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CentraSite

CentraSite Web Service Interfaces

Version 9.5 SP1

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CentraSite

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Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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Preface

This document describes some of the web services that CentraSite provides. You can obtain a complete list of services at the following URL:

```
http://server:port/wsstack/services/listServices
```

Where *server* is the machine on which the CentraSite Application Server Tier is running and *port* is the port on which Tomcat is listening (port 53307 if CentraSite is configured to use the default Tomcat port number).

Example: `http://myServer:53307/wsstack/services/listServices`

Audience

This document is intended for developers who want to integrate custom applications or third-party tools with CentraSite using web services.

Contents

CentraSite provides the following web services for each of the predefined importers:

ImportWsdlService
ImportXsdService
ImportXPDLService
ApprovalService

For more information on how to obtain descriptions and details refer to section *Invoking an Importer Using the SOAP API* in the document *Importing Objects Using the API*.

As an example, the following document describes the ApprovalService in detail:

The Approval Service Describes how to use the Approval service to interact with CentraSite's approval-request system.

1 Approval Service

This document contains the following topics:

About the Approval Service

The Approval service provides a set of operations that enables you to programmatically interact with CentraSite's approval system. Using the Approval service, you can develop client applications that let users view requests that they have submitted for approval and let approvers accept or reject these requests.

The WSDL for the Approval service is located here:

```
http://server:port/wsstack/services/ApprovalService?wsdl
```

Where *server* is the machine on which the CentraSite Application Server Tier is running and *port* is the port on which Tomcat is listening (port 53307 if CentraSite is configured to use the default Tomcat port number).

Operations Provided by the Approval Service

getPendingApprovals
getApprovalRequests
getApprovalActions
approve
reject
getApprovalHistory
revertPendingStateChange

How to Use the Approval Service

This section describes how to use the Approval service to perform common approval-related tasks.

- Invoking Operations from the Approval Service
- Retrieving the List of Approval Requests that a User has Submitted
- Approving or Rejecting Approval Requests
- Scrolling through the List of Returned Approval Requests

■ Reverting a Pending Approval Request

Invoking Operations from the Approval Service

The following sections provide general information about using the operations in the Approval service.

Specifying the Authenticated User

The Approval service returns results that are specific to the *authenticated user* (i.e., the user who invokes the operation). For example, when a client application invokes the getPendingApprovals operation, the operation returns the set of approval requests that require the *authenticated user's* approval.

The authenticated user is identified by the basic http authentication credentials that the client application provides when it invokes an operation in the Approval service. The supplied credentials must identify an active user account on the instance of CentraSite to which the client application is connecting. If the client application submits invalid credentials, the Approval service will return a SOAP fault.

Specifying the Location of the Approval Log

All of the operations provided by the Approval service have an input parameter called `locationCentraSite`. This parameter identifies the address of the CentraSite registry/repository whose approval log is to be queried. A client application must specify the `locationCentraSite` parameter if the registry/repository is running anywhere other than its default location (i.e., port 53307 on the machine where the Approval service is running).

If the registry/repository is running at its default location, a client is not required to specify the `locationCentraSite` parameter.

Retrieving the List of Approval Requests that a User has Submitted

You use the **getApprovalRequests** operation to retrieve the list of approval requests that the authenticated user has submitted to CentraSite. By default, this operation returns *all* of the approval requests that a user has submitted. However, you can optionally set the `objectType`, `submittedAfter`, `submittedBefore`, and/or `status` parameters to filter the list by the following criteria:

■ The type of object on which the request was submitted

■ The time period during which the request was submitted

■ The status of the request (e.g., retrieve only those requests that have not yet been approved)

You would use this operation, for example, to show users a list of their requests that are pending approval.

> 💡 **Tip:** This operation provides functionality like that of the **Approval Requests** list in CentraSite Control. See the topic *Reviewing Requests that You Have Submitted for Approval* in the section *Using Approval Policies* of the document *Working with Design/Change-Time Policies* for details.

The ApprovalRequestList Message

The **getApprovalRequests** operation (and other operations provided by the Approval service) returns an **ApprovalRequestList** message. This message contains an array of `ApprovalRequest` elements. Each ApprovalRequest element in the array represents a single approval request and contains the following information:

- The key of the approval request object (this key is required to perform operations that act directly on a specific approval request)
- The key of the user who submitted the approval request
- The date on which the approval request was submitted
- The key of registry object for which the approval request was submitted
- The type of object for which the approval request was submitted
- The status of the request
- Remarks, if any, that were submitted with the approval request

The approval requests in the array are not sorted.

The **ApprovalRequestList** message also returns an attribute called `count`, which indicates the total number of approval requests in the result set. If the operation did not find any approval requests that satisfied the operation's criteria, there will be no elements returned in `ApprovalRequest[]` and the `count` value will be zero.

If you want to receive the result set a few entries at a time instead of all at once, you can use the `scroll` parameter in the request message to specify which block of entries you want the operation to return. For more information about using the `scroll` parameter, see *Scrolling through the List of Returned Approval Requests*.

Getting Details about the Actions of the Approvers Associated with a Request

Once you have an **ApprovalRequestList**, you can use the **getApprovalActions** operation to obtain detailed information about the approvers associated with any request in the list.

The **getApprovalActions** operation takes an approval request key as input (which you can get from the **ApprovalRequestList**) and returns the set of approvers associated with the specified request. (You can specify multiple keys if you want to get the details for multiple approval requests.)

The **getApprovalActions** operation returns an **ApprovalActionResult** message. The `ApprovalAction[]` array in this message identifies the set of approvers associated with a particular approval request. Each `ApprovalAction` element in this array contains the following information:

- The key for the approver (i.e., the key to the User object that represents the approver)

- The status of the approver's action on this request, as follows

  - If the request has not yet been processed to completion (i.e., it has not yet been approved or rejected) and the approver has not taken any action on the request, the status will be "Pending".

  - If the approver has approved the request, the status will be "Approved".

  - If the approver has rejected the request, the status will be "Rejected".

  - If the request has been processed to completion (i.e., it has been approved or rejected), approvers who did not make the approval decision will have the status "No Action". (If the approval request was auto-approved, all of the approvers will have the status "No Action".)

> 💡 **Tip:** This operation provides functionality like that of the **Approval Requests** list when you use CentraSite Control to display the details for an approval request. See the topic *Reviewing Requests that You Have Submitted for Approval* in the section *Using Approval Policies* of the document *Working with Design/Change-Time Policies* for details.

Approving or Rejecting Approval Requests

To enable a user to approve or reject a request, do the following:

1. Use the **getPendingApprovals** operation to obtain the list of requests that require the user's approval.

2. Apply the **approve** or **reject** operation to the requests in the list according to the approval decisions that the user makes.

When you invoke the **approve** or **reject** operation, you must specify the key of the approval request on which the operation is to act. You can obtain this key from the **ApprovalRequestList** message that was returned by the **getPendingApprovals** operation.

> 📄 **Note:** You can apply the approve or reject operation to a single approval request or to multiple requests.

The approve and reject operations return an **ApprovalRequestList** message. This message will contain the approval requests that were approved or rejected by the operation.

For more information about working with the contents of the **ApprovalRequestList**, see *The ApprovalRequestList Message*.

> 💡 **Tip:** This operation provides functionality like that of the **Pending Approvals** list in CentraSite Control. See the topic *Reviewing Requests that You Have Submitted for Approval* in

the section *Using Approval Policies* of the document *Working with Design/Change-Time Policies* for details.

Scrolling through the List of Returned Approval Requests

The **getPendingApprovals**, **getApprovalRequests** and **getApprovalHistory** operations each return an array of approval requests (i.e., their result set) in an **ApprovalRequestList** message. In certain cases, the result set can be quite large (e.g., if you were to retrieve the entire Approval History log). Instead of receiving the entire result set in a single message, you can use the `scroll` parameter to retrieve the results in blocks of a specified size (e.g., 15 entries at a time). You might use this feature, for example, to display approval requests a page at a time in your client application.

To receive a specified block of results, set the following elements in the `scroll` parameter when you invoke the **getPendingApprovals**, **getApprovalRequests** or **getApprovalHistory** operation.

In this element...	Specify...
start	The first element in the block that you want to retrieve (where 1 represents the first element in the entire set of results).
number	The total number of elements that you want to retrieve in that block (i.e., the size of the block).

For example, let's say you are using the **getApprovalHistory** operation, and you want to retrieve the contents of the log 20 entries at a time. To do this you would...

Invoke **getApprovalHistory**	set `scroll.start = 1`	set `scroll.number = 20`
Invoke **getApprovalHistory** again	set `scroll.start = 21`	set `scroll.number = 20`
Invoke **getApprovalHistory** again	set `scroll.start = 41`	set `scroll.number = 20`

...and so forth until you reach the end of the result set.

To determine when you have reached the end of the result set, you can check the value in the `count` parameter in the **ApprovalRequestList**. This parameter reports the total number of entries in the entire result set.

> **Note:** If the last block in the set contains fewer entries than what you specify in `scroll.number`, the operation simply returns the remaining entries in that last block. If the element that you specify in `scroll.start` does not exist in the result set, the operation returns an empty list.

Reverting a Pending Approval Request

There might be times when you need to retract a pending request from the approval system. For example, if a request that is awaiting approval requires the approval of a user who has left the company, the request can become stuck in "pending" mode. To resolve this condition, you must back that request out of the approval system and resubmit it (after updating the approver group, of course).

When you have an approval request that is stuck in the "pending" mode, you can use the **revertPendingStateChange** operation to remove the request from the approval system. This operation also reverts the object that was pending approval to its previous state so that a user can submit the object for approval again.

Note that when you invoke this operation, you must specify the key of the registry object whose state you want to revert. You can obtain this key from the approval request that is stuck in "pending" mode. (You would need to retrieve that request, and the object's key, using one of the operations that returns an **ApprovalRequestList**.)

This operation returns a `revertPendingStateChangeResponse` message. The value of the `revertedState` parameter in this message reports the lifecycle state of the object on which the **revertPendingStateChange** operation was executed. For example, if you execute this operation on an object whose lifecycle state is pending a change from state A to state B, the operation will revert the object to state A and return state A in the `revertedState` parameter.

> **Note:** Only users in the CentraSite Administrator role are permitted to execute the **revertPendingStateChange** operation. If the authenticated user is not a member of this role, the operation returns a SOAP fault.

Operations

This section contains descriptions for the following operations and data structures:

- getPendingApprovals
- getApprovalRequests
- getApprovalActions
- approve
- reject
- getApprovalHistory
- revertPendingStateChange
- ApprovalRequestList

■ ApprovalActionResult

getPendingApprovals

This operation returns a list of the approval requests that are awaiting the authenticated user's approval (where the "authenticated user" is the user who invoked the getPendingApprovals service). You can optionally filter the list by object type and/or submission date.

For additional information about using this operation, see *Approving or Rejecting Approval Requests*.

Input Message

Parameter Name	Description

locationCentraSite	*String* Optional. The address of the CentraSite registry/repository from which you want to retrieve the approval requests. The registry/repository runs at the following URL:
	
	`http://server:port/CentraSite/CentraSite`
	
	Where *server* is the machine on which the CentraSite registry/repository is running and *port* is the port on which Apache is configured to listen for requests (port 53307 if CentraSite is configured to use the default Apache port number).
	
	If you do not specify `locationCentraSite`, the Approval service will use the following default URL:
	
	`http://localhost:53307/CentraSite/CentraSite`

objectType	*String Array* Optional. If you want to retrieve approval requests for only certain object types, use this element to specify the types by name. **Note:** You must specify the type's "schema name", not its display name. You can find the schema name on the type's Asset Type Details page in CentraSite Control.
submittedAfter	*DateTime* Optional . If you want to retrieve requests after a particular date, specify that date in this element.
submittedBefore	*DateTime* Optional. If you want to retrieve requests before a particular date, specify that date in this element.
locale	*String* Optional. The locale in which you want the results returned.
scroll	*Scroll* Optional. If you want to return a particular block of entries from the result set, specify the following values in the `scroll` element. For information about using the `scroll` element, see *Scrolling through the List of Returned Approval Requests*.
	start *Integer* The first entry that you want to include in the block (where 1 represents the first entry in the entire result set).

Parameter Name	Description
number	*Integer* Optional. The number of entries to be returned in the block of approval requests. If you specify a start value, but no number value, the remainder of the result set is returned.

Output Message

ApprovalRequestList

getApprovalRequests

This operation returns the list of requests that the authenticated user has submitted for approval (where the "authenticated user" is the user who invoked the getApprovalRequests service). You can optionally filter the list by object type, submission date, and/or approval status.

For additional information about using this operation, see *Retrieving the List of Approval Requests that a User has Submitted*.

Input Message

Parameter Name	Description	
locationCentraSite	*String* Optional. The address of the CentraSite registry/repository from which you want to retrieve the approval requests. The registry/repository runs at the following URL: http://*server*:*port*/CentraSite/CentraSite Where *server* is the machine on which the CentraSite registry/repository is running and *port* is the port on which Apache is configured to listen for requests (port 53307 if CentraSite is configured to use the default Apache port number). If you do not specify locationCentraSite, the Approval service will use the following default URL: http://localhost:53307/CentraSite/CentraSite	
status	*String* Optional. If you want to retrieve only requests with a specified approval status, specify one of the following values shown here:	
	Specify...	**To retrieve...**
	In Progress	Approval requests that are pending (awaiting approval).
	Approved	Approval request that have been approved (excluding requests that were auto-approved).

Parameter Name	Description	
	Rejected	Approval requests that have been rejected.
	No Action	Approval requests that were auto-approved.
objectType	*String Array* Optional. If you want to retrieve approval requests for only certain object types, specify the types by name in this element. **Note:** You must specify the type's "schema name", not its display name. You can find the schema name on the type's Asset Type Details page in CentraSite Control.	
submittedAfter	*DateTime* Optional . If you want to retrieve requests after a particular date, specify that date in this element.	
submittedBefore	*DateTime* Optional. If you want to retrieve requests before a particular date, specify that date in this element.	
locale	*String* Optional. The locale in which you want the results returned.	
scroll	*Scroll* Optional. If you want to return a particular block of entries from the result set, specify the following values in the scroll element. For information about using the scroll element, see *Scrolling through the List of Returned Approval Requests*.	
	start	*Integer* The first entry that you want to include in the returned block of approval requests (where 1 represents the first entry in the entire result set).
	number	*Integer* Optional. The number of entries to be returned in the block of approval requests. If you specify a start value, but no number value, the remainder of the result set is returned.

Output Message

ApprovalRequestList

getApprovalActions

This operation returns detailed information about specified approval requests.

For additional information about using this operation, see *Getting Additional Details about an Approval Request*.

Input Message

Parameter Name	Description

locationCentraSite	*String* Optional. The address of the CentraSite registry/repository from which you want to retrieve the approval requests. The registry/repository runs at the following URL:
	
	`http://`*server*`:`*port*`/CentraSite/CentraSite`
	
	Where *server* is the machine on which the CentraSite registry/repository is running and *port* is the port on which Apache is configured to listen for requests (port 53307 if CentraSite is configured to use the default Apache port number).
	
	If you do not specify `locationCentraSite`, the Approval service will use the following default URL:
	
	`http://localhost:53307/CentraSite/CentraSite`

approvalRequestKeys	*String Array* The keys for the approval requests whose details you want to retrieve.
locale	*String* Optional. The locale in which you want the results returned.

Output Message

ApprovalActionResult

approve

This operation approves specified approval requests.

For additional information about using this operation, see *Approving or Rejecting Approval Requests*.

Input Message

Parameter Name	Description

locationCentraSite	*String* Optional. The address of the CentraSite registry/repository on which the approval requests reside. The registry/repository runs at the following URL:
	
	`http://`*server*`:`*port*`/CentraSite/CentraSite`
	
	Where *server* is the machine on which the CentraSite registry/repository is running and *port* is the port on which Apache is configured to listen for requests (port 53307 if CentraSite is configured to use the default Apache port number).
	
	If you do not specify `locationCentraSite`, the Approval service will use the following default URL:
	
	`http://localhost:53307/CentraSite/CentraSite`

approvalRequestKeys	*String Array* The keys for the requests that are to be approved.

Parameter Name	Description
comment	*String* Optional. A comment from the approver.
locale	*String* Optional. The locale in which you want the results returned.

Output Message

ApprovalRequestList (will contain the requests that were approved)

reject

This operation rejects the specified approval requests.

For additional information about using this operation, see *Approving or Rejecting Approval Requests*.

Input Message

Parameter Name	Description

locationCentraSite	*String* Optional. The address of the CentraSite registry/repository on which the approval requests reside. The registry/repository runs at the following URL:
	
	`http://`*server*`:`*port*`/CentraSite/CentraSite`
	
	Where *server* is the machine on which the CentraSite registry/repository is running and *port* is the port on which Apache is configured to listen for requests (port 53307 if CentraSite is configured to use the default Apache port number).
	
	If you do not specify `locationCentraSite`, the Approval service will use the following default URL:
	
	`http://localhost:53307/CentraSite/CentraSite`

approvalRequestKeys	*String Array* The keys for the requests that are to be rejected.
comment	*String* Optional. A comment from the approver.
locale	*String* Optional. The locale in which you want the requests returned.

Output Message

ApprovalRequestList (will contain the requests that were rejected)

getApprovalHistory

This operation returns entries from the approval history log based on specified search criteria. If the user belongs to the CentraSite Administrator role, he or she will receive all entries in the log. If the user belongs to the Organization Administrator role, he or she will receive all log entries for his or her organization. Otherwise, the user receives only those approval requests that he or she has submitted.

Input Message

Parameter Name	Description

locationCentraSite	*String* Optional. The address of the CentraSite registry/repository on which the approval history log resides. The registry/repository runs at the following URL:
	
	`http://`*server*`:`*port*`/CentraSite/CentraSite`
	
	Where *server* is the machine on which the CentraSite registry/repository is running and *port* is the port on which Apache is configured to listen for requests (port 53307 if CentraSite is configured to use the default Apache port number).
	
	If you do not specify `locationCentraSite`, the Approval service will use the following default URL:
	
	`http://localhost:53307/CentraSite/CentraSite`

status	*String* Optional. If you want to retrieve only requests with a specified approval status, specify one of the values shown here:
	<table><tr><th>Specify...</th><th>To retrieve...</th></tr><tr><td>In Progress</td><td>Approval requests that are pending (i.e., awaiting approval).</td></tr><tr><td>Approved</td><td>Approval requests that have been approved (excluding requests that were auto-approved).</td></tr><tr><td>Rejected</td><td>Approval request that have been rejected.</td></tr><tr><td>No Action</td><td>Approval requests that were auto-approved.</td></tr></table>
objectType	*String Array* Optional. If you want to retrieve approval requests for only certain object types, specify the types by name in this element. **Note:** You must specify the type's "schema name", not its display name. You can find the schema name on the type's Asset Type Details page in CentraSite Control.
submittedAfter	*DateTime* Optional. If you want to retrieve requests after a particular date, specify that date in this element.
submittedBefore	*DateTime* Optional. If you want to retrieve requests before a particular date, specify that date in this element.
locale	*String* Optional. The locale in which you want the results returned.

Parameter Name	Description	
scroll	*Scroll* Optional. If you want to return a specified block of entries from the result set, specify the following values in the scroll element. For information about using the scroll element, see *Scrolling through the List of Returned Approval Requests*.	
	start	*Integer* The first entry that you want to include in the block (where 1 represents the first entry in the entire result set).
	number	*Integer* Optional. The number of entries to be returned in the block. If you specify a start value, but no number value, the remainder of the result set is returned.

Output Message

ApprovalRequestList

revertPendingStateChange

This operation removes an object that is pending approval from the approval system, and returns the object to its prior lifecycle state. Only users that belong to the CentraSite Administrator role can execute this operation.

For additional information about using this operation, see *Reverting a Pending Approval Request*.

Input Message

Parameter Name	Description

locationCentraSite	*String* Optional. The address of the CentraSite registry/repository on which the object resides. The registry/repository runs at the following URL:
	
	`http://server:port/CentraSite/CentraSite`
	
	Where *server* is the machine on which the CentraSite registry/repository is running and *port* is the port on which Apache is configured to listen for requests (port 53307 if CentraSite is configured to use the default Apache port number).
	
	If you do not specify locationCentraSite, the Approval service will use the following default URL:
	
	`http://localhost:53307/CentraSite/CentraSite`

key	*String* The key of the object whose state you want to revert.

Output Message

revertPendingStateChangeResponse	
Parameter Name	**Description**
revertedState	*String* The lifecycle state to which the object was reverted by the **revertPendingStateChange** operation. For example, if you executed this operation on an object whose state was pending a change from state A to state B, the operation would return state A in the revertedState parameter.

ApprovalRequestList

This data structure holds a list of approval requests.

For additional information about working with this structure, see *The ApprovalRequestList Message*.

Parameter Name	**Description**		
ApprovalRequest[]	An array of ApprovalRequest elements. Each ApprovalRequest entry in the array represents one approval request and has the following structure:		
	name	*String* Optional. The name of the approval request (as specified by the Approval Flow Name parameter in the approval policy action).	
	requestor	*String* The key that identifies the user who submitted the approval request.	
	registryObject	*String* The key of the registry object on which the user is requesting approval.	
	requestType	*String* The type of event that triggered the approval request (e.g., "Pre-State Change").	
	reasonForRequest	*String* Optional. The remark (if any) that was assigned to the request by the approval policy action.	
	key	*String* The approval request's key.	
	status	*String* The state of the approval request. The value of this element will be one of the following:	
		Value	**Description**
		In Progress	The approval request is pending (i.e., awaiting approval).
		Approved	The approval request has been approved.
		Rejected	The approval request has been rejected.
		No Action	The approval request was auto-approved.

Parameter Name	Description	
	submittedDate	*DateTime* The date on which the request was submitted for approval.
scroll	*Scroll* Optional. The scroll values, if any, that were submitted when the operation that produced this ApprovalRequestList was invoked.	
	start	*Integer* The start value that was specified in the input message when the operation was invoked.
	number	*Integer* Optional. The number value that was specified in the input message when the operation was invoked.
count	*Number* The number of approval requests in the entire result set.	

ApprovalActionResult

This data structure holds the details for a specified set of approval requests.

For additional information about working with this structure, see *Getting Additional Details about an Approval Request*.

Parameter Name	Description			
ApprovalActionList[]	An array of ApprovalActionList elements. Each ApprovalActionList entry in the array holds the details for one approval request and has the following structure:			
	ApprovalAction[] ApprovalRequestKey	*String* The key to the approval request.		
		An array of ApprovalAction elements. Each ApprovalAction element in the array holds the approval details for one approver. This array will contain one entry for each approver in the approver group. Each ApprovalAction element has the following structure:		
		approver	*String* The key that identifies the user who is the approver.	
		status comment	*String* Optional. A remark from the approver (typically indicating why he or she approved or rejected the request).	
			String The approver's decision on the request. Possible values are shown below:	
			Value	**Description**
			Pending	The approver has not taken action on the request.
			Approved	The approver approved the request.

Parameter Name	Description			
			Rejected	The approver rejected the request.
			No Action	The request has been approved or rejected, however, this approver did not make the approval decision on the request. Can also indicate that the request was auto-approved.