An FAQ on TSID, PSIP and DTV Channel Moves

Do I need to change my TSID when I change RF channels?

No. The original assignment table does list the then-planned DTV RF channel with the DTV TSID number. The table that can be found at http://www.mstv.org/docs/TSID.pdf has not been updated to show current RF emission plans; but the number is actually for the broadcast station, not for the particular RF channel used. So a new number should not be requested when changing RF channels.

How do I find out what my TSID is?

The most official source is via an email to ntam@fcc.gov as the FCC maintains the list. However, for most stations the list found at http://www.mstv.org/docs/TSID.pdf should suffice. A TSID, once assigned to a station, does not change, but the RF channel can.

When one or more stations are changing frequency, is there a PSIP change we can make to existing channels just before the changeover day so that when viewers rescan, they only "see" the new channels?

Not really. Each station can put the major-minor channel for another station (along with that station's TSID) in the list of major-minor channels in the VCT. Then a typical receiver would get the channel number and, if that channel is selected, use the TSID to attempt to tune to the frequency it got on the last forced scan or manual add. If the receiver has not found a RF channel with that TSID, behavior is not predictable, but some receivers may scan for it if a consumer has selected it. In general, the "tell consumers to re-scan" approach is what can be expected to work best.

What should be done with the PSIP data if I have two DTV transmissions on the air for some overlap period?

Just send the exact same DTV transport stream on both RF channels. Receivers that were built according to the CEA PSIP Recommended Practice will detect the new station, and then when the old one goes off the air, offer the option to delete it. Unfortunately the vast majority of DTV receivers do not conform to the Recommended Practice and were not designed to automatically detect new stations, ignoring the specific process that was documented to enable this transition to be automatic. Those sets will typically not detect the existence of both stations, and then when the old one is turned off, will not find the new one unless they are "rescanned" or a new station is manually added. Those stations that are changing DTV channels may wish to provide more than the minimum required on-air announcements to re-scan to minimize the service disruption and calls to the station.

I have a duopoly, what do I do about PSIP?

Each station can have the other station's major-minor channel number in their VCTs in addition to their major-minor channel numbers. So in the two channel case, there would be two TSIDs in the VCT, one with the emitting station's major-minor channel number and one with the other stations' major minor channel numbers.

Where do I find the document that states which PSIP tables are required by the FCC for over - the - air broadcast?

FCC 73.682(d) is the section that places the ATSC standards into the rules, legally making their contents the same as if they had actually been printed in the Code of Federal Regulations. The ATSC Standard A/65 is the document that contains the PISP rules.

(See http://www.atsc.org/standards/a_65cr1_with_amend_1.pdf.) Annex B of A/65 is where the rules for major channel number assignments are found.

What kinds of stations need a TSID?

All DTV signals need to send a TSID, but not all need their own number. The ATSC standard requires the number to be unique by transport stream and be present in three places (the PAT, the VCT header, and for each virtual channel, the TSID where that signal is found). The key point is one TSID for one responsible "owner" of the stream. The FCC has not established the formal process to obtain this number, nor separately determined which transmitters are to be assigned one. New numbers are assigned by the FCC when they consider it appropriate to do so - with the only guidance being the rules that are in the PISP standard (as that is part of the regulations). TSID assignments to Class A stations are appropriate and consistent with the PSIP requirements, at least to cover those day-parts where they do not operate as translators. The system is designed so that the same TSID would be used for translators, so no seperate TSID should be sent from such stations. This is to avoid the same virtual channel number appearing two times in the receiver's channel listing. When a Class A station is used as a translator for part of the day each virtual channel in its VCT needs to be signaled as active for the periods when it is so operating with the EIT contents covering the right times. The simplest approach is to have a different major-minor channel number for the Class A's programming, which means that at least two major channel numbers are in the VCT. The PSIP data from the primary station would need to be altered before transmitted from such a Class A station. (The non-translator mode operating periods have not been addressed by the FCC, but the ATSC standards can and should apply.) If the Class A station and the broadcaster desire the major-minor channel number to be common across all day parts, the management of the PSIP data to maintain compliance with the standards is significantly more complex.