Genotype MP

TJL/Mouse Genome Informatics

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Overview

The Genotype MP Endpoints allow searching, creation, update and deletion of Genotype MP Annotations.

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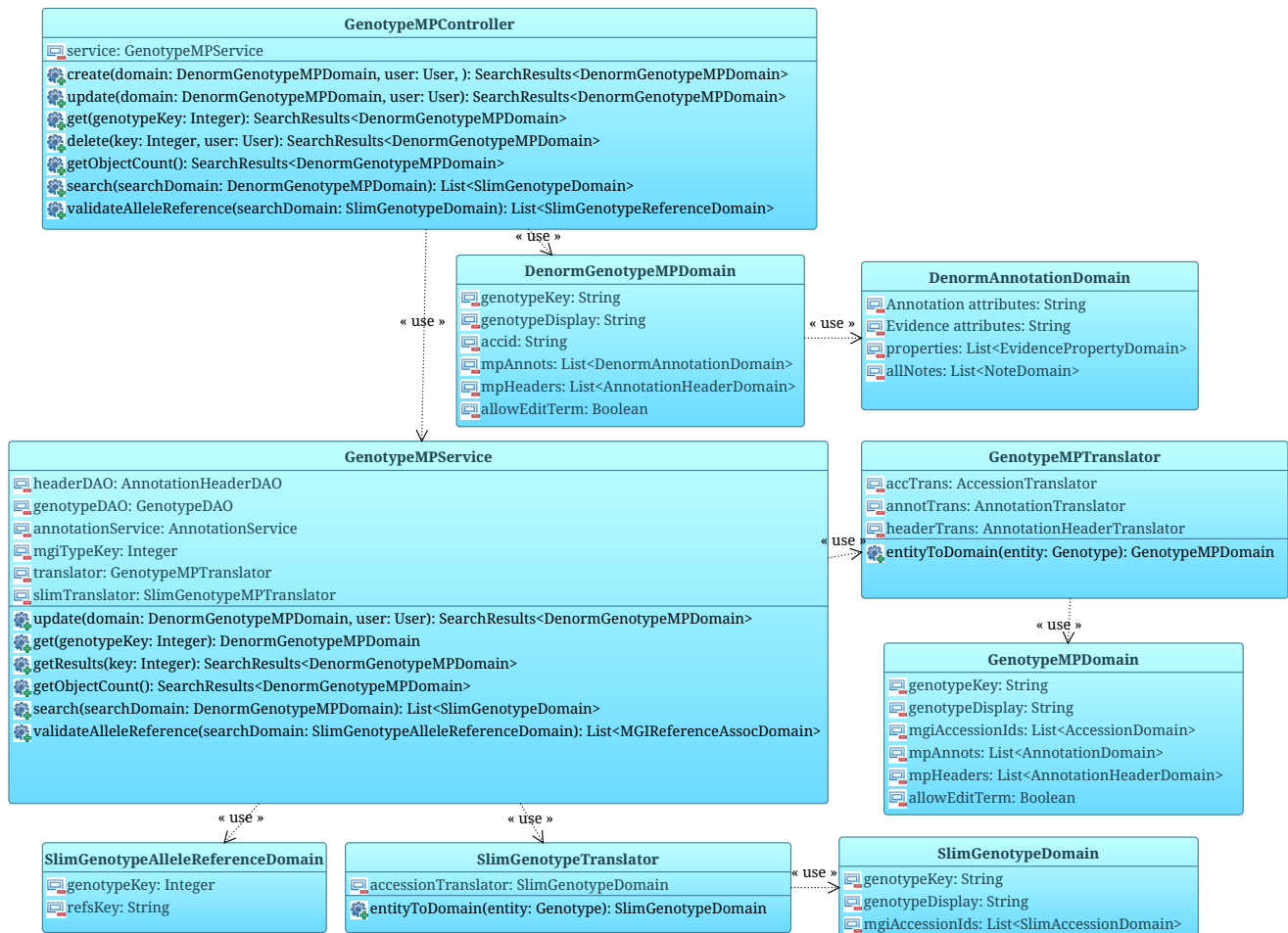
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1. Class Diagrams

Figure 1. GenotypeMP API Diagram

Referenced Elements

- Class GenotypeMPController — see "GenotypeMPController" definition

- Class DenormGenotypeMPDomain — see "DenormGenotypeMPDomain" definition

- Class DenormAnnotationDomain — see "DenormAnnotationDomain" definition
- Class GenotypeMPService — see "GenotypeMPService" definition
- Class SlimGenotypeAlleleReferenceDomain — see "SlimGenotypeAlleleReferenceDomain" definition
- Class SlimGenotypeDomain — see "SlimGenotypeDomain" definition
- Class GenotypeMPDomain — see "GenotypeMPDomain" definition
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- Class SlimGenotypeTranslator — see "SlimGenotypeTranslator" definition

1.1. Model Genotype MP

The Genotype MP Endpoints allow searching, creation, update and deletion of Genotype MP Annotations.

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1.1.1. Class GenotypeMPController

Is: Provides the Genotype MP endpoints for the PWI

Has: A GenotypeMPService which performs operations on objects using search and CRUD methods. Create and Delete methods will return a *not implemented* error.

Does: Calls GenotypeMPService methods and returns Denormalized Genotype MP Domain(s)

Attributes

- service : GenotypeMPService[1] — see "GenotypeMPService" definition

    Description

    Used by each of the controller search/CRUD methods

Operations

- create(domain : DenormGenotypeMPDomain [1] , user : User [1]) : SearchResults<DenormGenotypeMPDomain>

    Description

    Returns a 'not implemented error.

- update(domain : DenormGenotypeMPDomain [1] , user : User [1]) : SearchResults<DenormGenotypeMPDomain>

  Description

  Calls the service update method - see the GenotypeMPService for more info.

- get(genotypeKey : Integer [1]) : SearchResults<DenormGenotypeMPDomain>

  Description

  Calls the service get method to get a denormalized domain of MP annotation information for the given genotype key.

- delete(key : Integer [1] , user : User [1]) : SearchResults<DenormGenotypeMPDomain>

  Description

  Returns *not implemented* error

- getObjectCount( ) : SearchResults<DenormGenotypeMPDomain>

  Description

  Returns the count of all MP annotations in the database

- search(searchDomain : DenormGenotypeMPDomain [1]) : List<SlimGenotypeDomain>

  Description

  Calls the service search method to get a list of SlimGenotypeDomains based on the parameters in the searchDomain

- validateAlleleReference(searchDomain : SlimGenotypeDomain [1]) : List<SlimGenotypeReferenceDomain>

  Description

  Calls the service validateAlleleReference method to get the list of all references for a genotype based on the searchDomain genotype key and reference key

1.1.2. Class DenormGenotypeMPDomain

Is: A flattened representation of a GenotypeMPDomain.

Has: a genotypeKey, genotypeDisplay and accession id. A list of flattened MP Annotations and a list of MP Headers and a flag to allow edit of the term

Attributes

- genotypeKey : String[1]
- genotypeDisplay : String[1]

- accid : String[1]

- mpAnnots : List<DenormAnnotationDomain>[1] — [_U_YKZAcN4PEDeIRsGOayXXUw]

- mpHeaders : List<AnnotationHeaderDomain>[1] — [_U_cCMYcN4PEDeIRsGOayXXUw]

- allowEditTerm : Boolean[1]

1.1.3. Class DenormAnnotationDomain

Is: A flattened' representation of an MP Annotation. One instance represents one MP annotation/evidence/property for a genotype.

Has: A set of VOC_Annot, VOC_Evidence and VOC_EvidenceProperty attributes and a List of notes.

Does:

Attributes

- Annotation attributes : String[1]

- Evidence attributes : String[1]

- properties : List<EvidencePropertyDomain>[1] — [_U_mAkikN4OEDeIRsGOayXXUw]

- allNotes : List<NoteDomain>[1] — [_U_oP7WEN4OEDeIRsGOayXXUw]

1.1.4. Class GenotypeMPService

Is: Provides search and CRUD methods for the controller

Has: services, dao's and translators which are used by the various search/CRUD methods.

Does: Provides the implementation for the controller search/CRUD methods. See method descriptions

create/delete: not implemented.

We use the service update method - which passes the incoming domain to the AnnotationService which in turn processes the create/update/delete based on the processStatus of the incoming domain.

Attributes

- headerDAO : AnnotationHeaderDAO[1] — [_U_OMMx0dvGEDeELctTZOeZdw]

- genotypeDAO : GenotypeDAO[1] — [_U_QTRzENvGEDeELctTZOeZdw]

- annotationService : AnnotationService[1] — see "AnnotationService" definition

- mgiTypeKey : Integer[1]

- translator : GenotypeMPTranslator[1] — see "GenotypeMPTranslator" definition

- slimTranslator : SlimGenotypeMPTranslator[1] — [_U_sRz6gNvGEDeELctTZOeZdw]

Operations

- update(domain : DenormGenotypeMPDomain [1] , user : User [1]) : SearchResults<DenormGenotypeMPDomain>

  Description

  Iterates over each annotation in the incoming denormalized domain creating a GenotypeMPDomain with a list of AnnotationDomains, with the proper processStatus set, to pass to the AnnotationService. It then bundles the domain in a SearchResults to return. Shouldn't it go back to the database to refresh the domain?

- get(genotypeKey : Integer [1]) : DenormGenotypeMPDomain

  Description

  Uses a genotypeDAO to get a Genotype entity for the key parameter. Creates one Denorm. Uses a GenotypeMPTranslator to translate that entity to a GenotypeMPDomain. Then creates a DenormGenotypeMPDomain from the GenotypeMPDomain. Sorts then returns GenotypeMPDomain

- getResults(key : Integer [1]) : SearchResults<DenormGenotypeMPDomain>

  Description

  Used by the controller update method to get the results from the database after the update.

- getObjectCount( ) : SearchResults<DenormGenotypeMPDomain>

  Description

  Creates and executes a query to get the count of all MP annotations in the database, returned in a SearchResults object.

- search(searchDomain : DenormGenotypeMPDomain [1]) : List<SlimGenotypeDomain>

  Description

  Creates a database query from the searchDomain, processes the results into a list of DenormGenotypeMPDomains

- validateAlleleReference(searchDomain : SlimGenotypeAlleleReferenceDomain [1]) : List<MGIReferenceAssocDomain>

  Description

  Creates a query using the genotypeKey and refsKey from the searchDomain, processes the results into a list of SlimGenotypeDomains

1.1.5. Class SlimGenotypeAlleleReferenceDomain

No description.

Attributes

- genotypeKey : Integer[1]
- refsKey : String[1]

1.1.6. Class SlimGenotypeDomain

Is: A slimmed down version of a GenotypeMPDomain

Has: a genotype key, genotype display and a set of accession IDs.

Does:

Attributes

- genotypeKey : String[1]
- genotypeDisplay : String[1]
- mgiAccessionIds : List<SlimAccessionDomain>[1] — [_U_U-4RQN4QEDeIRsGOayXXUw]

1.1.7. Class GenotypeMPDomain

Is: Is a domain object which encapsulates the attributes of a Genotype MP Annotation

Has:a genotypeKey, genotypeDisplay and a list of accession ids. A list of MP Annotations and a list of MP Headers and a flag to allow edit of the term

Does:

Attributes

- genotypeKey : String[1]
- genotypeDisplay : String[1]
- mgiAccessionIds : List<AccessionDomain>[1] — [_U_4QrncN4PEDeIRsGOayXXUw]
- mpAnnots : List<AnnotationDomain>[1] — [_U_6soFcN4PEDeIRsGOayXXUw]
- mpHeaders : List<AnnotationHeaderDomain>[1] — [_U_cCMYcN4PEDeIRsGOayXXUw]
- allowEditTerm : Boolean[1]

1.1.8. Class GenotypeMPTranslator

Is: A translator which translates a Genotype entity into a GenotypeMPDomain

Has: An Accession translator to translate the entities accession IDs to AccessionDomains, a AnnotationTranslator, to translate the enties annotatoins to AnnotationDomains and a AnnotationHeaderTranslator to translatio the entities MP AnnotatioinHeader's to AnnotationHeaderDomains.

Does: Translates a Genotype Entity into a GenotypeMPDomain

Attributes
- accTrans : AccessionTranslator[1] — [_U_oOIQkNl_EDemlKeUvYL7lw]
- annotTrans : AnnotationTranslator[1] — [_U_s5cwMNl_EDemlKeUvYL7lw]
- headerTrans : AnnotationHeaderTranslator[1] — [_U_x6b90Nl_EDemlKeUvYL7lw]

Operations
- entityToDomain(entity : Genotype [1]) : GenotypeMPDomain

1.1.9. Class SlimGenotypeTranslator

Is: Is a translator which translates n Genotype entity into a SlimGenotypeDomain

Has: An accessionTranslator to translate the entities accession ids to AccessionDomains

Does: Translates a Genotype entity into a SlimGenotypeDomain. The genotypeDisplay cannot be calculated by this Translator, The service does that.

Attributes
- accessionTranslator : SlimGenotypeDomain[1] — see "SlimGenotypeDomain" definition

Operations
- entityToDomain(entity : Genotype [1]) : SlimGenotypeDomain

1.1.10. Class AnnotationSer

No description.

1.1.11. Class AnnotationService

No description.

1.1.12. Class GenotypeMPTranslator2

No description.

1.1.13. Class SlimGenotypeAlleleReferenceDomain

No description.