SERVICE WORKS GLOBAL

QFM 3.01.02.34 Release Notes

What's New in QFM v3.01.02.34

March 2021

Confidentiality Statement:

The information contained within this document is strictly confidential and contains proprietary and privileged information which is the intellectual property of Service Works Global. It is intended for use by the recipient for evaluation purposes only and may not be reproduced or disclosed under any circumstances without the express written permission of an authorised authority of Service Works Global.in confidence.



Contents

Contents	1
Version Log	2
Release Notices	3
QFM CompatibilitySecurityCrystal Reports	3
New Features Summary	4
Triggered Events from Dynamic Form Data	5
Overview	5
Introduction Features Process Example Configuration	6 7
Import/Export Utility for Dynamic Form Controls	13
Overview	13
Introduction Exporting Form Data Formatting Data in a Spreadsheet Importing Form Data Points of Note	15 16 17
Validation for Maximum Number of Dynamic Form Controls	20
Overview	20
Dynamic Forms - General Enhancements	23
Overview	23
Updated Captions for 'Control Type' Dropdown Options Updated Captions for 'Styling Class' Dropdown Options Panel Control Fields Re-ordered End Dated Forms	24 25
Minor Enhancements and Changes	28
Known Issues	
OEM Installation Notices	30



Version Log

Version #	Summary of Revision	Date	Author
1.0	First edition	19/03/2021	MR



Release Notices

QFM Compatibility

The QFM v3.01.02.34 release is compatible with the following QFM software:

Workflow Scheduler: 3.01.02.02Mobile App: 3.01, 3.00.01Mobile server 3.01.02.01

• Desktop Version: 164.08.09

In order for this release to perform at an optimum level, Service Works strongly recommends that client organisations upgrade to these software versions or later.

Security

Maintaining high levels of software security continues to be a high priority for us and we've been able to further enhance the security built into QFM 3.1. This, combined with our ISO27001 information security management accreditation provides our clients and service partners with the confidence that their data will be managed securely.

Therefore, it is a requirement that QFM versions 3.1 or higher must use an SSL certified environment (this includes the Web, Workflow Scheduler, Mobile Server). In addition, support for non-SSL from the QFM Mobile app will be depreciated in future app release versions.

Crystal Reports

Please note that clients wishing to upgrade to v3.00.01.37 and above will be required to upgrade Crystal Runtime to 13.0.27. For users with multiple installations on the same machine, all instances will require an upgrade to v3.00.01.37. Please speak to your SWG Account Manager to discuss specific requirements or to raise any concerns.

Additionally, clients who wish to upgrade to 64bit will also require all custom Crystal Reports to be updated. SWG will upgrade all standard reports within the core product and provide clear directions to users who have additional custom reports not maintained by SWG.

Furthermore, whilst 32bit does not currently require Crystal Reports to be upgraded, it is recommended that Crystal Reports which use TTX are upgraded, as these are no longer supported by SAP and SWG cannot guarantee future 32bit runtimes will be backward compatible.



New Features Summary

The QFM v3.01.02.34 release includes several new features. A summary is provided below, with further details on the following page.

Triggered Events from Dynamic Form Data

A new QFM Workflow Scheduler (WFS) feature enables the automatic generation of remedial work requests in response to surveys, audits or inspections, carried out using Dynamic Forms and which are deemed to have failed a particular pre-determined standard.

Import/Export Utility for Dynamic Form Controls

Dynamic Form data can now be Exported out of QFM and Imported back in, via a new utility. This enables forms to be maintained in bulk rather than updating each control separately in QFM, and is of particular benefit to organisations who utilise a large number of forms in the database. The Import/Export utility is available to maintain existing forms by exporting the data, updating it then importing, and also to import data when creating new forms.

The system validates the data in each import and will only accept controls which are in an acceptable format. A Results file in .csv format is produced for each import which gives details of any specific validation failures, so that these can be easily corrected and re-imported.

Validation for Maximum Number of Dynamic Form Controls

QFM sets a recommended maximum number of Form Controls (questions) for each Dynamic Form, to avoid any potential processing issues. It is now possible to update forms and exceed the Controls limit, with system messages and validations providing appropriate warnings.

This change is required to support the Import/Export utility, and Service Works maintains its advice that the recommended Panel Controls limit should not be exceeded.

Dynamic Forms - General Enhancements

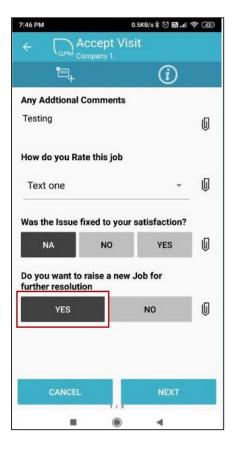
A number of general enhancements are made to Dynamic Forms.



Triggered Events from Dynamic Form Data

Overview

A new QFM Workflow Scheduler (WFS) feature enables the automatic generation of remedial work requests in response to survey, audit or inspection data, carried out using Dynamic Forms and which are deemed to have failed a particular pre-determined standard.



Features and benefits include:

- Automatic generation of remedial work requests without the need to manually create a QFM Event.
- Provides an alternative mechanism to trigger remedial Events from Dynamic Form questions
 that are deemed as 'failures', without the requirement to set up reference Monitored Values
 and associated validators for each form.
- Can be set up against individual question failures or overall form failures.
- Remedial Events are linked to the original Event containing the survey/audit/inspection Form.



Introduction

A new QFM Workflow Scheduler (WFS) feature provides an alternative mechanism to trigger remedial Events from Dynamic Form questions that are deemed as 'failures', without the requirement to set up reference Monitored Values and associated validators for each form. This enables organisations to carry out inspections, surveys or audits usings forms on the QFM app, which automatically generate remedial work requests when pre-specified responses are captured, e.g. a failed quality check.

The current QFM Monitored Values framework is well suited to managing equipment readings within an allowed range and triggering Events where readings are presented which fall outside a range. For those organisations who have a large volume of forms and a large number of controls on those forms, this can present a significant amount of effort to set up the required Dynamic Forms and associated Monitored Values, Schedule Templates and Assets.

The new WFS feature allows much simpler Dynamic Form design by reducing the need to use Monitored Values to trigger associated Events from questions that require a simple Pass/Fail/NA answer. The Monitored Values framework will be required for those questions that require answers which incorporate a range reference.

There are no changes made to the QFM User Interface as a result of this new feature. Set up and configuration should be carried out by Service Works' personnel only. Please refer to your SWG Account Manager for further details.

Features

- Triggered Events from Dynamic Forms can be incorpotated into QFM Workflows for any type of inspection, survey or audit.
- Configurations are added to the QFM 'featureconfig' file which specify which Dynamic Forms to include.
- The new feature examines the QFM 'featureconfig' file, where the rules are set, to check which forms the feature will be applied, and so limiting the types of form to be interrogated.
- The new feature can be set to only apply to specific Dynamic Form 'Types' or Form 'Names'.
 - It looks only at the forms specified in the QFM 'featureconfig' file.
 - Triggers can be set at Question level or Form level, i.e. a failed question or an overall form failure.
 - For a specified form, the feature scans for any question failures or overall form failures, and can be set to generate a specific type of remedial Event.
 - It can be set to generate remedial events upon the entry of a particular question response, (e.g. a failure). If a completed form is then found to contain such a response, an Event is generated.



 Various data values can be taken from the original failed form and entered onto the new remedial Event (e.g. added to Event instructions). These include:

Tags	Details
{#Question.ShortCaption#}	Column Caption associated with the question which generated the Event
{#Question.Caption#}	Full Question
{#Question.Value#}	Value Captured for Question
{#Form.Caption#}	Title of form
{#Form.FormType#}	Form Type
{#Form.EventID#}	Event ID of event against which form was filled in
{#Results. <col caption=""/> #}	Valid column caption from the Dynamic Form Results view (replace any spaces with '_').

- Templates which determine the characteristics for the remedial Events are created in Schedule Activity Maintenance.
- Remedial Events are created as Sub-Events to the original Event which generated the Dynamic Form.
- Remedial Events use relevant data from the original Event, e.g. asset, geography etc.

Process Example

The WFS feature commands are set up in the QFM 'FeatureConfig' file (shown in the examples below). This instructs the system to check for particular responses on specific forms and create remedial Events if the criteria is met.

```
Commitgration": 0" encoding "tuf-0" |

Commitgration": 0" encoding "tuf-0" |

Commitgration": 0" end key "Summary "value" "Tymanic Forms Triggered Events"/>

cadd key "JobScheduledImaStart" value" "Tou"/>

cadd key "Tousing Tous"/>

cadd key "JobscheduledImaStart" value" "Tou"/>

cadd key "Tousing Tous"/>

cadd key "Mapping O" value" "Event(Characteristic) [Question) ShortCaption"/>

cadd key "Mapping O" value" "Event(Characteristic) Form (Caption"/)

cadd key "Mapping O" value" "Event(Characteristic) Form (Caption) //

cadd key "Mapping O" value" "Event(Characteristic) Form (Caption) //

cadd key "Mapping O" value" "Event(Characteristic) Form (Caption) //

cadd key "Mapping O" value" "Event(Characteristic) Form (Caption) //

cadd key "Mapping O" value" "Event(Characteristic) Form (Caption) //

cadd key "Mapping O" value" "Event(Characteristic) Form (Caption) //

cadd key "Mapping O" value" "Event(Characteristic) Form (Caption)
```

The command below specifies the Dynamic Form Type and Form Name to be examined.



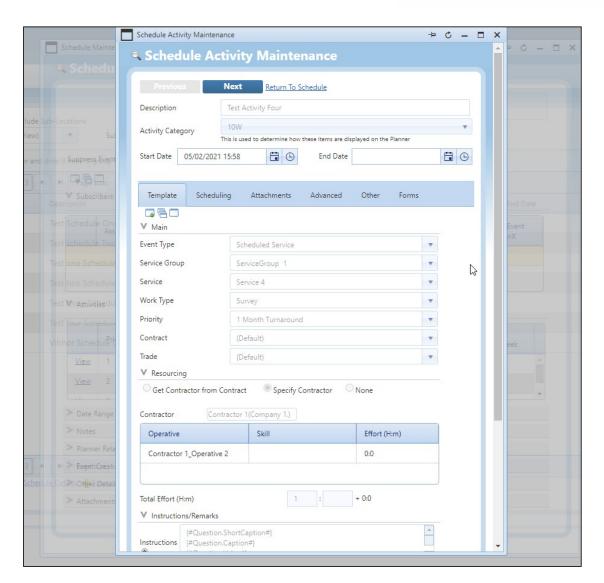
The long command specifies that if the dynamic Form Lookup Type (question) **Raise Event** is set to **Yes** on the form then an Event should be created from the Schedule **Test three Schedule Triggering** Activity **Test Activity Four**.

The Lookup Type question Raise Event is shown below, on the Dynamic Form set up screen.



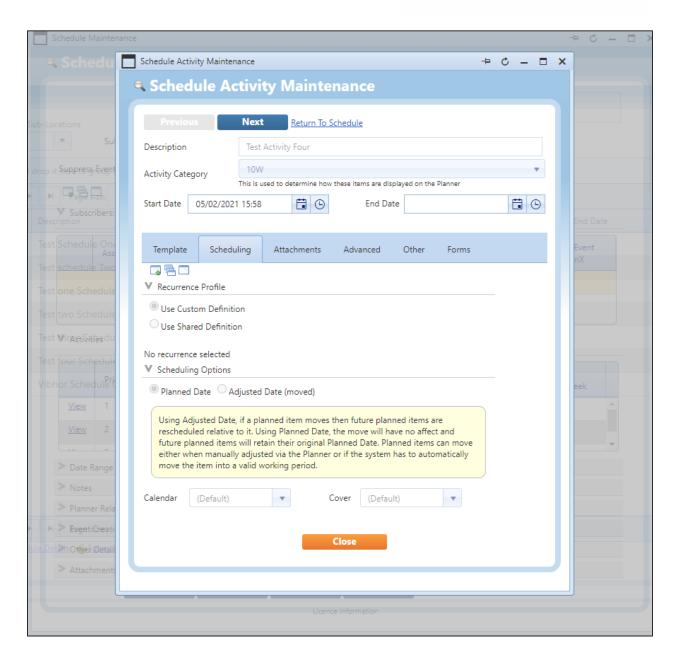
Details of the remedial Events are established in QFM schedules, (refer to the example below).





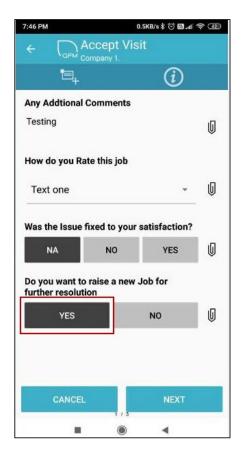
Note: No Recurrence Profile should be set for the remedial Events.



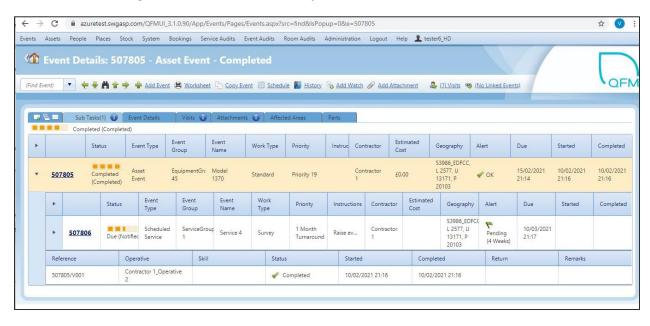




The Dynamic Form, as used on the QFM App, is shown in this example. The question caption 'Do you want to raise a new job for further resolution' is linked to the Lookup Type of **Raise Event**. Therefore, if the reponse of **Yes** is selected, then a remedial Event will be generated according to the Schedule.



In the Event screen example below, the remedial Event 507806 is linked as a Sub-Event to the original Event 507805 which generated the Visit with the Dynamic Form.





Configuration

Set up and configuration of this feature should be carried out by Service Works' personnel only. Please refer to your SWG Account Manager for further details.

SWG Use Only

Further details on configuration are contained in the separate *Dynamic Forms Triggered Workflow - Configuration* document.

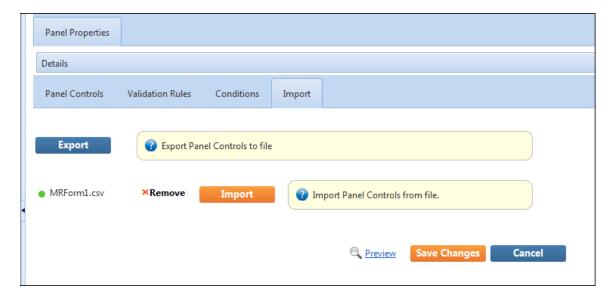


Import/Export Utility for Dynamic Form Controls

Overview

Dynamic Form data can now be Exported out of QFM and Imported back in, via a new utility. This enables forms to be maintained in bulk rather than updating each control separately in QFM, and is of particular benefit to organisations who utilise a large number of forms in the database. The Import/Export utility is available to maintain <u>existing forms</u> by exporting the data, updating it then importing, and also to import data when creating <u>new forms</u>.

The system validates the data in each import and will only accept controls which are in an acceptable format. A Results file in .csv format is produced for each import which gives details of any specific validation failures, so that these can be easily corrected and re-imported.



Features and benefits include:

- Greater efficiency when maintaining Dynamic Forms, with the ability to export Panel Control
 data for a whole form out of QFM and into a .csv file where it can be easily maintained, before
 being imported back into QFM.
- Data accuracy is ensured with validation controls which check the format of imported data, giving the opportunity to correct any errors and re-import.

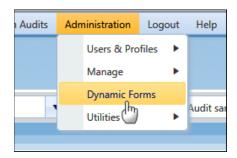


Introduction

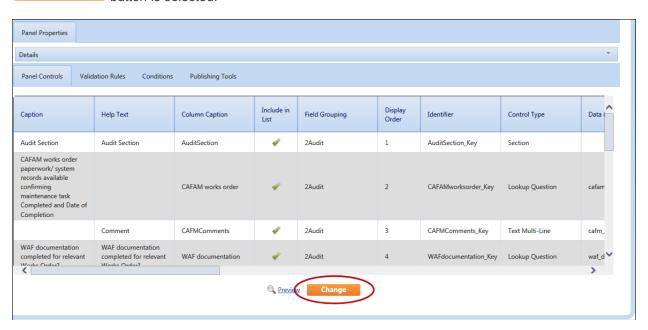
QFM Dynamic Forms now includes a utility to Export and Import form controls. This enables forms to be maintained in bulk rather than updating each control separately in QFM, and is of particular benefit to organisations who utilise a large number of forms in the database. The Import/Export utility is available to maintain <u>existing forms</u> by exporting the data, updating it then importing, and also to import data when creating new forms.

The system validates the data in each import and will only accept controls which are in an acceptable format. A Results file in .csv format is produced for each import which gives details of any specific validation failures, so that these can be easily corrected and re-imported.

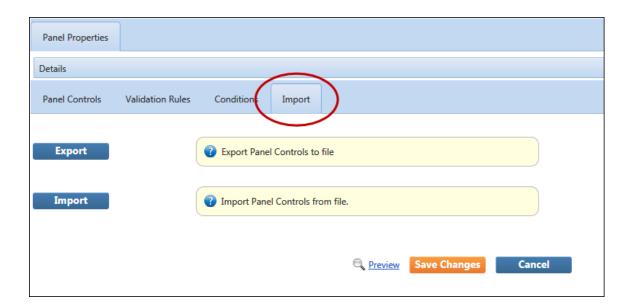
Dynamic Form screens are available from the Administration menu.



The ability to Import/Export data is available on the Import tab, which is only enabled once the button is selected.







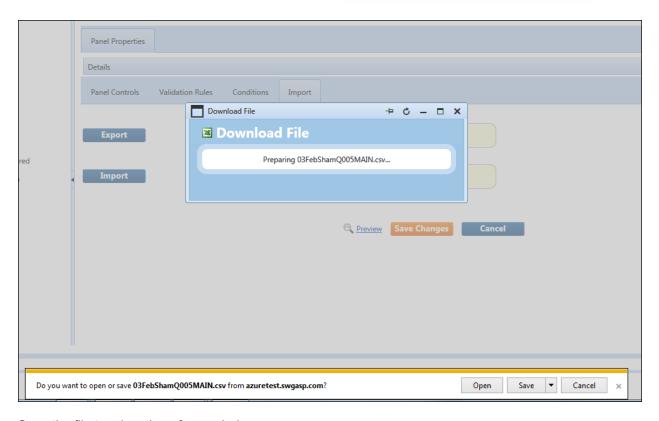
Exporting Form Data

Follow the steps below to Export form control data:

- Locate the required form.
 In the Panel Properties tab, select
- 2. Select the **Import** tab.
- 3. Select Export

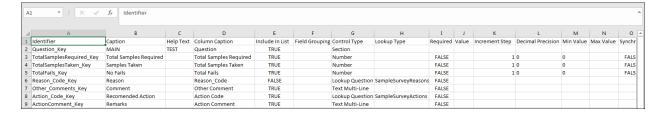
 The .csv file will download, as shown in the example below.





4. Save the file to a location of your choice.

You can update the file data; update existing controls and add new controls. An example of the file format is shown below.



Formatting Data in a Spreadsheet

- The sequence of the Dynamic Form display is determined by the order in the spreadsheet, making it possible to re-order existing controls by re-ordering the rows.
- UI captions can be used to populate the speadsheet.
- For the On/Off switches, accepted values are True/False, Yes/No and 1/0.
- The **Identifier** column must be unique. It can be left blank or specified for new controls but when updating existing controls the Identifier is required.
- When supplying a Monitored Values variable, the user conducting the import must be licensed to use QFM Monitored Values.



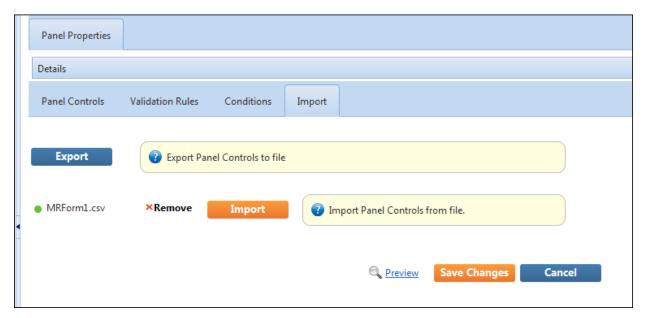
Monitored Values Variables are identified by a # so you are required to add a prefix # to the
variable for import. Existing variables will be exported with a # prefix, as shown in the example
below.

L	М	N	0
al Precision	Min Value	Max Value	Synchronize Va
1	#Avg Temperature in 30 Days-Exists	#Avg Temperature in 30 Days-Upper Limit	FALSE
1	#Range RC-Lower Limit	#Range RC-Upper Limit	FALSE
•			,

Importing Form Data

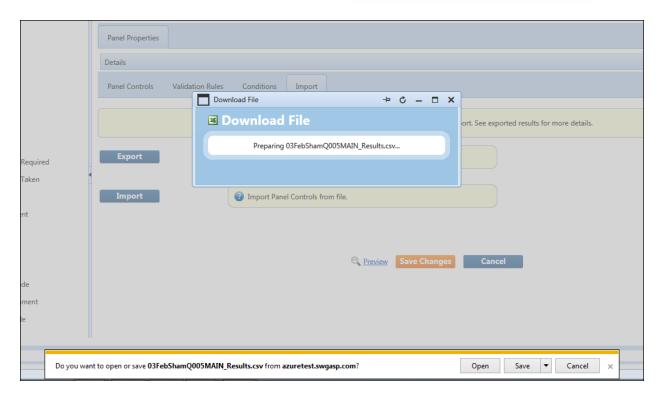
Once you have made the required data changes to the exported .csv file, you can Import the file to update the Dynamic Form.

- 1. Locate the form and go to the **Import** tab (in Change mode).
- 2. Select Import
- 3. Locate and select the .csv file to be imported.
- **4.** The file is selected. A green dot will be displayed next to the file name if the file format is correct, as shown in the example below. A red dot indicates the file cannot be imported.



- 5. If the file displays a green dot then select Import.
- **6.** QFM imports the file and validates the data. It then produces a Results.csv file, based upon the uploaded Panel Controls file.





7. If there are data rows which have failed the validation, an on-screen message will provide the number of data row which have failed, as shown in the example below.



8. The Results.csv file includes an **Import Status** column, which provides details of the validation failure reason for each row, as shown in the example below.



S	T	U	V
nly Visible	Allow Atta	Active	ImportStatus
TRUE	FALSE	TRUE	Invalid format for Score Weighting, please use a numeric value.
TRUE	FALSE	TRUE	Invalid format for Min Value, please use a numeric value.
TRUE	FALSE	TRUE	Invalid format for Min Value, please use a numeric value.
TRUE	FALSE	TRUE	Invalid format for Min Value, please use a numeric value.
TRUE	TRUE	FALSE	ok
TRUE	TRUE	TRUE	ok
TRUE	FALSE	FALSE	ok
TRUE	TRUE	FALSE	ok

This information allows you to correct each particular Panel Control row, then re-import the file.

If the file imports successfully, without any validation failures, the **Import Status** column will show **ok** for each row.

Points of Note

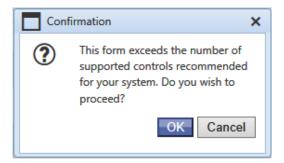
- A successful import is when the Import sheet is accepted by QFM without any validation errors, and the system displays the successfully imported form on the Panel Controls tab. From here, existing Form Validations will then apply.
- Any Controls that existed in QFM that are not present in the latest import sheet (deleted rows) will be marked as 'Not Active' and pushed to the bottom of the form in the display order. Users can then permanently delete these if they wish, or leave them deactivated to retain existing results data.
- When importing Panel Controls for a new form, you will first need to create the form Panel Properties directly in QFM, before importing the Panel Controls.



Validation for Maximum Number of Dynamic Form Controls

Overview

QFM sets a recommended maximum number of Form Controls (questions) for each Dynamic Form, to avoid any potential processing issues, (this may be the system default of 100, or a customised limit). It is now possible to update forms and exceed the Controls limit, with system messages and validations providing appropriate warnings.



Features and benefits include:

• Allows the recommended limit for Panel Controls to be overridden, supporting situations where the use of large forms cannot be avoided.

QFM sets a recommended maximum number of Form Controls (questions) for each Dynamic Form, to avoid any potential processing issues. The system default number is 100, and previously users could not exceed this number (or a customised limit). To support situations where the use of large forms cannot be avoided, QFM now allows this maximum limit to be exceeded, but provides warning messages and validations.

Important: This change is required to support the Import/Export utility, and Service Works maintains its advice that the recommended Panel Controls limit should not be exceeded. If you choose to proceed, your form and associated functionality may not function correctly and cannot be supported.

Manually Adding Controls into QFM

If the number of Controls exceeds the limit, the user is presented with a validation message and can choose to continue (Yes/No).

Importing Controls into QFM

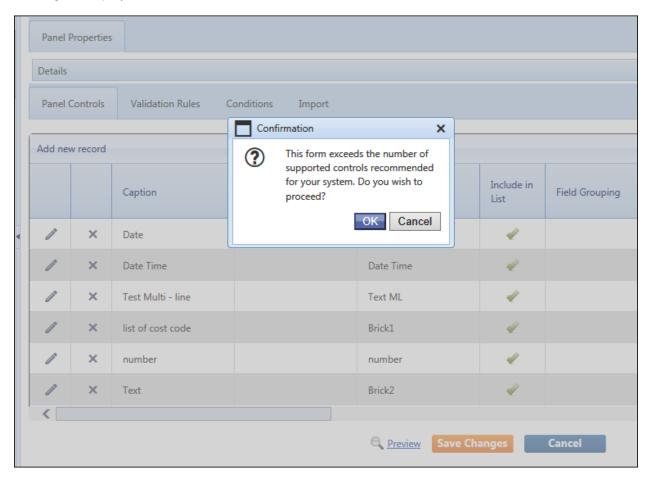
If the number of Controls exceeds the limit, a system message warns that the limit is exceeded, but does not stop the form from being saved.



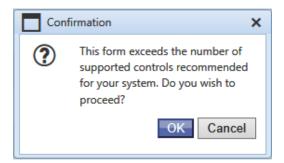
In both scenarios, once the Controls have been added, upon saving the form a validation message will again warn that the number of Controls exceed the limit. The user has the choice to continue and save the form.

Manually Adding Controls

When you select + Add new record, if the new record will exceed the Control limit then a validation message is displayed.

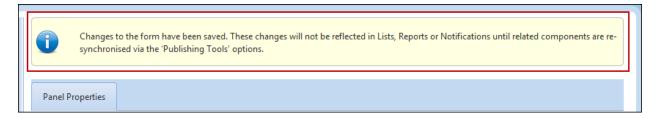


The same message is displayed after the Control is added, when the form changes are saved Save Changes



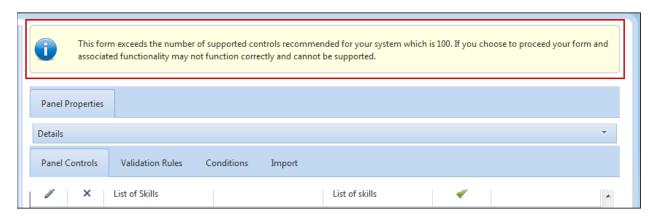


Once you select **OK**, a message confirms the changes have been accepted.

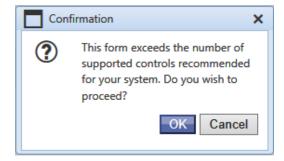


Importing Controls

When you import a .csv file, if the number of records will exceed the Control limit then a warning message is displayed.



If you go ahead and save the changes Save Changes then a further validation message is displayed.



Once you select **OK**, a message confirms the changes have been accepted.





Dynamic Forms - General Enhancements

Overview

A number of general enhancements are made to Dynamic Forms, as detailed in this section.

Features and benefits include:

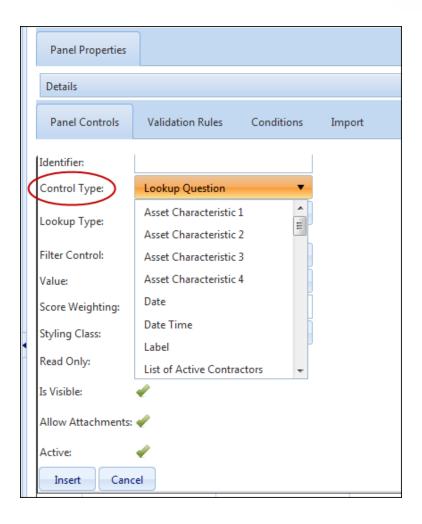
- Updated Captions for 'Control Type' and 'Styling Class' dropdown options.
- Panel Control fields are re-ordered.
- The Tree View Panel now clearly differentiates active and end dated forms.

Updated Captions for 'Control Type' Dropdown Options

Captions for the 'Control Type' field dropdown options are updated with more clear and consistent labels, as detailed below. These are also beneficial to the new Import/Export Utility.

Existing Caption	New Caption
Characteristic 1	Asset Characteristic 1
Characteristic 2	Asset Characteristic 2
Characteristic 3	Asset Characteristic 3
Characteristic 4	Asset Characteristic 4
Rating with Stars	Star Rating
Textbox for numbers	Number
Textbox for Date	Date
Textbox for Date Time	DateTime
Textbox for Password	Password
Textbox for Time	Time
Textbox with multiple lines	Text Multi-Line
Web Address	Web URL



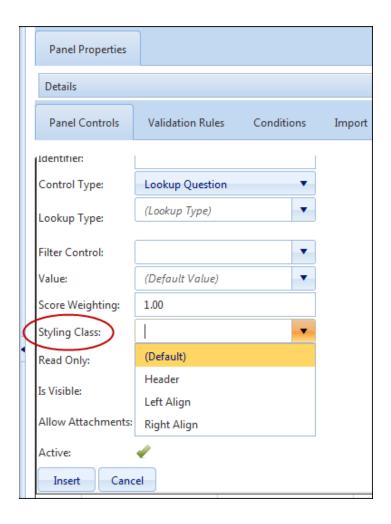


Updated Captions for 'Styling Class' Dropdown Options

Captions for the 'Styling Class' field dropdown options are updated with more clear and consistent labels, as detailed below. These are also beneficial to the new Import/Export Utility.

Existing Caption	New Caption
(Default)	(Default)
Section Header Style	Header
Question Style (Left Align)	Left Align
Question Style (Left Align)	Right Align

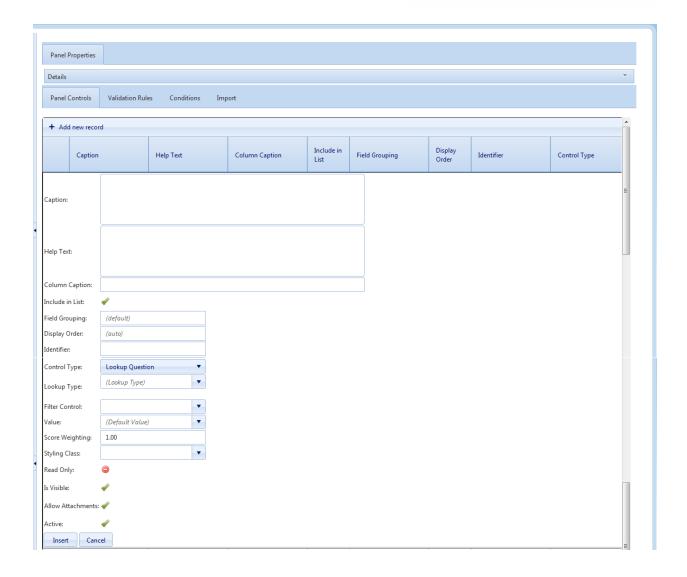




Panel Control Fields Re-ordered

Panel Control fields are re-ordered to provide an improved flow when adding new Dynamic form Controls, as shown in the example below.



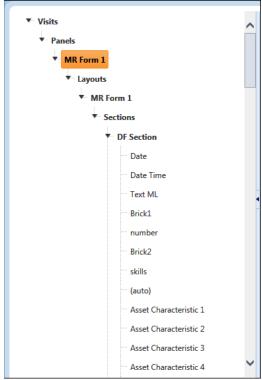


Two additional fields; **Show In This Layout** and **Design Permission** are added (beneath 'Active') for users in Developer Mode only.

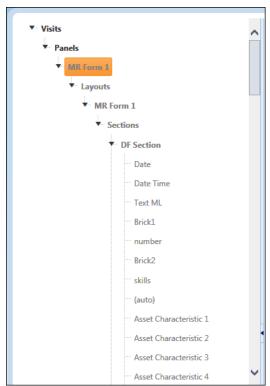
End Dated Forms

The Tree View Panel now clearly differentiates active and end dated forms. Forms which are end dated are now displayed with grey text and active forms are displayed with black text, as shown in the examples below.





Enabled Form.



End Dated Form.



Minor Enhancements and Changes

The v3.01.02.34 release addresses issues highlighted in the product. Details are as follows:

SWG Reference	Description
29632	Import/Export - When generating a blank template, the exported .csv file now shows column headers without error.
30059	Event Wizard: Images that have a space in the file name are now being displayed in tiles.
30207	Dynamic Forms - for forms based on Events, results in List reports are now correctly displayed for completed forms, for Events which are in progress (i.e. not yet at Completed status). This is for new forms only; there is no impact to existing forms.
30218	Once an asset is tagged via a barcode scan, using the QFM app, the barcode details now correctly synchronise back to the asset record on the QFM web-based application. This applies to the 3.1.2 Mobile Server and Workflow Scheduler upgrades only.
30232	Schedule Planner - errors no longer occur when attempting to filter the data using Contractor as the criteria.
30677	The QFM Mobile Server 3.1.2 will now verify that users have the Role '(FM) Mobile Handheld Access' assigned to their mobile User Profiles.



Known Issues

This section details system issues which are identified in v3.01.02.34. These will be rectified at the earliest opportunity.

Please contact your SWG Account Manager for further details.

SWG Reference	Description
29898	Workflow Scheduler - The 'Dispatch Visits' process has slowed down slightly in some scenarios due to increased security in the QFM Mobile Server.
31298	Dynamic Forms - List Control dropdown menus (i.e. lists of QFM data, e.g. 'List of Asset Types', 'List of Skills' etc.), may not contain data when accessed on Mobile forms.
31555	Asset Wizard Tiles - Default images are missing from the QFM Web installation.



QFM Installation Notices

This release is compatible with QFM Desktop 164 versions only.

Service Works Global (SWG) does not recommend QFM is run with Internet Explorer 6, 7 or 8 browsers. Use of these lower specification browsers may result in users experiencing unstable operation, script, rendering and performance issues. SWG has no current plan to address these issues.

The Workflow Scheduler is a mandatory requirement in order to run this QFM release, as it performs essential background tasks.

It is requirement for any versions of QFM that are 3.1 or higher must use an SSL certified environment (this includes the Web, Workflow Scheduler, Mobile Server). In addition support for non-SSL from the QFM Mobile app will be depreciated in future app release versions.

From version 3.0.3 onward the secure flag for cookies will be enabled by default. Please be aware that if your system uses HTTP rather than HTTPS this setting may need to be disabled.

SWG is not responsible for user defined reports and should a client upgrade from a non-time zone database to a time zone enabled database it is likely that their user defined reports will be affected as all times and dates will be relative to UTC not local time.

SWG strongly recommends clients review all reports against an upgraded database before relying on the output.

It is the responsibility of the client to ensure any issues are addressed, however Service Works Global may provide consultancy at the standard rates specified in the Customer Order to help the process should this be required by a client.

Please contact your SWG account manager if you need to make use of this service.

QFM includes SAP Crystal Reports runtime environment to enable users to benefit from integrated web based reporting. Clients should refer to the SAP website (www.sap.com) to understand the full strengths and capabilities of the product. SWG will make best endeavours to help support and resolve any issues that arise in this environment but as it is a third party product SWG does not provide any warranties over its abilities or functionality. SWG will aim to implement new patches to this software as they become available and are viewed as stable. It is the client's responsibility to ensure that any bespoke user reports work within the environment provided. Furthermore, extensive concurrent use of reporting within QFM can negatively impact the performance experienced by interactive users. This should be monitored and controlled accordingly.

Please note that clients wishing to upgrade to v3.00.01.37 and above will be required to upgrade Crystal Runtime to 13.0.27. For users with multiple installations on the same machine, all instances will require an upgrade to v3.00.01.37. Please speak to your SWG Account Manager to discuss specific requirements or to raise any concerns. Additionally, clients who wish to upgrade to 64bit will also require all custom Crystal Reports to be updated. SWG will upgrade all standard reports within the core product and provide clear directions to users who have additional custom reports not maintained by SWG.

Furthermore, whilst 32bit does not currently require Crystal Reports to be upgraded, it is recommended that Crystal Reports which use TTX are upgraded, as these are no longer supported by SAP and SWG cannot guarantee future 32bit runtimes will be backward compatible.

QFM utilises some 3rd party components, as listed below, in order to provide extended functionality. Use of these products may be subject to separate license agreements with the specific vendors/service providers. Use of these 3rd party components is not covered under the QFM licensing agreement with SWG. It is the client's responsibility to ensure that they have up to date licensing for these specific 3rd party products before they are used within the QFM product.

Crystal Reports (http://www.sap.com/uk/solutions/sap-crystal-solutions/query-reporting-analysis/sapcrystalreports/licensing/index.epx)

Google maps (https://developers.google.com/maps/licensing) (a business license may apply)



QFM is designed to be run on a range of devices such as tablets and smartphones. These devices may have little or no native support for certain features such as printing, Skype, Facetime, Telephony, etc. QFM does not limit the use of these features but their use is not supported under the standard QFM license agreement.

Please note that support for some Self Service user profile settings has changed. A default value of zero is no longer supported for the following administration settings applied to the Self Service user profile:

- Priority
- Worktype
- Service
- Service Group

Users with a Self Service profile will no longer be able to save events if their default values have not been updated. Client organisations upgrading to version 1.29 onwards should check these Self Service default settings to ensure they have a value other than '0', as '0' is no longer supported.

Users who use Self Service express event logging should validate that the process is unaffected. If any issues are encountered, users simply need to check the aforementioned settings and replace any values of '0'.