

UK Pavement Management System



Notes for WS224av0102

An explanation of the difference between WS224av0101 and WS224av0102

UKPMS Document No 107

August 2006



Document Information

Title (Sub Title)	Notes for WS224av0102 An explanation, aimed at users, of the difference between WS224av0101 and WS224av0102
Product Number	107
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Description	This document explains the difference between v1 and v2 of the weighting set for BV224a, and the impact this may have on the results.

Document History

Version No	Status	Author	Date	Changes from Previous Version
1.01	Draft	RAC	25/08/06	1 st draft

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Introduction

For 2005/06 BV223 and BV224a were calculated from SCANNER data processed using the SCANNER Road Condition Indicator (RCI). The RCI uses a weighting set to determine how to weight and combine the measured parameters used in the calculation.

For the 2005/06 BV224a results, the weighting set specified was WS224av0101. For 2006/07 this has been updated to WS224av0102. This note explains the difference between these two weighting sets and the possible impact on the BV224a result.

Difference between WS224av0101 and WS224av0102

BV224a is calculated using the following SCANNER measured parameters:

- Rut depth (maximum of nearside and offside)
- Texture depth (nearside)
- 3m Longitudinal Profile Variance
- 10m Longitudinal Profile Variance
- Whole carriageway cracking intensity
- Wheel track cracking intensity (maximum of nearside and offside)

Cracking intensity (both whole carriageway and wheel track) and texture are weighted in the same way for all road classes, but rut depth and longitudinal profile variance are weighted differently for B roads and C roads. For the longitudinal profile variance, C roads are further discriminated based on if they are designated as urban or rural, with urban roads attracting higher weightings than rural for the same measured value.

If a C class road is not designated as either rural or urban, then WS224av0101 contains no weighting for the longitudinal profile variance, and so the 3m and 10m longitudinal profile variance values are ignored. In contrast, in WS224av0102, a default has been added so that any C road with indeterminate urban/rural status is weighted as if it is an urban road.

Impact on BV224a

Some UKPMS systems regard the urban/rural attribute as mandatory, and so any authority using such a system will always have to populate this attribute. For these authorities the results from WS224av0101 and WS224av0102 will be identical.

Similarly, any authority who has already designated every C road surveyed by SCANNER as either urban or rural will obtain identical results using WS224av0101 and WS224av0102.

The only impact on BV224a will be for those authorities who did not determine the urban/rural status for some of the C roads surveyed by SCANNER.

WS224av0101

Using WS224av0101 the 3m and 10m Longitudinal Profile Variance on C roads surveyed by SCANNER and not defined as urban or rural will be ignored and so the BV224a obtained will be underestimated.



WS224av0102

Using WS224av0102, any indeterminate C roads surveyed by SCANNER will be assumed to be urban, and since the urban weightings are higher than the rural weightings the BV224a obtained will be an overestimate (unless of course all such indeterminate C roads really are urban).

Advice for authorities

All authorities are strongly advised to populate the urban/rural attribute accurately, particularly for C roads being surveyed by SCANNER.

For their own information, authorities may wish to recalculate their 2005/06 BV224a results using WS224av0102 so that they can establish in advance if there is likely to be any impact on their future results.