

OSID V3 Specifications locale package

Version Draft 3

This specifications represent a draft for OSID V3 interface definitions. These definitions may change at any time.

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Package Description	osid.locale package
Interfaces	osid.locale.LocaleProfile osid.locale.LocaleManager osid.locale.LocaleProxyManager osid.locale.LocaleSession osid.locale.LocaleAdminSession osid.locale.UnitConversionSession osid.locale.CurrencyConversionSession osid.locale.CalendarConversionSession



Package	osid.locale
Title	Locale Open Service Interface Definitions
Version	3.0.0
Description	The Locale OSID provides the service of localizing applications defining interfaces for string translation, measurement unit conversion and currency conversion.



Interface Implements osid.OsidProfile Description The locale profile describes in Method Description Tests if visible federation is s	the interoperability o	e.LocaleProfile		
Description The locale profile describes to Method				
Method				
1110 1110 01		The locale profile describes the interoperability of locale services.		
Description Tests if visible federation is s		isibleFederation		
	supported.			
Return boolean		true if visible federation is supported, false otherwise		
Compliance mandatory		This method must be implemented.		
Method	supp	ortsLocale		
Description Tests if locale is supported.	•			
Return boolean		true if locale is supported, false otherwise		
Compliance mandatory		This method must be implemented.		
Method	supportsl	JnitConversion		
Description Tests if unit conversion is su	pported.			
Return boolean		true if unit conversion is supported, false otherwise		
Compliance mandatory		This method must be implemented.		
Method	supportsCui	rrencyConversion		
Description Tests if currency conversion				
Return boolean		true if currency conversion is supported, false otherwise		
Compliance mandatory		This method must be implemented.		
Method	supportsCal	endarConversion		
Description Tests if calendar conversion				
Return boolean		true if calendar conversion is supported, false otherwise		
Compliance mandatory		This method must be implemented.		
Method	supportsLocaleType			
Description Tests if a given locale type is				
Parameters osid.type.Type loca	аlеТуре	the type of locale		
Return boolean		true if the given locale type is supported, false otherwise		
Compliance mandatory		This method must be implemented.		
Method	supportsLoca	leConversionTypes		
Description Tests if a given locale transla		, coontains () peo		
	ırceType	the type of the source locale		
Parameters	getType	the type of the target locale		
Return boolean		true if the given source and target translation is supported, false otherwise		
Compliance mandatory		This method must be implemented.		
Method	getLocaleTypesForSource			
	Gets the list of target locale types for a given source language type.			
	rceType	the type of the source language		
Return osid.type.TypeList	71 71 71 71			
Compliance mandatory		This method must be implemented.		
Method	get L	ocaleTypes		
Description Gets all the locale types sup				
Return osid.type.TypeList		the list of supported locale types		
Compliance mandatory		This method must be implemented.		



Open Knowledge Initiative Method			
Description	supportsUnitType Tests if a given unit type is supported.		
Parameters	osid.type.Type	unitType	the type of unit
Tarameters	osia.type.Type	Turricrype	true if the given unit type is supported, false
Return	boolean		otherwise
Compliance	mandatory		This method must be implemented.
Method			nitTypesForConversion
Description	Tests if a given meas	ure conversion is suppo	
Parameters	osid.type.Type	sourceType	the type of the source measure
1 diameters	osid.type.Type	targetType	the type of the target measure
Return	boolean		true if the given source and target conversion is
	Doolean		supported, false otherwise
Compliance	mandatory		This method must be implemented.
Method			getTypesForConversion
Description		measure types for a give	ren source measure type.
Parameters	osid.type.Type	unitType	the type of the source measure
Return	osid.type.TypeList		the list of supported measure types
Compliance	mandatory		This method must be implemented.
Method			jetUnitTypes
Description	Gets all the unit types	s supported.	
Return	osid.type.TypeList		the list of supported unit types
Compliance	mandatory		This method must be implemented.
Method	supportsCurrencyType supportsCurrencyType		
Description		ency type is supported.	like the control of t
Parameters	osid.type.Type	currencyType	the type of the source currency
Return	boolean		true if the given currency type is supported, false otherwise
Compliance	mandatory		This method must be implemented.
Method	supportsCurrencyTypesForConversion		
Description	Tests if a given currency conversion is supported.		
Parameters	osid.type.Type	sourceType	the type of the source currency
Parameters	osid.type.Type	targetType	the type of the target currency
Determ		, ,,	true if the given source and target conversion is
Return	boolean		supported, false otherwise
Compliance	mandatory		This method must be implemented.
Method		getCurrencyT	argetTypesForConversion
Description	Gets the list of target	currency types for a giv	ren source measure type.
Parameters	osid.type.Type	currencyType	the type of the source currency
Return	osid.type.TypeList		the list of supported currency types
Compliance	mandatory		This method must be implemented.
Method			CurrencyTypes
Description	Gets the list of target	measure types for a give	ren source measure type.
Parameters	osid.type.Type	currencyType	the type of the source currency
Return	osid.type.TypeList the list of supported currency types		
Compliance	mandatory This method must be implemented.		
Method	supportsCalendarType		
Description	Tests if the given calendar type is supported.		
Parameters	osid.type.Type	calendarType	the type of the source calendar
Return	boolean		true if the given calendar type is supported, false
neturn	200.00		otherwise



Method	supportsCalendarTypesForConversion		
Description	Tests if a given calendar conversion is supported.		
Parameters	osid.type.Type	sourceType	the type of the source calendar
Parameters	osid.type.Type	targetType	the type of the target calendar
Return	haalaan		true if the given source and target conversion is
neturn	boolean		supported, false otherwise
Compliance	mandatory		This method must be implemented.
Method	getCalendarTargetTypesForConversion		
Description	Gets the list of target ca	alerndar types for a given s	
Parameters	osid.type.Type calendarType		the type of the source calendar
Return	osid.type.TypeList the list of supported calendar types		
Compliance	mandatory This method must be implemented.		This method must be implemented.
Method	getCalendarTypes		
Description	Gets the list of target measure types for a given source measure type.		
Parameters	osid.type.Type	currencyType	the type of the source measure
Return	osid.type.TypeList the list of supported currency types		
Compliance	mandatory		This method must be implemented.



Interface		osid.locale	e.LocaleManager
Implements	osid.OsidManager osid.locale.LocaleProfile		
	The locale manager provides access to locale sessions and provides interoperability tests for various		
		The sessions included in	
	• LocaleSession: a ses	ssion translate strings	
Description	LocaleAdminSession: a session to update the string translations for a locale		
	 UnitConversionSess 	sion: a session to conve	rt measurement units
	 CurrencyConversion 	nSession: a session to	convert currency
	 CalendarConversion 	Session: a session to o	convert dates across calendars
Method			caleSession
Description		associated with the Loca	
Return	osid.locale.LocaleSes	ssion	a LocaleSession
Errors	OPERATION_FAILED		unable to complete request
	UNIMPLEMENTED		supportsLocale() is false
Compliance	optional		This method must be implemented if
Method	·	maki aasia0	supportsLocale() is true.
Description	Gote an OcidSpecion a		SessionForLocales IeLookup service and the given locale types.
-	osid.type.Type	sourceType	the type of the source language
Parameters	osid.type.Type	targetType	the type of the target language
Return	osid.locale.LocaleSes	ssion	a LocaleSession
	NULL_ARGUMENT		sourceType or targetType is null
	OPERATION_FAILED		unable to complete request
Errors	UNIMPLEMENTED		supportsLocale() or supportsVisibleFederation()
211013	UNIMPLEMENTED		is false
	UNSUPPORTED		supportsLocaleTypesForConversion(sourceType,
			targetType) is false This method must be implemented if
Compliance	optional		supportsLocale() and
Compliance			supportsVisibleFederation() are true.
Method	getLocaleAdminSession		
Description	Gets a locale administra	ation service for updating	
Return	osid.locale.LocaleAdr		a LocaleAdminSession
Гичана	OPERATION_FAILED		unable to complete request
Errors	UNIMPLEMENTED		supportsLocaleAdmin() is false
Compliance	optional		This method must be implemented if
•	орстопат		supportsLocaleAdmin() is true.
Method	Cata a la cala a dusinistus	getLocaleAdm	ninSessionForLocales
Description		·	g a locale dictionary using the given locale types. the type of the source language
Parameters	osid.type.Type	sourceType	
Return	osid.type.Type	targetType	the type of the target language
neturn	osid.locale.LocaleAdr NULL ARGUMENT	a LocaleAdminSession	
	OPERATION FAILED		sourceType or targetType is null unable to complete request
	_		supportsLocaleAdmin() or
Errors	UNIMPLEMENTED		supportsVisibleFederation() is false
			supportsVisible ederation() is raise supportsLocaleTypesForConversion(sourceType,
	UNSUPPORTED		targetType) is false
			This method must be implemented if
Compliance	optional		supportsLocaleAdmin() and
•	I		supportsVisibleFederation() are true.



Martin at			
Method	getUnitConversionSession		
Description	Gets a unit conversion session.		
Return	osid.locale.UnitConversionSession	a UnitConversionSession	
Errors	OPERATION_FAILED	unable to complete request	
Errors	UNIMPLEMENTED	supportsUnitConversion() is false	
		This method must be implemented if	
Compliance	optional	supportsUnitConversion() is true.	
Method	getCurrency	ConversionSession	
Description	Gets a currency conversion session.		
Return	osid.locale.CurrencyConversionSession a CurrencyConversionSession		
Errors	OPERATION_FAILED	unable to complete request	
Errors	UNIMPLEMENTED	supportsCurrencyConversion() is false	
0	antional	This method must be implemented if	
Compliance	optional	supportsCurrencyConversion() is true.	
Method	getCalendarConversionSession		
Description	Gets a calendar conversion session.		
Return	osid.locale.CalendarConversionSession	a CalendarConversionSession	
Errors	OPERATION_FAILED	unable to complete request	
EHOIS	UNIMPLEMENTED	supportsCalendarConversion() is false	
0		This method must be implemented if	
Compliance	optional	supportsCalendarConversion() is true.	



Interface		osid.locale.l	LocaleProxyManager
Implements	osid.OsidProxyManager osid.locale.LocaleProfile		
implements			
Description	The locale manager provides access to locale sessions and provides interoperability tests for various aspects of this service. Methods in this manager support the passing of an Authentication object for the purposes of proxy authentication. The sessions included in this manager are: • LocaleSession: a session translate strings • LocaleAdminSession: a session to update the string translations for a locale • UnitConversionSession: a session to convert measurement units • CurrencyConversionSession: a session to convert currency • CalendarConversionSession: a session to convert dates across calendars		
Method		getl	ocaleSession
Description	Gets an OsidSession a		1
Parameters	osid.authentication.Authentication		proxy authentication
Return	osid.locale.LocaleSes	ssion	a LocaleSession
	NULL_ARGUMENT		authentication is null
	OPERATION_FAILED		unable to complete request
Errors	PERMISSION_DENIE	D	authentication is invalid
	UNIMPLEMENTED		supportsLocale() is false
	UNSUPPORTED		the authentication service is not supported
Compliance	ontional		This method must be implemented if
Compliance	optional	supportsLocale() is true.	
Method			SessionForLocales
Description			caleLookup service and the given locale types.
	osid.type.Type	sourceType	the type of the source language
Parameters	osid.type.Type	targetType	the type of the target language
Return	osid.authentication.Authentication		proxy authentication a LocaleSession
neturii	osid.locale.LocaleSession a		a LocaleSession
	NULL_ARGUMENT		authentication, sourceType or targetType is null
	OPERATION_FAILED		unable to complete request
	PERMISSION_DENIE	D	authentication is invalid
Errors	UNIMPLEMENTED		supportsLocale() or supportsVisibleFederation()
	UNIMPLEMENTED		is false
			supportsLocaleTypesForConversion(sourceType,
	UNSUPPORTED		targetType) is false or the authentication service
			isnot supported
			This method must be implemented if
Compliance	optional		supportsLocale() and
			supportsVisibleFederation() are true.
Method	getLocaleAdminSession		
Description	Gets a locale administration service for updating a locale dictionary.		
Parameters	osid.authentication.Authentication		proxy authentication
Return	osid.locale.LocaleAdı	minSession	a LocaleAdminSession
	NULL_ARGUMENT		authentication is null
_	OPERATION_FAILED		unable to complete request
Errors	PERMISSION_DENIE	D	authentication is invalid
	UNIMPLEMENTED		supportsLocaleAdmin() is false
	UNSUPPORTED		the authentication service is not supported
Compliance	optional		This method must be implemented if
- Campilanio	-		supportsLocaleAdmin() is true.



Method	getLocaleAdminSessionForLocales			
Description	Gets a locale administration service for updating a locale dictionary using the given locale types.			
	osid.type.Type	sourceType	the type of the source language	
Parameters			the type of the target language	
	osid.authentication.Authentication	- ''	proxy authentication	
Return	osid.locale.LocaleAdı		a LocaleAdminSession	
Hotam		111130331011		
	NULL_ARGUMENT		authentication, sourceType or targetType is null	
	OPERATION FAILED		unable to complete request	
Errors	PERMISSION_DENIE	D	authentication is invalid	
Ellois	LINITADI EMENTED		supportsLocaleAdmin() or	
	UNIMPLEMENTED		supportsVisibleFederation() is false	
	UNSUPPORTED		supportsLocaleTypesForConversion(sourceType,	
	ONSOLLOKIED		targetType) is false	
			This method must be implemented if	
Compliance	optional		supportsLocaleAdmin() and	
			supportsVisibleFederation() are true.	
Method	Cata a unit conversion	getUnitC	ConversionSession	
Description Parameters	Gets a unit conversion osid.authentication.Authentication		proxy authentication	
Return			· · · ·	
neturn	osid.locale.UnitConv NULL_ARGUMENT	ersionSession	a UnitConversionSession authentication is null	
	OPERATION_FAILED		unable to complete request	
Errors	PERMISSION DENIED		authentication is invalid	
Ellois				
	UNIMPLEMENTED UNSUPPORTED		supportsUnitConversion() is false	
			the authentication service is not supported This method must be implemented if	
Compliance	optional		supportsUnitConversion() is true.	
Method		getCurrenc	cyConversionSession	
Description	Gets a currency conver		.,	
Parameters	osid.authentication.Authentication authentication		proxy authentication	
Return	osid.locale.CurrencyConversionSession		a CurrencyConversionSession	
	NULL_ARGUMENT		authentication is null	
	OPERATION_FAILED		unable to complete request	
Errors	PERMISSION_DENIE	D	authentication is invalid	
	UNIMPLEMENTED		supportsCurrencyConversion() is false	
	UNSUPPORTED		the authentication service is not supported	
Compliance	optional		This method must be implemented if	
-	optional		supportsCurrencyConversion() is true.	
Method	Outropolaria		arConversionSession	
Description	Gets a calendar conver	1	prove authorization	
Parameters	osid.authentication.Authentication		proxy authentication	
Return	osid.locale.Calendar	LonversionSession	a CalendarConversionSession	
	NULL_ARGUMENT		authentication is null unable to complete request	
Erroro	OPERATION_FAILED	D		
Errors	PERMISSION_DENIE	ע	authentication is invalid	
	UNIMPLEMENTED		supportsCalendarConversion() is false	
	UNSUPPORTED		the authentication service is not supported This method must be implemented if	
Compliance	optional		supportsCalendarConversion() is true.	
	<u> </u>		Supports Calendar Conversion() is true.	



Interface	osid.locale.LocaleSession		
Implements	osid.OsidSession		
Description	This session defines me	ethods to translate text be	tween a source and target locale.
Method		getSo	urceLocale
Description	Gets the source Locale	used in this session.	
Return	osid.type.Type		the source Locale
Compliance	mandatory		This method must be implemented.
Method		getTa	rgetLocale
Description	Gets the target Locale	used in this session.	
Return	osid.type.Type		the target Locale
Compliance	mandatory This method must be implemented.		This method must be implemented.
Method	canTranslate		
Description	Tests if this user can perform locale translations. A return of true does not guarantee successful authorization. A return of false indicates that it is known all methods in this session will result in a PERMISSION_DENIED. This is intended as a hint to an application that may opt not to offer lookup operations.		
Return			false if translation methods are not authorized, true otherwise
Compliance	mandatory		This method must be implemented.
Method		tran	slateText
Description	Translates the given str	ing into the current locale.	
Parameters	string	text	the string to translate
- Tarameters	string	defaultText	the default string if no translation available.
Return	string the translated string or the given default value if no translation available.		
	NULL_ARGUMENT		null argument provided
Errors	OPERATION_FAILED		unable to complete request
	PERMISSION_DENIED		authorization failure
Compliance	mandatory		This method must be implemented.



Interface	osid.locale.LocaleAdminSession		
Implements	losid.OsidSession		
Description		ethods to translate and for	mat text between a source and target locale.
Method		getSo	urceLocale
Description	Gets the source Locale		
Return	osid.type.Type		the source Locale
Compliance	mandatory		This method must be implemented.
Method		getTa	rgetLocale
Description	Gets the target Locale	used in this session.	
Return	osid.type.Type		the target Locale
Compliance	mandatory		This method must be implemented.
Method			dateLocale
Description	Tests if this user can update localization strings. A return of true does not guarantee successful authorization. A return of false indicates that it is known all methods in this session will result in a PERMISSION_DENIED. This is intended as a hint to an application that may opt not to offer notification operations.		
Return	boolean false if changing locale is not authorized, true otherwise		
Compliance	mandatory This method must be implemented.		This method must be implemented.
Method	addTranslation		
Description	Adds or updates a strin	g translation.	
Parameters	string	sourceText	the source string
- arameters	string	targetText	the translated string
Errors	OPERATION_FAILED		unable to complete request
	PERMISSION_DENIED authorization failure		
Compliance	mandatory This method must be implemented.		This method must be implemented.
Method	removeTranslation		
Description	Removes a translation.		
Parameters	string sourceText the source string		
Errors	OPERATION_FAILED		unable to complete request
	PERMISSION_DENIED		authorization failure
Compliance	mandatory		This method must be implemented.



Interface	osid.locale.UnitConversionSession			
Implements	osid.OsidSession			
Description	This session defines methods to convert units across measurement systems.			
Method	canConvertUnits			
Description	Tests if this user can perform unit conversions. A return of true does not guarantee successful authorization. A return of false indicates that it is known all methods in this session will result in a PERMISSION_DENIED. This is intended as a hint to an application that may opt not to offer lookup operations.			
Return	boolean		false if conversion methods are not authorized, true otherwise	
Compliance	mandatory		This method must be implemented.	
Method	convertUnits			
Description	Convert units.			
	float	sourceUnit	the measure to convert	
Parameters	osid.type.Type	sourceUnitType	the type of measure specified	
	osid.type.Type	targetUnitType	the type of converted measure	
Return	float		resulting measure	
	NULL_ARGUMENT		null argument provided	
	OPERATION_FAILED		unable to complete request	
Errors	PERMISSION_DENIED		authorization failure	
	UNSUPPORTED		LocaleManager.supportsUnitTypesForConversion(meas	
	UNSULTOKILD		ureType, conversionType) is false	



Interface	osid.locale.CurrencyConversionSession			
Implements	osid.OsidSession			
Description	This session defines methods to convert currency.			
Method	canConvertCurrency			
Description	Tests if this user can perform currency conversions. A return of true does not guarantee successful authorization. A return of false indicates that it is known all methods in this session will result in a PERMISSION_DENIED. This is intended as a hint to an application that may opt not to offer lookup operations.			
Return	boolean		false if conversion methods are not authorized, true otherwise	
Compliance	mandatory		This method must be implemented.	
Method	convertCurrency			
Description	Converts currency.			
	cardinal	sourceCurrencyUnits	the currency units to convert	
Parameters	osid.type.Type	sourceCurrencyType	the type of currency	
	looid tuno Tuno			
	osid.type.Type	targetCurrencyType	the target currency units	
Return	cardinal	targetCurrencyType	the target currency units resulting currency units	
Return		targetCurrencyType	· · ·	
Return	cardinal	targetCurrencyType	resulting currency units null argument provided unable to complete request	
Return Errors	cardinal NULL_ARGUMENT		resulting currency units null argument provided unable to complete request authorization failure	
	cardinal NULL_ARGUMENT OPERATION_FAILED		resulting currency units null argument provided unable to complete request	



Interface	osid.locale.CalendarConversionSession			
Implements	osid.OsidSession			
Description	This session defines methods to convert dates across calendar systems.			
Method	canConvertCalendars			
Description	Tests if this user can perform calendar conversions. A return of true does not guarantee successful authorization. A return of false indicates that it is known all methods in this session will result in a PERMISSION_DENIED. This is intended as a hint to an application that may opt not to offer lookup operations.			
Return	boolean		false if conversion methods are not authorized, true otherwise	
Compliance	mandatory		This method must be implemented.	
Method	convertCalendar			
Description	Converts a date/time from one calendar to another.			
	osid.calendaring.DateTime	sourceDateTime	the date/time units to convert	
Parameters	osid.calendaring.DateTime osid.type.Type	sourceDateTime sourceCalendarType	the date/time units to convert the calendar type	
Parameters				
Parameters Return	osid.type.Type	sourceCalendarType targetCalendarType	the calendar type	
	osid.type.Type osid.type.Type	sourceCalendarType targetCalendarType	the calendar type the resulting calendar type	
	osid.type.Type osid.type.Type osid.calendaring.Dat	sourceCalendarType targetCalendarType	the calendar type the resulting calendar type the resulting date/time	
	osid.type.Type osid.type.Type osid.calendaring.Dat NULL_ARGUMENT	sourceCalendarType targetCalendarType eTime	the calendar type the resulting calendar type the resulting date/time null argument provided unable to complete request authorization failure	
Return	osid.type.Type osid.type.Type osid.calendaring.Dat NULL_ARGUMENT OPERATION_FAILED	sourceCalendarType targetCalendarType eTime	the calendar type the resulting calendar type the resulting date/time null argument provided unable to complete request	