



NAMFS Generic Method to Define a Field Questionnaire

Scope

A Questionnaire is typically made part of a work request, typically in the form of a “**Work Order**”, which has the location and other details of where, when and how the work is to be performed by the assigned field worker. How Work Orders are shared, which may include one or more Questionnaires, is covered in a separate document. This document simply discusses the method for designing, sharing and receiving results from a Questionnaire itself.

Background and Definitions

Companies that provide field services to the mortgage industry, referred to generically as “**Work Providers**”, may require field questions to be answered at the various properties they service. These properties are typically serviced by their field network which is often referred to as the vendor network or “**Vendors**”.

Work Providers may create their own questions for their internal use or be provided with required questions from their customer. Work Provider’s customers are typically referred to as their “**Client**”. Work Providers are typically contracted by their customer to visit, or have their Vendor visit an asset or property and provide answers to related questions to determine the status of the asset. A Client acting as the first Work Provider may hire the 1st tier Vendor, who is in turn a Work Provider that may re-assign their field work to a 2nd tier Vendor to the original Client. Each Work Provider in the supply chain may require their own set of questions from their Vendors.

A collection of questions completed electronically, on paper or both is typically called a “**Questionnaire**”, a “**Form**” or a “**Survey**”, and collectively be called a “**Survey**” if completed electronically and a “**Form**” if completed on a printed piece of paper. A **Questionnaire** refers to both a question set defined on paper (a Form) and a related question set presented electronically (a Survey).

A Survey is typically provided and completed on a mobile device or via a web browser. A distinction should be made between a “**Mobile Survey**” is done on-site by the field professional as the work is performed and may be verified by a GPS enabled time and date signature, versus a “**Desktop Survey**” which is filled out using a

web browser or desktop computer software after the field work has been completed. Desktop Surveys may be completed by the field professional or others acting as his/her agent based on field notes captured by the field professional typically communicated on a paper Form or other methods of note taking.

Surveys allow for conditional questions that may be triggered or enabled based on the answer to a previous question's answer as the Vendor is completing the Survey. This triggering of questions based on previous answers is typically called "Skip Logic".

NAMFS Standard Solution

NAMFS proposes a recommended method for the mortgage field service industry to define and share electronic Surveys and related paper Form's among member companies and a recommended method on how to share/consume the data collected.

The method will define the question text, question workflow, question skip logic and related photographic evidence requirements for each question and how the answers and data collected will be shared with the field ("Vendors") and work requestor's ("Work Providers").

Method to define questions and related requirements

The following fields will be presented in a spreadsheet format to define the set of questions and related question attributes for each Survey. The following example Survey is a property condition report, or "PCR" showing the first 5 questions.

Category	Question#	Question Text	Contingency	Question Type	Choice A	Choice B	Choice C	Choice D	Choice E	Choice F
Root	Root	Property Info								
Root	1	Was the property accessible?	Default Show (Always)	Radio Box	Yes	No				
Root	2	If not, why?	Contingent on #1	Radio Box	Keypad	Guard Decline	Condemned	Other		
Root	3	If other, describe	Contingent on #2	Comment Box						
Root	4	Property type		Radio Box	Single Family	Multi-Unit	Condo	Mobile Home	Vacant Lot	
Root	4a	Address Photo, Front of House Photo, Structure photos, Street Sign Photo		Photos						
Root	5	Does there appear to be evidence of a demolished structure?	Contingent on #1	Radio Box	Yes	No				
Root	6	Take photos of demolished Structure	Contingent on #5	Photos						

Please refer to the PCR Industry Solution Group for a full example of the Questionnaire proposed and related workflow for a property condition report..

The spreadsheet columns for each question are as follows:

- Category
- Question#
- Question Text
- Contingency
- Question Type
- Choice A
- Choice B
- Choice C
- Choice D
- Choice E
- Choice F
- Choice G
- Choice H
- Comment
- Question Rule(s)
- Min Photos

- Max Photos

The **Category** field can be used to define groups of questions.

The **Question#** field is useful to define the sequence of questions, and allows one question to reference another question.

The **Question Text** field is used to define the exact wording of the question.

The **Contingency** field is used to define the Skip Logic for conditional questions. One question can enable other conditional questions. An array of answers can enable the conditional question(s), for example, “Yes”, or “No” but not “Other” can enable related conditional question(s).

The **Question Type** is the type of question supported. NAMFS supports the following question types, Choose 1, Choose Multiple, Date, Number, Integer, and Text. Additional question types may be supported by technology providers.

For ease of use by people, the choices (**Choices A - H**) are limited in the template spreadsheet but there is no technical limit to the number of choices. A practical choice limit is however reasonable and should be limited to less than 10 choices per question.

The **Comment** field can be used to map specific comments or notes to the field user.

The **Question Rules** defines the conditional answer set(s) required for Skip Logic to enable contingent questions.

Max Photos and **Min Photos** fields define the required photos for the given question. If set, photos must meet minimum and maximum settings.

Method to share Survey Questions electronically

The following JSON array will be used to take the work done by humans in the Questionnaire spreadsheet defined above and express each question electronically allowing Clients, Work Providers and Vendor technology providers to map the questions to their specific implementation of distributing electronic Surveys to the field.

Element	Example	Description
Question[i].name	"name": "question1",	Name of Question
Question[i].id	"id": "question1",	ID of Question
Question[i].uuid	"uuid": "a0a8ea88-88c8-48e2-8c5f-bddf89968980",	UUID for Question
Question[i].answerType	"answerType": "yesNo",	Answer type for the question

Question[i].text	"text": "yes no question",	Human readable text for the question
Question[i].hint	"hint": "answer yes or no",	Question hint (optional)
Question[i].required	"required": true,	boolean that defines if question is required
Question[i].answerRequiresPics	"answerRequiresPics": {},	Array that defines required pictures
Question[i].choices	"choices": [],	Array that defines choices, if applicable
Question[i].options	"options": [],	Array that defines options, if applicable
Question[i].enabledByDefault	"enabledByDefault": true,	boolean that defines if question is initially enabled
Question[i].commentsEnabled	"commentEnabled": true,	boolean that defines if question supports comment box
Question[i].modeOptions	modeOptions: { "multiLine": false }, --- if a text question type	Array that defines specific modes for specific question types.

Method to share results of Survey Questions

The following will define the entire Survey (all questions defined above) and the related results (answers, photo unique id's and whether or not each contingent question was enabled). This will allow Vendor's technology providers, Work Providers, and Clients to map the Survey results received from the field to their respective business systems.

Element	Description
questions	An array containing an object for each question in the survey, this is the full survey definition plus results and optional instances (sub-surveys)
questions[i].results	An object containing results from a submitted survey sent back to work provider
questions[i].results.photos	An array of strings, which are photo UUIDs that are associated with this question. This is the only reliable way to determine survey photos.
questions[i].results.answers	An array of strings containing the answers to the question, which will be the "answer" value for supported question types. Answers should only be considered valid if the question is enabled: true.
questions[i].results.enabled	Boolean, will be true if the question was enabled when the survey was submitted.

