Information About Costs and Commitments

A data warehouse is a process of collecting data, transforming it, and loading it into a single system that can be used to answer analytical questions. In respect to analyzing Caltech's financial data, the value rests in linking a single cost or commitment transaction to various groups of data, commonly called *dimensions*.

DEFINITION: A *dimension* is structured set of data elements that can be used to describe or group *facts* for analytical purposes. Examples of dimensions in *Costs and Commitments* include:

- FY Periods
- PTAs
- Providers
- Cost Incurred For
- Funding Sources
- AiM Work Orders
- Purchase Orders
- Invoices

For the *Costs and Commitments* there are some data elements that don't easily fit into one of the dimensions. These data elements are included in the *Cost Info* dimension and include:

- *Active?:* A flag that indicates if the transaction is a commitment from the *Previous Period* (Active? = N) or is a commitment from the *Current Period* or all costs, regardless of FY Period.
- *Full Expenditure Comment:* The full expenditure comment for each cost in Oracle Grants Accounting.
- *Exp Comment:* A shortened version of the Full Expenditure Comment
  - ✓ Excludes information from the Full Expenditure Comment that is held in other data elements, e.g., Provider, Cost Incurred For, and Reference Number.
- *Fee Code:* The accounting code in Exeter (Student Systems) that is mapped to a PTA and Expenditure Type combination.
- *IC Contact or Debit PTA:* Either the person responsible for processing the charge or the PTA that was charged.
- *Reference #:* A unique identifier for a transaction, including:
  - ✓ PO # and Invoice # for items originating in Procurement
  - ✓ Receipt # for Accounts Receivable items
  - ✓ WIC # for transaction entered via the Web Internal Charges (WIC)
  - ✓ Work Order # for items originating in AiM
  - ✓ Year, Payroll Name, and Number for payroll items

Exp Comment Logic

The logic for *Exp Comment* is quite complex and dependent upon the original source of the transaction. For example:

- For purchase order commitments it is the description at the distribution level of the PO.
- For most internal charges it is based on the expenditure comment and consists of the characters between the first and second pipe (|).
- For payroll it is based on the first letter, which indicates if it is a regular payroll transaction or LDA or work study, and a reorganization of the data to make it easier to sort and group.

For the complete logic details in both a Visio workflow format and a table step-by-step logic breakdown, please see the appendix.

Fee Code Logic

The *Fee Code* only exists for charges that flow through the student system Exeter and is the characters between the first and second underscore (_) of the *Full Exp Comment*.

IC Contact or Debit PTA Logic

The data element *IC Contact or Debit PTA* only exists for transactions that originated in the Internal Charges, regardless if these transactions were entered into the Web Internal Charge (WIC) or were interfaced from another system, e.g., transactions for Physical Plant, Telecom, the Athenaeum, etc.

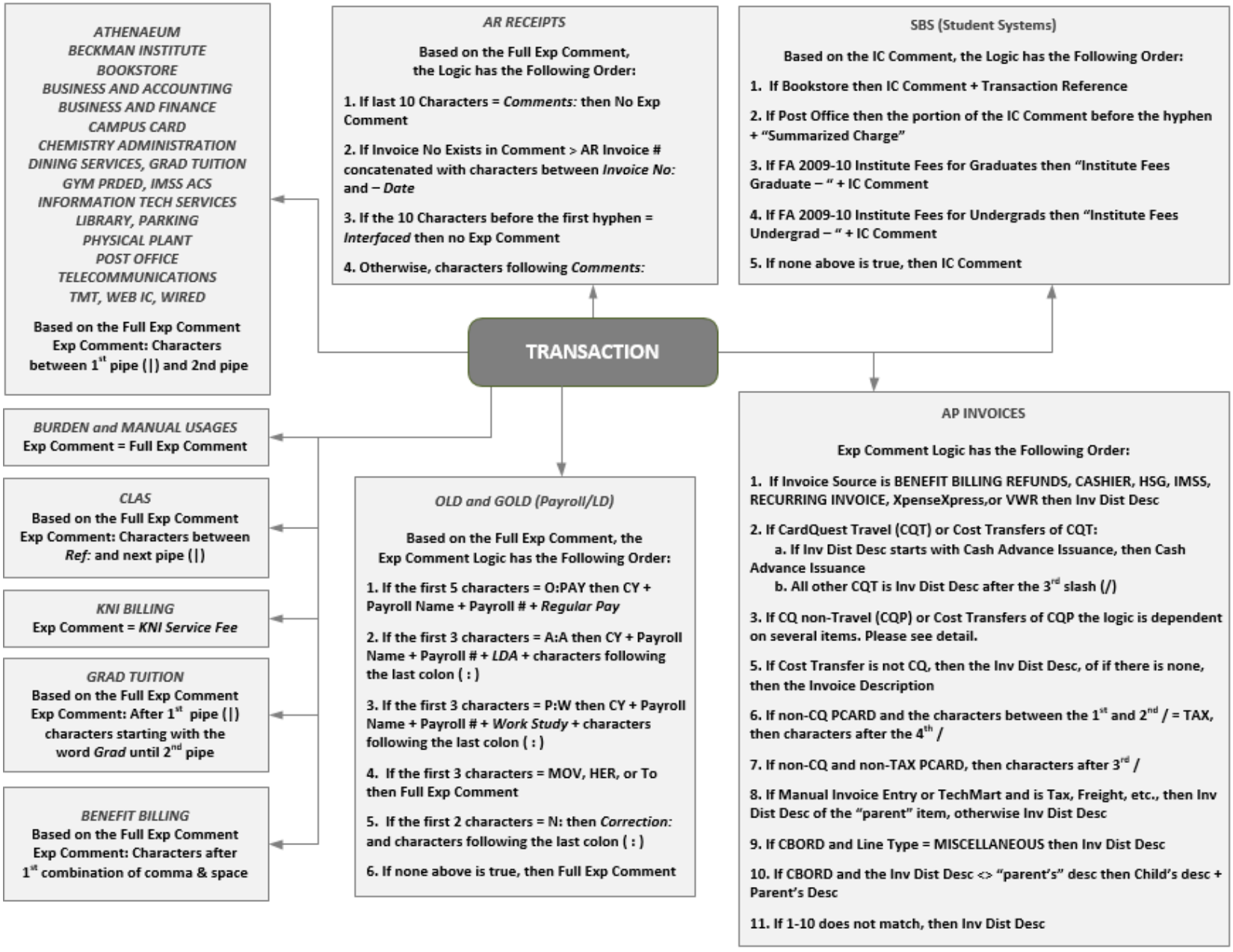
For these transactions value includes the characters following the final pipe (|) in the *Full Expenditure Comment*. In addition, the words *PTA:* and *Contact:* have been removed.

Reference # Logic

The value held in *Reference #* may be held in more than one data element. For example, for transactions originating in AP Invoices will have the Invoice Number in both the *Inv #* field within the *Invoice Summary Info* dimension as well as the *Reference #* in Cost Info. The *Reference #* enables us to easily create reports with a single column rather than one for every type of reference number.

For complete logic details in both a Visio workflow format and a step-by-step logic breakdown in table form, please see the following appendix.

Exp Comment: High-Level Logic – Visual



Exp Comment: High-Level Logic – Table

SOURCE GROUP	LOGIC RANK	EXP COMMENT LOGIC FILTER (In addition to Source of Transaction)	EXP COMMENT LOGIC NOTE: All Exp Comments are also "cleaned up"
BURDEN	1	On Full Exp Comment	Exp Comment = Full Expenditure Comment
MANUAL USAGES	1	On Full Exp Comment	Exp Comment = Full Expenditure Comment
CONVERSION (From 1998)	1	On Full Exp Comment	Exp Comment = Full Expenditure Comment
AP EXPENSE ***NOTE: 8 VERY OLD TRANSACTIONS***			
AP EXPENSE	1	All transactions	Full Exp Comment
AP INVOICES ***NOTE: Slash = /***			
AP INVOICES	1	Invoice source is BENEFIT BILLING REFUNDS, CASHIER, HSG, IMSS, RECURRING INVOICE, XpenseXpress	Invoice Distribution Description
Invoice Source = PCARD, PCARD TAX ACCRUAL, or COST_TRANSFER and Inv # Starts With CQT			
AP INVOICES	2.01	Inv Dist Desc starts with Cash Advance Issuance	Cash Advance Issuance
AP INVOICES	2.02	All other CQT PCARD and COST_TRANSFER transactions	Characters after the 3rd slash
Invoice Source = PCARD, PCARD TAX ACCRUAL, or COST_TRANSFER and Inv # Starts With CQP			
AP INVOICES	3.01	Last character of Inv Dist Desc is a slash	Characters between the last slash and the slash before
AP INVOICES	3.02	Line Type = FREIGHT	Characters after the 5th slash
AP INVOICES	3.03	Characters between 3rd and 4th slash = TAX	Characters after the 5th slash
AP INVOICES	3.04	18 Characters after the 4th slash = TAX/Goods (simple)	Characters after the 6th slash
AP INVOICES	3.05	14 Characters after the 4th slash = Goods (simple)	Characters after the 5th slash
AP INVOICES	3.06	Line Type = ITEM	Characters after the 4th slash
AP INVOICES	3.07	All other CQP PCARD and COST_TRANSFER transactions	Characters after the 5th slash

Exp Comment: High-Level Logic – Table *(Cont.)*

SOURCE GROUP	LOGIC RANK	EXP COMMENT LOGIC FILTER (In addition to Source of Transaction)	EXP COMMENT LOGIC NOTE: All Exp Comments are also "cleaned up"
Invoice Source = COST_TRANSFER and Inv # Does Not Start With CQP or CQT			
AP INVOICES	4	Invoice Source = COST_TRANSFER and Inv # does NOT start with CQP or CQT	Invoice Distribution Description, or if it is NULL, then the Invoice Description
Invoice Source = PCARD or PCARD TAX ACCRUAL and Inv # Starts With CB, CT, 30, or CP			
AP INVOICES	5.01	Characters between 1st and 2nd slash = TAX	Characters after the 4th slash
AP INVOICES	5.02	All other non-CardQuest PCARD	Characters after the 3rd slash
Invoice Source = VWR			
AP INVOICES	6	Invoice Source = VWR	Invoice Distribution Description
Invoice Source = Manual Invoice Entry or TECHMART			
AP INVOICES	7.01	Invoice Distribution is associated with another Inv Dist, e.g., Tax, Freight	Inv Dist Description of the associated (or "parent") Invoice Distribution
AP INVOICES	7.02	All other Manual Invoice Entry or TECHMART	Invoice Distribution Description, or if it is NULL, then the Invoice Description
Invoice Source = CBORD			
AP INVOICES	8.01	Line Type = MISCELLANEOUS	Invoice Distribution Description
AP INVOICES	8.02	Inv Dist Desc (child) <> Distribution's "parent" Inv Dist Desc	Child's Inv Dist Description concatenated with Parent's Inv Dist Description
AP INVOICES	8.03	All other CBORD	Invoice Distribution Description
All Other AP INVOICES			
AP INVOICES	9		Invoice Distribution Description
BENEFIT BILLING			
BENEFIT BILLING	1	On Full Exp Comment	Characters after the first comma and space combo

Exp Comment: High-Level Logic – Table *(Cont.)*

SOURCE GROUP	LOGIC RANK	EXP COMMENT LOGIC FILTER (In addition to Source of Transaction)	EXP COMMENT LOGIC NOTE: All Exp Comments are also "cleaned up"
AR RECEIPTS			
AR RECEIPTS	1	On Full Exp Comment, last 10 characters = Comments:	Exp Comment is null
AR RECEIPTS	2	On Full Exp Comment, First 11 characters after the first hyphen (-) = *Invoice No*	*AR Invoice #* concatenated with characters between *Invoice No:* and - *Date*
AR RECEIPTS	3	On Full Exp Comment, 10 characters before the hyphen = Interfaced	Exp Comment is null
AR RECEIPTS	4	Remaining AR RECEIPTS transactions	Characters after *Comments:*
GRADUATE TUITION			
GRAD TUITION	1	On Full Exp Comment	After the first pipe (|), the characters starting with the word Grad until the second pipe.
PAYROLL/LABOR DISTRIBUTIONS			
GOLD and OLD (Payroll)		Payroll Name = Words between 2nd and 3rd colons (:) CY = Numbers between 1st and 2nd space after the 2nd colon (:) Payroll # = Numbers between 2nd colon (:) and 1st space	
GOLD and OLD (Payroll)	1	On Full Exp Comment, first 5 characters = O:PAY	Concatenation of CY, Payroll Name, Payroll #, and the phrase *Regular Pay*
GOLD and OLD (Payroll)	2	On Full Exp Comment, first 3 characters = A:A	Concatenation of CY, Payroll Name, Payroll #, the phrase *LDA*, and the characters following the last colon (:)
GOLD and OLD (Payroll)	3	On Full Exp Comment, first 3 characters = P:W	Concatenation of CY, Payroll Name, Payroll #, the phrase *Work Study*, and the characters following the last colon (:)
GOLD and OLD (Payroll)	4	On Full Exp Comment, first 3 characters = MOV, HER, or To	Full Exp Comment
GOLD and OLD (Payroll)	5	On Full Exp Comment, first 2 characters = N:	Concatenation of the phrase *Correction:* and the characters following the last colon (:)
GOLD and OLD (Payroll)	6	Remaining Payroll transactions	Full Exp Comment

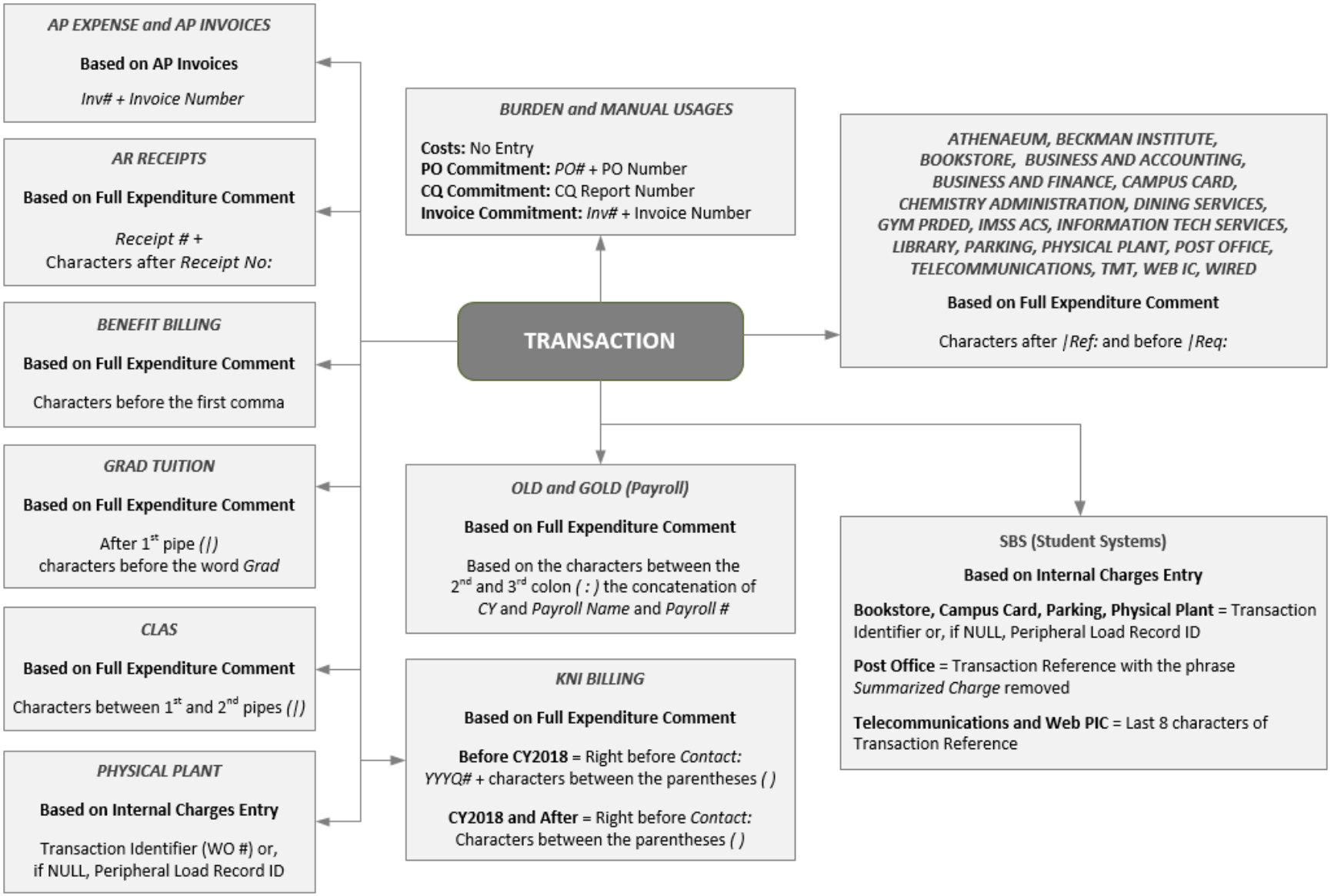
Exp Comment: High-Level Logic – Table *(Cont.)*

SOURCE GROUP	LOGIC RANK	EXP COMMENT LOGIC FILTER (In addition to Source of Transaction)	EXP COMMENT LOGIC NOTE: All Exp Comments are also "cleaned up"
INTERNAL CHARGES for CAMPUS ACCOUNTS (PTAs)			
ATHENAEUM	1	On Full Exp Comment	Characters between the first and second pipes (|).
BECKMAN INSTITUTE	1	On Full Exp Comment	Characters between the first and second pipes (|).
BOOKSTORE	1	On Full Exp Comment	Characters between the first and second pipes (|).
BUSINESS AND ACCOUNTING	1	On Full Exp Comment	Characters between the first and second pipes (|).
BUSINESS AND FINANCE	1	On Full Exp Comment	Characters between the first and second pipes (|).
CAMPUS CARD	1	On Full Exp Comment	Characters between the first and second pipes (|).
CHEMISTRY ADMINISTRATION	1	On Full Exp Comment	Characters between the first and second pipes (|).
DINING SERVICES	1	On Full Exp Comment	Characters between the first and second pipes (|).
GYM PRDED	1	On Full Exp Comment	Characters between the first and second pipes (|).
IMSS ACS	1	On Full Exp Comment	Characters between the first and second pipes (|).
INFORMATION TECH SERVICES	1	On Full Exp Comment	Characters between the first and second pipes (|).
LIBRARY	1	On Full Exp Comment	Characters between the first and second pipes (|).
PARKING	1	On Full Exp Comment	Characters between the first and second pipes (|).
PHYSICAL PLANT	1	On Full Exp Comment	Characters between the first and second pipes (|).
POST OFFICE	1	On Full Exp Comment	Characters between the first and second pipes (|).
TELECOMMUNICATIONS	1	On Full Exp Comment	Characters between the first and second pipes (|).
TMT	1	On Full Exp Comment	Characters between the first and second pipes (|).
WEB IC	1	On Full Exp Comment	Characters between the first and second pipes (|).
WIRED	1	On Full Exp Comment	Characters between the first and second pipes (|).
CLAS	1	On Full Exp Comment	Characters between *Ref:* and the next pipe (|).
KNI BILLING	1	All transactions	Exp Comment = KNI Service Fee

Exp Comment: High-Level Logic – Table *(Cont.)*

SOURCE GROUP	LOGIC RANK	EXP COMMENT LOGIC FILTER (In addition to Source of Transaction)	EXP COMMENT LOGIC NOTE: All Exp Comments are also "cleaned up"
INTERNAL CHARGES for PERSONAL ACCOUNTS (via SBS)			
SBS	1	Transactions originating from Bookstore with no reference	IC Comment
SBS	2	All other transactions originating from Bookstore	Concatenation of the IC Comment and the transaction reference
SBS	3	Transactions originating from Post Office	Portion of the comment before the hyphen concatenated with "Summarized Charge"
SBS	4	IC Transaction Reference = Institute Fees for FA 2009-10 - Undergraduate	"Institute Fees Undergrad - " concatenated with IC Comment
SBS	5	IC Transaction Reference = Institute Fees for FA 2009-10 - Graduate	"Institute Fees Graduate - " concatenated with IC Comment
SBS	6	All other SBS transactions	IC Comment

Reference #: High-Level Logic – Visual



Reference #: High-Level Logic – Table

SOURCE GROUP	REFERENCE # ORIGIN	REFERENCE # LOGIC
BURDEN AND MANUAL USAGES	Costs: No Entry PO Commitment: *PO* CQ Commitment: CQ Invoice Commitment: Invoice	Costs: No Entry PO Commitment: *PO#* + PO Number CQ Commitment: CQ Report Number Invoice Commitment: *Inv#* + Invoice Number
AP EXPENSE and AP INVOICES	AP Invoices	*Inv#* + Invoice Number
AR RECEIPTS	Full Exp Comment	*Receipt #* + Characters after *Receipt No:*
BENEFIT BILLING	Full Exp Comment	Characters before the first comma
GOLD and OLD (Payroll)	Full Exp Comment	Based on the characters between the second and third colon (:) the concatenation of *CY* and *Payroll Name* and *Payroll #*
GRAD TUITION	Full Exp Comment	After the first pipe (|), the characters before the word *Grad*
INTERNAL CHARGES for CAMPUS ACCOUNTS		
ATHENAEUM	Full Exp Comment	The characters after */Ref:* and before */Req:*
BECKMAN INSTITUTE	Full Exp Comment	The characters after */Ref:* and before */Req:*
BOOKSTORE	Full Exp Comment	The characters after */Ref:* and before */Req:*
BUSINESS AND ACCOUNTING	Full Exp Comment	The characters after */Ref:* and before */Req:*
BUSINESS AND FINANCE	Full Exp Comment	The characters after */Ref:* and before */Req:*
CAMPUS CARD	Full Exp Comment	The characters after */Ref:* and before */Req:*
CHEMISTRY ADMINISTRATION	Full Exp Comment	The characters after */Ref:* and before */Req:*
DINING SERVICES	Full Exp Comment	The characters after */Ref:* and before */Req:*
GYM PRDED	Full Exp Comment	The characters after */Ref:* and before */Req:*
IMSS ACS	Full Exp Comment	The characters after */Ref:* and before */Req:*
INFORMATION TECH SERVICES	Full Exp Comment	The characters after */Ref:* and before */Req:*
LIBRARY	Full Exp Comment	The characters after */Ref:* and before */Req:*
PARKING	Full Exp Comment	The characters after */Ref:* and before */Req:*
POST OFFICE	Full Exp Comment	The characters after */Ref:* and before */Req:*

Reference #: High-Level Logic – Table *(Cont.)*

SOURCE GROUP	REFERENCE # ORIGIN	REFERENCE # LOGIC
INTERNAL CHARGES for CAMPUS ACCOUNTS (Cont.)		
TELECOMMUNICATIONS	Full Exp Comment	The characters after */Ref:* and before */Req:*
TMT	Full Exp Comment	The characters after */Ref:* and before */Req:*
WEB IC	Full Exp Comment	The characters after */Ref:* and before */Req:*
WIRED	Full Exp Comment	The characters after */Ref:* and before */Req:*
CLAS	Full Exp Comment	Protocol #, which is the characters between the first and second pipes (|)
KNI BILLING - Before CY2018	Full Exp Comment	YYYYQ# + the characters between the parentheses ( ) that are immediately before the phrase *Contact:* - should be a date range of service
KNI BILLING - CY2018 and After	Full Exp Comment	The characters between the parentheses ( ) that are immediately before the phrase *Contact:* - should be a date range of service
PHYSICAL PLANT	Internal Charges	*Transaction Identifier* (WO #) or, if NULL, then *Peripheral Load Record ID*
INTERNAL CHARGES for PERSONAL ACCOUNTS (via SBS)		
SBS for BOOKSTORE	Internal Charges	*Transaction Identifier or, if NULL, then Peripheral Load Record ID*
SBS for CAMPUS CARD	Internal Charges	*Transaction Identifier or, if NULL, then Peripheral Load Record ID*
SBS for PARKING	Internal Charges	*Transaction Identifier or, if NULL, then Peripheral Load Record ID*
SBS for PHYSICAL PLANT	Internal Charges	*Transaction Identifier* or, if NULL, then *Peripheral Load Record ID*
SBS for POST OFFICE	Internal Charges	*Transaction Reference* with the words *Summarized Charge* removed
SBS for TELECOMMUNICATIONS	Internal Charges	Last 8 characters of the *Transaction Reference*
SBS for WEB PIC	Internal Charges	Last 8 characters of the *Transaction Reference*