A
SMIL Profile Architecture Reference

The SMIL specification defines SMIL behavior in terms of a set of functional groups. Each functional group is partitioned into *modules*, which are collections of elements and/or attributes. The modules represent an atomic group of components — if a module is used in an implementation, all features defined within that module are expected to be supported.

Not all versions of SMIL support all of the modules within each functional group: the implementation burden would be to high for simple uses of SMIL. Instead, SMIL functionality is further partitioned into collection of modules called *profiles*.

The SMIL 3.0 specification defines the following profiles:

- LANGUAGE: The LANGUAGE profile consists of a broad collection of SMIL's modules. As the functionality of SMIL has grown, a certain degree of variety has been introduced in the breadth of support for some of SMIL's more esoteric features.

- UNIFIEDMOBILE: In the mobile space, several standardization organizations outside of W3C control the languages implemented on mobile devices. For example, the 3GPP (Third Generation Partnership Project) consortium has adopted SMIL as the standard for the third-generation mobile telephony player infrastructure. To support these organizations, SMIL 3.0 uses a framework profile description named the UNIFIEDMOBILE profile.

- DAISY: SMIL 3.0 has elevated the needs of the Daisy Consortium as a full peer profile. As with the mobile profiles, the SMIL DAISY profile is a framework. The actual standardization of Daisy is provided within the NSI/NISO Z39.86 Specification for the Digital Talking Book. This process was underway when this book was written.

- TINY: The TINY profile is the basic member of the SMIL host-language conformance community — this is, languages that use the `<smil>` as the outer XML tag. The TINY profile is the lowest-functionality component within the SMIL *scalability framework*. Conforming members of this framework must have at least SMIL TINY's features, but further SMIL modules may be added for particular needs.

The following table compares the support of each of SMIL's modules by the various profiles.

	Module	Language	Unified Mobile	Daisy	Tiny
Structure	Structure	▣	▣	▣	▣
	Identity	▣	▣	▣	▣
Media Object	BasicMedia	▣	▣	▣	▣
	MediaAccessibility	▣	▣	▣	▣
	MediaDescription	▣	▣	▣	▣
	MediaClipping	▣	▣	▣	–
	BrushMedia	▣	▣	–	–
	MediaParam	▣	▣	▣	–
	MediaRenderAttributes	▣	▣	–	–
	MediaPanZoom	▣	▣	–	–
	MediaClipMarkers	▣	–	–	–
	MediaOpacity	▣	–	–	–
Metadata	Metainformation	▣	▣	▣	▣
Timing & Synch.	BasicTimeContainers	▣	▣	▣	▣
	BasicExclTimeContainers	▣	▣	▣	▣
	BasicInlineTiming	▣	▣	▣	
	EventTiming	▣	▣	▣	
	MultiArcTiming	▣	▣	▣	–
	AccessKeyTiming	▣	▣	–	–
	RepeatTiming	▣	▣	–	–
	SyncbaseTiming	▣	–	–	–
	WallclockTiming	▣	–	–	–
	RepeatValueTiming	▣	–	–	–
	MediaMarkerTiming	▣	–	–	–
	FillDefault	▣	–	–	–
	BasicPriorityClassContainers	▣	–	–	–
	SyncBehavior	▣	–	–	–
	SyncBehaviorDefault	▣	–	–	–
	RestartTiming	▣	–	–	–
	RestartDefault	▣	–	–	–
	DOMTimingMethods[1]	–	▣	–	–
	MinMaxTiming[2]	–	–	–	–
Layout	StructureLayout	▣	▣	▣	▣
	BasicLayout	▣	▣	▣	
	SubRegionLayout	▣	▣	▣	–
	AlignmentLayout	▣	▣	–	–
	AudioLayout	▣	▣	–	–
	BackgroundTilingLayout	▣	▣	–	–
	OverrideLayout	▣	▣	–	–
	MultiWindowLayout	▣	–	–	–
smilText	BasicText	▣	▣	–	–
	TextStyling	▣	▣	–	–
	TextMotion	▣	▣	–	–
Linking	BasicLinking	▣	▣	▣	–
	LinkingAttributes	▣	▣	–	–
	ObjectLinking	▣	–	–	–

Functional Groups

Table A-1. SMIL 3.0 module support table.

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Functional Groups		Core Module	Language	Unified Mobile	Daisy	Tiny
	Content Control	RequiredContentControl	◙	◙	◙	◙
		SkipContentControl	◙	◙	◙	◙
		BasicContentControl	◙	◙	◙	
		PrefetchControl	◙	◙	–	–
		CustomTestAttributes[3]	◇	–	–	–
	Transition Effects	BasicTransitions	◙	◙	–	–
		FullScreenTransitions[4]	◇	◙	–	–
		TransitionsModifier	◙	–	–	–
		InLineTransitions[5]	–	–	–	–
	Animation	BasicAnimation	◙	◙	–	–
		Spline Animation[6]	–	–	–	–
	smilState	StateTest[7]	◇	–	◙	–
		UserState[7]	◇	–	◙	–
		StateSubmission[7]	◇	–	◙	–
		StateInterpolation[7]	◇	–	◙	–

Key:

◙ *Fully supported in most profile implementations*

◇ *Supported in some profile implementations*

– *Usually not supported in profile implementations*

Notes:
1. Optional support for integration with SVG
2. Most implementation provide support; was required in SMIL 2.0
3. Most implementation for Daisy 3.0 provide support.
4. Not supported in SMIL 2.0 profile
5. Supported in XHTML+SMIL implementations
6. Supported in SVG and XHTML+SMIL
7. Emerging support available in Ambulant.

Table A-1 (continued). SMIL 3.0 module support table.

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