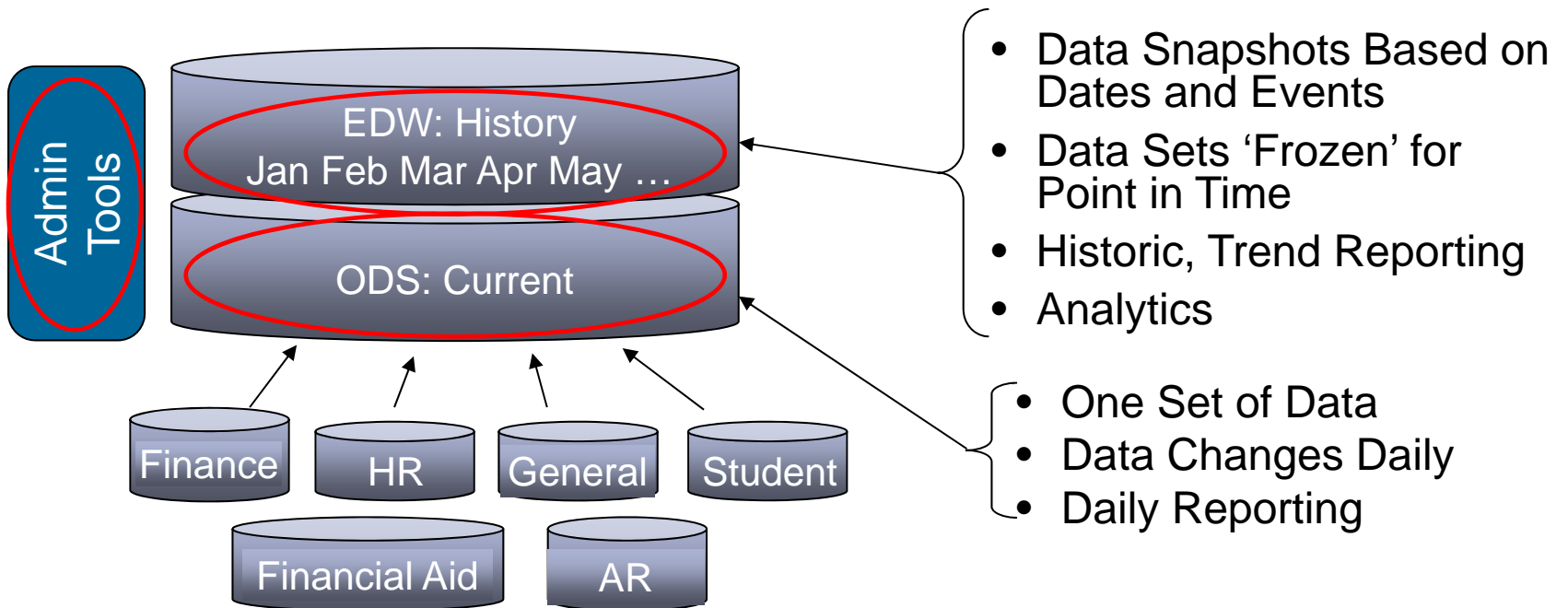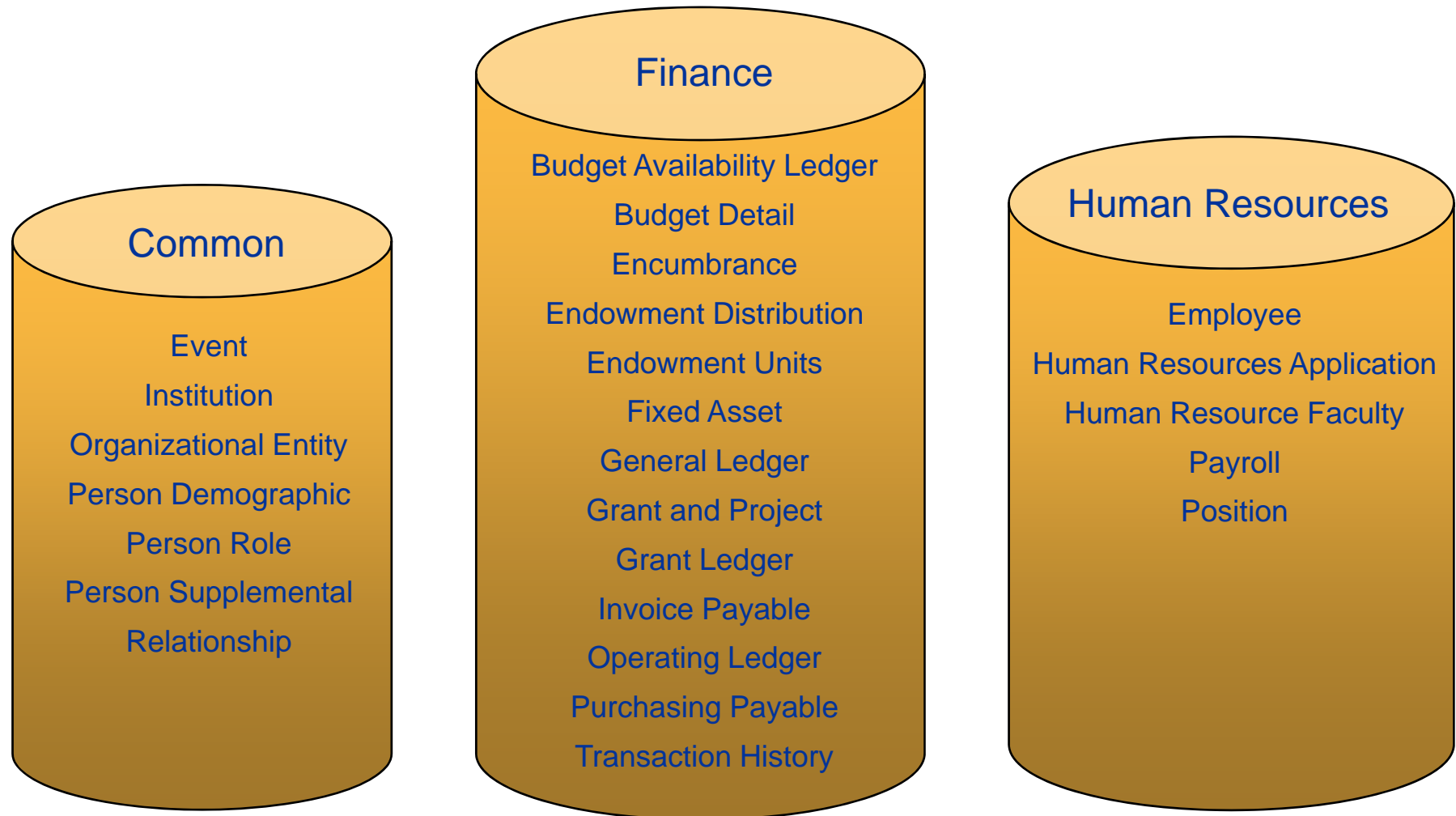# Banner ODS Overview

Banner ODS Overview

- Opportunity for More Consistent Reporting Results.
  - Common Data Source
  - Common Business Concepts
- Banner Operational Data Store (ODS): Ad-hoc querying and daily reporting.
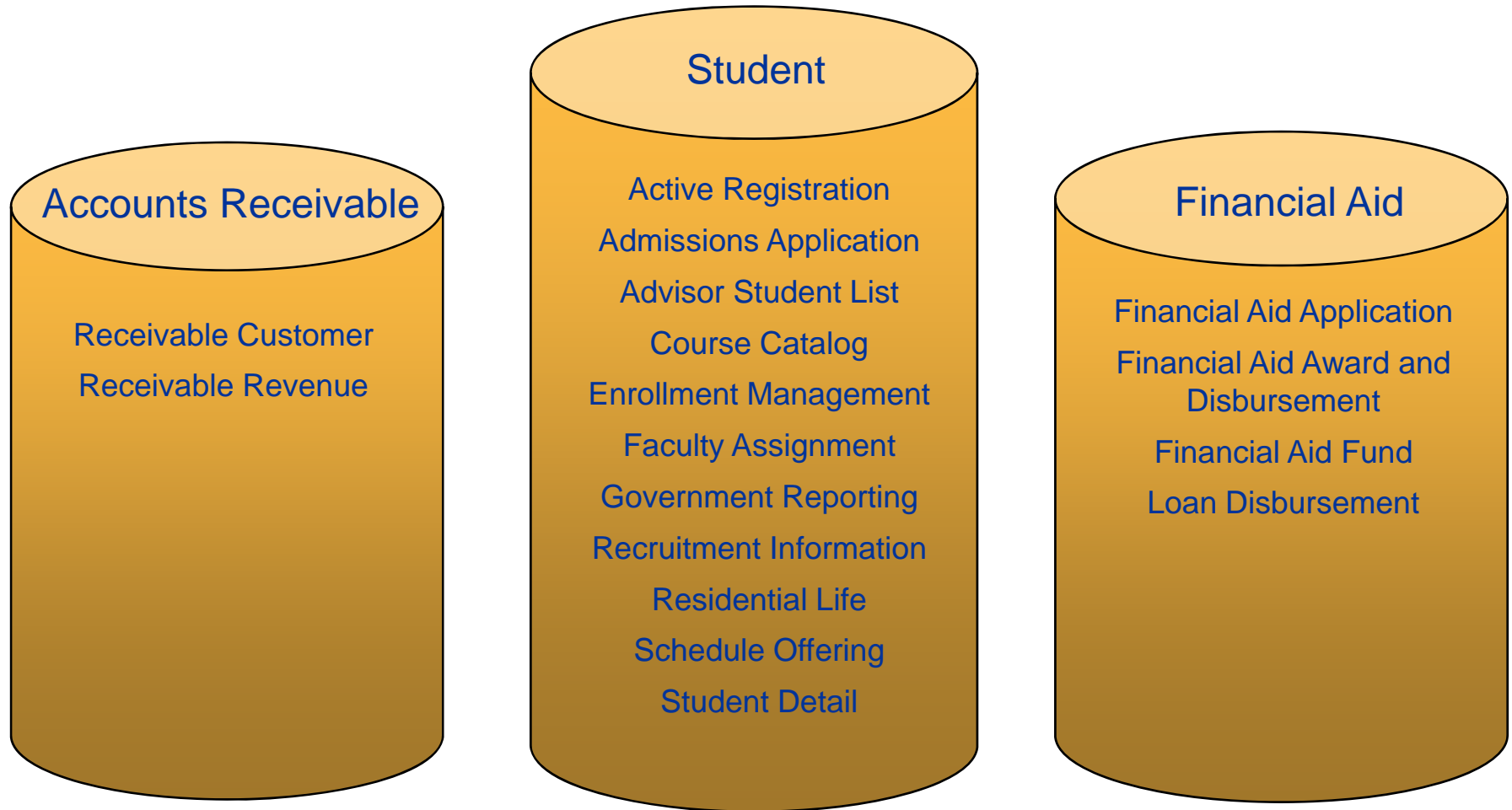- Enterprise Data Warehouse: Historic, trend reporting and analytics.

Admin Tools

EDW: History
Jan Feb Mar Apr May …

ODS: Current

Finance   HR   General   Student

Financial Aid   AR

- Data Snapshots Based on Dates and Events
- Data Sets 'Frozen' for Point in Time
- Historic, Trend Reporting
- Analytics

- One Set of Data
- Data Changes Daily
- Daily Reporting

Banner ODS Overview
Business Concepts

Common

Event

Institution

Organizational Entity

Person Demographic

Person Role

Person Supplemental

Relationship

Finance

Budget Availability Ledger

Budget Detail

Encumbrance

Endowment Distribution

Endowment Units

Fixed Asset

General Ledger

Grant and Project

Grant Ledger

Invoice Payable

Operating Ledger

Purchasing Payable

Transaction History

Human Resources

Employee

Human Resources Application

Human Resource Faculty

Payroll

Position

Banner ODS Overview

Business Concepts

Accounts Receivable

Receivable Customer

Receivable Revenue

Student

Active Registration

Admissions Application

Advisor Student List

Course Catalog

Enrollment Management

Faculty Assignment

Government Reporting

Recruitment Information

Residential Life

Schedule Offering

Student Detail

Financial Aid

Financial Aid Application

Financial Aid Award and Disbursement

Financial Aid Fund

Loan Disbursement

Business Concept Diagrams

Business Concept Diagram Relationships
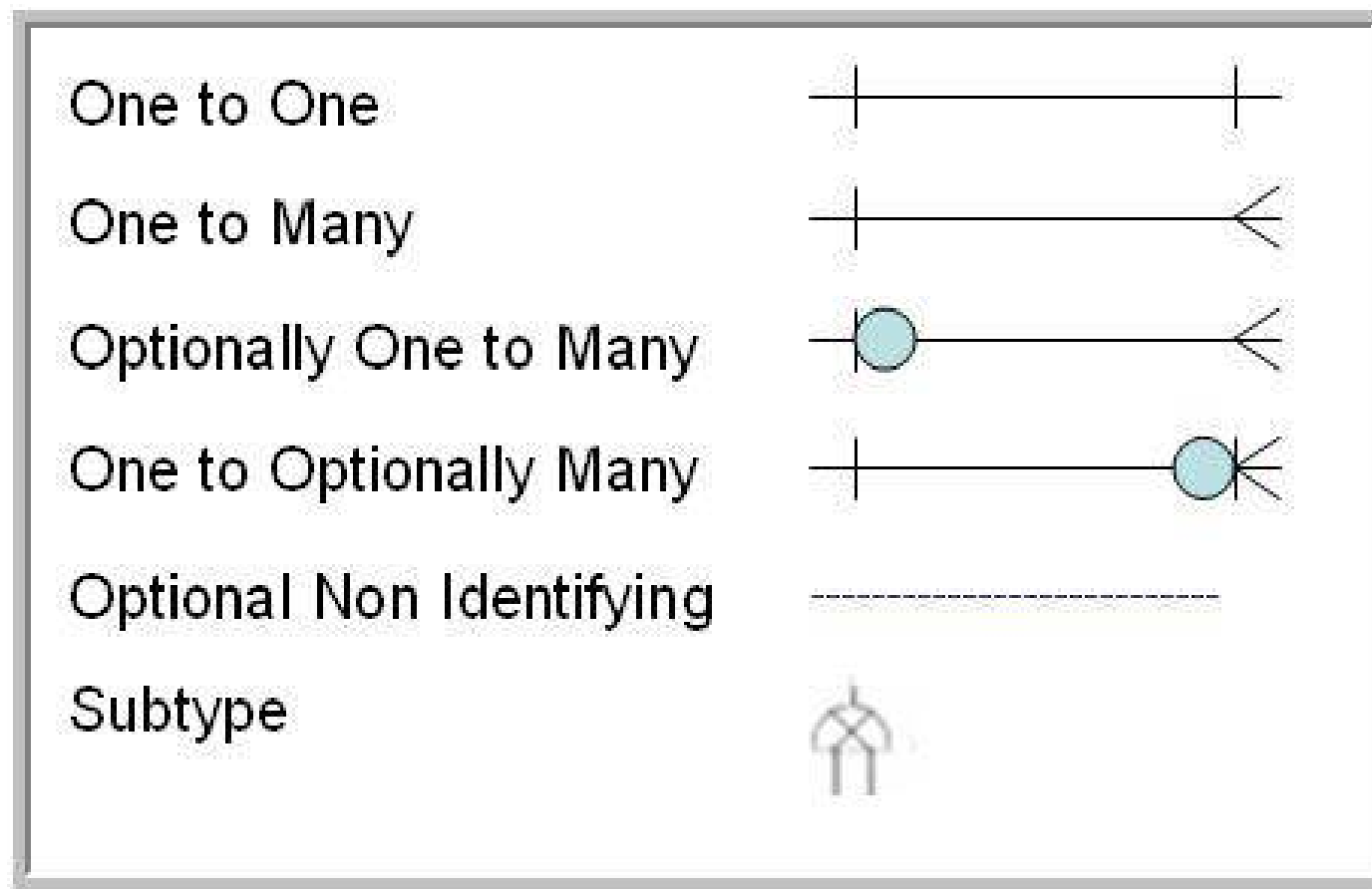
Primary Key (PK) and Foreign Key (FK)

Primary Key

- A column or columns that uniquely identify a row or rows in a reporting view.

Foreign Key

- Identifies the row or rows that are common between reporting views.

Business Concept Diagrams
Accounts Receivable

Receivable Customer
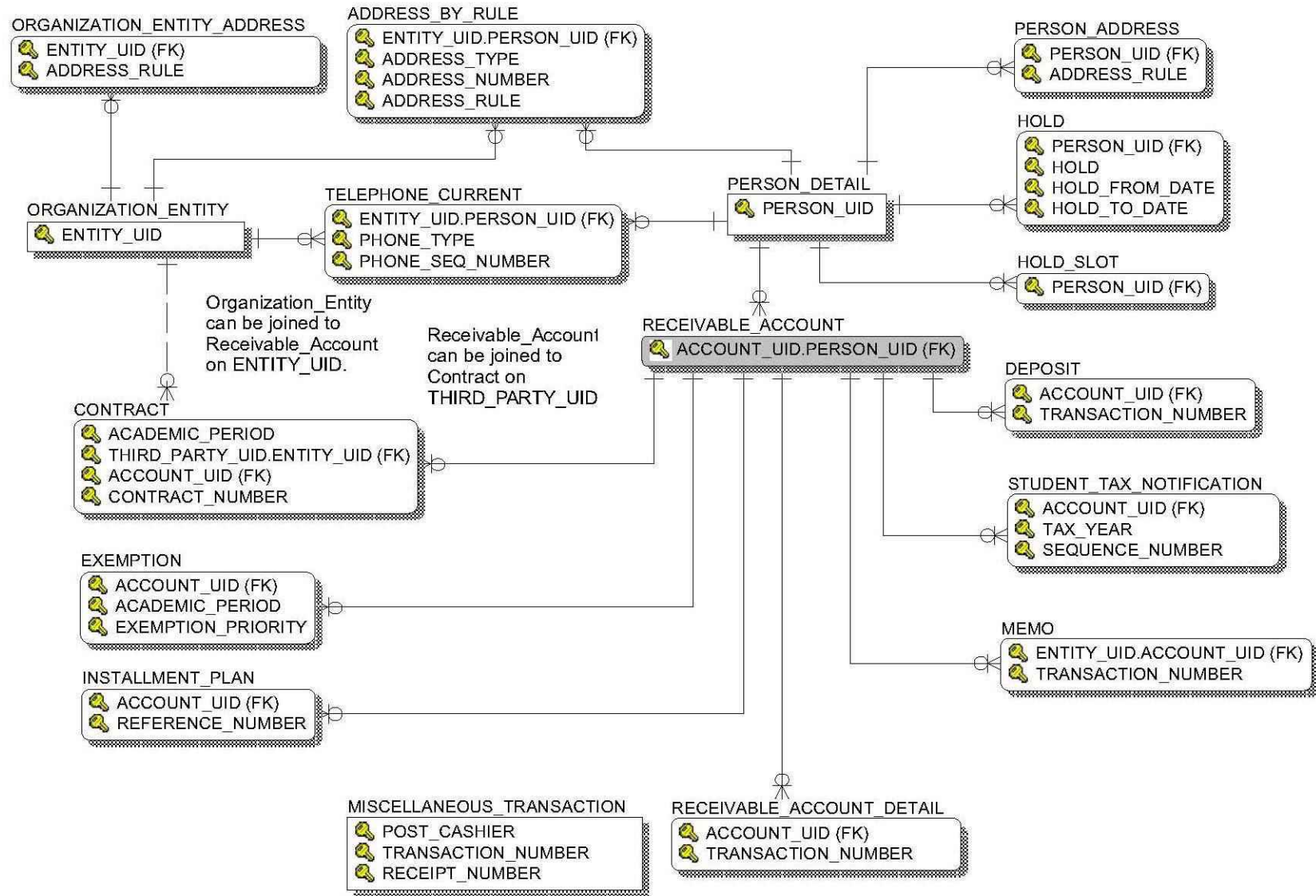
Content and Uses

Receivable Customer

Content

- Primarily used to show account information for student and nonstudent charges, payments, memo transactions, deposits, exemptions, third party contracts and installment plan information.

Uses

- To report on summary information for all accounts receivable charges and/or payments either by entity or detail code.

- To report detail transaction information for all accounts receivable charges and/or payments either by entity or detail code.

- To report on third party contracts and exemptions.

- To report on entity holds for accounts receivable reasons.

Primary Data Sources

- TBRCOLC, TBBCPRF, TBBACCT, TBRACCD, TBRDEPO, TBRMEMO

Receivable Revenue
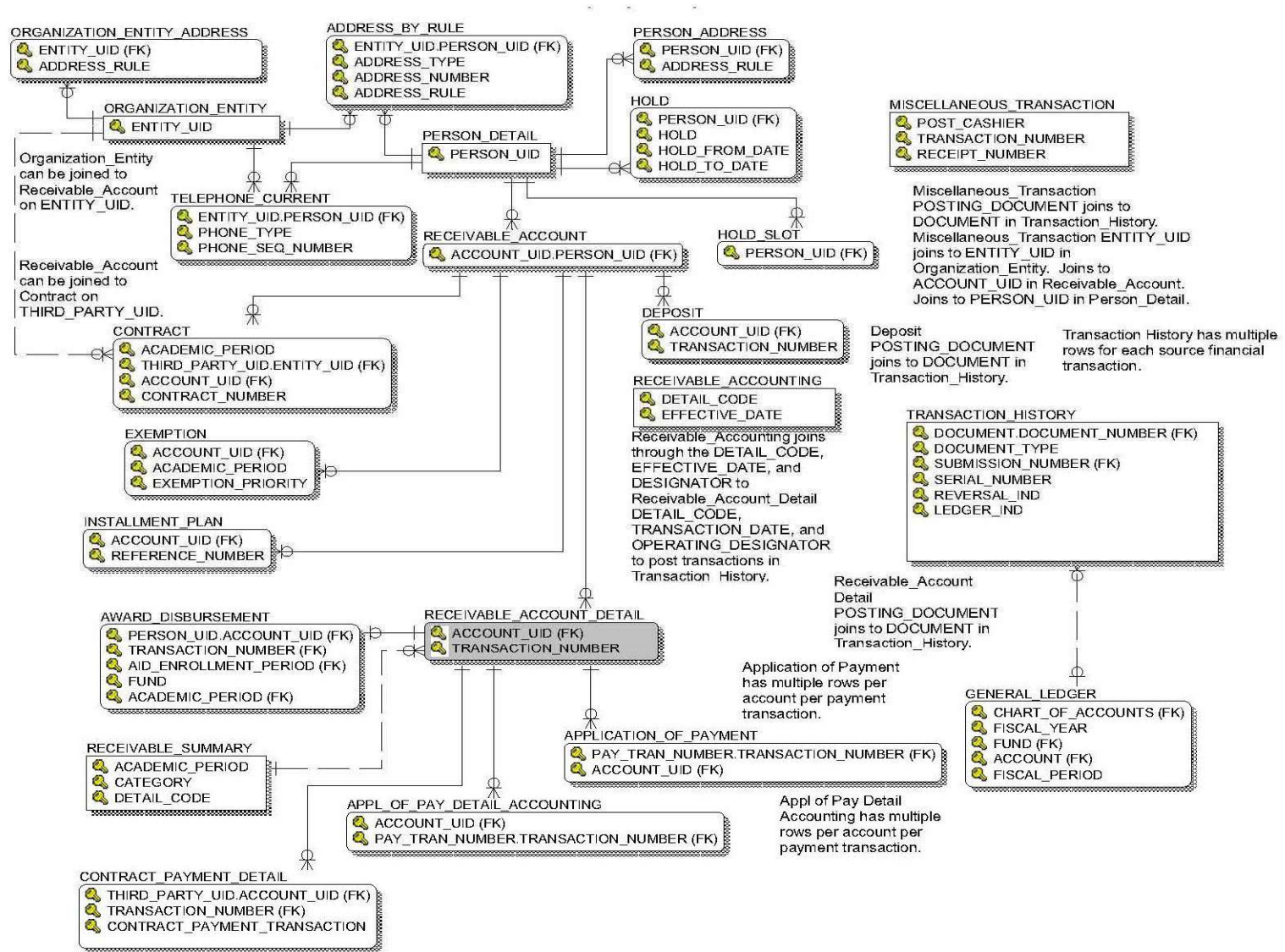
Content and Uses

Receivable Revenue

Content

- This business concept includes the same views in Receivable Customer but adds the additional accounting information views that will allow reconciliation to the general ledger within finance and also disbursement information within financial aid.

Uses

- Allows for the reconciliation of the accounts receivable balance within Banner Student to Banner Finance general ledger or other financial systems.
- Allows for the review of application of payments within accounts receivable.
- Allows for the summary and detail reports for accounts receivable information.
- Allows for the creation of cross walk information of the Detail Codes to the Finance System and how that data will be disbursed.

Primary Data Sources

- TBBRETC, TBBDETC, TBRACCD, TBBCSHR, TBBCTRL

Banner and Banner ODS
Making the Connection

The Meta Data

Composite views represent a composite (mixture) of the tables selected from Banner and allow for a single piece of data to be extracted row-by-row.

- All the business logic is included in the view itself.

Column names are generic.

- Term becomes Academic Period.
- PIDM becomes UID (unique ID).

Reporting views are divided into the various Banner systems.

- Accounts Receivable
- Common
- Finance
- Financial Aid
- Human Resources
- Student

The Meta Data

- Meta Data is information about the structure of the ODS data itself, such as the columns or fields in the data source, the format or the location of the data sources.

- Two perspectives are available
  - ODS Composite Views.
  - ODS Reporting Views (this is the view used most often).

- Some terminology
  - Target view – ODS reporting views that contain information from the related Banner tables.
  - Source Table – Tables from the Banner database.
  - Source Function – Functions that use data from Banner tables to create new data that is stored in the ODS.

Banner and Banner ODS

Making the Connection

Simple Steps

- Know the Banner form you need data from.

- Use dynamic help query to identify the table and field names.

- Use the Metadata to crosswalk from Banner to Banner ODS.

- Identify the Banner ODS views and fields needed.

Banner and Banner ODS

Dynamic Help Query from the Banner Form

ellucian.

Banner and Banner ODS

Locate the Table Name

Banner and Banner ODS

Match the Table Name…

Source Reports:

FUNCTION
NA
SABAUDF
SABSUPL
SARAATT
SARADAP
SARAPPD
SARCHKL
SARCHRT
SARRRAT
SARRSRC
SCBCRSE
SCBDESC
SCBSUPP
SCRATTR
SCRCORQ
SCRGMOD
SCRLEVL
SCRRTST
SCRSCHD
SFBETRM
SFRAREG
SFRSTCA
SFRSTCR
SFRTHST

SFBETRM
SFRAREG
SFRSTCA
SFRSTCR
SFRTHST
SGBSTDN
SGRADVR
SGRCHRT
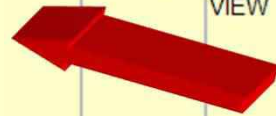SGRCOOP
SGRDISA
SGRSACT
SGRSATT
SGRSPRT
SGRVETN
SHBDIPL
SHRATTC

✓In the web interface or via your reporting tool access the Meta Data

✓Select the appropriate business area, e.g. Student

✓Select the appropriate business reporting view

✓Locate the Source Reports and select the table

Banner and Banner ODS

Locate the Field Name

Banner and Banner ODS

Drill to the Target Report

STUDENT_LEVEL_DESC	Student level description.	VARCHAR2 (255)	FUNCTION	GORODSP_F_GET_DESC
STUDENT_MEETING_TIME	Student's normal attendance time. May be either day, evening, weekend, etc.	VARCHAR2 (63)	SGBSTDN	SGBSTDN_SESS_CODE
STUDENT_MEETING_TIME_DESC	Student's meeting session description.	VARCHAR2 (255)	STVSESS	STVSESS_DESC
STUDENT_POPULATION	Student population or type for reporting. May include populations like new freshman, transfer, continuing, etc.	VARCHAR2 (63)	CALCULATION	NVL(SORLCUR_STYP_CODE,SGBSTDN_STYP_CODE)
STUDENT_POPULATION_DESC	Student population or type description.	VARCHAR2 (255)	STVSTYP	STVSTYP_DESC
STUDENT_RATE	Identifies any specific assessment rate to be used to determine the charges for this student.	VARCHAR2 (63)	CALCULATION	NVL(SORLCUR_RATE_CODE, SGBSTDN_RATE_CODE)
STUDENT_RATE_DESC	Description for the rate code.	VARCHAR2 (255)	STVRATE	STVRATE_DESC
STUDENT_STATUS	Student's current status for the academic period. May include active and permitted to register, inactive and stop registration, graduated, etc.	VARCHAR2 (63)	SGBSTDN	SGBSTDN_STST_CODE
STUDENT_STATUS_DESC	Student's status description.	VARCHAR2 (255)	STVSTST	STVSTST_DESC
SUB_ACADEMIC_PERIOD	A session, portion or part of the academic period.	VARCHAR2 (63)	NA	NA
SUB_ACADEMIC_PERIOD_ADMITTED	Session or part of the academic period associated with the information on the academic study information record.	VARCHAR2 (63)	NA	NA
SUB_ACADEMIC_PERIOD_ADMIT_DESC	Description of the session or part of the academic period associated	VARCHAR2 (255)	NA	NA

Display Rules

Banner ODS Concepts

Display Rules

- Enable you to control and customize how data is:
    - Stored in the Banner ODS composite tables.
    - Displayed in certain Banner ODS Reporting Views.
        - Example – test scores or address types.

- Determine the positional location of data in a view or the hierarchical order in which a particular type of data should be retrieved.
    - "Positional" display rules are required for many of the Slotted views.
    - "Hierarchical" display rules are required for a sub-set of Reporting views.

- In most cases the query must be 'filtered' by a RULE in order to avoid Cartesian-effect results.

Display Rules
Accounts Receivable

Internal Group	Internal Code	Rule Definition	Used In: (Slotted Table or View)
ADDRESS	ARADDR	1: BI 2: MA 3: PR	Address By Rule, Person Address
HOLDS	COLLHOLD	1: SB 2: RV 3: AH 4: IH 5: TH	Hold Slot

Questions

Banner ODS Documentation

- http://www.sou.edu/it/banner/index-banner-ods.html

Contact the Helpdesk

- Send an email to data-warehouse-support@sou.edu

Glossary

Glossary

Attribute

A building block of information within a view. Many attributes in a view come directly from fields in the source database (Banner). Other attributes are derived either through calculations or the logic defined in a function.

Banner Enterprise Data Warehouse (Banner EDW)

An informational database that enables an institution to keep "time slices" of data over time, over history, stored for easy retrieval and comparison. The Enterprise Data Warehouse is an extension of the Operational Data Store, which is the primary source of aggregated and detailed data.

Banner Operational Data Store (Banner ODS)

The primary source of aggregated and detailed data is comprised of over 300 reporting views containing data across subject areas applicable to higher education. Because of the size and scope of the Banner ODS data model, reporting views are grouped into logical "business concepts" to better illustrate the various business uses. The data models are grouped into the following sections : Accounts Receivable, Common, Finance, Financial Aid, Human Resources and Student.

Glossary (cont.)

Dimension
A structural attribute of data that consists of pieces of information of a similar type. A Geography dimension, for example, may contain data about regions, countries, cities, states. A time dimension contains year, month, day and hour members. A multidimensional data structure allows data to be organized and analyzed in a concise, efficient way.

Facts/Measures
Numbers that are related to the attributes. Facts and measures (the terms are synonymous) generally represent counts, sums or percentages and other ratios. They may be stored and retrieved or calculated from stored measures as the query is executed.

Filter
A filter is used to defined or restrict the data that is shown on a report.

Glossary (cont.)

Incremental Refresh

Data in the Banner ODS is updated, or refreshed, at predetermined intervals of time. Only the data that has changed in the source database (Banner) since the last refresh is updated.

List of Values

A list of values is a set of valid values (codes) for a column in a reporting view. A List of Values generally includes the description along with the code.

ODS Business Concepts

Business concepts are used to organize the data available for different reporting requirements. A business concept shows the relationships between the data supporting a set of business processes. Because different business processes often require different perspectives on data, the relationships among the supporting database objects need to change based on the analysis being performed.

ODS Composite View Meta Data

The composite views gather Banner source data necessary to populate and maintain the information stored in the Banner ODS.

Glossary (cont.)

ODS Reporting View Meta Data

Meta data in Banner ODS tells what data columns are in Banner ODS , a definition of their business use, the type of data (number, character, date, etc.), how long they are, where they come from (in the source system) and their destination (in the target system.)

Package

A package is a subset of data in Cognos designed to support a specific set of reporting needs. They are used by Report Studio to access data for the reports being built. Within the various Cognos tools you can report against only one package at a time. When creating a new report, you are prompted to select which package to use.

Prompts

A prompt is used to create a list of values that can be selected from. The report will be built (or filtered) based on the prompts selected.

Glossary (cont.)

Slotted View

Slotted views group similar information in one row instead of multiple rows to make reporting simpler. An example could be Student holds. Instead of having separate rows for each hold a student has, there would be one row with up to 5 holds in separate fields. Which holds show in the slotted view is based on Display Rules that are defined by the Institution. The number of slots in different slotted view varies.

Source Function

Functions that use data from the Banner tables to create new data that is stored in the Banner ODS.

Source Table

Tables from the Banner database where the data is coming from.

Target View

Banner ODS reporting views that contain information from the related Banner tables.