

# Tutorials

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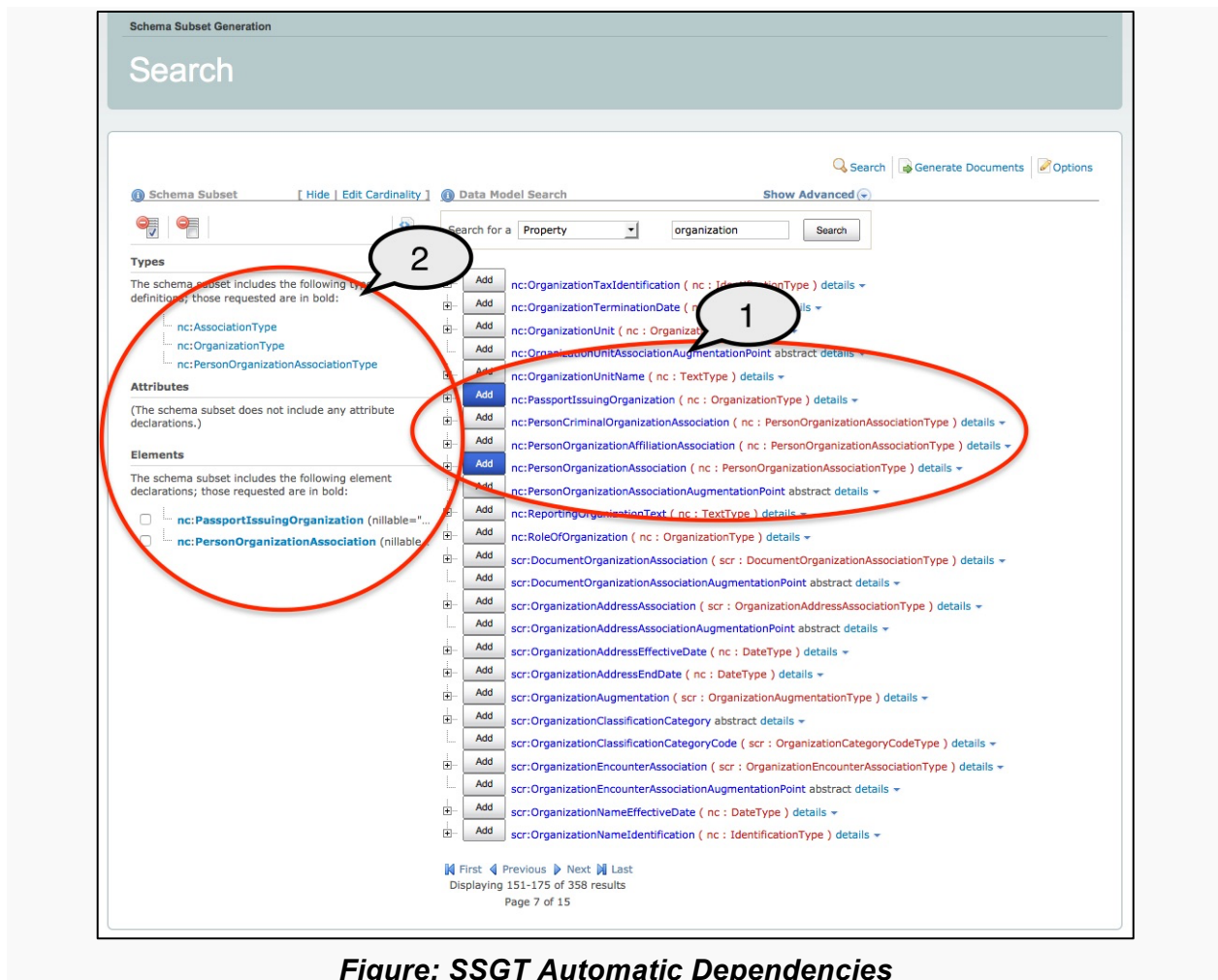
<b>Search and Discovery</b> .....	4
Search Page .....	4
Basic Search .....	4
Advanced Search .....	5
Exploring search results .....	7
Showing Properties .....	8
Showing Details .....	9
Showing a Namespace Page .....	9
Showing a Type Page .....	10
Showing a Property Page .....	11
Options Page .....	13
Change Release Version .....	14
<b>Add a Property to the Current Subset</b> .....	15
Add a sub-property of a type to the current subset .....	17
Add all sub-properties of a type to the current subset .....	19
Add a type to the current subset .....	20
Delete a type or property from the current subset .....	22
Clear the Current Subset .....	23
Edit cardinalities of all properties in the current subset .....	24
Edit Cardinalities of Properties in the Current Subset .....	26
Options Page .....	28
Add all NIEM components to current subset .....	28
Generate Documents .....	30
Options Page .....	31
<b>Load Wantlist</b> .....	31
Options Page .....	33
Download Wantlist Schema Specification .....	33

<b>Generate Documents</b> .....	35
Generate a subset from the current subset .....	36
Browsing the Subset .....	36
Editing Contents .....	37

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# Overview

The [Schema Subset Generation Tool \(SSGT\)](#) presents the schema designer with an interface that permits searching through the National Information Exchange Model (NIEM) for desired types and properties by substrings in names, definitions, and other fields of [NIEM](#). When appropriate types or properties are found, the user may select them for inclusion in a schema subset. [SSGT](#) applies the appropriate rules and automatically includes any types and elements that the user selections depend on. The designer does not have to manage subsetting rules or dependencies. After selecting all of the desired types and properties, the designer can generate the schema subset. The result is a **zip** archive file containing the relevant, valid subset schemas derived from the [NIEM](#) reference schemas and any referenced code list schemas. The **[zip]** archive directory structure and file placement is arranged automatically.



**Figure: SSGT Automatic Dependencies**

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## Search and Discovery

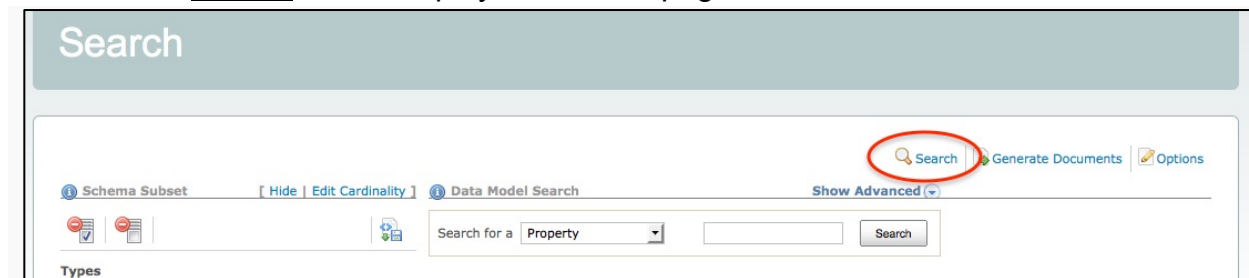
The Schema Subset Generation Tool (SSGT) search function allows you to:

- Enter search terms and view matching results in a data hierarchy format.
- Navigate through the various data types, properties, namespaces, and facets and their relationships.
- Select advanced search options to refine your search results.

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## Search Page

- Click the [Search](#) link to display the search page.



**Figure:SSGT Search Page**



**Note:** The search page is displayed by default.

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## Basic Search

1. Click the [Search for a](#) drop-down and select either Property, Type, *Namespace*, or *Facet*.
2. Enter a search term in the text box next to the drop-down.
3. Click the [Search](#) button.

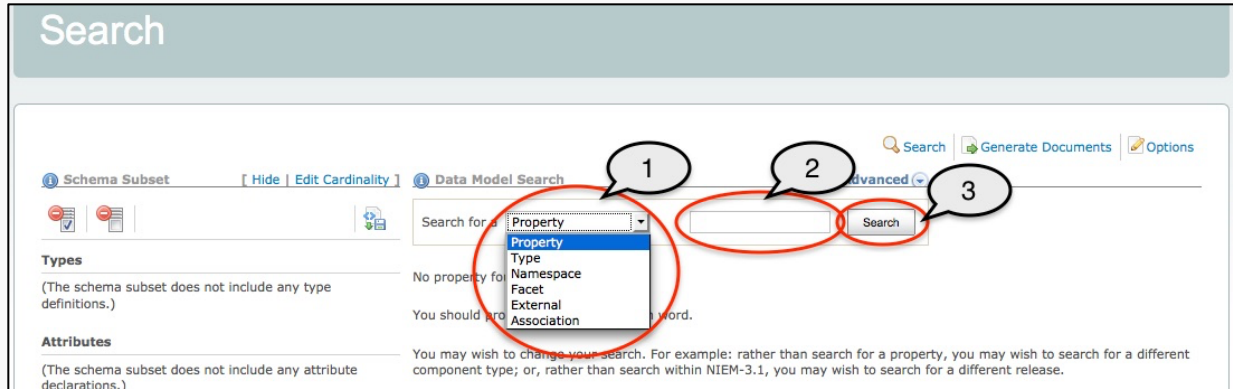
**Property:** A *Property* is a global schema `xsd:element`.

**Type:** A *Type* is a schema `xsd:complexType` or `xsd:simpleType` that contains any number of properties. For example, `nc:OrganizationType` contains properties, such as

nc:OrganizationLocation, nc:OrganizationStatus, etc. Properties from the namespace xsd-proxy are wrappers for schema simple types such as xsd-proxy:string for xsd:string or xsd-proxy for xsd:integer. Proxy simple types allow for adding metadata to the properties.

**Namespace:** A *Namespace* is a logical grouping of data types, properties, and facets associated with a particular domain. If *Namespace* is selected in the search drop-down, the namespace prefixes, fully qualified namespace URIs, and namespace descriptions will be searched for the matching search term. The namespace or a hyperlinked list of namespaces that contain the matching term will be returned.

**Facet:** A *Facet* is a constraint on the values of eXtensible Markup Language (XML) simple types (such as strings, integers, dates, binaries, etc.). Such constraints can be on data value length, patterns, or specific values. For example, an enumeration facet constrains a string type property to a particular set of values, often referred to as a code list. A code list for an organization category type might constrain valid string values to Business, Charity, Criminal Justice, etc. If set to *Facet*, all code lists (enumeration facets) matching a substring either in a code value or definition will be returned.




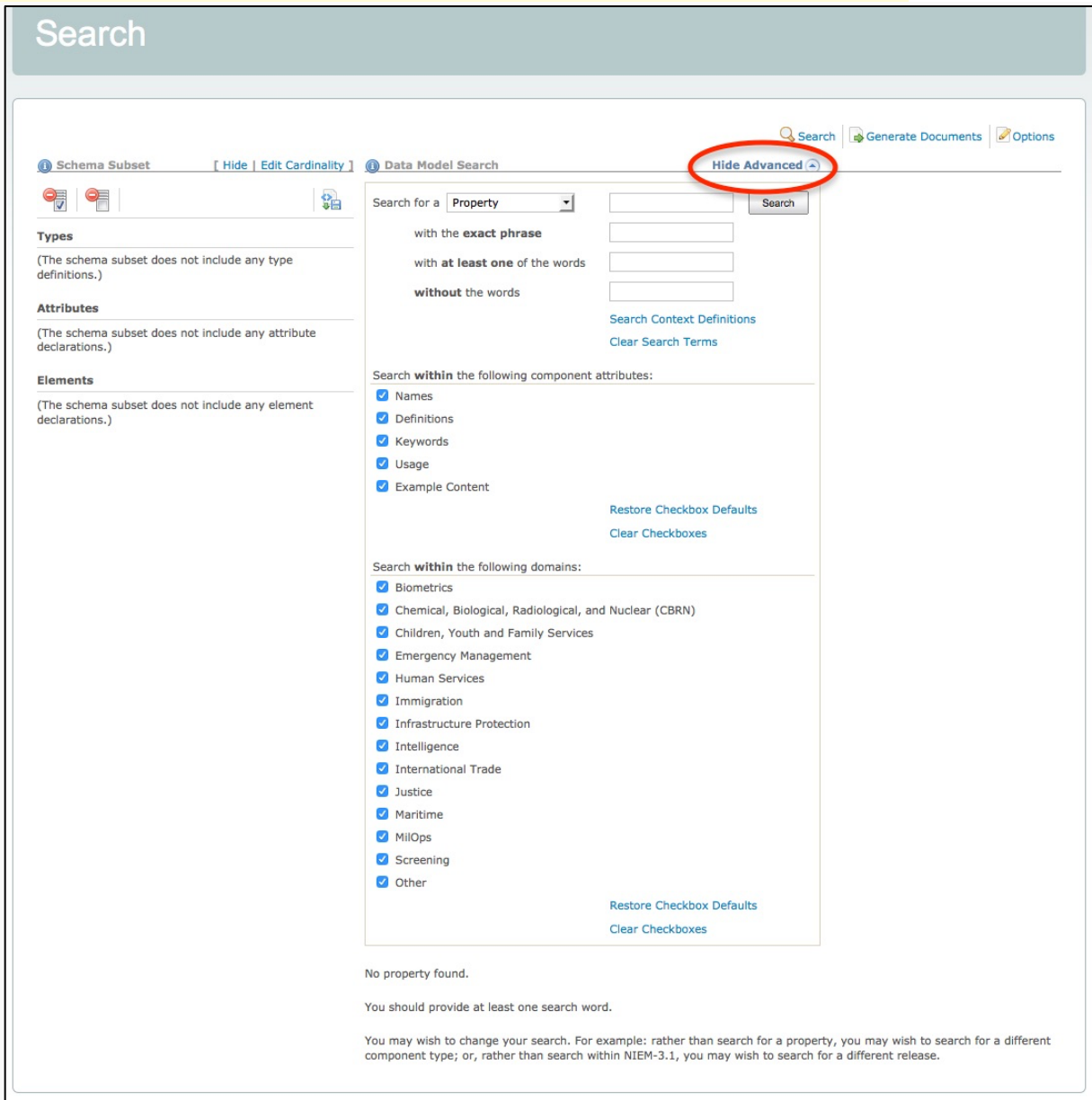
**Figure: SSGT Search and Discovery**

## Advanced Search

- Click the toggle link Show Advanced to show advanced search options.
- Click the toggle link Hide Advanced to hide advanced search options (green circle). Enter search terms in the text-box labeled with the exact phrase to search multiple terms.

- Enter search terms in the text-box labeled with at least one of the words to conduct a logical OR search.
- Enter search terms in the text-box labeled without the words to exclude terms from the search results.
- Uncheck the check-boxes Names, Definition, Keywords, Usage, and Example Content to exclude the unchecked item from being searched for the search terms entered above.

 **Note:** If all check-boxes are unchecked, **no results will be returned.**



**Search**

Schema Subset [ Hide | Edit Cardinality ] Data Model Search [Search](#) [Generate Documents](#) [Options](#)

**Hide Advanced**

Search for a **Property**

with the **exact phrase**

with **at least one** of the words

**without** the words

[Search Context Definitions](#)  
[Clear Search Terms](#)

Search **within** the following component attributes:

- Names
- Definitions
- Keywords
- Usage
- Example Content

[Restore Checkbox Defaults](#)  
[Clear Checkboxes](#)

Search **within** the following domains:

- Biometrics
- Chemical, Biological, Radiological, and Nuclear (CBRN)
- Children, Youth and Family Services
- Emergency Management
- Human Services
- Immigration
- Infrastructure Protection
- Intelligence
- International Trade
- Justice
- Maritime
- MilOps
- Screening
- Other

[Restore Checkbox Defaults](#)  
[Clear Checkboxes](#)

No property found.

You should provide at least one search word.

You may wish to change your search. For example: rather than search for a property, you may wish to search for a different component type; or, rather than search within NIEM-3.1, you may wish to search for a different release.

**Figure: SSGT Advanced Search**

# Exploring search results

The properties and types displayed in the search results are hyperlinked to display more detailed information about that component. This helps users navigate through the data model to find associated properties and to explore the model hierarchy.

The screenshot displays the SSGT Search interface. At the top, there is a search bar with the text 'unit' and a 'Search' button. Below the search bar, there are several tabs: 'Schema Subset', 'Data Model Search', and 'Show Advanced'. The 'Data Model Search' tab is active. On the left side, there are three sections: 'Types', 'Attributes', and 'Elements', each with a note indicating that the schema subset does not include any definitions for that category. The main area of the interface shows a list of search results, each with an 'Add' button and a 'details' link. The results include various units and codes such as 'mo:UnitTypeCodeText', 'mo:speedUnitCode', 'nc:AddressSecondaryUnitText', 'nc:DisciplinaryActionCommunityService', 'nc:LengthUnitCode', 'nc:LocaleCommunityName', 'nc:MeasureUnit abstract', 'nc:MeasureUnitText', 'nc:OrganizationSubUnit', 'nc:OrganizationSubUnitName', 'nc:OrganizationUnit', 'nc:OrganizationUnitAssociationAugmentationPoint abstract', 'nc:OrganizationUnitName', 'nc:PersonAssignedUnitAssociation', 'nc:PersonTemporaryAssignedUnitAssociation', 'nc:SpeedUnitCode', 'nc:TemperatureUnitCode', 'nc:TimeUnitCode', 'nc:VehicleGrossLadenUnitWeightMeasure', 'nc:VolumeUnitCode', 'nc:WeightUnitCode', 'nc:quantityUnitText', 'scr:LocationBuildingUnitName', 'scr:LocationBuildingUnitNumberText', and 'biom:NominalScanningResolutionValue'. At the bottom of the search results, there are navigation controls: 'First', 'Previous', 'Next', and 'Last', along with the text 'Displaying 76-100 of 251 results' and 'Page 4 of 11'.

**Figure: SSGT Exploring the Model**

# Showing Properties

- Click the plus-sign icon to the left of a component to expand the list of properties for that component.
- Click the minus-sign icon to the left of a component to hide the list of properties for that component.



**Figure: SSGT Show Properties**

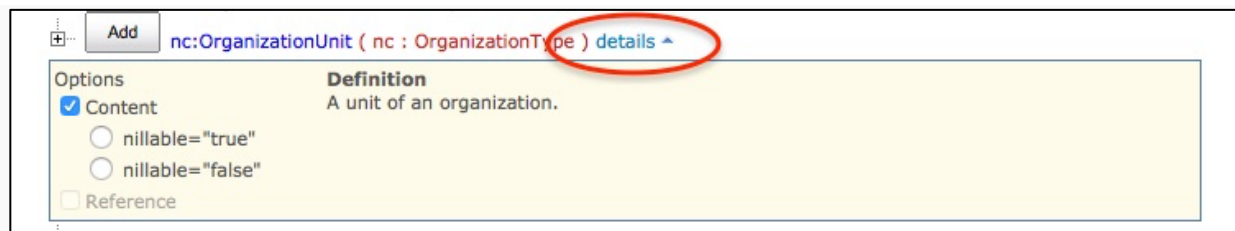


## Showing Details

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- Click the toggle link details to the right of a component to display the details view for that component.
- Click the toggle link details again to hide the details view.

The details view contains the component definition and two radio buttons that allow selection of whether to make the component nillable = “true” or nillable = “false”.

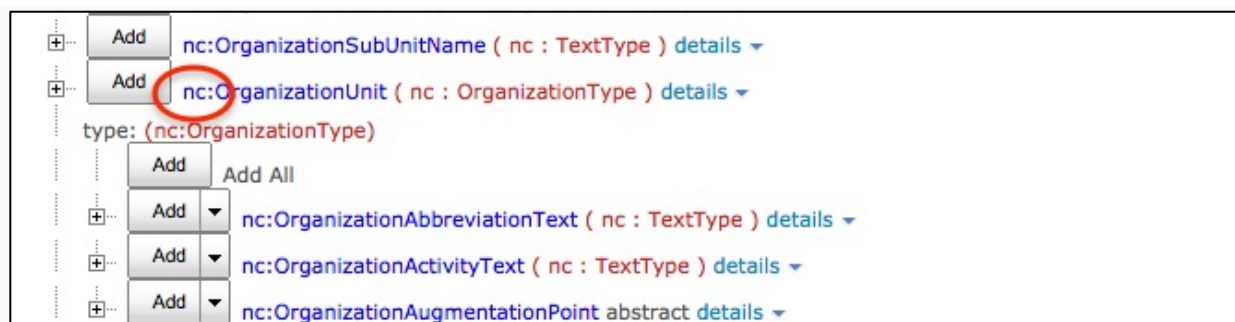


**Figure: SSGT Show Details**

## Showing a Namespace Page

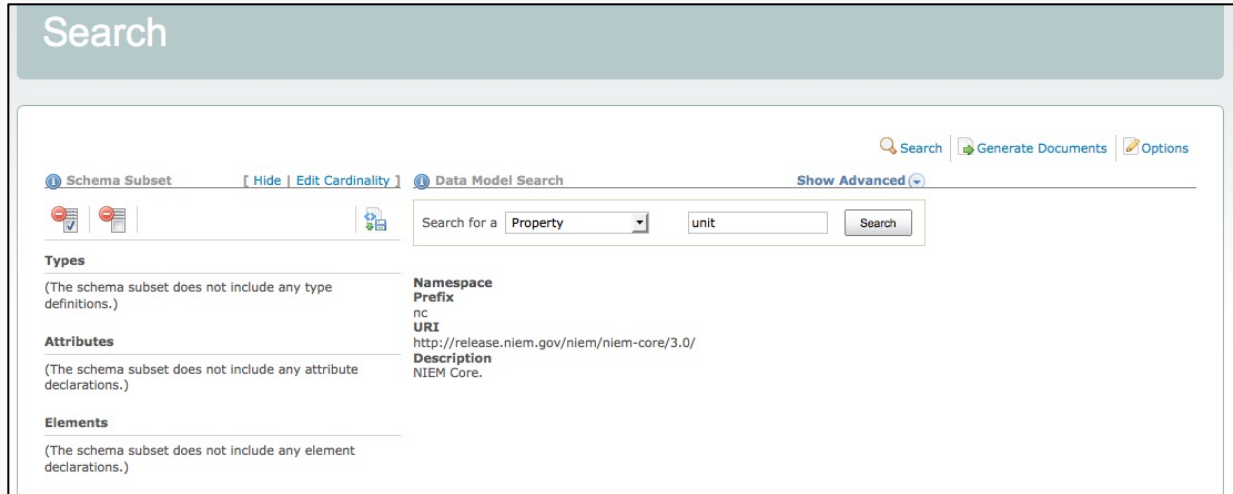
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- Click a namespace name link before a component name to display that namespace's page.



**Figure: SSGT Show Namespace**

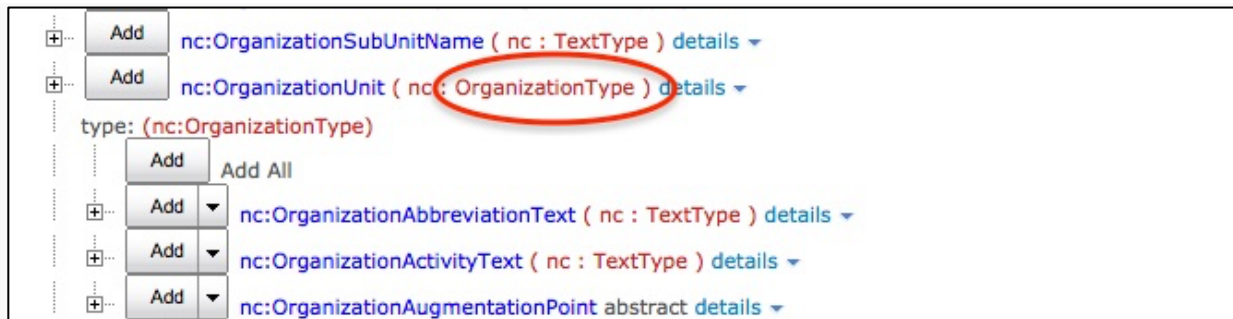
- The namespace page displays the namespace's prefix, Uniform Resource Identifier (URI) and description.



**Figure: SSGT Namespace Page**

## Showing a Type Page

- Click a red type name link to display that type's page.



**Figure: SSGT Show Type**

- The type page displays the type's definition, content style (complex content or simple content), parents, possible properties, and a list of other properties (elements) that are of the type being displayed.

**Search**

Schema Subset [ Hide | Edit Cardinality ] Data Model Search Show Advanced

Search for a **Property** unit Search

**Types**  
(The schema subset does not include any type definitions.)

**Attributes**  
(The schema subset does not include any attribute declarations.)

**Elements**  
(The schema subset does not include any element declarations.)

**Definition:**  
A data type for a body of people organized for a particular purpose.

**Content Style:** Complex with Complex Content

**Derived Types**

- Add All
- Add biom : DNALaboratoryType show inheritance
- Add cyfs : ChildSupportEnforcementOrganizationType show inheritance
- Add em : HospitalType show inheritance
- Add it : MasterType show inheritance
- Add it : ProcessingEstablishmentType show inheritance
- Add j : CourtType show inheritance
- Add j : EnforcementUnitType show inheritance
- Add j : MotorCarrierType show inheritance
- Add j : PawnBrokerType show inheritance

**Contains**

- Add All
- Add nc:OrganizationAbbreviationText ( nc : TextType ) details
- Add nc:OrganizationActivityText ( nc : TextType ) details
- Add nc:OrganizationBranchName ( nc : TextType ) details
- Add nc:OrganizationCategory abstract details
- Add nc:OrganizationDayContactInformation ( nc : ContactInformationType ) details
- Add nc:OrganizationDescriptionText ( nc : TextType ) details

**Figure: SSGT Type Page**

## Showing a Property Page

- Click a blue type name link to display that property's page.

Add [nc:OrganizationSubUnitName \( nc : TextType \) details](#)  
 Add [nc:OrganizationUnit \( nc : OrganizationType \) details](#)  
 type: (nc:OrganizationType)

Add Add All  
 Add [nc:OrganizationAbbreviationText \( nc : TextType \) details](#)  
 Add [nc:OrganizationActivityText \( nc : TextType \) details](#)  
 Add [nc:OrganizationAugmentationPoint abstract details](#)

**Figure: SSGT Show Property**

The property page displays a property's definition, nillable options, types the property is contained in, and the type of the property. Check the appropriate nillable option radio

button. The Contained In group box, if present, contains the type that the property is a member of.

The screenshot displays the 'Search' interface for the SSGT Property Page. At the top, there is a search bar with the text 'Search for a Property' and a 'unit' field, followed by a 'Search' button. Below the search bar, there are several sections:

- Schema Subset:** Includes links for 'Hide' and 'Edit Cardinality'.
- Data Model Search:** Includes a 'Show Advanced' button.
- Types:** A section indicating that the schema subset does not include any type definitions.
- Attributes:** A section indicating that the schema subset does not include any attribute declarations.
- Elements:** A section indicating that the schema subset does not include any element declarations.
- Add Options:** A section with a 'Content' checkbox checked, and two radio buttons for 'nillable="true"' (selected) and 'nillable="false"'. There is also an unchecked 'Reference' checkbox.
- Property - nc:OrganizationUnit:** A section with a 'Definition:' label and the text 'A unit of an organization.'
- Contained In:** A section with an 'Add' button and the text 'nc : OrganizationUnitAssociationType show inheritance'.
- Type of this Property:** A section with an 'Add' button and the text 'nc : OrganizationType'.

**Figure: SSGT Property Page**

# Options Page

- Click the [Options](#) link to display the options page.

**Options**

Search | Generate Documents | **Options**

**Schema Subset** [ Hide | Edit Cardinality ] **Wantlist Options**

**Types**  
(The schema subset does not include any type definitions.)

**Attributes**  
(The schema subset does not include any attribute declarations.)

**Elements**  
(The schema subset does not include any element declarations.)

Current Release: NIEM-3.1  
Current Nillable Default Value: true  
NOTE: If you change the current release or change the current nillable default value, the system will clear your subset. Save your current subset if you wish to keep it.  
Change Release to: NIEM-3.1  
Change Nillable Default Value to:  True  False

**Load Wantlist**  
Select wantlist XML file to upload and edit:  
Filename:  No file selected  
 Replace current Subset  
 Merge with current Subset

**Download Wantlist Schema Specification**

**Namespaces**  
Add Everything from a Namespace to your subset (This can be slow to load for large namespaces):

Add to subset	Download subset schema archive
Add Biometrics	Download Biometrics
Add Chemical, Biological, Radiological, and Nuclear (CBRN)	Download Chemical, Biological, Radiological, and Nuclear (CBRN)
Add Children, Youth and Family Services	Download Children, Youth and Family Services
Add Emergency Management	Download Emergency Management
Add Human Services	Download Human Services
Add Immigration	Download Immigration
Add Infrastructure Protection	Download Infrastructure Protection
Add Intelligence	Download Intelligence
Add International Trade	Download International Trade
Add Justice	Download Justice
Add Maritime	Download Maritime
Add MilOps	Download MilOps
Add Screening	Download Screening

**Figure: SSGT Options Page**

# Change Release Version

- Click the Change Release To: drop-down box to select the version NIEM to use when generating the subset zip-file.

The screenshot shows the 'Options' page in the SSGT interface. The 'Wantlist Options' section is active, showing the current release as 'NIEM-3.1'. The 'Change Release to' dropdown menu is open, displaying a list of available versions: NIEM-2.1, NIEM-2.0, NIEM-1.0, NIEM-3.0-with-domain-updates, NIEM-2.1-with-domain-updates, NIEM-3.0, and NIEM-3.1. The 'NIEM-3.1' option is highlighted. Below the dropdown, there are radio buttons for 'Replace current Subset' (selected) and 'Merge with current Subset', along with a 'Load Wantlist' button. The 'Namespaces' section is also visible, listing various categories like Biometrics, CBRN, and Screening, each with an 'Add' and a 'Download' link.

**Figure: SSGT Change Release Version**



**Note:** Change release before doing a subset.

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## Add a Property to the Current Subset

1. Click the Add button next to a property to add that property to the current subset.
2. The property added appears in the Elements section.
3. Additionally, the selected type of that property (and all required parent types) will appear in the Types section.



**Note:** Sub-properties of a type (or parent type) will **NOT** be added automatically. Sub-properties must be added individually or by using the add all function.



**Note:** In the current subset, properties or types in **BOLD** (#2, below) indicate components directly selected to be added to the subset by the user. Components with normal font weight indicate automatically added dependencies (#3, below), required by at least one **BOLD** component.

Search | Generate Documents | Options

Schema Subset [ Hide | Edit Cardinality ] Data Model Search Show Advanced

Search for a

**Types**  
 The schema subset includes the following type definitions; those requested are in blue.

- nc:OrganizationType
- nc:TextType
- niem-xs:string
- xs:string

**Attributes**  
 (The schema subset does not include any attribute declarations.)

**Elements**  
 The schema subset includes the following element declarations; those requested are in blue.

- nc:OrganizationName
- nc:OrganizationUnit

**Results List:**

- Add  **nc:OrganizationTaxIdentification** ( nc : IdentificationType ) details
- Add  **nc:OrganizationTerminationDate** ( nc : DateType ) details
- Add  **nc:OrganizationUnit** ( nc : OrganizationType ) details
- Add  **nc:OrganizationUnitAssociationAugmentationPoint** abstract details
- Add  **nc:OrganizationUnitName** ( nc : TextType ) details
- Add  **nc:PassportIssuingOrganization** ( nc : OrganizationType ) details
- Add  **nc:PersonCriminalOrganizationAssociation** ( nc : PersonOrganizationAssociationType ) details
- Add  **nc:PersonOrganizationAffiliationAssociation** ( nc : PersonOrganizationAssociationType ) details
- Add  **nc:PersonOrganizationAssociation** ( nc : PersonOrganizationAssociationType ) details
- Add  **nc:PersonOrganizationAssociationAugmentationPoint** abstract details
- Add  **nc:ReportingOrganizationText** ( nc : TextType ) details
- Add  **nc:RoleOfOrganization** ( nc : OrganizationType ) details
- Add  **scr:DocumentOrganizationAssociation** ( scr : DocumentOrganizationAssociationType ) details
- Add  **scr:DocumentOrganizationAssociationAugmentationPoint** abstract details
- Add  **scr:OrganizationAddressAssociation** ( scr : OrganizationAddressAssociationType ) details
- Add  **scr:OrganizationAddressAssociationAugmentationPoint** abstract details
- Add  **scr:OrganizationAddressEffectiveDate** ( nc : DateType ) details
- Add  **scr:OrganizationAddressEndDate** ( nc : DateType ) details
- Add  **scr:OrganizationAugmentation** ( scr : OrganizationAugmentationType ) details
- Add  **scr:OrganizationClassificationCategory** abstract details
- Add  **scr:OrganizationClassificationCategoryCode** ( scr : OrganizationCategoryCodeType ) details
- Add  **scr:OrganizationEncounterAssociation** ( scr : OrganizationEncounterAssociationType ) details
- Add  **scr:OrganizationEncounterAssociationAugmentationPoint** abstract details
- Add  **scr:OrganizationNameEffectiveDate** ( nc : DateType ) details
- Add  **scr:OrganizationNameIdentification** ( nc : IdentificationType ) details

First Previous Next Last  
 Displaying 151-175 of 358 results  
 Page 7 of 15

**Figure: SSGT Adding a Property to the Current Subset**



## Add a sub-property of a type to the current subset

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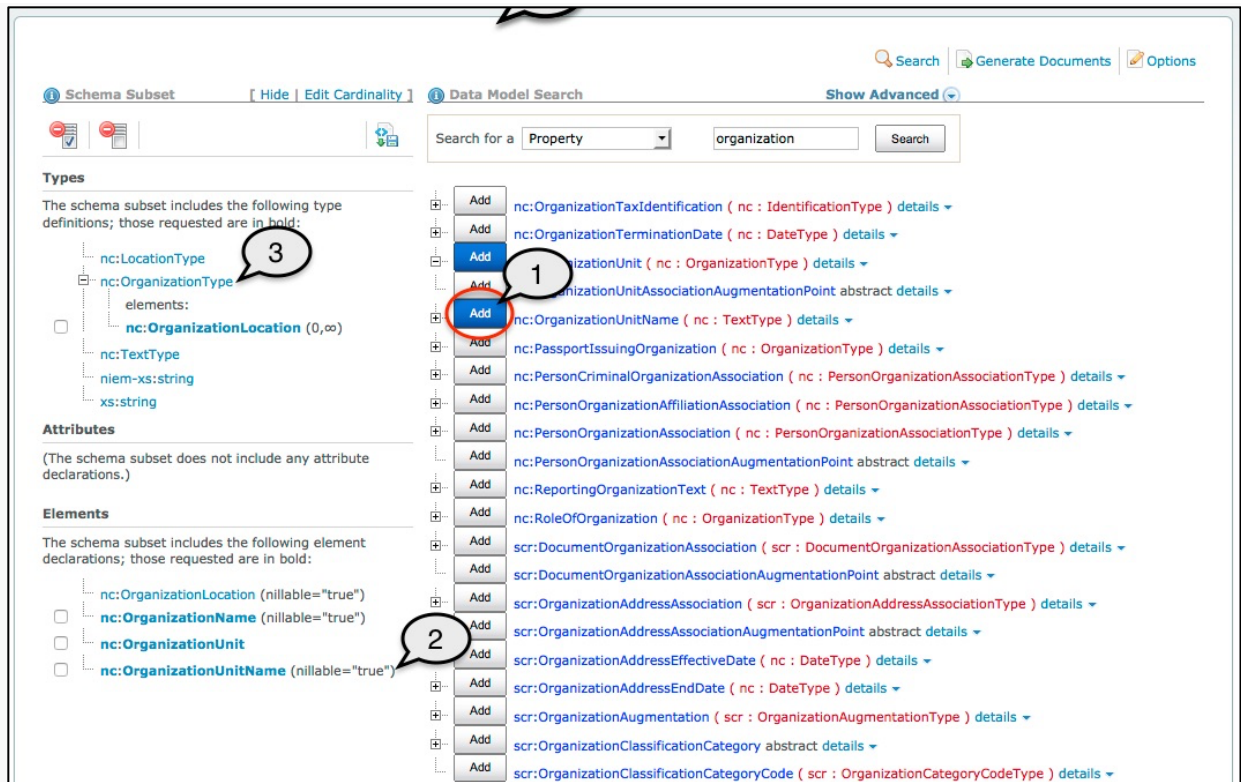
**Note:** Because all properties are global in the NIEM Data Model, sub-properties of a type may be added to the current subset **WITHOUT** also adding them as sub-properties of their parent type.

1. Click the plus-sign icon next to a property to expand all the sub-properties for the type of that property.
2. Click the Add button next to a sub-property to add that sub-property to the current subset.
3. The property added appears in the Elements section.
4. Additionally, the property also appears as a sub-property of the type in the Types section.

The screenshot shows the SSGT (Schema Subset Generator Tool) interface. At the top, there are navigation options like 'Schema Subset', 'Data Model Search', and 'Show Advanced'. A search bar is present with the text 'organization'. The main area is divided into three sections: 'Types', 'Attributes', and 'Elements'. The 'Types' section shows a tree structure with 'nc:OrganizationType' expanded to show its elements, including 'nc:OrganizationLocation (0,∞)'. The 'Elements' section lists 'nc:OrganizationLocation (nillable="true")', 'nc:OrganizationName (nillable="true")', and 'nc:OrganizationUnit'. On the right, a list of properties is displayed, each with an 'Add' button. Callout 1 points to the 'Add' button for 'nc:OrganizationTaxIdentification'. Callout 2 points to the 'Add' button for 'nc:OrganizationLocation'. Callout 3 points to the 'nc:OrganizationLocation' element in the 'Elements' list. Callout 4 points to the 'Add' button for 'nc:OrganizationUnit'.

**Figure: SSGT Adding a Sub-Property to the Current Subset**

**WARNING:** Sub-properties of a type added from outside of a hierarchical type are **NOT** added as sub-properties of that type:

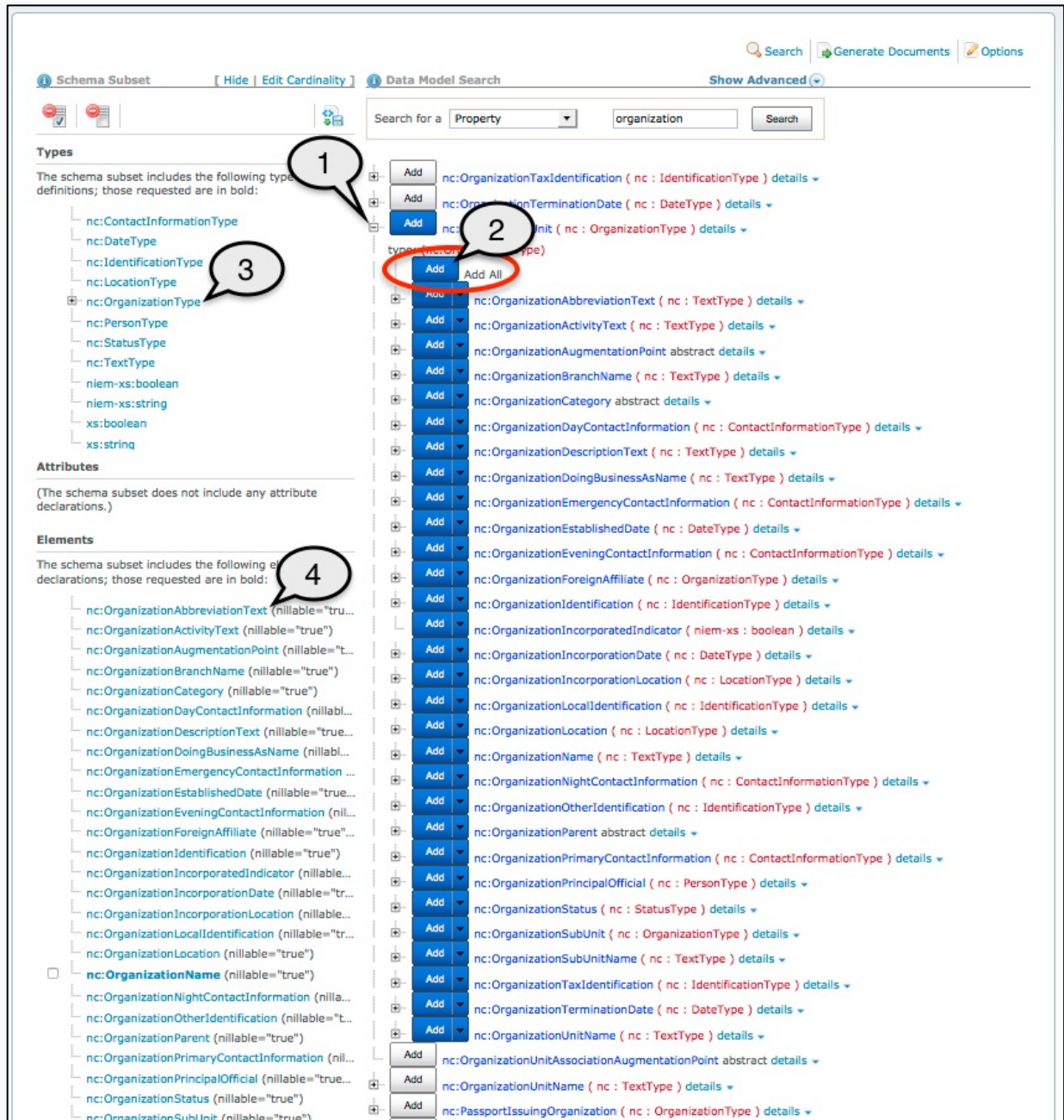


In the above example:

5. Property OrganizationUnitName (which is a sub-property of OrganizationType) is added to the subset outside of the type
6. The property OrganizationUnitName appears in the current subset
7. The property OrganizationUnitName is NOT added to the sub-properties of OrganizationType

## Add all sub-properties of a type to the current subset

1. Click the plus-sign icon next to a property to expand all the sub-properties for the type of that property.
2. Click the Add button next to the Add All label to add all properties below the button.
3. All properties are added to the current subset.
4. Additionally, all properties are added as sub-properties of that type.



**Figure: SSGT Adding All Properties to the Current Subset**

## Add a type to the current subset

1. Click the Add button next to a type to add that type to the current subset.

2. The selected type and all parent types required will appear in the left subset window.

**Note:** Sub-properties of any type added to the current subset will **NOT** be added automatically. Sub-properties must still be added individually or by using the add all function.

The screenshot displays the SSGT interface with a search for 'organization' types. The left pane shows the 'Types' section with 'nc:EntityType' and 'nc:OrganizationType' in bold, and a callout '2' pointing to them. The right pane shows a list of types, with 'nc:OrganizationType' highlighted and a callout '1' pointing to it. The interface includes a search bar, a 'Generate Documents' button, and a 'Show Advanced' dropdown.

Search for a **Type** organization Search

**Types**  
The schema subset includes the following type definitions; those requested are in bold:

- nc:EntityType**
- nc:OrganizationType**

**Attributes**  
(The schema subset does not include any attribute declarations.)

**Elements**  
(The schema subset does not include any element declarations.)

Add cyfs : ChildSupportEnforcementOrganizationType show inheritance

Add cyfs : JuvenileEducationOrganizationAssociationType show inheritance

Add cyfs : OrganizationAugmentationType

Add it : RoleOfOrganizationCategoryType

Add j : ActivityCriminalOrganizationAssociationType show inheritance

Add j : CriminalOrganizationType

Add j : ObligationDueToOrganizationAssociationType show inheritance

Add j : ObligationOrganizationAssociationType show inheritance

Add j : OrganizationAlternateNameType

Add j : OrganizationAugmentationType

Add jc3iedm : MilitaryOrganizationCategoryServiceCodeSimpleType details ▾

Add jc3iedm : MilitaryOrganizationCategoryServiceCodeType details ▾

Add mo : OperationPlanTaskOrganizationType

Add nc : ActivityOrganizationAssociationType show inheritance

Add nc : OrganizationAssociationType show inheritance

Add nc : OrganizationFacilityAssociationType show inheritance

Add nc : OrganizationLocationAssociationType show inheritance

**Add nc : OrganizationType**

Add nc : OrganizationUnitAssociationType show inheritance

Add nc : PersonOrganizationAssociationType show inheritance

Add ndex : OrganizationCategoryCodeSimpleType details ▾

Add ndex : OrganizationCategoryCodeType details ▾

Add nlets : OrganizationCategoryCodeSimpleType details ▾

Add nlets : OrganizationCategoryCodeType details ▾

Add scr : DocumentOrganizationAssociationType show inheritance

First Previous Next Last  
Displaying 1-25 of 87 results  
Page 1 of 4

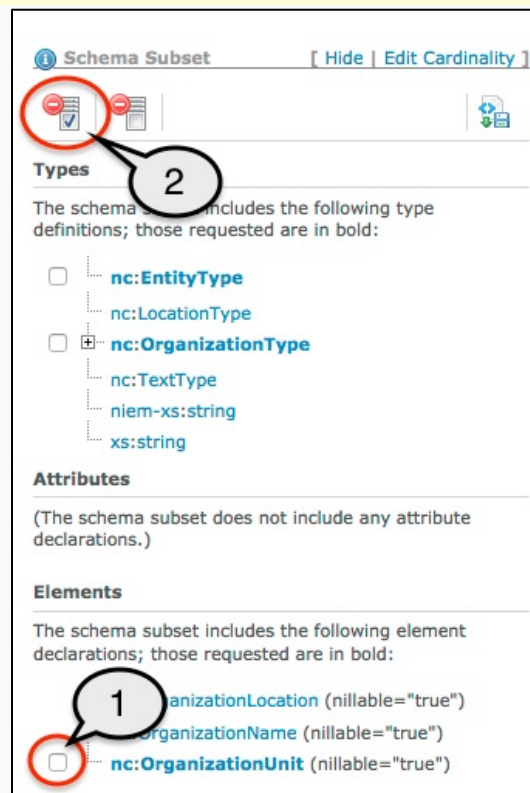
**Figure: SSGT Adding to the Current Subset**

# Delete a type or property from the current subset

1. Check the check-box next to a component to select it for removal from the current subset.
2. Click the Delete button to remove all selected components and dependencies from the current subset.



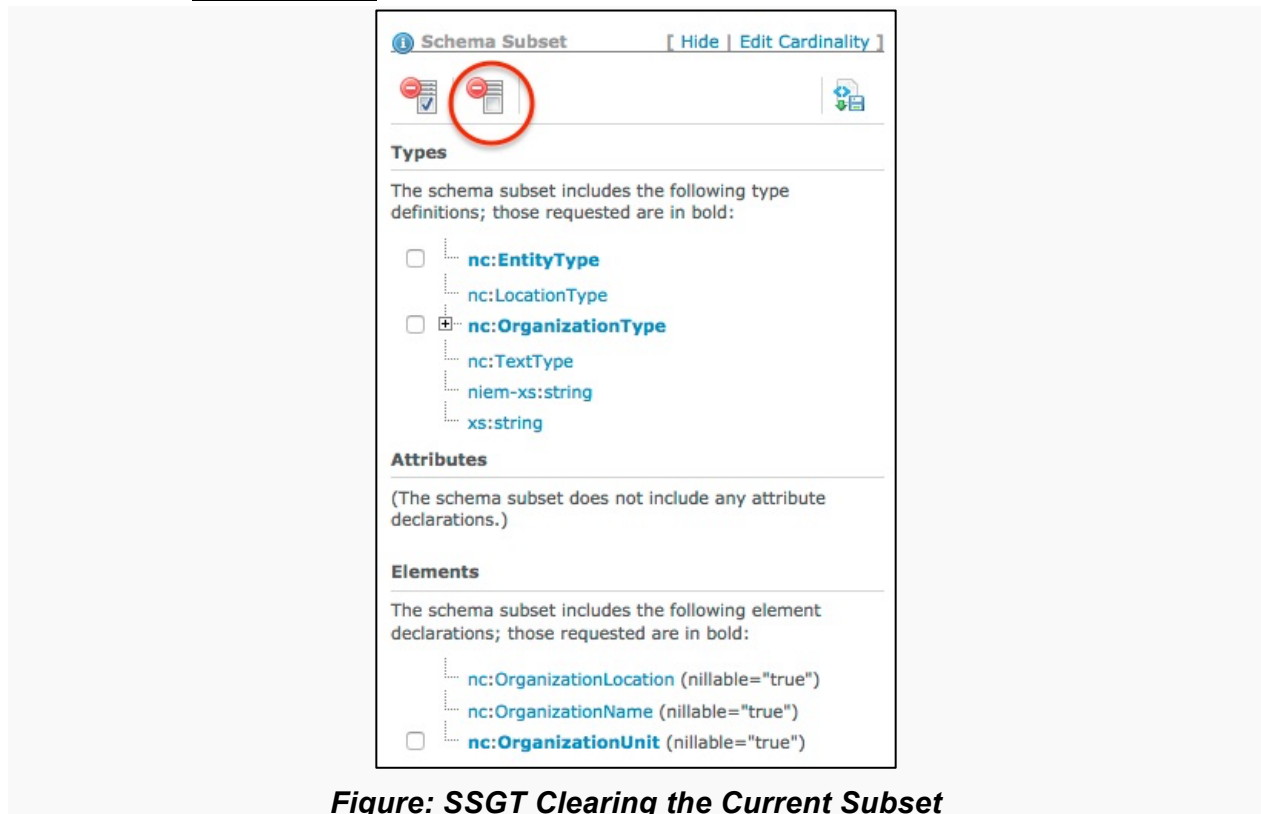
**Note:** If there is no check-box present to the left of a component, then that component is a required dependency and may not be removed manually. To remove a component without a check-box, delete all components requiring that dependency.



**Figure: SSGT Deleting from the Current Subset**

# Clear the Current Subset

- Click the Clear Subset button.



**Figure: SSGT Clearing the Current Subset**

# Edit cardinalities of all properties in the current subset



**Note:** To provide maximum flexibility to developers, cardinalities of NIEM reference schema sub-properties default to `minOccurs="0"` and `maxOccurs="unbounded"`. IES Developers should ensure that the appropriate cardinalities are assigned to all sub-properties for their exchange prior to generating the subset.

- Click the [Edit Cardinality](#) link.

The screenshot shows a web interface for editing a schema subset. At the top, there is a header bar with a blue information icon, the text "Schema Subset", and a "Hide" button. To the right of "Hide" is a link labeled "Edit Cardinality", which is circled in red. Below the header bar are several icons: a minus sign, a checkmark, a plus sign, and a refresh icon. The main content area is divided into sections: "Types", "Attributes", and "Elements". The "Types" section contains a list of type definitions with checkboxes and expand/collapse icons. The "Attributes" section contains a message: "(The schema subset does not include any attribute declarations.)". The "Elements" section contains a list of element declarations with checkboxes and expand/collapse icons.

**Types**

The schema subset includes the following type definitions; those requested are in bold:

- nc:EntityType
- nc:LocationType
- nc:OrganizationType
- nc:TextType
- niem-xs:string
- xs:string

**Attributes**

(The schema subset does not include any attribute declarations.)

**Elements**

The schema subset includes the following element declarations; those requested are in bold:

- nc:OrganizationLocation (nillable="true")
- nc:OrganizationName (nillable="true")
- nc:OrganizationUnit (nillable="true")

**Figure: Edit Cardinality**

1. Enter the minimum cardinality in the `minOccurs` text-box.
2. Enter the maximum cardinality in the `maxOccurs` text-box.
3. Click the [Submit for all properties](#) button.



# Edit Cardinality

Search | Generate Documents | Options

Schema Subset [ Return to Subset ]

Change the cardinality of every component to (  ,  )

**Types**

The schema subset includes the following type definitions; those requested are in bold:

- nc:OrganizationType**
  - elements:
    - nc:OrganizationLocation** ( 0 , ∞ )
    - nc:OrganizationName** ( 0 , ∞ )

**Figure: Edit Cardinality for All Properties**

# Edit Cardinalities of Properties in the Current Subset

**Note:** To provide maximum flexibility to developers, most cardinalities of NIEM reference schema sub-properties default to



minOccurs="0" and maxOccurs="unbounded". IEPD Developers should ensure that the appropriate cardinalities are assigned to all sub-properties for their exchange prior to generating the subset.

- Click the Edit Cardinality link.

**Types**

The schema subset includes the following type definitions; those requested are in bold:

- nc:EntityType**
- nc:LocationType
- nc:OrganizationType**
  - nc:TextType
  - niem-xs:string
  - xs:string

**Attributes**

(The schema subset does not include any attribute declarations.)

**Elements**

The schema subset includes the following element declarations; those requested are in bold:

- nc:OrganizationLocation (nillable="true")
- nc:OrganizationName (nillable="true")
- nc:OrganizationUnit** (nillable="true")

**Figure: Edit Cardinality**

1. Click the plus-sign icon next to a type, or the Expand all label to expand all types.
2. Select a value from the min: drop-down box to assign the minimum cardinality.
3. Select a value from the max: drop-down box to assign the maximum cardinality.
4. A message banner at the top of the dialog echoes the new settings.

# Edit Cardinality

[Search](#) | [Generate Documents](#) | [Options](#)

Schema Subset [ [Return to Subset](#) ]

Change the cardinality of every component to (  ,  )

## Types

The schema subset includes the following type definitions. The requested are in bold:

**nc:OrganizationType**

elements:

- nc:OrganizationLocation** ( 2 , ∞ )
- nc:OrganizationName** ( 0 , ∞ )

0
1
2
3
4
5
∞

**Figure: Edit Cardinality for a Property**

# Options Page

- Click the Options link to display the options page.

**Options**

Search | Generate Documents | **Options**

**Schema Subset** [ Hide | Edit Cardinality ] **Wantlist Options**

**Types**  
The schema subset includes the following type definitions; those requested are in bold:

- nc:EntityType
- nc:LocationType
- nc:OrganizationType
- nc:TextType
- niem-xs:string
- xs:string

**Attributes**  
(The schema subset does not include any attribute declarations.)

**Elements**  
The schema subset includes the following element declarations; those requested are in bold:

- nc:OrganizationLocation (nillable="true")
- nc:OrganizationName (nillable="true")
- nc:OrganizationUnit (nillable="true")

**Load Wantlist**  
Select wantlist XML file to upload and edit:  
File name:  No file selected

Replace current Subset  
 Merge with current Subset

**Download Wantlist Schema Specification**  
[Download Wantlist Schema Specification](#)

**Namespaces**  
Add Everything from a Namespace to your subset (This can be slow to load for large namespaces):

Add to subset	Download subset schema archive
<a href="#">Add Biometrics</a>	<a href="#">Download Biometrics</a>
<a href="#">Add Chemical, Biological, Radiological, and Nuclear (CBRN)</a>	<a href="#">Download Chemical, Biological, Radiological, and Nuclear (CBRN)</a>
<a href="#">Add Children, Youth and Family Services</a>	<a href="#">Download Children, Youth and Family Services</a>
<a href="#">Add Emergency Management</a>	<a href="#">Download Emergency Management</a>
<a href="#">Add Human Services</a>	<a href="#">Download Human Services</a>
<a href="#">Add Immigration</a>	<a href="#">Download Immigration</a>
<a href="#">Add Infrastructure Protection</a>	<a href="#">Download Infrastructure Protection</a>
<a href="#">Add Intelligence</a>	<a href="#">Download Intelligence</a>
<a href="#">Add International Trade</a>	<a href="#">Download International Trade</a>
<a href="#">Add Justice</a>	<a href="#">Download Justice</a>
<a href="#">Add Maritime</a>	<a href="#">Download Maritime</a>
<a href="#">Add MilOps</a>	<a href="#">Download MilOps</a>
<a href="#">Add Screening</a>	<a href="#">Download Screening</a>

Figure: SSGT Options Page

## Add all NIEM components to current subset

- Click the Add NIEM link to add ALL NIEM components to the current subset.

**Note:** Due to the large number of components, this option may time-out before the operation completes. All NIEM content may be downloaded as either a Microsoft Excel spreadsheet (XLS) from the NIEM web page.



# Options

Schema Subset [ Hide | Edit Cardinality ] Wantlist Options

Current Release: NIEM-3.1  
Current Nillable Default Value: true  
NOTE: If you change the current release or change the current nillable default value, the system will clear your subset. Save your current subset if you wish to keep it.  
Change Release to   
Change Nillable Default Value to  True  False

**Types**  
The schema subset includes the following type definitions; those requested are in bold:

- nc:EntityType
- nc:LocationType
- nc:OrganizationType**
  - nc:TextType
  - niem-xs:string
  - xs:string

**Attributes**  
(The schema subset does not include any attribute declarations.)

**Elements**  
The schema subset includes the following element declarations; those requested are in bold:

- nc:OrganizationLocation (nillable="true")
- nc:OrganizationName (nillable="true")
- nc:OrganizationUnit** (nillable="true")

**Load Wantlist**  
Select wantlist XML file to upload and edit:  
Filename:  No file selected  
 Replace current Subset  
 Merge with current Subset

**Download Wantlist Schema Specification**  
[Download Wantlist Schema Specification](#)

**Namespaces**  
Add Everything from a Namespace to your subset (This can be slow to load for large namespaces):

Add to subset	Download subset schema archive
Add Biometrics	Download Biometrics
Add Chemical, Biological, Radiological, and Nuclear (CBRN)	Download Chemical, Biological, Radiological, and Nuclear (CBRN)
<b>Add Children, Youth and Family Services</b>	Download Children, Youth and Family Services
Add Emergency Management	Download Emergency Management
Add Human Services	Download Human Services
Add Immigration	Download Immigration
Add Infrastructure Protection	Download Infrastructure Protection
Add Intelligence	Download Intelligence
Add International Trade	Download International Trade
Add Justice	Download Justice
Add Maritime	Download Maritime
Add MilOps	Download MilOps
Add Screening	Download Screening

Figure: SSGT Add All NIEM

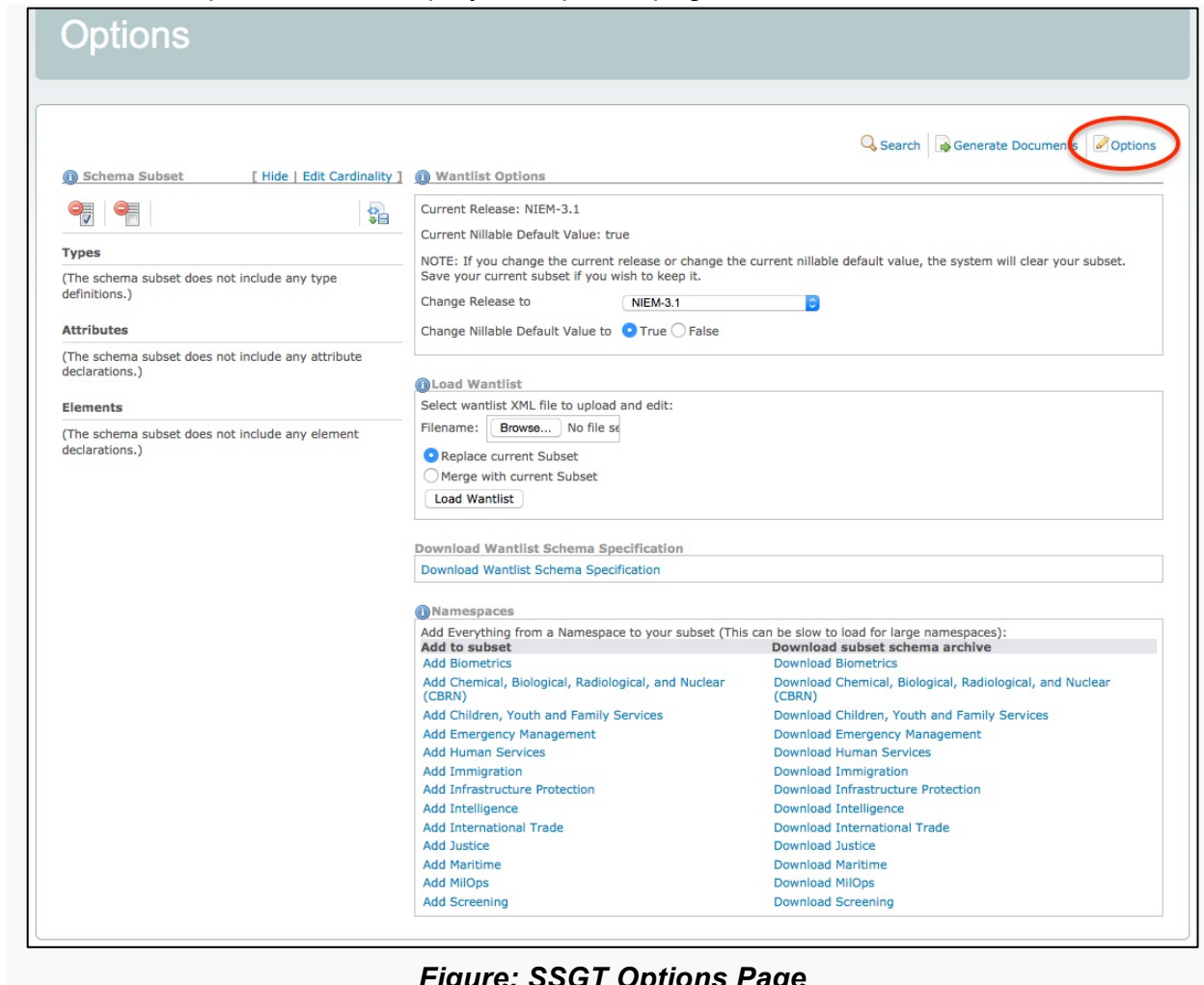
# Generate Documents

1. Click the [Generate Documents](#) link to display the generate documents page.
2. Click the [Save current wantlist to a file](#) link to save the current subset to an eXtensible Markup Language (XML) wantlist file (allowing for later recall).

**Figure: Generate Documents Page**

# Options Page

- Click the Options link to display the options page.



**Figure: SSGT Options Page**

## Load Wantlist

- Click Choose File button.
  - Select a wantlist file previously saved from Schema Subset Generation Tool (SSGT) from local machine using browser dialog.
- Select EITHER:
  - Replace current Subset radio-button to replace the current subset with the wantlist file.

2. Merge with current Subset radio-button to merge the current subset with the wantlist file.

3. Click Load Want List button.

**Options**

Schema Subset [ Hide | Edit Cardinality ] Wantlist Options

Current Release: NIEM-3.1  
Current Nillable Default Value: true  
NOTE: If you change the current release or change the current nillable default value, the system will clear your subset. Save your current subset if you wish to keep it.  
Change Release to NIEM-3.1  
Change Nillable Default Value to  True  False

**Types**  
The schema subset includes the following type definitions; those requested are in bold:

- nc:EntityType
- nc:LocationType
- nc:OrganizationType**
- nc:TextType
- niem-xs:string
- xs:string

**Attributes**  
(The schema subset does not include any attribute declarations.)

**Elements**  
The schema subset includes the following element declarations; those requested are in bold:

- nc:OrganizationLocation (nillable="true")
- nc:OrganizationName (nillable="true")
- nc:OrganizationUnit** (nillable="true")

**Load Wantlist**  
Select wantlist XML file to load and edit:  
Filename:  No file selected  
 Replace current Subset  
 Merge with current Subset

**Download Wantlist Specification**  
[Download Wantlist Schema Specification](#)

**Namespaces**  
Add Everything from a Namespace to your subset (This can be slow to load for large namespaces):

Add to subset	Download subset schema archive
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Add Children, Youth and Family Services	Download Children, Youth and Family Services
Add Emergency Management	Download Emergency Management
Add Human Services	Download Human Services
Add Immigration	Download Immigration
Add Infrastructure Protection	Download Infrastructure Protection
Add Intelligence	Download Intelligence
Add International Trade	Download International Trade
Add Justice	Download Justice
Add Maritime	Download Maritime
Add MilOps	Download MilOps
Add Screening	Download Screening

Figure: SSGT Load Wantlist



# Options Page

- Click the Options link to display the options page.

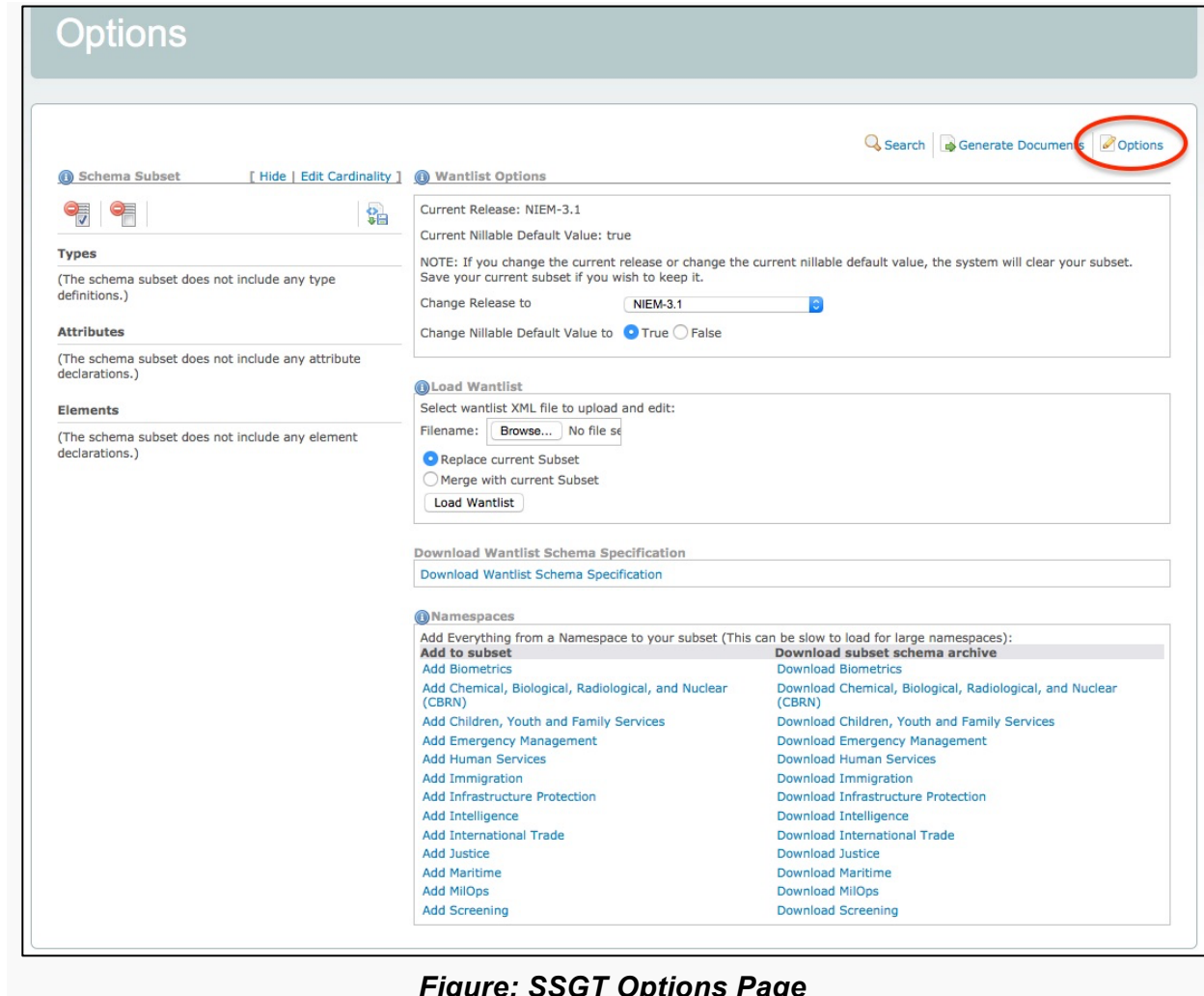


Figure: SSGT Options Page

## Download Wantlist Schema Specification

- Click the Download Wantlist Schema Specification link to download a XSD Schema file for Schema Subset Generation Tool (SSGT) wantlist files.

# Options

Search Generate Documents Options

Schema Subset [ Hide | Edit Cardinality ] Wantlist Options

Current Release: NIEM-3.1  
Current Nillable Default Value: true  
NOTE: If you change the current release or change the current nillable default value, the system will clear your subset. Save your current subset if you wish to keep it.  
Change Release to   
Change Nillable Default Value to  True  False

**Types**  
The schema subset includes the following type definitions; those requested are in bold:

- nc:EntityType
- nc:LocationType
- nc:OrganizationType**
  - nc:TextType
  - niem-xs:string
  - xs:string

**Attributes**  
(The schema subset does not include any attribute declarations.)

**Elements**  
The schema subset includes the following element declarations; those requested are in bold:

- nc:OrganizationLocation (nillable="true")
- nc:OrganizationName (nillable="true")
- nc:OrganizationUnit** (nillable="true")

**Load Wantlist**  
Select wantlist XML file to upload and edit:  
Filename:  No file selected  
 Replace current Subset  
 Merge with current Subset

**Download Wantlist Schema Specification**  
[Download Wantlist Schema Specification](#)

**Namespaces**  
Add Everything from a Namespace to your subset (This can be slow to load for large namespaces):

Add to subset	Download subset schema archive
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Add Chemical, Biological, Radiological, and Nuclear (CBRN)	Download Chemical, Biological, Radiological, and Nuclear (CBRN)
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Add Human Services	Download Human Services
Add Immigration	Download Immigration
Add Infrastructure Protection	Download Infrastructure Protection
Add Intelligence	Download Intelligence
Add International Trade	Download International Trade
Add Justice	Download Justice
Add Maritime	Download Maritime
Add MilOps	Download MilOps
Add Screening	Download Screening

Figure: SSGT Download Wantlist XSD

# Generate Documents

1. Click the [Generate Documents](#) link to display the generate documents page.
2. Click the [Save current subset to a spreadsheet](#) file to save comprehensive type information about the current subset to an Excel XLS file.

The screenshot shows the 'Generate Documents' interface. On the left, there are sections for 'Types' and 'Elements'. The 'Types' section lists: **nc:EntityType**, nc:LocationType, **nc:OrganizationType**, nc:TextType, niem-xs:string, and xs:string. The 'Elements' section lists: nc:OrganizationLocation (nillable="true"), nc:OrganizationName (nillable="true"), and **nc:OrganizationUnit** (nillable="true").

On the right, there are three main sections:

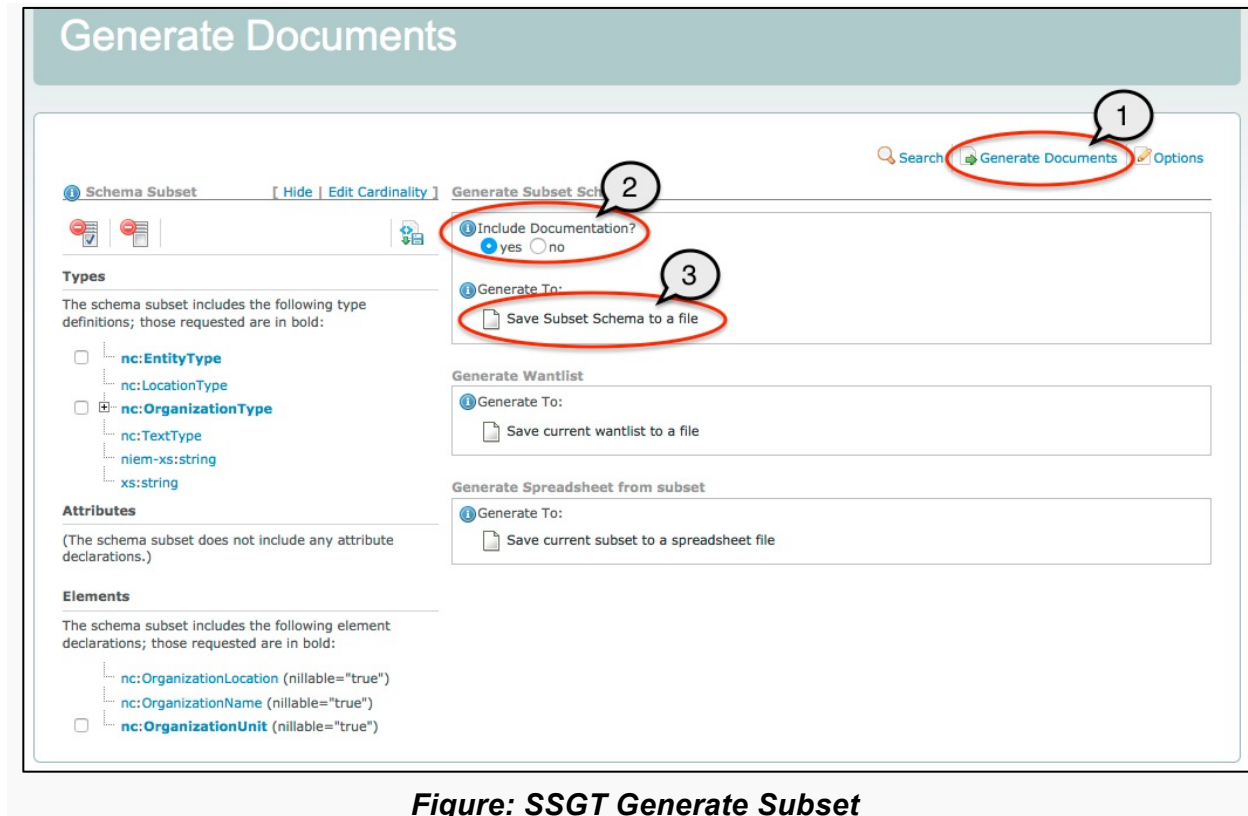
- Generate Subset Schema**: Includes 'Include Documentation?' (radio buttons for 'yes' and 'no', with 'yes' selected) and 'Generate To:' (dropdown menu with 'Save Subset Schema to a file' selected).
- Generate Wantlist**: 'Generate To:' (dropdown menu with 'Save current wantlist to a file' selected).
- Generate Spreadsheet from subset**: 'Generate To:' (dropdown menu with 'Save current subset to a spreadsheet file' selected).

Three red circles with numbers 1, 2, and 3 highlight the 'Generate Documents' link, the 'Save current subset to a spreadsheet file' option in the 'Generate Wantlist' section, and the 'Save current subset to a spreadsheet file' option in the 'Generate Spreadsheet from subset' section respectively.

**Figure: Generate Documents Page**

# Generate a subset from the current subset

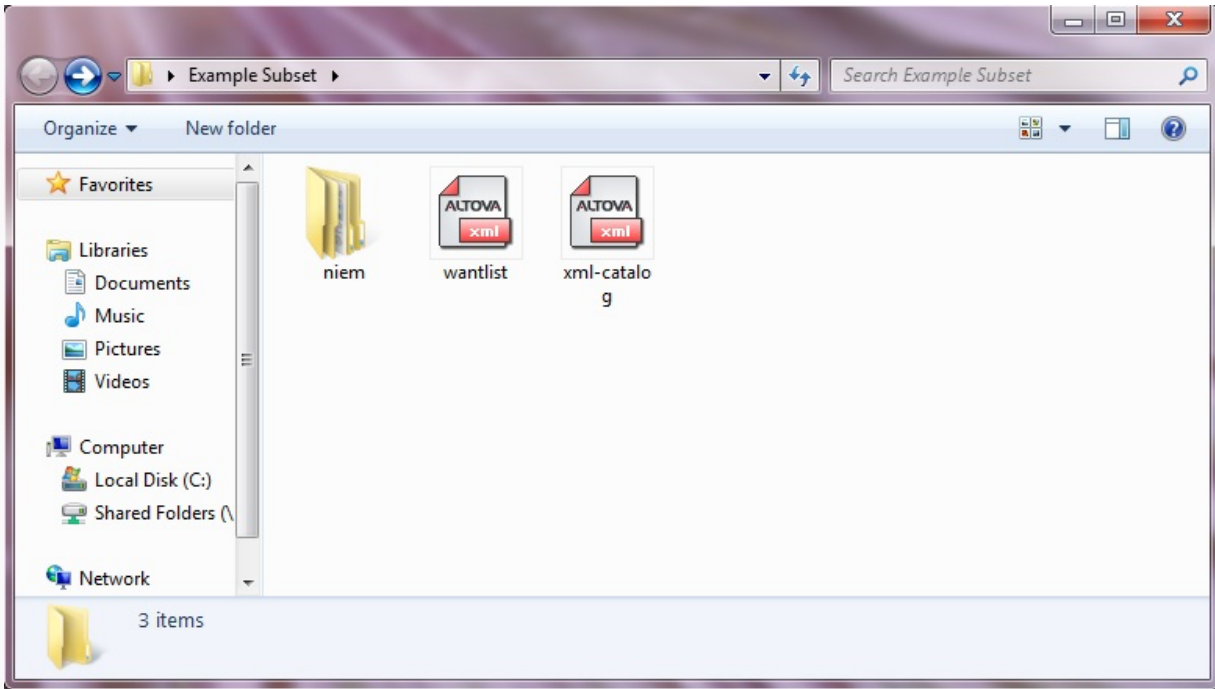
1. Click [Generate Documents](#) link to display the generate documents page.
2. Click the [Include documentation? yes/no](#) radio-button to toggle inclusion data definitions (xsd:documentation) in the generated subset **[Zip]** file.
3. Click the link [Save Subset Schema to a file](#) to generate a subset **[Zip]** file from the currently selected subset.



**Figure: SSGT Generate Subset**

## Browsing the Subset

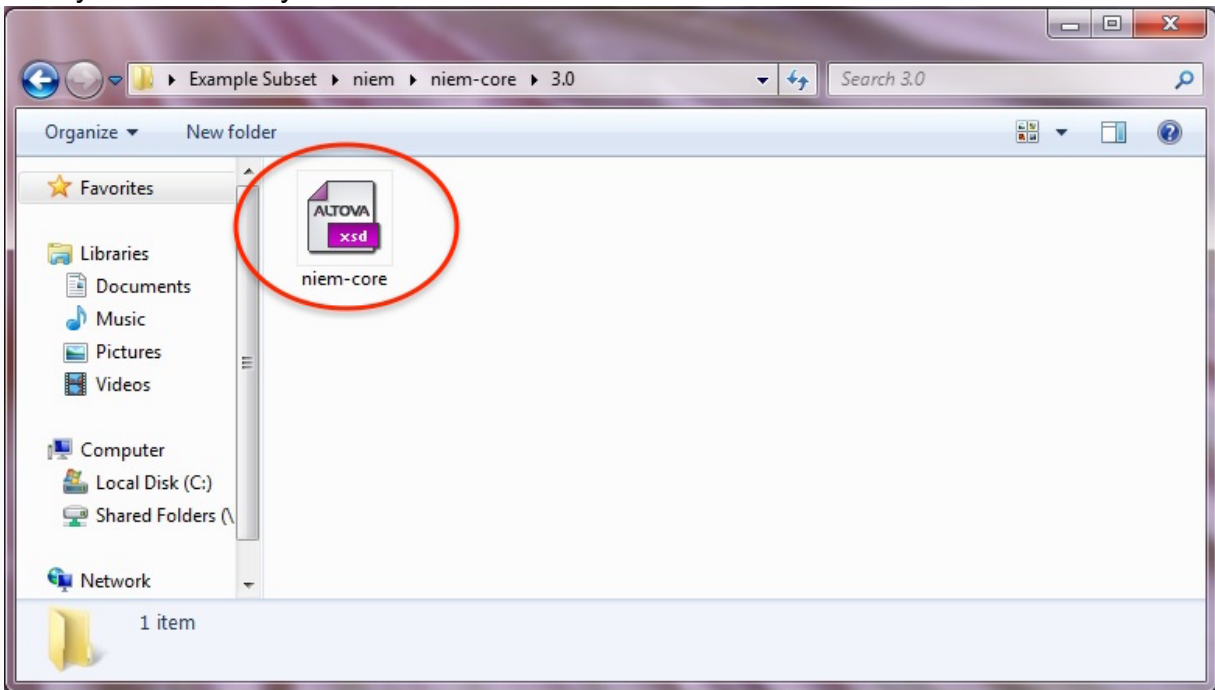
- After download the subset and extracting the zip file, the subset contents may be browsed:



**Figure: SSGT Browsing the Subset**

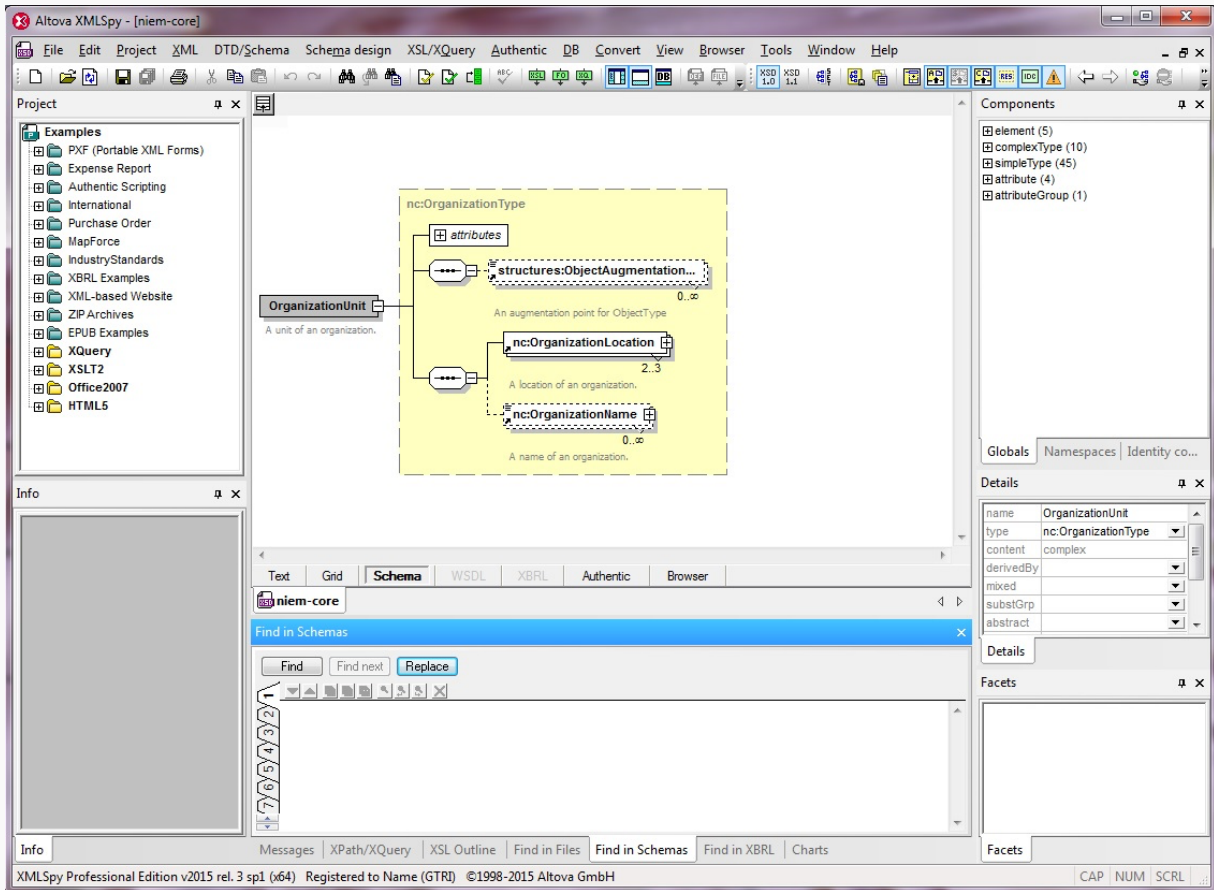
## Editing Contents

- Any XML tool may be used to browse the Schema files:



**Figure: SSGT Browsing the Subset**

- In this example, Altova XMLSpy is used to display niem-core.xsd:



**Figure: SSGT Display Schema File Using Altova XML Spy**