



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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1. Class Diagrams



Figure 1. GenotypeMP API Diagram

Referenced Elements

- Class GenotypeMPController — see ["GenotypeMPController" definition](#)
- Class DenormGenotypeMPDomain — see ["DenormGenotypeMPDomain" definition](#)
- Class DenormAnnotationMPDomain — see ["DenormAnnotationMPDomain" definition](#)
- Class GenotypeMPService — see ["GenotypeMPService" definition](#)
- Class SlimGenotypeReferenceDomain — see ["SlimGenotypeReferenceDomain" definition](#)
- Class SlimGenotypeDomain — see ["SlimGenotypeDomain" definition](#)
- Class GenotypeMPDomain — see ["GenotypeMPDomain" definition](#)

- Class GenotypeMPTranslator — [see "GenotypeMPTranslator" definition](#)
- 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 : DenormAnnotationMPDomain [1] , user : User [1]) : DenormGenotypeMPDomain

Description

Returns a 'not implemented error.

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

Description

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

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

Description

Returns *not implemented* error

- getObjectCount() : DenormGenotypeMPDomain

Description

Returns the count of all MP annotations in the database

- search(searchDomain : DenormGenotypeMPDomain [1]) : SlimGenotypeDomain

Description

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

- validateAlleleReference(searchDomain : SlimGenotypeDomain [1]) : 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 : DenormAnnotationMPDomain[1] — see ["DenormAnnotationMPDomain" definition](#)
- mpHeaders List : AnnotationHeaderDomain[1] — [\[U_8mOgMNmBEDemlKeUvYL7lw\]](#)

1.1.3. Class DenormAnnotationMPDomain

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 : Undefined[1]
- Evidence attributes : Undefined[1]
- EvidenceProperty attributes : Undefined[1]
- EvidenceNotes : List[1] — [[U_ssKZkNloEDemlKeUvYL7lw](#)]

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]) : 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

- `validateAlleleReference(searchDomain : SlimGenotypeDomain [1]) : SlimGenotypeReferenceDomain`

Description

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

- `getResults(key : Integer [1]) : DenormGenotypeMPDomain`

Description

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

- `getObjectCount() : 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]) : SlimGenotypeDomain`

Description

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

1.1.5. Class SlimGenotypeReferenceDomain

No description.

Attributes

- `genotypeKey : Undefined[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 : SlimAccessionDomain[1] — [[U_7bbz8Nl0EDemlKeUvYL7lw](#)]

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 : SlimAccessionDomain[1] — [[U_7bbz8Nl0EDemlKeUvYL7lw](#)]
- mpAnnots : AnnotationDomain[1] — [[U_l2rGcNl-EDemlKeUvYL7lw](#)]
- mpHeaders : Undefined[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 entities annotations to AnnotationDomains and a AnnotationHeaderTranslator to translate the entities MP AnnotationHeader's to AnnotationHeaderDomains.

Does: Translates a Genotype Entity into a GenotypeMPDomain

Attributes

- accTrans : AccessionTranslator[1] — [[U_oIQkNl_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

- slimDomain : 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.