

CGI Advantage[®] 4

Comprehensive Annual Financial Report (CAFR) User Guide



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CAFR Overview

This guide describes the basic knowledge and understanding of the CGI Advantage Comprehensive Annual Financial Report (CAFR) functionality and provides information about the development of the CAFR Statements. The guide also provides information on how to develop other types of financial and non-financial statements.

- [Overview of CAFR Module](#)
- [Overview of CAFR Architecture](#)

Overview of CAFR Module

All Public Sector Organizations, as part of their fiduciary and legal responsibilities, must submit a Comprehensive Annual Financial Report, commonly referred to as CAFR. The objective of the CAFR is to give constituents of the organization (citizens, businesses, other jurisdictions, bond holders, financial advisors, potential investors, and senior management) a broader view and understanding of the organization's financial operations. The reported financial statements in the CAFR should fairly present the financial position and results of operations of the various funds and component units of the organization. The financial statements included in the CAFR must conform to generally accepted accounting principles as promulgated by the Governmental Accounting Standards Board (GASB). Responsibility for the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with the organization's management.

The Published CAFR is a very comprehensive document that presents the financial position and results of operations via:

- Financial Statements
- Disclosure (that is, notes)
- Required Supplementary Information

The CAFR Reporting for CGI Advantage Financial does not include the ability to generate the published CAFR document. It only focuses on providing the ability to generate the basic financial statements and supplemental material.

The data to support the development of the CAFR Financial Statements comes primarily from the Advantage Financial application, but also comes from other sources. One of the challenges to developing the required financial statements is mapping the data into the individual statements. Most statements require data to be reported at levels higher than what is needed on a day-to-day basis.

One of the key features of the CAFR Reporting for Advantage Financial is the ability to establish mapping tables that specify which Advantage Chart of Account element(s) and other financial measures map to the planned CAFR Statements.

More than just the CAFR

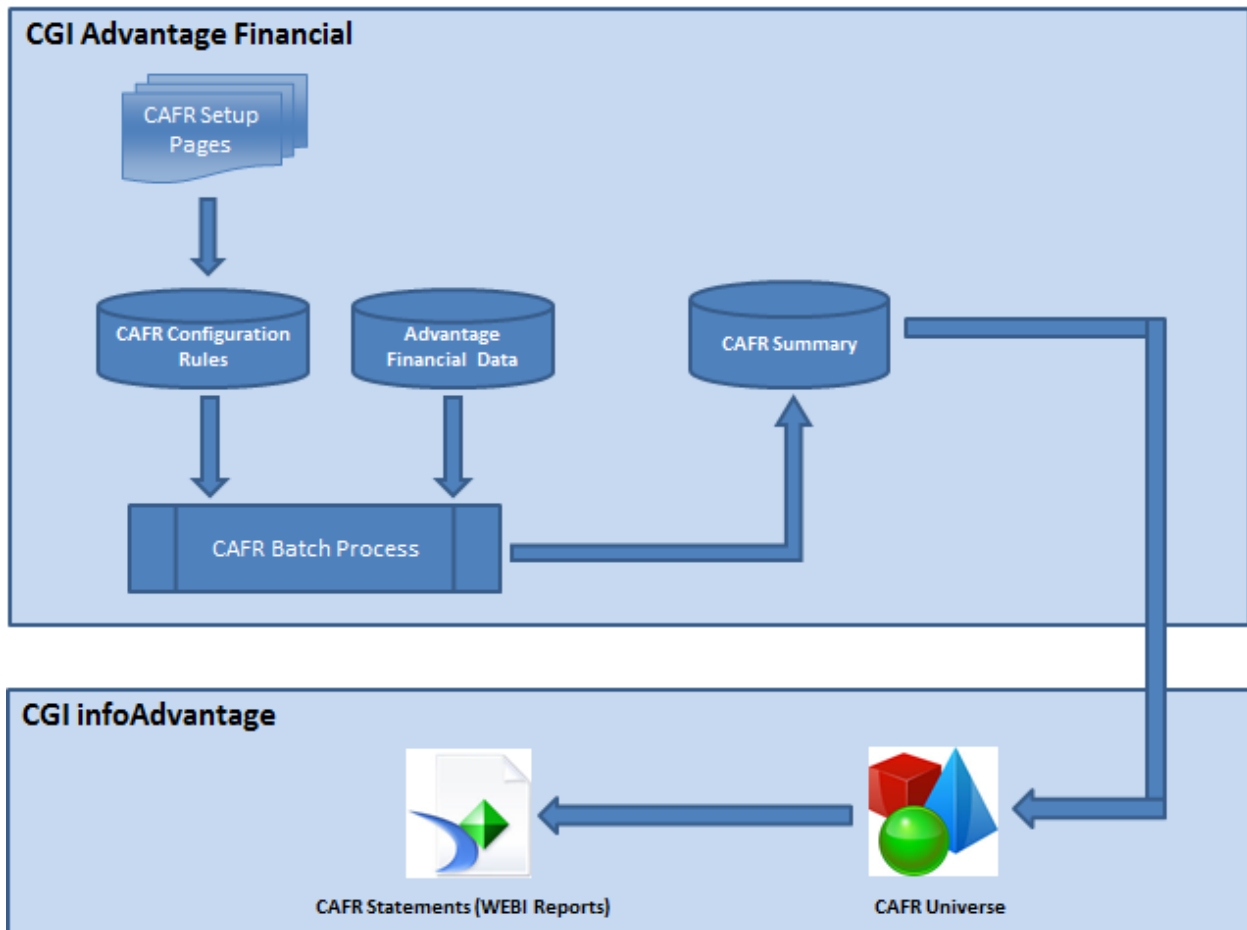
The CGI Advantage Financial CAFR module is not just for preparing CAFR statements. The module is flexible and configurable to support just about any type of statement. Users are able to define the statement, rows, and columns along with the rules for these non-CAFR statements in the same manner. A batch process then generates all types of statements.

For the sake of simplicity, references in this guide prominently feature the term CAFR, but please do not read that as 'CAFR only.'

Overview of CAFR Architecture

The CGI Advantage Financial CAFR Architecture includes:

- Advantage Financial Data
- Configuration Pages
- CAFR Process (batch)
- CAFR Summary
- CAFR Universe and Web Intelligence Reports.



A detailed description of each of the components is provided in the following topics:

- [Advantage Financial Data](#)
- [Configuration Pages](#)

- [CAFR Process](#)
- [CAFR Output](#)
- [Delivered Data and Template](#)
- [CAFR Statement Generation](#)

Advantage Financial Data

CAFR reporting primarily utilizes CGI Advantage Financial data found in one or more journals and ledgers. For financial data, the most efficient source of information is a summarized ledger instead of detail journal data. Input data can also be pulled from the Statement External Data (STMTEXT), which allows for recording financial data for component units outside of the Accounting Journal. In addition to those tables that serve to provide information into reports, there are a few tables that map out each data source to allow the configuration of the reports and consumption of that configuration when running the CAFR Process:

- [Statement Source](#)
- [Statement Source Column](#)
- [Statement Reference](#)
- [Statement Condition Group](#)
- [Statement External Data](#)

Statement Source

The following sources are included in Advantage Financial as part of Day 0 in the Statement Source (STMT_SRC_TBL) table, which does not have direct access with an online page. Additional data sources can be added directly into this table when needed. The primary fields for the table are given below. Please see the database for all fields for this and other tables without online access.

Source Table <i>(SRC TBL)</i>	Source Table Name <i>(SRC TBL NM)</i>	Data Location <i>(NS NM)</i>
STMT_EXT_DATA	Statement External Data	ADVFN
LDGR_SA_BUD	System Assurance Ledger	ADVFN
JRNL_ACTG	Accounting Journal	ADVFN
JRNL_BUD	Budget Journal	ADVFN

- **Source Table** – Each input source must be defined first to the database name of the input source table.

- **Source Table Name** – Each input source is given an outward-facing name for setup on the Statement Crosswalk (STMTXWLK) and Statement Rules & Conditions (STMTRULE) pages.
- **Data Location** – Enables the CAFR Process batch job to read either Advantage Financial (ADVFN) or infoAdvantage (INFOADV).

Statement Source Column

Data within the Statement Sources is interpreted into configuration rules through more delivered data in the Statement Source Column (STMT_SRC_COL) table, which does not have direct data access with an online page. In order to define a selection rule for a cell, the field used in the selection or the amount being selected must be defined as a Statement Source Column. The primary fields for the table are given below, with the first two for Source Table and Source Table Name being omitted as they are the same as the two columns shown on Statement Source. A small sample of records of the many delivered are given to demonstrate different settings.

Reference Table (REF TBL CD)	Column Code (COL CD)	Column (COL)	Column Name (COL NM)	Source (SRC COL FL)	Fiscal Year (FY COL FL)	APD (APD COL FL)
JAPSCD	JAPSCDCC	PSCD CLOS CL CD	Posting Closing Classification Code	0	0	0
(null)	JAPSCD	PSTNG CD ID	Posting Code	0	0	0
(null)	JAPSTNGAM	PSTNG AM	Posting Amount	1	0	0
(null)	JAFY	FY DC	Fiscal Year	0	1	0
(null)	JAAPD	PER DC	Accounting Period	0	0	1

- **Reference Table** – When a column of data in a Statement Source needs to be connected to reference data to retrieve other attributes not stored in the Statement Source, the Reference Table is used to define that connection. The next table discussed, Statement Reference, is where these values are first defined before being used on a Statement Column. The first row in the table above is connecting the Posting Code field of the Accounting Journal back to the Posting Code reference data to retrieve the Posting Code Closing Classification to simplify selection with that rollout used for Annual Close processing so that listings of individual posting codes do not have to be maintained in selection rules. Another use would be to connect back to a COA reference page to retrieve current rollups instead of those recorded historically.
- **Column Code, Column, and Column Name** – Each column of data in a Statement Source is defined by three different attributes. Column is the data attribute as defined on the database

table. Column Name is the label used online within CGI Advantage Financial. Column Code is a shortcut to define the column for efficient use by the CAFR Process batch job. Please note the naming convention used in the delivered records where the Column Code has a prefix that matches the data source: Accounting Journal (JA), Budget Journal (JB), Statement External Data (SED), and the System Assurance Ledger (LSB).

- **Source** – All amount fields must have a setting of 1 for this column so that they can be selected in the Source Column field on the Statement Rules & Conditions (STMTRULE) page. If loading data into the Statement Column table with the System Maintenance Utility, this column must be loaded as true instead of 1 as shown above.
- **Fiscal Year** – Selection from any data source must use a year for selection, which is commonly the Fiscal Year (FY or FY_DC) but can be the Budget Fiscal Year (BFY) in certain reports. If loading data into the Statement Column table with the System Maintenance Utility, this column must be loaded as true instead of 1 as shown above.
- **Accounting Period (APD)** – Selection from a data source can use Accounting Period (PER_DC) in selection as that is a common practice for isolating certain financial data that should be used in a subset of reports. If loading data into the Statement Column table with the System Maintenance Utility, this column must be loaded as true instead of 1 as shown above.

Statement Reference

When a Statement Column needs to be connected to other reference data within CGI Advantage Financial a Statement Reference record is necessary to make that connection for the CAFR Process batch job. The primary fields for the table are given below. The three below are delivered for the same connection.

Source Table (SRC TBL)	Reference Table Code (REF TBL CD)	Reference Table (REF TBL)	Reference Name (REF TBL NM)	Data Location (NS NM)	Join Clause (SQL JOIN CLAUSE)
LDGR SA BUD	LSBPSCD	R PSCD	Posting Code	ADVFN	JOIN R_PSCD LSBPSCD ON LDGR_SA_BUD.PSTNG_CD_ID = LSBPSCD.PSCD_ID
JRNL ACTG	JAPSCD	R PSCD	Posting Code	ADVFN	JOIN R_PSCD JAPSCD ON JRNL_ACTG.PSTNG_CD_ID = JAPSCD.PSCD_ID
JRNL BUD	JBPSCD	R PSCD	Posting Code	ADVFN	JOIN R_PSCD JBPSCD ON JRNL_BUD.PSTNG_CD_ID = JBPSCD.PSCD_ID

Field definitions are only for fields not introduced in earlier tables.

- **Join Clause** – In order to make the join, the CAFR Process requires a SQL statement to join the two fields.

Statement Condition Group

Although not a table that defines input sources, the Statement Condition Group is a pre-defined set of records used in complex selection rules on the Statement Rules & Conditions (STMTRULE) page. On that page each selection statement is by default joined with an 'and'. When the default is not desired, one of the condition groups must be selected. The delivered records are shown below and may not be all that are needed.

Statement Group Code (<i>STMT COND GRP CD</i>)	Parent Group Code (<i>PARENT GRP CD</i>)	Group Type (<i>GRP TYP</i>)
1	4	OR
2	1	AND
3	1	AND
4	(null)	AND

- **Condition Group Code** – Each condition group must have a unique code for identification purposes.
- **Parent Group Code** – When a combination of AND/OR condition groupings, the Parent Group Code provides the parent condition. This should be left blank when defining the Parent Group Code as a Statement Group record.
- **Group Type** – One of two choices – AND / OR – determine how the members of a group should be combined.

For example, assume the following SQL has to be formed by the process:

```
SELECT SUM (PSTNT_AM) FROM JRNL_ACTG WHERE (DEPT_CD = '010' AND FUND_CD = '010') OR (DEPT_CD = '100' AND FUND_CD = 'A')
```

These are two AND conditions combined with an OR, which is considered the parent. Therefore, OR1 would be defined as the Parent Group. Now the two ANDs are sub-conditions, combined with an AND group. Therefore, we will define two AND groups – AND1 and AND2 for the two sub-conditions with the Parent Group OR1.

Statement Group Code (<i>STMT COND GRP CD</i>)	Parent Group Code (<i>PARENT GRP CD</i>)	Group Type (<i>GRP TYP</i>)
AND1	(null)	AND
AND2	OR1	AND

OR1	AND1	OR
4	(null)	AND

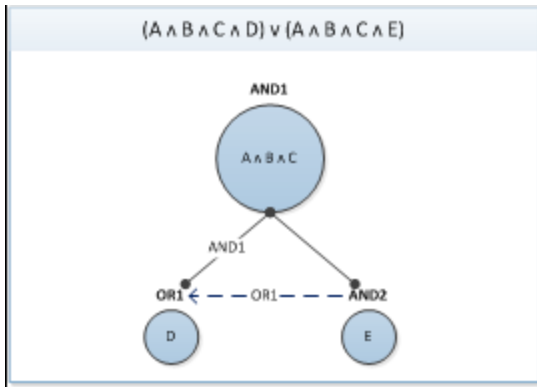
The AND1 Condition Group Code is assumed if left blank on the Statement Rules & Conditions page. For straight-forward lists of conditions, the AND1 will be most commonly used. For example, in the Asset row example, the BSA Minor CAFR Group value of 1115 is joined with the Posting Code Closing Classification of 2 (Asset value roll forward). These two lines would be separate conditions separated by an AND1 Condition Group Code. Leaving the field blank will default to that. Only when the selection criteria becomes more complicated will the use of this field become necessary. For example, if a single row were to combine a liability and an asset, each of which has a difference Posting Code Closing Classification, then the OR1 would become necessary.

To simplify the design and development process, the IN operator replaces the OR clauses when representing a group of selection values. For example, the LAND column has a WHERE clause of Fund Class = 73 OR 74. Rather than have two rows on the condition statement with an OR1 Condition Group Code separating them, using the IN operator will require one condition statement.

> More Info

Several examples of complex condition group situations are presented here as samples:

Scenario 1:

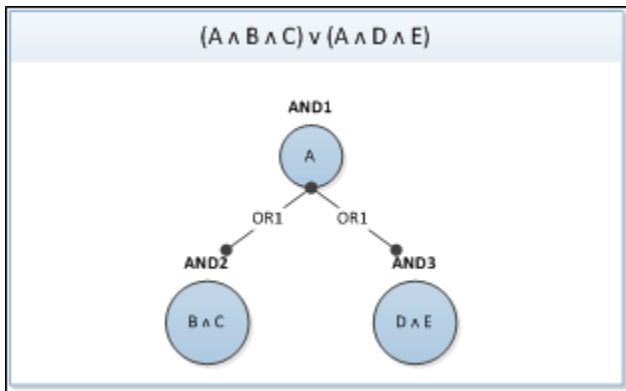


	Condition Column Code	Condition Values 1	Condition Values 2	Condition Values 3
A	JACFGRP	10,40	10,40	
B	JAPSCDCC	14,15	14,15	
C	JARSCLS	R70	R70	

D	J AFCNTAC	112, 113, 114		
E	J AFCCNTAC		112,113, 114	

	Condition Group Code	Parent Group Code	Group Type
A	AND1		AND
B	AND1		AND
C	AND		AND
D	OR1	AND1	OR
E	AND2	OR1	AND

Scenario 2:

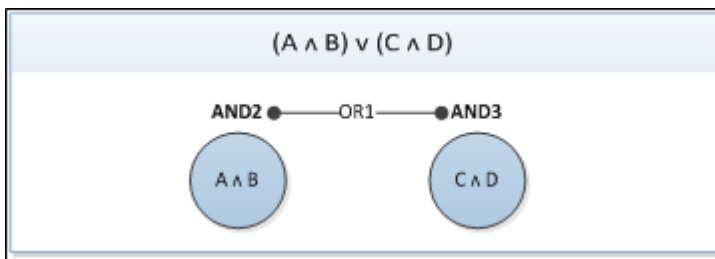


	Condition Column Code	Condition Values 1	Condition Values 2	Condition Values 3
A	JACFGRP	10,40	10,40	

B	JARSCLS	R90		
C	JAPSCDCC	14,15		
D	JAOCAT		7000	
E	JAPSCDCC		10, 11	

	Condition Group Code	Parent Group Code	Group Type
A	AND1		AND
B	AND2	OR1	AND
C	AND2	OR1	AND
D	AND3	OR1	AND
E	AND3	OR1	AND

Scenario 3:

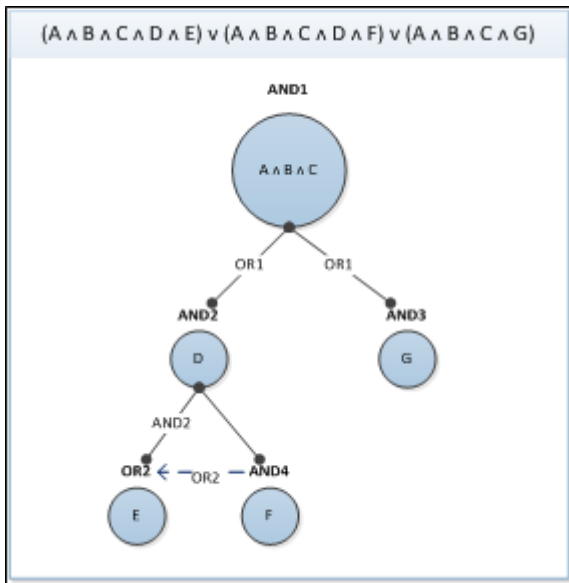


	Condition Column Code	Condition Values 1	Condition Values 2	Condition Values 3
A	JAMNCRTYP	2300		

B	JAPSCDCC	14, 15		
C	JAMNCETYP		2300	
D	JAPSCDCC		10, 11	

	Condition Group Code	Parent Group Code	Group Type
A	AND2	OR1	AND
B	AND2	OR1	AND
C	AND3	OR1	AND
D	AND3	OR1	AND

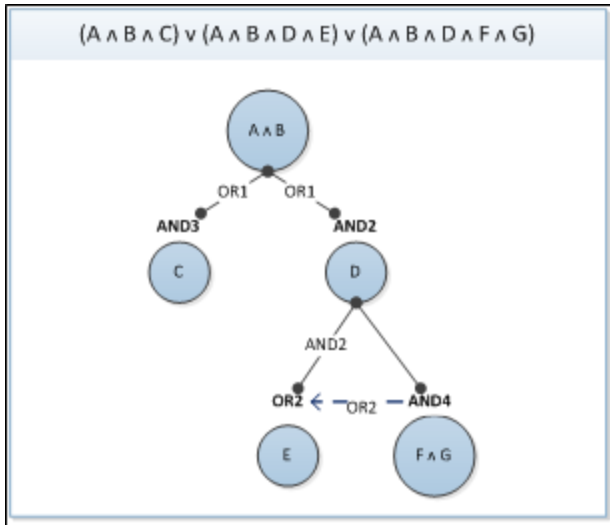
Scenario 4:



	Condition Column Code	Condition Values 1	Condition Values 2	Condition Values 3
A	JACFGRP	10, 40	10, 40	10, 40
B	JAPSCDCC	14, 15	14, 15	14, 15
C	JAAPCLS	N	N	N
D	JARSCLS		R70	R70
E	JAFCCNTAC		115, 116	
F	J AFCNTAC			115, 116
G	JARSCLS	C03		

	Condition Group Code	Parent Group Code	Group Type
A	AND1		AND
B	AND1	OR1	AND
C	AND1		AND
D	AND2	OR1	AND
E	OR2	AND2	OR
F	AND4	OR2	AND
G	AND3	OR1	AND

Scenario 5:

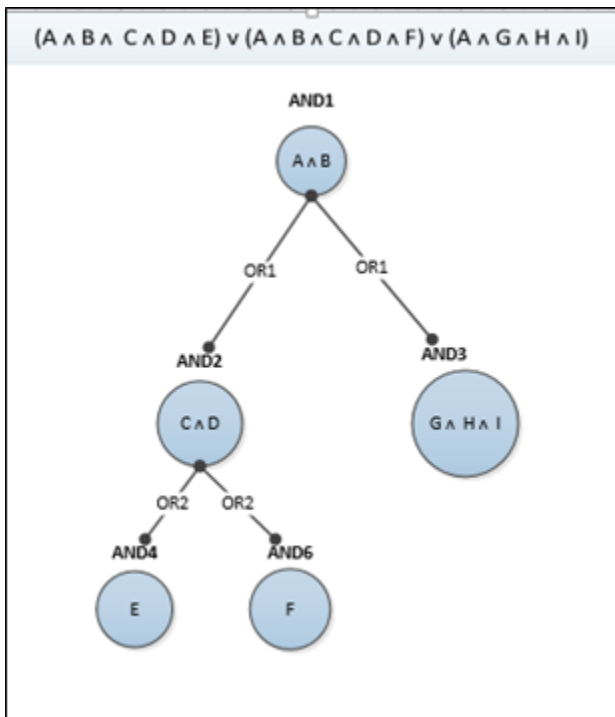


	Condition Column Code	Condition Values 1	Condition Values 2	Condition Values 3
A	JACFGRP	10, 40	10, 40	10, 40
B	JAPSCDCC	14, 15	14, 15	14, 15
C	JARSCLS	C04		
D	JAAPCLS		Y	Y
E	JARSCLS		C03	
F	JAF LX1			7000
G	JARSRC			4305, 4390

	Condition Group Code	Parent Group Code	Group Type
A	AND1		AND

B	AND1		AND
C	AND3	OR1	AND
D	AND2	OR1	AND
E	OR2	AND2	OR
F	AND4	OR2	AND
G	AND4	OR2	AND

Scenario 6:



	Condition Column Code	Condition Values 1	Condition Values 2	Condition Values 3
A	JAPSCC	3	3	3

B	JADEPT	174, 313, 331	174, 313, 331	174, 313, 331
C	JAFCNTAC	115	115	
D	JACFTYP	1020, 1030 1040, 1050 1200, 1400	1020, 1030 1040, 1050 1200, 1400	
E	JABST	3962		
F	JABSA		E110	
G	JAFGRP			1010
H	JASFUND			7777
I	JABST			3962

	Condition Group Code	Parent Group Code	Group Type
A	AND1		AND
B	AND1		AND
C	AND2	OR1	AND
D	AND2	OR1	AND
E	AND4	OR2	AND
F	AND6	OR2	AND
G	AND3	OR1	AND
H	AND3	OR1	AND

I	AND3	OR1	AND
---	------	-----	-----

Statement External Data

Unlike the other tables in this section for defining input data, this one has an online page for data maintenance and review – STMTTEXT. Data in this repository can be any type necessary for the generation of a financial or supporting statement. One common use is to record all accounting information from component units reported in a CAFR when that information is not recorded with a journal voucher. Such information only needs to be recorded at a level for selection (e.g. at a CAFR Minor BSA GROUP and CAFR Fund Type, Fiscal Year, Accounting Period, Posting Code, and Posting Amount).

The number of fields on this page is extensive, but many are common fields that can be found on the Accounting Journal. Only those fields that are unique to the page are included below.

- **External Reference ID** – Each record on the Statement External Data page must contain a unique ID in this field. Most choose to concatenate information into this ID to represent the statement, column, row and year for easy identification and searching.
- **Statistic** – When defining a Statement External Data record for use in a supporting statement where the record will provide a number other than currency, this Statistic field is used to record such information (e.g. populations, students, square miles, etc.).
- **CAFR Flex 1 to 10** – Ten fields exist to add details for record selection from the Statement External Data table when COA rollups and elements are not applicable.

Configuration Pages

Several online configuration pages are available to add, maintain, and review the configurations required to generate the output data used by reports – CAFR Summary and Crosswalk.

- [Statement Definition](#) (STMTDEF)
- [Statement Rows](#) (STMTROW)
- [Statement Columns](#) (STMTCOL)
- [Statement Cell](#) (STMTCELL)
- [Statement Rules & Conditions](#) (STMTRULE)
- [Statement Crosswalk Definition](#) (STMTXWLK)

The CAFR module includes configuration pages that help define the statement, including rows and columns, which need to be prepared. It allows establishing rules at the individual row and column level. These rules are read by the CAFR process to summarize the source data into the CAFR Ledger. The CAFR process also populates the Crosswalk Ledger that lists details for each of the summarized amounts for each statement.

The following pages need to be configured, at a minimum, for generating the statement:

Statement Definition

The Statement Definition (STMTDEF) page is the first configuration page where each report produced must be defined.

- **Fiscal Year** – Each statement is defined separately for each fiscal year to allow report details and selection criteria to vary by year with changes in reporting requirements.
- **Statement Code** – Each statement is a unique identifier, which often contains an abbreviated reference to the statement or a numbering order of statement presentation.
- **Statement Name** – The name entered here is what will be placed at the top of the generated statement. The activation of a Statement Definition record means that the CAFR Process will select the statement. Inactive records are skipped by the system process.
- **Statement Type** – A report type rollup that provides a mechanism to group particular statements established within the module. The delivered values are *Budgetary/Legal*, *CAFR*, and *Cash*. Currently, this field has no defined use other than grouping like statements together.
- **Description** – Each Statement Definition record can contain an optional description for informational purposes to include any desired type of information. This information does not appear in the report unless configured to do so.
- **Enable Crosswalk** – When a crosswalk of selected records to cell is desired, this indication is set to *true*. This will trigger the CAFR Process to populate the Statement Crosswalk table to support the drill down feature that will be enabled on each amount in a row where the Row Type is set to *Detail*. When set to *False*, the Statement Crosswalk is not populated for the particular statement.
- **Run Now** – When you have a set of active Statement Definitions but want to run only one of them, set the Run Now indication to *true*. There should never be more than one record with this indication set to *True* or the CAFR Process will fail.
- **Last Refresh Date** – When a Statement Definition record is processed in the CAFR Process, the time and date stamp of when that processing occurred is recorded. This information will allow you to determine if any changes to configuration or accounting adjustments made are reflected in a statement.

Related page choices allow you to navigate to Statement Row, Column, Cells and Crosswalk records defined for a selected Statement Definition Fiscal Year and Statement Code combination.

Statement Rows

The Statement Rows (STMTRROW) page is the second of two completed after a statement is defined before defining cell details. On this page, the Rows within a report are defined along with other details that control report generation. Any fields already defined on an earlier configuration page are omitted.

- **Statement Row** – Each row within a report has to be defined with a unique identifier. It is common to re-use the same row identification across reports when the selection criteria for the rows are identical. This will allow future changes to be made easier and more accurately.
- **Row Title** – The title entered here is what will be placed on the report. This can include any note statement or reference to a supporting schedule.
- **Row Level** – The indenting of rows within a report is controlled by the Row Level assigned.

- **Row Type** – Rows are defined as one of four types:
 - *Formula* – This type of row will contain cells that are not selection cells but ones that contain a formula of cells above the row in most likely a summary statement, but other types also exist. The cells in this row will not enable the drill down to crosswalk data.
 - *Label* – This type of row is used only for report organization.
 - *Detail* – This type of row will contain selection rules and will reflect the drill down capability if the crosswalk feature is enabled.
 - *Not Applicable* – This type of row is for organization of configuration data and will not appear in the generated report.
- **Sequence No** – All rows within a report must have a defined order for presentation. It is recommended that values should be entered in intervals of 10 (for example, 10, 20, 30, and so forth) so that it provides flexibility if a row needs to be added later in between two existing rows.

Statement Columns

The Statement Columns (STMTCOL) page is one of two completed after a statement is defined before defining cell details. On this page, the columns within a report are defined along with other details that control report generation. Any fields already defined on an earlier configuration page are omitted.

- **Statement Column** – Each column within a report has to be defined with a unique identifier. It is common to re-use the same column identification across reports when the selection criteria for the columns are identical. This will allow future changes to be made easier and more accurately.
- **Column Title** – The title entered here is what will be placed in the column header section of the report.
- **Column Group 1-5** – When a report requires stacking or grouping of columns for formatting purposes, the use of one or more column group fields will be used; otherwise, these fields are left blank. For example, on Statement of Net Assets, both Government-Type Activities and Business-Type Activities have Primary Government as a group.
- **Column Type** – Columns are defined as one of two types: *Not Applicable* or *Formula*. *Not Applicable* is the most common type as it represents columns that will contain summarized amounts from an input source. *Formula* is used to define a column that summarizes data from two or more columns or performs a mathematical calculation on data in a previous column (e.g. spending per student).

Furthermore, when building crosswalk information for a statement, only amounts within a column where the Column Type is *Not Applicable* will have the drill down feature enabled.

- **Column Sequence No** – All columns within a report must have a defined order for presentation. It is recommended that values should be entered in intervals of 10 (for example, 10, 20, 30, and so forth) so that it provides flexibility if a column needs to be added later in between two existing columns.

Statement Cell

The Statement Cell (STMTCELL) page defines each intersection of column and row with the Row Type of *Formula* or *Detail*. Any fields already defined on an earlier configuration page are omitted.

- **Statement Cell** – The system generates the Statement Cell by combining the Statement Row and Statement Column fields. In all cases except with the special wildcard value of ALL, the Statement Row and Statement Column values must already exist on the respective configuration page. The special value of ALL is used when later selection rules on the Statement Rules & Condition record for the Statement Cell will be the same for all rows in a column or all columns of a row.
- **Cell Expression** – Use of the Cell Expression field is not made by every Statement Cell. Those cells with ALL in the Statement Column or Statement Row will not use the field. Those cells where the Row Type or Column Type is *Formula* will use the field to define that formula (e.g. COLUMN1:ROW1 + COLUMN2:ROW2). Those cells where the Row Type is *Detail*, the Column Type is *Not Applicable*, and ALL is not used can have a variety of values for Cell Expression:
 - \$100 – This is known as a ‘plug’ so that \$100 will appear in the cell. Likewise -\$100 would appear as negative one hundred dollars.
 - DEFAULT -- (Special syntax stored to reference Statement Cell defined using ALL wildcard)
 - -\$1 * DEFAULT – Expression to make credit amounts appear as positives.)
 - DEFAULT + \$1000 – Combination of a plug and using the default selection. For example, Statement Cell would have a row level rule for the CASH row defined as ALL:CASH. If we want to add \$1,000 for the BUSACT:CASH cell, we can enter the unique Statement Column and Statement Row combination (BUSACT:CASH) and reference the ALL:CASH row as DEFAULT. The Cell Expression would be defined as DEFAULT + \$1,000.

Special rules for Cell Expression

- The Dollar (\$) sign should be included for all amounts entered.
- The Dollar (\$) sign should not be included if referencing any numerical Rule Code on the Statement Rules & Conditions page.
- The Cell Expression for a Total column should use the actual Statement Cell rather than the wildcard syntax. For example, the Statement of Net Assets Cash row can be defined at the row level as ALL:CASH. However, when entering the Cell Expression for the cell Total:Cash, the Cell Expression should be defined using the actual Statement Cell combination, for example, GOVTYP:CASH + BUSTYP:CASH.
- Cells storing Total (vertically or horizontally) should not be defined using a wildcard and should be defined as real cell.

Statement Rules & Conditions

The Statement Rules & Conditions (STMTRULE) page helps to define what input source is used, what amount on that input source is being selected, and what is the selection rules used. The rules and conditions defined on this page are used on the Statement Cell page to define a particular cell expression. Any fields already defined on an earlier configuration page are omitted.

- **Rule Code** – Each rule defined for a given cell must be assigned an unique identifier for identification.
- **Source Table** – The data source from which records will be selected. This value is established on the Statement Source table described earlier.

- **Source Column** – The amount field used in the selected Statement Source. Amount fields are defined on the Statement Column with the Source column setting of 1 (*true*).
- **Custom SQL** – Record selection for a cell can be expressed as a SQL statement if desired as an alternative to using the condition statements. If entered, the SQL should be correctly formulated so that it can be read by the implemented server/database. If not done so, the CAFR process may fail and the value may not be calculated. Furthermore, any SQL entered takes precedence over conditions within a particular rule.
- **Condition Code** – When using condition statements, each must be assigned a unique condition code for identification is the user-defined unique identifier for each condition defined for a particular rule.
- **Condition Column Code** – Each condition statement requires a column code defined on the Statement Column table discussed earlier. This identifies the data field column (for example, BSA, Object, and so forth) on the source.
- **Condition Operator** – Each condition statement requires an operator to evaluate the Condition Value in the Condition Column. Valid values are *Equal to (=)*, *Not Equal to (<>)*, *In List*, *Not In List*, and *Like*. When using the Condition Operators *In List* or *Not In List*, values in the Condition Value field should be entered separated by a comma (.). Double-quotes (") and Parentheses () are not required as the CAFR process enters them automatically.
- **Condition Value** – Each condition statement requires at least 1 value (for example, Object = "1100"). A number of special features are enabled for this field. A value of NULL can be used with the = operator to select where a column is blank or with <> for where a column is not blank. The % symbol can be entered to wildcard all values after a set number (e.g. 11% will select 1100 to 1199).
- **Group Code** – Each condition statement is connected with an implied AND condition. When that is not the desired condition, a Condition Group is selected to supply an OR or any combination of AND and OR defined.

Statement Crosswalk

The Statement Crosswalk (STMTXWLK) page supports defining a crosswalk to the CAFR Summary table, which can be utilized for either an audit trail or drill-down capability. The CAFR process generates the CAFR Crosswalk, which provides a listing of each record included in a particular statement cell value, summarized by the configuration outlined on the Statement Crosswalk page. You define the columns (for example, Object, BSA, Transaction ID, and so forth.) on which the data should be summarized in the crosswalk report for each statement. For example, the Statement Crosswalk has an entry for Statement of Net Assets to summarize as follows:

- Statement Code: SNA
- Statement Name: Statement of Net Assets
- Source Table: JRNL_ACTG (Journal Accounting)
- Summary Column 1: DEPT_CD (Department Code)
- Summary Column 2: FUND_CD (Fund Code)

The CAFR process generates the Crosswalk Ledger for Statement of Net Assets and summarizes the statement cell value \$900,000 (calculated using rule defined on Statement Rules & Conditions page) based on the configuration defined below.

STMT CD	SRC TBL	SMRY COL VAL 1	SMRY COL VAL 2	SRC COL VAL
SNA	JRNL ACTG	010	100	100,000
SNA	JRNL ACTG	010	200	300,000
SNA	JRNL ACTG	010	300	500,000

Note that for a particular statement if multiple source tables are used, each source table should be added to Statement Crosswalk page with appropriate summarization for the CAFR process to correctly populate the CAFR Crosswalk. Any fields already defined on an earlier configuration page are omitted.

- **Statement Source** – Each crosswalk record requires what data source is being used for selection. Value values are defined on the Statement Source table defined earlier.
- **Summary Column 1-20** – A crosswalk record requires at least one and often two or more values from the Statement Column table (defined earlier) to identify selected records. All columns used to define selection rules on the Statement Rules & Conditions page for a report should be listed in the crosswalk.

CAFR Process

The CAFR module includes a batch job in the General Accounting sub folder of Batch Jobs called the CAFR Process, which summarizes the source data based on the rules established into the CAFR Summary and the Statement Crosswalk tables.

CAFR Output

The CAFR Process will create up to two different data sources of information for reports to consume along with configuration setup:

- [CAFR Summary](#)
- [CAFR Crosswalk](#)

CAFR Summary

The primary output from the CAFR Process is the Statement Summary (STMT_SMRY) table, which does not have direct access with an online page. Data on this table is consumed by the individual reports in infoAdvantage to get the amounts for each cell. A sample record is shown below. Only the primary fields for the table are given below. Please see the database for all fields for this and other tables without online access. Any fields already defined on an earlier configuration page are omitted from the field helps given after the sample.

Record Number (REC NO)	Year (STMT FY)	Code (STMT CD)	Cell (STMT CELL)	Row (STMT ROW)	Column (STMT COL)	APD (APD)	Cell Value (CELL VALUE)	Cell Status Message (CELL STATUS MESG)
1635	2018	EXH057	OU:FRC50	FRC50	OU	0	1120.00	(null)

- **Record Number** – Each record is assigned a unique record number for identification purposes.
- **Cell Value** – The sum of selected records or the result of a formula cell is stored as the Cell Value for the report consume.
- **Cell Status Message** – When the CAFR Process is unable to interpret the selection criteria or formula so that neither can be determined, the process updates the Cell Status Message with a reason of why the calculation failed. This information is also written into the online job log for review.

CAFR Crosswalk

An optional secondary output from the CAFR Process is the Statement Crosswalk (STMT_XWLK) table, which does not have direct access with an online page. Data on this table is consumed by the Statement Crosswalk Report in infoAdvantage that opens when a report cell has a hyperlinked amount. A sample record is shown below with only the primary fields and not all twenty available criteria. Please see the database for all fields for this and other tables without online access. Any fields already defined on an earlier configuration page are omitted from the field helps given after the sample.

Record Number (REC NO)	Year (STMT FY)	Code (STMT CD)	Cell (STMT CELL)	Row (STMT ROW)	Column (STMT COL)	Rule (RULE CD)	Source Table (SRC TBL)	APD (APD)
1635	2018	EXH057	OU:FRC50	FRC50	OU	RL01	LDGR SA BUD	13

Source Column Value (SRC COC VALUE)	Summary Column (SMRY COL VAL 1)	Summary Column 2 (SMRY COL VAL 2)	Summary Column 3 (SMRY COL VAL 3)
174126000.00	GOV	010	10

- **Record Number** – Each record is assigned a unique record number for identification purposes.

- **Source Column Value** – The sum of the Source Column from the Statement Rule & Condition record from the selected record(s) on the Source Table.

Delivered Data and Template

The CGI Advantage Financial CAFR Module is delivered with pre-configured templates and data that serve as a sample data setup for your preparation of CAFR statements. As no two sites report in an identical fashion nor do two sites use the same selection criteria, these delivered reports are just samples. You will certainly build each of your reports from scratch.

The nine pre-configured statements include:

- Statement of Net Assets
- Statement of Activities
- Statement of Balance Sheet – Government Funds
- Statement of Revenues, Expenditures, and Changes in Fund Balances – Government Funds
- Statement of Net Assets – Proprietary Funds
- Statement of Revenues, Expenditures, and Changes in Fund Balances – Proprietary Funds
- Statement of Net Assets – Fiduciary Funds
- Statement of Changes in Net Assets – Fiduciary Funds
- Statement of Revenues, Expenditures, and Changes in Fund Balances – Budget Vs Actual

CAFR Statement Generation

The CAFR module was developed knowing that there are fundamentally different types of Advantage sites and even within a given type, no two prepare their annual statements the same way. Each site would require mapping a different set of Chart of Accounts (COA) elements to individual statements. Therefore, flexibility and configurability is a key part of the CGI Advantage CAFR solution.

The CAFR process is executed to populate the CAFR Summary after the configuration pages are set up. Once the data is available in the CAFR Summary, the CAFR statement can be generated.

CAFR configuration rules setup and the CAFR Process batch job are not dependent on infoAdvantage, so not using infoAdvantage, you configure and run the CAFR Process and use any other reporting tool they may have to generate the CAFR statements.

> More Info

Queries used for the infoAdvantage CAFR statements are very generic, the below SQL is used in all 9 CAFR statements just by changing the filter condition. This SQL will give each row and column combination in a CAFR statement as a separate record. The Cross Tab reporting feature can be used to display them as Rows and Columns in the report.

```

SELECT

    STMT_DEF.STMT_NM, STMT_ROW.ROW_TITLE, STMT_ROW.ROW_LEVEL,
    STMT_ROW.ROW_TYPE, STMT_ROW.SEQ_NO, STMT_COLUMN.COL_TITLE,
    STMT_COLUMN.COL_GRP_1, STMT_COLUMN.COL_GRP_2,
    STMT_COLUMN.COL_GRP_3,

    STMT_COLUMN.COL_GRP_4, STMT_COLUMN.COL_GRP_5,
    STMT_COLUMN.COL_TYPE, STMT_COLUMN.SEQ_NO,

    STMT_SMRY.STMT_CELL, STMT_SMRY.CELL_STATUS_MESG,

    CASE STMT_SMRY.CELL_STATUS WHEN 1 THEN 'Error' WHEN 0 THEN 'Valid'
    END, STMT_SMRY.CELL_VALUE, STMT_SMRY.STMT_CD

FROM

    STMT_COLUMN INNER JOIN STMT_SMRY ON
    (STMT_COLUMN.STMT_COL=STMT_SMRY.STMT_COL

    AND STMT_COLUMN.STMT_CD=STMT_SMRY.STMT_CD AND
    STMT_COLUMN.STMT_FY=STMT_SMRY.STMT_FY)

    INNER JOIN STMT_ROW ON (STMT_ROW.STMT_ROW=STMT_SMRY.STMT_ROW

    AND STMT_ROW.STMT_CD=STMT_SMRY.STMT_CD AND
    STMT_ROW.STMT_FY=STMT_SMRY.STMT_FY)

    INNER JOIN STMT_DEF ON (STMT_DEF.STMT_FY=STMT_SMRY.STMT_FY AND
    STMT_DEF.STMT_CD=STMT_SMRY.STMT_CD)

WHERE

    STMT_SMRY.STMT_CD = <CAFR Statement Code> AND ( STMT_SMRY.APD <= 99
    OR STMT_SMRY.APD Is Null )

    AND STMT_SMRY.STMT_FY = <Fiscal Year>
    
```

Common Business Routines

CAFR Statement configuration and generation can be a complex process. This area of the guide runs through a few of the Common Business Routines/Scenarios.

- [Updating CAFR Pages Using Spreadsheets](#)
- [Creating a YTD Quarterly Preliminary CAFR](#)
- [Creating an Annual CAFR Statement](#)
- [Creating a CAFR Statement Pulling in External Data](#)
- [Correcting CAFR Data Issues](#)
- [Reconciling a CAFR Statement](#)
- [Executing CAFR Process](#)
- [Populating New Year CAFR Data](#)

After reviewing these topics, you should understand how to:

- Generate Interim CAFR Statements
- Address issues with Configuration spreadsheet

Updating CAFR Pages Using Spreadsheets

The CGI Advantage Financial CAFR Module is delivered with CAFR setup excel spreadsheets. These spreadsheets can be updated with details of the statement and can be loaded using the SysManUtil batch job. If stored, these spreadsheets can be reused to update an existing statement record. However, online pages were developed to help maintain the CAFR statements once established.

Of note, when loading the Statement Cell (STMT_CELL) data, the column for Cell Expression (CELL_EXP) must be blank when the data is initially loaded with the *Table Insert*. Then after loading the Statement Rules & Conditions (STMT_RULE) data, a second load of Statement Cell data should be done with Cell Expression data as *Table Update*.

The CAFR mapping spreadsheets are within the Conversion folder included in the Advantage Development toolkit installation.

Creating a YTD Quarterly Preliminary CAFR

The following depicts the steps to create preliminary Annual CAFR Statements after the first quarter in the Fiscal Year is complete. The steps herein assume that Accounting Period exists in all input data sources.

If only in a subset of input data, then reports will contain a mixture of APD 0 to 3 data as well as inception-to-date data (e.g. Budget Journal with APD and the System Assurance Ledger without).

1. A CAFR analyst reviews and makes any necessary updates the CAFR configuration data for the new fiscal year that was created by the New Year Table Initialization system process based on the prior year's data. Any plugs from the prior year are removed from the Cell Expression field.

There is likely no component unit data to load to the Statement External Data page at this point, but if there were, it would be loaded before running any reports.

2. The CAFR process is executed that reads the CAFR Configuration tables and update the CAFR Summary table.
3. The CAFR analyst can then run the CAFR Reports, which reads the summary results directly off of the CAFR Summary table entering accounting period 3 in the input prompts along with the current fiscal year.

Note: Creating a YTD Quarterly Preliminary CAFR Statement is no different than creating an Annual CAFR Statement. You can develop any statement and run it as needed and do not have to wait until the year end.

Creating an Annual CAFR Statement

The following depicts the steps to create the Annual CAFR Statements:

1. The steps are the same as the “[Creating a YTD Quarterly Preliminary CAFR](#)” task but the report input prompt entered is 98 as to not select any entries from the Annual Close process.

Creating a CAFR Statement Pulling in External Data

The following depicts the steps to incorporate external data into an existing CAFR Statement:

1. The steps are the same as the “[Creating a YTD Quarterly Preliminary CAFR](#)” task with the additional step where the CAFR analyst updates the Advantage Financial CAFR External Data page directly, if the data set is small, or through a spreadsheet upload if the data set is large.

Correcting CAFR Data Issues

The following depicts the steps to correct an issue with the Annual CAFR Statement when the rules on the CAFR Mapping Spreadsheet are correct but data in an input source is incorrect:

1. If using a journal, such as the Budget Journal as input, that has an incorrect balance: submit the correcting budget transaction(s) to final, execute the CAFR Process again, and run the report again.
2. If using a ledger, such as the Systems Assurance Ledger as input, that has an incorrect balance: submit the correcting accounting transaction(s) to final, execute the Ledger Engine, execute the CAFR Process again, and run the report again.
3. If reference data such as a current rollup on a COA reference page is incorrect, save an update to the reference record, execute the CAFR Process again, and run the report again.
4. If using the Statement External Data as input and there is an incorrect balance, there: update the existing record or add the missing record as needed. Then execute the CAFR Process again and run the report again.

Reconciling a CAFR Statement

The following depicts the steps to verify the CAFR Statement to the financial application:

1. Assume that the Annual CAFR steps are complete.
2. The CAFR Report does not look correct and therefore the CAFR analyst wants to verify the calculations performed.
3. The CAFR analyst clicks on the summary amount. This should open the Crosswalk Report.
4. The CAFR analyst verifies the details for the summarized amount back to a query or report against the input source using the selection criteria.

Executing CAFR Process

Running the CAFR Process batch job requires security access to the batch job and the Statement tables. The batch program comes with a set of defaults for each parameter. If you find performance of the job is not adequate, then a review of the run sheet should be done to see if parameters can be adjusted to give better performance.

Populating New Year CAFR Data

The New Year Table Initialization (NYTI) batch job (Utilities / Chain Jobs) in Advantage Financial is used to populate New Year CAFR Data. The tables are Statement Cell (STMT_CELL), Statement Row (STMT_ROW), Statement Definition (STMT_DEF), Statement Column (STMT_COLUMN), Statement Rule (STMT_RULE), and Statement Condition (STMT_CONDITION). The Statement Cell table is processed twice. The first is an insert of all data except the Cell Expression (CELL_EXP) field with the second being an update after the Statement Rule table is populated. In the second pass the Cell Expression (CELL_EXP) field is updated just as if the Table Overlay parameter was set to *True*. Because of this 'double pass', you will see the Statement Cell table listed twice in the parameter file.