**SIF Data Model Extension Proposal**

**Data Model: Assessment**

**Topic Area: Assessment Administration**

**Table of Contents**

[1 Identification 2](#_Toc301246818)

[2. Proposal 3](#_Toc301246819)

[2.1 Rational for Extension 4](#_Toc301246820)

[2.2 Business Case 4](#_Toc301246821)

[3. Use Cases 4](#_Toc301246822)

[Use Cases – AssessmentAdministration 4](#_Toc301246823)

[Use Case Title: AA-1 Assessment Administration - Remove all Locale specific data from Administration 4](#_Toc301246824)

[Use Case Title: AA-2 Assessment Administration - Remove reference to Assessment Form 5](#_Toc301246825)

[Use Case Title: AA-2 Assessment Administration – Add Reference to Assessment Data 5](#_Toc301246826)

[Use Cases - AssessmentSession 6](#_Toc301246827)

[Use Case Title: AS-1 Assessment Section – New Object 6](#_Toc301246828)

[Use Case Title: AS-2 UnusualEvents notification 7](#_Toc301246829)

[Status Tracker Phase 2: Execution of Proposed Changes 7](#_Toc301246830)

[4. Impact Assessment 7](#_Toc301246831)

[4.1 External Object Dependencies and Relation Map 8](#_Toc301246832)

[4.1.1 Object Dependencies and Relationship Map 8](#_Toc301246833)

[4.2 Infrastructure / International Dependencies and Relation Map 11](#_Toc301246834)

[5 Detailed Design 12](#_Toc301246835)

[Object Name: AssessmentAdministration (Modified Object) 13](#_Toc301246836)

[Object Name: AssessmentSession (New Object) 14](#_Toc301246837)

[6 Migration Plan (for proposed changes to existing objects only) 15](#_Toc301246838)

[7 Issues 17](#_Toc301246839)

[8 XML Example(s) 18](#_Toc301246840)

[8.1 AssessmentAdministration Object 18](#_Toc301246841)

[8.2 AssessmentSession Object (new) 18](#_Toc301246842)

|  |  |  |  |
| --- | --- | --- | --- |
| Extension Proposal Version Control | | | |
| Version | Date: | Author/Organization: | Comments |
| 1.0 | 07/27/2011 | V. Zubenko/Assessment Group | Initial draft. |
| 1.1 | Sept 19, 2011 | Wayne Ostler / Pearson | Removed use case reference from extended elements and meta data (this was a cut-paste error). |
| 1.2 | Feb 22, 2012 | Wayne Ostler / Pearson | Added comment in migration plan about sif3 prefix. |

# **1 Identification**

|  |  |
| --- | --- |
| Proposed Extension Name | Segregation of Assessment Administration and Assessment Session elements. |
| Submitted by (Project Team or Individual) | V. Zubenko – Assessment Project Team |
| Date of initial submittal | 07/27 |
|  |  |
| What is the base SIF Data Model release? | 2.6 |
| What is the base SIF Infrastructure release? | 2.6 |
|  |  |
| What existing SIF object(s) if any will be affected? | AssessmentAdministration |
| What is the name of any new object(s)? | AssessmentSession |
|  |  |
| DM Extension ID (to be assigned when submitted) |  |

**Status Tracker Phase 1: Documentation and Approval**

*The steps in this initial phase document the proposed extensions to the SIF Data Model to the point where they can be reviewed and approved by the Tech Board as deserving of further effort. Completion of the detailed design and evaluation of the dependencies and migration impacts are left until Phase II.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Template Section** | **Draft Completed**  **(Owner / Date)** | **Reviewed (R) or Accepted (A)**  **(Owner / Date)** | **Comments** |
| Rational and Business Case | Champion  **Date:** | Tech Board (A)  **Date:** | Assign to relevant Project Team(s) |
| Use Case(s) | Champion / Project Team  **Date:** | Project Team (R)  **Date:** |  |
| Proposal approval | Project Team  **Date:** | Tech Board (A)  **Date:** | Placed in Fast Track or Object Pipeline |

# **2. Proposal**

*In order to completely represent assessments throughout their lifecycle, the current SIF specification must be expanded. The assessment life cycle consists of the process areas illustrated in the diagram below.*



*This proposal for extension outlines the changes to AssessmentAdministration object and proposes a new AssessmentSession object in order to abstract locale-specific properties of an administration event from organizational and administrative elements of the encompassing administration.*

## 2.1 Rational for Extension

*Conceptually, “Administration” can incorporate different properties depending on whether it is location-specific, or distributed. For example, a school can have an Administration event, which at the same time can be a part of a larger, statewide Administration.*

*In the current SIF specification, AssessmentAdministration object describes all Administration properties, and includes location-specific data elements; however currently it has no concept of relationship with a “parent” Administration, or an event that may include other locations.*

*This extension provides such abstraction by separating “parent event” from “child event” elements with corresponding AssessmentAdministration and AssessmentSession object specifications.*

## 2.2 Business Case

*This extension will enable a relationship between an administration event and a parent administration of a larger scale. This will allow the specification to support more complex business scenarios such as, a governing body (such as district) can create an administration and specify a testing window, and then each individual school in that district can create an administration session, and assign location-specific properties only to that session (address, proctor, etc).*

*A district could then monitor administration sessions and retrieve their properties.*

# **3. Use Cases**

## Use Cases – AssessmentAdministration

### Use Case Title: AA-1 Assessment Administration - Remove all Locale specific data from Administration

|  |  |
| --- | --- |
| **Type (Mandatory or Optional)** | Optional |
| **SIF Version** | SIF Implementation Specification 3.0 |
| **Summary Description** | With these proposed changes, we are splitting the assessment administration and individual session data into two objects. The assessment administration will be used to identify the larger administration event that can span multiple assessments and locales. By doing so, we must remove all locale-specific data from the administration object. This includes the following elements:  SpecialConditions  SpecialConditions/SpecialCondition  Code  SIF\_Action  DueDateTime  Address  StaffPersonalRefId |
| **Actors:**  **Requesting Agent**  **Responding Agent** | Assessment Processing System  Assessment Processing System |
| **Preconditions** | An Assessment has been created |
| **Main Sequence of Events / Action Steps** |  |
| **Alternative Sequence of Events / Action Steps** |  |
| **Post Conditions** | An Assessment Administration has been created |
| **SIF Mandatory Objects** | AssessmentAdministration |
| **SIF Optional Objects** |  |
| **Open Issues** |  |

### Use Case Title: AA-2 Assessment Administration - Remove reference to Assessment Form

|  |  |
| --- | --- |
| **Type (Mandatory or Optional)** | Optional |
| **SIF Version** | SIF Implementation Specification 2.6 |
| **Summary Description** | It is not logical for the AssessmentAdministration object to maintain a reference to to AssessmentForm object (as in current spec) since typically there’s more than one form in operation during an administration, and different students will take different forms. We propose to remove this reference. Instead AssessmentFom will be referenced in AssessmentRegistration and AssessmentSession object. |
| **Actors:**  **Requesting Agent**  **Responding Agent** | Assessment Processing System  Assessment Processing System |
| **Preconditions** | An AssessmentAdministration has been created |
| **Main Sequence of Events / Action Steps** |  |
| **Alternative Sequence of Events / Action Steps** |  |
| **Post Conditions** | An AssessmentAdministration make no references to specific forms. |
| **SIF Mandatory Objects** | AssessmentAdministration |
| **SIF Optional Objects** |  |
| **Open Issues** |  |

### Use Case Title: AA-3 Assessment Administration – Add Reference to Assessment Data

|  |  |
| --- | --- |
| **Type (Mandatory or Optional)** | Optional |
| **SIF Version** | SIF Implementation Specification 2.6 |
| **Summary Description** | Adding a reference list from AssessmentAdministration to the Assessment object to identify all assessments that are to be administered for any given administration. No administration should exist without at least one assessment. As an example, the state-wide Fall 2011 administration will administer the reading, math, and science assessments to grades 3, 5 and 8. |
| **Actors:**  **Requesting Agent**  **Responding Agent** | Learning Management System, Delivery System  Assessment Processing System |
| **Preconditions** | One or more Assessments have been created |
| **Main Sequence of Events / Action Steps** | 1. The AssessmentAdministration is created 2. The administration coordinator identifies all Assessments that are to be administered for this administration and creates the appropriate links. |
| **Alternative Sequence of Events / Action Steps** | 1. Locales can schedule Administrations for a given assessment based on some parameters 2. Locales can create Administration Sessions for each Administration |
| **Post Conditions** | An Assessment Administration has been created |
| **SIF Mandatory Objects** | AssessmentAdministration |
| **SIF Optional Objects** |  |
| **Open Issues** |  |

### Use Case Title: AA-4 Assessment Administration – Add administration code

|  |  |
| --- | --- |
| **Type (Mandatory or Optional)** | Optional |
| **SIF Version** | SIF Implementation Specification 2.6 |
| **Summary Description** | Most large-scale assessment administration will have a customer identifier for the administration that is used on reporting, data exchanges, and for aggregation. This code is unique to the administration for a particular customer program. |
| **Actors:**  **Requesting Agent**  **Responding Agent** | Learning Management System, Delivery System  Assessment Processing System |
| **Preconditions** | The administration has been planned and identified |
| **Main Sequence of Events / Action Steps** | 1. The administration code is assigned by the customer program. |
| **Alternative Sequence of Events / Action Steps** |  |
| **Post Conditions** | An Assessment Administration has been created and the administration code has been included. |
| **SIF Mandatory Objects** | AssessmentAdministration |
| **SIF Optional Objects** |  |
| **Open Issues** |  |

### Use Case Title: AA-5 Assessment Administration – Add participating organizations

|  |  |
| --- | --- |
| **Type (Mandatory or Optional)** | Optional |
| **SIF Version** | SIF Implementation Specification 2.6 |
| **Summary Description** | For some administrations, only certain districts or schools may participate. In this scenario, a list is provided so that those districts or schools that are participating can be identified. If the administration is available to all districts and schools, then the list can be omitted. |
| **Actors:**  **Requesting Agent**  **Responding Agent** | Learning Management System, Delivery System  Assessment Processing System |
| **Preconditions** | The administration has been planned and identified |
| **Main Sequence of Events / Action Steps** | 1. The organizations that are participating in the administration have been identified by the customer program. |
| **Alternative Sequence of Events / Action Steps** |  |
| **Post Conditions** | An Assessment Administration has been created and the organization list has been included. |
| **SIF Mandatory Objects** | AssessmentAdministration |
| **SIF Optional Objects** |  |
| **Open Issues** |  |

## Use Cases - AssessmentSession

### Use Case Title: AS-1 Assessment Section – New Object

|  |  |
| --- | --- |
| **Type (Mandatory or Optional)** | Mandatory |
| **SIF Version** | SIF Implementation Specification 2.6 |
| **Summary Description** | An administration could be used to describe a multi-session event (such as district-wide administration where each school has one or more administration sessions). Currently there’s no structure to accommodate a relationship between an administration and a session. Therefore a new “AdministrationSession” object has been proposed to abstract the location-specific elements from “AssessmentAdministration” object. |
| **Actors:**  **Requesting Agent**  **Responding Agent** | Learning Management System  Assessment Processing System |
| **Preconditions** | An AssessmentAdministration has been created and associated with one or more Assessments to be administered. |
| **Main Sequence of Events / Action Steps** | 1. Each locale will schedule each assessment for their students based on mode of deliver (paper/online), class schedules and/or class size, and availability of facilities (ex: computer labs). 2. Each locale will create a session for each assessment and each group of students that will be testing together. |
| **Alternative Sequence of Events / Action Steps** | 1. The session is an alternate administration    1. The proctor assigns the appropriate assessment form to the session 2. The session is started by the test proctor. 3. The students test. 4. The session is ended by the test proctor. |
| **Post Conditions** | An AssessmentSession has been created and associated with Assessment. |
| **SIF Mandatory Objects** | AssessmentAdministration; AssessmentSession |
| **SIF Optional Objects** |  |
| **Open Issues** |  |

### Use Case Title: AS-2 UnusualEvents notification

|  |  |
| --- | --- |
| **Type (Mandatory or Optional)** | Optional |
| **SIF Version** | SIF Implementation Specification 2.6 |
| **Summary Description** | Proposing to change “SpecialEvents” to “UnusualEvents” to avoid confusion with ADA and special accommodations requirements. |
| **Actors:**  **Requesting Agent**  **Responding Agent** | Learning Management System, Delivery System  Assessment Processing System |
| **Preconditions** | An Assessment and Assessment Administration have been created  An AssessmentSession has been created. |
| **Main Sequence of Events / Action Steps** | 1. The local starts the testing session 2. An event occurs that disrupts the testing session such that one or more students may be impacted 3. The proctor records the event on the testing session |
| **Alternative Sequence of Events / Action Steps** | Depending upon the severity of the disruption, the session may need to be rescheduled or the students are allowed to retest. |
| **Post Conditions** | Unusual Events data has been updated in the AssessmentSession object and is available for reporting and analysis. |
| **SIF Mandatory Objects** | AssessmentSession |
| **SIF Optional Objects** |  |
| **Open Issues** | If this object is named “UnusualEvents”, then the corresponding student-level element in the AssessmentRegistration object should also be renamed. |

## Status Tracker Phase 2: Execution of Proposed Changes

*At this point the initial Data Model extension proposal has been accepted by the Tech Board and is either in the object pipeline, or being fast-tracked. The following sections have to be completed and (where indicated) reviewed and approved before this proposal can be reflected in the SIF specification.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Template Section** | **Draft Completed**  **(Owner / Date)** | **Reviewed (R) or Accepted (A)**  **(Owner / Date)** | **Comments** |
| Dependencies | Project Team / Staff  **Date:** | Internal Project Team review |  |
| Object Definition Table | Project Team  **Date:** | Tech Board (R)  **Date:** |  |
| Migration Plan | Staff / Project Team  **Date:** | Tech Board (A)  **Date:** | TB Approval is part of SIF Release cycle |
| Sample XML | Staff / Project Team  **Date:** | Optional | Generally provided as part of published specification |

# **4. Impact Assessment**

*This section is the first to consider the actual implementation which will address the use cases previously identified. It requires assessing the impacts to both the existing objects and infrastructure, and to previously deployed applications. It would normally be produced by the Project Team (new or existing) assigned to this data model extension by the Tech Board at the time this proposal was approved.*

*In cases where a legacy object (one with no owning Project Team), is being changed, the task of assessing impact may be assigned to a Staff member to drive its completion.*

*The following two subsections must be completed.*

## 4.1 External Object Dependencies and Relation Map

*Identify any dependencies on existing XML entities in other SIF objects*

### 4.1.1 Object Dependencies and Relationship Map

*The relationship arrows originate in the object that contains the RefId. Orange relationships are proposed new relationships. Orange objects are new objects.*

#### 4.1.1.1 AssessmentAdministration



#### 4.1.1.2 AssessmentSession



## 4.2 Infrastructure / International Dependencies and Relation Map

*Identify any dependencies on infrastructure technologies and / or deliverables from the International Technical Board (ITB) which are planned for a future release.*

*This could include requiring or relying on specific functionality from one or more of the following:*

* *Transport (ex: SOAP conventions)*
* *SIS Functional Profiles*
* *Identity Management Profiles*
* *Global Data Model Metadata*
* *Central Administration or Smart Zone*
* *Zone Services (ex: Assessment)*

|  |  |  |
| --- | --- | --- |
| **Proposed new Object, Element or Attribute** | **Infrastructure or International technology dependency** | **Specifics of dependency** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# **5 Detailed Design**

*Place the detailed element by element, attribute by attribute breakdown of the Data Model Extension here. This work is normally done by members of the assigned Project Team.*

*The possible values of the “Char” column include*

*One of the following characteristics:*

* ***M – Mandatory****. Item must appear in every Add Event and Response message for the object*
* ***Q – ReQuired****. Item must either appear in an Add Event or eventually be included in a Change Event.*
* ***S – Supported****. Item may or may not appear in any message relating to the object. However if its value is supplied / available, it must be included by the sender in Event and Response messages.*
* ***C******– Conditional.*** *Item is required if the included conditions are satisfied*
* ***O – Optional****. Item may or may not appear in any message relating to the object. It need not be supported by the sender*

Plus one or more of the following characteristics if applicable:

* ***I –******Immutable.*** *Item value cannot be changed once supplied.*
* ***U –******Unique.*** *Item value is unique from all other objects containing that item (ex: RefId)*
* ***N –******Non-Queryable****. Item may not be used in a Request message. This would be true for elements which might be calculated by the object provider (ex: aggregates)*

Plus the following characteristic if applicable:

* ***R ­– Repeatable.*** *Item may appear more than one time.*

*The “type” of each item is either an XML type (ex: integer) or a named SIF Global Type.*

*XML Facets can help to further define the value of an item. These can include length, range, and per-type value restrictions. They should be specified if known.*

*Fill out a separate copy of the following table for each affected new or existing SIF object.*

## Object Name: AssessmentAdministration (Modified Object)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Object Name:** | **Object Description:** | | | |
| **AssessmentAdministration** | **This object represents an assessment event. The administration is typically associated with a large assessment event that spans many locations, is scheduled over a period of time, and delivers multiple assessments. The administration is likely not be required for small, classroom-based assessments (ex: quizzes).** | | | |
| **Element/@Attribute** | **Char** | **Description** | **Type** | **Other Comments** |
| RefId | M | The GUID that uniquely identifies an instance of the object. | RefIdType |  |
| ~~@AssessmentFormRefId~~ | ~~M~~ | ~~The RefId of the assessment form used in the assessment administration.~~ |  | Use case AA-2 |
| AdministrationName | O | Name of the Administration | [xs:normalizedString](http://www.w3.org/TR/xmlschema-2/#normalizedString) |  |
| AdministrationCode | O | A code associated with the administration. Typically assigned by the assessment program. | [xs:normalizedString](http://www.w3.org/TR/xmlschema-2/#normalizedString) | Use case AA-4 |
| ~~SpecialConditions~~ | ~~O~~ | ~~Special conditions or unusual events related to the administration event.~~ | [~~ActionList (SpecialCondition/@Code)~~](http://specification.sifinfo.org/Implementation/2.4/DataModel.html#ActionList) | Use case AA-1 |
| ~~SpecialConditions/SpecialCondition~~ | ~~MR~~ | ~~A text description of the special condition.~~  ~~Examples Fire drill during test. Air conditioning broke during the request. Assessment was given over three days instead of in one sitting.~~ | [~~xs:string~~](http://www.w3.org/TR/xmlschema-2/#string) | Use case AA-1 |
| ~~Code~~ |  | ~~M~~ | [~~xs:token~~](http://www.w3.org/TR/xmlschema-2/#token) | Use case AA-1 |
| ~~SIF\_Action~~ | ~~O~~ | ~~In a Change event, this flag can be used to indicate an element has been deleted from the parent list container. At a minimum the key for the list must also be present.~~ | ~~values:~~  ~~Delete~~ |  |
| ~~AdministrationDateTime~~ | ~~O~~ | ~~Date and time the test is scheduled to be given.~~ | [~~xs:dateTime~~](http://www.w3.org/TR/xmlschema-2/#dateTime) | Use case AA-1 |
| StartDateTime | O | Start date and time of the Administration window | [xs:dateTime](http://www.w3.org/TR/xmlschema-2/#dateTime) | Updated description to more closely align to new usage of administration object. |
| FinishDateTime | O | End date and time of the Administration window | [xs:dateTime](http://www.w3.org/TR/xmlschema-2/#dateTime) | Updated description to more closely align to new usage of administration object. |
| ~~DueDateTime~~ | ~~O~~ | ~~End of the Administration window~~ | [~~xs:dateTime~~](http://www.w3.org/TR/xmlschema-2/#dateTime) | Use case AA-1 |
| ~~Address~~ | ~~O~~ | ~~Address of the location where the administration takes place.~~ | [~~xs:normalizedString~~](http://www.w3.org/TR/xmlschema-2/#normalizedString) | Use case AA-1 |
| ~~StaffPersonalRefId~~ | ~~O~~ | ~~Optional reference to a staff person associated with the administration.~~ | ~~IdRefType~~ | Use case AA-1 |
| AdministrationAssessments | M | This will list all assessments that are to be administered in this administration. | List |  |
| AdministrationAssessments/ AssessmentRefId | MR | The RefId of each assessment that is available in the administration. | IdRefType | Use case AA-3 |
| ParticipatingOrganizations | O | This will list all LEAs and/or schools that are participating in this administration. If there are restrictions on which LEAs or Schools are participating in the administration, then this list will identify those that can participate. If no list provided, all LEAs and schools can participate. | List | Use case AA-5 |
| ParticipatingOrganizations/ParticipatingOrganization | MR | This is a grouping element |  | Use case AA-5 |
| ParticipatingOrganizations/ParticipatingOrganization/LEAInfoRefId | MR | Optional reference to a school district associated with the administration. | IdRefType | Use case AA-5 |
| ParticipatingOrganizations/ParticipatingOrganization/SchoolInfoRefId | MR | Optional reference to a school associated with the administration. | IdRefType | Use case AA-5 |
| SIF\_Metadata | O |  | SIF\_Metadata |  |
| SIF\_ExtendedElements | O |  | SIF\_ExtendedElements |  |

## Object Name: AssessmentSession (New Object)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Object Name:** | **Object Description:** | | | |
| **AssessmentSession** | **This object represents a specific assessment event that occurs in a specific location at a specific time for a group of students all taking the same test. It also includes information related to unusual events that occur during the session.** | | | |
| Element/@Attribute | Char | Description | Type | Other Comments |
| @ RefId | M | The GUID that uniquely identifies an instance of the object. | RefIdType | AS-1 |
| SessionName | M | Name of the Administration Session | xs:normalizedString | AS-1 |
| SessionType | M | Indicates the type of session that is scheduled. | Values are:  Standard (default)  Accommodation | AS-1 |
| UnusualEvents | O | Special conditions or unusual events related to the administration event. | ActionList | AS-1, AS-2 |
| UnusualEvents/ UnusualEvent | MR | A text description of the unusual event:  Examples Fire drill during test. Air conditioning broke during the request. | xs:string | AS-1, AS-2 |
| @ Code | O | This is the identifier for the list of unusual events typically defined by the assessment program owner. Typically this is a unique code assigned to each special condition by the assessment program. | xs:token | AS-1, AS-2 |
| @ SIF\_Action | O | In a Change event, this flag can be used to indicate an element has been deleted from the parent list container. At a minimum the key for the list must also be present. | values:  Delete | AS-1, AS-2 |
| ScheduledStartDateTime | M | Date and time the test is scheduled to be begin. | [xs:dateTime](http://www.w3.org/TR/xmlschema-2/#dateTime) | AS-1 |
| ScheduledEndDateTime | M | Date and time the test is scheduled to end. | [xs:dateTime](http://www.w3.org/TR/xmlschema-2/#dateTime) | AS-1 |
| ActualStartDateTime | O | Date and time testing actually begun. | [xs:dateTime](http://www.w3.org/TR/xmlschema-2/#dateTime) | AS-1 |
| ActualFinishDateTime | O | Date and time testing actually ended. | [xs:dateTime](http://www.w3.org/TR/xmlschema-2/#dateTime) | AS-1 |
| Address | O | Address of the location where the administration takes place. | Address | AS-1 |
| AssessmentAdministrationRefId | O | Optional reference to the assessment administration event that this session is part of. If this is a local-only session, then this reference is not required. | IdRefType | AS-1 |
| AssessmentRefId | M | The RefId of the assessment object used in the assessment administration. | IdRefType | AS-1 |
| AssessmentFormRefId | O | If this is an accommodations session type, then a specific form may be selected for the session, such as a read-aloud form. This is only necessary if the session is being assigned a specific form and all students in the session must take the same form of the test. | IdRefType | AS-1 |
| StaffPersonalRefId | OR | Optional reference to a staff person associated with the administration. | IdRefType | AS-1 |
| LEAInfoRefId | O | Optional reference to a school district associated with the administration. | IdRefType | AS-1 |
| SchoolInfoRefId | O | Optional reference to a school associated with the administration. | IdRefType | AS-1 |
| SIF\_Metadata | O |  | [SIF\_Metadata](http://specification.sifinfo.org/Implementation/2.4/DataModel.html#SIF_Metadata) |  |
| SIF\_ExtendedElements | O |  | [SIF\_ExtendedElements](http://specification.sifinfo.org/Implementation/2.4/DataModel.html#SIF_ExtendedElements) |  |

# **6 Migration Plan (for proposed changes to existing objects only)**

*One of the mandatory components of every Data Model Change proposal is the Migrat ion Plan. This section describes the impact of the proposed change to legacy SIF Zones and the techniques, best practices and deployment guidelines designed to minimize that impact. It is normally filled out in coordination with SIF Staff or an experienced SIF Data Modeler.*

*All migration plans have the same overarching goal: allow an existing SIF Zone to migrate to the new change incrementally ... by changing only one component at a time while maintaining at least the previous level of functionality, and “breaking” nothing in the process.*

*Several common strategies (in order of desirability) are:*

***1. Add new elements rather than modify old ones***

*This places a requirement on new agents to support duplicate entries in order to maintain backwards compatibility with agents conforming to earlier versions of the standard. To use this strategy, there must be a clear mapping provided for agent writers to utilize. This would include mapping any new code set values to the collection of previously existing ones.*

***2. Constrain the impact to the ZIS***

*In this case the ZIS will transparently “bridge” between agents supporting this change and earlier versions. To use this strategy, there must be a clear mapping provided for ZIS vendors to utilize, and at least two vendors must “sign off” on this section of the proposal.*

***3. Reduce the impact***

*This approach is effective for changing only those parts of the SIF specification which have been minimally adopted. Start by mapping the set of changed elements against the CSQ matrices to determine the number of existing SIF-certified applications that will be affected. Work with SIF Staff to alert impacted vendors (those with certified, and where known, uncertified products) and identify the number of sites which will be affected. Depending upon the size of the impact, the change may be accepted for a minor release.*

***4. Extended Elements***

*Use the extended element construct to add the new changes. This has the advantage that it standardizes how the functionality will be introduced, but suffers from the disadvantage that conformance to the changes cannot be easily verified, and a further change will be required when moving forward to the next major release. It is the least desirable way to introduce changes into a minor release, and a strong justification for this approach should be prepared.*

***5. Wait until the next major release***

*Defer the proposed change until the next major release because a clear incremental migration strategy for it cannot be constructed.*

**Migration Plan:**

*Using the above techniques or alternative ones, specify the recommended series of incremental component upgrades or deployments (of application, agent or ZIS) which must be performed before the data model changes introduced by this proposal can be successfully incorporated into an existing SIF Zone.*

*The SIF technical board had determined that the proposed breaking changes to the SIF assessment objects in the 2.6 release will be handled as follows:*

1. *The current 2.5 objects will be deprecated in the 2.6 release. Any implementations of the 2.5 objects will continue to work when the 2.6 specification is released.*
2. *The new 2.6 objects will be released as a complete set of new objects and they will all be prefixed with a “sif3:” namespace tag.*

*The following table highlights the breaking changes in 2.6 for those applications that may be “upgrading” from 2.5 to 2.6.*

|  |  |  |
| --- | --- | --- |
| **Component Replaced** | **Increased Functionality (if any)** | **Effect on Legacy components (if any)** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# **7 Issues**

*List any issues surrounding this proposal which the reviewers or approvers may need to consider.*

# **8 XML Example(s)**

*One or more examples of XML instances representing the items in the proposed extension should be placed here, as part of work done during the detailed design process.*

## 8.1 AssessmentAdministration Object

<AssessmentAdministration RefId="E2E8045FD8884745AC588F1DDDBEE864"

~~AssessmentFormRefId="78DA3F367AAE4E34995CE15530F531CC"~~>

<AdministrationName>”Texas Fall 2011 Main Administration”

</AdministrationName>

<AdministrationCode>TX2011FM</AdministrationCode>

<StartDateTime>2006-03-06T14:30:00-05:00</StartDateTime>

<FinishDateTime>2006-04-10T15:30:00-05:00</FinishDateTime>

<AdministrationAssessments>

<AssessmentRefId>”AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA01”</AssessmentRefId>

<AssessmentRefId>”AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA02”</AssessmentRefId>

<AssessmentRefId>”AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA03”</AssessmentRefId>

</AdministrationAssessments>

<ParticipatingOrganizations>

<ParticipatingOrganization>

<LEAInfoRefId>”LLLLLLLLLLLLLLLLLLLLLLLLLLLLLL01”</LEAInfoRefId>

<SchoolInfoRefId>”SSSSSSSSSSSSSSSSSSSSSSSSSSSSSS01”

</SchoolInfoRefId>

</ParticipatingOrganization>

<ParticipatingOrganization>

<LEAInfoRefId>”LLLLLLLLLLLLLLLLLLLLLLLLLLLLLL02”</LEAInfoRefId>

<SchoolInfoRefId>”SSSSSSSSSSSSSSSSSSSSSSSSSSSSSS02”

</SchoolInfoRefId>

</ParticipatingOrganization>

</ParticipatingOrganizations>

</AssessmentAdministration>

## 8.2 AssessmentSession Object (new)

<AssessmentSession RefId="G4H3045FD8884745AC588F1DDDBEF057"

AssessmentRefId="78DA3F367AAE4E34995CE15530F531CC">

<SessionName>Statewide Quarterly Formative @ Washington High

</SessionName>

<SessionType>Standard</SessionName>

<UnusualEvents Code="25B">Fire drill during test.</UnusualEvent>

<ScheduledStarDateTime>2006-03-06T09:00:00-00:00

</ScheduledStartDateTime>

<ScheduledEndDateTime>2006-03-06T10:00:00-00:00</ScheduledEndDateTime>

<ActualStartDateTime>2006-03-06T09:01:25-00:00</ActualStartDateTime>

<ActualFinishDateTime>2006-03-06T09:58:02-00:00</ActualFinishDateTime>

<Address>2398 State Street Room 105, Sometown, FL</Address>

<AssessmentAdministrationRefID>”AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA01”

</AssessmentAdministrationRefID>

<AssessmentRefID>”TTTTTTTTTTTTTTTTTTTTTTTTTTTTTT01”</AssessmentRefID>

<AssessmentFormRefID>”FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF01”

</AssessmentFormRefID>

<StaffPersonalRefID>”C3GS53H78D3BG45G62F2G6G3DE73F3F9”

</StaffPersonalRefID>

<LEAInfoRefID>”G4G6GW40H4H8B3D8J34HF58D3H8J5”</LEAInfoRefID>

<SchoolInfoRefID>”H3T0G5SH53G2H7G56H8D5B4D36N7H30C”</SchoolInfoRefID>

</AssessmentSession>