Event Interchange Model Schema Guidelines
(to June 30, 2008)
1. Purpose
This document provides a guide for the usage of the EIM schema in the context of the BEST event aggregator. Its primary audience are developers needing to create XML compliant with the BEST aggregator service or those wishing to process data marked up to the EIM schema.

2. Overview
Gathering descriptive metadata from repositories is a problem already solved via OAI-PMH harvesting. Repositories shipped with data providers by default will typically be able to expose descriptive metadata about their holdings in Dublin Core and often it is trivial to support other crosswalks (e.g. specific MODS or DC Profile). Event metadata can describe events which repository items play a part in and the EIM schema provides a means to represent this metadata in an XML form.

It is recognised not all data sources will have an OAI-PMH Data Provider. The EIM schema thus provides mechanisms where descriptive and event metadata can be combined in a single document.

The BEST event aggregator service requires that data sources provide an OAI-PMH data provider or web-accessible resource supporting either best_dc/best_mods and eim metadata formats, or the eim metadata format with embedded descriptive metadata. The best_dc format must comply with the BEST DC profile (see later in this document). The best_mods format must comply with the BEST MODS profile (see later in this document). Where only the eim metadata format is supported, for each item whose events are being reported, an embedded metadata record must be provided in the BEST DC or BEST MODS profile. This will be discussed more clearly in the next section.

3. Elements
This section of the document describes the EIM schema element by element and details how each element must be used.

<events>
A wrapper element for event elements. This is the root element for all EIM markup.
</events>

<event>
A wrapper element for an individual event. The type attribute must be one of the values specified within the EIM schema.
</event>

<timestamp>
The timestamp is a UTC date/time which must be of the form YYYY-MM-DDThh:mm:ssZ
</timestamp>

<requesterInfo>
A wrapper element for information about requesting party which initiated the event.
</requesterInfo>

<ip>
The IP address of the requesting agent.
</ip>

<referentInfo>
A wrapper element for information about the target of an event.
</referentInfo>

<identifier>
An element containing a globally unique identifier for the referent. This value must match the identifier provided in the descriptive metadata about the referent. For example, if descriptive metadata is being provided via a separate OAI-PMH DC harvest, the identifier provided in the DC metadata must be the same as in the EIM harvest. This also applies for descriptive metadata embedded within the metadata element.

<metadata>
A wrapper element containing descriptive metadata about the referent. The value of the profile attribute must be MODS or DC. The metadata must conform to the BEST MODS or DC profile. This element should only be used where descriptive metadata is not being provided via some other means (e.g. separate OAI_PMH harvest). If multiple events for one referent are being marked up, only one event need contain the descriptive metadata, others may use only the identifier element.

4. Descriptive Metadata Profiles
The following table indicates the mapping of descriptive metadata identified as important for the aggregator service to DC and MODS. These mappings are to be considered as BEST profiles and must be strictly adhered to.

<table>
<thead>
<tr>
<th>Metadata Field</th>
<th>DC</th>
<th>MODS</th>
<th>Notes</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item ID</td>
<td>identifier</td>
<td>identifier</td>
<td>Must be globally unique</td>
<td>M, NR</td>
</tr>
<tr>
<td>Title</td>
<td>title</td>
<td>titleInfo/title</td>
<td></td>
<td>M, R</td>
</tr>
<tr>
<td>Author</td>
<td>creator</td>
<td>name/namePart</td>
<td></td>
<td>O, R</td>
</tr>
<tr>
<td>Abstract</td>
<td>description</td>
<td>abstract</td>
<td></td>
<td>O, R</td>
</tr>
<tr>
<td>Access Policy</td>
<td>rights</td>
<td>accessPolicy</td>
<td>Values must be “Open Access” or “Restricted”</td>
<td>M, NR</td>
</tr>
<tr>
<td>ANZSRC</td>
<td>subject</td>
<td>subject/topic</td>
<td>Values must be ANZSRC codes, MODS authority=“anzsrc”</td>
<td>O, R</td>
</tr>
<tr>
<td>Item Format</td>
<td>format</td>
<td>physicalDescription/internetMediaType</td>
<td>Values must be PRONOM format ids, else MIME-type</td>
<td>M, R</td>
</tr>
<tr>
<td>Item Type</td>
<td>type</td>
<td>genre</td>
<td>Values must be sourced from MACAR resource type vocabulary</td>
<td>M, R</td>
</tr>
<tr>
<td>Item URI</td>
<td>source</td>
<td>location/url</td>
<td>URL resolvable to item metadata and content package</td>
<td>M, NR</td>
</tr>
<tr>
<td>Owning Collection</td>
<td>relation</td>
<td>relatedItem/identifier</td>
<td>If the collection is registered within ORCA, this must be the identifier passed to ORCA</td>
<td>O, R</td>
</tr>
<tr>
<td>Repository ID</td>
<td>n/a</td>
<td>n/a</td>
<td>To be provided as part of OAI-PMH “identify” request. In the absence of a persistent identifier, the home page url must be used</td>
<td>n/a</td>
</tr>
</tbody>
</table>

*M=Mandatory; O=Optional; R=Repeatable; NR=Non-Repeatable

Where the above specification is not followed, processing systems are free to discard extraneous fields and/or those fields not meeting the specification. Where the specification cannot be met and may require improvements, feedback is encouraged so the profiles can be improved.
5. Example

Example retrieve events for a single item

```xml
<events xmlns="http://apsr.edu.au/standards/event">
  <event type="retrieve">
    <timestamp>2007-12-07T01:58:46Z</timestamp>
    <requesterInfo>
      <ip>10.1.3.236</ip>
    </requesterInfo>
    <referrentInfo>
      <metadata profile="MODS">
        <mods:mods xmlns:mods="http://www.loc.gov/mods/v3">
          <mods:identifier>hdl:1885/123</mods:identifier>
          <mods:titleInfo>
            <mods:title>My example item record</mods:title>
          </mods:titleInfo>
          <mods:abstract>The abstract for my item</mods:abstract>
          <mods:genre>type from MACAR vocabulary</mods:genre>
          <mods:subject authority="anzsrc">
            <mods:topic>070108</mods:topic>
          </mods:subject>
          <mods:physicalDescription>
            <mods:internetMediaType>fmt/3</mods:internetMediaType>
          </mods:physicalDescription>
          <mods:accessCondition>Open Access</mods:accessCondition>
          <mods:location>
          </mods:location>
          <mods:name type="personal">
            <mods:namePart type="family">Bloggs</mods:namePart>
            <mods:namePart type="given">Joe D</mods:namePart>
          </mods:name>
          <mods:relatedItem>
            <mods:identifier>hdl:1885/120</mods:identifier>
          </mods:relatedItem>
        </mods:mods>
      </metadata>
    </referrentInfo>
  </event>
  <event type="retrieve">
    <timestamp>2007-12-07T01:58:46Z</timestamp>
    <requesterInfo>
      <ip>150.36.9.123</ip>
    </requesterInfo>
    <referrentInfo>
      <identifier>hdl:1885/123</identifier>
    </referrentInfo>
  </event>
</events>
```