

## Can Multisession DVD±R's be used for mastering?

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Multisession DVD±R media should not be used for mastering purposes since multisession is not supported or defined by the DVD Read-Only specification.

Multisession is part of the DVD Recordable Specifications (DVD±R). It is **NOT** part of the Read-Only DVD specifications. Mastering a multisession image can cause the end-user's DVD-ROM drives to only recognize the first session on a replica. It is for this reason that the "**Multisession DVD**" rule defaults to abort when a multisession image is detected.

There are two additional rules that may be triggered depending on the file system used on the image. These are "**Multiple ISO9660 sessions**" and "**Multiple UDF Sessions**". These can also help detect when a multisession DVD±R may have gotten through and mastered. These two rules will get triggered on any type of DVD input media that contains multiple file systems, which is typical of a multisession image. The "**Multisession DVD**" rule only gets triggered on DVD±R media.

### Background

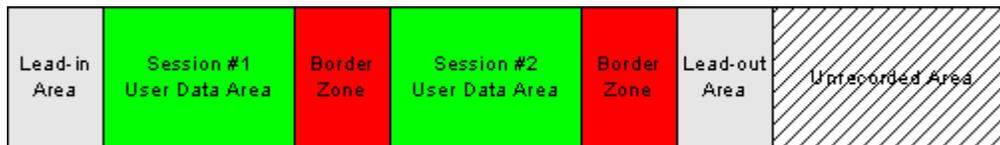
The DVD Read-Only Specifications do not support the concept of Multisession or Multi-Border. These are only supported in Recordable media.

Recordable DVD±R media allows users to append information to a pre-recorded disc. Data is appended into a new session created by the DVD-Writer. Each session on the disc ends with a border zone which contains information that links it to previous sessions. This is so that the user can access all the data in all sessions that have been recorded. On a multisession recordable disc, the drive reads the information from the last border zone at the end of the last session and with this it knows how to retrieve all data recorded on the disc.

When copying a multisession recordable disc, copying utilities, such as ImageCopy, can read the data from each of the sessions. However, the drive skips the border zones since there is no direct access to these. The end result is an image that contains all data from all sessions but no information that links them. This results in an image where only the contents of the first session are visible.

Since multisession is not supported by the Read-Only DVD specifications (i.e. a replicated disc), the EclipseSuite tools have been enhanced to trigger a rule and abort when they detect a multisession disc. Unfortunately, there are some drives that do not support multisession media. If such a drive is used, it is possible that they may not identify the media as multisession and the disc may pass through the pre-mastering/mastering process undetected. The Plextor PX-716 and Pioneer 305 seem to be able to detect multisession DVD±R media without problem.

The picture below shows the structure of a two-session DVD-R.



The following picture shows the structure of the same image once it is copied or mastered.



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The image and resulting replica will not have the Border Zones. This causes the DVD-ROM drives to only see the contents of the first session.

### **Error Severity**

Since multisession is not supported by the Read-Only Specifications, the behavior of the end-user's DVD-ROM drive is unpredictable. There have been cases in which some drives do read the contents of all sessions on the replica. However, other drives can only see the contents of the first session. For this reason, this problem is considered an abort condition.

### **Possible Solution**

Multisession is not part of the Read-Only specifications and, therefore, should not be used if the media is intended for replication. However, users who wish to continue processing a multisession DVD±R may change the severity of this rule to allow the EclipseSuite software to continue.