MODALITIES / Electrotherapy

product\_line — e.g., Intellect; Legend XT

product\_type— e.g., Intellect legend XT stimulator

product\_model — e.g., Intellect Legend XT 2-channel stimulator

product — e.g., Intellect Legend XT 2-channel with 5cm applicator

so the database data model, to capture this completely correctly

sub\_category <->> leaf\_category, [accessories]

in this case the accessories apply to some/aall/most of the product types in the subcategory (ie. Clinical Electrotheraphy) and so are just modeled as a leaf-category themselves (e.e., Clinical\_Electrotheraphy/Accessories.

leaf\_category <\_>> line , [ accessories ]

however, most times leaf\_category <-->> type directly, there is no intervening 'line'

so in some cases the relationship between a category and a type is through a line, but most times it is not. [ How model / deal with this? ]

line <->> type some manufacturers have a single line; others have multiple lines

TruMedical may carry some or all of the lines of a manufacturer

type <->> subtype

subtype <-->> model . product models are what the user orders; tms\_part\_no's identify models

model <->> individual physical instances of the model [ present in the database only as part of shipments, or returns) ]

the line has description [, logomark], [accessories] ( = xlong\_description)

the type has description [, accessories ] (= 'descripton')

the subtype has description, [,accessories ] (= 'long\_description')

the model has price, unit of sale, shipment method

We are going to change the terminology in one way:

We will refer to models as 'products'. This is because the sales system really never deals with individual instance of models, that is individual products. So we are going to coopt the term 'product' to refer to what in a stricter ontology would be termed product\_models.

We are also going to simply the class tree by removing explicit modeling of subtypes That will leave us with

sub-category <->> leaf-category

leaf-category <-->type e.g. stim <->> Legend XT stimulator

type <->> product

This means that we will repeat what would have been subtype names in the product name

e.g. 710101-001 All Terrry Cover, Standard $23.95

710101-002 All Terry Cover, Cervical $19.50

71-102-001 Foam Cover, Standard $99.99

710102-002 Foam Cover, Cervical ... $99.99

In this example the distintion between terricloth and foam covers is a subtype destinction, but since we are not specifically modeling subtype, we have pushed it into the product name.

So, for the database schema:

(product) **type** ::= name, description, **image**, [line], [accessories]

where:

**type**.**image** may be a composite of images of the individual products of this type

**accessories** are themselves products and therefore have all the properties that products do

**line** ::= name, description, [logomark] (and goes in a tab at the bottom of the page if present)

**product** ::= name, unit\_of\_sale, unit\_of\_shipment, price, method\_of\_shipment.

Note that products do not have images, only types. Looking at the printed catalog it is clearly the case that there are images for individual products, but they are always shown in composites, sometimes with an A, B, C, D, E tag to tie them to specific product listings, but not often. Usually the differences are clear enough not to require this.

Q: Do we have composite images for each of the types?

*So, lets rewrite the product/display.html.erb page, and then go back and create the spreadsheets to load the database from which we populate them.*

MODALITIES / Hot & Cold

both models and accessories can come in sizes, and colors { or scents — always only 2, ever more? ]

e.g, Nylatex Wraps, which are accesories for the leaf\_category stimulator (or for the leaf categories, stimulators and ultrasound? )

for leaf\_category paraffin baths, mitts , booties and hand/foot liners are accessories for both of the product types in the category

is refill wax an accessory for the type (paraffin bath) or a specific model (Therabth Pro Paraffin Bath) — note that the name of this type combines brand (Therabath), line (Pro) and generic category name (Paraffin Bath)

other 'dimensions' for 'matrix' items

refill wax : scents

MediBeads Moist Heat Packs : application ( Neck, Hand, Standard, King, Therapy)

Thermaphore Automaic Moist Heat Pad: Standard (=back, chest or both legs), Medicum (sholder, Arm or Knee), Petite (TMJ or Cervical)

Tru Terry Covers:

All Terry

710101-001 Standard

710101-002 Cervical

710101-003 Oversize

Foam Filled

710102-001 Standard

710102-002 Cervical

710102-003 Oversize

Note that in all cases so far tms\_part\_numbers (things you can order) are ascribed to models which are a particular combination of these matrix dimensions.

e.g., 710101 is an all-terry cover (so, in our terminology, a 'type')

710101-001 is an all-terry cover in standard size (so, in our terminology, a 'model')

It looks like tms\_part\_nos are made up of

<type><model> ( I don't know what the 71 vs 72 ... is?)

How do we present Accessories?

If they are members of the an Accessories leaf-category, we present them as products: with types and models

type\_name, type\_description, { models }

If they apply only to specific types of products, they are shown in the accessories section of the listing for that type of product, eg.,

extra wires, applicators for Intellect Legend XT 2 or 2 and 4 channel electrical stimulator units (is this called electrotheraphy — as distinct from Ultrasound theraphy? It seems like, in the TMS category tree Electrotheraphy is suse for both electrica stimulators, ultrasound stimulators, and combination units that do both. )

so we list on a **leaf-category** page, all of the product **types** within that category, showing a picture and name for each of them.

Within the product/show page we show a **type**, all of its **products,** and all of the accessories that apply to that type or specific products of that type.

For the type we show name, descrption, and an optional descrption for the product **line** that this type belongs to (e.g., the xlong\_description for the Intellect Legend XT product line; give this a tab 'Product Line'. Make Line and Line Description attributes of type. rather than linking to separate Line objects.

For models we show name , price, [unit of sale], [ truck shipment icon, if shipping is LTL], and a field for entering order quantity.

(Note: this means that we may have to force 'subtype', e.g., 2-channel , into the model name, potentially repeating it in several models each of which are of the same subtype.

Each product page also has a submit button