text will be expanded and refined.

To select specific columns to appear on our report, the user simply has to check those fields in the realprop table object at the top of the window. The screen on the next page shows the results of navigating to find the *parcel_no* and *totalacres* fields and placing a check next to the fieldnames.

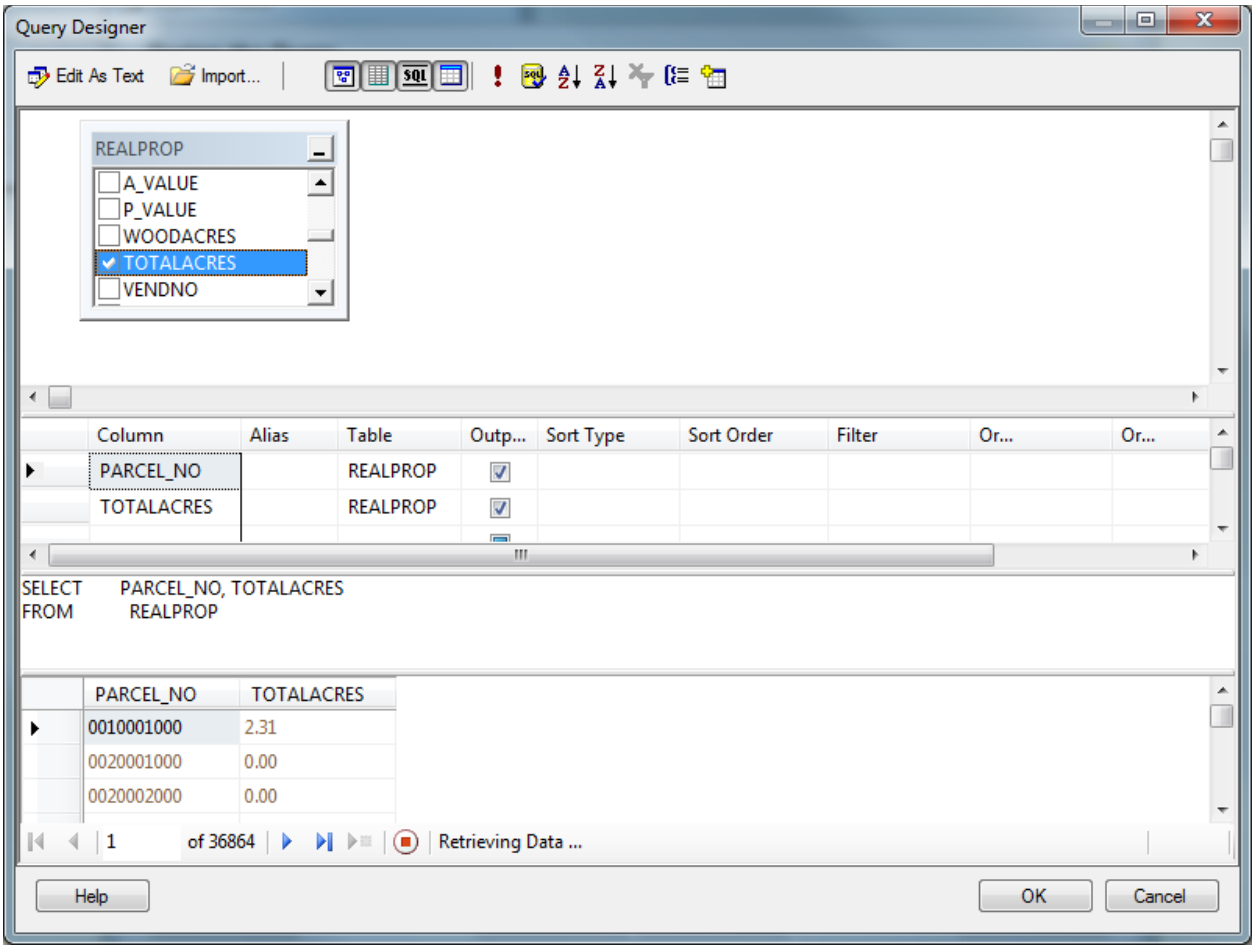


Notice the t-sql syntax has been expanded to ***select parcel_no, totalacres from realprop*** assisting the user in learning transact-sql. The user has the ability to sort the report, filter the report, group the report, etc, all from this screen.

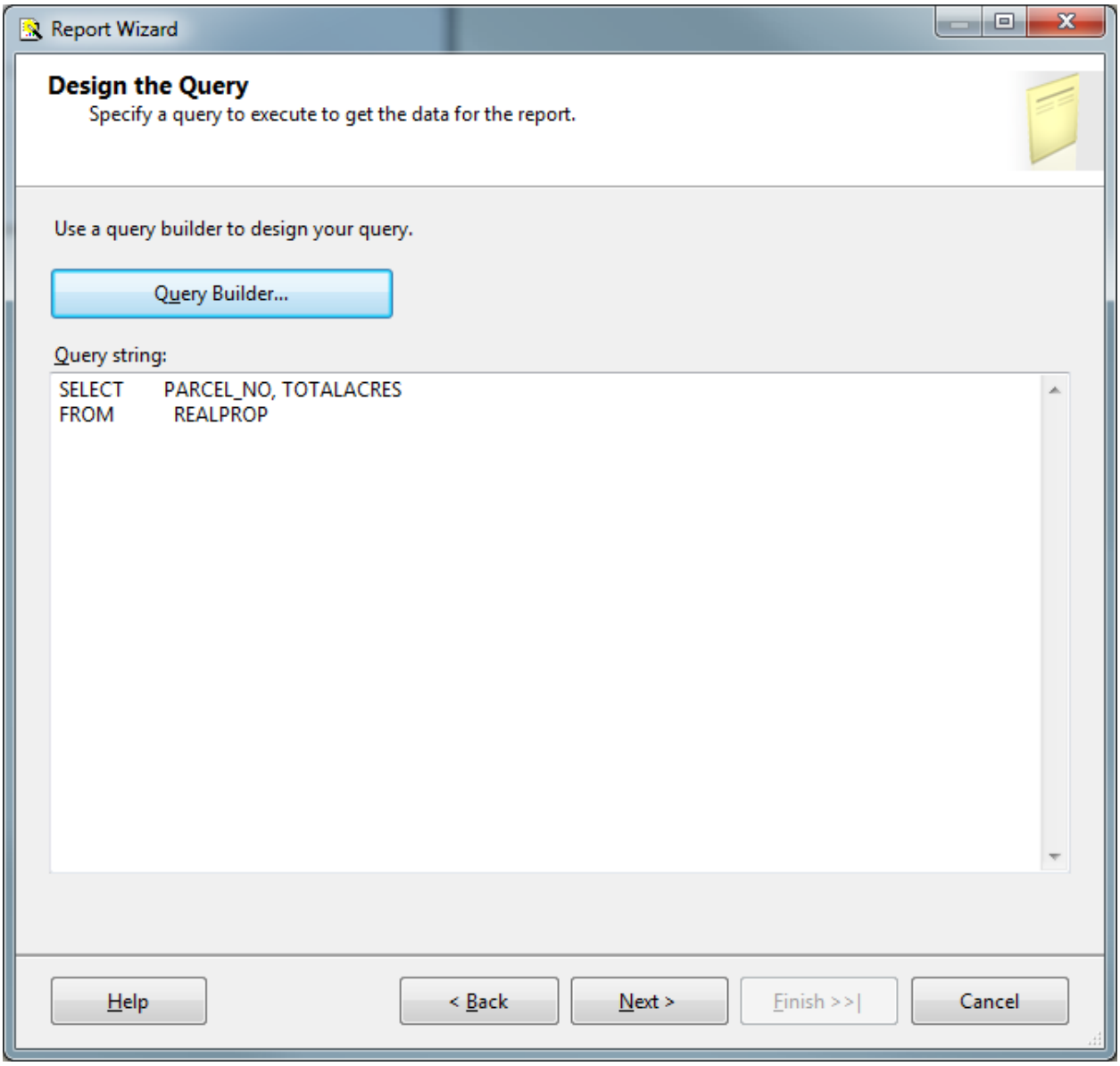
Upon tentative completion of the query, the user should test their query to ensure the query is going to produce the desired record set. Testing the query is accomplished by clicking the ***Run*** button.



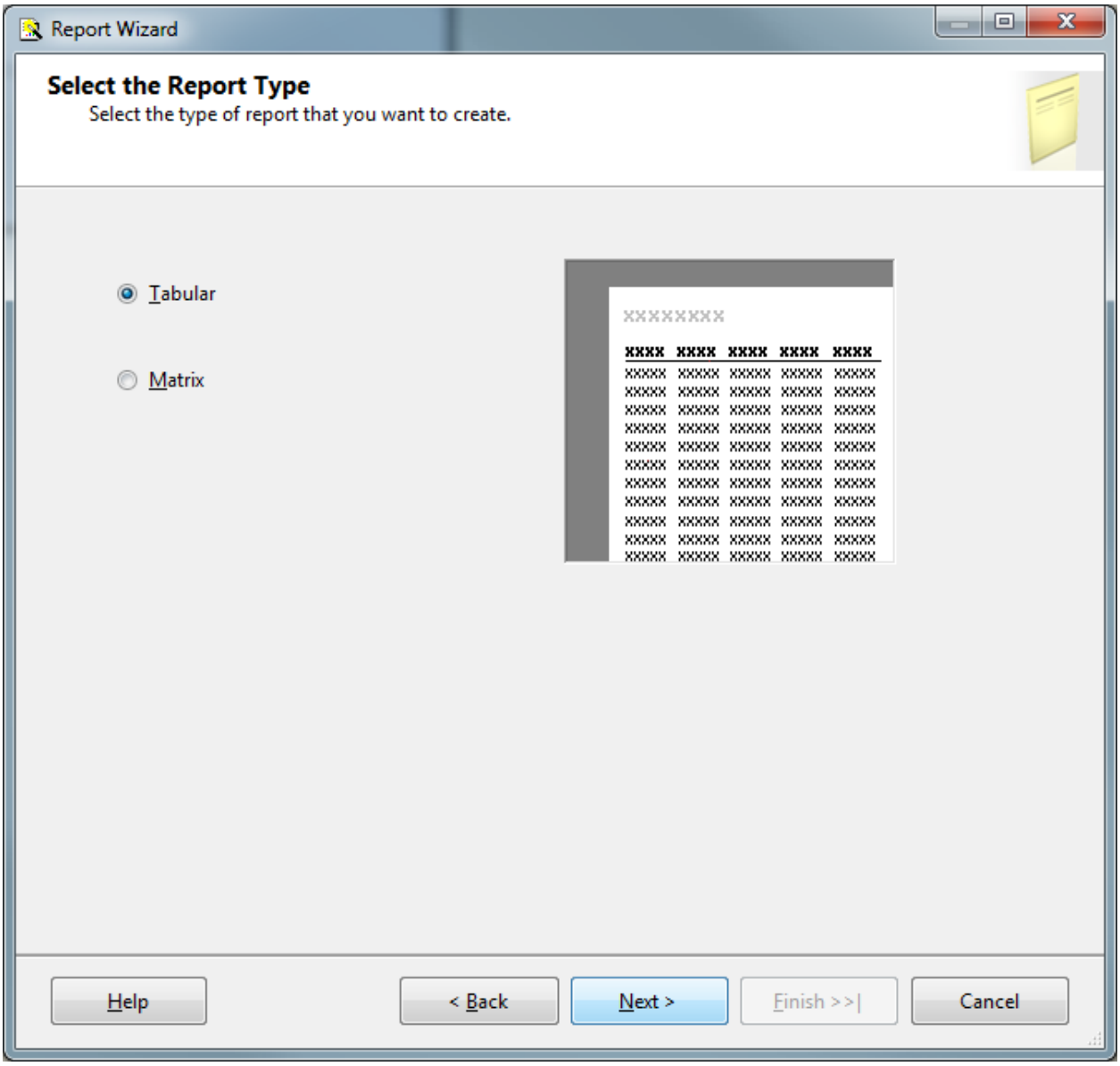
The screen on the next page shows the building of the test query.



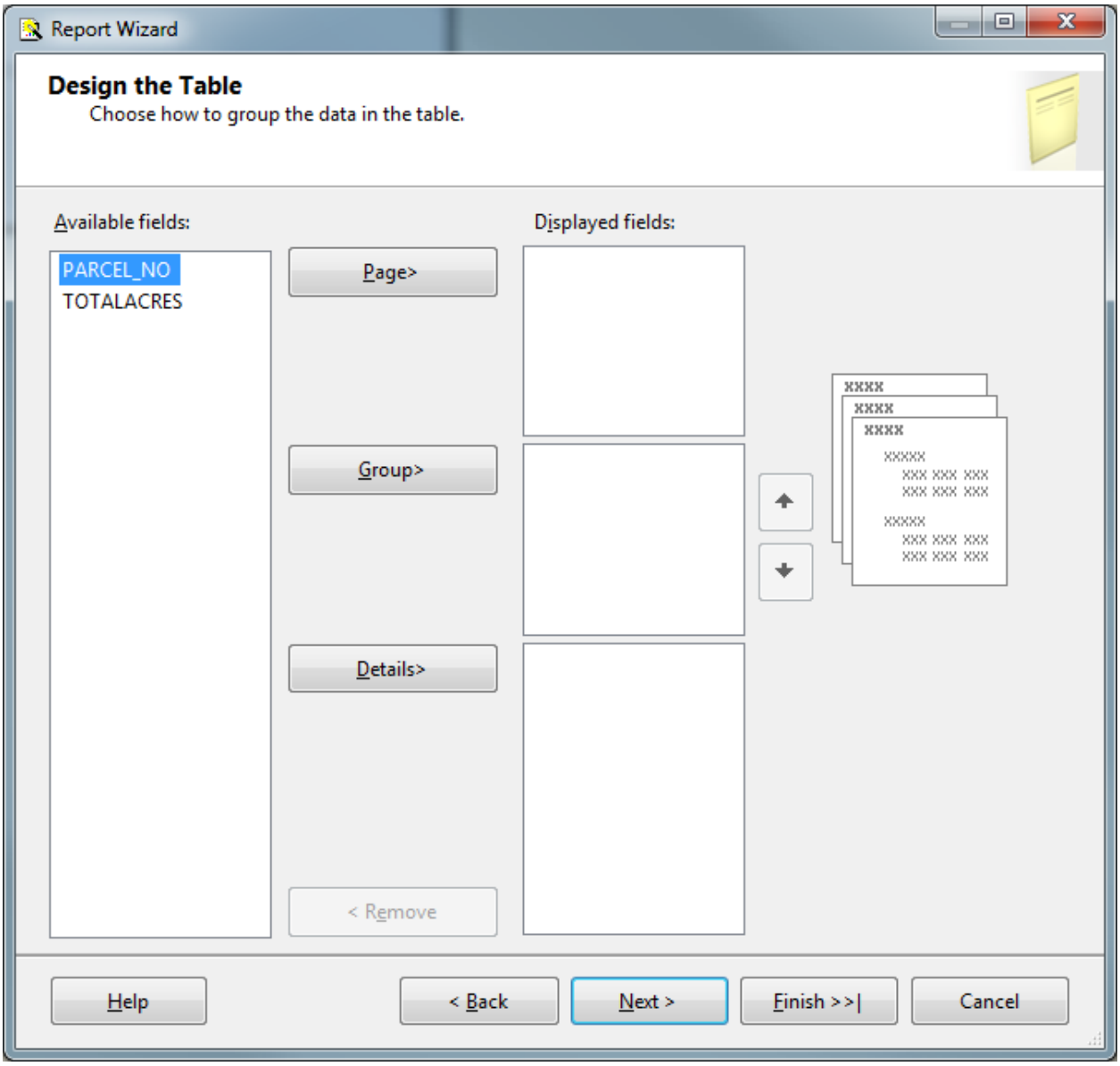
The user can make endless revisions to the query until satisfied. Upon satisfactory completion of the query, the user clicks OK and is returned to the screen on the next page.



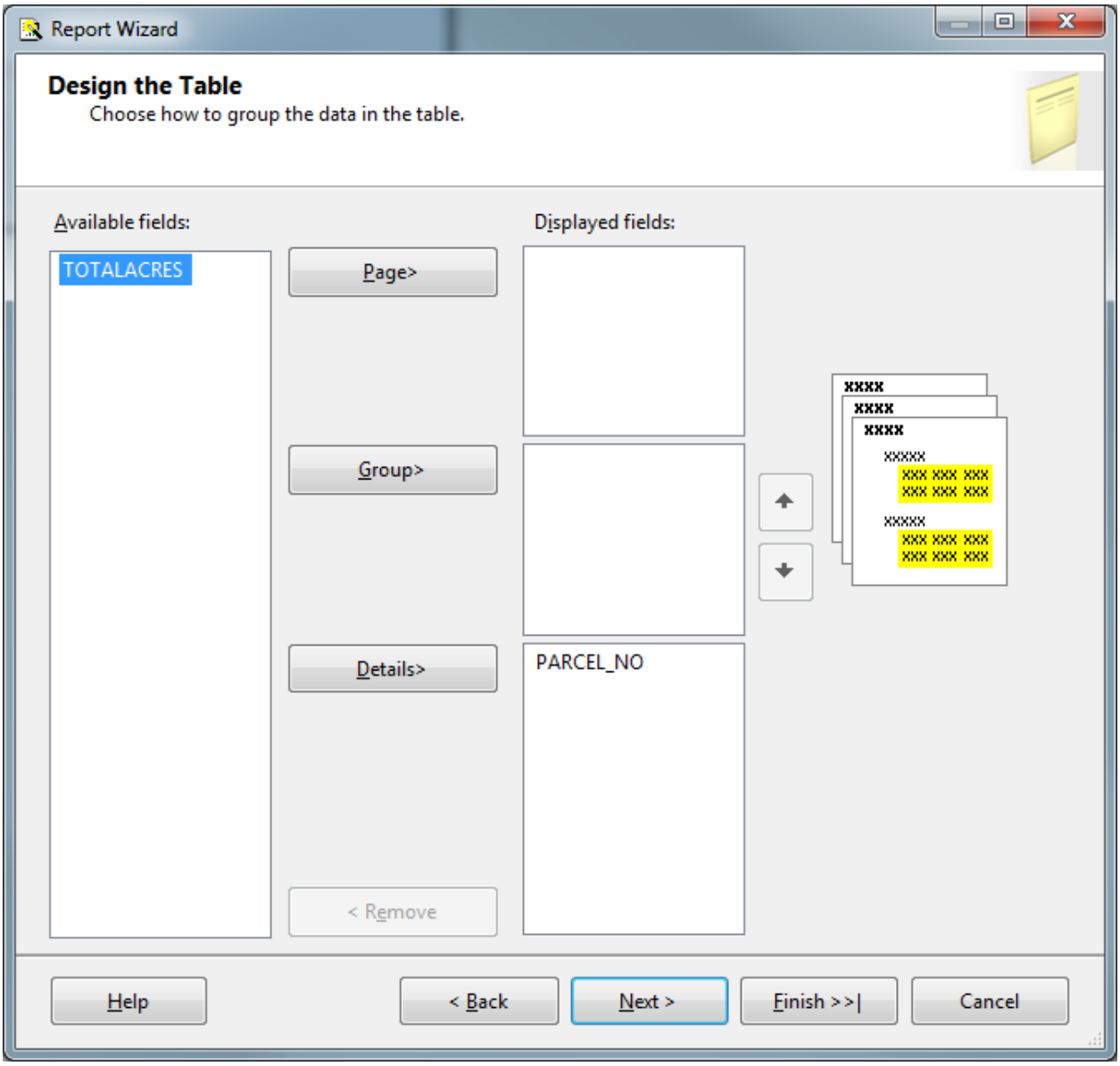
The user can still make last minute revisions to the query in the query string area of the screen. When ready to continue, the user clicks ***Next***.



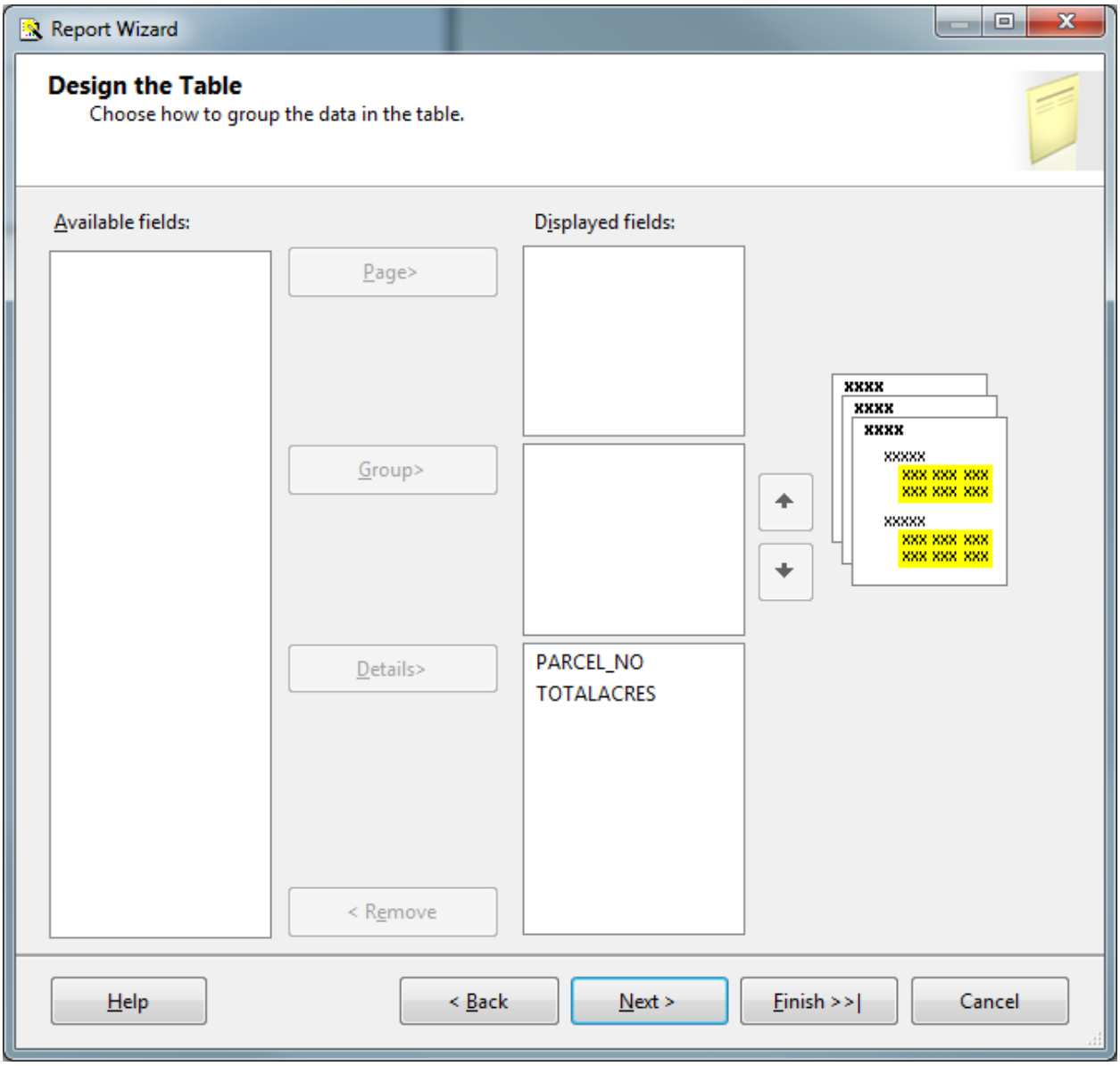
The user now selects the ***Report Type*** desired. ***Tabular*** is the typical list of data that contains column titles and rows of data underneath. This is very similar to the old style reports created under the old Wingap ReportPro report designer. ***Matrix*** reports are more complex and powerful reports that allow the user to create row titles, column titles, and intersect data regions. Matrix reports are similar to the Wingap ReportPro Cross-Tab reports but might be more often used by advanced users. To keep it simple, select ***Tabular*** and click ***Next***.



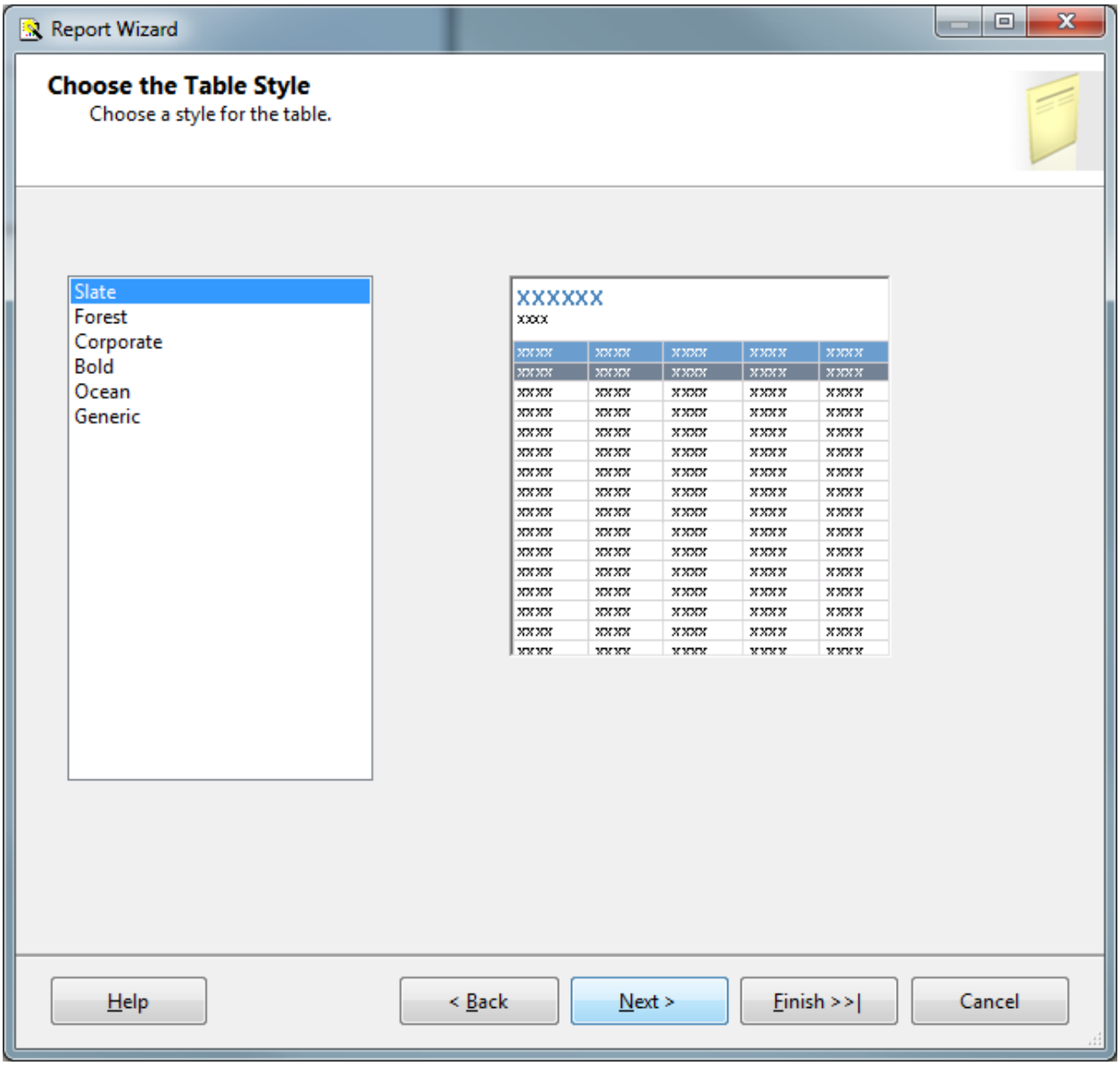
Now the user selects the report regions for which their data will appear. The user is presented with three different options: PAGE, GROUP, DETAILS. For the majority of simple reports, all fields will be placed into the DETAILS section. Placing fields into PAGE and GROUP sections may be beyond the beginner. Again, for example purposes, place all fields into the Details section by highlighting the desired field (Parcel_no) and click the ***Details*** button and the screen will appear as shown on the next page.



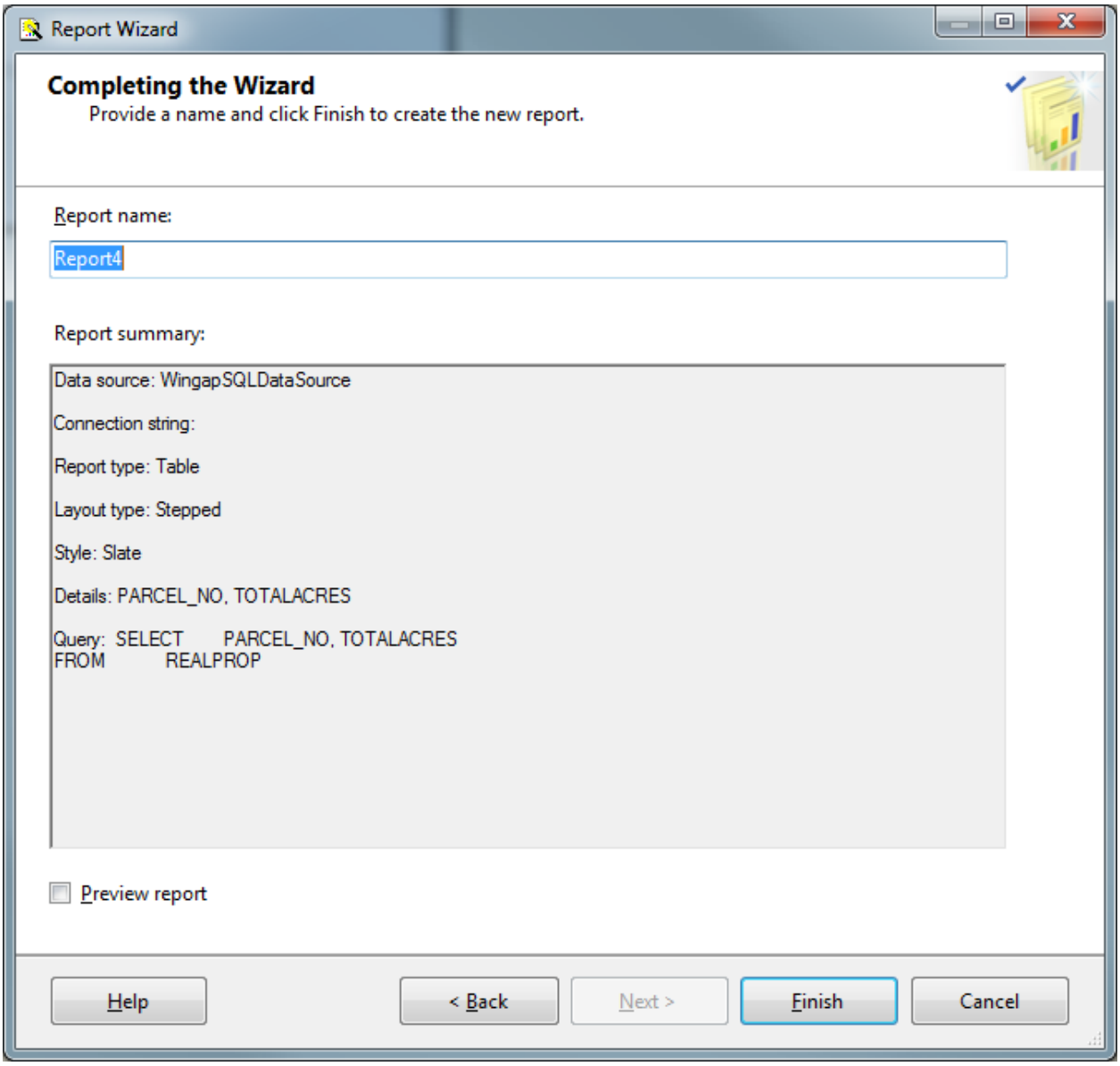
Repeat the process to add totalacres to the Details section of the report until your screen looks like the one on the following page.



Click ***Next*** to continue.

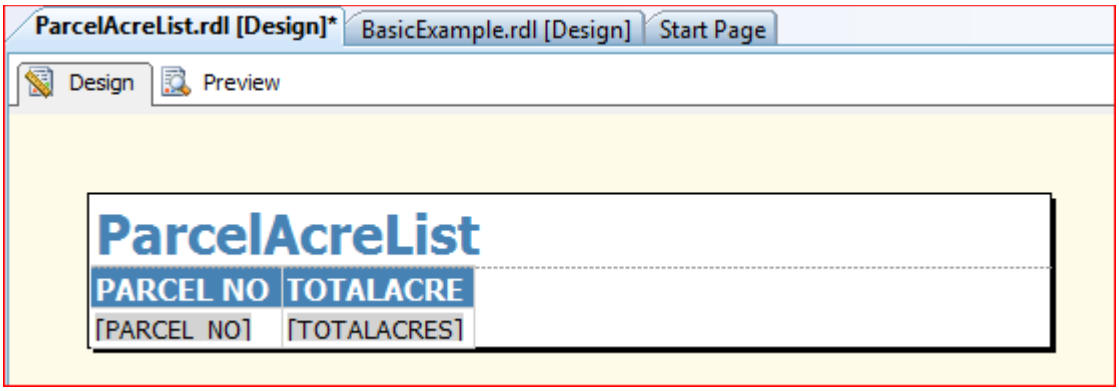


The ***Table Style*** selection allows the user to select some predefined color styles. After selecting your desired table style, click ***Next*** to continue.

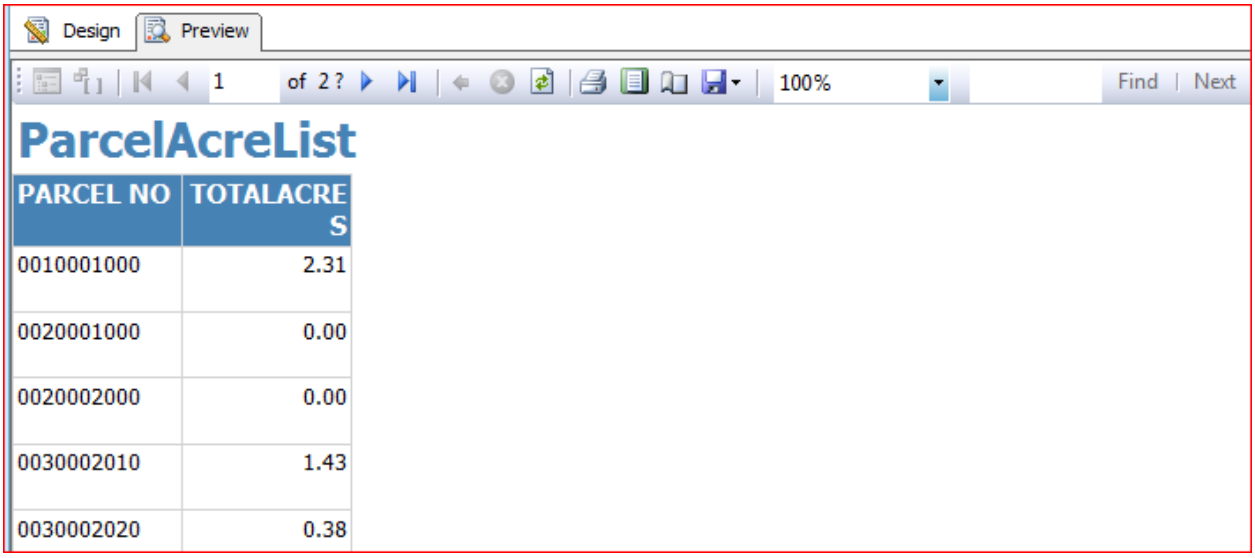


At this stage, the user names the report. We named the previous example *BasicExample*. We have already created a specific report with specific data, we should name the report specifically. Name the report ***ParcelAcreList*** and click ***Finish***.

After clicking Finish, RS makes the final preparations and loads the report into the design canvas, as shown on the next page.



From this point the user can preview their report by clicking the Preview tab shown above.



PARCEL NO	TOTALACRES
0010001000	2.31
0020001000	0.00
0020002000	0.00
0030002010	1.43
0030002020	0.38

The RS preview screen is a very powerful and user friendly tool. The user can print, export, configure page layout, zoom levels, and even search for specific text on the report.

The export options may be one of the more impressive options of RS. The export options list includes:

- XML
- CSV
- TIFF
- PDF
- MHTML
- EXCEL
- WORD

SQL Commands and Examples

Primary SQL Commands

1. The SELECT Command

- **Display all data from the table that holds general parcel information**

  select * from realprop

- **Display all data from the table which contains Total Inventory Value**

  select * from Personal
  select * from Invn

- **Display all data from the table which Contains the Area of Appendages**

  select * from wgsketch

- **Display all data that is contained within the table where outbuilding info is stored**

  select * from acessory

2. The SELECT Clause

- **Display all res imp records**

  select * from reprop

- **Display all owner records**

  select * from owner

- **Show all parcels in Tax District 01**

  select * from realprop where taxdistric='01'

- **Show tax district for all parcels in Tax District 01**

  select taxdistric from realprop where taxdistric='01'

- **Show parcel # and tax district for all parcels in Tax District 01**

  select parcel_no, taxdistric from realprop where taxdistric='01'

- **Show all parcels in Tax District 01 and Map Number J03**

  select realkey, parcel_no, taxdistric from realprop where taxdistric='01' and parcel_no='J03'

- **Show all Personal Property Accounts with a value greater than 7500 and digest class of Residential**

  select perskey, curr_val, propclass from personal where curr_val>7500 and propclass='R'

- **Show all boats greater than 15 feet in length**

  select boatkey, feet, inch from boat where (feet=15 and inch>0) or feet>15
  <or>
  select boatkey, feet, inch from boat where (feet*12)+inch>180

- **Show Parcel_no,Total Land Value,Total Acres for Parcels with Land Value greater than $750 per acre**

  select parcel_no, a_value, p_value, totalacres, a_value+p_value as landval, (a_value+p_value)/totalacres as calcval from realprop where (a_value+p_value)/totalacres>750 and totalacres>0

- **Show all parcels having an assessed value greater than or equal to $2500**

  select parcel_no, curr_val, round(curr_val*.4,0) as assmt from realprop where round(curr_val*.4,0)>2500

- **Browse for parcels that have taxes > $5000 with a mill rate of 30**

  select parcel_no, curr_val from realprop where (curr_val*.4*.030)>5000

  with rounding

  select parcel_no, curr_val from realprop where round(round(curr_val * .4 , 0) *.030, 2)>5000

- **Browse only taxable properties**

  select parcel_no, curr_val, digclass from realprop where (curr_val*.4*.030)>5000 and digclass<>'E'

  with rounding

  select parcel_no, curr_val, digclass from realprop where round(round(curr_val * .4 , 0) *.030 , 2)>5000 and digclass <> ‘E’

- **Browse for owners whose last name is Smith**

  select lastname, firstname, middle from owner where left(lastname,6) = ‘smith ‘

  <or>

  select lastname, firstname, middle from owner where left(lower(lastname),6) = 'smith '

  select * from owner where lastname like 'smith%'

- **Display owner names where “smith” is a part of the name but the last name does not begin with “smith”**

  select lastname from owner where lastname like ‘%smith%’ and
  left (lastname,5) <> ‘smith’

3. The ORDER BY Clause

- **Sort owner records by zip code and display name, city, and zip code**

  select lastname, city, zip from owner order by zip

- **Sort personal property by county id number and display the county id number**

  select co_id_num from personal order by co_id_num

- **Sort realprop on totalacres and show parcel number with the largest acreage**

  select parcel_no, totalacres from realprop order by totalacres desc

  <or>

  select top 1 totalacres, parcel_no from realprop order by totalacres desc

- **Sort on totalacres in descending order, showing parcel number with the smallest acreage**

  select parcel_no, totalacres from realprop order by totalacres asc

- **Sort on calculated land value and go to the largest value**

  select a_value+p_value as CalcLand from realprop order by CalcLand Desc

- **Show Parcel #, digest class, digest strat in digest class/strat plus parcel number order for all parcels**

  select parcel_no, digclass, digstrat from realprop order by digclass, digstrat, parcel_no

4. The SELECT TOP Clause

- **Places the user at the top or bottom of a database, or at the top or bottom of an order that has been set or in an index table that has been created**

  select top 10 curr_val from realprop order by curr_val desc

  select top 10 curr_val from realprop order by curr_val asc

  Note: *(asc is the default so it can be excluded and get the same result)*

5. The UPDATE Command

- **Change the tax district for all parcels located on map J42 to a code of 02**

  update realprop set taxdistric =’02’ where left(parcel_no,3)=’M01’

- **Insert a value of 12 into wall height for all commercial improvements that are missing a wall height**

  update commimp set wall_hght = 12 where wall_hght = 0

- **Set all personal property and prebilled mfg home appeals to a resolved status**

  update appeals set aplstat = ‘R’ where perskey > 0 or mobilekey > 0

  <or>

  update appeals set aplstat = ‘R’ where appealtype = ‘P’ or appealtype = ‘M’

- **Adjust houses by an economic factor of .75 if they have only 1 standard complement and no extra fixtures**

  update reprop set pec_dep = .75 where pl_std=1 .and. pl_xtra=0

- **Replace the datenow field with blanks**

  Update realprop set datenow = null

6. The SUM Clause

- **Add up the total cost value of Manufactured Homes, including Addons**

  select sum (value + addonval) from mobile

- **Add up the total cost value of Prebilled Manufactured Homes**

  select sum (value + addonval) from mobile where mobtype=3

- **What is the total value of all mfg homes valued by the NADA/Market approach?**

  FoxPro: select sum (guidevalue + addonval) from mobile where guide and ovrvalue = 0

  SSMS/SQLMaster: select sum(guidevalue+addonval) from mobile where guide=1 and ovrvalue = 0

- **What is the total "box" value difference of the NADA/Market approach and the Cost approach for all value non-overriden mfg homes?**

  select sum (value – guidevalue) from mobile where ovrvalue = 0

- **What is the total cost value of all boats?**

  FoxPro: select sum (boat_value) from boat where not abos_bt
  SSMS/SQLMaster: select sum(boat_value) from boat where abos_bt=0

- **What would be the county taxes lost if all inventory were exempt and the county millage was 30?**

  select sum (invn_val*.4*.03) from personal

7. The AVG Clause

- **What is the average heated area of houses in the county?**

  select avg (heatedarea) from reprop

- **What is the average totalacres for each parcel in the county?**

  select avg (totalacres) from realprop where totalacres > 0

- **What is the average calculated per acre value for land?**

  select avg ((a_value + p_value) / totalacres) from realprop where totalacres > 0 and a_value + p_value > 0

- **What is the average tax on prebilled mh's that are valued by the cost approach with a mill rate of 20?**

  Select avg((addonval + case when ovr_val>0 then ovr_val when guide then guidevalue else value end) * .4 * .02) from mobile where mobtype=3

8. The <u>COUNT</u> Clause

- **How many parcels in the county have a land Digest Class and Strat of C3**

  select count(*) from realprop where digclass + digstrat = 'C3'

- **How many Personal Property accounts have a value greater than $7500**

  select count(*) from personal where curr_val > 7500

- **How many Personal Property accounts pay more than $500 in taxes(mill rate is 30)**

  select count(*) from personal where (curr_val* .40 * .03)> 500 and propclass <> 'E'

- **How many Personal Property accounts have Freeport**

  select count(*) from personal where frport_val > 0

  How can you confirm this result?

  select frport_val from personal where frport_val > 0

- **Count the # of sales for the year 2001**

  select count(*) from saleinfo where year (saledate)=2001

- **Count the # of sales for the month of March 2001**

  select count(*) from saleinfo where year(saledate)=2001 and month(saledate)=3

- **How many personal property accounts are classed as commercial?**

  select count(*) from personal where propclass='C'

- **How many accounts have a boat value?**

  select count(*) from personal where boat_val>0

- **How many single wide mfg homes do I have in the county?**

  select count(*) from mobile where width < 17

- **How many barns with lofts do I have in the county?**

  Select count(*) from acessory where comp_no in (select comp_no from acc_ctrl where descrip like '%barn with loft%')

- **How many accessories with "barn" in the description are in the county**

  Select count(*) from acessory where acc_type='A' and comp_no in (select comp_no from acc_ctrl where descrip like '%barn%')

9. Placing data in Excel formatted tables (CSV)

- **Create an Excel table containing parcel # and acres**

  Right click on data set, choose Save Results As…, name Table, type is CSV

- **Create an Excel table that contains all owner info**

  Select * from owner
  Right click on data set, choose Save Results As…, name Table, type is CSV

10. Totaling Values Commands

- **Create a table containing the total current value of all Personal Property accounts for each owner**

  select ownkey,sum(curr_val) as Owner_Total_Value from personal group by ownkey

- **Create a table containing the total calculated rural land value for each unique ownkey**

  Select sum(a_value+p_value) as Land_Total from realprop where land_type=3 group by ownkey

11. Multiple Tables

- **Display owner name and parcel # in parcel order**

  Select a.lastname, b.parcel_no from realprop b left join owner a on b.ownkey = a.ownkey order by b.parcel_no

- **How many parcels whose owners have a last name of SMITH are greater than 100 acres?**

  Select count(*) from realprop where totalacres > 100 and ownkey in (select ownkey from owner where left(lastname,6) = 'smith ')

- **Produce the total value of all houses on map '070B'**

  Select sum(timp_val) from reprop rp left join realprop r on rp.realkey = r.realkey and r.parcel_no like '070B%'

- **List lastname,address1,parcel # in parcel # order**

  Select o.lastname, o.address1, r.parcel_no from realprop r left join owner o on o.ownkey = r.ownkey order by r.parcel_no

- **What is the average heated area of houses in tax district 02?**

  Select avg(rp.heatedarea) from reprop rp left join realprop r on r.realkey = rp.realkey and r.taxdistric = '02'

- **Browse all houses with a grade greater than 110 and are Brick (list parcel #, improvement #, and grade)**

  Select r.parcel_no, rp.repropkey, rp.grade from reprop rp left join realprop r on r.realkey = rp.realkey and grade>1.10 and ext_walls=1

- **How many parcels have a conservation use year or a conservation digest class but do not have a conservation history record**

  Select count(*) from realprop where ccy is not null or (digclass='v' and realkey not in (select realkey from conmai))

- **Replace the subdivision code with the number 999 for map 070B**

  Update landsubs set subdivcode = 999 where realkey in (select realkey from realprop where parcel_no like '%070b%')

- **First, create a table called land_acres containing the fields parcel number, realkey, totalacres and subacres (the total acreage of the land subrecords) in order to match the totalacres to the subrecord acreage. Second, count for parcels where the acreage does not match the subrecord acreage**

  Select r.parcel_no, r.realkey, r.totalacres, (select sum(acres) from landsubs where sub_type not in ('CUV', 'FLP') and realkey = r.realkey) as subacres into land_acres from realprop r

  Then count:

  Select count(*) from land_acres where totalacres <> subacres

  Or all in one command without creation of a new table:

  Select count(*) from (select r.parcel_no, r.realkey, r.totalacres, (select sum(acres) from landsubs where sub_type not in ('CUV', 'FLP') and realkey = r.realkey) as subacres from realprop r) a where totalacres <> subacres

12. Selecting unique occurrences of data

- **Show the unique occurrence of each digest class/strat combination for land**

  Select distinct digclass,digstrat from realprop

- **What is the highest valued mobile home?**

  select top 1 value from mobile order by value desc

- **What is the house with the most heated area?**

  Select top 1 repropkey, heatedarea from reprop order by heatedarea desc

13. SQL Examples Using Several Commands

- **Create an Excel table with sales information for Ag Large Tract sales occurring in 1999 with parcel #, total acres, and sales price per acre**

  Select r.parcel_no, r.totalacres, s.saleprice
  Into sales
  From saleinfo s
  Left join realprop r on r.realkey = s.realkey
  Where left(s.saledate,4)='1999' and s.saleclass='a' and s.strat=5 and s.saleprice>0

  Then:

  select * from sales

  Right click on data set, choose Save Results As…, name Table, type is CSV

  Alternative example:

  Select r.parcel_no, r.totalacres, s.saleprice, s.saledate from saleinfo s
  Left join realprop r on r.realkey = s.realkey where s.saledate='1999' and
  s.saleclass = 'a' and s.strat = 5 and s.saleprice>0

  Right click on data set, choose Save Results As…, name Table, type is CSV

- **Create an Excel table containing the Owner's Name, Account #, Boatkey, Feet, Inches, Value of Boat, $ per foot**.

  Select b.perskey, b.boatkey, b.feet, b.inch, b.boat_value, case b.feet when 0 then 0.00 else
  b.boat_value/b.feet end as Dollar_ft From boat b
  Left join personal p on p.perskey = b.perskey
  Left join owner o on o.ownkey = p.ownkey

  Right click on data set, choose Save Results As…, name Table, type is CSV

- **Produce an Excel table with lastname, address info, parcel #, total acres for tracts over 25 acres in parcel # order**

  Select o.lastname, o.address1, o.address2, o.address3, o.city, o.state, o.zip,
  r.parcel_no, r.totalacres from realprop r
  left join owner o on o.ownkey = r.ownkey
  where r.totalacres > 25 order by r.parcel_no

  Right click on data set, choose Save Results As…, name Table, type is CSV

- **Copy names and parcel #s to an Excel table for owners whose last name begins with S**

  ```
  select o.lastname, r.parcel_no
  from realprop r
  left join owner o on o.ownkey = r.ownkey
  where left(o.lastname,1) = 's'
  ```

  Right click on record set, select 'save results as…' name Table, type is CSV

- **Show owner, account #, total value of all Personal Property accounts with a value less than $500**

  ```
  Select o.lastname, p.perskey, p.curr_val
  From personal p
  Left join owner o on o.ownkey = p.ownkey
  Where p.curr_val < 500
  ```

- **Create an Excel table that contains the owner name, parcel #, the improvement #, the calculated value, and the heated area**

  ```
  Select o.lastname, r.parcel_no, rp.repropkey, rp.timp_val, rp.heatedarea
  From reprop rp
  Left join realprop r on r.realkey = rp.realkey
  Left join owner o on o.ownkey = r.ownkey
  ```

  Right click on record set, select 'save results as…' name Table, type is CSV

- **Produce a list of all owners of ponds. Provide name, parcel #, land type, land class and acres on list**

  ```
  select o.lastname, r.parcel_no, l.ltype, l.lclass, l.acres
  from landsubs l
  left join realprop r on r.realkey = l.realkey
  left join owner o on o.ownkey = r.ownkey
  where ltype=3
  ```

- **Produce a list of accessory buildings with name, parcel #, component #, dimension1, dimension2, and accessory value**

  ```
  Select o.lastname, r.parcel_no, a.comp_no, a.dim1, a.dim2, a.imp_val
  From acessory a
  Left join realprop r on r.realkey = a.realkey
  Left join owner o on o.ownkey = r.ownkey
  ```

- **List the name, parcel #, total acres, % open, % wooded for tracts that are more than 50% non-wooded and are ag tracts**

  Select o.lastname, r.parcel_no, r.totalacres,(r.totalacres – r.woodacres) / r.totalacres as PercentOpen, r.woodacres/r.totalacres as PercentWood
  From realprop r
  Left join owner o on o.ownkey=r.ownkey
  Where digclass='a' and (r.totalacres – r.woodacres) / r.totalacres > .5 and totalacres > 0

- **Count the total number of Personal Property accounts that are less than or equal to $7500 for each owner (combine accounts for each owner)**

  Select count(*) from (Select ownkey, sum(curr_val) as TotalValue from personal group by ownkey) a where totalvalue <= 7500

- **Browse using index tables and orders created in WinGAP**

  Select parcel_no, curr_val, totalacres from realprop where taxdistric='01' .and. left(parcel_no,3)='J03' order by parcel_no

  Select parcel_no, curr_val, totalacres, digclass from realprop where totalacres > 500 and digclass='A' order by parcel_no

  Select parcel_no, curr_val, totalacres, digclass from realprop where totalacres > 500 and curr_val > 100000 order by parcel_no

SQL Functions and Examples

1. The ABS() Function

- **How many personal property accounts have a change in value greater than 100%**

  select count(*) from personal where abs(curr_val – prev_val) / prev_val > 1.00 and prev_val > 0

2. The CHARINDEX() Function

- **List all sales where "vacant" is located in the comments**

  Select * from saleinfo where charindex('vacant',comment) > 0

- **How many accessories with "barn" in the description are in the county**

  Select count(*) from acessory where acc_type='A' and comp_no in (select comp_no from acc_ctrl where charindex('barn',descrip)>0 and acc_type='a')

3. The LEFT() Function

- **List all personal property accounts where "RAY" is the first 3 characters in the Business ID field**

  Select * from personal where left(Busi_id,3) = 'RAY'

4. The RIGHT() Function

- **List all parcels where "EST" is the last 3 characters in the Legal Description field**

  Select * from realprop where right(Legal_desc,3) = 'EST'

5. The GETDATE() Function

- **Replace the review date field with today's date for all parcels on map G01**

  Update realprop set reviewdate = getdate() where parcel_no like 'G01%'

- **Index parcels on review date and display parcel number and review date**

  Select parcel_no, reviewdate from realprop order by reviewdate

- **Put sales in reverse(descending) date order**

  Select * from saleinfo order by saledate desc

6. The INT() Function (must be used with the Convert() function)

- **What would be the total value loss if parcels were truncated to the 100**

  Select sum ((curr_val) – convert(int,(curr_val/100) * 100)) from realprop where curr_val > 1000

7. The ROUND() Function

- **Use the Round() function to show the total taxes for Prebilled Mobile Homes with a tax bill greater than 250.00. Assume that all values are Cost and round to 2 decimals**

  Select mobilekey,value,mobtype,taxes=round(value*.4*.03,2) from mobile where mobtype=3 and round((value*.40*.03),2)>250

- **Use the Round() function to produce total inventory taxes (millage rate is 30)**

  select sum (round(round(invn_val*.4,0)*.03,2)) from personal

8. The SPACE() Function

- **Replace the legal description with spaces**

  Update realprop set legal_desc = space(45)

9. The STR() Function

- **Display the legal description plus the number of acres followed by the phrase "Acres" in the legal description**

  Select legal_desc + str(totalacres,8,2) + **' Acres'** as revised_legal from realprop

- **Show the unique sale class and strat combinations that have been used in sales data entry**

  Select distinct saleclass+str(strat,1,0) as sale_cls_strat from saleinfo order by saleclass+str(strat ,1,0)

10. The SUBSTRING() Function

- **Use the Substring() function to count the number of parcels that have a subparcel entry in the parcel number. The parcel number format is 4-3-4-3**

  select count(*) from realprop where substring(parcel_no,12,3) > ‘ ‘

  (the last 3 spaces are inside the apostrophes)

11. The YEAR() Function

- **Use the Year() function to look at sales for the year 2002**

  select * from saleinfo where year(saledate)=2002

- **How many sales occurred in the year 1999**

  select count(*) from saleinfo where year(saledate)=2002

- **How many properties were reviewed in 1999**

  select count(*) from realprop where year(reviewdate)=1999

12. The MONTH() Function

- **Count the # of sales for the month of April 2003**

  select count(*) from saleinfo where year(saledate)=2003 and month(saledate)=4

13. The DAY() Function

- **Count the # of sales that occurred on the 9th day of any month**

  select count(*) from saleinfo where day (saledate)=9

14. The UPPER() Function

- **Use the Upper() function to display the field lastname in all upper case**

  select upper(lastname) as upper_name from owner

15. The LOWER() Function

- **Use the lower function to display owner last names in lower case**

  Select lower(lastname) as lower_name from owner

16. The Ltrim() and Rtrim() Functions

- **Display the situs address without extra spaces**

  Select rtrim(str(house_no,5,0)) + **' '** + ltrim(street_nam) + **' '**+ ltrim(sttype)
  as st_addr from realprop where house_no>0 and len(street_nam)>0

17. The LEN() Function

- **How many owners are there that have used all 40 characters for a corporate name?**

  select count(*) from owner where len(lastname)=40

18. The CONVERT() Function

- **What is the percent difference between the current value and the previous value for all parcels on Map J11?**

  select realkey, parcel_no, curr_val, prev_val, convert(float,curr_val) / convert(float,prev_val) as percent_difference from realprop where left(parcel_no,3) = 'j11' and curr_val > 0 and prev_val > 0

Reporting Services Examples

Example 1 (1 table)

- Create a Map / Parcel report showing
    - Parcel #
    - Current Value
- Order = Parcel #
- Tables:
  Realprop
- Fields:
  Realprop.parcel_no
  Realprop.curr_val
- Sort:
  Realprop.parcel_no
- Filter:
  None

Note: Add your name in a text box in the Footer Band of the report

Example 2 (1 table)

- Create a list of all Mobile Homes showing:
    - Manufacturer
    - Model
    - Width
    - Length
- Tables:
  Mobile
- Fields:
  Mobile.mfg
  Mobile.model
  Mobile.width
  Mobile.length
- Sort:
  None
- Filter:
  None

Note: Add your name in a text box in the Footer Band of the report

Example 3 (1 table)

- Create a house report showing
    - grade
    - year built
    - improvement number
    - total improvement value
- Order report by total improvement value
- Tables:
  Reprop
- Fields:
  Reprop.grade
  Reprop.yr_built
  Reprop.repropkey
  reprop.timp_val
- Sort:
  Reprop.timp_val
- Filter:
  None

Note: Add your name in a text box in the Footer Band of the report

Example 4 (1 table)

- Create a Tax District / Homestead listing with the following:
    - Parcel #
    - Tax District
    - Homestead exemption code
- Order = Parcel #
- Tables:
  Realprop
- Fields:
  Realprop.parcel_no
  realprop.taxdistric
  realprop.homeexempt
- Sort:
  Realprop.parcel_no
- Filter:
  Realprop.taxdistric='01'

Note: Add your name in a text box in the Footer Band of the report

Example 5 (1 table)

- Create an Assessment Reason / Code Report that lists the three fields below and shows only Assessment Reasons with a Reason Type of A:

    - Assessment Reason Code
    - Assessment Reason Description
    - Assessment Reason Type

- Tables:
  Reason

- Fields:
  Reason.reasoncode
  Reason.reason
  Reason.reasontype

- Sort:
  Reason.reason

- Filter:
  Reason.reasontype='A'

Note: The Reason table contains all types of Reasons used in WinGAP. Assessment Reasons (Reasontype: A), Sales Reasons (Reasontype: S), and Override Reasons (Reasontype: O) are examples of the Reason Types found in the Reason table. This example wants only the Assessment Reasons.

Note: Add your name in a text box in the Footer Band of the report

Example 6 (2 tables)

- Create a Map Order report showing

    - Parcel #
    - Lastname

- Order = Parcel #

- Tables:
  Owner
  Realprop
- Fields:
  Realprop.parcel_no
  Owner.lastname

- Sort:
  Realprop.parcel_no

- Filter:
  None

Note: Add your name in a text box in the Footer Band of the report

Example 7 (2 tables)

- Create an Owner Address report showing
    - Last name
    - All owner address info
    - Parcel #
    - Total acres
- Filter is acres > 25
- Order by parcel number
- Tables:
  Owner
  Realprop
- Fields:
  Owner.lastname
  Owner.address1
  Owner.address2
  Owner.address3
  Owner.city
  Owner.state
  Owner.zip
  Realprop.parcel_no
  Realprop.totalacres
- Sort:
  Realprop.parcel_no
- Filter:
  Realprop.totalacres>25

Note: Add your name in a text box in the Footer Band of the report

Example 8 (2 tables)

- Create a House listing with:
    - parcel #
    - residential imp #
    - year built
    - effective year built
    - grade
    - physical dep
    - override dep
- Sort by year built and grade

- Filter by year built greater than 1980

- Tables:
  Realprop
  Reprop
- Fields:
  Realprop.parcel_no
  Reprop.repropkey
  Reprop.yr_built
  Reprop.efyr_built
  Reprop.grade
  Reprop.phy_dep
  Reprop.phr_ovr

- Sort:
  Reprop.yr_built .and. reprop.grade

- Filter:
  Reprop.yr_built>1980

Note: Add your name in a text box in the Footer Band of the report

Example 9 (2 tables)

- Create a report showing every parcel that has a 100 grade house

  - Parcel #
  - Grade

- Tables:
  Realprop
  Reprop

- Fields:
  Realprop.parcel_no
  Reprop.grade

- Sort:
  None

- Filter:
  Reprop.grade=1.00

Note: Add your name in a text box in the Footer Band of the report

Example 10 (2 tables)

- Create a Boat Report showing

    - Boat Make and Model
    - Boat Length
    - Boat FMV
    - Motor FMV
    - Total of Boat and Motor FMV
    - Personal Property Account Number
    - Tax District
- Sort report by Personal Property Account Number

- Tables:
    Personal
    Boat
- Fields:
    Personal.Perskey
    Personal.Taxdistric
    Boat.Mfg_Name
    Boat.Model_Name
    Boat.Feet
    Boat.Inch
    Boat.Boat_Value
    Boat.Motor_Val

- Sort:
    Personal.Perskey

- Filter:
    None

Note: Add your name in a text box in the Footer Band of the report

Example 11 (2 tables)

- Create a Homestead Exemption listing showing

    - owner name
    - parcel number
    - homestead exemption

- Sort the report using the following criteria:

    - All like exemptions are together
    - These exemptions are in name order

- Exclude the following from the report:

    - Homestead exemption codes of S0

- Tables:
  Owner
  Realprop
- Fields:
  Owner.lastname
  Realprop.parcel_no
  Realprop.homeexempt
- Sort:
  Realprop.homeexempt and owner.lastname

- Filter:
  Realprop.homeexempt<>'S0'

Note: Add your name in a text box in the Footer Band of the report

Example 12 (2 tables)

- Create a report showing all Prebilled Mobile Home Owners, the Manufacturer of the Mobile Home, the Width, Length, and Area of the Mobile Home. (Prebilled: Mobtype=3)

  - Owner Lastname
  - Manufacturer
  - Width
  - Length
  - Area (Width x Length)
  - mobtype

- Sort the report in Owner Order

- Tables:
  Owner
  Mobile

- Fields:
  Owner.lastname
  Mobile.mfg
  Mobile.width
  Mobile.length
  Area is a calculated field (Mobile.length x Mobile.width)

- Sort:
  Owner.lastname

- Filter:
  Mobile.mobtype=3

Note: Add your name in a text box in the Footer Band of the report

Example 13 (3 tables)

- Create a list of personal property accounts having MEFF items with a valuation method (valmethod) that uses the Market approach. List the following:

    - Owner Last Name
    - Personal Property Account Number
    - Description of each MEFF Item
    - Market value of each MEFF Item
    - Total Value of MEFF Items on the Account

- Sort report in owner last name order

- Tables:
    Owner
    Personal
    Cost

- Fields:
    Owner.lastname
    Personal.perskey
    Personal.meff_val
    Cost.item_desc
    Cost.marketval
    Cost.valmethod

- Sort:
    Owner.lastname

- Filter:
    Cost.valmethod='M'

Note: Add your name in a text box in the Footer Band of the report

Example 14 (3 tables)

- Create a list of all Mobile Homes that are valued like residential improvements showing

    - Mobile home account number
    - Parcel #
    - Current value
    - mobtype

- Filter for when Mobtype = 1, house pricing is used

- Tables:
    Realprop
    Reprop
    Mobile

- Fields:
  Mobile.mobilekey
  Realprop.parcel_no
  Reprop.timp_val

- Sort:
  None
- Filter:
  Mobile.mobtype=1

Note: Add your name in a text box in the Footer Band of the report

Example 15 (1 table)

- Create a list of all Accessories showing
  - Dimension 1
  - Dimension 2
  - Improvement Value
  - Override Value
  - Accessory Type
- Add a filter to exclude the following:
  - Accessories that have override values
  - Accessory types of C or M
  - Accessories that are $1000 or less in value

- Tables:
  Acessory

- Fields:
  Acessory.dim1
  Acessory.dim2
  Acessory.imp_val
  Acessory.ovr_val
  Acessory.acc_type

- Sort:
  None

- Filter:
  Acessory.ovr_val=0 and acessory.acc_type='A' and acessory.imp_val > 1000

Example 16 (1 table)

- Create a house report showing

    - residential improvement number
    - year built
    - grade
    - calculated depreciation
    - total improvement value
    - override value
    - override depreciation

- Filter for houses with a year built greater than 1990 and do not have an override value and no override depreciation and total improvement value greater than zero

- Order report by total improvement value

- Tables:
  Reprop

- Fields:
  reprop.repropkey
  reprop.yr_built
  reprop.efyr_built
  reprop.grade
  reprop.phy_dep
  reprop.timp_val
  reprop.ovr_val
  reprop.phy_ovr

- Sort:
  Reprop.timp_val

- Filter:
  Reprop.yr_built>1990 and reprop.ovr_val=0 and phy_ovr=0.00 and timp_val>0

Note: Add your name in a text box in the Footer Band of the report

Example 17 (1 table)

- Create a Map / Parcel report showing

    - Parcel #
    - Total Current Value
    - Total Assessed Value

- Order = Parcel #

- Tables:
  Realprop

- Fields:
  Realprop.parcel_no
  Realprop.curr_val*.40

- Sort:

  Realprop.parcel_no

- Filter:

  None

Note: Add your name in a text box in the Footer Band of the report

Example 18 (1 table)

- Create a Personal Property account listing showing

  - Account number
  - Current account value
  - Previous account value

- First, make this report show only accounts with zero values

- Next, make this report now show both accounts with zero values and with a value greater than 1 million

- Tables:
  Personal

- Fields:
  Personal.perskey
  Personal.curr_val
  Personal.prev_val

- Sort:
  None

- Filter:
  Personal.curr_val=0

  Then

  Personal.curr_val=0 or personal.curr_val>1000000

Then

Personal.curr_val/personal.prev_val>1.5 and personal.prev_val>0

Note: Add your name in a text box in the Footer Band of the report

Example 19 (1 table)

- Create a Real Property digest report showing
    - parcel number
    - current value
    - previous value
- Add to the report a column showing the dollar amount of change
- Show the decreases in value in this column in red
- Tables:
  Realprop
- Fields:
  Realprop.parcel_no
  Realprop.curr_val
  Realprop.prev_val
  Realprop.curr_val-realprop.prev_val
- Sort:
  None
- Filter:
  None

Note: Add your name in a text box in the Footer Band of the report

Example 20 (1 table)

- Create a Personal Property report showing
    - acct number
    - digest class
    - inventory value
    - total value
- Filter for commercial accts with inventory value > 0
- Add a column to show what percentage of the total value is represented by inventory value

- Tables:
  Personal

- Fields:
  Personal.perskey
  Personal.propclass
  Personal.invn_val
  Personal.curr_val

- Sort:
  None

- Filter:
  Personal.propclass='C' and Personal.invn_val>0

Example 21 (2 tables)

- Create a report called Name Report showing
  - Owner lastname
  - City
  - Zip code

- Order = Name

- Add a filter for zip = 31032

- Add parcel # to the report

- Tables:
  Owner
  Realprop

- Fields:
  Owner.lastname
  Owner.city
  Owner.zip
  Realprop.parcel_no

- Sort:
  Owner.lastname
- Filter:
  Owner.zip='31032'

Note: Add your name in a text box in the Footer Band of the report

Example 22 (2 tables)

- Create an Owner listing with the following:
    - Owner lastname
    - Parcel #
    - Tax District
    - Homestead exemption code
- Order = name
- Change the name column to blue
- Tables:
  Owner
  Realprop
- Fields:
  Owner.lastname
  Realprop.parcel_no
  realprop.taxdistric
  realprop.homeexempt
- Sort:
  Owner.lastname
- Filter:
  None

Note: Add your name in a text box in the Footer Band of the report

Example 23 (3 tables)

- Create a Boat report showing
    - Owner lastname
    - Owner account #
    - Personal property account #
    - Boat account #
    - Boat length (in feet and inches)
- Filter for all boats longer than 15 feet
- Order is Lastname order
- Tables:
  Owner
  Personal
  Boat

- Fields:
  Owner.lastname
  Owner.ownkey
  Personal.perskey
  Boat.boatkey
  Boat.feet
  Boat.inch

- Sort:
  Owner.lastname

- Filter:
  (Boat.feet=15 and boat.inch>0) or boat.feet>15

  Or

  (boat.feet*12)+boat.inch>180

Note: Add your name in a text box in the Footer Band of the report

Example 24 (2 tables)

- Create a Sales report showing

  - Sales in 1997
  - Acres between 10 and 25, inclusive
  - Accessibility code of 3

- Tables:
  Saleinfo
  Realprop

- Fields:
  Saleinfo.saledate
  Realprop.parcel_no
  Realprop.totalacres
  Realprop.acc

- Sort:
  None

- Filters:
  Year(saleinfo.saledate)=1997 and (realprop.totalacres>9.99 and realprop.totalacres<25.01) and realprop.acc=3

  Or

  Year(saleinfo.saledate)=1997 and realprop.totalacres between 9.99 and 25.01 and realprop.acc = 3

Note: Add your name in a text box in the Footer Band of the report

Example 25 (2 tables)

- Create a Taxes Owed listing showing
    - Owner name
    - Parcel #
    - Current value
    - Assessed Value
    - Taxes Owed
- Millage Rate is 30 mills
- Filter for taxes greater than $500
- Tables:
  Owner
  Realprop
- Fields:
  Owner.lastname
  Realprop.parcel_no
  Realprop.curr_val
  Realprop.curr_val*.40
  Realprop.curr_val*.40*.03
- Sort:
  None
- Filter:
  (Realprop.curr_val*.40*.03)>500

Note: Add your name in a text box in the Footer Band of the report

Example 26 (2 tables)

- Create a list of all Personal Property Accounts that will be exempt by the $7500 exemption:
    - Last name
    - Personal property account
    - Total account value
- Order = Owner lastname
- Tables:
  Owner
  Personal
- Fields:
  Owner.lastname
  Personal.perskey
  Personal.curr_val

- Sort:
  Owner.lastname
- Filter:

  Personal.curr_val<7501

Note: Add your name in a text box in the Footer Band of the report

Example 27 (3 tables)

- Create a list of properties that sold during 2001
  - Parcel #
  - Current Value
  - Assessed Value
  - Sale Price
  - Sale Reason Code
  - Sale Reason Description
  - Sales Assessment Ratio (Curr_Val * .40 divided by Sales Price)
- Filter for sales price greater than 0 and sales year =2001
- Order list by sale date
- Tables:
  Saleinfo
  Realprop
  Reason
- Fields:
  Realprop.parcel_no
  Realprop.curr_val
  Realprop.curr_val * .4
  Saleinfo.saleprice
  Saleinfo.reason
  Reason.reason
  Realprop.curr_val * .40 / saleinfo.saleprice
- Sort:
  Saleinfo.saledate
- Filter:
  Saleinfo.saleprice>0 and year(saleinfo.saledate)=2001

Note: Add your name in a text box in the Footer Band of the report

Example 28 (3 tables)

- Create a Conservation Use / Sales listing showing
    - owner name
    - parcel number
- change parcel number to realkey
- add a column for conservation use covenant year
- filter report so that only parcels with conservation use years are listed
- add the sale date column
- filter for sales that occurred in 2001
- modify report by removing CCY filter
- Tables:
  Owner
  Realprop
  Saleinfo
- Fields:
  Owner.lastname
  Realprop.parcel_no (then change to realprop.realkey)
  Realprop.ccy
  Saleinfo.saledate
- Sort:
  None
- Filters:
  Realprop.ccy>' ' and year(saleinfo.saledate)=2001

  Or

  Realprop.ccy>space(1) and year(saleinfo.saledate)=2001

Note: Add your name in a text box in the Footer Band of the report

Example 29 (3 tables)

- Create a Sales list showing the following:
    - sale date
    - deed book
    - sale price
    - reason
- Filter for sales price greater than 0 and sales year greater than 1970
- Order list by sale date
- Add Neighborhood field to this report
- Tables:
  Saleinfo
  Realprop
  Reason
- Fields:
  Saleinfo.saledate
  Saleinfo.deedpage
  Saleinfo.saleprice
  Reason.reason
  Realprop.neighbhood
- Sort:
  Saleinfo.saledate
- Filters:
  Saleinfo.saleprice>0 and year(saleinfo.saledate)>1970

Note: Add your name in a text box in the Footer Band of the report

Example 30 (3 tables)

- Create a list showing all Personal Property accounts that have boats
    - Owner lastname
    - Account number
    - Digest class
    - Boat name
    - Boat value
- Sort report in account order

- Tables:
  Owner
  Personal
  Boat

- Fields:
  Owner.lastname
  Personal.perskey
  Personal.propclass
  Boat.mfg_name
  Boat.boat_value

- Sort:
  Personal.perskey

- Filter:
  Personal.boat_val>0

Note: Add your name in a text box in the Footer Band of the report

Example 31 (2 tables)

- Create a form letter to be sent to every property owner that has a homestead exemption, that local legislation has created a new homestead exemption, which may be applied for.

- Tables:

  Owner
  Realprop

- Fields:
  Owner.lastname
  Owner.address1
  Owner.address2
  Owner.address3
  Owner.city
  Owner.state
  Owner.zip
  Realprop.homeexempt

- Sort:
  none

- Filter:
  Realprop.homeexempt>'S0'

Note: Add your name in a text box in the Footer Band of the report