Software Development/Change Assessment

Existing/proposed application :

Completed by : Date:

1 Scope & Positioning

The purpose of these questions is

- *To understand the relationship between the proposed application (or changes to an existing application) and other existing applications in terms of the functional cluster defintions*[1]
- *To gauge the scope and complexity of the proposed application (or change)*
- *Note whether it generates client deliverables, which would be expected to restrict our freedom*
- *Note whether it uses or is effected by standards, codes or norms*
- *Identify any change control functionality and address how it can be made auditable*

1.1 Cluster Association

In what functional cluster does this exist? (check one)	engineering analysis	☐
	engineering data	☐
	material management	☐
	project support	☐
	business support	☐
	document related	☐

		Yes	No
Are there links to other items in the same cluster?		☐	☐
Are there links to items in other clusters?		☐	☐
If Yes, which?	engineering analysis	☐	☐
	engineering data	☐	☐
	material management	☐	☐
	project support	☐	☐
	business support	☐	☐
	document related	☐	☐

If the answer to any of these questions is yes, further definition of the link(s) is required. This must result in a documented interface definition which will identify (as a minimum) the data items transferred, their formats, the direction of transfer and the action to be taken with differing values (ie which application is governing).

[1] *Functional clusters are groups of applications. A short definition of those identified and examples are shown below:*

Functional cluster	***Definition***	***Examples***
Engineering analysis	*Numerical calculation program, generally standalone*	*Ceasar, FEPipe, Aspen, Hextran*
Engineering data	*Lists containing tagged items and their design parameters and/or relationships*	*EQDMS, CSA, instrument index, P&ID, Line List*
Material management	*Related to the quantification and control of material*	*PDS, PMC, RMMS*
Project support	*Related to the control and monitoring of projects*	*PEC, Primavera, CCO3*
Business support	*Related to the "normal" business functions*	*JDE (financial accounting), CMG-PMS (HR & payroll)*
Document related	*Applications that create or administer documents*	*"Basic" CAD, VPC, Documentum, Office*

1.2 External Constraints

	Yes	No
Does this (proposed) application generate client deliverables?	☐	☐

If Yes, what are they?
(documents / data, electronic / hardcopy, client specified format)

	Yes	No
Does this (proposed) application use standards, codes or norms?	☐	☐

If Yes, which?
(include Company standard forms and templates)

If the answer is yes then the procedure for updating use of standards, codes and norms (CM-CA-002) must be updated to include the (proposed) application.

1.3 Change control

	Yes	No
Are there checks and approvals in the process – for example sign-off authorisations?	☐	☐

If Yes, how are these made auditable by the new process?

Is there any change indication on printed output?	☐	☐

2 Complexity & Risk

The requirement is to simply quantify the complexity and risk of proposed application by answering a series of "multiple choice" questions. It is recognised that the initial assessment may be largely subjective.

Position application in the grid below (by highlighting the appropriate boxes). It is anticipated that no application within Company exists within the crossed out categories. (Categorisation developed with information courtesy of META Group.)

Business Driver	**Question**					
Business volatility	How rapidly does the business environment change, requiring existing process modification or the introduction of a new business process?					
High risk	**Very high complexity**	**High complexity**	**medium**	**low**	**Very low complexity**	**No complexity**
Business cycle measured in weeks	Business cycle measured in months less than 12	Business cycle measured in 12-24 months	Business cycle 2-3 years	Business cycle 3-4 years	Business cycle 5-6 years	Regulated 6+ years
Business Driver	**Question**					
Application Fit	How complex is the development effort, considering the "fit" between the application and current corporate practices and culture?					
High Risk	**Very High Complexity**	**High**	**Medium**	**Low**	**Very Low Complexity**	**No Complexity**
N/A	In-house development supporting a new business process	In-house development supporting an existing business process	New packaged application with significant customization	New packaged application with minor customization	New packaged application with no customization	Existing mature application
Business Driver	**Question**					
Developers Involved	How many developer man-months are required to build or customize the application?					
High Risk	**Very High Complexity**	**High**	**Medium**	**Low**	**Very Low Complexity**	**No Complexity**
N/A	>100	30-100	11-30 developers	4-10<	0<	0
Business Driver	**Question**					
Data Complexity	How complex is the application data?					
High Risk	**Very High Complexity**	**High**	**Medium**	**Low**	**Very Low Complexity**	**No Complexity**
N/A	Extensive use of user defined complex data types	Limited use of user defined complex data types	Extensive use of vendor supplied complex data types	Standard relational data types with limited complex data extensions	Mostly standard relational data types with moderate customization	All standard relational data types
Business Driver	**Question**					
Business Process Complexity	How many business activities, functions, and processes must the application address?					
High Risk	**Very High Complexity**	**High**	**Medium**	**Low**	**Very Low Complexity**	**No Complexity**
N/A	Multiple business function or multiple unrelated business processes	One business function or multiple business processes	One full business process	One partial process or multiple activities	Single Activity	

3 Organisational Issues

Who is the user (function)?

Who is sponsoring/suggesting this requirement?

Who is the owner of the existing process?

	Yes	No
Does the proposed/changed application change ownership of the process?		
Does the proposed/changed application change working practises?	☐	☐
If so, are these working practises embodied in any existing Quality System documentation?	☐	☐

If so, which? (These must be updated.)

Does the proposed/changed application effect more than one discipline?	☐	☐
Does the proposed/changed application effect more than one office? (What is being used in other offices today? Is this a replacement?)	☐	☐

4 Implementation Issues

How many users are considered? (named / concurrent)

Is a super user identified? Who?

What training is required? (eg number of hours per user, internal, external)

What database is used?	Access	☐
	Oracle	☐
	Ingres	☐
	Other (Specify)	☐
What is client platform?	NT	☐
	Other (Specify)	☐
What is server platform?	Netware	☐
	NT	☐
	Unix	☐
	Other (Specify)	☐

Are other “infrastructure” items required and, if so, what version(s)? Eg MS Office, cc:Mail, MAPI

What are the storage requirements? Eg # MB file store, central, local, # MB database

What are the processing requirements? Ie is there anything that couldn't be handled be "regular" Pentium class processor?

5 Benefits

Identify the anticipated benefits, eg efficiency (over number of manhours per year), reduction in data entry, validation, client requirement…

6 Sign Off

		Name	Date
Preparer	:		
Sponsor	:		
Existing process owner	:		
New process owner (if applicable)	:		
QA	:		
IS	:		