

# Benefits Data Interchange XML (BDI-XML) Standards Document and Implementation Guide – Transmission of Reporting & Contributions Information

Benefit Advisors, Inc.

Version 2.0

## 1 Introduction

The purpose of the the BDI-XML Reporting & Contributions Standard is to enable efficient and rapid transit of data related to local union employer contributions to fringe benefit plans. The BDI-XML Reporting standard follows the guidelines set forth by the World Wide Web Consortium (W3C) for XML specifications and the schema included in this document has been successfully validated using the W3C specifications. For business-to-business transactions, the W3C's specifications are considered widely adopted and mature.<sup>1</sup>

The BDI-XML Reporting & Contributions Standard allows funds to communicate one report per file, with multiple members and funds on each file. For each individual member on a report, the Standard enables sharing of multiple types of hour and contribution information – including withholdings. Additionally, the Standard allows for sharing of financial reporting information – particularly tracking of fund totals and variance amounts.

This guide covers strictly the XML file schema and layout for software developers. Documents related to the Benefit Advisors, Inc. API are on <http://www.benadv.com>.

## 2 BDI-XML Reporting Specifications

### 2.1 Overall Layout

The BDI-XML file consists of a series of XML elements, each with a series of attributes and subelements. The overall structure is:

```
<report>
  <contractor>
  <contract>
  <member_items>
    <member>
      <hours>
      <withholdings>
    </member>
  </member_items>
```

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<sup>1</sup>Trippe, B. and Waldt, D. "Using XML and Databases: W3C Standards in Practice. Gilbane Group. <http://gilbane.com/whitepapers/EMC/EMC-XML-whitepaper-4.08.pdf>

```
<summary>
  <fund>
</summary>
</report>
```

## 2.2 Report Information

Attributes:

1. **xmlns:xsi** – Required – Required XML Namespace text.
2. **xsi:noNameSpaceSchemaLocation** – Required – The static location of the BDI-XML schema (.xsd) document.
3. **id** – Required – A unique report ID. This should be a unique report identifier.
4. **posting\_date** – Required – The date the report was posted. This should be in MM/DD/YYYY format.
5. **work\_start** – Required – The first day of the work period this report covers. This should be in MM/DD/YYYY format.
6. **work\_end** – Required – The last day of the work period this report covers. This should be in MM/DD/YYYY format.
7. **adjust\_id** – Optional – The unique report ID of a prior report that this report is adjusting.

## 2.3 Contractor Information

Attributes:

1. **id** – Required – A unique contractor ID.
2. **name** – Required – The contractor's full name.

## 2.4 Contract Information

Attributes:

1. **name** – Required – The contract name.
2. **effective\_date** – Optional – The effective date of the contract being remitted.

## 2.5 Member Records

Attributes and elements:

1. **total** – Required – The total number of members in this report for this contract.
2. **member** – Required element if total > 0. Total should correspond with the number of member elements.
  - (a) **soc** – Required – Member's full social security number. This should be a unique member identifier.
  - (b) **first** – Required – Member's first name.
  - (c) **last** – Required – Member's last name.
  - (d) **wages** – Optional – The total gross wages for the period. Only required if contract requires gross wages.
  - (e) **hours** – Optional Element – A multi-value field of hours submitted for the member.
    - i. **straight** – Required – The total number of non-overtime hours reported.
    - ii. **time\_and\_half** – Required – The total number of time-and-a-half hours reported.

- iii. **double** – Required – The total number of double-time hours reported.
- (f) **withholding** – Optional Element – A multi-value field for withholdings submitted.
  - i. **fund\_id** – Required – A unique ID of the fund being withheld.
  - ii. **name** – Required – The name of the fund being withheld.
  - iii. **amount** – Required – The total amount being withheld.

## 2.6 Summary

Attributes & Elements:

1. **total\_reported\_amt** – Required – The total amount reported on the report by the contractor. This may also be the total of the contractor checks that pertain to this report.
2. **total\_credited\_amt** – Required – The total amount credited to member accounts. This may differ from the reported amount if the contractor submits incorrect totals.
3. **total\_variance** – Required – The difference between the total credited and total reported amounts. The total amount that the contractor will owe on this report.
4. **fund** – Required element if total\_reported\_amt > 0.
  - (a) **name** – Required – Name of the fund being reported.
  - (b) **id** – Required – A unique ID of the fund being reported.
  - (c) **reported\_hours** – Required – The total number of hours reported by the contractor for this fund.
  - (d) **credited\_hours** – Required – The total number of hours credited to the members from this report.
  - (e) **reported\_amt** – Required – The total reported amount by the contractor for this fund.
  - (f) **credited\_amt** – Required – The total amount credited to the members for this report.
  - (g) **variance** – Required – The total of all variances owed for this fund on this report.

## 3 BDI-XML Reporting Schema

This BDI-XML schema is also available at [http://www.benadv.com/schema/bdi\\_xml\\_reporting.xsd](http://www.benadv.com/schema/bdi_xml_reporting.xsd).

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
attributeFormDefault="unqualified" elementFormDefault="qualified"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="report">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="contractor">
          <xs:complexType>
            <xs:attribute name="id" type="xs:string" use="required" />
            <xs:attribute name="name" type="xs:string" use="required" />
          </xs:complexType>
        </xs:element>
        <xs:element name="contract">
          <xs:complexType>
            <xs:attribute name="name" type="xs:string" use="required" />
            <xs:attribute name="effective_date" type="xs:string" use="optional" />
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

```

</xs:complexType>
</xs:element>
<xs:element name="member_items">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="member">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" name="hours">
              <xs:complexType>
                <xs:attribute name="straight" type="xs:decimal" use="required" />
                <xs:attribute name="time_and_half" type="xs:decimal" use="required" />
                <xs:attribute name="double" type="xs:decimal" use="required" />
              </xs:complexType>
            </xs:element>
            <xs:element minOccurs="0" maxOccurs="unbounded" name="withholding">
              <xs:complexType>
                <xs:attribute name="fund_id" type="xs:string" use="required" />
                <xs:attribute name="name" type="xs:string" use="required" />
                <xs:attribute name="amount" type="xs:decimal" use="required" />
              </xs:complexType>
            </xs:element>
          </xs:sequence>
          <xs:attribute name="soc" type="xs:unsignedInt" use="required" />
          <xs:attribute name="first" type="xs:string" use="required" />
          <xs:attribute name="last" type="xs:string" use="required" />
          <xs:attribute name="wages" type="xs:decimal" use="optional" />
        </xs:complexType>
      </xs:element>
    </xs:sequence>
    <xs:attribute name="total" type="xs:unsignedInt" use="required" />
  </xs:complexType>
</xs:element>
<xs:element name="summary">
  <xs:complexType>
    <xs:sequence>
      <xs:element maxOccurs="unbounded" name="fund">
        <xs:complexType>
          <xs:attribute name="name" type="xs:string" use="required" />
          <xs:attribute name="id" type="xs:string" use="required" />
          <xs:attribute name="reported_hours" type="xs:decimal" use="required" />
          <xs:attribute name="reported_amt" type="xs:decimal" use="required" />
          <xs:attribute name="credited_hours" type="xs:decimal" use="required" />
          <xs:attribute name="credited_amt" type="xs:decimal" use="required" />
          <xs:attribute name="variance" type="xs:decimal" use="required" />
        </xs:complexType>
      </xs:element>
    </xs:sequence>
    <xs:attribute name="total_reported_amt" type="xs:decimal" use="required" />
    <xs:attribute name="total_credited_amt" type="xs:decimal" use="required" />
  </xs:complexType>
</xs:element>

```

```

        <xs:attribute name="total_variance" type="xs:decimal" use="required" />
    </xs:complexType>
</xs:element>
</xs:sequence>
<xs:attribute name="id" type="xs:string" use="required" />
<xs:attribute name="receipt_date" type="xs:string" use="required" />
<xs:attribute name="work_start" type="xs:string" use="required" />
<xs:attribute name="work_end" type="xs:string" use="required" />
<xs:attribute name="adjust_id" type="xs:string" use="optional" />
</xs:complexType>
</xs:element>
</xs:schema>

```

## 4 Sample BDI-XML Reporting Document

This sample BDI-XML reporting document is also available at [http://www.benadv.com/xml\\_files/bdi\\_xml\\_reporting.xml](http://www.benadv.com/xml_files/bdi_xml_reporting.xml).

```

<?xml version="1.0" encoding="UTF-8"?>
<report xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="http://www.benadv.com/schema/cdi_xml_reporting.xsd"
id="2" posting_date="08/25/2008" work_start="07/01/2007" work_end="07/31/2007" adjust_id="1">
  <contractor id="1" name="John Doe Mechanical, LLC" />
  <contract name="Building Trades Journeyman" effective_date="06/01/2008" />
  <member_items total="2">
    <member soc="783783498" first="Larry" last="Jones" wages="1200.00">
      <hours straight="100.00" time_and_half="0.00" double="0.00" />
      <withholding fund_id="DC" name="401(k)/DC Fund" amount="0.00" />
      <withholding fund_id="DUES" name="Dues Check-off Fund" amount="110.00" />
    </member>
    <member soc="387383347" first="Marvin" last="Martian" wages="1300.00">
      <hours straight="100.00" time_and_half="0.00" double="0.00" />
      <withholding fund_id="DC" name="401(k)/DC Fund" amount="0.00" />
      <withholding fund_id="DUES" name="Dues Check-off Fund" amount="110.00" />
    </member>
  </member_items>
  <summary total_reported_amt="3054.00" total_credited_amt="3000.00" total_variance="-54.00">
    <fund name="Sample Health Fund" id="HLTH" reported_hours="200.00" reported_amt="1200.00"
credited_hours="200.00" credited_amt="1200.00" variance="0.00" />
    <fund name="Sample Pension Fund" id="PEN" reported_hours="200.00" reported_amt="900.00"
credited_hours="200.00" credited_amt="954.00" variance="-54.00" />
    <fund name="Dues Check-off Fund" id="DUES" reported_hours="200.00" reported_amt="220.00"
credited_hours="200.00" credited_amt="220.00" variance="0.00" />
    <fund name="Vacation Fund" id="VAC" reported_hours="200.00" reported_amt="680.00"
credited_hours="200.00" credited_amt="680.00" variance="0.00" />
  </summary>
</report>

```

## 5 License

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