

LOG410 – Analyse de besoins et spécifications

Cours #11

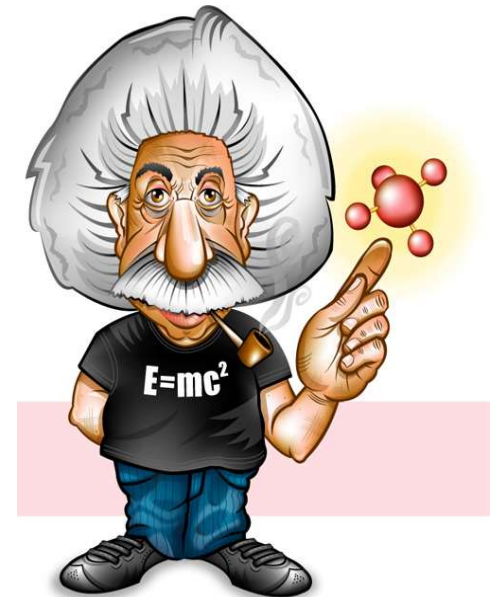
Devis, exigences contractuelles

Enseignants: Alain Dion, ing. et Yves Durocher, ing.

N'oubliez pas les dernier Quiz!

- ◉ Quiz Moodle #4 – Sera fermé vendredi soir!
- ◉ Quiz Moodle #5 – Sera fermé la semaine prochaine!

Last call!



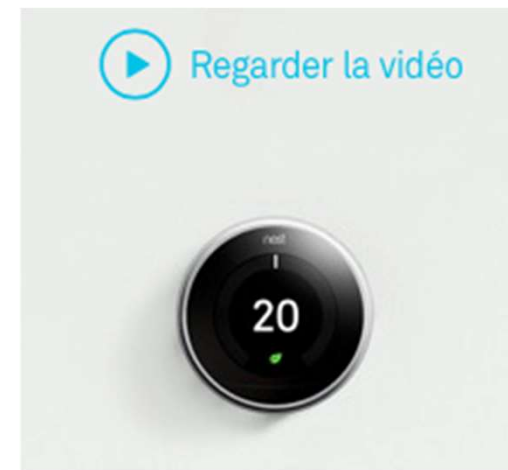
Retour – Objectifs du cours

- ⊙ L'étudiant devra:
 - ❖ Comprendre comment cerner le problème
 - ❖ Choisir et savoir utiliser la bonne technique d'explicitation afin de recueillir les besoins
 - ❖ Transposer les besoins du client en caractéristiques
 - ❖ Rédiger des exigences précises à partir des caractéristiques
 - ❖ Rédiger des récits utilisateurs
 - ❖ *Comprendre et produire des exigences contractuelles!*

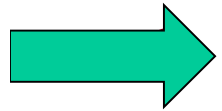
Vidéo – Thermostat nest



- ⦿ Il ne faut pas négliger les besoins nécessaires au développement de notre système!
- ⦿ Il faut aussi s'assurer de bien supporter nos utilisateurs!
 - ❖ Excellent exemple du Thermostat intelligent *nest*
 - ❖ **C'est essentiel!**



Plan du cours



L'éthique en développement logiciel!

- ⊙ Gestion des risques
- ⊙ Processus d'acquisition de logiciel

L'éthique en développement logiciel!

- 🎯 Grande réflexion sur vos valeurs et vos limites!



Bill Sourour [Follow](#)
DevMastery.com | Consultant | Teacher
Nov 13, 2016 · 5 min read

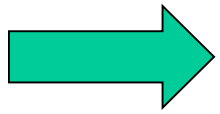
À lire sur Moodle!

The code I'm still ashamed of



Plan du cours

- ⊙ L'éthique en développement logiciel!

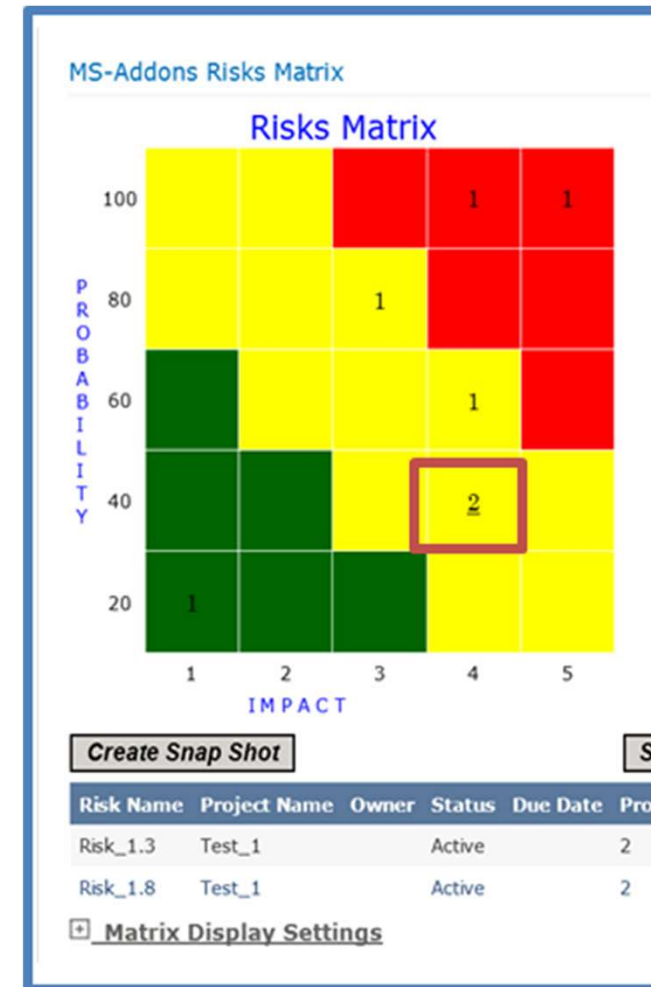


- Gestion des risques

- ⊙ Processus d'acquisition de logiciel

Gestion des risques

- Qu'est-ce qu'un risque?
- Comment peut-on évaluer un risque?



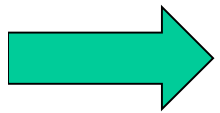
Exemple – Grille de risques

| Risk Item # | Category | Phase | Description | Probability | List of Impacts | | | | Risk score | Abatement plan | Contingency plan |
|-------------|----------------|-------|---|-------------|-----------------|----------|-------|---------|------------|--|--|
| | | | | | Cost | Schedule | Scope | Quality | | | |
| TR-001 | Reliability | Both | <u>Integration testing</u> Customer's ability to define all the needed test conditions. Minimizing the level of activity required. | 0,9 | 0,2 | 0,4 | 0,05 | 0,4 | 0,95 | Add knowledge on testing specific application. | Increase vendor QA involvement to help Customer to better play their Integration testing role. Review the overall test cases prepared by the teams. Plan some code reviews on the XML Client. Increase the planned effort for the load tests. Extend the pilot test period to measure the overall stability. |
| TR-002 | Performance | Both | <u>Technical architecture focus</u> The architecture was not designed to simplify the overall system operation, to increase stability and to address performance. Cost reduction drove many decisions. | 0,8 | 0,05 | 0,4 | 0,1 | 0,6 | 0,92 | | Increase the load testing effort to detect any performance issues as soon as possible and modify the code to improve the results. |
| TR-003 | Organizational | Both | <u>Business Relationship</u> Need for a high-level guidance on the project to address financials, contractuels and project management issues. | 0,9 | 0,2 | 0,3 | 0,2 | 0,3 | 0,90 | Setup of a Steering Committee, currently regular calls between Sam & Brian help to minimize the impacts. | Work session with vendor to establish the needed activities to reduce that risk. |
| TR-004 | Reliability | Both | <u>Limited Customer expertise available to operate the system</u> Many key players will disappear at the end of the project (DBA, XML Client, etc.). This will leave limited knowledge to operate and fix problems after deployment. | 0,9 | 0,1 | 0,1 | 0,05 | 0,4 | 0,59 | | All the parties should provide the needed content for the Operation Guide. Prepare a knowledge transfer activity, that includes a formal code review between Mike and vendor. Customer should do the same between Tom (DBA) and Telus. |
| TR-005 | Technical | Both | <u>New technology</u> Unforeseen technological challenges surrounding the software, custom development of the application and the robustness of the hardware. | 0,7 | 0,2 | 0,2 | 0,1 | 0,3 | 0,56 | | |

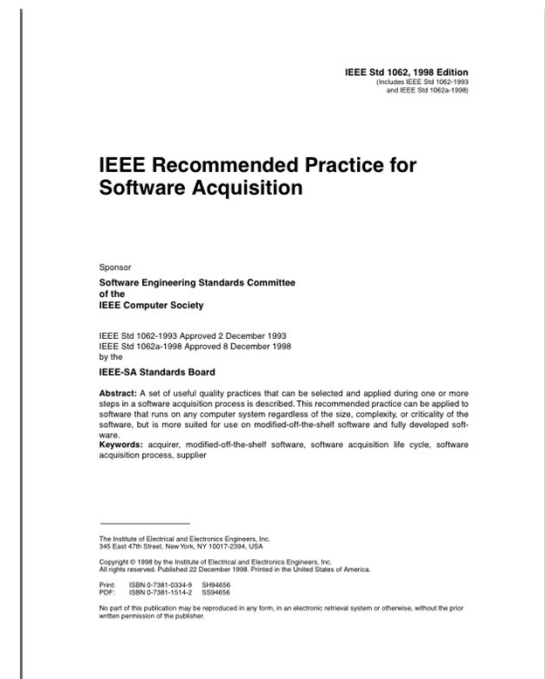


Plan du cours

- ⊙ L'éthique en développement logiciel!
- ⊙ Gestion des risques



Processus d'acquisition de logiciel



Discussion – Acquisition logiciel

- ⊙ Quelles différences existent entre la préparation des exigences pour le développement d'un logiciel versus l'acquisition d'une solution?
- ⊙ Des idées?



Contrat

- ⊙ Convention juridique par laquelle une ou plusieurs personnes s'engagent envers d'autres personnes à faire ou à ne pas faire quelque chose.

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Devis

- ⊙ Description détaillée des pièces, des matériaux et des opérations nécessaires pour réaliser une production, une construction, une installation ou une réparation avec l'estimation des dépenses

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Vous verrez souvent (en anglais):
SOW – Statement of work

Terminologie - Appel d'offres

⦿ Quelques éléments:

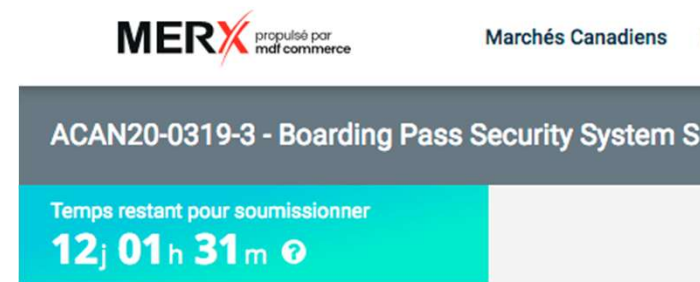
❖ Appel d'offres, appel de propositions

➤ **RFP – Request for proposals**

➤ Répondre à un appel d'offres nous engage, c'est un contrat!

❖ Requête d'information / Demande de renseignements

➤ **RFI – Request for information**



Plateforme d'appel d'offres

ACAN20-0319-3 - Boarding Pass Security System S

Temps restant pour soumissionner

12j 01h 31m

Matériel et logiciel informatique

Titre d'appel d'offres, mots-clés ou emplacement



Catégorie (1) ▾

Publication ▾

Status ▾

Filtré par Matériel et logiciel informatique (x) [Retirer les filtres](#)

223 résultats

Classer par

Pertinence ▾

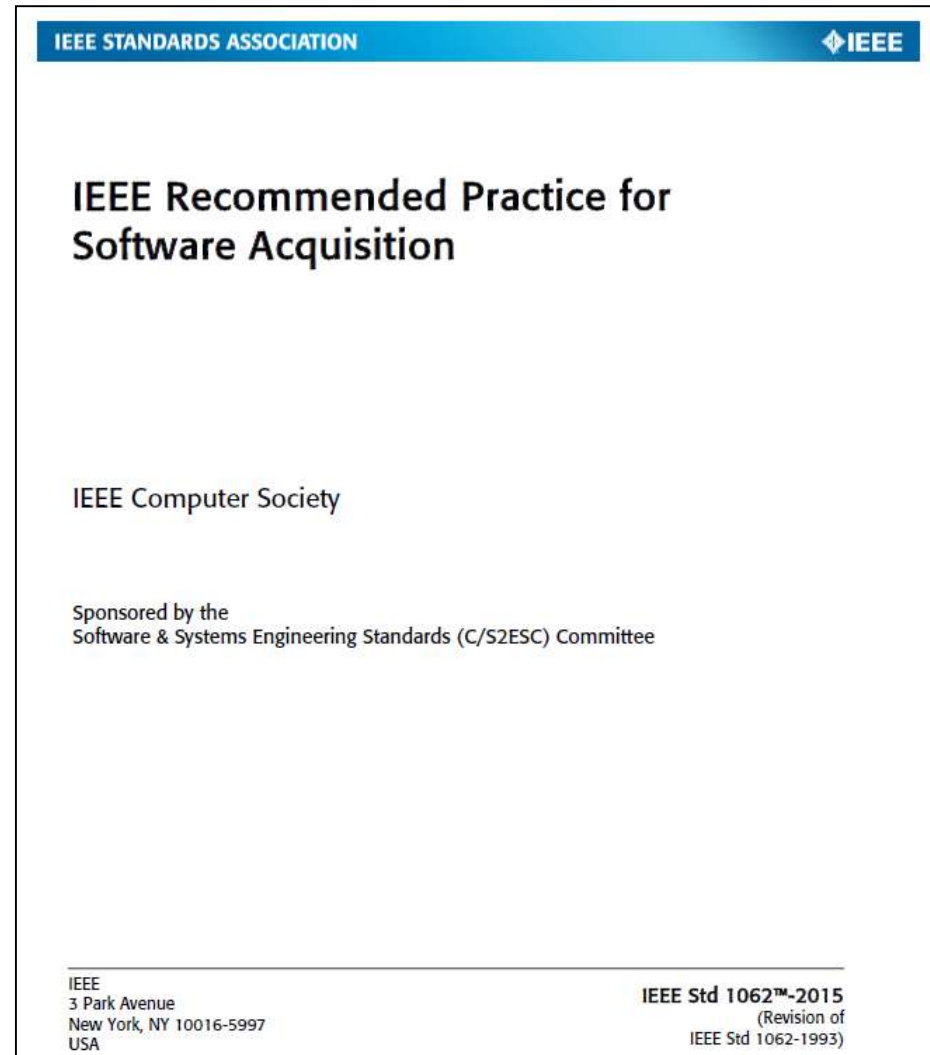
| | | | |
|--|--|--------------------------------|------------------------------|
| | Hardware Manitoba Central Services Manitoba, CAN | Date de publication 2021-03-19 | Date de fermeture 2021-04-07 |
| | AppleCare OS Support Manitoba Central Services Manitoba, CAN | Date de publication 2021-03-19 | Date de fermeture 2021-03-30 |
| | EricStation Phone with Mics Manitoba Central Services Manitoba, CAN | Date de publication 2021-03-19 | Date de fermeture 2021-04-06 |
| | PDP3 - Transport Verticale mise en service par un agent indépendant BGIS - PWGSC RP1 Outaouais, QC, CAN | Date de publication 2021-03-19 | Date de fermeture 2021-04-19 |
| | ITQ2021-03-26 Hardware Purchase Liquor Distribution Branch Columbia Britannique, CAN | Date de publication 2021-03-19 | Date de fermeture 2021-03-26 |
| | Request for Quotations Supply of Video Conferencing Equipment 21SASKPOLY04-07 | Date de publication 2021-03-19 | |

Processus d'acquisition vue de très haut

1. Définir le quelque chose (devis)
2. Trouver /sélectionner l'autre partie
3. S'entendre avec l'autre partie
4. Gérer l'entente
5. Terminer l'entente

Survol de IEEE 1062 – 2015!

- ⊙ Nouvelle version
 - ❖ Remplace 1062-1998



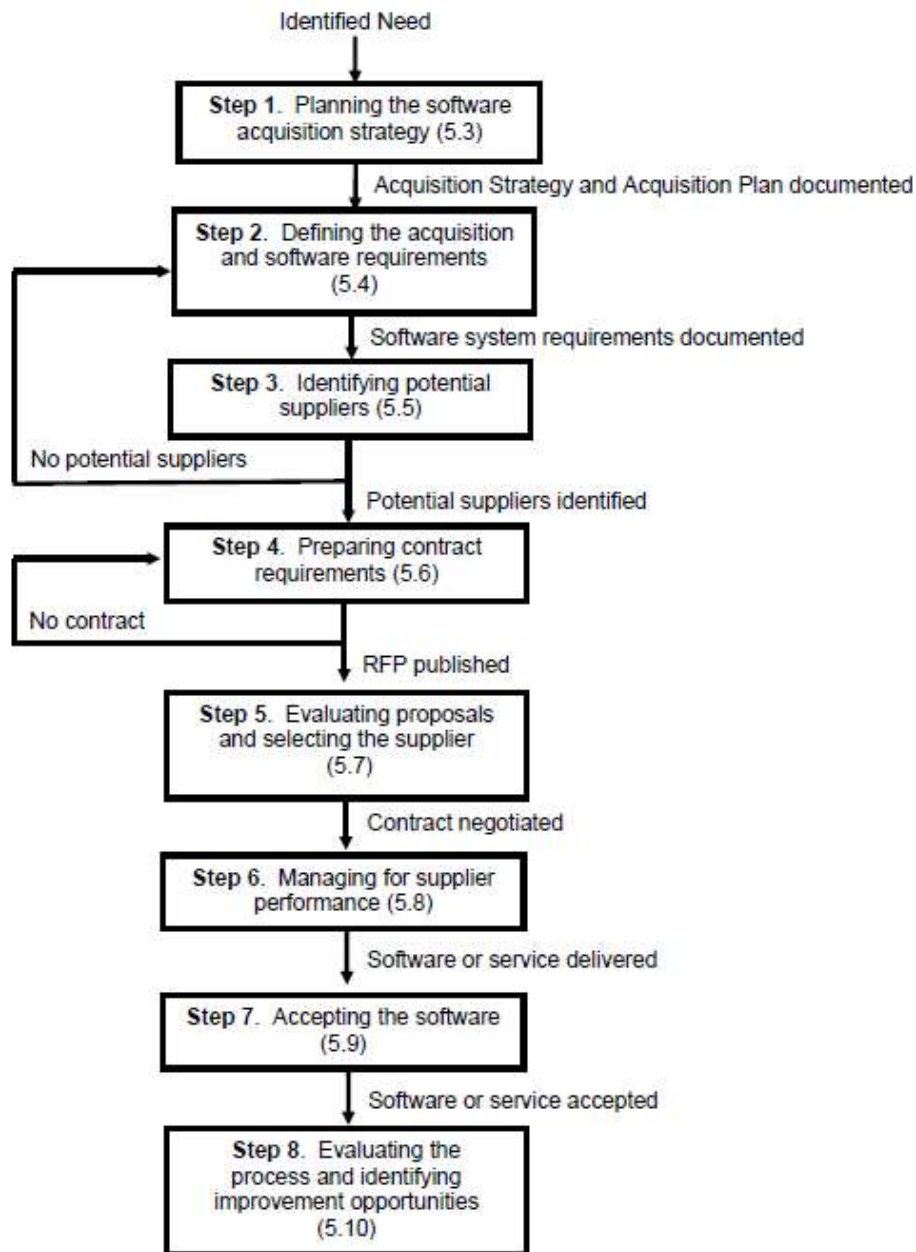


Figure 1—Eight steps in acquiring software

Version 1062-1998

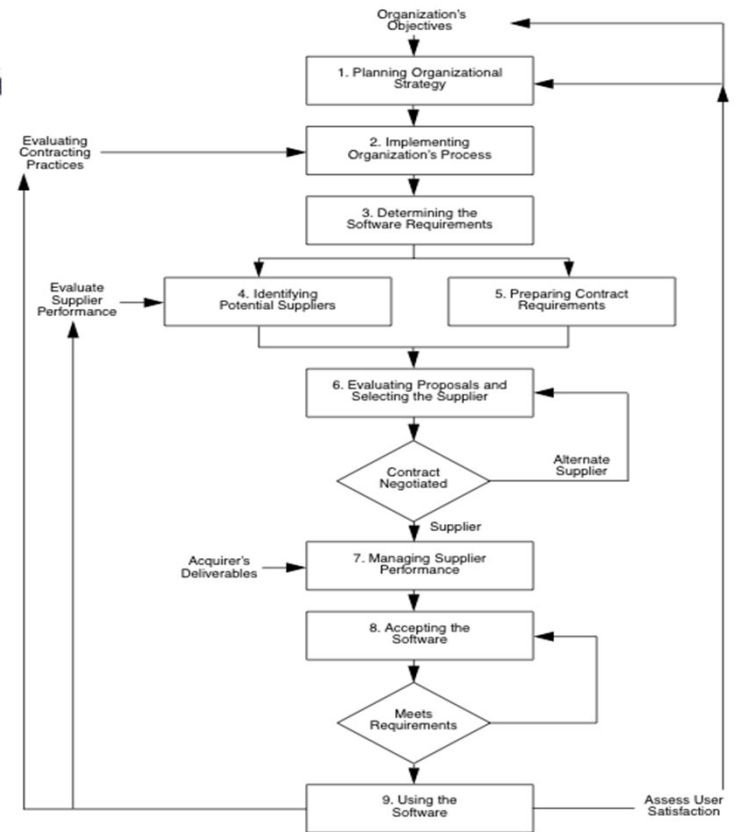


Figure 1—Software acquisition process

Contenus de base

- ⊙ Contexte
- ⊙ Fonctions désirées
- ⊙ Spécifications non fonctionnelles
 - ❖ ...
- ⊙ Contraintes
 - ❖ Environnement d'opérations
 - ❖ ...

Paramètres supplémentaires

- ⊙ Coûts
- ⊙ Conditions de livraison
- ⊙ Support et maintenance
- ⊙ Termes de la licence et propriété intellectuelle
- ⊙ Formation
- ⊙ Garanties
- ⊙ Partage du risque
- ⊙ ...

Développement du devis

- ⊙ Devis de base : presque équivalent au document de vision préliminaire
- ⊙ Devis détaillé : presque équivalent au SRS

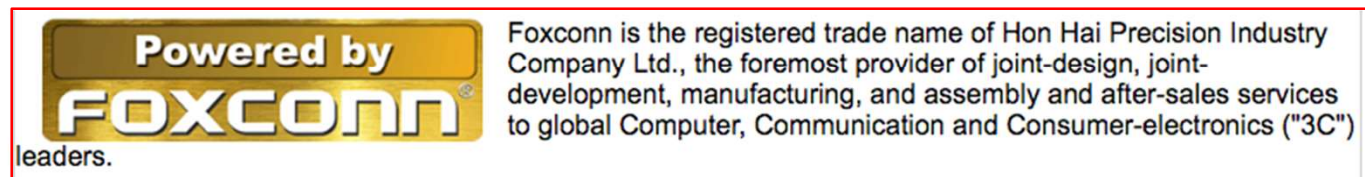
Exercice – Pratique du labo.



- En équipe de quatre ou cinq!
- Vous avez conçu le thermostat intelligent *nest* et vous recherchez un fournisseur qui le fabriquera!
- Produire:
 - Une grille de cinq critères de sélection
 - Un tableau des rôles et des responsabilités



Exemple:



Précision - Dernier livrable du laboratoire!

*Basé sur la
norme 1062-1998*

5.3 Defining the software requirements

When defining the software requirements

- a) Define the software being acquired;
- b) Establish proposal evaluation standards;
- c) Establish acquirer and supplier obligations;
- d) Develop plans to evaluate and accept software and services;
- e) Develop contingency plans.

Précision - Dernier livrable du laboratoire!

*Basé sur la
norme 1062-1998*

5.3.1 Define the software being acquired

The objective is to obtain from the supplier(s) realistic assessments of the size, scope, and cost of the effort required to produce the software.

The needed software, deliverables, and software support should be described as completely as possible in the RFP so that the supplier can understand and address the scope of work in the proposal. The example questions in Annex A, checklist 2, may be used as a starting point.

For fully developed software, IEEE Std 830-1998 should be used to document the requirements.

Depending upon the type of software being acquired, a request for quote or other acquisition document may be used in place of the RFP.

Précision - Dernier livrable du laboratoire!

*Basé sur la
norme 1062-1998*

5.3.2 Establish proposal evaluation standards

The objective is to establish proposal evaluation criteria that ensures that the supplier most suited to do the work is selected.

An evaluation criteria should be developed to use in reviewing supplier proposals, identifying nonresponsive suppliers, and selecting a qualified supplier. The supplier's management qualifications, technical approach, quality assurance program, and proposed cost should be considered. The questions in Annex A, checklist 3, may be used.

A provision should be included in the RFP requiring inspections of supplier facilities to investigate and evaluate various factors, including financial position, technical capability, experience, and quality practices.

Précision - Dernier livrable du laboratoire!

5.3.3 Establish acquirer and supplier obligations

The objective is to establish and clearly state the obligations of both the acquirer and the supplier. Annex A, checklist 4, may be used.

5.3.4 Develop plans to evaluate and accept software and services

Quality and maintenance plans should be developed to use in evaluating and accepting the software and services provided by the supplier. Annex A, checklist 5, may be used.

5.3.5 Develop contingency plans

Contingency plans should be developed to use in the event the supplier fails to satisfy contract requirements and the contract is then terminated. The complexity of the project and the risk in achieving the contract requirement should be considered.

Exemple – Grille de critères

Multimedia Content Management System Request for Information - Instructions

Format

- The top of the RFI tab contains six response columns.

RFI Rating Legend

| Response | Explanation |
|--------------------|---|
| Supported | Supported as delivered "out-of-the-box" |
| Config. Parameters | Supported via configurable parameters, without any code modification. |
| 3rd Party | Supported via a third party solution |
| Customization | Supported through customization (changes to source code) |
| Future release | Will be supported in a future release |
| Not supported | Not supported |

User Responses

- The Weight column indicates the importance of each criteria.
(the value vary from 0 to 10, 10 is used for most important ones)

RFI Example

Vendor Responses

- Complete the RFI worksheet by placing an X in the appropriate column for each criteria.
- No X could be added within grayed cells.
- The Xs represent the current state of a product or service.

| Hierarchy | Description | Weight - to + (0-10) | Supported | Config. parameters | 3rd party | Customization | Future release | Not supported |
|-----------|---|----------------------------|-----------|--------------------|-----------|---------------|----------------|---------------|
| 1.2 | Annual financials | | | | | | | |
| 1.2.1 | Total annual revenue | | | | | | | |
| 1.2.2 | Earnings before Interest & tax | | | | | | | |
| 1.2.3 | Profit / Loss | | | | | | | |
| 1.2.4 | Earnings per share | | | | | | | |
| 1.2.5 | Total assets | | | | | | | |
| 1.2.6 | R&D investments | | | | | | | |
| 2 | Multimedia content creation | | | | | | | |
| 2.1 | Ingest / import | | | | | | | |
| 2.1.1 | Ability to ingest massive video tapes in various existing formats | 8 | | X | | | | |
| 2.1.2 | Live feeds capture | 6 | | | | X | | |
| 2.1.3 | Import camera data (EXIF, ...) | 10 | X | | | | | |
| 2.1.4 | Editing projects import | 7 | | | | | | X |
| 2.1.5 | Import content of external disk or over the WAN content | 8 | | | | | | |
| 2.1.6 | Ability to import CAD files | 4 | | | X | | | |
| 2.1.7 | Batch mode support | 10 | | | | | | X |

Liste de vérification de la 1062-2015

⦿ Discussion:

- ❖ Une fois le SRS défini, définissez à l'aide de la liste de vérification quels sont les éléments d'information additionnels qui sont nécessaires au devis?

La semaine prochaine – dernier cours!

Gr02

- ⊙ Exigences Agile
- ⊙ Outils de gestion des exigences

Gr01

- ⊙ Propriétés émergentes

Bonne semaine!