Defining the Universe

The UCSC Campus Data Warehouse's AIS-Daily universe contains academic information for reporting in support of operational business processes and analysis. Information is loaded from the Academic Information System once a day (in the wee hours of the morning) and made available in one more of the following time perspectives: most recent, history based on effective date, or history based on load date.

This document describes the content of the AIS-Daily universe that is *currently* generally available to most InfoView™ report writers: those with the "Academic Department, Colleges and Advising" security group access level. Differences in security access may prevent some users from seeing/using certain fields mentioned in document 'AIS-Daily implemented object-level-sec'.

Data Source

The Academic Information System is the sole source system for the AIS-Daily universe.

The topical areas include:

- Campus Community and Academic Structure
- Student Records
- Admissions – *Future release*
- Financial Aid – *Future release*
- Student Financials/Billing – *Future release*

The following types of data are not available from the AIS-Daily universe:

- Student Census (a.k.a. "official third week" or "official end of term" data) submitted to UC Office of the President in Corporate Student Systems files and available in the campus data warehouse in the Student Census universe and Cohort universe

An AIS glossary of terms document is also available at http://registrar.ucsc.edu/faqs/staff/glossary.pdf

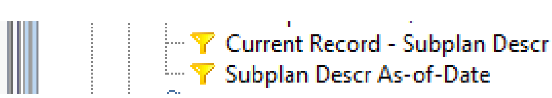
Features and Limitations

The AIS-Daily universe includes some custom analytic features, such as:

Present or Past

- "Point in time" named folders or objects can be used to view data as of a specific date in the past. The history is built on load based on effective dates in the underlying data. In the absence of an effective date field, the history is build based on the data load date (beginning 1/1/2014).

- In most cases an "As of Date" and/or a "Current" pre-defined query condition exist that can be used to prompt for a date. These yellow filter objects can be found at the bottom of each relevant folder.



- Alternatively, the Valid_From and Valid_To objects can be used to carve out a desired date slice in a query.

- All other folders and objects, including objects named "Current", only contain data that is the most recent (not future dated) data received in the last snapshot. Typically this is "as of 2am today".

  Note: Throughout this document, the two time perspectives will be referred to as "point in time" and "current", without repeated descriptions of the terminology. See the "Helpful Hints" section for examples of queries using the time perspectives.

Custom fields

- Some transformed or custom data sets for ease of reporting, such as flattened data (plans) or separated data (college) and derived data (student groups by term), etc.

- Custom data sets or objects are indicated in this document with a metamorphosis symbol

No nulls or blanks/spaces

- All null values and blanks/spaces have been converted to a single hyphen value '-'.
  - Hyphen is visible in pick-lists and in report drill filters.
  - Queries do not need to include OR statements to keep populations intact. To prevent inadvertently dropping rows when a person does not have any value in a secondary table, use a hyphen or one of the "Filler" objects.

    Note: See the "Helpful Hints" session for examples of queries using hyphen or Filler objects

The AIS-Daily universe contains personal information about applicants, students, faculty, and staff. Those granted access to reports and the universe must comply with policies and restrictions regarding use and disclosure of student information, including without limitation:

UCSC Registrar's Office http://reg.ucsc.edu/
- Privacy of Student Information http://registrar.ucsc.edu/records/privacy/index.html

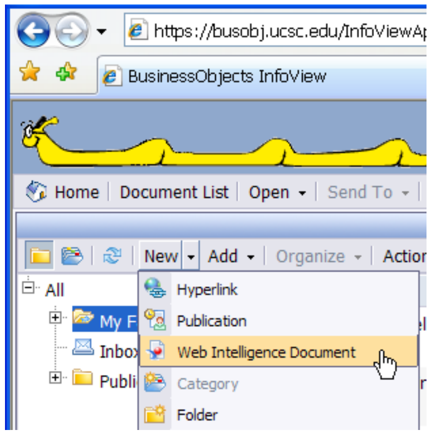
UCSC Public Records Requests/Information Practices http://infopractices.ucsc.edu/
- California Information Practices Act (formerly, Senate Bill 1386) http://infopractices.ucsc.edu/request-forms/index.html

US Department of Education
- Family Educational Rights and Privacy Act (FERPA) http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html

Additional policies that govern use, storage and distribution of information, including the proper handling of personal identity information (PII), such as Social Security Number and birthdate, can be found at http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html

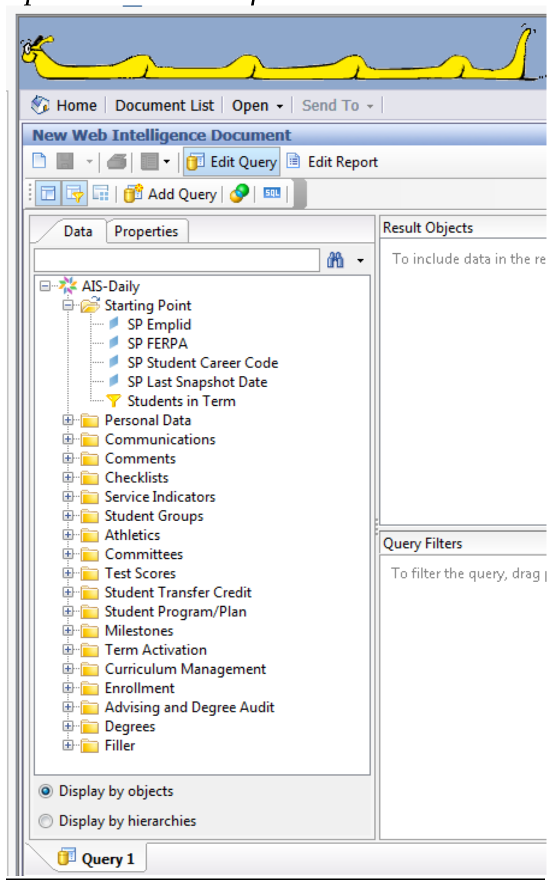
Exploring the Universe

Activity #1: Start a new document and select the "AIS-Daily universe". We'll be discussing the contents while looking at the Query Panel.



The Query Panel shows the following classes/folders of data available for use.

Note: Some security groups see additional folders and some see less



Folders Defined

Starting Point: *One row per person per career*
This folder contains a handful of objects that are likely to be used in most reports, such as Emplid (AIS ID), FERPA flag (indicator of whether or not a student requires that information not be released about them), etc.. These objects are displayed at the top of the object list as a convenient starting point when writing reports.

Personal Data: *One "current" row per person, unless object is named "point in time"*
This folder contains personal information about all persons who have an Emplid including applicants, students, faculty, staff, etc. Examples include preferred name, primary name, gender, email address, phone number, domestic/international, etc.

> **Current Addresses:** *One "current" row per person per address type*
> Address information for all address types. A customization exists for address types PERM and MAIL in that queries will return one row per person, even if the person does not have a PERM or MAIL address. This customization exists to keep populations intact. If you need to exclude those addresses, add a condition to the query such as "CA Address1 IS NOT NULL"
>
> **Phone:** *One "current" row per person per phone type*
> Phone numbers for all phone types. These are available for occasions when simply using the "preferred phone" object (available in the main Personal Data folder) is insufficient for the specific business purpose.
>
> **Visa and Citizenship Permit:** *One or more "point in time" row per person*
> Limited visa and citizenship information. Visa history is based on effective date. Citizenship history is not effective dated, so it is built based on data load date.
>
> - The custom "VC Visa/Permit Type Group" object displays "F1" or "J1" as appropriate, but it displays "Other" for all other visa types to preserve confidentiality. The Visa/Permit code and description themselves are only available in InfoView™ via the "office of record" user security groups.
>
> **Ethnicity:** *One or more "point in time" row per person*
> Self-identified ethnicity information, including detail, group, and IPEDS. Ethnicity history is not effective dated, so it is build based on data load date.
>
> **External System ID:** *One "current" row per person*
> Crosswalk of CruzID, PPS ID, and a placeholder for the future UC PATH ID.

Communications: *One or more "current" row per person*
This folder contains information about communication records a person has in AIS. Communications records exist for messages that have been sent, have not yet been sent, and may not ever be sent, so use caution when reporting on this information. Through InfoView™ security groups, rows are limited to

certain communication categories that fall within the GEN, STRM, and SPRG administrative functions. Specific “offices of record” have access to additional/different rows and/or administrative functions.

Comments: *One or more “current” row per person*
This folder contains information about comments that functional offices placed on records in AIS. Through InfoView™ security groups, rows are limited to certain communication categories that fall within the GEN, STRM, and SPRG administrative functions. Specific “offices of record” have access to additional/different rows and/or administrative functions.

Checklists: *One or more “current” row per person*
This folder contains information about checklists that functional offices assigned to students or applicants in AIS, and their completion status. Through InfoView™ security groups, rows are limited to certain communication categories that fall within the GEN, STRM, and SPRG administrative functions. Specific “offices of record” have access to additional/different rows and/or administrative functions.

Service Indicators: *One or more “current” row per person*
This folder contains information about service indicators that functional offices have assigned to students or applicants in AIS. Positive service indicators make a student eligible to receive services. Negative service indicators limit a student’s access to services, e.g., enrollment hold or transcript hold.

Student Groups: *One “current” row per person per student group*
This folder contains information about what student groups a person belongs to. In AIS student groups are used to assign a student or applicant to a specific custom code (group) for tracking purposes. Depending on the business process for a specific group code, a person is either added to a group and then is always in that group, or a person is added to a group and then either inactivated or deleted from a group when no longer associated with it. The data is available in the following sub-folders:

> **Student Groups - Current:** *One “active” row per person per student group*
> Limited to persons in a student group that have a current “active” status in that group.
>
> **Student Group by Term:** *One “active” row per person per student group per derived term*
> Limited to persons in a student group who have an “active” status during a term. A term code has been derived from the Term table for each term that falls within each student group row’s valid_from and valid_to date (which is based on effective date). Term history is rebuilt each night based on effective date.

Athletics: *One “point in time” record per person per sport code*
This folder contains information about what sport(s) a person participates in. History is rebuilt each night based on effective date.

Committees: *One “point in time” row per person per committee type*
This folder contains information about committee membership. History is rebuilt each night based on effective date.

Test Scores: *One or more "current" row per person per test component*
This folder contains information about a person's test scores, such as placement tests, SAT, ACT, etc. The data source code indicates the source of the information. For example "SLF" is self-reported data and is not considered to be official.

Student Transfer Credit: *One or more "current" row per person*
This folder contains information about transfer credit from courses, tests or other articulation agreements. The information is joined to Program information, but not to Term Activation, because the articulation term is not always the same as the person's first term enrolled or any term enrolled.

Transfer Course Data: *One or more "current" row per person*
Information about a course(s) a person took at an external institution that satisfy UCSC course requirements through an articulation agreement.

Transfer Course Detail: *One row per person per articulated course per articulation term*
Information about the specific course the person took at another institution and what UCSC course that the articulation agreement satisfies. Examples include equivalency rule, grade received, units transferred, manual credit, TCSS pre-2004, etc. This folder does not include the external institution's local course information such as term taken, subject and course description, course number, etc.

Transfer Course School: *One "current" row per person per external institution*
Information about the external institution, such as school type and external organization ID.

Transfer Course Term: *One "current" row per person per articulation term*
Information about who did the "clearing," usually this is an evaluator. Includes Emplid of the person who posted the credit, name, date, how many units were taken and transferred, etc.

Transfer Other Detail: *One or more "current" row per person*
Information about external courses that satisfy prerequisites, determined by UCSC academic department advisers.

Transfer Test Detail: *One or more "current" row per person*
Information about a test that was taken to satisfy UCSC course requirements through an articulation agreement.

Student Program/Plan: *One or more "point in time" row per person per career per student career number, per effective date and effective sequence*
This folder contains information about a student's associated programs, plans (major, college, minor), subplans, and attributes. History is rebuilt each night based on effective date and effective sequence, and is not term-specific. The information is presented in a variety of structures for flexible reporting. At the top level are the objects-in-common that can be used to crosswalk to any and all of the sub-folders in a single report. The various structures include:

Program: *One "point in time" program row per person per career per student career number, per effective date and effective sequence*
A student's program information including status, action, reason, admit term, degree checkout status, etc.

Plan – All plan types: *One or more "point in time" plan row per person per career per student career number, per effective date and effective sequence*
A student's academic plan information for every plan type (college, minor, major, etc.), including plan description and multiple columns for department and division (plan owner) that also are "point in time" objects. This information is presented as multiple rows (a.k.a. "full plan stack").

Subplan: *One or more "point in time" subplan row per plan per person per career per student career number, per effective date and effective sequence*
A student's indicated subplan information per plan. For undergraduate students subplans are used to indicate concentrations and advising clusters. For graduate students subplans are used to indicate emphases, research groups, and credential tracks. Subplan descriptions change from time to time, so they are "point in time" objects. This information is presented as multiple rows (a.k.a. "full subplan stack").

College: *One "current" row per person per career per student career number per effective date and effective sequence*
Limited to information from academic plan rows where the plan type is 'CLG'. In other words, this folder includes only a student's College affiliation in separate objects (from Plan).

Plan(Major)/Subplan - Flattened: *One row per person per career per student career number per effective date (not per effective sequence)*
Custom derived information that pivots or "flattens" the multiple rows of academic plan and subplan information to present it one row. The information is limited in that it excludes College and Minor plan types, and only displays information about the first three plan codes (determined by plan sequence). History is rebuilt each night based on effective date and the highest effective sequence for that date (other effective sequence rows that day are not included in the "flattened stack"). There is a custom "Number of Plans" objects that displays the counts of all (non-College and non-Minor) plans the person has. Plan descriptions are also "point in time" objects.

> **Plan Owner - Flattened:** *One "point in time" row per plan*
> This folder contains several department and division (plan owner) objects that correspond with each flattened plan object.

Minors -- Flattened: *One row per person per career per student career number per effective date (not per effective sequence)*
This folder contains custom derived information that pivots or "flattens" the multiple rows of academic plan to present it one row. The information is limited in that it only includes Minor plan types, and only displays information about the first two minors (determined by plan

sequence). History is rebuilt each night based on effective date and the highest effective sequence for that date (other effective sequence rows that day are not included in the "flattened stack"). There is a custom "Number of Minors" objects that displays the counts of all (Minor) plans the person has. Plan descriptions are also "point in time" objects.

Minors Owner -- Flattened: *One "point in time" row per minor*
This folder contains several department and division (plan owner) objects that correspond with each flattened minor object.

Student Attributes: *One or more "point in time" row per person per career per student career number per effective date and effective sequence*
Student attributes are used in AIS to determine whether a student is eligible to be given a GPA.

Milestones: *One or more "point in time" row per person per career per effective date*
This folder contains information about whether or not a student milestone has been attempted or satisfied. In AIS, Milestones are for tracking specific event completion, such as ELWR Subject A requirements, advancing to candidacy, exit interviews, etc. History is rebuilt each night based on effective date.

Student Milestones: This folder contains information about the milestone and whether or not it was completed by the student.

Milestone Attempts: This folder contains information about how the student attempted to complete the milestone.

Term Activation: *One or more "current" row per person per term*
This folder contains information about students who are activated in AIS for term processing. If a student is not activated in AIS for a term, they do not have a row in the table for that term. Term activation is required for business processes such as enrollment, assessing fees, etc.

Academic Standing:
This folder contains information about academic actions or status of a student in a term, based on student academic performance or personal obstacles toward progress.

Term Honors: This folder contains information about students who have received honors that term, based on academic performance in courses.

Curriculum Management: *One or more "point in time" row per course*
This folder contains a series of sub-folders that contain information about courses and classes from a setup or scheduling perspective. It does not contain individual student enrollment information. The sub-folders include:

Courses: General information about courses.

Course: Information about each course, such as name of course, allowable units, grading basis, component (“LEC”,”SEM”,”DIS”, etc.), general education type, whether a course is active or inactive, etc.

Course Instructor: Instructor(s) is updated yearly to a course for the exclusive purpose of printing instructor names in the UCSC Online Catalog. The changes are not effective dated and are subject to change when the class is actually taught.
Note: Class Instructor folder contains more accurate information about instructors attached to a class in a given term.

Course Offerings: Information about whether or not the course is active and allowed to be scheduled, cancelled, or suspended. Multiple offering rows indicate cross-listed courses – offering #1 is the department/subject area of record, additional offerings indicate affiliated department/subject areas. Information includes subject area, sponsoring academic organization, approved enrollment requirement group (prereqs, restrictions, etc.) for each course.

Classes: General information about classes each term

Class: Information about each class, such as subject, catalog number, section number, name of class, catalog nbr sort, component, class type, actual enrollment total, wait list total, ownership (department and division), etc.

Class Associations: Information associated with a class, such as general education code, requirement groups, grading basis, units, etc. This information includes overrides, so it’s cleaner than what is found in the Courses folder.

Class Instructor: Information about instructor(s) assigned to a class, including name, role, Emplid, PPS ID, etc.

Facilities: Information about the location(s) assigned to a class, including building, room and room capacity.

Class Final Exam: Information about final exams associated with a class. Final exam times are not populated in AIS until the second half of the quarter, usually week 8. Final exams are scheduled for all classes that meet in general assignment space. There is an underlying presumption that all of the classes meet for the exam prior, so it does not reflect that some classes may require papers or take home exams and are not actually meeting at the assigned time/room. It is not an accurate reflection of courses that meet in department or lab space.

Class Meeting Pattern: Information about when a class meets, including day(s) of week, and time(s)

Class Reserve Capacity: Reserve capacity indicates the number of seats reserved for students that are part of a pre-defined student group, academic plan, academic level, etc. who can enroll in a class. Currently, this component is used during Summer Orientation to supplement the gating of a class to restrict enrollment to only those students attending Orientation that day. It can also be used to permit a number of majors, etc. into a class for a specific time period.

Grade Rosters: Information about the status of a grading roster for a class, including the date posted.

Enrollment: *One "current" record per student per class per term*
This folder contains sub-folders of information about students enrolling or enrolled in classes.

Student Enrollment: This folder contains information about the specific classes that students are enrolled in, have been enrolled in, or are on a wait list for. Examples include enrollment status, units, grading basis, repeat code, general education code, tuition group, grade, etc.

Enrollment Appointments: This folder contains information about which appointment block a student is in.

Advising and Degree Audit: *One or more "current" record per student*
This folder contains information related to students' most recent Academic Advisement Report (AAR). It includes various separate sets of pre-calculated information that are used in degree audit business processes by advisers. Each sub-folder contains multiple rows per person, so mixing them together in reports may be a challenge.

The AAR is run every night for all students in applied status. It is also run once a week for every student. In addition, it can be run for a single student on any given day by an adviser or the student. Only the most recent information (the last AAR as of the last snapshot date) is available for reporting

Report Request: General information about the AAR that was last run for the student, includes report date and type.

Results: Specific information about the satisfaction of each student's requirement groups and requirements in the AAR, including career, program, plan, sub plan, requirement groups, requirements, courses require/taken/needed, GPA required/actual, and item status of comp/satisfied or fail/unsatisfied for requirements and requirement groups

Courses Table: Specific information about courses a student has taken per the AAR, including term, course ID, class number, subject, catalog number, section, description, units taken/earned, grade, repeat code, include in GPA, grade points, and requirement designation.

Courses Used: Specific information about courses a student has taken that are used to satisfy a student's requirements per the AAR, including the requirement group and requirement they have been used by, and the course directive type for course directives.

Courses Available: Specific information about courses needed or that can be taken to satisfy a student's requirements in the Academic Advisement report, including requirement group, requirement, subject, catalog number, course ID, and requirement designator.

Condition Lines: Specific information about conditions used by requirements in the student's AAR, including requirement group, requirement, condition code (e.g., program), condition operator (e.g., equals), condition data (e.g., UGRD), and item status of comp/satisfied or fail/unsatisfied for requirements and requirement groups. Conditions also include test scores used by requirements in the student's AAR, including test ID, test component, and test score, and item status of comp/satisfied or fail/unsatisfied for requirements and requirement groups.

Plans Required: Specific information about plans required in the student's AAR, including requirement group, plans needed, career, program, plan, and sub plan. This has not been used extensively, but may soon be used for some proposed majors to require all requirement groups and requirements in the declared major.

Senior Residency: Specific information about senior residency status of comp/satisfied or fail/not satisfied, in the student's AAR, for students in applied status.

What If: Specific information about the what-if scenario data for a student's AAR, including the what-if career, program, plan, and sub-plan and their requirement terms.

Exception Data: General information about student exceptions that are used by a student's AAR, including override number, description (requirement description), long description (details), selection data (student ID), override code (course directive, requirement change, or waiver), user ID of the user entering the student exception, career, program, plan, and sub-plan of the exception.

Exception Directives: Specific information about course directives that are used by a student's Academic Advisement Report, including override number, term, class number, course ID, subject, catalog number, section, grade, units, and requirement designation.

Exception Requirement Changes: Specific information about requirement changes that are used by a student's AAR, including override number, requirement group, requirement, the new minimum units and minimum courses.

Exception Group Req Line Data: Specific information about exception groups, including override number, requirement group, and requirement. The average report writer would probably not use this table.

Degrees: *One or more row per student per degree per completion term*
This folder contains information about degrees earned by students, including degree, completion term, level, etc. It contains the following sub-folders:

Degree Plan – All plan types: *One or more "point in time" plan row per person per degree per completion term*
A student's academic plan information for every plan type (college, minor, major, etc.), including plan description and multiple columns for department and division (plan owner) that are "point in time" objects. This information is presented as multiple rows (a.k.a. "full plan stack").

Degree Subplan: *One or more "point in time" subplan row per plan per person per degree per completion term*
A student's subplan information per plan. For undergraduate students subplans are used to indicate concentrations. For graduate students subplans are used to indicate emphases and designated emphases. Subplan descriptions change from time to time, so they are "point in time" objects. This information is presented as multiple rows (a.k.a. "full subplan stack").

Degree College: *One "current" row per person per degree per completion term*
Limited to information from academic plan rows where the plan type is 'CLG'. In other words, this folder includes only a student's College affiliation in separate objects (from Plan).

Degree Honors: This folder contains information about students who have received honors with their degree.

Degree Plan (Major/College) -- Flattened: *One row per person per degree per completion term*
Custom derived information that pivots or "flattens" the multiple rows of degree, academic plan and subplan information to present it one row. The information is limited in that it excludes College and Minor plan types, and only displays information about up to two degrees per completion term with the first three plan codes for each (determined by plan sequence). . There are custom "Number of Degrees" and "Number of Majors per degree" objects that displays the counts of all (non-College and non-Minor) plans the person has per degree. Plan descriptions are "point in time" objects.

Degree Minor -- Flattened: *One row per person per degree per completion term*
This folder contains custom derived information that pivots or "flattens" the multiple rows of academic plan to present it one row. The information is limited in that it only includes Minor plan types, and only displays information about the first two minors (determined by plan sequence). There is a custom "Number of Minors" objects that displays the counts of all (Minor) plans per degree. Plan descriptions are "point in time" objects.

Filler: *One row per person*
This folder contains a variety of objects of different data types (number, date, text) that can be used in UNION queries as placeholder or substitution objects when needed to fill-in disparate areas. There is only one row and it contains all empty data (0 for number, '-' for text). It is joined to Emplid so that it will work with any object in the AIS-Daily universe.

Object Definitions

Definitions of each object in each class can be found in the AIS-Daily universe data dictionary, which is available by going to this url:
https://datamgmt.ucsc.edu/documents/infoview/documentation/data-dictionaries/ais-daily-dictionary.pdf

Helpful Hints

Carving out Time: Present and Past

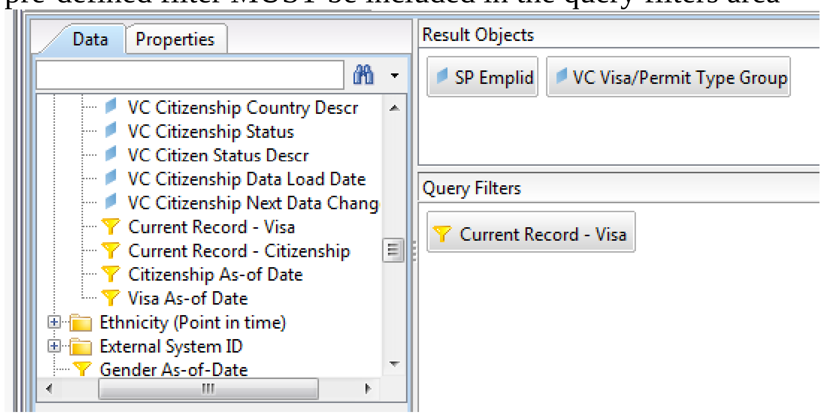
Current

Current by Name

If an object or folder has the word “Current” in its name, then it pulls current data (as of the last load – typically 2am today)

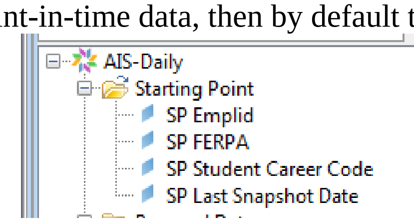
Current using Pre-defined Filters

In the folder contains a yellow pre-defined filter object that has the word “Current” it its name, then in order to limit the query to current information that pre-defined filter MUST be included in the query filters area



Current by default

If a folder does not have any pre-defined filters in it for carving out either Current or Point-in-time data, then by default the data is Current

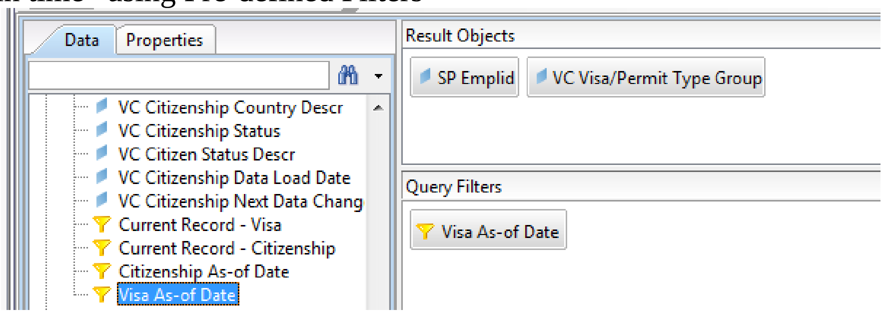


Point in Time

"Point in time" by Name

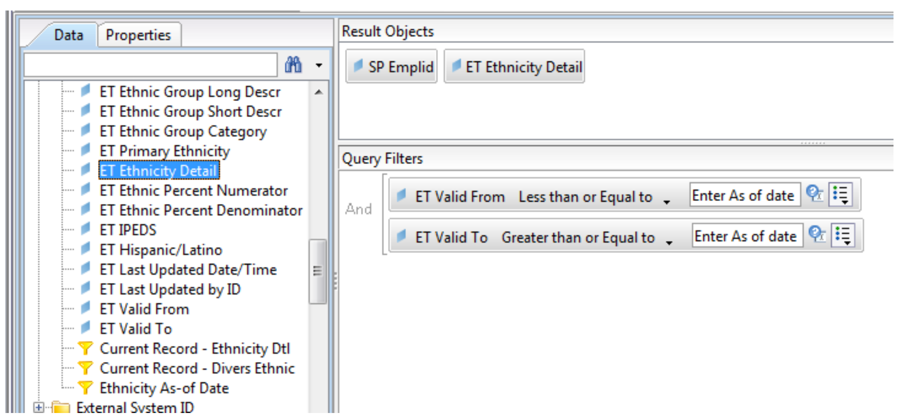
In an object or folder has the words "Point in time" in their name, then an "As of date" pre-defined filter MUST be included in the query filters area. When running the report, the pre-defined filter will prompt to user for a specific date. The exactly prompt language is "Enter As of date".

"Point in time" using Pre-defined Filters



Note: At the date prompt, if you type in today's date you will get the same results as if you had instead used a "Current" pre-defined filter

"Point in time" using date logic that establishes a prompt date



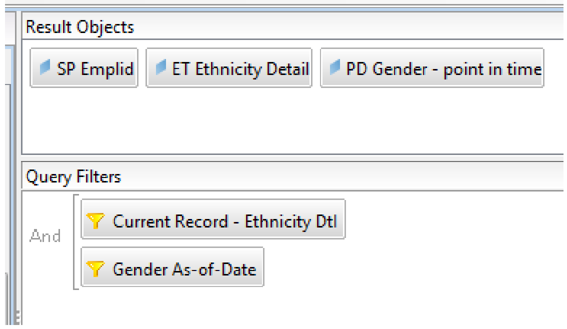
Note: At the date prompt, if you type in today's date you will get the same results as if you had instead used a "Current" pre-defined filter

Mixing Current and Point in Time

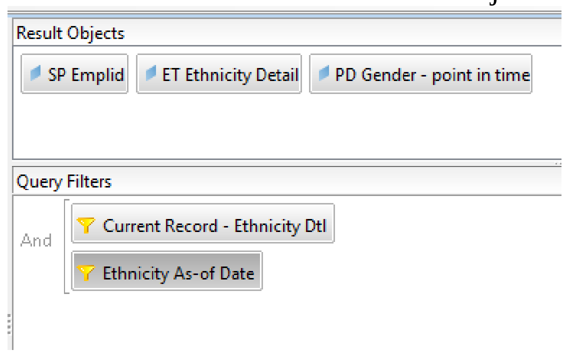
Pre-defined Filters

Both Current and Point-in-time pre-defined filters can be used together in a query so long as they refer to different objects/folders.

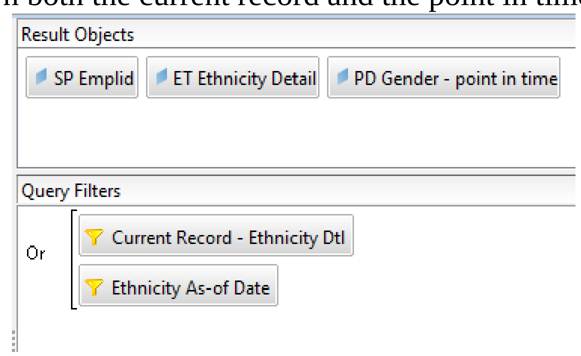
This is okay – mixing "Current" with "As of date" for different objects



This is NOT okay – mixing "Current" with "As of date" for same object



This is okay – mixing "Current" with "As of date" for same object, using an OR to return both the current record and the point in time record (if it's different)



Maintaining populations in reports

Use of hyphen '-'

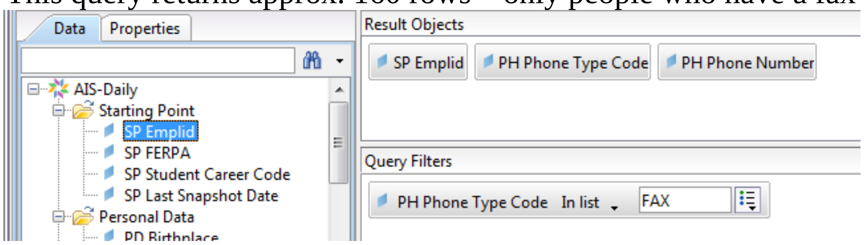
Missing data (a single space in People Soft) has been converted to a hyphen if it is a text field.

Null values introduced through outer joins have also been converted to hyphen.

Include a hyphen ('-') in a value list or prompt to get additional rows. Those extra rows are any records in the first table (such as Person) that do not exist at all in the second table (such as Phone).

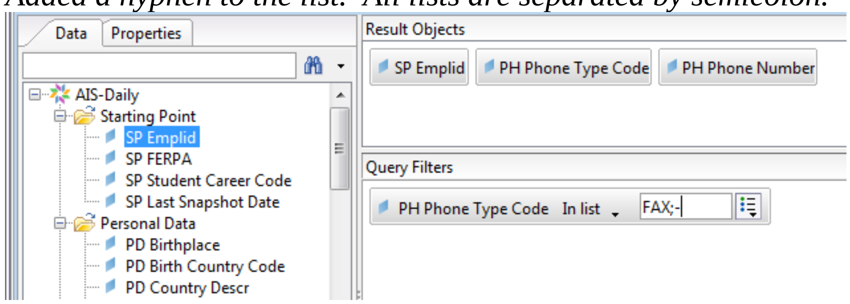
Following are some examples to demonstrate how hyphen can be used in queries.

This query returns approx. 160 rows – only people who have a fax number



This query returns approx 25,000 rows – people who have a fax number plus people who don't have any phone row at all

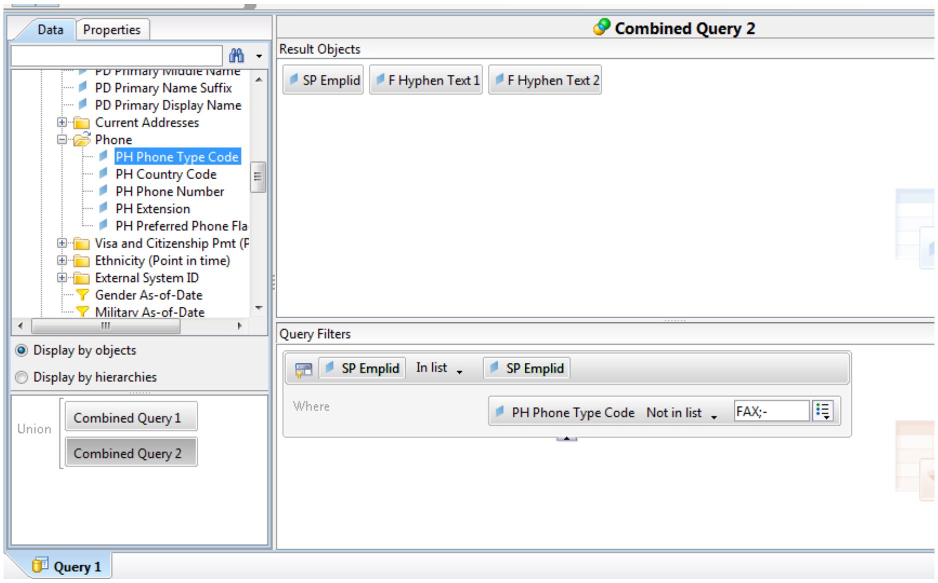
Added a hyphen to the list. All lists are separated by semicolon.



To include the full population of Emplid, either a UNION query or Multiple-Query report should be written.

The advanced techniques are covered in the "Report Writing: Working with Multiple Queries" class available from the Data Warehouse Team.

Added a UNION to the query and used Filler objects



Note: Address data does not have hyphens in it. This is intentional for producing labels.