Mr. Meservy, this information is useful; however, forcing this into a table as it currently is is dangerous.

All primary keys are underlined.

Here is a first normalized form:

TABLE 1: SoftwarePackages

Tag Number	Package ID	Install Date	Software Cost USD
32808	AC01	9/13/2005	754.95
32808	DB32	12/3/2005	380.00
32808	WP08	1/12/2006	185.00
37691	DB32	6/15/2005	380.00
57772	DB33	5/27/2005	412.77
37691	WP08	6/15/2006	227.50
57222	WP08	5/27/2005	170.24
59836	WP09	10/30/2005	35.00
77740	WP09	5/27/2005	35.00

The primary key in this table is the combination of the Tag, Package ID and Install date.

Upon adding 2 more columns the table becomes:

TABLE 2: SoftwareAndSystems

Tag Number	Package ID	Install Date	Software Cost USD	Package Name	System Model
32808	AC01	9/13/2005	754.95	Adaptive C++ 01	Cell
32808	DB32	12/3/2005	380.00	DataBytes 32	Cell
32808	WP08	1/12/2006	185.00	Welsh Perfect 08 Pro	Cell
37691	DB32	6/15/2005	380.00	DataBytes 32	Jenovo
57772	DB33	5/27/2005	412.77	DataBytes 33	PH
37691	WP08	6/15/2006	227.50	Welsh Perfect 08 Full	Jenovo
57222	WP08	5/27/2005	170.24	Welsh Perfect 08 Basic	PH
59836	WP09	10/30/2005	35.00	Welsh Perfect 09	Machine-E
77740	WP09	5/27/2005	35.00	Welsh Perfect 09	Pear

All functional dependencies are:
Tag -> System Model
Tag, Package, Install -> Software Cost
Package -> Software Cost, Package Name

Due to multiple functional dependencies existing this table it is not in third normal form or second normal form because the software cost can be found in either the overall tag - package - install key and the PackageID key thus the table cannot be in third normal form.

A better form :

TABLE 3-1: SystemsWithSoftware

Tag Number	Package ID	Install Date	Software Cost USD
32808	AC01	9/13/2005	754.95
32808	DB32	12/3/2005	380.00
32808	WP08	1/12/2006	185.00
37691	DB32	6/15/2005	380.00
57772	DB33	5/27/2005	412.77
37691	WP08	6/15/2006	227.50
57222	WP08	5/27/2005	170.24
59836	WP09	10/30/2005	35.00
77740	WP09	5/27/2005	35.00

\- Associative Entity (weak)

TABLE 3-2: Software

Package ID	Package Name
AC01	Adaptive C++ 01
DB32	DataBytes 32
WP08	Welsh Perfect 08
DB33	DataBytes 33
WP09	Welsh Perfect 09

TABLE 3-3: Systems

Tag Number	System Model
32808	Cell
37691	Jenovo
57772	PH
57222	PH
59836	Machine-E
77740	Pear

All functional dependencies:
tag & model -> install date & cost
tag -> system model
package & cost -> package name

All of these tables fall under third normal form. There are no multi-dependancies, no intra-table transitive dependencies, and no inter-table transitive dependencies (aside from primary - foreign key dependencies).

E-R Diagram:

SystemsWithSoftware

PKGID (PK)	SID	INSD	CST$

Systems

SID (PK)	MFGNAME

SID

PKGID

Software

PKGID (PK)	NAME