1   REST List of API Operations

1.1   V2 Specific Operations

1.1.1   V2 Jurisdiction Determination Operations

Operation	API URL Reference	Description
POST	/api/v2/geo/Geocode	Geocodes one or multiple addresses and/or lat/long coordinates.

1.1.2   V2 Tax Calculation and Commit

Operation	API URL Reference	Description
POST	/api/v2/afc/CalcTaxes	Performs tax calculations on all invoices and line items.
POST	/api/v2/afc/Commit	Commits or un-commits a document code.

1.2   Common Operations

1.2.1   Application Operations

Operation	API URL Reference	Description
GET	/api/v1/Application/ServerTime	Get server time
GET	/api/v1/Application/AFCEngineVersion	Get the version of the AFC tax engine
GET	/api/v1/Application/RESTVersion	Get the version of the Rest APIs
GET	/api/v1/Application/AFCDatabaseEngineVersion	Get the AFC tax engine database version

1.2.2   Taxing Jurisdiction Operations

Operation	API URL Reference	Description
POST	/api/v1/CalculateJurisdiction	Determine taxing jurisdiction for transaction

1.2.3   Location Operations

Operation	API URL Reference	Description
POST	/api/v1/Location/PCode	Determine PCode for a location
GET	/api/v1/Location/PCodeToFips/{pCode}	Convert a PCode to FIPS code
GET	/api/v1/Location/Address/{pCode}	Get address information for a jurisdiction
POST	/api/v1/Location/ZipAddressLookup	Lookup jurisdictions by location name and/or postal code
GET	/api/v1/Location/Address	Lookup all countries in AFC
GET	/api/v1/Location/Address/{countryIso}	Lookup all states in a given country
GET	/api/v1/Location/Address/{countryIso}/{stateCode}	Lookup all cities for a given country and state/province/region.
GET	/api/v1/Location/Address/All	List of all addresses raw.

1.2.4   Tax Lookup Operations

Operation	API URL Reference	Description
GET	/api/v1/TaxLookup/Category/{taxType}	Get tax category for a tax type
GET	/api/v1/TaxLookup/Description/{taxType}	Get the tax description for a tax type
GET	/api/v1/TaxLookup/TaxRates/{pCode}	Get tax rates for a jurisdiction
GET	/api/v1/TaxLookup/TransactionServices	Get list of all Transaction-Service pairs.

1.3   V1 Specific Operations

1.3.1   V1 Calculate Taxes and Commit Operations

Operation	API URL Reference	Description
POST	/api/v1/BridgeConference/Taxes	Calculate taxes on a bridge conference transaction
POST	/api/v1/BridgeConference/Adjustments	Calculate tax adjustments on a bridge conference transaction
POST	/api/v1/CalculateTaxes	Calculate taxes on a transaction
POST	/api/v1/CalculateTaxesMulti	Calculates taxes on a transaction batch.
POST	/api/v1/CalculateTaxInclusive/Adjustments	Perform a tax-inclusive tax adjustment
POST	/api/v1/CalculateTaxInclusive/Taxes	Perform a tax-inclusive tax calculation
POST	/api/v1/CalculateWithOverrides/Taxes	Calculate taxes using overrides
POST	/api/v1/CalculateWithOverrides/Adjustments	Calculate tax adjustments using overrides
POST	/api/v1/CustMode/CalcTaxesInCustMode	Process transactions and adjustments in customer mode
POST	/api/v1/CalculateAdjustments	Calculate tax adjustments on transaction
POST	/api/v1/CalculateProRated/Taxes	Calculate taxes for a pro-rated transaction
POST	/api/v1/CalculateProRated/Adjustments	Calculate tax adjustments for a pro-rated transaction
POST	/api/v1/CommitTransactions	Calculate taxes on a transaction

2   API Details

2.1   api/v2/geo/Geocode

Supports a list of geo code addresses. Actual limit varies depending on message size and client timeout values, but standard recommendation is to process no more than 1000 entries per request.

2.1.1   Request Fields

Name	Long name	Type	Description
ref	Reference	String	User supplied reference string which ties results in response back to request
cass	ReturnCass	Boolean	True = return CASS certified address False = do not return CASS certified address
lat	Latitude	Double	Latitude value for lat/long geocode search (requires long value be supplied)
long	Longitude	Double	Longitude value for lat/long geocode search (requires lat value be supplied)
addr	StreetAddress	String	Street address for geocode search
city	CityName	String	City name for geocode search
st	StateAbbreviation	String	State abbreviation for geocode search
zip	Zip Code	String	5 digit (USA) zip code for geocode search

2.1.2   Response Fields

Name	Long name	Type	Description
ref	Reference	String	User supplied reference string which ties results in response back to request
cass	CassAddress	Object	Cass certified address from geo database
cBlk	CensusBlock	Integer	Census block for address
cTrc	CensusTract	Integer	Census tract for address
cnty	County	String	County for address
feat	FeatureId	Integer	Feature id for address

fips	FipsCode	String	10 digit USA FIPs code for address. Special taxing jurisdictions will start with "99" and do not represent an actual FIPs code.
inc	Incorporated	Boolean	True = address is within city limits False = address is outside city limits (unincorporated)
jur	JurisdictionName	String	FIPs place name for jurisdiction
lat	Latitude	Double	Latitude for street location associated with the address
long	Longitude	Double	Longitude for street location associated with the address
pcd	PCode	Unsigned Integer	Avalara for communications geocode identifying the taxing jurisdiction associated with the address or lat/long lookup
scr	Score	Double	Confidence score for lookup. 1.01 = fallback lookup on State/County/City/zip used.
err	Error	String	Error message on lookup failures

2.1.2.1   Address Fields

Name	Long name	Type	Description
addr	StreetAddress	String	CASS certified street address
city	CityName	String	CASS certified City name
st	StateAbbreviation	String	CASS certified State abbreviation
zip	Zip Code	String	CASS certified 9 digit (USA) zip code

2.2   api/v2/afc/CalcTaxes

Supports a list of transactions and override options. Actual limit varies depending on message size and client timeout values, but standard recommendation is to process no more than 1000 entries per request.

2.2.1   Request Fields

Name	Long name	Type	Description
cmpn	CompanyData	Object	Flags, settings and exclusions that applies to Seller

inv	Invoice	List	List of Invoices to be taxed
ovr	TaxOverride	List	List of overrides to be applied
sovr	SafeHarborOverride	List	List of Safe Harbor Traffic Study overrides to be applied

2.2.1.1   CompanyData Fields – Object

Name	Long name	Type	Description
bscl	BusinessClass	Integer	0 = ILEC 1=CLEC (or not an ILEC)
svcl	ServiceClass	Boolean	True = return CASS certified address False = do not return CASS certified address
fclt	Facilities	Double	Latitude value for lat/long geocode search (requires long value be supplied)
frch	Franchise	Double	Longitude value for lat/long geocode search (requires lat value be supplied)
addr	StreetAddress	String	Street address for geocode search
reg	Regulated	String	true = seller is regulated, false = seller is not regulated
excl	Exclusion	List	List of Countries and states/provinces/territories to be excluded
idnt	CompanyIdentifier	String	20 byte alpha-numeric reporting field for Company Identifier

2.2.1.1.1   Exclusion Fields

Name	Long name	Type	Description
ctry	Country	String	3 Byte Country ISO for exclusion
st	State	String	State abbreviation for exclusion
excl	ExclusionOn	Boolean	true = enable exclusion, false = disable exclusion

2.2.1.2   Invoice Fields

Name	Long name	Type	Description
doc	DocumentCode	String	Unique document code to be applied to invoice for Commit

cmmt	Commit	Boolean	False = uncommitted, True = committed
bill	Location	Location	BillTo location information
cust	CustomerType	Integer	0 = Residential, 1 = Business, 2 = Senior Citizen, 3 = Industrial
lfln	Lifeline	Boolean	false = customer is not a lifeline participant, true = customer is a lifeline participant
date	InvoiceDate	Date	Date to be used to get tax rates and logic. Historical dates supported.
exms	TaxExemption	List	List of tax exemptions to be applied to invoice
itms	LineItem	List	List of line items for invoice
Invm	InvoiceMode	Boolean	false = line items are unrelated, true = line items are part of a single invoice
dtl	ReturnDetail	Boolean	If invm = true: false = disable tax details true = enable tax details If invm = false: will always return tax details
summ	ReturnSummary	Boolean	If invm = true: false = disable tax summary, true = enable tax summary If invm = false: summary of tax data not available
opt	OptionalField	List	Optional fields for reporting

2.2.1.2.1   TaxExemption Fields

Name	Long name	Type	Description
frc	Force	Boolean	false = apply level exemption allowed logic, true = ignore level exemption allowed logic
loc	Location	Object	Location for exemption to be applied
tpe	TaxType	Integer	Tax Type for Tax Type Exemption
lvl	TaxLevel	Integer	Tax Level for Tax Type Exemption
cat	TaxCategory	Integer	Tax Category for Tax Category Exemptions

2.2.1.2.2   Location Fields

Name	Long name	Type	Description
ctry	Country	String	3 Byte Country ISO
st	State	String	Location for exemption to be applied

cnty	County	String	County Name
city	City	String	City Name or Special Tax Jurisdiction Name
zip	PostalCode	String	Zip or Postal Code
Int	Incorporated	Boolean	True = address is within city limits False = address is outside city limits (unincorporated)
pcd	PCode	Unsigned Integer	Avalara for communications geocode identifier for location
npa	NpaNxx	Unsigned Integer	First 6 digits of phone number
fips	FipsCode	String	10 digit USA FIPs code for location
geo	Geocode	Boolean	alse = do not use geo lookup, true = use geo lookup
addr	StreetAddress	String	Street address for location (used with geo = true)

2.2.1.2.3   OptionalField Fields

Name	Long name	Type	Description
key	Key	Integer	Numeric value 1-10 (Index)
val	Value	String	Alpha-numeric value up to 150 bytes

2.2.1.2.4   LineItem Request Fields

Name	Long name	Type	Description
ref	Reference	String	Reference to tie line item to tax details
from	Location	Object	Origination or From location
to	Location	Object	Destination or To location
chg	Charge	Double	Charge to be applied to line item
line	Lines	Integer	Line count to be applied to line item
loc	Locations	Integer	Number of locations to be applied to line item
min	Minutes	Double	Minutes to be applied to line item
sale	SaleType	Integer	0 = wholesale, 1 = retail, [SAU ONLY 2 = consumed, 3 = vendor use]
plsp	PrivateLineSplit	Double	% of private line split A point (p2p) [0.25 = 25% point A - 75% point Z]
incl	TaxInclusive	Boolean	false = not tax inclusive, true = is tax inclusive

pror	ProRatedPct	Double	% for pro-rated calculation of fixed taxes [0.5 = 50%]
brdg	BridgeData	Object	Beta – Contact Avalara if you need information on this functionality
tran	TransactionType	Integer	Transaction Type (1st part of the t/s pair that defines the product to be taxed)
serv	ServiceType	Integer	Service Type (2nd part of the t/s pair that defines the product to be taxed)
dbt	Debit	Boolean	false = not a debit card transaction, true = apply debit card logic to transaction
adj	IsAdjustment	Boolean	false = not a credit/adjustment, true = is a credit/adjustment
adjm	AdjustmentMethod	Integer	0 = Default, 1 = Least favorable rate to customer, 2 = Most favorable rate to customer
disc	DiscountType	Integer	Refer to manual for valid discount types and descriptions
opt	OptionalField	List	Optional fields for reporting

2.2.1.3 TaxOverride Fields

Name	Long name	Type	Description
loc	Location	Object	Location the override applies to
scp	Scope	Integer	Scope for override 0 = Country, 1 = State, 2 = County, 3 = City
tid	TaxType	Integer	Tax Type id for override
lvl	TaxLevel	Integer	Tax Level for override 0 = Federal, 1 = State, 2 = County, 3 = City
lvlExm	LevelExemptible	Boolean	false = not level exemptible, true = is level exemptible
brkt	TaxBracket	List	Tax Bracket(s)

2.2.1.3.1 TaxBracket Fields

Name	Long name	Type	Description
rate	Rate	Double	Tax rate for tax bracket
max	MaxBase	Integer	Maximum base for tax bracket (2147483647 = unlimited)

2.2.1.4 SafeHarborOverride Fields

Name	Long name	Type	Description
sh	SafeHarborType	Integer	1 = Cellular, 2 = VoIP, 4 = Paging
old	OriginalFederalTam	Double	Original Federal TAM. 0.649 = 64.9% State = (1.0 - Federal TAM)
new	NewFederalTam	Double	New Federal TAM. 0.371 = 37.1% State = (1.0 - Federal TAM)

2.2.2   Response Fields

Name	Long name	Type	Description
inv	InvoiceResults	List	List of invoices with tax results
err	Error	List	Error message(s) related to request processing

2.2.2.1   *InvoiceResults* Fields

Name	Long name	Type	Description
doc	DocumentCode	String	Unique document code applied to invoice for Commit
itms	DetailedTax	List	Detailed list of line item tax results
summ	SummarizedTax	List	Summarized taxes for invoice
err	Error	List	Error message(s) related to invoice calculation processing

2.2.2.1.1   DetailedTax Fields

Name	Long name	Type	Description
ref	Reference	String	Reference from request to tie line item to tax details
base	BaseSaleAmount	Double	Value for tax inclusive calls that represents the charge minus billable taxes
txs	Taxes	List	List of taxes for line item
brdg	BridgeParticipantResult	List	Beta – Contact Avalara if you need information on this functionality
err	Error	List	Error message(s) related to line item calculation processing

2.2.2.1.1.1 Taxes Fields

Name	Long name	Type	Description
bill	Billable	Boolean	false = non-billable tax, true = standard billable tax
cmpl	Compliance	Boolean	false = non-compliance tax, true = standard compliance tax
tm	TaxableMeasure	Double	Taxable Measure applicable to tax (can include tax-on-tax additions)
calc	CalculationType	Integer	1 = Rate, 2 = Fixed, 3 = PerMinute, 4 = PerLine, 5 = SelfTaxingRate, 6 = PerBracket, 7 = FixedOnTier
cat	CategoryName	String	Tax Category Name
cid	CategoryID	Integer	Tax Category Numerical ID
name	TaxName	String	Tax Name
exm	ExemptSaleAmount	Double	Exempt Sale Amount
lns	Lines	Integer	Number of lines taxed
pcd	PCode	Unsigned Integer	PCode representing reporting tax jurisdiction
rate	Rate	Double	Applicable tax rate
sur	Surcharge	Boolean	false = not a surcharge, true = surcharge rules apply
tax	TaxAmount	Double	Tax Amount
lvl	TaxLevel	Integer	Tax Level 0 = Federal, 1 = State, 2 = County, 3 = City, 4 = Unincorporated
tid	TaxType	Integer	Tax Type ID

2.2.2.1.2 SummarizedTax Fields

Name	Long name	Type	Description
max	MaxBase	Integer	Maximum base for tax bracket
min	MinBase	Integer	Minimum base for tax bracket
tchg	TotalCharge	Double	Total charge amount for invoice
calc	CalculationType	Integer	1 = Rate, 2 = Fixed, 3 = PerMinute, 4 = PerLine, 5 = SelfTaxingRate, 6 = PerBracket, 7 = FixedOnTier
cat	CategoryName	String	Tax Category Name

cid	CategoryID	Integer	Tax Category Numerical ID
name	TaxName	String	Tax Name
exm	ExemptSaleAmount	Double	Summarized Exempt Sale Amount
lns	Lines	Integer	Summarized Number of lines taxed
pcd	PCode	Unsigned Integer	PCode representing reporting tax jurisdiction
rate	Rate	Double	Applicable tax rate
sur	Surcharge	Boolean	false = not a surcharge, true = surcharge rules apply
tax	TaxAmount	Double	Summarized Tax Amount
lvl	TaxLevel	Integer	Tax Level 0 = Federal, 1 = State, 2 = County, 3 = City, 4 = Unincorporated
tid	TaxType	Integer	Tax Type ID

2.2.2.2   Error Fields

Name	Long name	Type	Description
code	ErrorCode	Integer	Numeric code associated with error
msg	ErrorMessage	String	Message associated with error

Quick Reference Links

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