Meeting of 10/13/98: CHAIMS possible examples

CHAIMS concepts

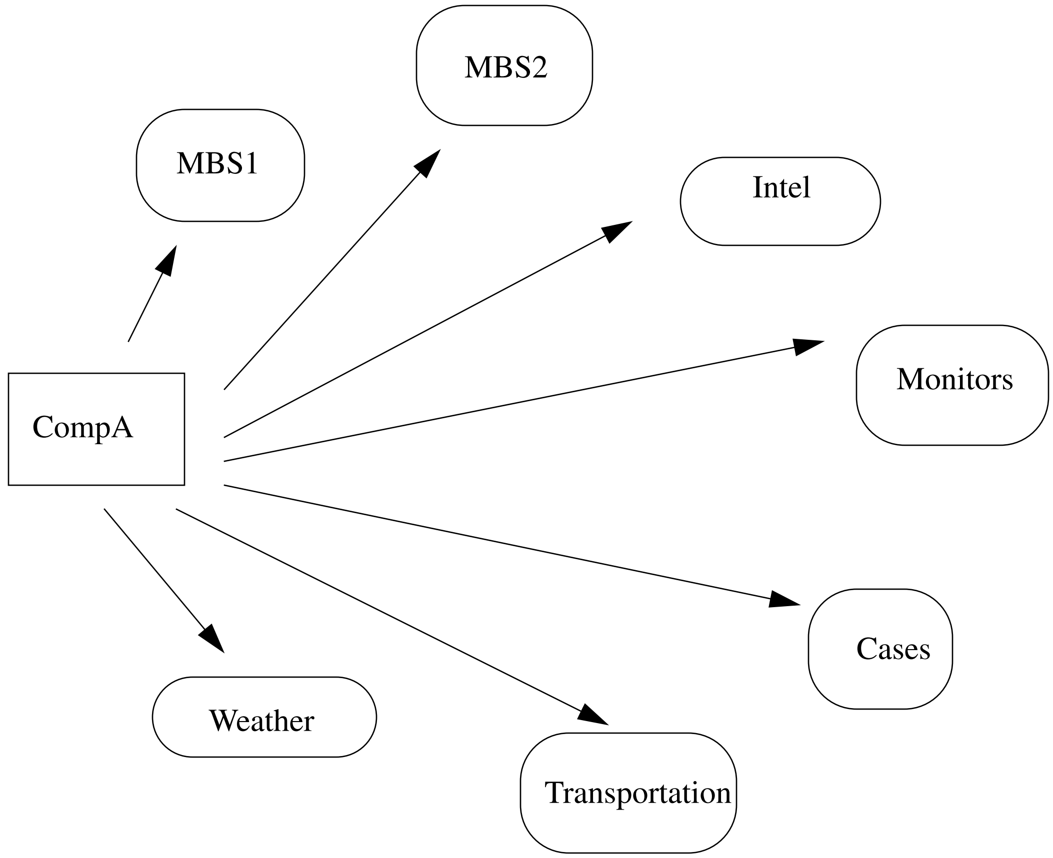
Hierarchical setting of param
Estimate
Partial extraction
Examine (and 2nd param)
Heterogeneity
Decision-making (via IO)
Distribution
Composition
On-going processes?

3 application examples

1. Supply Chain Management - Weather - Transportation (SWT)
2. Graphic Application (AG)
3. Aircraft Design System (ADS)
=> How CHAIMS concepts can be applied in these examples?

1. Supply Chain Management - Weather - Transportation (SWT)

Here is a diagram showing the interaction between a few megamodules and the megaprogram composing services from these megamodules:



CompA uses different services from different companies and asks for specific information to be transmitted from one megamodule to another if necessary.
Problems: Utilization of Estimate and Partial extraction. Also, application example very unlikely in real-life.

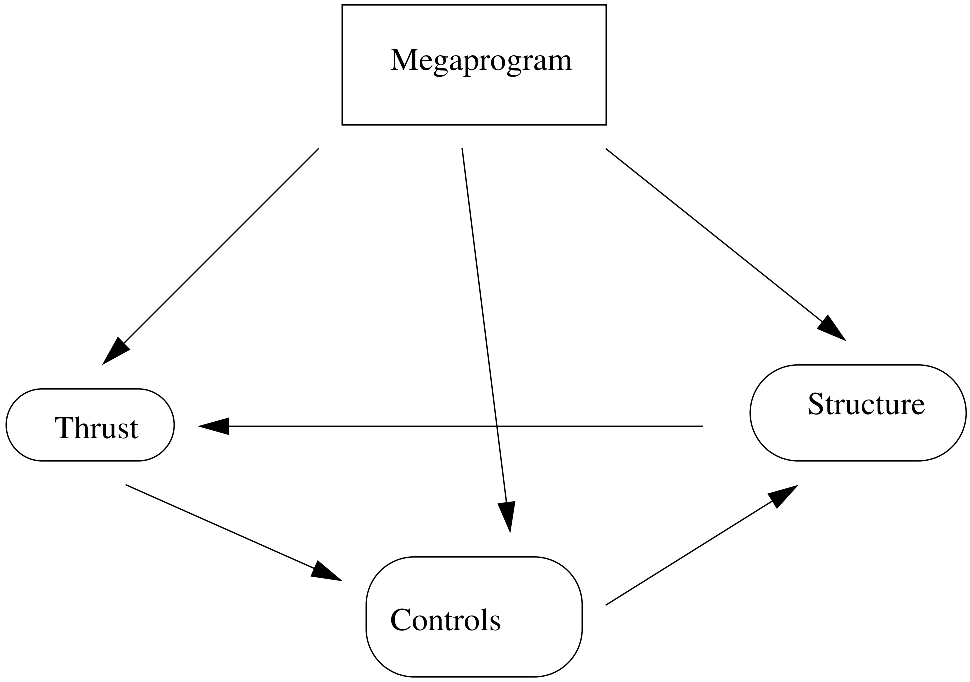
2. Graphic Application (AG)

Parallel execution of several parts of the image with estimate of processes execution on different servers.
Problems: No heterogeneity and no real composition.

3. Aircraft Design System (ADS)

Different services are composed to progressively design an aircraft. Results from each of these services have an impact on next services and vice-versa. Partial extraction useful in order to stop a process if its impact on the next services is too big and not consistent with the final expected result.
Note: No “far” distribution as services are usually at the same site even though on different servers

.



Summary

CHAIMS concepts	**SWT**	**G**	**AD**
Hierarchical setting of params	X	X	X
Estimate	?	X	X
Partial extraction	X?	X	X
Examine (and 2nd param)	X	X	X
Heterogeneity	X	Not really	X
Decision-making (via IO)	X	?	X
Distribution	X	X	X?
Composition	X	No	X
On-going processes?	X	X	X?

=> Do we want to design one big application or/and design several small megaprograms to prove specific concepts?

The Aircraft design system seems to be a good application example even though we already have a few transportation megamodules.

Decision

We will continue completing 1 and begin designing 3.