dbSNP Entity Relationship Diagram:
Build 125
Last updated: 12/6/05

Note:

1. dbSNP Schema is very complex with well over 100 tables and many relationships among tables. One single ER diagram with all dbSNP tables will be too huge to present useful information. Instead, we separate tables according to subject areas:
- Batch Submission:
- Submitted SNP
- Submitted snp, population frequency and individual genotype
- Frequency calculation by submitted snp and population.
- SNP Mapping and Annotation

2. A table may be repeated in several ER diagram if the table has important relationship in these subject areas.

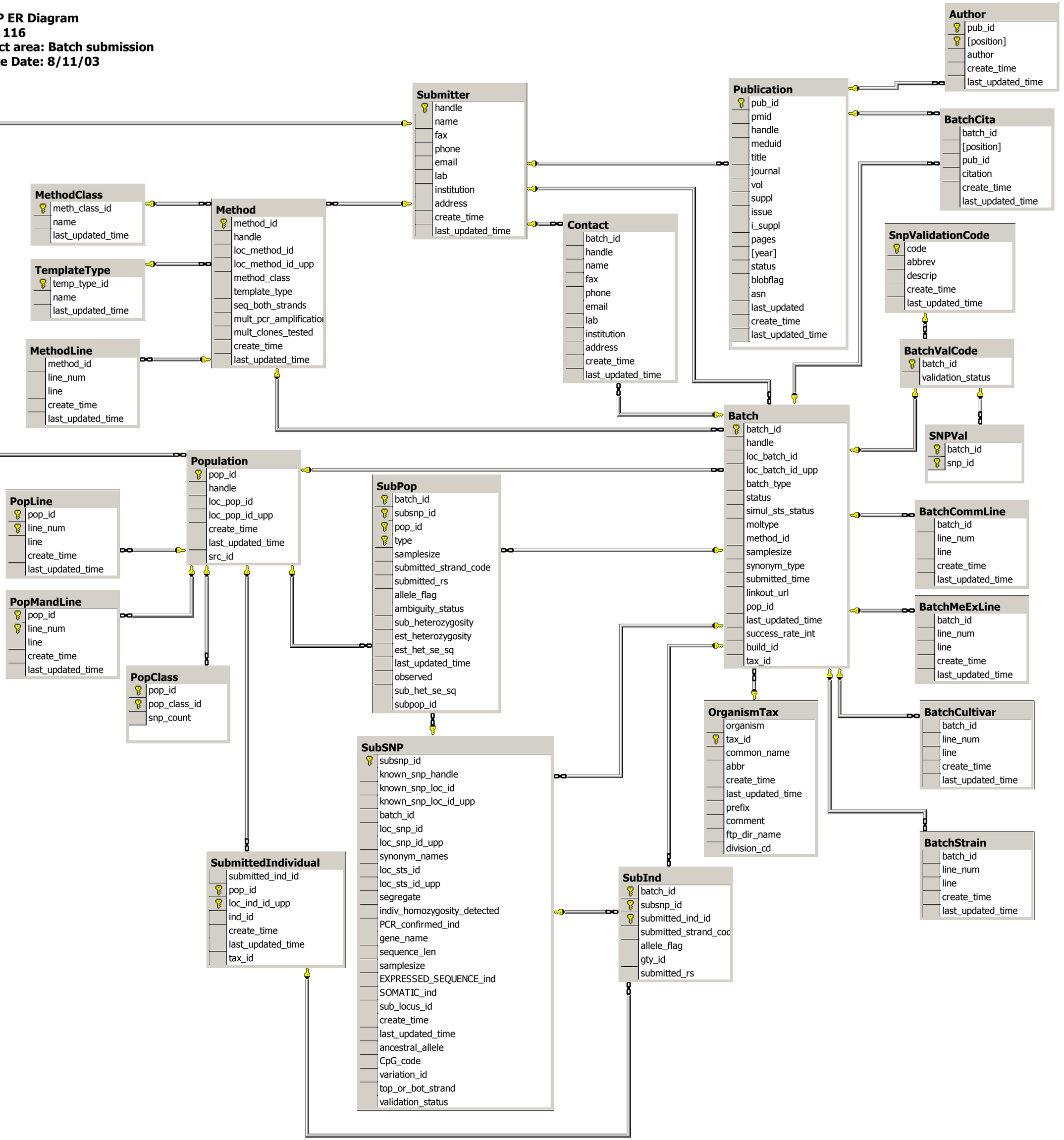
3. In the SNP Annotation subject area, the mapping tables for each organism have the same set of columns. But to clearly reflect the different genome build the snp is mapped to, the mapping table has the snp build # as prefix and NCBI assebmly build # as suffix. For ex. b125_SNPContigLoc_b34_3: is the mapping data for b125 snps that are mapped to NCBI genmoe build 34 version 3.
The structures of these mapping tables are all exactly the same.

4. dbSNP has many tables with useful data but no relationship to other tables. For ex. FtpValidation has counts of objects in ftp files. (Please see Data Dictionary for details.)
Since these tables have no foreign keys, they will just be stand alone blocks on the ER Diagram. For brevity, we exclude them from the ER diagrams.

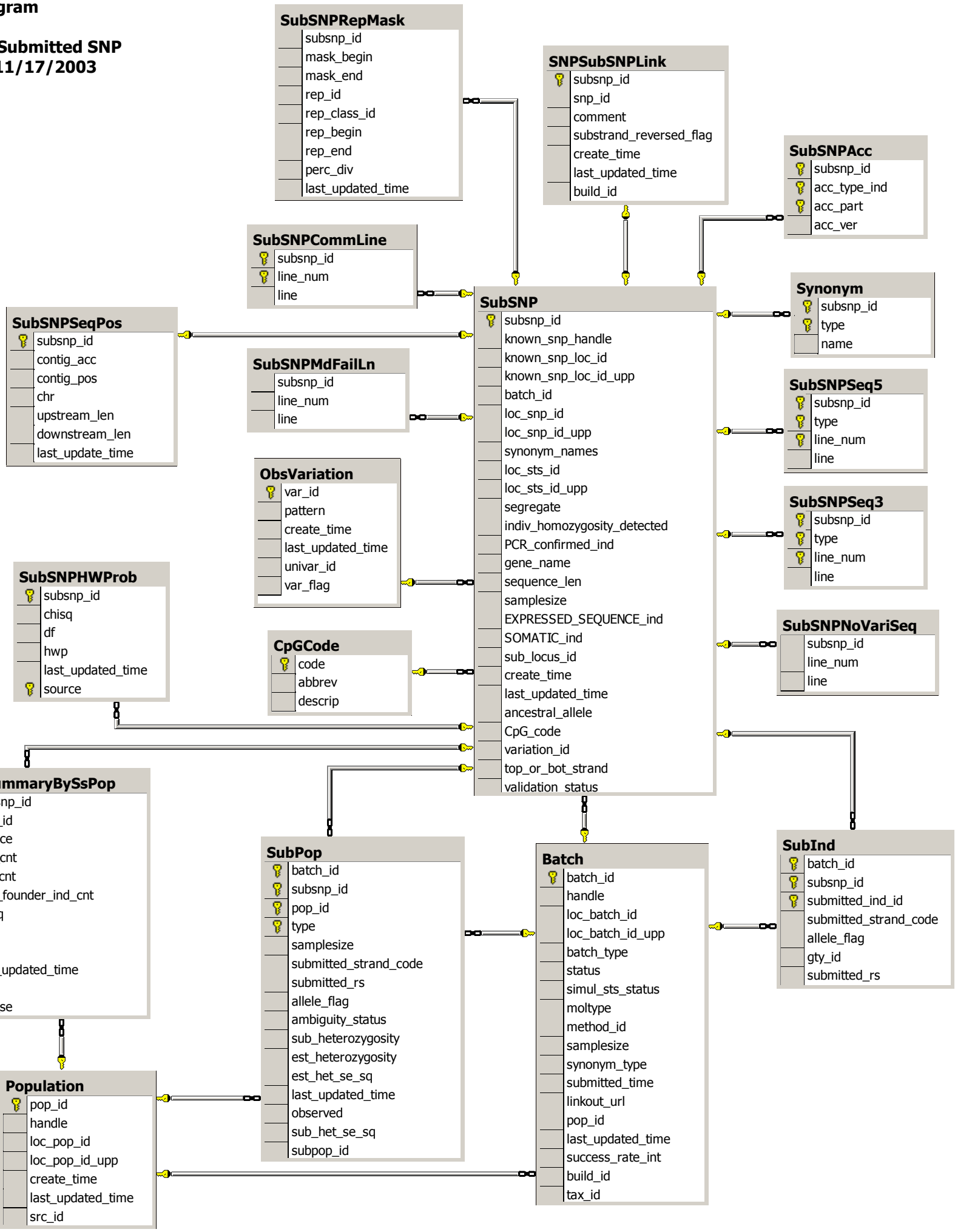
5. The build id in each diagram shows that last time the subject area has schema change.
So for example, if the ER diagram for Batch Submission shows the build id as 116, then it means that there have not been any changes since build 116 in this subject area.
The following table shows the subject area and the last build id the subject area was modified.

Subject Area	**Build Id Last Modified**
Batch submission	116
Submitted SNP	118
Submitted population frequency and individual genotype	117
Frequency calculation by sumitted snp and population.	118
SNP Mapping and Annotation	125

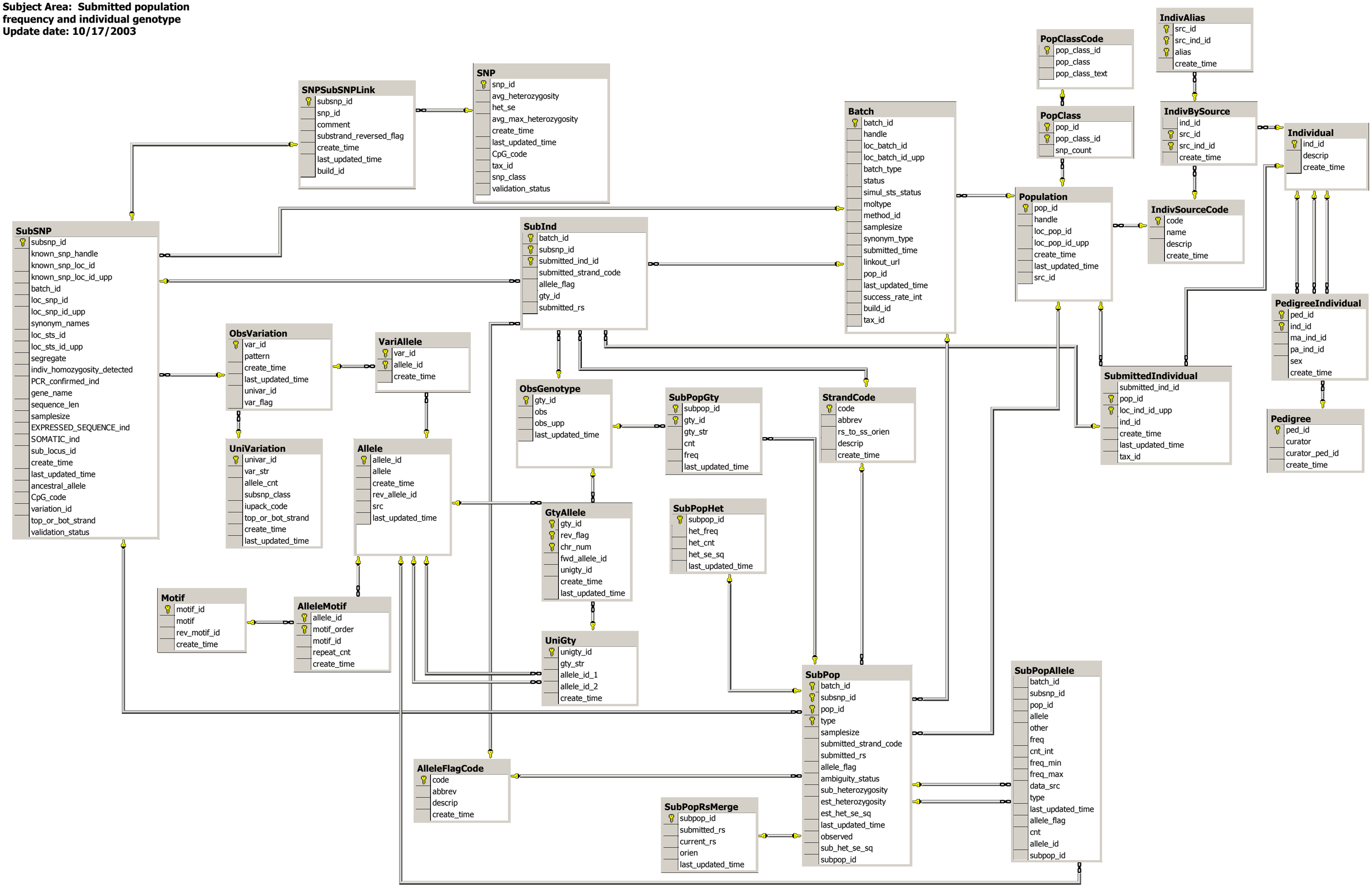
dbSNP ER Diagram
Build: 116
Subject area: Batch submission
Update Date: 8/11/03



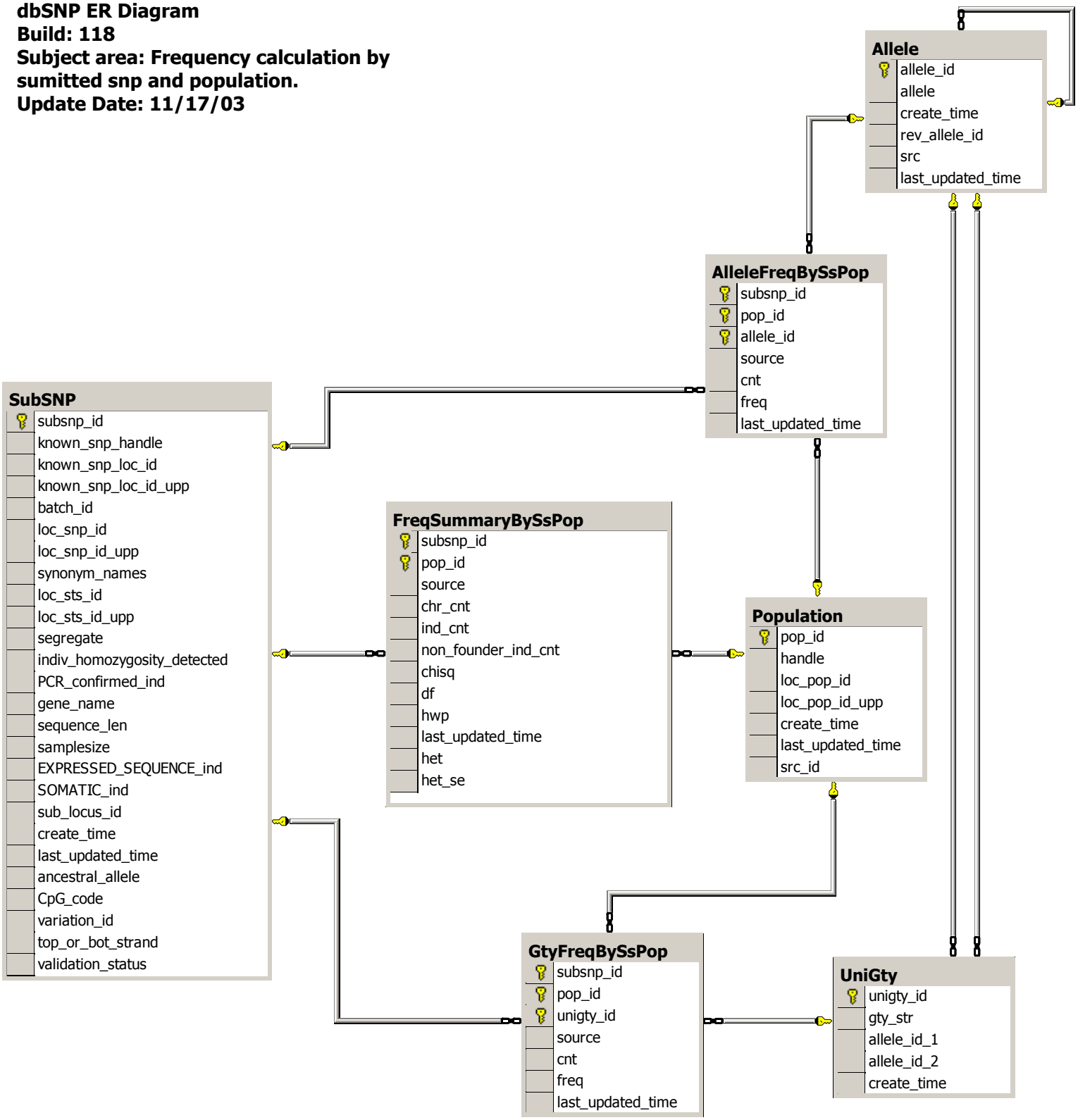
dbSNP ER Diagram
Build: 118
Subject area: Submitted SNP
Update date: 11/17/2003

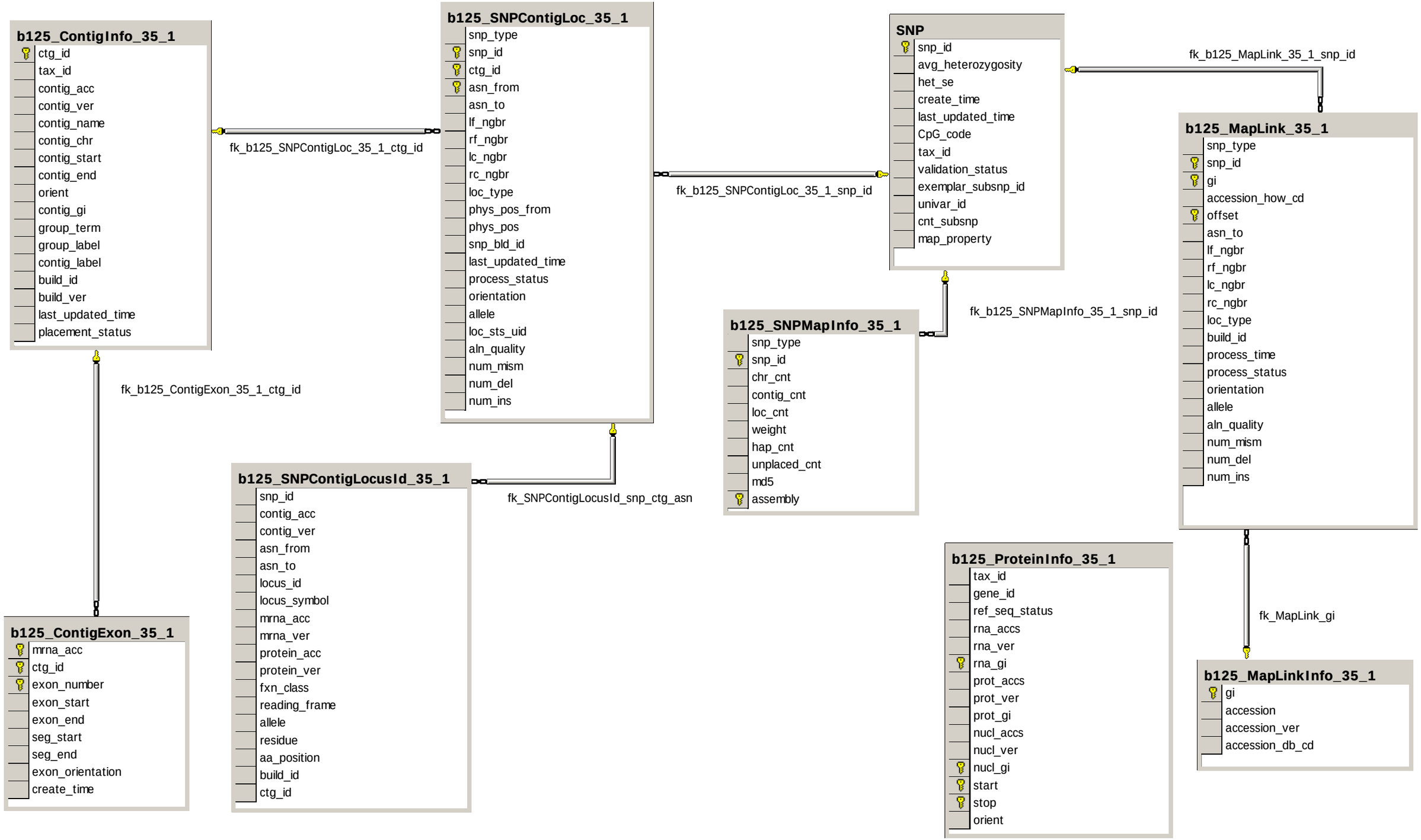


dbSNP ER Diagram
Build: 117
Subject Area: Submitted population frequency and individual genotype
Update date: 10/17/2003



dbSNP ER Diagram
Build: 118
Subject area: Frequency calculation by sumitted snp and population.
Update Date: 11/17/03




b125_ContigInfo_35_1
ctg_id
tax_id
contig_acc
contig_ver
contig_name
contig_chr
contig_start
contig_end
orient
contig_gi
group_term
group_label
contig_label
build_id
build_ver
last_updated_time
placement_status
fk_b125_SNPContigLoc_35_1_ctg_id
b125_SNPContigLoc_35_1
snp_type
snp_id
ctg_id
asn_from
asn_to
lf_ngbr
rf_ngbr
lc_ngbr
rc_ngbr
loc_type
phys_pos_from
phys_pos
snp_bld_id
last_updated_time
process_status
orientation
allele
loc_sts_uid
aln_quality
num_mism
num_del
num_ins
fk_b125_SNPContigLoc_35_1_snp_id
SNP
snp_id
avg_heterozygosity
het_se
create_time
last_updated_time
CpG_code
tax_id
validation_status
exemplar_subsnp_id
univar_id
cnt_subsnp
map_property
fk_b125_MapLink_35_1_snp_id
b125_MapLink_35_1
snp_type
snp_id
gi
accession_how_cd
offset
asn_to
lf_ngbr
rf_ngbr
lc_ngbr
rc_ngbr
loc_type
build_id
process_time
process_status
orientation
allele
aln_quality
num_mism
num_del
num_ins
fk_b125_SNPMapInfo_35_1_snp_id
b125_SNPMapInfo_35_1
snp_type
snp_id
chr_cnt
contig_cnt
loc_cnt
weight
hap_cnt
unplaced_cnt
md5
assembly
fk_b125_ContigExon_35_1_ctg_id
b125_ContigExon_35_1
mrna_acc
ctg_id
exon_number
exon_start
exon_end
seg_start
seg_end
exon_orientation
create_time
b125_SNPContigLocusId_35_1
snp_id
contig_acc
contig_ver
asn_from
asn_to
locus_id
locus_symbol
mrna_acc
mrna_ver
protein_acc
protein_ver
fxn_class
reading_frame
allele
residue
aa_position
build_id
ctg_id
fk_SNPContigLocusId_snp_ctg_asn
b125_ProteinInfo_35_1
tax_id
gene_id
ref_seq_status
rna_accs
rna_ver
rna_gi
prot_accs
prot_ver
prot_gi
nucl_accs
nucl_ver
nucl_gi
start
stop
orient
fk_MapLink_gi
b125_MapLinkInfo_35_1
gi
accession
accession_ver
accession_db_cd