

# FAMA: models to try

ISA Group

## 1 Models to try FAMA

```
%Relationships
Home: ControlSystem Lighting [AntiTheftAlarm] [MoviePlayer] [Internet] [Contents] [ADA];
ControlSystem: [1,2] CellPhone ControlPanel;
MoviePlayer: [1,3] {HDTV42in HDTV32in PCPlayer};
Internet: [1,4] {Ethernet WiFi_n WiFi_bg Mobile3G};
Contents: [1,2] {VideoOnDemand DMS};
VideoOnDemand: [Cache] Providers;
Providers: [1,2] ProviderA ProviderB;

%Constraints
VideoOnDemand REQUIRES Internet;
VideoOnDemand REQUIRES ADA;
Cache REQUIRES DMS;
PCPlayer REQUIRES CellPhone;
AntiTheftAlarm REQUIRES ControlPanel;
```

Model 1: Feature Model Example

Load Model 1 in FAMA console using the `load` command. In case you need help about the available commands, use `help` command or read the reference manual. The following table shows the results of executing the different operations.

<b>Operation</b>	<b>Result</b>
Valid	Yes
#Products	4928
Commonality(CellPhone)	3696
Errors	No error

If you want to see how FAMA behaves when an error is found, introduce at the end of Model 1 the constraint `ControlPanel REQUIRES CellPhone;`. The result is a model where `CellPhone` is a false-mandatory feature. It means that it is mandatory for any product despite of being modelled as optional. When we calculate its commonality (the number of products where a feature appears in), it is equal to the total number of products. It is the sign of mandatory features:

<b>Operation</b>	<b>Result</b>
Valid	Yes
#Products	3696
Commonality(CellPhone)	3696
Errors	False-mandatory: CellPhone
Explanations	[CTC-6],[to-CellPhone-ControlPanel-rel]

```

%Relationships
Home: ControlSystem Lighting [AntiTheftAlarm] [MoviePlayers] [Internet] [Contents] [ADA];
ControlSystem: [1,2] CellPhone ControlPanel;
MoviePlayer: [1,3] {HDTV42in HDTV32in PCPlayer};
Internet: [1,4] {Ethernet WiFi_n WiFi_bg Mobile3G};
Contents: [1,2] {VideoOnDemand DMS};
VideoOnDemand: [Cache] Providers;
Providers: [1,2] ProviderA ProviderB;

%Attributes
HDTV42in.ppp: [720,1080], 0, 0;

%Constraints
VideoOnDemand REQUIRES Internet;
VideoOnDemand REQUIRES ADA;
Cache REQUIRES DMS;
PCPlayer REQUIRES CellPhone;
AntiTheftAlarm REQUIRES ControlPanel;
HDTV42in.ppp == 1080 IMPLIES Ethernet;

```

Model 2: Model 1 extended with quality attributes

FaMa console only allows validation for attributed models.