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Subject: constructors and families

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'NewObject' will go away soon, and in this turn all (three) operations created by 'NewOperationKindArg1' will leave GAP 4.

Domains will then be constructed usually by operations with names such as 'SomethingByGenerators', which have the license to call 'Objectify'. (Also other functions may be constructors, for example trivial subgroups are made by 'SubgroupNC', which calls 'Objectify' in the case of an empty generators list.)

Elements of domains can be constructed by individual constructor operations, or by methods for the operation 'ObjExtRepFamily', which takes a family as first argument and the external representation of the element as second argument.

(The more efficient way will usually be the individual constructor.)

Installing 'ObjExtRepFamily' methods requires to specify the type of the family given as first argument. At the moment, families get the describing filters via 'NewCategoryFamily' from the filters of their elements. Is this sufficient, or do we need more filters for the families themselves? (Note that the call of 'NewFamily' does not allow to specify filters for the family.)

Besides that, it turned out that families are used more and more to store useful information in components such as '!.defaultKind'. Would it be desirable to list the admissible slots in the call of 'NewFamily', similar to the call of 'NewRepresentation'?

Thomas