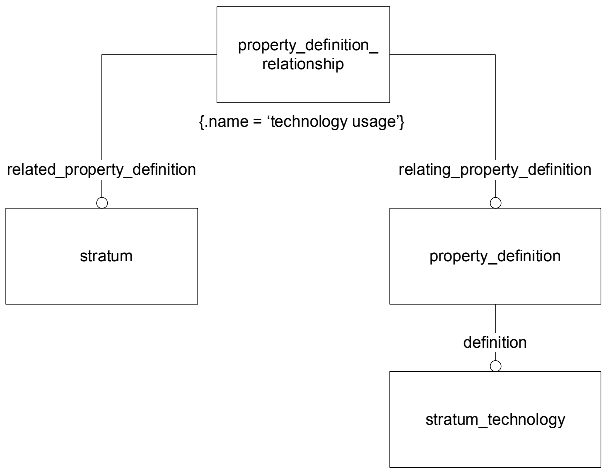
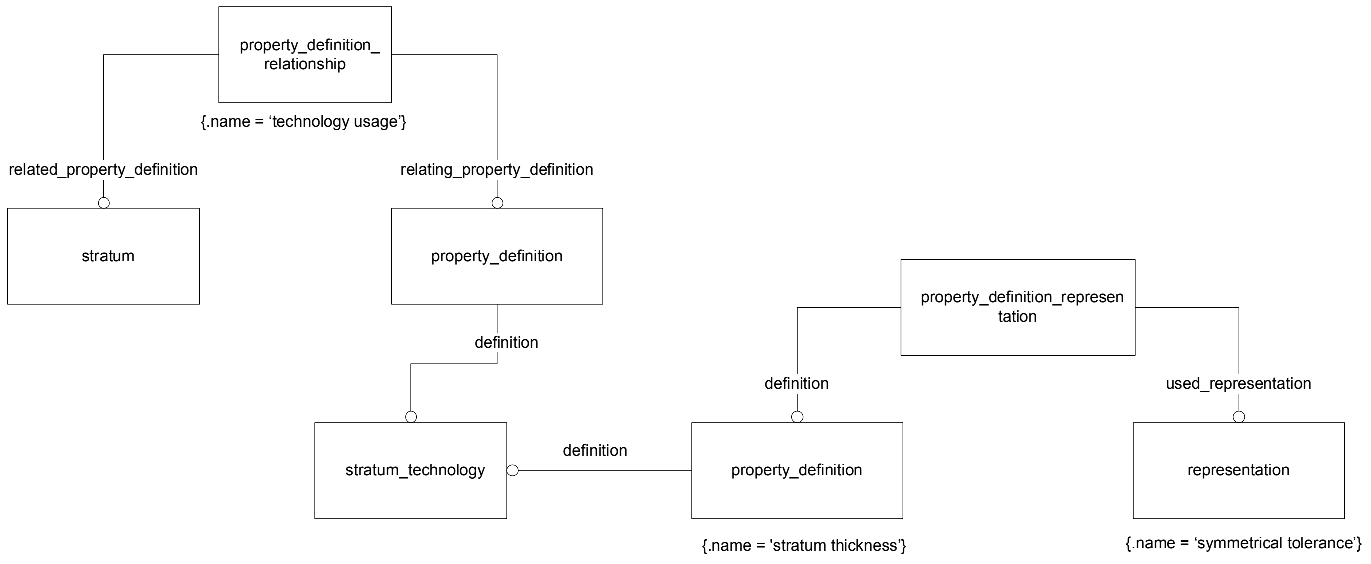
MIMqueries - StratumAndStratumFeaturesAndInterStratumFeatures

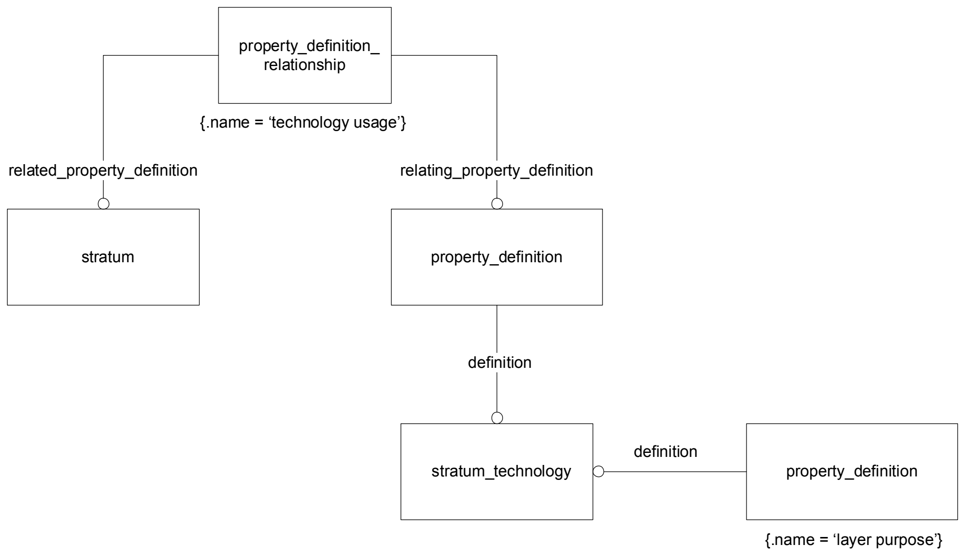
getStratumTechnologyOfStratum	*Returns the stratum_technology used by the given stratum*
getThicknessOfStratum	*Returns an representation containing the length tolerance characteristic of the given stratum*
getLayerPurposeOfStratum	*Returns a string describing the 'layer purpose' of the stratum_technology associated with the given statum.*
getMaterialDesignationOfStratum	*Returns an representation containing the material_designation of the given stratum.*
getStratumOfStratumFeature	*Returns the associated stratum of the given stratum_feature.*
getStratumOfLC	*Returns the associated stratum of the given laminate_component if a direct relationship to the stratum exists.*
getStratumFeatureOfSFTC	*Returns the associated stratum_feature of the given stratum_feature_template_component.*
getStratumFeatureOfALTC	*Returns the associated stratum_feature of the given additive_laminate_text_component.*
getSFTCofMRLC	*Returns the associated stratum_feature_template_component of either a material_removal_laminate_component or a material_removal_laminate_text_component.*
getPrecedentStratum	*Returns the precedent stratum for the given stratum in the stratum stack.*
getAllAdjacentPrecedentStratum	*Returns all adjacent precedent stratum for the given stratum in the stratum stack.*
getSubsequentStratum	*Returns the subsequent stratum for the given stratum in the stratum stack.*
getAllAdjacentSubsequentStratum	*Returns all adjacent subsequent stratum for the given stratum in the stratum stack.*
getAllSTOLinVerticalExtentOfInterStratumFeature	*Returns an aggregate of stratum_technology_occurrence_link that comprise the vertical extent of the given inter_stratum_feature.*
getMostPrecedentSTOLinContiguousSetOfSTOL	*Returns the most precedent (closest to the "top") STOL corresponding to a given contiguous set of STOL. If the given set of STOL is not contiguous, the implementation is not guaranteed to return the most precedent in the set.*
getMostSubsequentSTOLinContiguousSetOfSTOL	*Returns the most subsequent (closest to the "bottom") STOL corresponding to a given contiguous set of STOL. If the given set of STOL is not contiguous, the implementation is not guaranteed to return the most subsequent in the set.*
getMostPrecedentStratumInContiguousSetOfSTOL	*Returns the most precedent (closest to the "top") stratum corresponding to a given contiguous set of STOL. If the given set of STOL is not contiguous, the implementation is not guaranteed to return the most precedent in the set.*
getMostSubsequentStratumInContiguousSetOfSTOL	*Returns the most subsequent (closest to the "bottom") stratum corresponding to a given contiguous set of STOL. If the given set of STOL is not contiguous, the implementation is not guaranteed to return the most subsequent in the set.*
getSpanOfInterStratumFeature	Returns a pair of stratum corresponding to the most precedent and most subsequent stratum included in the vertical extent of the given inter_stratum_feature


property_definition_ relationship
{.name = 'technology usage'}
related_property_definition
relating_property_definition
stratum
property_definition
definition
stratum_technology

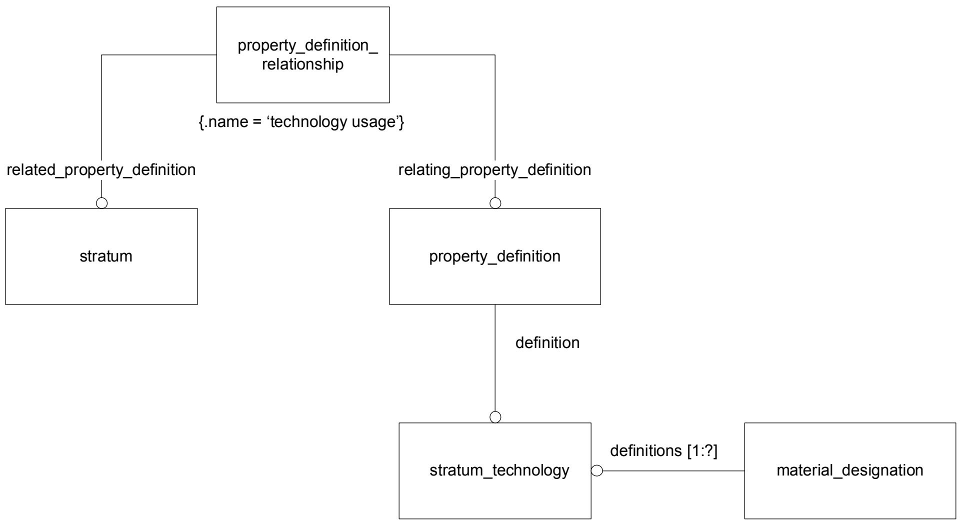
```
// Returns the stratum_technology used by the given stratum

Stratum_technology = getStratumTechnologyOfStratum(stratum s)
{
    property_definition pd = relatedEntityOp(s)
        where {property_definition_relationship pdr}
              {pdr.name = 'technology usage'}
              {pdr.related_property_definition->s}
              {pdr.relating_property_definition->pd}

    stratum_technology st = referencedEntityOp(pd)
        where {pd.definition->st}

    return st
}
```


property_definition_
relationship
{.name = ‘technology usage’}
related_property_definition
relating_property_definition
stratum
property_definition
definition
property_definition_represen
tation
definition
used_representation
stratum_technology
definition
property_definition
representation
{.name = 'stratum thickness’}
{.name = ‘symmetrical tolerance’}

```
// Returns an representation containing the length tolerance characteristic of the given stratum.
// Given: stratum s

representation getThicknessOfStratum(stratum s)
{
    stratum_technology st = getStratumTechnologyOfStratum

    property_definition pd referencingEntityOp(st, ‘stratum thickness’)
        where  {id<-pd.definition}
               {pd.name = ‘stratum thickness’}

    if (pd == null)
        return null

    representation r = relatedEntityOp(pd)
        where  {property_definition_representation pdr}
               {pdr.definition->pd}
               {dpr.used_representation->r}

    return r
}
```


property_definition_ relationship
{.name = 'technology usage'}
related_property_definition
relating_property_definition
stratum
property_definition
definition
stratum_technology
definition
property_definition
{.name = 'layer purpose'}

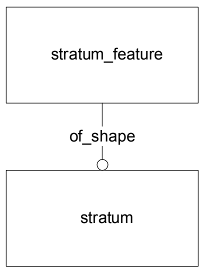
```
// Returns a string describing the 'layer purpose' of the stratum_technology associated with the given statum.
// or null if no such description exists.
// Layer purpose is an optional attribute of a documentation_layer_stratum.

String getLayerPurposeOfStratum(stratum e_s)
{
    stratum_technology e_st = getStratumTechnologyOfStratum(e_s)

    property_definition e_pd = referencingEntityOp(e_st)
        where {e_st <- e_pd.definition}
              {e_pd.name = 'layer purpose'}

    if (e_pd == null)
        return null
    else
        return e_pd.description
}
```


property_definition_ relationship
{.name = ‘technology usage’}
related_property_definition
relating_property_definition
stratum
property_definition
definition
stratum_technology
definitions [1:?]
material_designation

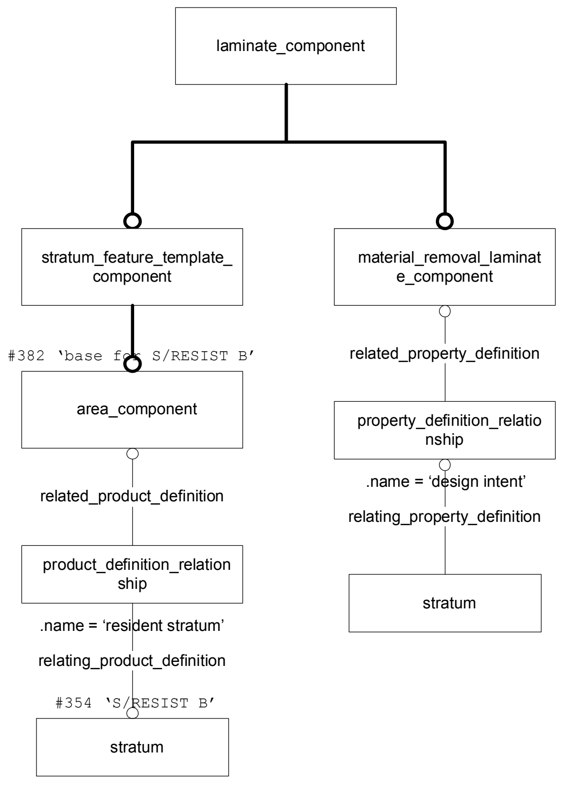
// Returns an representation containing the material_designation of the given stratum.
// Given: stratum s

```
material_designation getMaterialDesignationOfStratum(stratum s)
{
    stratum_technology st = getStratumTechnologyOfStratum

    material_designation md referencingEntityOp(st)
        where  {md.definitions contains st}

    return md
}
```

getStratumOfStratumFeature

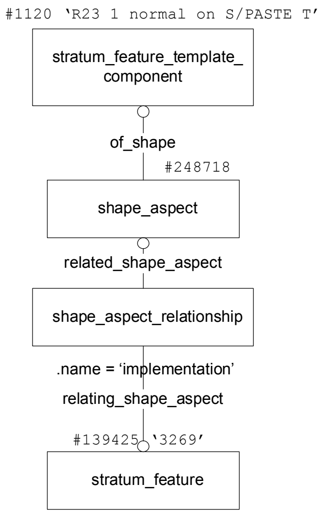


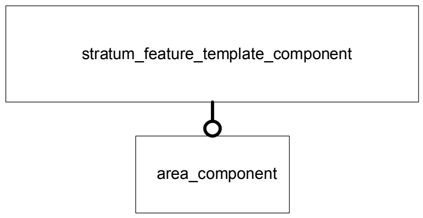
```
// Returns the associated stratum of the given stratum_feature.

stratum = getStratumOfStratumFeature(stratum_feature sf)
{
    stratum s = referencedEntityOp(sf)
        where  {sf.of_shape->s}

    return  s
}
```


laminate_component
stratum_feature_template_component
material_removal_laminate_component
#382 'base for S/RESIST B'
area_component
related_product_definition
product_definition_relationship
.name = 'resident stratum'
relating_product_definition
#354 'S/RESIST B'
stratum
related_property_definition
property_definition_relationship
.name = 'design intent'
relating_property_definition
stratum

// Returns the associated stratum of the given laminate_component if a direct relationship to the stratum exists.

```
stratum = getStratumOfLC(laminate_comonent lc)
{
    If (lc InstanceOf material_removal_laminate_component)
    {
        stratum s = relatedEntityOp(lc)
            where  {property_definition_relationship pdr}
                   {lc<-pdr.related_property_definition}
                   {pdr.relating_property_definition->s}
                   {pdr.name = 'design intent'}
        return s
    }

    stratum s = relatedEntityOp(lc)
        where  {product_definition_relationship pdr}
               {lc<-pdr.related_product_definition}
               {pdr.relating_product_definition->s}
               {pdr.name = 'resident stratum'}
    return s
}
```

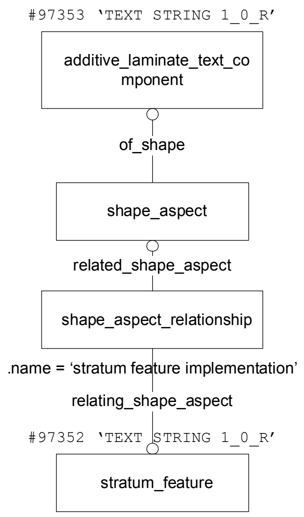




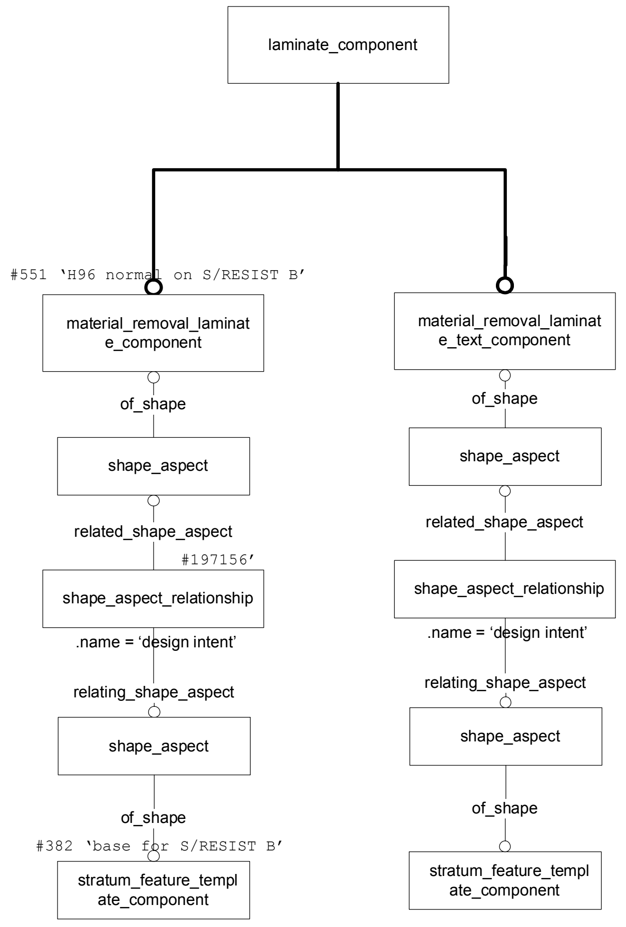
An area_component is not expected to have an associated stratum feature if it is "replaced by" other area_components.

// Returns the associated stratum_feature of the given stratum_feature_template_component.

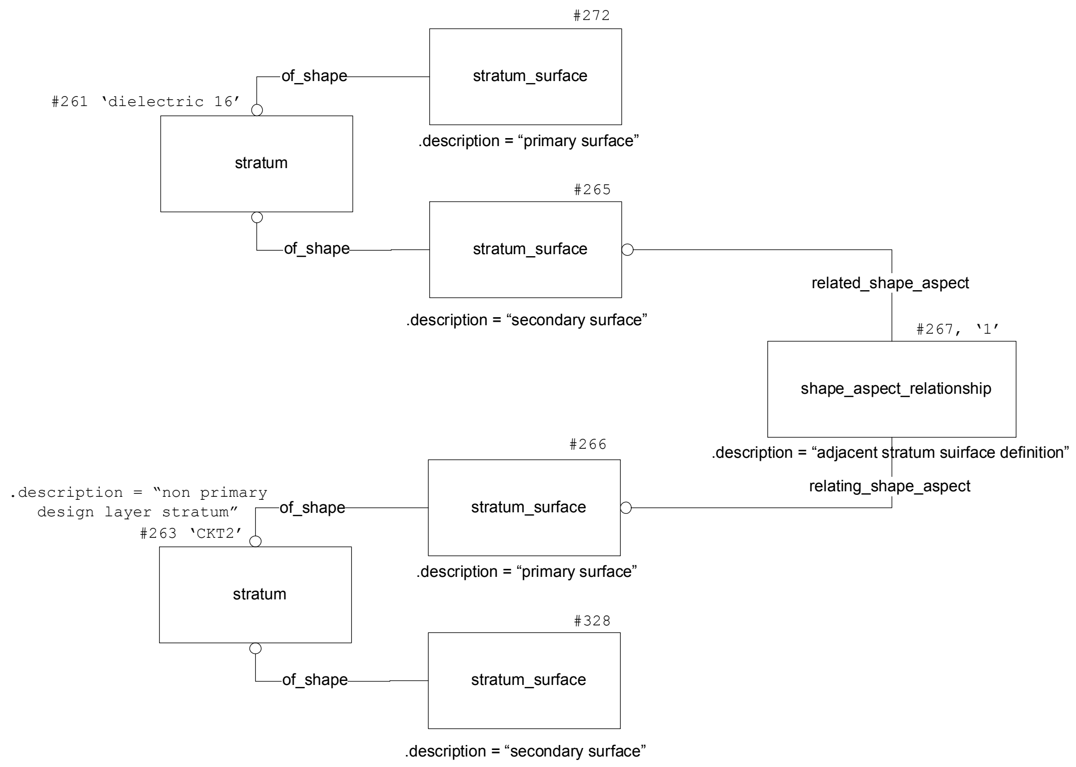
```
stratum_feature getStratumFeatureOfSFTC(stratum_feature_template_component sftc)
{
    shape_aspect sa = referencingEntityOp(sftc)
        where  {sa.of_shape->sftc}

    stratum_feature sf = relatedEntityOp(sa)
        where  {shape_aspect_relationship sar}
               {sa<-sar.related_shape_aspect}
               {sar.relating_shape_aspect->sf}
               {sar.name = 'implementation'}
    return sf
}
```


#97353 'TEXT STRING 1_0_R'
additive_laminate_text_component
of_shape
shape_aspect
related_shape_aspect
shape_aspect_relationship
.name = 'stratum feature implementation'
relating_shape_aspect
#97352 'TEXT STRING 1_0_R'
stratum_feature

```
// Returns the associated stratum_feature of the given additive_laminate_text_component.

stratum_feature getStratumFeatureOfALTC(additive_laminate_text_component altc)
{
    shape_aspect sa = referencingEntityOp(altc)
        where {sa.of_shape->sftc}

    stratum_feature sf = relatedEntityOp(sa)
        where {shape_aspect_relationship sar}
              {sa<-sar.related_shape_aspect}
              {sar.relating_shape_aspect->sf}
              {sar.name = 'stratum feature implementation'}
    return sf
}
```

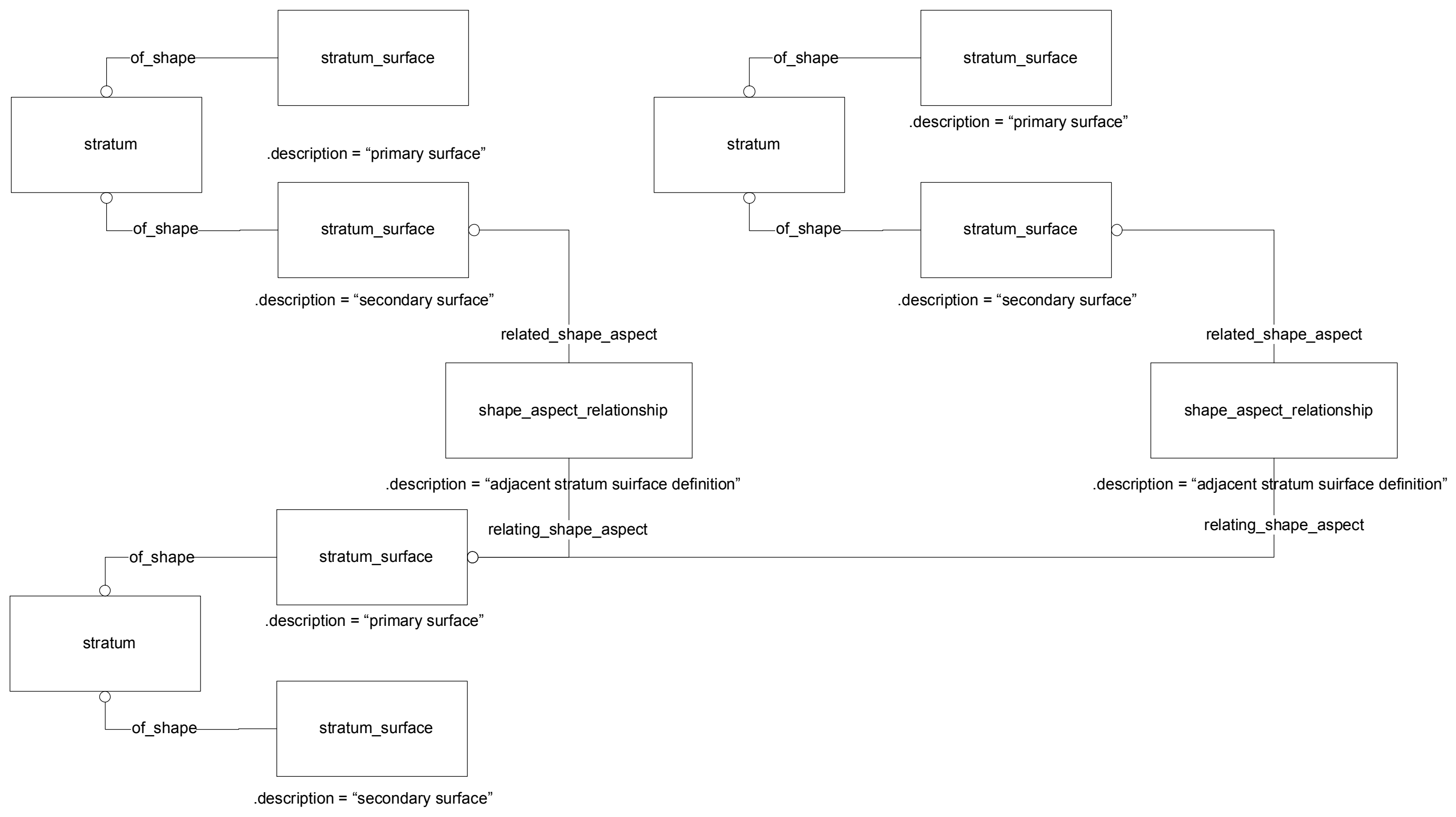

laminate_component
#551 'H96 normal on S/RESIST B'
material_removal_laminat e_component
material_removal_laminat e_text_component
of_shape
shape_aspect
related_shape_aspect
#197156'
shape_aspect_relationship
.name = 'design intent'
relating_shape_aspect
shape_aspect
of_shape
#382 'base for S/RESIST B'
stratum_feature_templ ate_component
of_shape
shape_aspect
related_shape_aspect
shape_aspect_relationship
.name = 'design intent'
relating_shape_aspect
shape_aspect
of_shape
stratum_feature_templ ate_component

```
// Returns the associated stratum_feature_template_component of either a material_removal_laminate_component or a
// material_removal_laminate_text_component.

stratum_feature_template_component getSFTCofMRLC(laminate_component lc)
{
    shape_aspect sa1 = referencingEntityOp(lc)
        where  {sa.of_shape->sftc}

    shape_aspect sa2 = relatedEntityOp(sa1)
        where  {shape_aspect_relationship sar}
               {sa1<-sar.related_shape_aspect}
               {sar.relating_shape_aspect->sa2}
               {sar.name = 'design intent'}

    stratum_feature_template_component sftc = referencedEntityOp(sa2)
        where {sa2.of_shape->sftc}

    return sftc
}
```


#272
stratum_surface
of_shape
#261 'dielectric 16'
stratum
.description = "primary surface"
#265
stratum_surface
of_shape
.description = "secondary surface"
related_shape_aspect
#267, '1'
shape_aspect_relationship
.description = "adjacent stratum suirface definition"
relating_shape_aspect
#266
.description = "non primary design layer stratum"
of_shape
stratum_surface
#263 'CKT2'
stratum
.description = "primary surface"
#328
of_shape
stratum_surface
.description = "secondary surface"

// Returns the precedent stratum for the given stratum in the stratum stack.
// It is possible for there to exist multiple adjacent precedent stratum.
// In order to support this general stack-up model, it is preferable to use the
// query getAllAdjacentPrecedentStratum
// Note: precedent -> closer to the "top" side of the pcb.
// The 'primary design layer stratum' is the design_layer_stratum that is closest to the top.

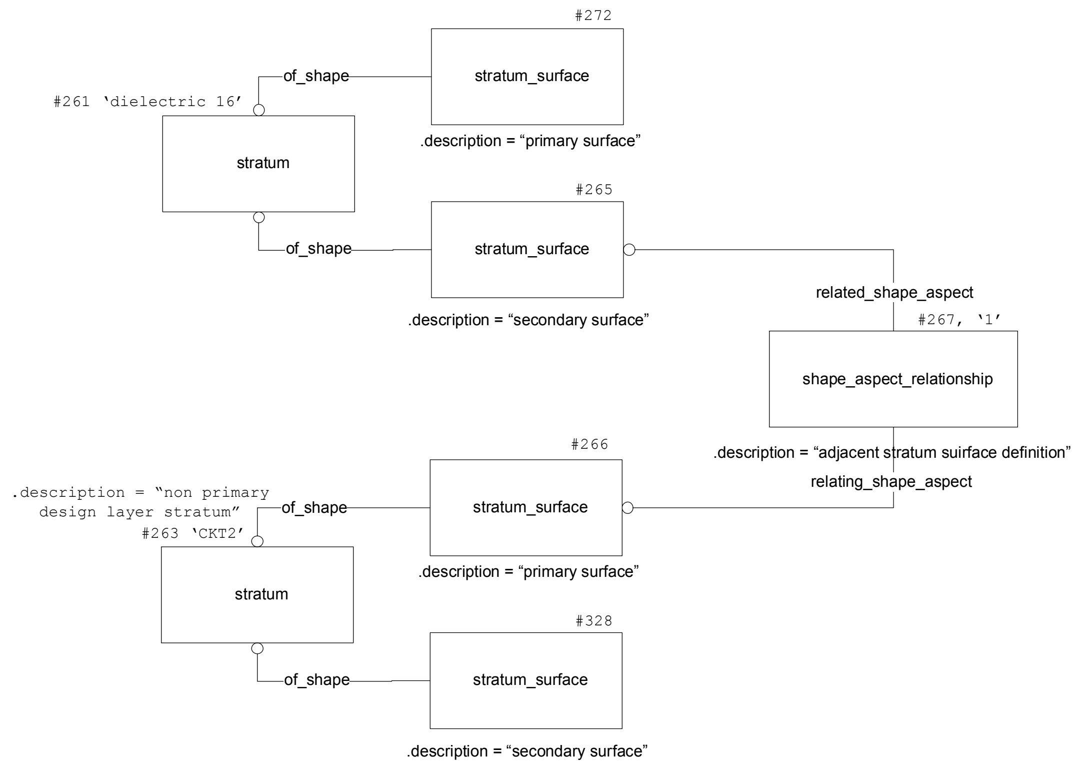
```
stratum getPrecedentStratum(stratum currentStratum)
{
    stratum_surface primarySurfaceOfCurrent = referencingEntityOp(currentStratum)
        where  {primarySurfaceOfCurrent.of_shape->currentStratum}
               {primarySurfaceOfCurrent.description = 'primary surface'}

    stratum_surface secondarySurfaceOfPrecedent = relatedEntityOp(primarySurfaceOfCurrent)
        where  {shape_aspect_relationship sar}
               {sar.relating_shape_aspect->primarySurfaceOfCurrent}
               {sar.related_shape_aspect->secondarySurfaceOfPrecedent}
               {sar.description = 'adjacent stratum surface definition'}

    stratum precedentStratum = referencedEntityOp(secondarySurfaceOfPrecedent)
        where {secondarySurfaceOfPrecedent.of_shape->precedentStratum}

    return precedentStratum
}
```



of_shape
stratum_surface
stratum
.description = “primary surface”
of_shape
stratum_surface
.description = “secondary surface”
related_shape_aspect
shape_aspect_relationship
.description = “adjacent stratum suirface definition”
relating_shape_aspect
of_shape
stratum_surface
.description = “primary surface”
stratum
of_shape
stratum_surface
.description = “secondary surface”
of_shape
stratum_surface
.description = “primary surface”
stratum
of_shape
stratum_surface
.description = “secondary surface”
related_shape_aspect
shape_aspect_relationship
.description = “adjacent stratum suirface definition”
relating_shape_aspect

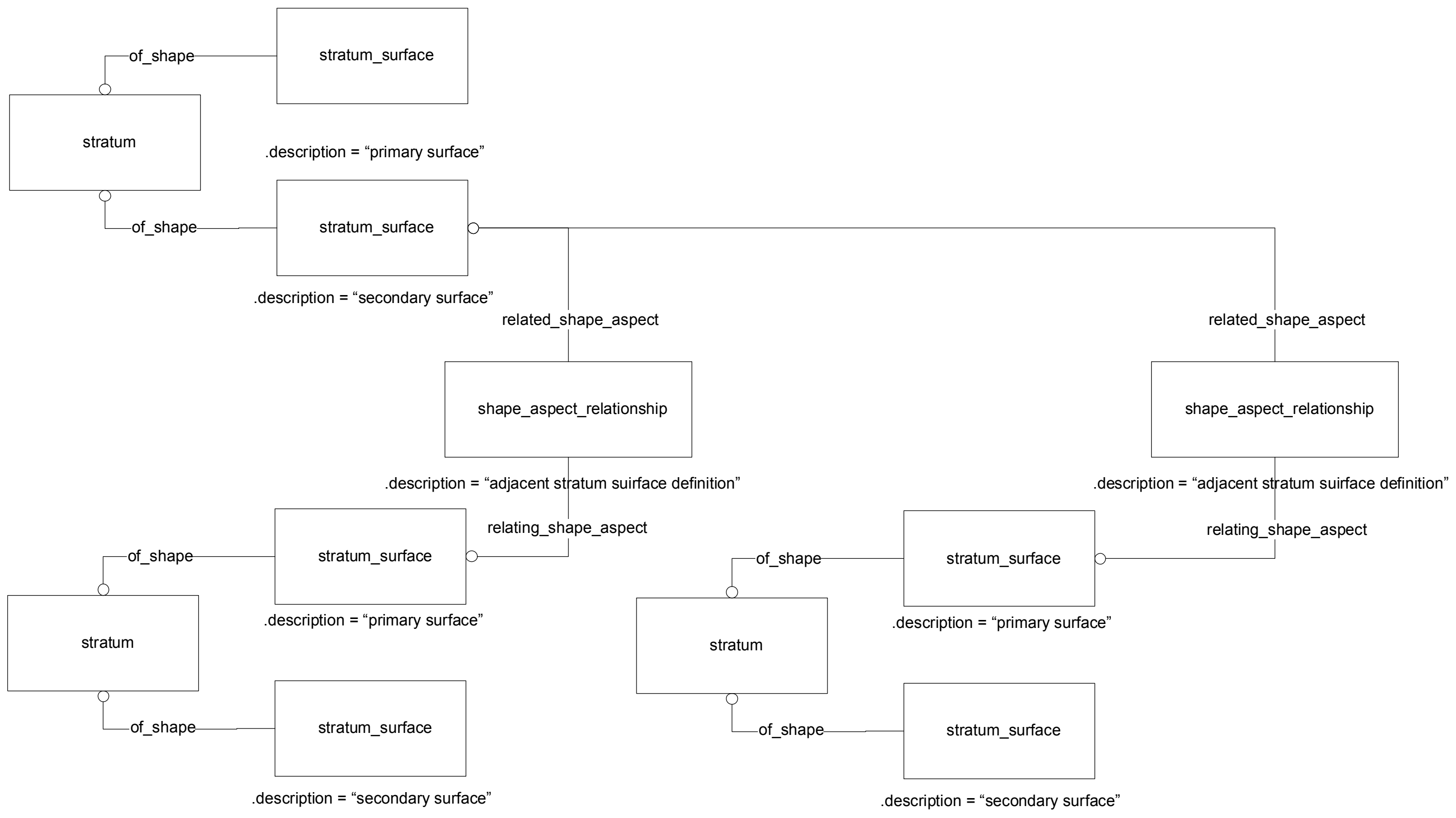
// Returns all adjacent precedent stratum for the given stratum in the stratum stack.
// Note: precedent -> closer to the “top” side of the pcb.
// The ‘primary design layer stratum’ is the design_layer_stratum that is closest to the top.

```
Aggregate<stratum> getAllAdjacentPrecedentStratum(stratum currentStratum)
{
    Aggregate<stratum> a_allAdjacentPrecedentStratum = new Aggregate<stratum>

    stratum_surface primarySurfaceOfCurrent = referencingEntityOp(currentStratum)
        where  {primarySurfaceOfCurrent.of_shape->currentStratum}
               {primarySurfaceOfCurrent.description = ’primary surface’}

    Aggregate<stratum_surface> a_secondarySurfaceOfPrecedent = relatedEntitiesOp(primarySurfaceOfCurrent)
        where  {shape_aspect_relationship sar}
               {stratum_surface secondarySurfaceOfPrecedent}
               {sar.relating_shape_aspect->primarySurfaceOfCurrent}
               {sar.related_shape_aspect->secondarySurfaceOfPrecedent}
               {sar.description = ‘adjacent stratum surface definition’}

    For Each stratum_surface secondarySurfaceOfPrecedent in a_secondarySurfaceOfPrecedent
    {
        stratum precedentStratum = referencedEntityOp(secondarySurfaceOfPrecedent)
            where {secondarySurfaceOfPrecedent.of_shape->precedentStratum}

        Add precedentStratum to a_allAdjacentPrecedentStratum
    }

    return a_allAdjacentPrecedentStratum
}
```


#272
stratum_surface
of_shape
#261 'dielectric 16'
stratum
.description = "primary surface"
#265
stratum_surface
of_shape
.description = "secondary surface"
related_shape_aspect
#267, '1'
shape_aspect_relationship
.description = "adjacent stratum suirface definition"
relating_shape_aspect
#266
stratum_surface
.description = "non primary design layer stratum"
of_shape
#263 'CKT2'
stratum
.description = "primary surface"
#328
stratum_surface
of_shape
.description = "secondary surface"

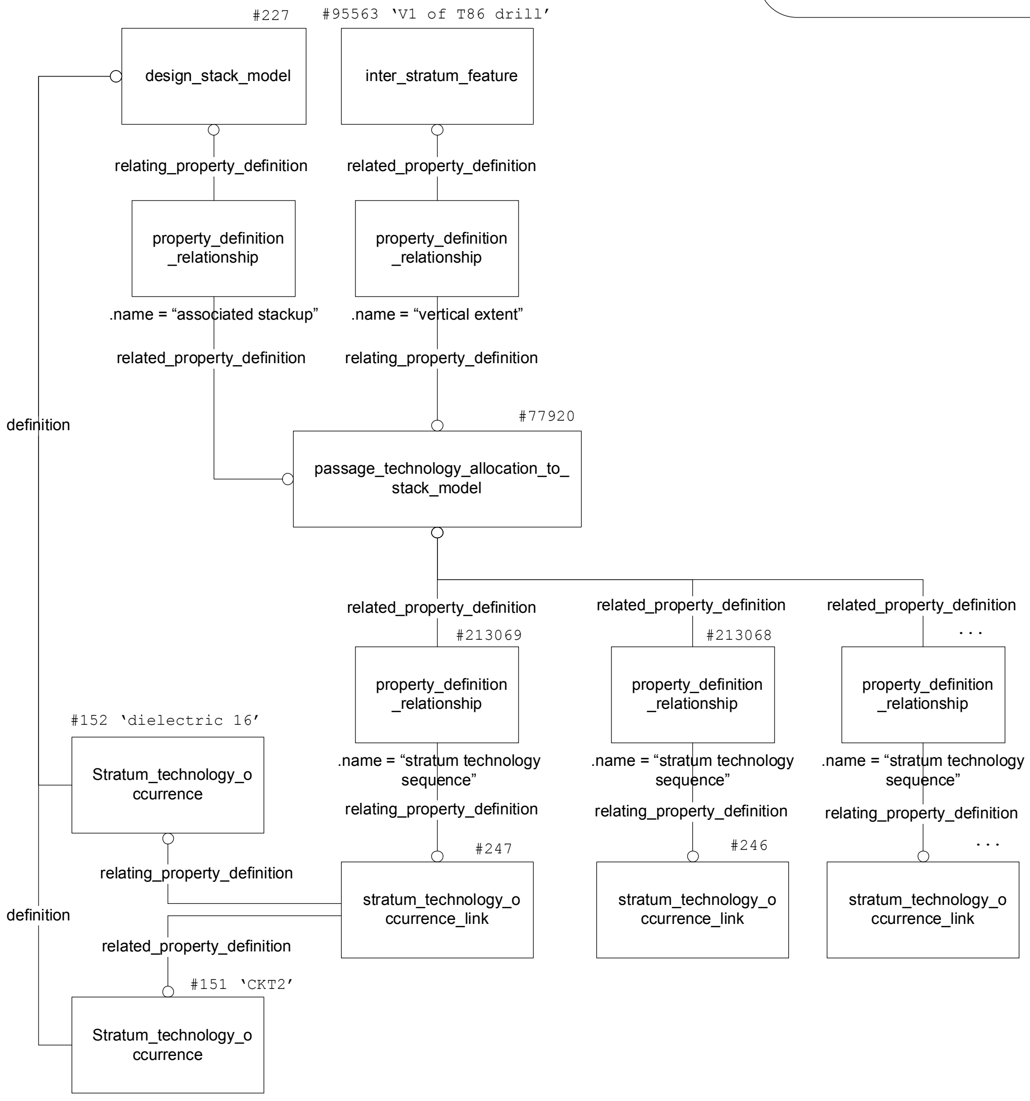
// Returns the subsequent stratum for the given stratum in the stratum stack.
// It is possible for there to exist multiple adjacent subsequent stratum.
// In order to support this general stack-up model, it is preferable to use the
// query getAllAdjacentSubsequentStratum
// Note: subsequent -> closer to the "bottom" side of the pcb.
// The 'primary design layer stratum' is the design_layer_stratum that is closest to the top.

```
stratum getSubsequentStratum(stratum currentStratum)
{
    stratum_surface secondarySurfaceOfCurrent = referencingEntityOp(currentStratum)
        where  {secondarySurfaceOfCurrent.of_shape->currentStratum}
               {secondarySurfaceOfCurrent.description = 'secondary surface'}

    stratum_surface primarySurfaceOfSubsequent = relatedEntityOp(secondarySurfaceOfCurrent)
        where  {shape_aspect_relationship sar}
               {sar.related_shape_aspect->secondarySurfaceOfCurrent}
               {sar.relating_shape_aspect->primarySurfaceOfSubsequent}
               {sar.description = 'adjacent stratum surface definition'}

    stratum subsequentStratum = referencedEntityOp(primarySurfaceOfSubsequent)
        where {primarySurfaceOfSubsequent .of_shape->subsequentStratum}

    return subsequentStratum
}
```


stratum_surface
of_shape
stratum
.description = “primary surface”
of_shape
stratum_surface
.description = “secondary surface”
related_shape_aspect
related_shape_aspect
shape_aspect_relationship
shape_aspect_relationship
.description = “adjacent stratum suirface definition”
.description = “adjacent stratum suirface definition”
relating_shape_aspect
relating_shape_aspect
of_shape
stratum_surface
of_shape
stratum_surface
stratum
.description = “primary surface”
stratum
.description = “primary surface”
of_shape
stratum_surface
of_shape
stratum_surface
.description = “secondary surface”
.description = “secondary surface”

```
// Returns all adjacent subsequent stratum for the given stratum in the stratum stack.
// Note: subsequent -> closer to the “bottom” side of the pcb.
// The ‘primary design layer stratum’ is the design_layer_stratum that is closest to the top.

Aggregate<stratum> getAllAdjacentSubsequentStratum(stratum currentStratum)
{
    Aggregate<stratum> a_allAdjacentSubsequentStratum = new Aggregate<stratum>

    stratum_surface secondarySurfaceOfCurrent = referencingEntityOp(currentStratum)
        where  {secondarySurfaceOfCurrent.of_shape->currentStratum}
               {secondarySurfaceOfCurrent.description = ’secondary surface’}

    Aggregate<stratum_surface> a_primarySurfaceOfSubsequent = relatedEntitiesOp(secondarySurfaceOfCurrent)
        where  {shape_aspect_relationship sar}
               {stratum_surface primarySurfaceOfSubsequent}
               {sar.related_shape_aspect->secondarySurfaceOfCurrent}
               {sar.relating_shape_aspect->primarySurfaceOfSubsequent}
               {sar.description = ‘adjacent stratum surface definition’}

    For Each stratum_surface primarySurfaceOfSubsequent in a_primarySurfaceOfSubsequent
    {
        stratum subsequentStratum = referencedEntityOp(primarySurfaceOfSubsequent)
            where {primarySurfaceOfSubsequent.of_shape->subsequentStratum}

        Add subsequentStratum to a_allAdjacentSubsequentStratum
    }

    return a_allAdjacentSubsequentStratum
}
```

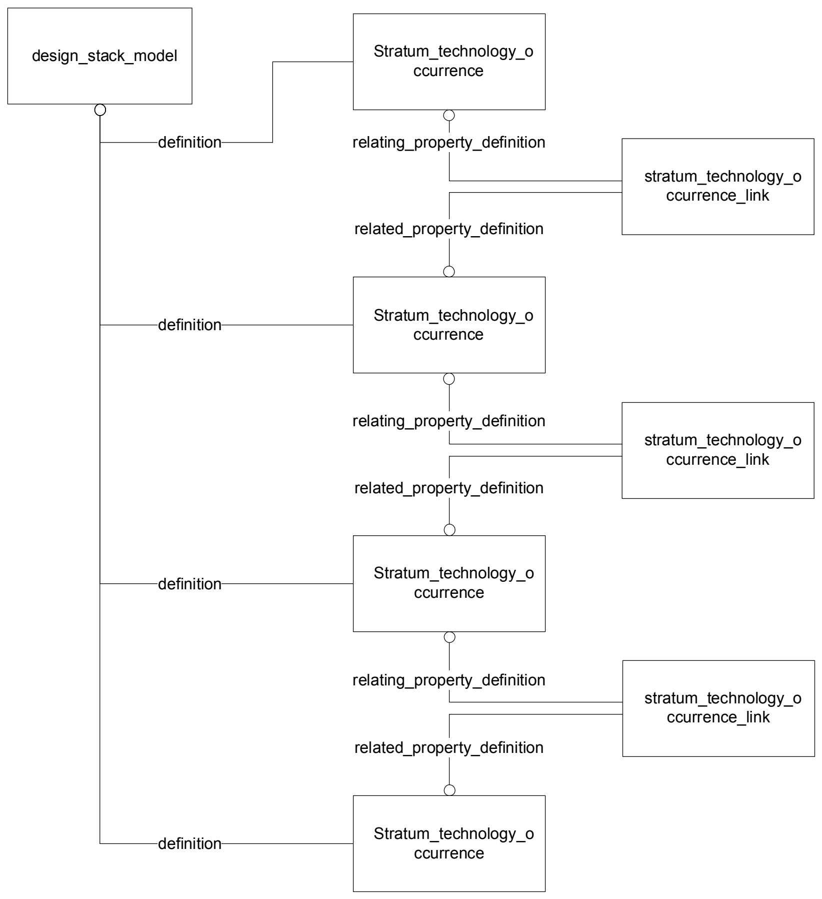
getAllSTOLinVerticalExtentOfInterStratumFeature


#227
#95563 'V1 of T86 drill'
design_stack_model
inter_stratum_feature
relating_property_definition
related_property_definition
property_definition _relationship
property_definition _relationship
.name = "associated stackup"
.name = "vertical extent"
related_property_definition
relating_property_definition
definition
#77920
passage_technology_allocation_to_ stack_model
related_property_definition
related_property_definition
related_property_definition
#213069
#213068
. . .
property_definition _relationship
property_definition _relationship
property_definition _relationship
#152 'dielectric 16'
Stratum_technology_o ccurrence
.name = "stratum technology sequence"
.name = "stratum technology sequence"
.name = "stratum technology sequence"
relating_property_definition
relating_property_definition
relating_property_definition
#247
#246
. . .
relating_property_definition
stratum_technology_o ccurrence_link
stratum_technology_o ccurrence_link
stratum_technology_o ccurrence_link
definition
related_property_definition
#151 'CKT2'
Stratum_technology_o ccurrence

// Returns an aggregate of stratum_technology_occurrence_link that comprise the vertical extent of the given inter_stratum_feature.

```
Aggregate<stratum_technology_occurrence_link> getAllSTOLinVerticalExtentOfInterStratumFeature(inter_stratum_feature isf)
{
    passage_technology_allocation_to_stack_model ptatsm = relatedEntityOp(isf)
        where  {property_definition_relationship pdr}
               {isf<-pdr.related_property_definition}
               {pdr.relating_property_definition->ptatsm}
               {pdr.name = 'vertical extent'}

    Aggregate<stratum_technology_occurrence_link> a_stol = relatedEntitiesOp(ptatsm)
        where  {property_definition_relationship pdr}
               {stratum_technology_occurrence_link stol}
               {ptatsm<-pdr.related_property_definition}
               {pdr.relating_property_definition->stol}
               {pdr.name = 'stratum technology sequence'}

    return a_stol
}
```

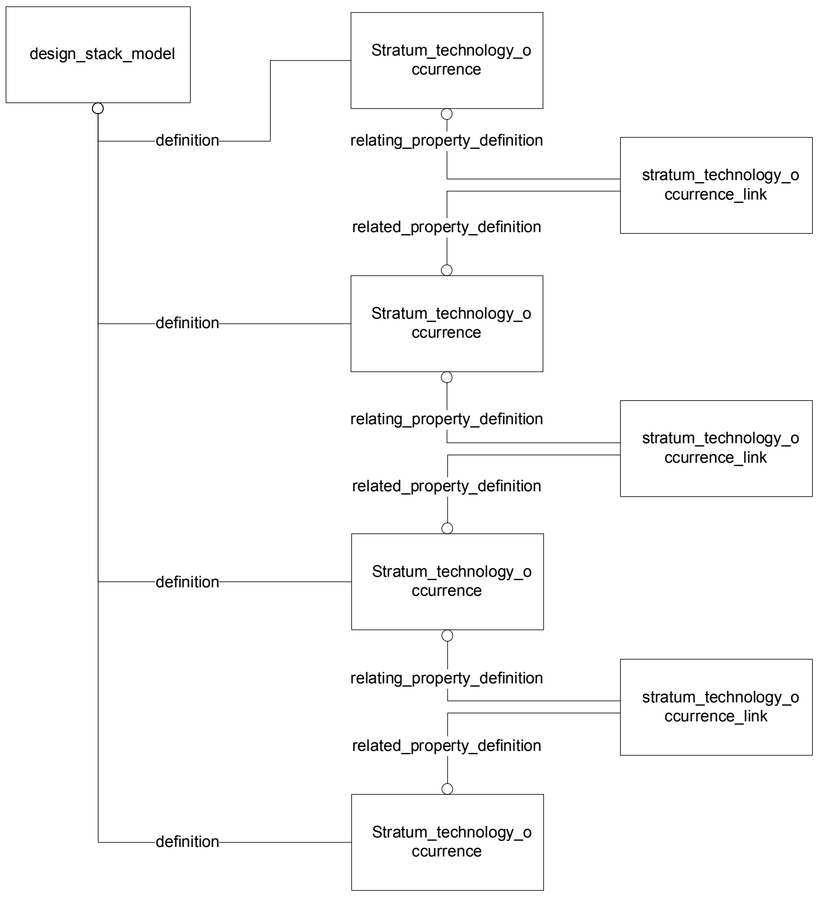
getMostPrecedentSTOLinContiguousSetOfSTOL


design_stack_model
Stratum_technology_occurrence
definition
relating_property_definition
stratum_technology_occurrence_link
related_property_definition

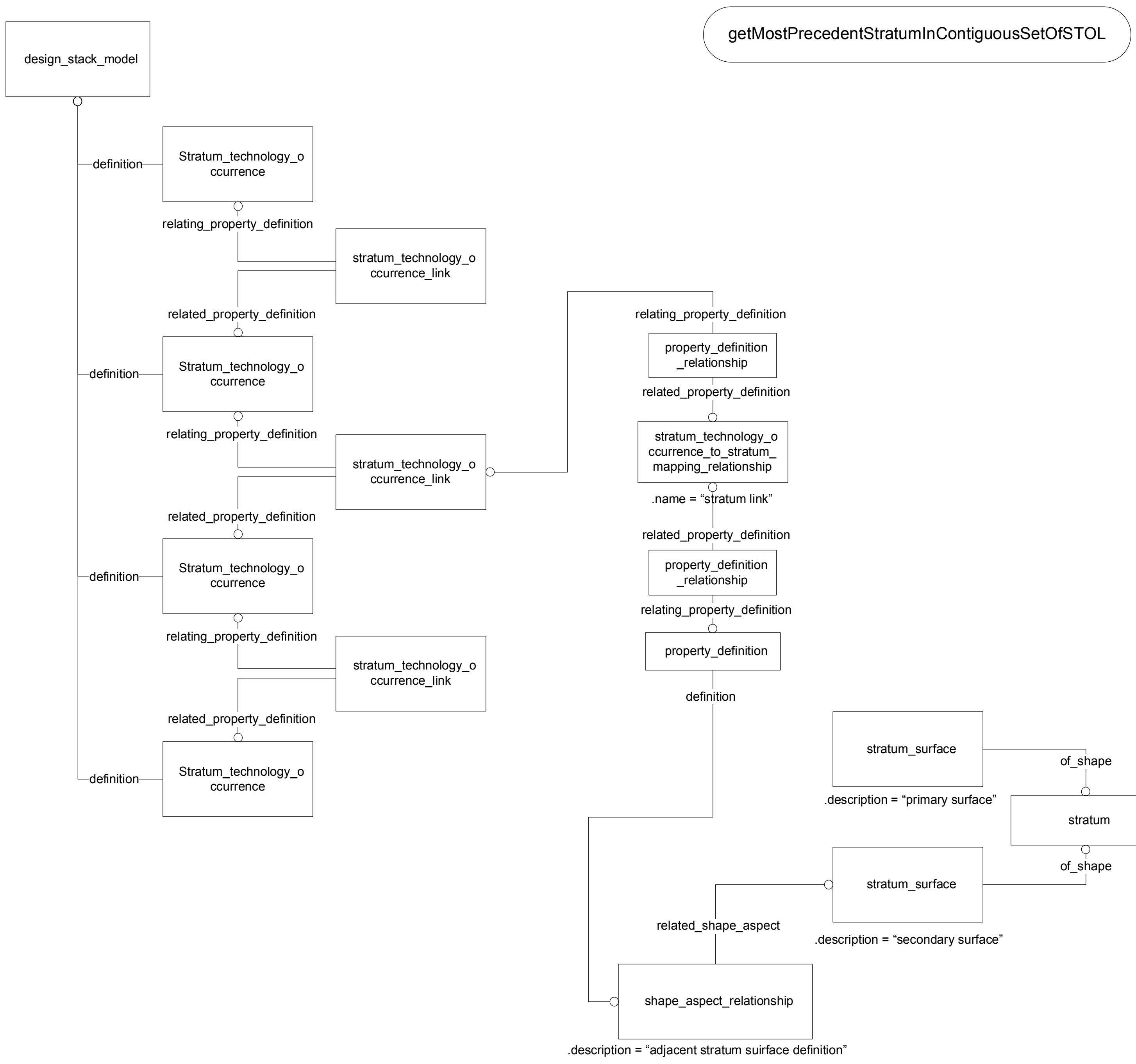
// Returns the most precedent (closest to the "top") STOL corresponding to a given contiguous set of STOL. If the given set of STOL
// is not contiguous, the implementation is not guaranteed to return the most precedent in the set.

```
stratum_technology_occurrence_link getMostPrecedentSTOLinContiguousSetOfSTOL(
            Aggregate<stratum_technology_occurrence_link> a_stol)
{
    stratum_stack_model ssm = null;

    Set<stratum_technology_occurrence> referencedPrecedentSet = new Set
    Map<stratum_technology_occurrence, stratum_technology_occurrence_link> referencedPrecedentMap = new  Map
    Set<stratum_technology_occurrence> referencedSubsequentSet = new Set

    For each stratum_technology_occurrence_link stol in a_stol
    {
        if (ssm == null)
            ssm = referencedEntityOp(stol)
                where   {stol.definition -> ssm}

        stratum_technology_occurrence precedent_sto = referencedEntityOp(stol)
                where   {stol.relating_property_definition -> precedent_sto}

        stratum_technology_occurrence subsequent_sto = referencedEntityOp(stol)
                where   {stol.related_property_definition -> precedent_sto}

        Add the [key, value] pair [precedent_sto, stol] to referencedPrecedentMap
        Add precedent_sto to referencedPrecedentSet
        Add subsequent_sto to referencedSubsequentSet
    }

    Remove all members of referencedSubsequentSet from referencedPrecedentSet
    if referencedPrecedentSet does not contain exactly one element
    {
        Generate warning message - unable to identify unique STOL
        return null;
    }
    stratum_technology_occurrence mp_sto = first (only) element contained in referencedPrecedentSet
    stratum_technology_occurrence_link mp_stol = value in referencedPrecedentMap corresponding to key mp_sto
}
```

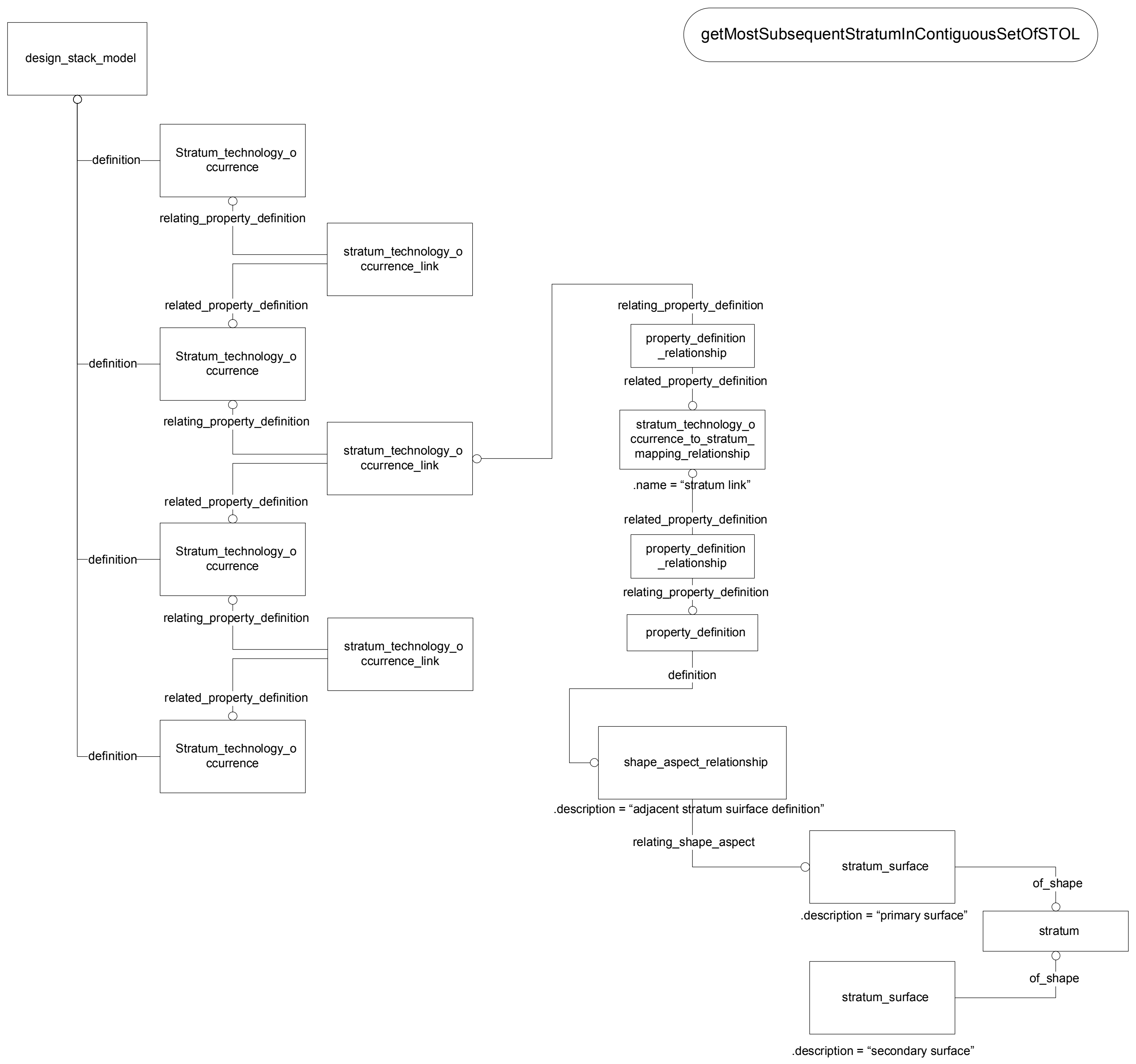
getMostSubsequentSTOLinContiguousSetOfSTOL


design_stack_model
Stratum_technology_occurrence
stratum_technology_occurrence_link
definition
relating_property_definition
related_property_definition

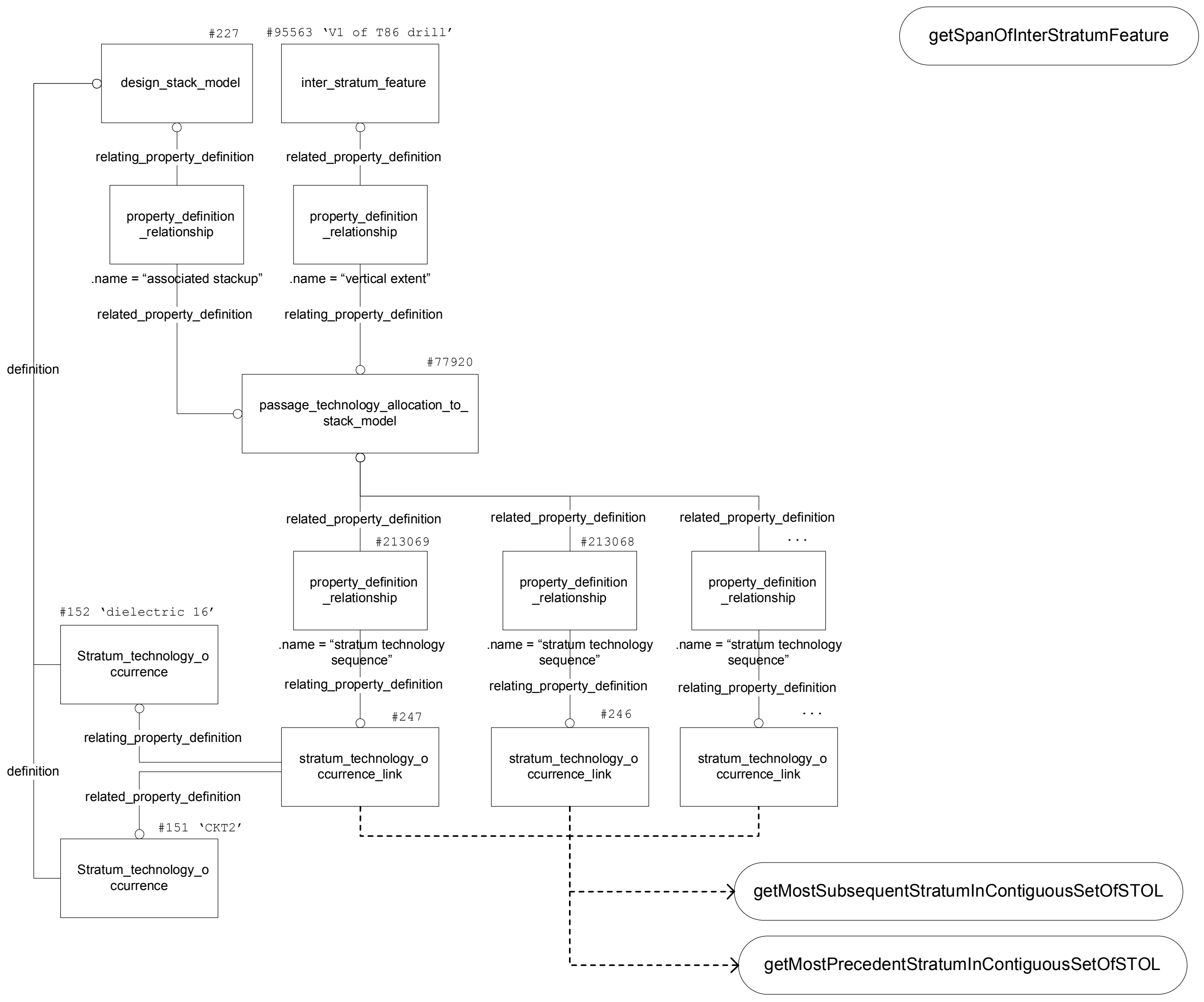
```
// Returns the most subsequent (closest to the "bottom") STOL corresponding to a given contiguous set of STOL. If the given set of STOL
// is not contiguous, the implementation is not guaranteed to return the most precedent in the set.

stratum_technology_occurrence_link getMostSubsequentSTOLinContiguousSetOfSTOL(
            Aggregate<stratum_technology_occurrence_link> a_stol)
{
    stratum_stack_model ssm = null;

    Set<stratum_technology_occurrence> referencedPrecedentSet = new Set
    Map<stratum_technology_occurrence, stratum_technology_occurrence_link> referencedSubsequentMap = new  Map
    Set<stratum_technology_occurrence> referencedSubsequentSet = new Set

    For each stratum_technology_occurrence_link stol in a_stol
    {
        if (ssm == null)
            ssm = referencedEntityOp(stol)
                where   {stol.definition -> ssm}

        stratum_technology_occurrence precedent_sto = referencedEntityOp(stol)
                where   {stol.relating_property_definition -> precedent_sto}

        stratum_technology_occurrence subsequent_sto = referencedEntityOp(stol)
                where   {stol.related_property_definition -> precedent_sto}

        Add the [key, value] pair [subsequent_sto, stol] to referencedSubsequentMap
        Add precedent_sto to referencedPrecedentSet
        Add subsequent_sto to referencedSubsequentSet
    }

    Remove all members of referencedPrecedentSet from referencedSubsequentSet
    if referencedSubsequentSetdoes not contain exactly one element
    {
        Generate warning message - unable to identify unique STOL
        return null;
    }
    stratum_technology_occurrence ms_sto = first (only) element contained in referencedSubsequentSet
    stratum_technology_occurrence_link ms_stol = value in referencedSubsequentMapcorresponding to key ms_sto
}
```


getMostPrecedentStratumInContiguousSetOfSTOL
design_stack_model
definition
Stratum_technology_o ccurrence
relating_property_definition
stratum_technology_o ccurrence_link
related_property_definition
definition
Stratum_technology_o ccurrence
relating_property_definition
stratum_technology_o ccurrence_link
related_property_definition
definition
Stratum_technology_o ccurrence
relating_property_definition
stratum_technology_o ccurrence_link
related_property_definition
definition
Stratum_technology_o ccurrence
relating_property_definition
property_definition _relationship
related_property_definition
stratum_technology_o ccurrence_to_stratum_ mapping_relationship
.name = “stratum link”
related_property_definition
property_definition _relationship
relating_property_definition
property_definition
definition
stratum_surface
of_shape
.description = “primary surface”
stratum
of_shape
stratum_surface
related_shape_aspect
.description = “secondary surface”
shape_aspect_relationship
.description = “adjacent stratum suirface definition”

```
// Returns the most precedent (closest to the "top") stratum corresponding to a given
// contiguous set of STOL. If the given set of STOL is not contiguous, the implementation
// is not guaranteed to return the most precedent in the set.

stratum getMostPrecedentStratumInContiguousSetOfSTOL(
        Aggregate<stratum_technology_occurrence_link a_stol)
{
    stratum_technology_occurrence_link mp_stol = getMostPrecedentSTOLinContiguousSetOfSTOL(a_stol)
    shape_aspect_relationship mp_assd = getASSDofSTOL(mp_stol)
    stratum mp_stratum = getPrecedentStratumOfASSD(mp_assd)
    return mp_stratum;
}
```


getMostSubsequentStratumInContiguousSetOfSTOL
design_stack_model
definition
Stratum_technology_occurrence
relating_property_definition
stratum_technology_occurrence_link
related_property_definition
definition
Stratum_technology_occurrence
relating_property_definition
stratum_technology_occurrence_link
related_property_definition
definition
Stratum_technology_occurrence
relating_property_definition
stratum_technology_occurrence_link
related_property_definition
definition
Stratum_technology_occurrence
relating_property_definition
property_definition_relationship
related_property_definition
stratum_technology_occurrence_to_stratum_mapping_relationship
.name = “stratum link”
related_property_definition
property_definition_relationship
relating_property_definition
property_definition
definition
shape_aspect_relationship
.description = “adjacent stratum suirface definition”
relating_shape_aspect
stratum_surface
.description = “primary surface”
of_shape
stratum
of_shape
stratum_surface
.description = “secondary surface”

```
// Returns the most subsequent (closest to the "bottom") stratum corresponding to a given
// contiguous set of STOL. If the given set of STOL is not contiguous, the implementation
// is not guaranteed to return the most subsequent in the set.

stratum getMostSubsequentStratumInContiguousSetOfSTOL(
        Aggregate<stratum_technology_occurrence_link a_stol)
{
    stratum_technology_occurrence_link ms_stol = getMostSubsequentSTOLinContiguousSetOfSTOL(a_stol)
    shape_aspect_relationship ms_assd = getASSDofSTOL(ms_stol)
    stratum ms_stratum = getSubsequentStratumOfASSD(ms_assd)
    return ms_stratum;
}
```


getSpanOfInterStratumFeature
#227
design_stack_model
#95563 'V1 of T86 drill'
inter_stratum_feature
relating_property_definition
related_property_definition
property_definition_relationship
.name = "associated stackup"
.name = "vertical extent"
related_property_definition
relating_property_definition
definition
#77920
passage_technology_allocation_to_stack_model
related_property_definition
#213069
#213068
...
property_definition_relationship
.name = "stratum technology sequence"
relating_property_definition
#152 'dielectric 16'
Stratum_technology_occurrence
#247
#246
stratum_technology_occurrence_link
related_property_definition
#151 'CKT2'
getMostSubsequentStratumInContiguousSetOfSTOL
getMostPrecedentStratumInContiguousSetOfSTOL

```
// Returns a pair of stratum corresponding to the most precedent and most subsequent stratum included in the vertical extent of
// the given inter_stratum_feature

[mp_stratum; ms_stratum] getSpanOfInterStratumFeature(inter_stratum_feature isf)
{
    passage_technology_allocation_to_stack_model ptatsm = relatedEntityOp(isf)
        where  {property_definition_relationship pdr}
               {isf<-pdr.related_property_definition}
               {pdr.relating_property_definition->ptatsm}
               {pdr.name = 'vertical extent'}

    Aggregate<stratum_technology_occurrence_link> a_stol = relatedEntitiesOp(ptatsm)
        where  {property_definition_relationship pdr}
               {stratum_technology_occurrence_link stol}
               {ptatsm<-pdr.related_property_definition}
               {pdr.relating_property_definition->stol}
               {pdr.name = 'stratum technology sequence'}

    stratum mp_stratum = getMostPrecedentStratumInContiguousSetOfSTOL(a_stol)
    stratum ms_stratum = getMostSubsequentStratumInContiguousSetOfSTOL(a_stol)

    return [mp_stratum; ms_stratum]
}
```