
UK Pavement Management System



Annual Health Check Instructions

2008

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Background

It is recognised that UKPMS and UKPMS systems have evolved since the original Comparability Tests and so the purpose of the UKPMS Health Check is to provide assurance that UKPMS systems continue to meet UKPMS requirements including the current Rules & Parameters and national reporting. The Health Check is only carried out on fully accredited UKPMS systems and supplements rather than replaces the UKPMS Comparability Tests.

The UKPMS-SCANNER Support Contract requires the Support Contractor to:

Conduct annual health checks for UKPMS-compliant systems (using the current methodology).

The Health Check focuses on a limited range of issues and is intended to offer a pragmatic approach to ongoing verification of UKPMS systems. The scope and arrangements for the Health Check are described in more detail in *2008 Health Check – Principles & Objectives* (document 2008AHC_Req).

This states that the 2008 Health Check will be issued to Developers by 31 October 2008 and will use the annual Rule Set (RP8.01). Developers will be expected to satisfy the Health Check requirements and release a compliant version of their system (with the annual Rule Set) by 31 January 2009.

Introduction

The 2008 Annual Health Check is a self-test package and will not include a site visit by the UKPMS Support Contractor. However, the UKPMS-SCANNER Support Contractor will do some spot checks on the results. In addition, part of the test should be conducted in the presence of one of your users. More information about this is provided below in the overview to the test instructions.

The test package includes a checklist which requires each test to be signed off, and also indicates what other evidence (as specified for the test) has been submitted.

The onus is on developers to track down any differences between their software and the test results and so the test package includes some additional 'audit' information. However, developers are not required to submit an audit trail themselves.

To facilitate the checking of results by the UKPMS-SCANNER Support Contractor the Health Check is prescriptive about the defect length output, as this provides the main check of automatic pass results.

The scope of the tests is given in the Principles & Objectives, with the key changes since the 2007 Annual Health Check being:

- Replacement of the English performance indicators BV223 and BV224a by NI168 and NI169 respectively.
- Changes to the Wales performance indicator results as these are now calculated using data from two years rather than a single year.

The timescales given in the Principles & Objectives are that developers should return their completed self-test by 31 January 2009. The results will be checked as they arrive, and published as soon as a developer is deemed to have satisfied the test requirements.

Package Contents

The contents of the 2008 Annual Health Check package are as follows:

- Annual Health Check Instructions (Document 2008AHC_Instructions)
- Annual Health Check Test Data (Document 2008AHC_TestData)
The test data is supplied as an Excel file; each HMDIF file is given on a separate worksheet, and the treatment unit costs to be loaded are also provided.
- Annual Health Check Test Results (Document 2008AHC_Results)
The test results are supplied as an Excel file, with the results for each test being given on a separate worksheet.
- Annual Health Check Checklist (Document 2008AHC_Checklist)
- Annual Health Check Principles & Objectives (Document 2008AHC_Req)
The latest copy of the document is available from the UKPMS web site.

Test Instructions

Overview

The tests fall into four categories:

- Loading HMDIF files (Tests 1-4)
- Running Automatic Passes (Test 5)
- SCANNER Road Condition Indicator functionality and reports (Test 6)
- Producing PI reports (Tests 7-10)

The tables below specify each test, and indicate the evidence we require for each test. We also require you to complete a checklist (document 2008AHC_Checklist) which gives some basic information about your system version and provides a list of the submitted evidence cross referenced to the tests.

The system version number must be the complete number (i.e. including sub-version) used to uniquely identify this particular version of the system. The same version must be used for all tests including the user tests and only this version will be accredited. You must complete a separate Annual Health Check for each version requiring accreditation.

Test 5 (running Automatic Passes) requires you to provide results using a standard Excel worksheet. This is to facilitate easy checking (by you and us) of your results compared with the supplied test results. *Please provide your results using exactly the same layout as the supplied worksheets columns A - AH.* Columns to the right of the yellow column AI are not required; these are working figures and may be helpful to you for diagnostic purposes. We do not necessarily expect this spreadsheet format to be available to users; it is simply part of the test mechanism. We would of course expect your system to offer some reporting facilities so that users can see this information, but the purpose of the test is to check the figures obtained rather than their presentation.

All other reports/screenshots submitted for the tests should be available to users in the operational version of your software.

Some of the tests must be conducted in the presence of a user of your system. Ideally this user will be a member of your user group. This part of the test should be able to be conducted during a half day visit and may take place at either the user's or your premises. There is flexibility as to which tests the user is present for as indicated in the detailed test instructions below.

Loading Data (Tests 1-4)

The first series of tests require you to load HMIF files, some of which are invalid. All the files are found in the Excel file of Test Data (document 2008AHC_TestData), with each file supplied as a separate worksheet identified by the test ID.

Test 1

Load the network HMDIF file *Test1* setting the length status to ‘measured’. The required evidence is a screenshot or report to confirm that the data has been loaded.

Test 2

Load the inventory HMDIF file *Test2*. The required evidence is a screenshot or report to confirm that the data has been loaded.

Test 3

Load the condition HMDIF files *Test3a – Test3o*. The required evidence for Tests 3a – 3o is a screenshot or report to confirm that the data has been loaded.

<i>Test ID</i>	<i>Description</i>
Test3a	Load the condition HMDIF file (Survey 12)
Test3b	Load the condition HMDIF file (Survey 15)
Test3c	Load the condition HMDIF file (Survey 18)
Test3d	Load the condition HMDIF file (Survey 19)
Test3e	Load the condition HMDIF file (Survey 21)
Test3f	Load the condition HMDIF file (Survey 24)
Test3g	Load the condition HMDIF file (Survey 25)
Test3h	Load the condition HMDIF file (Survey 36)
Test3i	Load the condition HMDIF file (Survey 43)
Test3j	Load the condition HMDIF file (Survey 56)
Test3k	Load the condition HMDIF file (Survey 61)
Test3l	Load the condition HMDIF file (Survey 62)
Test3m	Load the condition HMDIF file (Survey 65)
Test3n	Load the condition HMDIF file (Survey 66)
Test3o	Load the condition HMDIF file (Survey 75)

Notes

- Survey 62 (Test 3l) adds extra SCANNER measured parameters which were collected at the same time as Survey 61 (Test 3k) but delivered at a later date. Your system should be able to load these two files separately, so that if necessary Survey 61 can be used prior to receiving the Survey 62 information. It is not acceptable to leave Survey 61 in a holding area (e.g. an Edit Area) while awaiting Survey 62. You may need to change the Survey number for Survey 62 so that it matches the survey number for the data already loaded (i.e. Survey 61); this is acceptable but you should report this or any other changes on your checklist.

A user of your system must be present for Test 3 to confirm that your system can load CVI, DVI, CRUT and SCANNER/TTS condition data.

Test 4

Attempt to load the condition HMDIF files *Test4a* – *Test4e*. The required evidence for Tests 4a – 4e is a screenshot or report to indicate why the data is invalid.

<i>Test ID</i>	<i>Description</i>
Test4a	Attempt to load the condition HMDIF file (for a section which does not exist in the network)
Test4b	Attempt to load the condition HMDIF file (with an invalid parameter for one of the defects)
Test4c	Attempt to load the condition HMDIF file (for a section which has been surveyed but has no observations recorded)
Test4d	Attempt to load the condition HMDIF file (with an invalid parameter option for one of the defects)
Test4e	Attempt to load the condition HMDIF file (with a parameter outside the valid range for one of the defects)

A user of your system must be present for at least one of Tests 4a – 4e.

Please complete the checklist for Tests 1 – 4, and confirm which tests your user was present for.

Running the Automatic Pass (Test 5)

The second series of tests focus on running Automatic Passes. Prior to running these you will need to load the treatment unit costs (supplied in the Test Data file – document 2008AHC_TestData). These costs can be loaded in any way you choose, and we do not require any evidence showing how they have been loaded.

After loading the treatment unit costs then you are required to run the following six Automatic Passes.

The required evidence for each run is both of the following:

- Screenshot(s) or reports showing the parameters set up for each Automatic Pass
- An Excel spreadsheet in the same format as the results spreadsheet provided in the Test Results file (document 2008AHC_TestResults) columns A-AH.

Test ID	Test5a	Test5b	Test5c	Test5d	Test5e	Test5f
Automatic Pass ID	Test5a	Test5b	Test5c	Test5d	Test5e	Test5f
Surveys	TTS	CVI, CRUT, DVI	CVI	DVI	CVI, CRUT	CVI
Sections	All	All	Dft Class 6	Section default FW hierarchy 1a, 1 or 2	Dft Class 4 & 5	Dft Class 6
Dates	1 Jan 90 to 31 Dec 08	1 Jan 90 to 31 Dec 08	1 Apr 05 to 31 Mar 09	1 Apr 08 to 31 Mar 09	1 Jan 08 to 31 Dec 08	1 Jan 08 to 31 Dec 08
R&P	RP8.01	RP8.01	RP8.01	RP8.01	RP8.01	RP8.01
Merge Method	Fixed interval	Variable (Standard)	Variable (Standard)	Variable (Standard)	Variable (Standard)	Variable (Standard)
Parameters						
▪ Interval	100m					
▪ CI merge tolerance		12	12	12	12	12
▪ % merge tolerance		10	10	10	10	10
Inventory used?	Yes	Yes	No	Yes	No	No

A user of your system must be present for at least one part of this test.

Please complete the checklist for these tests, and confirm which test(s) your user was present for.

SCANNER Road Condition Indicator (Test 6)

Test 6 focuses on the SCANNER Road Condition Indicator and handling weighting sets.

Test 6a

This test requires you to import or link to a weighting set. The following evidence is required:

- A statement explaining whether your system links to the weighting set or imports it.
- A statement explaining which form of the weighting set your system uses (i.e. Access, Excel or CSV).
- Screenshot(s) showing how your user imports or links to a weighting set.
- Screenshot(s) showing that the Original and Revised Weighting sets are both available in your system.

Tests 6b - 6d

The required evidence for each of these tests is all of the following:

- Screenshot(s) showing how your user sets up the parameters for the RCI:
 - Section criteria
 - Survey criteria
 - Dates
 - Weighting Set

Note that it is important that users are able to choose between the Original and Revised Weighting Sets, and your screenshot(s) must show that they can make this choice for each RCI run.

- The RCI main report
- The RCI drill-down report
- The RCI coverage report

Test ID	Test6b	Test6c	Test6d
Run ID	Test6b	Test6c	Test6d
Sections	DfT Class 3	DfT Class 4 & 5	DfT Class 3, 4, 5 & 6
Surveys	All (ITS)	All (ITS)	All (ITS)
Dates	1 Apr 07 to 31 Mar 09	1 Apr 07 to 31 Mar 09	1 Jan 07 to 31 Dec 08
Weighting Set ID	WSPriv0201	WSBCv0201	WSAllClassesv0202
R & P	RP8.01	RP8.01	RP8.01
Network Group	All	DfT class	Rural/Urban + DfT class

A user of your system must be present for Test 6a and at least one of Tests 6b – 6d.

Please complete the checklist for these tests, and confirm which test(s) your user was present for.

Performance Indicator reports (Tests 7-10)

For these tests you are required to produce PI results for the test network. There are four modules:

- **Test 7** – England
- **Test 8** – Scotland
- **Test 9** – Northern Ireland
- **Test 10** – Wales

You may choose which modules to submit and your system will be accredited to produce Performance Indicator reports accordingly.

Test 7 - England

The reports should be based on all sections in the network of the required classification/hierarchy. Four reports are required; NI168, NI169, BV224b and BV187.

The required evidence for each report is all of the following:

- Screenshot(s) showing how your user selects the required network and any other parameters for the report. For NI168 and NI169 the screenshot(s) should also show how your user selects the weighting set and how your user enters values to enable confidence limits to be calculated.
- The report produced by your system.
- Annotations on your report or notes indicating clearly where each of the required figures in the Test Results file (document 2008AHC_TestResults) may be found on your report.

<i>Test ID</i>	Test7a	Test7b	Test7c	Test7d
<i>Report</i>	NI168	NI169	BV224b	BV187
<i>Weighting Set ID</i>	WSPrinv0201	WSBCv0201	-	-
<i>Confidence limits?</i>	Yes	Yes	-	-
▪ <i>Minimum bias</i>	-0.0645	-0.1126		
▪ <i>Maximum bias</i>	0.0957	0.1072		
▪ <i>Random error</i>	0.1264	0.0752		

Note that although the tests for NI168 and NI169 require confidence limits to be calculated, your system must still be able to produce these reports without confidence limits if the required statistics are not available. Also note that the figures supplied for the calculation of confidence limits are fictitious; they have been created solely for these tests and are not suitable for onward release to users.

A user of your system must be present for all parts of this test.

Please complete the checklist for Test 7 and confirm which tests your user was present for.

Test 8 - Scotland

The SRMCS PI should be based on all sections in the network of the required classification.

For Test 8a you should produce screenshot(s) showing how the user enters the network statistics. For this test the network statistics to use are:

<i>Environment</i>	<i>Class</i>	<i>Network (km)</i>
Urban	A	0.105
	B	0.499
	C	0.137
	U	1.835
Rural	A	0.272
	B	0.325
	C	0.275
	U	2.245

For Test 8b you are required to produce the SRMCS PI report (using the above network statistics) and provide all of the following evidence:

- Screenshot(s) showing how your user selects the required network and any other parameters, including the dates and weighting set, for the report. Note that the dates for this report must be able to be entered by the user to allow for flexibility in the survey timetable.
- The SRMCS PI report produced by your system.
- Annotations on your report or notes indicating clearly where each of the required figures in the Test Results file (document 2008AHC_TestResults) may be found on your report.

<i>Test ID</i>	Test8b
<i>PI report</i>	SRMCS PI
<i>Weighting Set ID</i>	WSAllClassesv0202
<i>Dates</i>	1 Jan 2007 to 31 Dec 2008

A user of your system must be present for all parts of this test.

Please complete the checklist for Test 8 and confirm which tests your user was present for.

Test 9 - Northern Ireland

The PI should be based on all sections in the network of the required classification. Two reports are required; Non-principal classified and Unclassified.

The required evidence for each PI is all of the following:

- Screenshot(s) showing how your user selects the required network and any other parameters, including the dates, for the report. Note that the dates for this report must be able to be entered by the user to allow for flexibility in the survey timetable.
- The PI report produced by your system.
- Annotations on your report or notes indicating clearly where each of the required figures in the Test Results file (document 2008AHC_TestResults) may be found on your report.

Test ID	Test9a	Test9b
PI report	Non-principal classified	Unclassified
Dates	1 Jan 2008 to 31 Dec 2008	1 Jan 2008 to 31 Dec 2008

A user of your system must be present for all parts of this test.

Please complete the checklist for Test 9 and confirm which tests your user was present for.

Test 10 - Wales

The PI should be based on all sections in the network of the required classification. Two reports are required; THS/010a and THS/010b.

The required evidence for each PI is all of the following:

- Screenshot(s) showing how your user selects the required network and any other parameters, including the weighting set, for the report.
- The PI report produced by your system.
- Annotations on your report or notes indicating clearly where each of the required figures in the Test Results file (document 2008AHC_TestResults) may be found on your report.

<i>Test ID</i>	Test10a	Test10b
<i>PI report</i>	THS/010a	THS/010b
<i>Weighting Set ID</i>	WSPrinv0201	WSBCv0201

A user of your system must be present for all parts of this test.

Please complete the checklist for Test 10 and confirm which tests your user was present for.