
Draft Proposal

Credit Application Format / CAF

An Industry Standard Data Format for the Export and Import of Automotive Credit Applications using XML

Version 1.2

Revision History		
Date	Version	Description
4/10/00	0.1	Initial draft adapted from ADF standard.
4/20/00	0.2	Elements added to support non-prime lending.
5/5/00	0.3	Schema developed but not tied to documentation or examples.
7/13/00	1.0	Agreement on <application> and <decision>.
8/15/00	1.1	Final schema cleanup for <application> and <decision>.
10/16/00	1.2	Added examples, implementation tips and an index.

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Introduction

This standard extends the Auto-lead Data Format (ADF). The earlier standard was oriented toward the automotive sales industry, whereas the present document is oriented toward the automotive finance industry. We continue the use of ADF blocks <vehicle> and <provider> with some modifications, although vehicle is optional in the new format.

The intended users of this standard are originators of consumer auto finance transactions, including credit brokers, in-store selling systems and lending institutions. The new document types are intended to support the process of 1) lenders publishing their rates, terms, and incentive programs, including cash incentives, for lease and retail finance, 2) store systems, Internet systems, and credit brokers to originate credit applications, with or without vehicle and dealer details, 3) these sources to forward the applications to lenders, and 4) lenders to reply with binding credit decisions.

The new format adds blocks for financial **programs** and **products**, a credit **decision**, and adds a number of credit-specific tags to **applicant** (ADF <customer>), such as date-of-birth, social security number, and income.

This standard will support three new document types:

- A consumer credit application.
- A credit decision in response to the application.
- An electronic rate sheet.

Due to the privacy requirements for such data, encrypted transmission is a requirement for the application document type. The other two may be transmitted without encryption.

Overview

To provide a simple yet flexible format for representing automotive consumer credit information, Extensible Markup Language (XML) will be used to define the layout of data. XML is a simplified subset of the Standard Generalized Markup Language (SGML, ISO 8879) which provides a file format for representing data, a schema for describing data structure, and a mechanism for extending and annotating HTML with semantic information. An example of XML shows the similarity to HTML:

```
<?xml:namespace name="http://company.com/schemas/books/"
as="bk" />
<?xml:namespace name="http://www.ecom.org/schemas/dc/"
as="ecom" ?>

<bk:booksAndAuthors>
  <Person>
    <name>Henry Ford</name>
    <birthday>1863</birthday>
  </Person>

  <Person>
    <name>Harvey S. Firestone</name>
  </Person>

  <Person>
    <name>Samuel Crowther</name>
  </Person>

  <Book>
    <author>Henry Ford</author>
    <author>Samuel Crowther</author>
    <title>My Life and Work</title>
  </Book>

  <Book>
    <author>Harvey S. Firestone</author>
    <author>Samuel Crowther</author>
    <title>Men and Rubber</title>
    <ecom:price>23.95</ecom:price>
  </Book>

</bk:booksAndAuthors>
```

The XML standard is administered by the W3C. More information can be found at: <http://www.xml.com> or <http://www.xml.org>.

Key Data Categories

There are four key categories of information in version 1.2 of the Credit Application Format (CAF):

- Customer (applicant) information

- Vehicle information
- Dealer, lender or broker information
- Financing program information

The CAF credit application is divided into four blocks representing each of these categories (a single tag, **provider**, carries both dealer and lender information). In some cases, a credit approval may be possible without the **vehicle** block. In most cases, a complete **applicant** block will be required, along with the **product** block. For housekeeping purposes, we also include

- Date and time
- Sender's application identifier

An example of this minimal document in XML looks like:

```
<?CAF VERSION "1.2"?>

<?XML VERSION "1.0"?>

<application>
  <id>14765</id>
  <requestdate>2000-11-11 1600-0600</requestdate>
  <applicant>
    <name part="full">John Doe</name>
    <phone>393-999-3922</phone>
    <taxid>078-05-1120</taxid>
  </applicant>
  <product type="retail">
    <term type="months">60</term>
    <cashdown>5000</cashdown>
  </product>
</application>
```

For webmasters and developers, the primary task to support this format is to map their existing data fields to the appropriate tags in the Credit Application Format and write a converter to read or write the data according to their needs.

Definition of Tags

CAF has four levels of hierarchy:

1. Parent
2. Category
3. Sub-category
4. Element

There are four categories, as discussed above. Each is designed to support a range of elements, most optional, that accurately define the information for that category. In some cases, such as vehicle options, there is also a sub-category tag. The order of tags within their parent delimiters is immaterial.

Each XML transmittal file must contain the general identifiers:

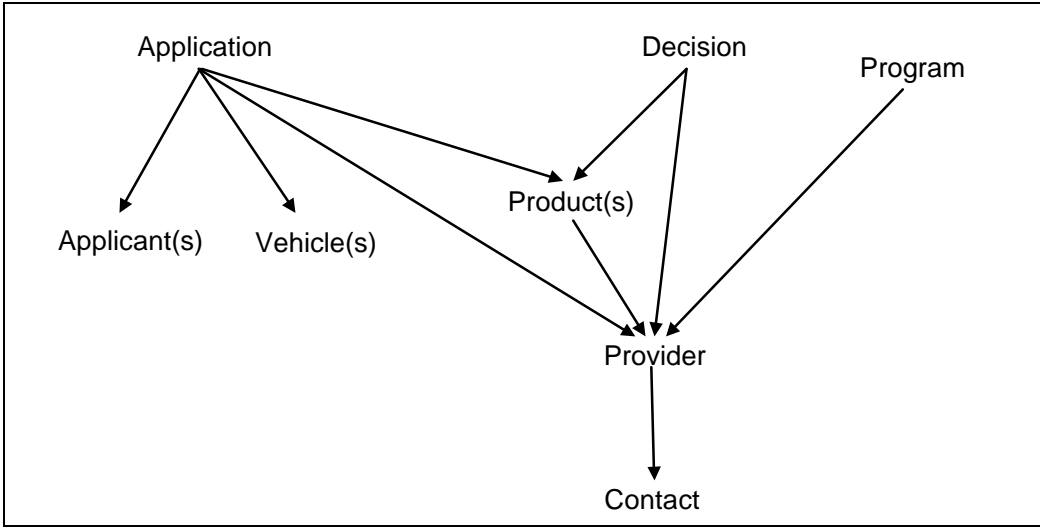
```
<?CAF VERSION "1.2"?>
<?XML VERSION "1.0"?>
<application>
  <app_id>38889</app_id>
  <requestdate>2000/07/14 3:05-5:00</requestdate>
</application>
```

The first line contains the standard XML identifier. The <application> and </application> tags enclose the data for a credit application. Proposals for various XML "envelopes," to handle multiple applications as a batch, for instance, or to track the forwarding history of an application, were rejected. Various messaging protocols already exist for these purposes, which are outside the scope of this standard.

The usage hierarchy for the categories is shown below. To ensure accurate transmission, include all tags within each category even if they are empty.

Parent	Category	Sub-category
<application>	<vehicle>	<option>
	<applicant>	<address>
		<employer>
		<balances>
		<otherincome>
		<otherexpense>
	<product>	<provider>
	<provider>	<contact>
<decision>	<product>	<provider>
	<provider>	<contact>
<program>	<provider>	<contact>

The <provider> tag may represent the sender of a credit application, the sender of a decision, or the lending institution offering a given product. Thus, <provider> may function as both a category tag and a sub-category tag in the same message. **Provider** includes a general purpose tag for contact information. The usage hierarchy is shown graphically below:



We use the ISO standard 8601 to deal with the problem of time zones. That is, a twenty-four hour clock, with Eastern Standard Time (EST) indicated by -5:00:

2000/07/14 16:00-5:00

We also use the ISO standard for currency. Please see <http://www.iso.ch> for details.

Application

This is the parent tag for the credit application. It may include category tags for the vehicle to be purchased as well as any trade-in vehicle, one or more applicants, a financial product, and the provider of the application.

Here are the common elements of an application:

```
<application status="new">
  <app_id>876543</app_id>
  <requestdate>2000/08/14</requestdate>
</application>
```

The <application> tag has an optional parameter called "status" to identify documents that are being re-sent. It has two states: "new" and "resend". Simple acknowledgement of receiving an application is included as a *type* within <decision>.

The following table defines each tag. Those tags in **bold** are required. Parameters are always optional. Default values are shown in *italics*.

Tag	Parameters	Valid Values	Purpose
<application>	status	<i>new</i> <i>resend</i>	Status is used to resubmit the application in case of a communications or other failure.
<requestdate>	none		Date/time stamp. Must specify time zone per ISO 8601.
<app_id>	none		This is the sender's identification of the credit application, typically the application's identifier in the credit input system.
<vehicle>	See <i>vehicle</i> page 9.		
<applicant>	See <i>applicant</i> page 11.		
<product>	See <i>product</i> page 19.		
<provider>	See <i>provider</i> page 21.		

Vehicle

The vehicle tags are used to describe the vehicle that the customer has requested. There is one sub-category for the vehicle tag that is used to define vehicle options. Example:

```
<vehicle status="used">
  <year>1999</year>
  <make>Chevrolet</make>
  <model>Blazer</model>
  <vin>2GTEK19R7V1511644</vin>
  <stock>P7286</stock>
  <trim>LT</trim>
  <doors>4</doors>
  <bodystyle>SUV</bodystyle>
  <interiorcolor>lush brown</interiorcolor>
  <exteriorcolor>emerald green</exteriorcolor>
  <vehicleprice type="appraisal">26995</vehicleprice>
  <appraisalsource>nada</appraisalsource>
  <option>
    <name>Sport</name>
    <manufcode>p394</manufcode>
    <price type="invoice" currency="USD">150</price>
    <price type="msrp">200</price>
  </option>
  <option>
    <name>Keyless Entry</name>
    <manufcode>p394</manufcode>
    <price type="invoice" currency="USD">150</price>
    <price type="msrp">200</price>
  </option>
</vehicle>
```

The following table defines each tag. Those tags in **bold type** are required. Other fields are optional. Parameters are always optional. Default values are shown in *italics*.

Tag	Parameters	Valid Values	Purpose
<vehicle>	interest	<i>buy</i> <i>lease</i> <i>trade</i>	Vehicle category tags can be used to identify the collateral in an Application, as well as the trade.
	status	<i>new</i> <i>used</i> <i>demo</i> <i>offlease</i>	Identify vehicle as new or used.
<year>	none		Model year of vehicle.
<make>	none		Manufacturer of vehicle.
<model>	none		Model of vehicle.
<vin>	none		VIN number of vehicle.
<stock>	none		Vendor's stock number for vehicle.
<trim>	none		Trim description.
<doors>	none		Number of doors.
<bodystyle>	none		Generic body style. e.g. SUV, Sedan, Coupe, etc.
<interiorcolor>	none		Interior color. More than one entry is allowed for each vehicle.
<exteriorcolor>	none		Exterior color. More than one entry is allowed for each vehicle.
<imagetag>	width height alltext		For example, <imagetag width="100" height="120" alttext="1997 Honda Accord">. The URL for the actual image is contained within the tag.
<vehicleprice>	type	<i>quote</i> <i>msrp</i> <i>invoice</i> <i>appraisal</i>	Price associated with request. To use the appraisal type, include the source of the appraisal.
	currency	<i>USD, etc., per ISO 4217</i>	
<appraisalsource>	type	<i>retail</i> <i>wholesale</i>	Source of the appraisal figure, above. Example: bluebook, consumer, crawford.
<mileage>	none		Integer number in miles. Required for used cars.
<pricecomments>	none		Explanatory note for pricing. e.g "Anniversary Edition"
<option>	source	<i>factory</i> <i>dealer</i>	Subcategory of <vehicle> for describing additional vehicle options. May be factory or dealer add.
<name>	none		Global definition of a name. In the <option> section, this identifies the option.
<price>	currency	<i>USD, etc., per ISO 4217</i>	
<manufcode>	none		Manufacturer ID code.
<stock>	none		Stock number.
<reserved>	none		Tags contained within <reserved> are implementation specific and not covered by this standard.

Applicant

This category defines information about the applicant and (optional) co-applicant. There are six sub-categories within applicant: address, employer, balances, other expense, other income, and bankrupt. Here is an example of an applicant:

```
<applicant type="primary">
  <applicantname part="title">Mr</name>
  <applicantname part="first">John</name>
  <applicantname part="last">Doe</name>
  <email>jdoe@hotmail.com</email>
  <taxid>373-23-2323</taxid>
  <dob>10/25/1960</dob>
  <phone type="voice" time="morning">393-999-3922</phone>
  <phone type="voice" time="evening">
    393-991-2999
  </phone>
  <phone type="fax" time="evening">393-991-2989</phone>
  <address type="residence" status="current" ownrent="own">
    <ruralroute>5</ruralroute>
    <city>Waterford</city>
    <region>Ont.</region>
    <postalcode>N0E 1Y0</postalcode>
    <country>Canada</country>
  </address>
  <employer>
    <name part="full">AutoNation</name>
    <salary type="annual">72000</salary>
    <position>Systems Analyst</position>
    <address>
      <city>Fort Lauderdale</city>
      <regioncode>FL</regioncode>
```

```

        </address>
        <duration type="months">14</duration>

        <phone time="day">305-555-5566</phone>

    </employer>

    <otherincome>

        <amount>10000</amount>

        <source>soc_security</source>

    </otherincome>

    <comments>Can I count my bonus as income?</comments>

</applicant>

```

The following table defines each tag. Those tags in **bold** are required. Parameters are always optional. Default values are shown in *italics*.

Tag	Parameters	Valid Values	Purpose
<applicant>	role	<i>primary</i> coapplicant reference comaker	Identify the applicant as the primary or co-borrower. Some lenders make a distinction between coapplicant (a joint obligation) and comaker (a guarantee). Some lenders also require contact info for "nearest relative not living with you." In Wisconsin, spouse information is always required. If spouse=yes, then applicant is not a borrower, and 'role' indicates whose spouse. optout=yes means "do not forward my application." Required for consumer privacy laws.
	spouse	<i>no</i> yes	
	optout	<i>no</i> yes	
	type	business <i>individual</i>	
	maritalstatus	<i>single</i> married divorced widowed separated other	
<applicantname>	part	<i>full</i> first last middle title prefix suffix	Define the customer name.
<email>	preferredcontact	yes no	Email address of customer. Note that <email> is not required if <phone> is present. Use preferredcontact="1" to indicate this as the preferred method of contact.

<phone>	type	voice fax cellphone pager	Phone number. Note that <phone> is not required if <email> is present. The time parameter indicates that this entry is the preferred contact number. Use preferredcontact="yes" to indicate this as the preferred method of contact.
	time	morning afternoon evening daytime <i>no preference</i>	
	preferredcontact	yes no	
<taxid>	type	(U.S) ssn ein tin sin	Applicant's social security number, business tax id number, or Canadian social insurance number.
<dob>	none		Date of birth. Use ISO 8601 standard.
<address>	type	residence business	Identifies start of Address sub-category.
	status	current previous	
	ownrent	own_mort own_clear renting relatives other	
<i>These are the lending-specific address elements. See page 22 for the postal elements.</i>			
<county>	none		County. Used to determine sales tax and personal property tax.
<duration>	type	months years	Time at this address.
<payment>	currency	USD, etc., per ISO 4217	Monthly housing cost at this address.
<dependents>	none		Integer number of dependents.
<employer>	status	current previous	Identifies start of Employer sub-category. Also, "self-employed" flag.
	self	yes no	
<name>	none		Full name of company.
<salary>	type	annual monthly	Gross compensation.
	currency	USD, etc., per ISO 4217	
<position>	none		Job title
<occupation>	none		Type of work
<business>	none		Nature of business performed by company.
<address>			Same as Address sub-category, only type is assumed to be "business," and status is taken from the Employer tag.
<phone>	time		Same as <phone> tag, above.
<employercontact>	none		Full name of HR manager or other representative for proof of employment.
<duration>	type	months years	Time with this employer.
<otherincome>	status	current previous	Other income, only if the customer wants it considered in granting credit.

<source>	none		Source of other income, e.g., alimony.
<amount>	type	annual <i>monthly</i>	Amount of additional income.
	currency	<i>USD</i> , etc., per ISO 4217	
<otherexpense>	status	current previous	Other expenses, must be disclosed.
<source>	none		Reason for other expense, e.g., alimony.
<amount>	type	annual <i>monthly</i>	Amount of additional expense.
	currency	<i>USD</i> , etc., per ISO 4217	
<balances>	type	mortgage rent auto checking savings other	Same block is used for assets and liabilities.
<name>	none		Full name of leinholder, bank, landlord, etc., relevant to this account.
<account>	none		Account number or other identifier.
<address>	none		See <address>, p. 22
<phone>	none		Same as <phone> tag, above.
<original>	currency	<i>USD</i> , etc., per ISO 4217	Original balance, used only for debt accounts.
<branch>	none		Identifier of bank or lender branch.
<balance>	currency	<i>USD</i> , etc., per ISO 4217	Current balance of debt or asset account. Use positive value in either case.
<payment>	currency	<i>USD</i> , etc., per ISO 4217	Monthly payment for a debt account.
<alias>	none		Use this if "obtained credit under a different name."
<bankrupt>	none		
<file>	none		Date filed for bankruptcy, if any.
<cure>	none		Date cured.
<type>	none		Chapter.
<comments>	none		Comments captured from the customer.
<reserved>	none		Tags contained within <reserved> are implementation specific and not covered by this standard.

Decision

The <decision> returned by the lender dominates the <product> requested in the application. The lender may, rather than decline the application, return an approval for a different amount -- or an entirely different product. Also, the application may propose more than one product. To ensure that all products submitted on the application have been processed, use the sequence number, and return one decision for each product.

The <stipulations> tag is intended for items which have the character of verifying information from the application, whereas <conditions> like "more down," or "add a co-maker" mean that the application is conditionally approved. Example:

```
<decision type="approved">
  <decision_id>200016785</decision_id>
  <app_id>14765</app_id>
  <decisiondate>20000415 1713-0500</decisiondate>
  <goodthru date>2000/04/20</goodthru date>
  <stipulations line="1">Verify income at least 1000 per
    week</stipulations>
  <stipulations line="2">Verify still at this
    address</stipulations>
  <provider role="lender">
    <name>AutoNation Financial Services</name>
  </provider>
</decision>
```

The following table defines each tag. Those tags in **bold type** are required. Other fields are optional. Parameters are always optional. Default values are shown in *italics*.

Tag	Parameters	Valid Values	Purpose
<decision>	type	approved declined <i>resend</i> ack invalid	"Resend" is used in case of a communications error. Obviously, we cannot default the decision type, so the default is to resend the application. "Invalid" means that the requested product is not offered, or that the message was otherwise received in error.
<decision_id>	none		This is the lender's identification of the credit decision, typically the application's identifier in the credit authorization system.
<app_id>	none		This echoes the sender's identifier for the application.
<seq_no>	none		Used to track multiple decisions for a given <app_id>.

<decisiondate>			Timestamp for the decision. To compute the turnaround time, go back to <requestdate> on the application. ISO 8601.
<goodthru date>			Expiration date of the offer, inclusive. Time defaults to midnight of date given.
<stipulations>	line	1 2 n	Approval stipulations.
<conditions>	line	1 2 n	Approval conditions.
<declined>	line	1 2 n	Optional text for adverse action message.
<provider>	See <i>provider</i> page 21.		Role = "lender" for this decision.
<product>	See <i>product</i> page 19.		Product for which the applicant is approved. Potentially a counter-offer to the product requested by <application>.
<reserved>	none		Tags contained within <reserved> are implementation specific and not covered by this standard.

Program

Identifies any financing program, including base rates, although the intent is to provide automatic updates for manufacturer subvention programs. Example:

```
<program>
  <name>Oktoberfest Lease Mania</name>
  <program_id>E36OCT</program_id>
  <provider>
    <name>BMW Financial Services</name>
  </provider>
  <make>BMW</make>
  <model>All 5 Series</model>
  <year>2000</year>
  <restriction>
    <designation>Region</designation>
    <market>Central</market>
  </restriction>
  <credit>A</credit>
  <trim>Premium package</trim>
  <stipulations line="1">Only if they are trading up from a
    3 series</stipulations>
  <startdate>10/1/2000</startdate>
  <enddate>10/31/2000</enddate>
  <excash>2000</excash>
  <leasecash>0</leasecash>
  <leaserate>0.00250</leaserate>
  <leaseterm>48</leaseterm>
  <leaseresid>60</leaseresid>
</program>
```

The **program** block is used to define a cash rebate program, a retail rate program, a lease program, or any combination of the three. Send a separate message for each program.

The following table defines each tag. Those tags in **bold type** are required. Other fields are optional. Parameters are always optional. Default values are shown in *italics*.

Tag	Parameters	Valid Values	Purpose
<program>	none		Start of program block.
<name>	none		Mnemonic name of program.
<program_id>	none		Lender's identifier for program.
<provider>	role	<i>lender</i>	Lender offering this program. This is the only role valid for <program>.
<name>	none		Full name of lending institution.
<make>	none		Manufacturer of eligible vehicles.
<model>	none		Model of eligible vehicles.
<year>	none		Model year of eligible vehicles.
<restriction>	none		Identifies program restrictions by geographical area.
<designation>	none		Institution-specific market designator: region, district, zone, individual dealer.
<market>	none		Lender's name for this market.
<credit>	none		Institution-specific designator of credit quality: "tier one," "A," etc.
<trim>	none		Trim package for program eligibility.
<startdate>	none		Start date of program. Approval must fall after this date (inclusive) to qualify for the program. This is a date only, so there is no need for the time zone parameter.
<enddate>	none		End date of program. Approval must fall before this date (inclusive) to qualify. This is a date only, so there is no need for the time zone parameter.
<stipulations>	line	1 2 n	Text describing additional requirements for program eligibility. Note that <stipulations> can be passed through to the Decision document.
<state>	none		List of states in which the program is valid. If absent, assume program is valid nationally.
<excash>	currency	<i>USD, etc., per ISO 4217</i>	Cash rebate, exclusive of other programs in this section. <i><Let's make subcategories here, and reuse the tags for cash, term and rate.></i>
<retailcash>	currency	<i>USD, etc., per ISO 4217</i>	Cash rebate, included with the retail program in this section.
<retailrate>	type	<i>APR</i> factor	Rate for retail financing. APR is a floating-point decimal without percentage symbol. Lease factor is a five-place decimal, with leading zero. Ex. 0.00260.
<retailterm>	type	<i>months</i> <i>years</i>	Term of retail installment contract, to go with the rate, above.
<leasecash>	currency	<i>USD, etc., per ISO 4217</i>	Cash rebate, included with the lease program in this record.
<leaserate>	type	<i>apr</i> factor	Rate factor for lease. APR is a floating-point decimal without percentage symbol. Lease factor is a five-place decimal, with leading zero. Ex. 0.00260.
<leaseterm>	type	<i>months</i> <i>years</i>	Term of lease, to go with the factor, above.
<leaseresid>	none		Lease residual, for the term given above. An integer value, with percent (%) symbol omitted.
<reserved>	none		Tags contained within <reserved> are implementation specific and not covered by this standard.

Product

Summarizes the terms of the proposed financing arrangement. An application may propose more than one product. For simplicity, the lender should respond with one <decision> for each product. In this case, each response is uniquely identified by the combination of <app_id> and <seq_no>.

Contained in an <application>, this represents the product requested by the customer; in a <decision>, the lender may propose a different product. If the product is approved without modification, the required fields must be echoed anyway. It is the responsibility of the forwarding system to compare <application><product> with <decision><product>. Example:

```
<product type="lease">
  <product_id>E36OCT</product_id>
  <provider role="lender">
    <name>BMW Financial Services</name>
  </provider>
  <productprice type="amtfinanced">32000</productprice>
  <term>48</term>
  <payment>350</payment>
  <cashdown>1000</cashdown>
  <tradegross>18000</tradegross>
  <tradeowed>12000</tradeowed>
</product>
```

The following table defines each tag. Those tags in **bold type** are required. Other fields are optional. Parameters are always optional. Default values are shown in *italics*.

Tag	Parameters	Valid Values	Purpose
<product>	type	lease <i>retail</i> balloon	Identifies the start of a contract section, and what kind of financing is requested. Sequence number is used to track multiple products in the same application.
<seq_no>	none		
<product_id>	none		A specific program may be requested, using the lender's identifier.
<provider>	See <i>provider</i> page 21.		If a specific <program> is requested, the lender must be identified.

<productprice>	type	<i>amtfinanced</i> tax title license ttl	Type defaults to "amount financed" for product. This is the same as total capitalized cost for a lease. Note that the selling price is contained in vehicle.
	currency	<i>USD, etc., per ISO 4217</i>	
<term>	type	<i>months</i> <i>years</i>	Term of the proposed contract.
<rate>	type	<i>apr</i> factor	APR is a floating-point decimal without percent symbol. Lease factor is a five-place decimal with leading zero. Ex. 0.00260.
<max>	currency	<i>USD, etc., per ISO 4217</i>	Maximum loan amount approved. If <type> is "declined," set this value to zero.
<min>	currency	<i>USD, etc., per ISO 4217</i>	Minimum loan amount approved. Must be not more than <max>.
<payment>	currency	<i>USD, etc., per ISO 4217</i>	Desired monthly payment amount.
<rebate>	currency	<i>USD, etc., per ISO 4217</i>	Manufacturer (or other) cash rebate.
<cashdown>	currency	<i>USD, etc., per ISO 4217</i>	Cash down payment.
<tradegross>	currency	<i>USD, etc., per ISO 4217</i>	Estimated value of trade-in vehicle.
<tradeowed>	currency	<i>USD, etc., per ISO 4217</i>	Amount owing on trade-in vehicle.
<reserved>	none		Tags contained within <reserved> are implementation specific and not covered by this standard.

Provider

Provider is required for all parent tags in this standard.

- For a rate sheet, role = lender represents the institution publishing a **program**.
- For an **application**, role = dealer, consumer or broker, represents the agency submitting the credit application. Within the application's proposed **product**, role = lender optionally identifies a specific lender's product.
- For a **decision**, role = lender represents the institution granting credit.

```
<provider role="broker">
  <providername part="full">
    AutoNation Financial Services
  </providername>
  <url>http://www.autonationdirect.com</url>
  <email>appreturn@autonationusa.com</email>
  <phone>954-769-7761</phone>
  <contact primarycontact="yes">
    <name part="full">Randy Groves</name>
    <phone type="voice" time="day">425-253-2222</phone>
    <phone type="fax" time="day">393-991-2999</phone>
    <address>
      <text line="1">110 SE 6th Street</text>
      <text line="2">21st Floor</text>
      <city>Ft. Lauderdale</city>
      <region>FL</region>
      <postal>33301</postal>
      <country>U.S.</country>
    </address>
  </contact>
</provider>
```

The tags are defined below. Default parameter values are shown in *italics*.

Tag	Parameters	Valid Values	Purpose
<provider>	role	<i>lender</i> broker dealer consumer	Identify the provider category of a CAF file.
<provider_id>	none		
<providername>	none		Full name of service provider.
<url>	none		Web address of provider.
<email>	none		General reply address for issues related to the message.
<phone>	See standard <phone>, page 13.		
<contact>	primarycontact	yes no	Identifies one or more contacts for provider. Optional parameter identifies the primary contact.
<name>	part	<i>full</i> first last middle title prefix suffix	Name of contact.
<email>	none		Email address of provider contact.
<phone>	See standard <phone>, page 13.		Phone number for provider contact.
<address>	none		Identifies address sub-category for <contact> tag.
<number>	none		House number
<prefix>	none		Any prefix for the street name; often a direction, as in "S.E. Sixth Street."
<street>	none		Name of street. In case of a rural route or a P.O. box, use the appropriate tag.
<suffix>	none		Any suffix for the street name; typically the "designator," e.g., Alley, Annex, Arcade, etc.
<apt>	none		U.S.P.S. "secondary address unit indicator," e.g., Apt, Bldg, Floor, with its number.
<city>	none		City name.
<box>	none		P.O. Box number
<ruralroute>	none		Rural route number
<text>	line	1 2 n	Use free-form text lines only if the address won't fit into the specific elements, above.
<region>	none		State or province.
<postal>	none		Post code.
<country>	none		Country.
<reserved>	none		Tags contained within <reserved> are implementation specific and not covered by this standard.

IMPLEMENTATION TIP: MAILING ADDRESS

- To construct a mailing address, first print the contact name, then the provider name and the contact title (if desired).
- Then print the text lines; these may contain supplemental delivery instructions, like "in care of."
- Next, print in this order: <number>, <prefix>, <street>, <suffix>, comma, <apt>, line break, <city>, comma, <region>, <postal>, <country>. This way, if the street and city information are present in <text> and not in the proper tags, they will still print on the correct line.
- If <box> or <ruralroute> is present, use this instead of the street information. Note that the literals "P.O. Box," and "R.R. #" are inferred, and are not contained in the XML message, whereas <apt> is freeform text. That is:

<ruralroute>5</ruralroute> **NOT** <ruralroute>R.R. #5</ruralroute>

BUT: <apt>18th Floor</apt>

Appendix

Contact Information

Contact	Company	Title	Telephone	Facsimile	e-Mail
Mark Virag	AutoNation Financial Services	VP, Information Technology	(954) 769-3642	(954) 769-6428	viragm@autonationusa.com
Andre Engberts	GE Capital Auto Finance	Chief Technical Officer	(847) 277-6097	(847) 277-6977	andre.engberts@gecapital.com
Sudhir Savur	Chase Auto Finance	VP, Information Technology	(516) 745-3936	(516) 745-3903	sudhir.savur@chase.com
Dave Morris	Americredit	SVP e-Business	(817) 302-7177	(817) 302-7950	dmorris@americredit.com
Mike Machowicz	GMAC	Information Services	(313) 556-5522	(313) 974-7425	mike.machowicz@gm.com
Doug Springsteel	Bank One	e-Commerce	(303) 244-4142	(303) 756-6361	doug.springsteel@mail.bankone.com
Doug Stein	Wells Fargo Bank	Vice President	(602) 285-2004	(602) 285-2752	

Schema Definition

An aid to developers and web masters for verifying the validity of XML documents is the schema definition file. An advantage of the schema technique is that, unlike the older DTD format, the schema is itself written in XML. This file can be used in conjunction with an XML parser, such as that included in IE5.0, to validate a document. Below is the schema for the Credit Application Format.

The group agreed that we should use a separate schema file for each of the three major document types, even if this requires duplicating the code for reusable categories <product> and <provider>. We are looking for an equivalent to the #include construct.

```
<?xml version="1.0"?>
<!-- edited with XML Spy v3.0.7 NT (http://www.xmlspy.com) by Vincent Zaffiro (AutoNation Financial Services) -->
<Schema name="CAF1.0.xdr" xmlns="urn:schemas-microsoft-com:xml-data" xmlns:dt="urn:schemas-microsoft-com:datatypes">
  <ElementType name="application" content="eltOnly" order="seq">
    <AttributeType name="status" dt:type="enumeration" dt:values="new resend" default="new"/>
    <attribute type="status"/>
    <element type="requestdate"/>
    <element type="app_id"/>
    <element type="vehicle" minOccurs="0" maxOccurs="*" />
    <element type="applicant" minOccurs="1" maxOccurs="*" />
    <element type="product" minOccurs="0" maxOccurs="1" />
    <element type="provider" minOccurs="0" maxOccurs="1" />
  </ElementType>
  <ElementType name="requestdate" content="textOnly" dt:type="date"/>
  <ElementType name="app_id" content="textOnly" dt:type="string"/>
  <ElementType name="vehicle" content="eltOnly" order="seq">
    <AttributeType name="interest" dt:type="enumeration" dt:values="buy lease trade" default="buy"/>
    <AttributeType name="status" dt:type="enumeration" dt:values="new used demo offlease" default="new"/>
    <attribute type="interest"/>
    <attribute type="status"/>
    <element type="year"/>
    <element type="make"/>
    <element type="model"/>
    <element type="vin" minOccurs="0" maxOccurs="1" />
    <element type="stock" minOccurs="0" maxOccurs="1" />
    <element type="trim" minOccurs="0" maxOccurs="1" />
    <element type="doors" minOccurs="0" maxOccurs="1" />
    <element type="bodystyle" minOccurs="0" maxOccurs="1" />
    <element type="interiorcolor" minOccurs="0" maxOccurs="1" />
    <element type="exteriorcolor" minOccurs="0" maxOccurs="1" />
    <element type="imagetag" minOccurs="0" maxOccurs="1" />
    <element type="vehicleprice" minOccurs="0" maxOccurs="1" />
    <element type="appraisalsource" minOccurs="0" maxOccurs="1" />
    <element type="mileage" minOccurs="0" maxOccurs="1" />
    <element type="pricecomments" minOccurs="0" maxOccurs="1" />
    <element type="option" minOccurs="0" maxOccurs="1" />
    <element type="reserved" minOccurs="0" maxOccurs="1" />
  </ElementType>
  <ElementType name="applicant" content="eltOnly" order="seq">
    <AttributeType name="role" dt:type="enumeration" dt:values="primary coapplicant reference comaker"
default="primary"/>
    <AttributeType name="spouse" dt:type="enumeration" dt:values="yes no" default="no"/>
    <AttributeType name="optout" dt:type="enumeration" dt:values="yes no" default="no"/>
    <AttributeType name="type" dt:type="enumeration" dt:values="business individual" default="individual"/>
    <AttributeType name="maritalstatus" dt:type="enumeration" dt:values="single married divorced widowed
separated other" default="single"/>
    <attribute type="role"/>
    <attribute type="spouse"/>
    <attribute type="optout"/>
    <attribute type="type"/>
    <attribute type="maritalstatus"/>
  </ElementType>
</Schema>
```

```

<element type="applicantname" minOccurs="1" maxOccurs="*" />
<element type="email" />
<element type="phone" minOccurs="1" maxOccurs="*" />
<element type="taxid" />
<element type="dob" />
<element type="address" minOccurs="1" maxOccurs="*" />
<element type="dependents" minOccurs="0" maxOccurs="*" />
<element type="employer" minOccurs="0" maxOccurs="*" />
<element type="otherincome" minOccurs="0" maxOccurs="*" />
<element type="otherexpense" minOccurs="0" maxOccurs="*" />
<element type="balances" minOccurs="0" maxOccurs="*" />
<element type="alias" minOccurs="0" maxOccurs="1" />
<element type="bankrupt" minOccurs="0" maxOccurs="1" />
<element type="comments" minOccurs="0" maxOccurs="*" />
<element type="reserved" minOccurs="0" maxOccurs="1" />
</ElementType>
<ElementType name="product" content="eltOnly" order="seq">
  <AttributeType name="type" dt:type="enumeration" dt:values="lease retail balloon" default="retail" />
  <AttributeType name="seq_no" dt:type="int" />
  <attribute type="type" />
  <attribute type="seq_no" />
  <element type="product_id" minOccurs="0" maxOccurs="1" />
  <element type="provider" minOccurs="0" maxOccurs="1" />
  <element type="productprice" />
  <element type="term" />
  <element type="rate" />
  <element type="max" />
  <element type="min" />
  <element type="payment" minOccurs="0" maxOccurs="1" />
  <element type="rebate" minOccurs="0" maxOccurs="1" />
  <element type="cashdown" minOccurs="0" maxOccurs="1" />
  <element type="tradegross" minOccurs="0" maxOccurs="1" />
  <element type="tradeowed" minOccurs="0" maxOccurs="1" />
  <element type="reserved" minOccurs="0" maxOccurs="1" />
</ElementType>
<ElementType name="provider" content="eltOnly" order="seq">
  <AttributeType default="lender" dt:values="lender broker dealer consumer" dt:type="enumeration"
name="role" />
  <attribute type="role" />
  <element type="providername" />
  <element type="url" minOccurs="0" maxOccurs="1" />
  <element type="email" />
  <element type="phone" />
  <element type="contact" />
  <element type="reserved" minOccurs="0" maxOccurs="1" />
</ElementType>
<ElementType name="year" content="textOnly" dt:type="string" />
<ElementType name="make" content="textOnly" dt:type="string" />
<ElementType name="model" content="textOnly" dt:type="string" />
<ElementType name="vin" content="textOnly" dt:type="string" />
<ElementType name="stock" content="textOnly" dt:type="string" />
<ElementType name="trim" content="textOnly" dt:type="string" />
<ElementType name="doors" content="textOnly" dt:type="int" />
<ElementType name="bodystyle" content="textOnly" dt:type="string" />
<ElementType name="interiorcolor" content="textOnly" dt:type="string" />
<ElementType name="exteriorcolor" content="textOnly" dt:type="string" />
<ElementType name="imagetag" content="textOnly" dt:type="string">
  <AttributeType name="width" dt:type="string" />
  <AttributeType name="height" dt:type="string" />
  <AttributeType name="alttext" dt:type="string" />
  <attribute type="width" />
  <attribute type="height" />
  <attribute type="alttext" />
</ElementType>
<ElementType name="vehicleprice" content="textOnly" dt:type="fixed.14.4">

```

```

        <AttributeType name="type" dt:type="enumeration" dt:values="quote msrp invoice appraisal"
default="quote"/>
        <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
        <attribute type="type"/>
        <attribute type="currency"/>
    </ElementType>
    <ElementType name="appraisalsource" content="textOnly" dt:type="string">
        <AttributeType name="type" dt:type="enumeration" dt:values="retail wholesale" default="retail"/>
        <attribute type="type"/>
    </ElementType>
    <ElementType name="mileage" content="textOnly" dt:type="string"/>
    <ElementType name="pricecomments" content="textOnly" dt:type="string"/>
    <ElementType name="option" content="eltOnly" order="seq">
        <AttributeType name="source" dt:type="enumeration" dt:values="factory dealer" default="factory"/>
        <attribute type="source"/>
        <element type="name" minOccurs="0" maxOccurs="1"/>
        <element type="price" minOccurs="0" maxOccurs="1"/>
        <element type="manufcode" minOccurs="0" maxOccurs="1"/>
        <element type="stock" minOccurs="0" maxOccurs="1"/>
    </ElementType>
    <ElementType name="reserved" content="textOnly" dt:type="string"/>
    <ElementType name="name" content="textOnly" dt:type="string">
        <AttributeType name="part" dt:type="enumeration" dt:values="full first last middle title prefix suffix"
default="full"/>
        <attribute type="part"/>
    </ElementType>
    <ElementType name="price" content="textOnly" dt:type="fixed.14.4">
        <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
        <attribute type="currency"/>
    </ElementType>
    <ElementType name="manufcode" content="textOnly" dt:type="string"/>
    <ElementType name="applicantname" content="textOnly" dt:type="string">
        <AttributeType name="part" dt:type="enumeration" dt:values="full first last middle title prefix suffix"
default="full"/>
        <attribute type="part"/>
    </ElementType>
    <ElementType name="email" content="textOnly" dt:type="string">
        <AttributeType name="preferredcontact" dt:type="enumeration" dt:values="yes no" default="yes"/>
        <attribute type="preferredcontact"/>
    </ElementType>
    <ElementType name="phone" content="textOnly" dt:type="string">
        <AttributeType name="type" dt:type="enumeration" dt:values="voice fax cellphone pager" default="voice"/>
        <AttributeType name="time" dt:type="enumeration" dt:values="morning afternoon evening daytime"
nopreference" default="nopreference"/>
        <AttributeType name="preferredcontact" dt:type="enumeration" dt:values="yes no" default="yes"/>
        <attribute type="type"/>
        <attribute type="time"/>
        <attribute type="preferredcontact"/>
    </ElementType>
    <ElementType name="taxid" content="textOnly" dt:type="string">
        <AttributeType name="type" dt:type="enumeration" dt:values="ssn ein tin sin" default="ssn"/>
        <attribute type="type"/>
    </ElementType>
    <ElementType name="dob" content="textOnly" dt:type="date"/>
    <ElementType name="address" content="eltOnly" order="seq">
        <AttributeType name="type" dt:type="enumeration" dt:values="residence business" default="residence"/>
        <AttributeType name="status" dt:type="enumeration" dt:values="current previous" default="current"/>
        <AttributeType name="ownrent" dt:type="enumeration" dt:values="own_mort own_clear renting relatives"
other"/>
        <attribute type="type"/>
        <attribute type="status"/>
        <attribute type="ownrent"/>
        <element type="number" minOccurs="0" maxOccurs="1"/>
        <element type="street" minOccurs="0" maxOccurs="1"/>
        <element type="apt" minOccurs="0" maxOccurs="1"/>
        <element type="city" minOccurs="0" maxOccurs="1"/>

```

```

<element type="box" minOccurs="0" maxOccurs="1"/>
<element type="ruralroute" minOccurs="0" maxOccurs="1"/>
<element type="text" minOccurs="0" maxOccurs="1"/>
<element type="region" minOccurs="0" maxOccurs="1"/>
<element type="postal" minOccurs="0" maxOccurs="1"/>
<element type="country" minOccurs="0" maxOccurs="1"/>
<element type="county" minOccurs="0" maxOccurs="1"/>
<element type="duration" minOccurs="0" maxOccurs="*/>
<element type="payment" minOccurs="0" maxOccurs="1"/>
</ElementType>
<ElementType name="county" content="textOnly" dt:type="string"/>
<ElementType name="duration" content="textOnly" dt:type="string">
  <AttributeType name="type" dt:type="enumeration" dt:values="months years"/>
  <attribute type="type"/>
</ElementType>
<ElementType name="payment" content="textOnly" dt:type="fixed.14.4">
  <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
  <attribute type="currency"/>
</ElementType>
<ElementType name="dependents" content="textOnly" dt:type="int"/>
<ElementType name="employer" content="eltOnly" order="seq">
  <AttributeType name="status" dt:type="enumeration" dt:values="current previous" default="current"/>
  <AttributeType name="self" dt:type="enumeration" dt:values="yes no" default="yes"/>
  <attribute type="status"/>
  <attribute type="self"/>
  <element type="name" minOccurs="0" maxOccurs="1"/>
  <element type="salary" minOccurs="0" maxOccurs="1"/>
  <element type="position" minOccurs="0" maxOccurs="1"/>
  <element type="occupation" minOccurs="0" maxOccurs="1"/>
  <element type="business" minOccurs="0" maxOccurs="1"/>
  <element type="address" minOccurs="0" maxOccurs="1"/>
  <element type="phone" minOccurs="0" maxOccurs="1"/>
  <element type="employercontact" minOccurs="0" maxOccurs="1"/>
  <element type="duration" minOccurs="0" maxOccurs="*/>
</ElementType>
<ElementType name="otherincome" content="eltOnly" order="seq">
  <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
  <AttributeType name="status" dt:type="enumeration" dt:values="current previous" default="current"/>
  <attribute type="status"/>
  <attribute type="currency"/>
  <element type="source" minOccurs="0" maxOccurs="1"/>
  <element type="amount" minOccurs="0" maxOccurs="1"/>
</ElementType>
<ElementType name="otherexpense" content="eltOnly" order="seq">
  <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
  <AttributeType name="status" dt:type="enumeration" dt:values="current previous" default="current"/>
  <attribute type="status"/>
  <attribute type="currency"/>
  <element type="source" minOccurs="0" maxOccurs="1"/>
  <element type="amount" minOccurs="0" maxOccurs="1"/>
</ElementType>
<ElementType name="balances" content="eltOnly" order="seq">
  <AttributeType name="type" dt:type="enumeration" dt:values="mortgage rent auto checking savings other"/>
  <attribute type="type"/>
  <element type="name" minOccurs="0" maxOccurs="1"/>
  <element type="account" minOccurs="0" maxOccurs="1"/>
  <element type="address" minOccurs="0" maxOccurs="1"/>
  <element type="phone" minOccurs="0" maxOccurs="1"/>
  <element type="original" minOccurs="0" maxOccurs="1"/>
  <element type="branch" minOccurs="0" maxOccurs="1"/>
  <element type="balance" minOccurs="0" maxOccurs="1"/>
  <element type="payment" minOccurs="0" maxOccurs="1"/>
</ElementType>
<ElementType name="alias" content="textOnly" dt:type="string"/>
<ElementType name="bankrupt" content="eltOnly" order="seq">
  <element type="file"/>

```

```

        <element type="cure"/>
        <element type="type"/>
    </ElementType>
    <ElementType name="comments" content="textOnly" dt:type="string"/>
    <ElementType name="number" content="textOnly" dt:type="string"/>
    <ElementType name="street" content="textOnly" dt:type="string"/>
    <ElementType name="apt" content="textOnly" dt:type="string"/>
    <ElementType name="city" content="textOnly" dt:type="string"/>
    <ElementType name="box" content="textOnly" dt:type="string"/>
    <ElementType name="ruralroute" content="textOnly" dt:type="string"/>
    <ElementType name="text" content="textOnly" dt:type="string">
        <AttributeType name="line" dt:type="int"/>
        <attribute type="line"/>
    </ElementType>
    <ElementType name="region" content="textOnly" dt:type="string"/>
    <ElementType name="postal" content="textOnly" dt:type="string"/>
    <ElementType name="country" content="textOnly" dt:type="string"/>
    <ElementType name="salary" content="textOnly" dt:type="fixed.14.4">
        <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
        <AttributeType name="type" dt:type="enumeration" dt:values="annual monthly"/>
        <attribute type="type"/>
        <attribute type="currency"/>
    </ElementType>
    <ElementType name="position" content="textOnly" dt:type="string"/>
    <ElementType name="occupation" content="textOnly" dt:type="string"/>
    <ElementType name="business" content="textOnly" dt:type="string"/>
    <ElementType name="employercontact" content="textOnly" dt:type="string"/>
    <ElementType name="source" content="textOnly" dt:type="string"/>
    <ElementType name="amount" content="textOnly" dt:type="fixed.14.4">
        <AttributeType name="type" dt:type="enumeration" dt:values="annual monthly" default="monthly"/>
        <attribute type="type"/>
    </ElementType>
    <ElementType name="account" content="textOnly" dt:type="string"/>
    <ElementType name="original" content="textOnly" dt:type="fixed.14.4">
        <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
        <attribute type="currency"/>
    </ElementType>
    <ElementType name="branch" content="textOnly" dt:type="string"/>
    <ElementType name="balance" content="textOnly" dt:type="fixed.14.4">
        <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
        <attribute type="currency"/>
    </ElementType>
    <ElementType name="file" content="textOnly" dt:type="string"/>
    <ElementType name="cure" content="textOnly" dt:type="string"/>
    <ElementType name="type" content="textOnly" dt:type="string"/>
    <ElementType name="product_id" content="textOnly" dt:type="string"/>
    <ElementType name="productprice" content="textOnly" dt:type="fixed.14.4">
        <AttributeType name="type" dt:type="enumeration" dt:values="amtfinanced tax title license"
default="amtfinanced"/>
        <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
        <attribute type="type"/>
        <attribute type="currency"/>
    </ElementType>
    <ElementType name="term" content="textOnly" dt:type="int">
        <AttributeType name="type" dt:type="enumeration" dt:values="months years" default="months"/>
        <attribute type="type"/>
    </ElementType>
    <ElementType name="rate" content="textOnly" dt:type="float">
        <AttributeType name="type" dt:type="enumeration" dt:values="apr factor" default="apr"/>
        <attribute type="type"/>
    </ElementType>
    <ElementType name="max" content="textOnly" dt:type="fixed.14.4">
        <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
        <attribute type="currency"/>
    </ElementType>
    <ElementType name="min" content="textOnly" dt:type="fixed.14.4">

```

```

        <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
        <attribute type="currency"/>
    </ElementType>
    <ElementType name="rebate" content="textOnly" dt:type="fixed.14.4">
        <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
        <attribute type="currency"/>
    </ElementType>
    <ElementType name="cashdown" content="textOnly" dt:type="fixed.14.4">
        <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
        <attribute type="currency"/>
    </ElementType>
    <ElementType name="tradegross" content="textOnly" dt:type="fixed.14.4">
        <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
        <attribute type="currency"/>
    </ElementType>
    <ElementType name="tradeowed" content="textOnly" dt:type="fixed.14.4">
        <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
        <attribute type="currency"/>
    </ElementType>
    <ElementType name="providername" content="textOnly" dt:type="string"/>
    <ElementType name="url" content="textOnly" dt:type="string"/>
    <ElementType name="contact" content="eltOnly" order="seq">
        <element type="name"/>
        <element type="email"/>
        <element type="phone"/>
        <element type="address"/>
    </ElementType>
</Schema>

<?xml version="1.0"?>
<!-- edited with XML Spy v3.0.7 NT (http://www.xmlspy.com) by Vincent Zaffiro (AutoNation Financial Services) -->
<!-- Generated by XML Authority. Conforms to XML Data subset for IE 5-->
<Schema name="DecisionCAF1.0.xdr" xmlns="urn:schemas-microsoft-com:xml-data" xmlns:dt="urn:schemas-microsoft-com:datatypes">
    <ElementType name="decision" content="eltOnly" order="seq">
        <AttributeType name="type" dt:type="enumeration" dt:values="approved declined resend ack invalid"
default="resend"/>
        <attribute type="type"/>
        <element type="decision_id"/>
        <element type="app_id"/>
        <element type="decisiondate"/>
        <element type="goodthrudate"/>
        <element type="stipulations" minOccurs="0" maxOccurs="*" />
        <element type="conditions" minOccurs="0" maxOccurs="*" />
        <element type="declined" minOccurs="0" maxOccurs="1" />
        <element type="provider" minOccurs="1" maxOccurs="*" />
        <element type="product" minOccurs="1" maxOccurs="*" />
        <element type="reserved"/>
    </ElementType>
    <ElementType name="decision_id" content="textOnly" dt:type="string"/>
    <ElementType name="app_id" content="textOnly" dt:type="string"/>
    <ElementType name="decisiondate" content="textOnly" dt:type="dateTime"/>
    <ElementType name="goodthrudate" content="textOnly" dt:type="dateTime"/>
    <ElementType name="stipulations" content="textOnly" dt:type="string">
        <AttributeType name="line" dt:type="int"/>
        <attribute type="line"/>
    </ElementType>
    <ElementType name="conditions" content="textOnly" dt:type="string">
        <AttributeType name="line" dt:type="int"/>
        <attribute type="line"/>
    </ElementType>
    <ElementType name="declined" content="textOnly" dt:type="string">
        <AttributeType name="line" dt:type="int"/>
        <attribute type="line"/>
    </ElementType>
    <ElementType name="provider" content="eltOnly" order="seq">

```

```

        <element type="providername"/>
        <element type="url" minOccurs="0" maxOccurs="1"/>
        <element type="email"/>
        <element type="phone"/>
        <element type="contact"/>
        <element type="reserved"/>
    </ElementType>
    <ElementType name="product" content="eltOnly" order="seq">
        <element type="product_id" minOccurs="0" maxOccurs="1"/>
        <element type="provider" minOccurs="0" maxOccurs="1"/>
        <element type="productprice"/>
        <element type="term"/>
        <element type="rate"/>
        <element type="max"/>
        <element type="min"/>
        <element type="payment" minOccurs="0" maxOccurs="1"/>
        <element type="rebate" minOccurs="0" maxOccurs="1"/>
        <element type="cashdown" minOccurs="0" maxOccurs="1"/>
        <element type="tradegross" minOccurs="0" maxOccurs="1"/>
        <element type="tradeowned" minOccurs="0" maxOccurs="1"/>
        <element type="reserved"/>
    </ElementType>
    <ElementType name="reserved" content="textOnly" dt:type="string"/>
    <ElementType name="providername" content="textOnly" dt:type="string"/>
    <ElementType name="url" content="textOnly" dt:type="string"/>
    <ElementType name="email" content="textOnly" dt:type="string"/>
    <ElementType name="phone" content="textOnly" dt:type="string">
        <AttributeType name="type" dt:type="enumeration" dt:values="voice fax cellphone pager" default="voice"/>
        <AttributeType name="time" dt:type="enumeration" dt:values="morning afternoon evening daytime
noproference" default="noproference"/>
        <AttributeType name="preferredcontact" dt:type="enumeration" dt:values="yes no" default="yes"/>
        <attribute type="type"/>
        <attribute type="time"/>
        <attribute type="preferredcontact"/>
    </ElementType>
    <ElementType name="contact" content="eltOnly" order="seq">
        <element type="name"/>
        <element type="email"/>
        <element type="phone"/>
        <element type="address"/>
    </ElementType>
    <ElementType name="name" content="textOnly" dt:type="string">
        <AttributeType name="part" dt:type="enumeration" dt:values="full first last middle title prefix suffix"
default="full"/>
        <attribute type="part"/>
    </ElementType>
    <ElementType name="address" content="eltOnly" order="seq">
        <element type="number" minOccurs="0" maxOccurs="1"/>
        <element type="street" minOccurs="0" maxOccurs="1"/>
        <element type="apt" minOccurs="0" maxOccurs="1"/>
        <element type="city" minOccurs="0" maxOccurs="1"/>
        <element type="box" minOccurs="0" maxOccurs="1"/>
        <element type="ruralroute" minOccurs="0" maxOccurs="1"/>
        <element type="text" minOccurs="0" maxOccurs="1"/>
        <element type="region" minOccurs="0" maxOccurs="1"/>
        <element type="postal" minOccurs="0" maxOccurs="1"/>
        <element type="country" minOccurs="0" maxOccurs="1"/>
    </ElementType>
    <ElementType name="number" content="textOnly" dt:type="int"/>
    <ElementType name="street" content="textOnly" dt:type="string">
        <AttributeType name="type" dt:type="enumeration" dt:values="street box" default="street"/>
        <attribute type="type"/>
    </ElementType>
    <ElementType name="apt" content="textOnly" dt:type="string"/>
    <ElementType name="city" content="textOnly" dt:type="string"/>
    <ElementType name="box" content="textOnly" dt:type="string"/>

```

```

<ElementType name="ruralroute" content="textOnly" dt:type="string"/>
<ElementType name="text" content="textOnly" dt:type="string">
  <AttributeType name="line" dt:type="int"/>
  <attribute type="line"/>
</ElementType>
<ElementType name="region" content="textOnly" dt:type="string"/>
<ElementType name="postal" content="textOnly" dt:type="string"/>
<ElementType name="country" content="textOnly" dt:type="string"/>
<ElementType name="product_id" content="textOnly" dt:type="string"/>
<ElementType name="productprice" content="textOnly" dt:type="fixed.14.4">
  <AttributeType name="type" dt:type="enumeration" dt:values="amtfinanced tax title license"
default="amtfinanced"/>
  <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
  <attribute type="type"/>
  <attribute type="currency"/>
</ElementType>
<ElementType name="term" content="textOnly" dt:type="int">
  <AttributeType name="type" dt:type="enumeration" dt:values="approved declined resend ack invalid"
default="resend"/>
  <attribute type="type"/>
</ElementType>
<ElementType name="rate" content="textOnly" dt:type="float">
  <AttributeType name="type" dt:type="enumeration" dt:values="approved declined resend ack invalid"
default="resend"/>
  <attribute type="type"/>
</ElementType>
<ElementType name="max" content="textOnly" dt:type="fixed.14.4">
  <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
  <attribute type="currency"/>
</ElementType>
<ElementType name="min" content="textOnly" dt:type="fixed.14.4">
  <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
  <attribute type="currency"/>
</ElementType>
<ElementType name="payment" content="textOnly" dt:type="fixed.14.4">
  <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
  <attribute type="currency"/>
</ElementType>
<ElementType name="rebate" content="textOnly" dt:type="fixed.14.4">
  <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
  <attribute type="currency"/>
</ElementType>
<ElementType name="cashdown" content="textOnly" dt:type="fixed.14.4">
  <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
  <attribute type="currency"/>
</ElementType>
<ElementType name="tradegross" content="textOnly" dt:type="fixed.14.4">
  <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
  <attribute type="currency"/>
</ElementType>
<ElementType name="tradeowned" content="textOnly" dt:type="fixed.14.4">
  <AttributeType name="currency" dt:type="enumeration" dt:values="usd brr cad mxp" default="usd"/>
  <attribute type="currency"/>
</ElementType>
</Schema>

```


Sample Application

Here is an example of a complete credit application in CAF format. It shows a primary applicant with a co-maker, plus the co-maker's spouse included due to Wisconsin state lending regulations. Two products are applied for, a lease and a loan.

```
<?CAF VERSION "1.1"?>
<?XML VERSION "1.0"?>
<application>
  <app_id>271828183</app_id>
  <requestdate>2000-08-15 1600-0600</requestdate>
  <applicant role="primary">
    <applicantname part="full">John Doe</applicantname>
    <phone>734-999-3922</phone>
    <taxid>078-05-1120</taxid>
    <name part="title">Mr</name>
    <name part="first">John</name>
    <email>littlejohn@hotmail.com</email>
    <dob>12/13/1975</dob>
    <phone type="voice" time="daytime">734-999-3922</phone>
    <phone type="voice" time="evening" preferredcontact="yes">
      734-991-2999
  </phone>
    <phone type="fax" time="evening">734-991-2989</phone>
    <address type="residence" status="current" ownrent="renting">
      <number>14476</number>
      <street>Blueskies</street>
      <city>Livonia</city>
      <region>MI</region>
      <postalcode>48154</postalcode>
    </address>
    <employer>
      <name part="full">AutoNation</name>
      <salary type="annual">72000</salary>
      <position>Systems Analyst</position>
      <address>
        <city>Fort Lauderdale</city>
        <regioncode>FL</regioncode>
      </address>
      <duration type="months">14</duration>
      <phone time="daytime">305-555-5566</phone>
    </employer>
    <otherincome>
      <amount>700</amount>
      <source>soc_security</source>
    </otherincome>
    <comments>Can I count my bonus as income?</comments>
  </applicant>
  <applicant role="comaker">
    <applicantname part="full">John Doe</applicantname>
    <phone>393-999-3922</phone>
    <taxid>555-05-1120</taxid>
    <name part="title">Mr.</name>
    <name part="suffix">Sr.</name>
    <email>bigjohn@hotmail.com</email>
    <phone type="voice" time="daytime">393-999-3922</phone>
    <phone type="voice" time="evening" preferredcontact="yes">
      393-991-2999
  </phone>
```

```

<phone type="fax" time="evening">393-991-2989</phone>
<address type="residence" status="current" ownrent="own">
  <ruralroute>5</ruralroute>
<city>Iron River</city>
  <region>WI</region>
  <postalcode></postalcode>
</address>
<employer>
  <name part="full">Keller Milling Equipment</name>
  <salary type="annual">250000</salary>
  <position>Vice President</position>
  <address>
  </address>
  <duration type="years">14</duration>
  <phone time="daytime">305-555-5566</phone>
</employer>
<otherincome>
  <amount>10000</amount>
  <source>dividends</source>
</otherincome>
<otherexpense>
  <amount>5000</amount>
  <source>alimony</source>
</otherexpense>
</applicant>
<applicant role="comaker" spouse="yes">
  <name part="full">Jane Doe</name>
  <phone>393-999-3922</phone>
  <taxid>373-05-1120</taxid>
  <name part="title">Mrs.</name>
  <email>wifeno2@yahoo.com</email>
  <phone type="voice" time="morning">393-999-3922</phone>
  <phone type="fax" time="evening">393-991-2989</phone>
  <address type="residence" status="current" ownrent="own">
    <ruralroute>5</ruralroute>
    <city>Waterford</city>
    <region>Ont.</region>
    <postalcode>N0E 1Y0</postalcode>
    <country>Canada</country>
  </address>
</applicant>
<vehicle status="new">
  <year>2000</year>
  <make>BMW</make>
  <model>X5</model>
  <vin>WBAEK19R7V1511644</vin>
  <doors>4</doors>
  <bodystyle>SUV</bodystyle>
  <interiorcolor>gray</interiorcolor>
  <exteriorcolor>black</exteriorcolor>
  <vehicleprice type="msrp">50000</vehicleprice>
  <option>
    <name>CD Player</name>
    <manufcode>123123132</manufcode>
    <price type="invoice" currency="USD">750</price>
    <price type="msrp">900</price>
  </option>
</vehicle>
<vehicle interest="trade">
  <year>1995</year>

```

```

        <make>Chevrolet</make>
        <model>Camaro</model>
        <doors>2</doors>
        <bodystyle>T-Top</bodystyle>
        <interiorcolor>white</interiorcolor>
        <exteriorcolor>red</exteriorcolor>
        <vehicleprice type="appraisal">18000</vehicleprice>
        <appraisalsource>Crawford</appraisalsource>
    </vehicle>
    <product type="lease">
        <seq_no>1</seq_no>
        <product_id>E36OCT</product_id>
        <provider role="lender">
            <providername>BMW Financial Services</providername>
        </provider>
        <productprice type="amtfinanced">44000</productprice>
        <term>48</term>
        <payment>650</payment>
        <cashdown>1000</cashdown>
        <tradegross>18000</tradegross>
        <tradeowed>12000</tradeowed>
    </product>
    <product>
        <seq_no>2</seq_no>
        <price type="amtfinanced">44000</price>
        <term>48</term>
        <cashdown>1000</cashdown>
        <tradegross>18000</tradegross>
        <tradeowed>12000</tradeowed>
    </product>
    <provider role="broker">
        <providername part="full">
            AutoNation Financial Services
        </providername>
        <url>http://www.autonation.com</url>
        <email>appreturn@autonationusa.com</email>
        <phone>954-769-7761</phone>
        <contact primarycontact="yes">
            <name part="full">Randy Groves</name>
            <email>rgroves@autonationusa.com</email>
            <phone type="voice" time="day">425-253-2222</phone>
            <phone type="fax" time="day">393-991-2999</phone>
            <address>
                <street line="1">110 SE 6th Street</street>
                <street line="2">21st Floor</street>
                <city>Ft. Lauderdale</city>
                <regioncode>FL</regioncode>
                <postalcode>33301</postalcode>
                <country>U.S.</country>
            </address>
        </contact>
    </provider>
</application>

```

Sample Decision

This example shows two <decision> blocks in response to the preceding application. The applicant is conditionally approved for the loan, and declined for the lease. Note the use of sequence numbers in response to each of the products proposed in the application. For integrity, the loan approval echoes the proposed terms.

```
<?CAF VERSION "1.1"?>
<?XML VERSION "1.0"?>
<decision type="approved">
  <decision_id>200000304</decision_id>
  <app_id>271828183</app_id>
  <seq_no>2</seq_no>
  <decisiondate>20001015</decisiondate>
  <goodthru date>20001020</goodthru date>
  <conditions line="1">Only if Mom is a co-maker</conditions>
  <conditions line="2">and the Chevy is really worth 18</conditions>
  <product type="loan">
    <price type="amtfinanced">44000</price>
    <term>48</term>
    <cashdown>1000</cashdown>
    <tradegross>18000</tradegross>
    <tradeowed>12000</tradeowed>
  </product>
  <provider role="lender">
    <name>BMW Financial Services</name>
  </provider>
</decision>
<decision type="declined">
  <decision_id>200000305</decision_id>
  <app_id>271828183</app_id>
  <seq_no>1</seq_no>
  <decisiondate>20001015</decisiondate>
  <goodthru date>20001020</goodthru date>
  <product type="lease">
    <product_id>E360CT</product_id>
  </product>
  <declined line="1">Not eligible for Oktoberfest promotion
</declined>
  <provider role="lender">
    <providername>BMW Financial Services</providername>
  </provider>
</decision>
```

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