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How many angels?

The phrase "…. how many angels could fit on the head of a pin" has as much to do about a philosophical question as it is to how many entities you can fit on an A4 sheet of paper.

If you start off by answering ‘fewer if fat, more if thin” or “how long is a piece of string”, then the question to both will never get answered, as infinity (∞) is a very big number.

To tackle either question you have to first agree that the object/artefact in question (angel or entity) exist or not. As angels are in the realm of religion, I will pass on providing an answer. As I have dealt with entities for well over 40 years, I think I am in a position to tackle this question.

But first I have to know the ‘rule of 7’ (a short hand notation for ‘the magical number 7, plus or minus 2’), then how one entity relates to another and finally I need to consider the method I will use to display my findings (the presentation layer).

Rule of 7
Using this rule, the minimum number of entities that I should consider would be 5 and the maximum 9. This is a good place to start, as I can work with this finite number, although any enterprise will soon find that both numbers are totally inadequate.

Relationships
I now need to consider how to represent the number of relationships (associations or business rules) that could exist between one entity and another. There is a formula that determines how many relationships exist between one entity and another which is equal to square of the number. 2 objects will yield 4 associations, 3, nine and 4, sixteen etc. If you do not believe me try the simple model of a chicken and an egg and then add a farmer. Remember an entity can have a relationship with itself, a chicken can lay many eggs and an egg can be sat upon by many chickens.

Presentation layer
Finally I need to consider the presentation layer. I can only find 2 ways of displaying the entities. One is in a graphical format (art) and two by using a list (science).

The graphical layout will soon present a problem. Firstly the number of symbols you need to use and secondly the positioning of the entities on the page. Five or nine entities on a page is not a problem (but totally inadequate) and by the time you double or even triple the numbers, you will soon start to run out of space (remember you will also need to consider representing the relationships). If you do not believe me try to use a simple modelling tool like Microsoft PowerPoint (Insert > Diagram > Organisation chart). Another problem you will run into is trying to name the entity (to ensure it is unique) and the size of the font (to make sure it is at least legible). A third problem you will encounter is trying to describe the entity.

The list form is slightly better as it depends on the font size and the height of the ‘header and footer’ sections. You could use a table of two columns (for the name and a description), but a table takes up space as well and a long description will use a lot of space. On average you may be able to fit between 20 and 25 entities on an A4 page. But what about the relationships?

Modelling tools
This brings me to the use of a modelling tool to help store and manipulate entities. I have covered this in another article so please follow this link to read it.

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