The Structure of the Universe

The Purchasing universe contains six classes of objects. Each class represents a group of objects intended to be used together, called a ‘context’. This structure is unlike other EDW universes, in that only objects from within the same context may be used to create a report. Reports using objects from differing contexts will not function.

The contexts are setup similarly to the normal business flow of the data. Consider the purchasing process as it is depicted from left to right in the diagram below. First, a Requisition is created. Second, a Purchase Order (PO) is created. Third, Receiving & Returns are created, where necessary. Fourth, an Invoice Voucher (IV) is created. Finally, the IV is paid with a Check.

Figure 1. Purchasing Process
Therefore, based on this general principle and the natural state of the data, the objects have been placed in contexts following this process flow. The six contexts (labeled C1 thru C6) are as follows:

**Figure 2. Purchase Order Requisition Invoice Universe Contexts**

**Context 1:** Requisition Header, Requisition Line Items, Purchase Order Header, Receivings, Returns

**Context 2:** Requisition Header, Requisition Accounting Detail, Purchase Order Header, Requisition CFOAPAL, Receivings, Returns

**Context 3:** Purchase Order Header, PO Line Items, Receivings, Invoice Voucher Header, IV Line Items, Returns

**Context 4:** Purchase Order Header, Receivings, PO Accounting Detail, PO CFOAPAL, Invoice Voucher Header, Returns

**Context 5:** Invoice Voucher Header, IV Accounting Detail, Purchase Order Header, Receivings, Bank Check, Returns

**Context 6:** Invoice Voucher Header, IV Line Items, Purchase Order Header, Receivings, Returns
Intended use of the Purchasing Universe

Reports developed in this universe must be created by using any objects from within a single context. You may choose any objects in the C1 context/object class to combine in a report. However, do not try to combine objects in C1 with objects in C2.

For Example, in Context 1, you might choose objects from the Requisition Header subclass (Requisition Original Document number, Req Requestor Chart & Org codes, Requisition Transaction date) and then add objects from the Purchase Order Header subclass (PO Original Document number, PO Order Date, PO Transaction Date, PO Print date) to create a query.

Figure 3. Querying Context 1 for Requisitions
Tips & Tricks - Items of interest for use in this universe:

- Transaction dates in each context is linked to the corresponding "*TimePeriods" objects.

![Figure 4. Time Dimension Relationships](image)

- Using "show list of values" builds a unique list of values from the data. This can take time as the table rows are scanned to generate the value list, but should show a list of all available values (including unexpected values or improperly entered data). For example, using this feature, you may discover a date entered as 7/11/2030 instead of the expected value of 7/11/2003.

- Remember that not every Invoice Voucher may have Purchase Orders and/or Requisitions associated with them. This is the case with Travel Vouchers. When a University employee receives a travel reimbursement, no Requisition or Purchase Order was ever associated with that Invoice Voucher.

- Remember that there is often a ‘one-to-many’ relationship between documents in the purchasing process. For example, one Purchase Order many have many Invoice Vouchers. Each Invoice Voucher may have many checks.

- The Bank Check object is located in the C5 context only. It can be found as a sub-class of the Invoice Voucher Accounting Detail class.
• Line Item Detail and Accounting Detail (CFOAPALs) are not located in the same context/object class. Please do not attempt to use objects from these classes in the same query.

• Generally, queries will return data for purchasing documents based on the business process flow – from left to right as illustrated in Figure 1. For example, in the C1 context query example shown in Figure 3, all Requisitions that meet the specified conditions will appear. However, only PO’s that are associated with those Requisitions will appear.

The exception to this general rule is the C6 context. The C6 context will allow a user to query from the Invoice Voucher back to the PO from right to left. Therefore, all Invoice Vouchers that meet the specified conditions will appear. However, only those PO’s associated with the subject IV’s will appear.