Clarizen Functions

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Abs Function

Abs (number as Numeric) as Numeric

Category:	Math
Description:	Returns the absolute value of a number
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Positive or negative numeric value or reference to a numeric field
Returned value as Numeric	Returns a numeric value equal to the absolute value of the number entered in the "number" parameter
Example #1	Define a numeric custom field on a work item and set it's default value to Abs($BaselineWorkVariance/$WorkVariance)
Tips	eate workflow rules to set standard field values via formulas create default values based on formulas, be sure to check off "based on formula" box next to the default value field within New Custom Field screen
Additional Links	Custom Field Business Rules

Ceil Function

Ceil (number as Numeric) as Numeric

Category:	Math
Description:	Rounds a number up to the nearest whole integer
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Positive or negative numeric value or reference to a numeric field
Returned value as Numeric	Returns a numeric value equal to the entered number value rounded to the nearest whole integer
Example #1	Create a Custom Field using the Duration Field Type that will return the total hours spent on a work item rounded up to the nearest whole integer. Hours(Ceil($ActualEffort/Hours(1))) $ActualEffort\Hours(1) is used to normalize the actual effort in amount of hours (regardless of whether the effort was entered in days, weeks, etc). The Hours() function is then used to convert the effort back to the duration field.
Tips	Create workflow rules to set standard field values via formulas

Additional Links	Duration Field Type

Div Function

Div (number as Numeric, divisor as Numeric, errorValue as Numeric) as Numeric

Category:	Math
Description:	Return number/divisor if divisor<>0 otherwise it will return errorValue
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Positive or negative numeric value or reference to a numeric field
divisor as Numeric	Positive or negative numeric value or reference to a numeric field
errorValue as Numeric	Resulting value if the expression throws a runtime error
Returned value as Numeric	Returns a numeric value equal to the "number" divided by the "divisor" parameters, if divisor is equal to "0" the resulting value will be equal to the value set in the "errorValue" parameter

Exp Function

Exp (number as Numeric) as Numeric

Category:	Math
Description:	Returns e raised to the power of the given number
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Positive or negative numeric value or reference to a numeric field
Returned value as Numeric	Returns e raised to the power of the number given in the "number" parameter
Example #1	Create a Custom Field using the Duration Field Type that will return the exponential value of the total hours spent on a work item. `Hours(Exp($ActualEffort/Hours(1)))` $ActualEffort\Hours(1) is used to normalize the actual effort in amount of hours (regardless of whether the effort was entered in days, weeks, etc). The Hours() function is then used to convert the effort back to the duration field.

Tips	Functions can be used within other functions to create more complex formulas
Additional Links	Duration Field Type

Floor Function

Floor (number as Numeric) as Numeric

Category:	Math
Description:	Rounds a number down towards zero to the nearest integer
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Numeric value or reference to a numeric field
Returned value as Numeric	Returns a numeric value equal to the number specified in the "number" parameter rounded down towards zero to the nearest integer
Example #1	Create a Custom Field using the Duration Field Type that will return the total hours spent on a work item rounded down to the nearest integer. Hours(Floor($ActualEffort/Hours(1))) $ActualEffort\Hours(1) is used to normalize the actual effort in amount of hours (regardless of whether the effort was entered in days, weeks, etc). The Hours() function is then used to convert the effort back to the duration field. Example: $C_value = 5.4, Floor($C_value) > returns 5 Example: $C_value = 99.9999, Floor($C_value) > returns 999
Tips	Create workflow rules to set standard field values via formulas
Additional Links	Duration Field Type

Max Function

Max (arg1 as Object, arg2 as Object, ... as Object) as Object

Category:	Math
Description:	Returns the greatest value of the arguments
Supported Context:	FormulaField And BusinessRules
Parameters:	

arg1 as Object	Represents any value type, or reference to a field that will be compared to the other "arg" parameters
arg2 as Object	Represents any value type, or reference to a field that will be compared to the other "arg" parameters
... as Object	Represents any value type, or reference to a field that will be compared to the other "arg" parameters
Returned value as Object	Returns the maximum value of the values provided in the "argx" parameters
Example #1	Create a validation rule that will check whether a work item's due date was updated by setting the work item 'Duration' and which exceeds the parent milestone or project's due date. In such a case, throw an error and block updating the appropriate duration of the work item. The Evaluation Criteria of this validation rule will be: IsChanged($Duration) && IsChanged ($DueDate) && Not (IsNULL($Milestone)) && (Max($DueDate, $Milestone.DueDate, $Project.DueDate) = $DueDate)
Tips	Validation Rules can be used throughout the entire system and will help in regulating data as per your organizational standards

Min Function

Min (arg1 as Object, arg2 as Object, ... as Object) as Object

Category:	Math
Description:	Returns the smallest value of the arguments
Supported Context:	FormulaField And BusinessRules
Parameters:	
arg1 as Object	Represents any value type, or reference to a field that will be compared to the other "arg" parameters
arg2 as Object	Represents any value type, or reference to a field that will be compared to the other "arg" parameters
... as Object	Represents any value type, or reference to a field that will be compared to the other "arg" parameters
Returned value as Object	Returns the minimum value of the values provided in the "argx" parameters
Example #1	Create a validation rule that will check whether a work item's start date was updated by setting the work item 'Duration', and begins prior to the parent milestone or project's start date. In such a case, throw an error and block updating the appropriate duration of the work item. The Evaluation Criteria of this validation rule will be:

	IsChanged($Duration) && IsChanged ($StartDate) && Not (IsNULL($Milestone)) && (Min($StartDate, $Milestone.StartDate, $Project.StartDate) = $StartDate)
Tips	Validation Rules can be used throughout the entire system and will help in regulating data as per your organizational standards

Mod Function

Mod (number as Numeric, divisor as Numeric) as Numeric

Category:	Math
Description:	Returns the remainder after a number is divided by the divisor
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Positive or negative numeric value or reference to a numeric field
divisor as Numeric	Positive or negative numeric value or reference to a numeric field
Returned value as Numeric	REturns a numeric value equal to the remainder after the "number" parameter is divided by the "divisor" value
Example #1	Example: Mod(3,2) The Mod function is useful for financial fields

Pow Function

Pow (number as Numeric, power as Numeric) as Numeric

Category:	Math
Description:	Returns number raised to the power
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	
power as Numeric	
Returned value as Numeric	

Round Function

Round (number as Numeric, numberDigits as Numeric) as Numeric

Category:	Math
Description:	Rounds a number to the specified number of digits
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Positive or negative numeric value or reference to a numeric field
numberDigits as Numeric	Numeric value or reference to a numeric field
Returned value as Numeric	Returns a number value equal to the number specified in the "number" parameter rounded to the number of digits specified in the "numberDigits" parameter
Example #1	Build a workflow rule that sends an email with work item progress. If you want to get up to 2 decimal places, create the following formula within the body or subject of the email `Round($PercentCompleted,2)`
Tips	Other similar functions include Ceil(), Floor(), Truncate()
Related Functions	Ceil() Floor() Truncate()

Sqrt Function

Sqrt (number as Numeric) as Numeric

Category:	Math
Description:	Returns the positive square root of a number
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Positive or negative numeric value or reference to a numeric field
Returned value as Numeric	Returns a numeric value equal to the positive square root of the number provided in the "number" parameter
Example #1	Example: `Sqrt(4)` The formula above will return a value of 2

	Example: $C_positive_value = 9 Sqrt($C_positive_value) > returns 3 Example: $C_negative_value = -9 Sqrt($C_negative_value) > returns 3
Tips	Similar functions include Exp() and Mod()
Related Functions	Exp() Mod()

Truncate Function

Truncate (number as Numeric) as Numeric

Category:	Math
Description:	Returns the y integer part of floating-point number, for example Truncate(32.7865) will return 32
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Positive or negative numeric value or reference to a numeric field
Returned value as Numeric	Returns a numeric value equal to the whole number of value of the number indicated in the "number" parameter, trimming all numbers after the decimal point
Example #1	Build a workflow rule that sends an email with an update of progress. Create the following formula within the body or subject of the email Truncate($PercentComplete)
Tips	Other similar functions include Ceil(), Floor(), Round()
Related Functions	Ceil() Floor() Round()

IsPickVal Function

IsPickVal (picklistField as ObjectIdentifier, valueLiteral as String, exact as Boolean) as Boolean

Category:	Pickup
Description:	Checks whether the value of a pick list field is equal to the literal value. An optional "exact" parameter with options: TRUE/FALSE is for Multi-Select Picklists to evaluate if a set of values e.g. "a, b" are contained in the list of selected values e.g.

	"a, b, c, d" (exact parameter = False) or are the the only values (an exact match) "a, b", using exact parameter=true.
Supported Context:	FormulaField And BusinessRules
Parameters:	
picklistField as ObjectIdentifier	Represents a specific object field of type pick list
valueLiteral as String	Represents a picklist value, as text/string of the pick list specified in the "picklistField" parameter
exact as Boolean	Optional: Defines if a set of values are contained in the list of selected values. Example: If "a, b" in a list that includes "a, b, c, d", the exact parameter = False, but if the list includes only "a, b", its an exact match, parameter=true.
Returned value as Boolean	Returns a boolean value, where "TRUE" indicates that the value of the picklist specified in the "picklistField" parameter is equal to the value specified in the "valueLiteral" parameter
Example #1	Build a workflow rule on a work item that will return a TRUE if the state of the work item is indeed set to the defined picklist value. Set the evaluation criteria to IsPickval($State,'Completed')

CurrentObject Function

CurrentObject () as ObjectIdentifier

Category:	ObjectReference
Description:	Returns object that is currently being processed
Supported Context:	FormulaField And BusinessRules
Returned value as ObjectIdentifier	Returns object that is currently being processed
Example #1	To add a hyperlink to the object on an email workflow rule, use the following formula within the email subject or body GetHyperlink(CurrentObject())
Example #2	Prevent an admin user from updating their own direct manager details by defining a validation rule that will have the following evaluation criteria CurrentUser().DirectManager = CurrentObject()
Tips	The CurrentObject() function can only be used on business rules

CurrentUser Function

CurrentUser () as Object

Category:	ObjectReference
Description:	Returns the current user object
Supported Context:	BusinessRules
Returned value as Object	Returns the current user object
Example #1	Build a validation rule on the User Entity "Add" operation that will prevent non-admin users from inviting new users into the organization. Set the Evaluation Criteria to be: Not(CurrentUser().Admin)
Example #2	Build a validation rule that will prevent the deletion of approved timesheet entries by users that are not set as the approver of the timesheet itself. Build the validation rule on the TimeSheet entity and set its Evaluation Criteria to be: ($State = "Approved")&& (CurrentUser()<> $ApprovedBy)
Tips	e CurrentUser() function ca only be used on business rules u can get the current user's properties by using the rrentUser().FieldAPIName syntax, such as rrentUser().Admin, CurrentUser().DirectManager

FindCustomer Function

FindCustomer (customer as String) as ObjectIdentifier

Category:	ObjectReference
Description:	Returns the customer object, where the "customer" parameter can either be the customer name, an email address of a customer contact or the customer domain name.
Supported Context:	BusinessRules
Parameters:	
customer as String	Represents a reference to a customer object, can either be the customer name, an email address of a customer contact, or a customer's domain name
Returned value as ObjectIdentifier	Returns a reference to a specific customer object
Example #1	Create an InterAct rule on the Support mailbox that allows your customers to submit email to case tickets. This rule will also allow you to link the Customer to the Issue, so that you can keep track of all Customer bugs, issues, etc. Using the NewObject action in the rule select the Issue Customer Link to create the link between the newly created issue and the Customer.

	In the Entity section enter the Issue (generally speaking this would be NewObject1) and in the Customer section enter the following: FindCustomer(EmailObject.From) Using the email address of the customer contact, this function will locate the relevant customer.

FindObject Function

FindObject (entityType as ObjectIdentifier, field as Object, fieldValue as Object) as ObjectIdentifier

Category:	ObjectReference
Description:	Returns an object that fits a specific field value criteria. The EntityType parameter refers to the specific object entity type, for example Project. Field parameter refers to the field of interest, and the fieldValue parameter indicates the value of the specified field. If multiple objects fit the criteria, then the last modified object will be returned.
Supported Context:	EmailRule, CustomAction
Parameters:	
entityType as ObjectIdentifier(Class)	Represents the entity type of the desired object (i.e Project). You can access all the available entity types using the values denoted in the "Class" option in the "Pick lists" tab of the formula helper
field as Object	Represents the field that will be used to find the desired object (i.e. $State)
fieldValue as Object	Represents the field value of the field specified in the "field" parameter
Returned value as ObjectIdentifier	Returns the object that fits the criteria specified in the "fieldValue" parameter for the field specified in the "field" parameter
Example #1	Create a custom action for the creation of a new expense sheet, where the "Project" field of the expense sheet will be filled in based on the "Activity Number" (a custom field on the project level). Where the "Activity Number" is also a User Input variable within the custom action. Within the custom action, select the New Object Action and the "Expense Sheet" entity. Click on "Another Field" to add the "Project" field and within enter the following: FindObject("project", $C_ActivityNumber, ActivityNumber)
Example #2	Another example for the FindObject action is to get field values of this object. For example, using the same expense sheet

	above, you could enter the description of the expense sheet to match the one of the related project. For this example, in the expense sheet "description" field enter the following: FindObject("project", $C_ActivityNumber, ActivityNumber).Description
Note	If multiple objects fit the criteria, then the last modified object will be returned.

GetFirstUser Function

GetFirstUser (users as String) as ObjectIdentifier

Category:	ObjectReference
Description:	Returns the first user from a string of users, where "users" parameter is a string of users seperated by a comma, each element in the string can either be the login name of a user, an email address of a user, full name of a user, parameter or email CC list.
Supported Context:	BusinessRules
Parameters:	
users as String	Represents a string of type text of users seperated by a comma where each element in the string can either be a user's user name, an email address, full name or a reference to a field that returns a string of users (i.e. EmailbOject.Cc)
Returned value as ObjectIdentifier	Returns a reference to a user object of the first known user in the list
Example #1	Create an InterAct rule on the Work Item Mailbox that will parse the email's CC list and return the first user in order to assign them as the owner of the task. Using the NewObject action select the Resource link, in the WorkItem enter CurrentObject() and in the Resource enter the following: GetFirstUser(EmailObject.Cc)

GetImage Function

GetImage (entityType as String, objectId as ObjectIdentifier) as String

Category:	ObjectReference
Description:	Returns an image url for an object specified within the objectId

Supported Context:	FormulaField And BusinessRules
Parameters:	
entityType as String	
objectId as ObjectIdentifier	
Returned value as String	
Example #1	{GetImage('CustomIcon','Roadmap') where CustomIcon is an existing organizational picklist level field and Roadmap is one if it's picklist options Useful when building custom pages such as Portal Home. This function can be used to pull the background image where the image is stored as the icon of a picklist value.

GetLink Function

GetLink (entityType as String, ref1 as ObjectIdentifier, ref2 as ObjectIdentifier) as ObjectIdentifier

Category:	ObjectReference
Description:	Retrieves a link between two objects, where the entity type variable indicates the type of link and the ref1 and ref2 variables indicate the specific objects between which the link exists
Supported Context:	BusinessRules
Parameters:	
entityType as String	Represents the link type of the desired link object (i.e. RelatedWork). You can access all the available link types using the values denoted in the "Class" option in the "Pick lists" tab of the formula helper
ref1 as ObjectIdentifier	Represents a specific object, or reference to a field that returns a specific object, to which the desired link object is attached
ref2 as ObjectIdentifier	Represents a specific object, or reference to a field that returns a specific object, to which the desired link object is attached
Returned value as ObjectIdentifier	Returns the a reference to a link between the two objects specified in the "ref1" and "ref2" parameters
Example #1	To get the link that connects the current object (of type work item) to its direct parent: GetLink('RealWorkItemHierarchyLink',CurrentObject(),$Parent)
Example #2	To find out if there is a dependency between two work items, check if the following is not null: GetLink('DependencyLink','T-4','T-13') || GetLink('DependencyLink','T-13','T-4')

Additional Information		Internal Link Name	Related Entity 1	Related Entity 2	Comments
	Assigned	'ResourceLink'	Work Item	User	
	Rate Holder	'JobTitleRateLink'	Project	Job Title	
	Resource	'RegularResourceLink'	Work Item	User	
	Reviewer	'ReviewerLink'	Work Item	User	
	(Additional) Manager	'ManagerResourceLink'	Work Item	User	
	Attachment	'AttachmentLink'	Work Item, Expense, All Issue Types	Document	
	Dependency	'DependencyLink'	Work Item	Work Item	Where ref1 is the predecessor work item, and ref2 is the successor work item
	Hierarchy	'WorkItemHierarchyLink'	Work Item	Work Item	Where ref1 is the parent work item, and ref2 is the child work item
	Parent	'RealWorkItemHierarchyLink'	Work Item	Work Item	Where ref1 is the hammock (parent) work item, and ref2 is the sub work item (child)
	Progress Impact	'ProgressImpactLink'	Work Item	Work Item	Where ref1 is the impacted (parent) work item, and ref2 is the impacting (child) work item
	Shortcut	'ShortcutLink'	Work Item	Work Item	Where ref1 refers to the location of the shortcut (parent), and ref2 is the

					original work item (child)
	Issue Customer Link	'CaseCustomerLink'	All Issues Types	Customer	
	Issue's Team	'IssueTeamMembers'	All Issue Types	User	
	Membership	'MembershipLink'	Resource Entity	Resource Entity	Where ref1 refers to the resource entity object where ref2 resource entity object is a member of
	Group Hierarchy	'GroupHierarchyLink'	Group	Group, User	
	Job Title Link	'JobTitleLink'	Job Title	User	
	Skill Link	'SkillLink'	Skill	Group User	
	Project Customer Link	'CustomerLink'	Project	Customer	
	Related Work	'RelatedWork'	All Issue Types	Work Item	
	Stopwatch	'Stopwatch'	Work Item	User/td>	

GetObjectByID Function

GetObjectByID (entityType as String, sysId as ObjectIdentifier) as ObjectIdentifier

Category:	ObjectReference
Description:	Returns a specific object, where the 'entity' parameter denotes the entity type and the 'ID' is the system ID of the object.
Supported Context:	BusinessRules
Parameters:	
entityType as String	Represents the entity type of the desired object (i.e Project). You can access all the available entity types using the values denoted in the "Class" option in the "Pick lists" tab of the formula helper
sysId as ObjectIdentifier	Represents the system ID of the desired object
Returned value as ObjectIdentifier	Returns a reference to the object specified in the "sysID" parameter
Example #1	GetObjectByID('Project','P-7302')

	Common entities that can be used: Customer, Contact Person, File, Issue, Report, Resource, Request, User, Work Item

GetDomainName Function

GetDomainName () as String

Category:	Text
Description:	Return the Domain of the organization. if Organiztion Domain is not set return clarizen domain.
Supported Context:	BusinessRules
Returned value as String	
Example #1	GetDomainName() As an example, can be used in an InterAct rule to construct a return email address for support. Although you can hard-code an email in this example, using this function covers the use case of the domain name changing. See a screenshot of a worklow action: https://www.screencast.com/t/R1iXFf8NGK

HtmlEncode Function

HtmlEncode (text as String) as String

Category:	Text
Description:	Encodes text for use in HTML
Supported Context:	FormulaField And BusinessRules
Parameters:	
text as String	
Returned value as String	

HtmlToText Function

HtmlToText (htmlText as String) as String

Category:	Text
Description:	Extracts text from htmlText

Supported Context:	BusinessRules
Parameters:	
htmlText as String	
Returned value as String	

InStr Function

InStr (str as String, subStr as String, isCaseSensitive as Boolean) as Numeric

Category:	Text
Description:	Returns the first position of compared text within the text. If not found returns 0. By default isCaseSensitive is equal to FALSE, if set to TRUE then search is case sensitive
Supported Context:	FormulaField And BusinessRules
Parameters:	
str as String	Represents a text string or reference to a field that returns a value of type text
subStr as String	Represents the sub-string or partial text content which you need the location of within the text provided in the "str" parameter
isCaseSensitive as Boolean	An optional parameter that indicates whether or not the "subStr" value is case sensitive, where "TRUE" is case sensitive. If null the parameter default value is equal to "FALSE"
Returned value as Numeric	Returns the character position of the location of the "subStr" parameter within the "str" parameter
Example #1	Build a workflow rules that automatically marks a user as internal if the email address contains a certain domain (e.g. acme.org, acme.co.uk, acme.co.us). Create the workflow on a user entity and set the trigger to run "Every time a record is created or edited", and set the Action to "Update Field". Set the evaluation criteria to be: InStr($email,"@acme",FALSE) <> 0
Tips	e function In() will let you search for a couple of substrings hin a field e returned position value from this function can be used for t(), Right(), Mid() view other useful text related functions
Related Functions	Left() Right() Mid()

	In()

Left Function

Left (text as String, charsLength as Numeric) as String

Category:	Text
Description:	Returns the specific number of characters beginning from the lefthand side of a text string
Supported Context:	FormulaField And BusinessRules
Parameters:	
text as String	Represents a text string or reference to a field that returns a value of type text
charsLength as Numeric	Positive or negative numeric value or reference to a numeric field, to which you would like to get the text to the left of the character number
Returned value as String	Returns a text or string value equal to the text to the left of the character number specified in "charsLength"
Example #1	Create a custom field on a user entity that will return the string of an email address up to the "@" mark, so for example, for the email "joe.smith@acme.com" the formula will return "joe.smith" Left($email,InStr($Email,'@')-1)

Len Function

Len (text as String) as Numeric

Category:	Text
Description:	Returns the number of characters in a text string
Supported Context:	FormulaField And BusinessRules
Parameters:	
text as String	Represents a text string or reference to a field that returns a value of type text
Returned value as Numeric	Returns a numeric value equal to the total number of characters in the text specified in the "text" parameter
Example #1	Return the character count within a string Len('this is a test') }} The above formula will return the number 14 Create a formula on a User entity that is set to: {{Sample| Right($email, Len($Email) - InStr($Email,'@'))

	The above formula will return the string after the "@" mark. For example, for the email "joe.smith@acme.com", the formula will return "acme.com", since the function Len($Email) – InStr($Email,'@') will return the exact number of charachters to the right of the "@"
Tips	Review other useful text fields such as Right() and Mid()
Related Functions	Right() Mid()

Lower Function

Lower (text as String) as String

Category:	Text
Description:	Changes all letters in the given value to lowercase letters
Supported Context:	FormulaField And BusinessRules
Parameters:	
text as String	Represents a text string or reference to a field that returns a value of type text
Returned value as String	Returns a text or string value equal to the text entered in the "text" parameter with all letters in lower case
Example #1	Return a string in lower case letters Lower('This Is A Test')
Tips	See also Upper() function
Related Functions	Upper()

Mid Function

Mid (text as String, startNum as Numeric, charsLength as Numeric) as String

Category:	Text
Description:	Returns the specific number of characters beginning from the position of StartNum up to number of characters supplied in CharsLength
Supported Context:	FormulaField And BusinessRules
Parameters:	
text as String	Represents a text string or reference to a field that returns a value of type text

startNum as Numeric	Positive or negative numeric value or reference to a numeric field, to which you would like to get the text the right of the character number
charsLength as Numeric	Numeric value or reference to a numeric field representing the total number of text characters you would like returned
Returned value as String	Returns a text or string value equal to the text to the right of the "startNum" character with a total number of characters as defined in the "charsLength" parameter
Example #1	Create a workflow rules that takes 4 characters of a project name starting directly after the location of the "-" character within that string. In such a case, if the name of the project contains the string "Product-NP56-01" then the returned result of that formula will be "NP56". Mid($Name,InStr($Name,"-")+1,4)
Tips	e function InStr() helps you get the start position of a the)string you may be looking for /iew other useful related text functions, such as Len(), Right(), t(), etc.
Related Functions	InStr() Len() Right() Left()

ReplaceString Function

ReplaceString (text as String, find as String, replaceWith as String, isCaseSensitive as Boolean) as String

Category:	Text
Description:	Replace all instances of the "find" parameter with the "replace with" parameter within the defined string value. By default isCaseSensitive is equal to FALSE, if set to TRUE then search is case sensitive
Supported Context:	FormulaField And BusinessRules
Parameters:	
text as String	Represents a text string or reference to a field that returns a value of type text
find as String	Represents a text string or reference to a field that returns a value of type text. Indicates the text value you would like to "find" within the value specified in the "text" parameter
replaceWith as String	Represents a text string or reference to a field that returns a value of type text. Indicates the text value you would like to

	"replace" within the value specified in the "text" parameter instead of the value specified in the "find" parameter
isCaseSensitive as Boolean	This optional parameter allows you to decide if the find and replace action will be Case Sensitive. Accepts a value of "TRUE" or "FALSE", if parameter is not entered then by default the parameter value will be "FALSE" meaning it will not be Case Sensitive
Returned value as String	Returns a text or string value equal to the text specified in the "text" parameter where the "replaceWith" text replaces the text specified in the "find" parameter
Example #1	Suppose you have a template project with sub-projects, where each sub-project has a prefix in its name (e.g, -Dev, -Marketing), and you would like to replace the with the parent projects name. For example, the parent project is the new product in development, say Widget, so that you would like each milestone to be Widget-Dev, Widget-Marketing. Build a workflow rule on a Milestone Work Item entity, so that the evaluation criteria is Contains($Name," ") && Not(IsNull($ParentProject))
Example #2	Add the "Update Field" option from the "Set Action" drop down, select the "Name" field and set it's value to be ReplaceString($Name," ",$ParentProject.Name,FALSE)

Right Function

Right (text as String, charsLength as Numeric) as String

Category:	Text
Description:	Returns the specific number of characters beginning from the righthand side of a text string
Supported Context:	FormulaField And BusinessRules
Parameters:	
text as String	Represents a text string or reference to a field that returns a value of type text
charsLength as Numeric	Positive or negative numeric value or reference to a numeric field, to which you would like to get the text to the right of the character number
Returned value as String	Returns a text or string value equal to the text to the right of the character number specified in "charsLength"
Example #1	Create a custom formula on a User entity that will return the string after the "@" mark. So for example, for an email "joe.smith@acme.com" the formula will return "acme.com" Right($email,Len($Email)-InStr($Email,'@'))

Tips	Review other useful related text functions, such as Len() and Left()
Related Functions	Len() Left()

Trim Function

Trim (text as String) as String

Category:	Text
Description:	Removes all spaces from a text string except for single spaces between words
Supported Context:	FormulaField And BusinessRules
Parameters:	
text as String	Represents a text string or reference to a field that returns a value of type text
Returned value as String	Returns a text string value equal to the text specified in the "text" parameter with all spaces removed except for single spaces between words
Example #1	Create a formula on a description field that will remove spaces from the start and end of a text string. For example, "this is a test " will return "this is a test". Trim($Description)
Tips	e Trim() function is useful for string comparisons e the trim function whenever you use Contains() or In() to ke sure you are trimming unnecessary spaces from compared ngs
Related Functions	Contains() In()

Upper Function

Upper (text as String) as String

Category:	Text
Description:	Changes all letters in a given value to uppercase letters
Supported Context:	FormulaField And BusinessRules
Parameters:	
text as String	Represents a text string or reference to a field that returns a value of type text

Returned value as String	Returns a text or string value equal to the text entered in the "text" parameter with all letters in upper case
Example #1	Return a string in upper case letters Upper('This is a Test') returns 'THIS IS A TEST'
Tips	See also Lower() function
Related Functions	Lower()

UrlEncode Function

UrlEncode (text as String) as String

Category:	Text
Description:	Encodes text for use in URLs
Supported Context:	FormulaField And BusinessRules
Parameters:	
text as String	Text to encode
Returned value as String	Returns encoded text for usage in URLs
Example #1	Create a custom action that opens URL with link to Google Maps https://maps.google.com/maps?saddr={UrlEncode(CurrentUser().HomeAddress)}&hl=en

Case Function

Category:	Logical
Description:	Checks an expression against a series of values. If the expression compared is equal to any value, the corresponding result is returned. If it is not equal to any of the values, the else-result is returned
Parameters:	
expression as Object	Field or reference to a field of an object
value1/elseResult as Object	Represents the value of the field specified in the "Expression" parameter, while "Else Result" represents the action if the previous value is not equal to "TRUE"
result1 as Object	Represents the resulting action if "value1" is equal to true
value2/elseResult as Object	Represents the second potential value of the field specified in the "Expression" parameter, while "Else Result" represents the action if the previous value is not equal to "TRUE"
... as Object	You can enter multiple "Values/Else Results" or "Results" in the same manner as described above
Returned value as Object	

Example #1	Setting the due date of an issue to be based off of its severity. In this scenario, the response time for a critical issue is set to 1 working day, 3 working days for a high severity, and 5 working days for all other severity levels. Case(ToString($Severity),"Critical",DateAdd($CreatedOn,Days(1,TRUE)), "High", DateAdd($CreatedOn,Days(3,TRUE)), DateAdd($CreatedOn,Days(5,TRUE)))
Example #2	Creating a workflow rule that automatically sets a project sponsor based on the project type> Case(ToString($ProjectType),"Development","Username1","Advertising","Username2",$ProjectSponso
Example #3	Creating a workflow rule that extracts the month and the quarter from a given due date field Case(ToString(Month($DueDate)),"1","Q1-Jan","2","Q1-Feb","3","Q1-Mar", "4","Q2-Apr","5", "Q2-May" "6", "Q2-Jun","7", "Q3-Jul","8", "Q3-Aug", "9", "Q3-Sep", "10", "Q4-Oct", "11", "Q4-Nov", "Q4-Dec")
Tips	set standard field values based on formulas, create workflow rules> use pickup fields, or reference to object fields, as expressions, you must first convert the field values o strings using the ToString() function
Related Functions	ToString()
Additional Links	Workflow Rules

Contains Function

Contains (text as String, value as String, isCaseSensitive as Boolean) as Boolean

Category:	Logical
Description:	Checks if a field contains a specified value and returns a TRUE or FALSE value. For isCaseSensitive, enter a value of TRUE or FALSE, default value is equal to FALSE.
Supported Context:	FormulaField And BusinessRules
Parameters:	
text as String	Text as string value, or reference to a field that returns a string value (i.e text fields, or conversion of non-text fields using the ToString function)
value as String	Represents the value, or portion of the value, of the field or string specified in the "Text" parameter
isCaseSensitive as Boolean	This optional parameter allows you to decide if the expression will be Case Sensitive when triggered. Accepts a value of "TRUE" or "FALSE", if parameter is not entered then by default the parameter value will be "FALSE" meaning it will not be Case Sensitive
Returned value as Boolean	Returns a boolean value equal to "TRUE" if the "Text" parameter contains the value specified in the "Value" parameter, or "FALSE" if it does not
Example #1	Build a workflow rules that automatically marks a user as internal if the email domain contains a specific organization (e.g.:acme.org, acme.co.uk, acme.co.us, etc). Create the

	workflow rule on the User entity and set the Trigger to "Each time a record is created or edited" with an action of "Update Field" (set to FALSE) and set the Evaluation Criteria to be: Contains($email,"@acme")
Tips	The Contains function can only be used for string and text values.

HasOverloadedResources Function

HasOverloadedResources (workItem as ObjectIdentifier, overload as Numeric, loadType as String, state1 as ObjectIdentifier, state2 as ObjectIdentifier, ... as ObjectIdentifier) as Boolean

Category:	Logical
Description:	Returns "TRUE" when the specified Work Item has at least one resource that has a load greater than the Overload percentage specified for work items in the specified State. Overload is optional and is set to 100 by default. Up to five work item states can be specified, if not entered the query will run for all Active and Draft work items.
Supported Context:	BusinessRules
Parameters:	
workItem as ObjectIdentifier(Work Item)	Represents a reference to a work item or field that returns a work item
overload as Numeric	Represents a numeric value that denotes the percent that is determined to be overloaded.
loadType as String	Indicates whether to analyze load by either "PlannedWork" or "Remaining Effort"
state1 as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state, or left as null for work items in state "draft" and "active" ctive ancelled ompleted raft n Hold
state2 as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state ctive ancelled ompleted raft

... as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state ctive ancelled ompleted raft n Hold
Returned value as Boolean	Returns a boolean value, where "TRUE" represents that the work item specified in the "workItem" parameter has overloaded resources or "FALSE" if it does not
Example #1	Build a scheduled workflow rule running once a week that will check off a custom field check box on a work item if it has any overloaded resources. This example requires the creation of a new custom field of type "Checkbox", once created, create a scheduled workflow rule and select the update field action that will update the custom checkbox field. This will only update the work items that are in the state Draft, Active or On Hold. In the update field action enter the following: If(HasOverloadedResources(currentobject(),100 ,"Draft","Active","On Hold"), TRUE, FALSE)
Tips	This function has a parameter from type pick list that may have being customized by your organization. Please refer to the pick list values in the formula helper editor or view the values within the relevant field.

HasPotentialActualWork Function

HasPotentialActualWork (workItemOrResource as ObjectIdentifier) as Boolean

Category:	Logical
Description:	Returns TRUE when specified workitem / resource has actual work, timesheets and/or stopwatch.
Supported Context:	BusinessRules
Parameters:	
workItemOrResource as ObjectIdentifier(Work Item, Human Resource)	

Returned value as Boolean	

HasRole Function

HasRole (role as String, obj as ObjectIdentifier, user as ObjectIdentifier) as Boolean

Category:	Logical
Description:	Returns a TRUE value if the user included has the specified role in the selected work item
Supported Context:	BusinessRules
Parameters:	
role as String	Must be one of the following: "Reviewer", "manager" or "Resource"
obj as ObjectIdentifier(Work Item)	Represents a reference to a work item or issue or a field that returns a work item or issue object
user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object
Returned value as Boolean	Returns a boolean value, where "TRUE" represents that the user specified in the "user" parameter has the "role" indicated in the object specified in the "obj" parameter
Example #1	Build a workflow rule that will only be triggered if the Current User has a specific role in a work item Within the Evaluation Criteria enter the following: HasRole('Reviewer', CurrentObject(), CurrentUser())

If Function

If (condition as Boolean, truePart as Object, falsePart as Object) as Object

Category:	Logical
<Description:	Checks whether a condition is true, and returns one value if TRUE and another value if FALSE . The "IF" condition can be nested and include additional "IF" conditions
Supported Context:	FormulaField And BusinessRules
Parameters:	
condition as Boolean	Represents a condition or evaluation criteria that needs to result in a boolean value
truePart as Object	Represents the resulting action if the data set in the "condition" parameter results in true
falsePart as Object	Represents the resulting action if the data set in the "condition" parameter results in false. You can also enter another if() function within this parameter

Returned value as Object	Returns either the data provided in the "truePart" or "falsePart" depending on whether the "condition" parameter evaluates to true or false
Example #1	Set a checkbox custom field, based on Issue Severity If($Severity = “Critical”, TRUE, FALSE)
Example #2	Setting the due date of an issue to be based off of its severity. In this scenario, the response time for a critical issue is set to 1 working day, 3 working days for a high severity, and 5 working days for all other severity levels. If($Severity = “Critical”, DateAdd($CreatedOn,Days(1,TRUE)),If($Severity= “High”, DateAdd($CreatedOn,Days(3,TRUE)),DateAdd($CreatedOn,Days(5,TRUE))))
Tips	To set standard field values based on formulas, create workflow rules
Additional Links	checkbox custom field Workflow Rules

In Function

In (field as Object, value1 as Object, value2 as Object, ... as Object) as Boolean

Category:	Logical
Description:	Returns true if a specified field value is equal to any of the supplied values
Supported Context:	FormulaField And BusinessRules
Parameters:	
field as Object	Represents a specific object field
value1 as Object	Represents a potential value of the field specified in the "field" parameter
value2 as Object	Optional parameter that represents a potential value of the field specified in the "field" parameter
... as Object	Optional parameters that represent potential values of the field specified in the "field" parameter
Returned value as Boolean	Returns a boolean value, where "TRUE" represents that the "field" specified has one of the values specified in the "valuex" parameters
Example #1	Create a workflow rule that will update the external user flag to false in case the user's email is one of the following domains: acme.co.us, acme.org, acme.com, acme.co.uk, etc. This will automatically set the 'external user; flag to FALSE, in case the email domain includes anything with acme. Not(In($Email,"@acme."))
Example #2	Automatically set a user's default availability for new projects based on their job title. For example, if the user is a developer, DBA or QA engineer, they should only spend 70% of time on project related activities (as the remaining 30% is spent on

	maintenance work). Create a workflow that will update the 'Default Project Availability' field as follows: If(In($JobTitle.Name, "Developer", "DBA","QA Engineer"), 70,100)
Tips	To set standard field values based on formulas, create workflow rules

IsChanged Function

IsChanged (field as Object) as Boolean

Category:	Logical
Description:	Returns TRUE if the given field was updated in current session
Supported Context:	BusinessRules
Parameters:	
field as Object	Represents a specific object field
Returned value as Boolean	Returns a boolean value, where "TRUE" indicates that the field value of the "field" parameter has changed
Example #1	To run a business rule each time an issue state is updated (from any value to any value), set the evalution criters to be: IsChanged($State)
Example #2	To run a business rule that will automatically change the 'Issue State' from "Submitted" to "In Work" once it is assigned to a project, Use the "Update Field"action for the 'State' field and set the Evaluation Criteria to be: isChanged($PlannedFor) && Not(ISNULL($PlannedFor)) && ($State = 'Submitted2')
Tips	set standard field values based on formulas, create workflow es u can also use the GetPreviousValue() function to compare currently entered value of any field with its previous value
Note	to reference the Issue State picklist value "Submitted" use the string "Submitted2"
Related Functions	GetPreviousValue()
Additional Links	Business Rules Workflow Rules

IsChangeType Function

IsChangeType () as Boolean

Category:	Logical
Description:	Returns TRUE if the current object has gone through the "change type" operation
Supported Context:	WorkflowRule
Returned value as Boolean	
Example #1	IsChangeType() Rarely used function to determine if a Work Item object or Case object has changed type via the 'Change Type' ribbon action. An example use would be to notify a Project Manager if any work item changed type, for example, from Milestone to Task.

IsEditable Function

IsEditable (field as Object) as Boolean

Category:	Logical
Description:	Returns TRUE if the field can be edited (based on the entity state)
Supported Context:	WorkflowRule
Parameters:	
field as Object	Represents a specific object field
Returned value as Boolean	Returns a boolean value, where "TRUE" indicates that the field specified in the "field" parameter is editable or "FALSE" if the field is read-only
Example #1	To run a validation rule that will block updating specific fields from being editable on a work item once it has been marked to complete, set the 'Evaluation Criteria' to be NOT(IsEditable($DueDate)) This function will return FALSE in the case where the work item is completed, since the due date cannot be updated on a completed work item
Tips	To set standard field values based on formulas, create workflow rules
Note	this function is only available for Business Rules

IsFinancial Function

IsFinancial (field as Object) as Boolean

Category:	Logical
Description:	Returns TRUE if the given field requires financial permissions
Supported Context:	BusinessRules
Parameters:	
field as Object	Represents a specific object field
Returned value as Boolean	Returns a boolean value, where "TRUE" indicates that the field specified in the "field" parameter is a financial field
Example #1	IsFinancial($PlannedBudget) returns > TRUE IsFinancial($ProjectType) returns > FALSE

IsFollower Function

IsFollower (entity as ObjectIdentifier, user as ObjectIdentifier) as Boolean

Category:	Logical
Description:	Returns TRUE if a user follows the entity<
Supported Context:	BusinessRules
Parameters:	
entity as ObjectIdentifier (User, Topic, Work Item, Case, Expense Sheet, Expense Entry, Customer, Document)	
user as ObjectIdentifier(User)	
Returned value as Boolean	
Example #1	IsFollower('EnhancementRequest','Dev placeholder') Common entities that can be used: Customer, Contact Person, File, Issue, Report, Resource, Request, User, Work Item

IsFromTemplate Function

IsFromTemplate () as Boolean

Category:	Logical
Description:	Returns TRUE if current object was created as part of a template. The function only applies to item creation.
Supported Context:	BusinessRules
Returned value as Boolean	

Example #1	IsFromTemplate() Useful to determine if a Work Item was created from a template or not

IsLeaf Function

IsLeaf (workItem as ObjectIdentifier) as Boolean

Category:	Logical
Description:	Returns a value of TRUE if the work item specified is a leaf object, i.e. an object with no children
Supported Context:	BusinessRules
Parameters:	
workItem as ObjectIdentifier(Work Item)	Represents a specific work item or field that references a specific work item
Returned value as Boolean	Returns a boolean value, where "TRUE" indicates that the work item specified in the "workItem" parameter is a leaf object (i.e. an object with no children or sub-object)
Example #1	Build a scheduled workflow rule that sends an email to a work item manager if the work item is a leaf and the Start Date has past with no assigned resources. In the evaluation criteria enter the following: IsLeaf(currentobject()) && $StartDate < Today() && $ResourcesCount = 0

IsManuallySet Function

IsManuallySet (field as Object) as Boolean

Category:	Logical
Description:	Returns TRUE if value of the specified field is changed manually, if the specified field is changed by the system will return FALSE
Supported Context:	BusinessRules
Parameters:	
field as Object	Represents a specific object field
Returned value as Boolean	Returns a boolean value, where "TRUE" indicates that the field specified in the "field" parameter is manually set and therefore not the automatically calculated field value
Example #1	To build a business rule that automatically updates the 'Start Date' of a work item if its predecessors were completed ahead

	of schedule, and the work item does not have a manually set start date, use the "Reschedule" action within a workflow for the 'Start Date' and set its Evaluation Criteria to be: $Executable && Not(IsManuallySet($StartDate)) && ($StartDate > Now())
Example #2	To build a workflow rule that adds a comment to a projects 'Comment Field' if the project status is manually set to "off track", set the Evaluation Criteria to be: IsManuallySet($TrackStatus) && $TrackStatus = "Off Track"
Example #3	And select the "Update Field" action, setting the 'Additional Comments' field to: "state changed manually to: " +ToString($TRackStatus)+ "\n" + GetPreviousValue($AdditionalComments)
Tips	set standard field values based on formulas, create workflow es set a carriage return in a string, use the "\n" string
Note	this function is only available for Business Rules
Additional Links	Business Rules Workflow Rules

IsMemberOf Function

IsMemberOf (group as ObjectIdentifier, user as ObjectIdentifier) as Boolean

Category:	Logical
Description:	Returns a TRUE value if the specified user is a member of the selected group
Supported Context:	BusinessRules
Parameters:	
group as ObjectIdentifier(UserGroup, DiscussionGroup)	Represents a specific group or reference to a field that returns a group object
user as ObjectIdentifier(User)	Represents a specific user or reference to a field that returns a user object
Returned value as Boolean	Returns a boolean value, where "TRUE" indicates that the user specified in the "user" parameter is a member of the group specified in the "group" parameter
Example #1	Build a workflow rule that will send an email to a resource once they are assigned to a task, assuming that resource is part of your group. IsMemberOf('US Marketing', CurrentUser())

IsNew Function

IsNew () as Boolean

Category:	Logical
Description:	Indicates whether the object has just been added
Supported Context:	BusinessRules
Returned value as Boolean	

IsNull Function

IsNull (value as Object) as Boolean

Category:	Logical
Description:	Returns TRUE if a given field name or value is NULL
Supported Context:	FormulaField And BusinessRules
Parameters:	
value as Object	Represents a specific object field
Returned value as Boolean	Returns a boolean value, where "TRUE" indicates that the field specified in the "value" parameter is null
Example #1	Set a validation rule for Issues that won't allow the 'Issue State' field to be set to "In Work" if the 'target project' is not defined. To evaluation criteria should be: IsChanged($State) && ($State = "In Work") && IsNULL($PlannedFor)
Example #2	Set a project sponsor to be NULL if the 'project type' is marked as internal. Create a workflow rule that will set the following evaluation criteria: $ProjectType = "Internal" To update the field within the workflow rule, add an "Update Field" action, select the 'Project Sponsor' field and set it to NULL.
Tips	set standard field values based on formulas, create workflow es set a field of any type to NULL, simply write NULL
Additional Links	Workflow Rules

IsTeamMember Function

IsTeamMember (user as ObjectIdentifier) as Boolean

Category:	Logical
Description:	Returns a value of TRUE if the specified user is a member of the work item or case pool
Supported Context:	BusinessRules
Parameters:	
user as ObjectIdentifier(User)	Represents a specific user or reference to a field that returns a user object
Returned value as Boolean	Returns a boolean value, where "TRUE" indicates that the user specified in the "user" parameter is a team member of the current object (either work item or issue)
Example #1	Build a custom action that will only be available if the Current User is a team member of the selected work item or Issue. Within the Evaluation Criteria enter the following: IsTeamMember(CurrentUser())

IsTriggeredBy Function

IsTriggeredBy (trigger as String) as Boolean

Category:	Logical
Description:	Returns true if current operation was triggered by specified trigger
Supported Context:	BusinessRules
Parameters:	
trigger as String	New - Business rule was fired as a result of a new object being created NewFromTemplate - Business rule was fired as a result of a new project or milestone being created from a template NewTemplate - Business rule was fired as a result of a template being created ChangeType - Business rule was fired as a result of an object change type action Import - Business rule was fired as a result of import from MS project CustomAction - Business rule was fired as a result of a custom action Interact - Business rule was fired as a result of an email received by InterAct mailbox Login - Business rule is fired as a result of a user logging in Counters NewFromObject - Business rule is fired as a result of a copying an object API - Business rule is fired if triggered from an API call Mobile - Business rule is fired when triggered from a mobile app (as opposed to web browser)

	Trackit - Business rule is fired when email is tracked with Trackit Other Actions - Default behavior
Returned value as Boolean	Returns true if current operation was triggered by specified trigger
Example #1	To serve as a notification to organization administrators whenever a new template is created, Users can create a workflow rule that's triggered when a new project is created from template IsTriggeredBy('NewTemplate')

Not Function

Not (logical as Boolean) as Boolean

Category:	Logical
Description:	Changes FALSE to TRUE or TRUE to FALSE for the given value
Supported Context:	FormulaField And BusinessRules
Parameters:	
logical as Boolean	Represents a boolean value or a field or expression that returns a boolean value
Returned value as Boolean	Returns a boolean value that changes FALSE to TRUE or TRUE to FALSE for the value given in the "logical" parameter
Example #1	Build a workflow rule that will automatically mark an invited user as external if the email domain does not contain "@acme". Set the Evaluation Criteria to: Not(In($Email,"@acme."))
Example #2	Build a validation rules that prevents clearing the value of the 'Target Project' field (assuming it was previously filled). Set the Evaluation Criteria to be" IsNull($PlannedFor) && Not(IsNull(GetPreviousValue($PlannedFor)))
Example #3	To check if a user is marked as "External", or to check the value of any boolean field, use the following formula: Not($ExternalUser)
Tips	The && expression is used for "and" within formula's while || is used for "or"

Date Function

Date (year as Numeric, month as Numeric, day as Numeric) as DateTime

Category:	Date
Description:	Creates a date from year, month and day values entered
Supported Context:	FormulaField And BusinessRules
Parameters:	
year as Numeric	Numeric value representing a year, or reference to a field that will return a year value
month as Numeric	Numeric value representing a month (1-12), or reference to a field that will return a month value
day as Numeric	Numeric value representing a day (1-31), or reference to a field that will retun a day value
Returned value as DateTime	Returns a date value using the specified "Year", "Month", and "Day" parameters
Example #1	Create a date Custom Field that will automatically set the corporate fiscal year of the objects created date (e.g. May 1st). Set the formula to be: Date(Year($CreatedOn),5,1)
Tips	update standard date/date time fields, use workflow rules iew other useful date and duration functions such as teAdd(), ToDate(), etc.
Related Functions	DateAdd() ToDate() DateSubtract()
Additional Links	checkbox custom field

DateAdd Function

DateAdd (dateTime as DateTime, duration as Duration) as DateTime

Category:	Date
Description:	Adds a duration value to a date and returns date
Supported Context:	FormulaField And BusinessRules
Parameters:	
dateTime as DateTime	Represents the original date as a date or reference to a field that will return a date value
duration as Duration	Represents a duration or reference to a field that will return a duration value (i.e. 4d or 20h)
Returned value as DateTime	Returns a date value equal to the "dateTime" parameter plus the "duration" parameter
Example #1	Create a Date Custom Field that will forecast the realistic due date of a work item, based on another duration custom field

	called Buffer, that will include both the original due date of the work item as well as the defined buffer. Set the formula to be: DateAdd($DueDate,$Buffer)
Tips	update standard date/date time fields, use workflow rules view other useful date and duration functions such as teSubstract(), ToDate(), etc.
Related Functions	DateSubstract() ToDate()

DateAddCalendarFixedPeriod Function

DateAddCalendarFixedPeriod (dateTime as DateTime, period as String, numberOfUnits as Numeric) as DateTime

Category:	Date
Description:	Returns a Date value, where the Date parameter is the original date, period is a frame of time that can be either "d", "w", "m", "q", "y", and units indicates the number for the duration, such as 3 months from today. This function does not take into account non-working days or calendar exceptions.
Supported Context:	FormulaField And BusinessRules
Parameters:	
dateTime as DateTime	Represents the original date as a date or reference to a field that will return a date value
period as String	Represents the frame of time that can be either "d", "w", "m", "q", or "y" corresponding to day, week, month, quarter, or year. This will be used along with the "numberOfUnits" parameter to add the desired value to the original date specified in the "dateTime" parameter
numberOfUnits as Numeric	Represents the number of units that you would like to add to the "dateTime" parameter, must be of type number or reference to a field that will return a numeric value. This will be used along with the "period" parameter to add the desired value to the original date specified in the "dateTime" parameter
Returned value as DateTime	Returns a date value equal to the original date specified in the "dateTime" parameter plus the "numberOfUnits"+"period" parameters
Example #1	Create a Custom Action that will shift the start date of a project by "x" amount of weeks, where "x" is defined by the end user upon the running of the custom action. First create a User Input variable of type Duration in the custom action called "moveby"

	Then select the "Reschedule Action" and select "start date". Within the formula enter the following: DateAddCalendarFixedPeriod($StartDate,"w",moveby)
Note	This function does not take into account non-working days or calendar exceptions

DateDiff Function

DateDiff (dateTime1 as DateTime, dateTime2 as DateTime, interval as String) as Numeric

Category:	Date
Description:	Returns the intervals between two dates in number. The 'interval' parameter is a string that should contain one of the following: “y” (for years), “m” (for months), "d" (for days) or "w" (for weeks)
Supported Context:	FormulaField And BusinessRules
Parameters:	
dateTime1 as DateTime	Represents the first date value as a date or reference to a field that will return a date value
dateTime2 as DateTime	Represents the second date value as a date or reference to a field that will return a date value
interval as String	Represents the desired interval value between the two dates specified in the "dateTime1" and "dateTime2" parameters, must be equal to either "d", "w", "m", or "y" corresponding to day, week, month, or year
Returned value as Numeric	Returns a duration value equal to the difference between the two dates indicated in the "dateTime1" and "dateTime2" parameters using the duration type indicated in the "interval" parameter
Example #1	Create a numeric custom field that will ALWAYS define the length of a project in regular calendar weeks (rather than Clarizen's calendar weeks that might be based on personal calendars). Set the formula to be: DateDiff($DueDate,$StartDate,"w") Another example that will get the delay of the due date of a work item, so if a work item has been moved by 7 days will return 7: DateDiff($DueDate, GetPreviousValue($DueDate),"d")
Tips	Use the DateSubtract() function to return a duration field type that will take into consideration your Clarizen calendar settings
Related Functions	DateSubtract()
Additional Links	checkbox custom field

DateSubtract Function

DateSubtract (dateTime1 as DateTime, dateTime2 as DateTime, isWorking as Boolean) as Duration

Category:	Date
Description:	Subtracts two dates or datetime parameters (can be fields) and returns duration value. If IsWorking (optional parameter, default is FALSE) set to TRUE returns only the working duration.
Supported Context:	FormulaField And BusinessRules
Parameters:	
dateTime1 as DateTime	Represents the first date value as a date or reference to a field that will return a date value
dateTime2 as DateTime	Represents the second date value as a date or reference to a field that will return a date value
isWorking as Boolean	An optional parameter that allows you to return only work days or calendar days. Enter a value of "TRUE" for working days, or "FALSE" for total calendar days
Returned value as Duration	Returns a duration value equal to the difference between the two dates indicated in the "dateTime1" and "dateTime2" parameters
Example #1	Create a duration custom field that will define the buffer a work item has between the committed due date and the planned due date. Set the formula to be: Datesubtract($CommittedDate,$DueDate)
Tips	update the standard date/date time fields use workflow rules w other useful date and duration functions such as teAdd(), ToDate(), etc.
Note	Duration = DateTime1 – DateTime2 e.g. DateSubtract('19/2/12', '15/2/12', TRUE) = 4 d
Related Functions	DateAdd() ToDate()
Additional Links	duration custom field

DateTime Function

DateTime (year as Numeric, month as Numeric, day as Numeric, hour as Numeric, minute as Numeric, second as Numeric) as DateTime

Category:	Date
Description:	Creates a timestamp from a year, month, day, hour, min and second
Supported Context:	FormulaField And BusinessRules
Parameters:	

year as Numeric	Numeric value representing a year, or reference to a field that will return a year value
month as Numeric	Numeric value representing a month (1-12), or reference to a field that will return a month value
day as Numeric	Numeric value representing a day (1-31), or reference to a field that will return a year value
hour as Numeric	Numeric value representing an hour (0-23), or reference to a field that will return an hour value
minute as Numeric	Numeric value representing a minute (00-59), or reference to a field that will return a minute value
second as Numeric	Numeric value representing a second (00-59), or reference to a field that will return a second value
Returned value as DateTime	Returns a date time value using the specified "year", "month", "day", "hour", "minute", and "second" parameters
Example #1	Create a date time field representing May 1st 2011 19:30 DateTime(2011,5,1,19,30,00)
Example #2	Define a workflow rule that automatically sets a task's due date to be the end of the following day of the start date Choose the "Reschedule" action and set the start date to be the following: DateTime(Year($StartDate),Month($StartDate),Day($StartDate)+1,16,00,00) So that if a task's start date is January 2nd 2011, then the due date of that task will be January 3rd at 16:00
Tips	update the standard date/date time fields, use workflow rules view other date and duration useful functions, such as DateAdd(), ToDate(),
Related Functions	DateAdd() ToDate()

DateTimeValue Function

DateTimeValue (text as String, format as String) as DateTime

Category:	Date
Description:	Returns a timestamp value from a text given in the following format: YYYY-MM-DD hh:mm:ss
Supported Context:	FormulaField And BusinessRules
Parameters:	
text as String	Represents a text value as a string, or reference to a field that will return a string value given in the following format: YYYY-MM-DD hh:mm:ss
format as String	

Returned value as DateTime	Returns a date time value using the text specified in the "text" parameter
Example #1	Create a custom field that will return a set Date Time Value, or one based off of another custom or standard field DateTimeValue(“2011-05-01 19:30:00”)

DateValue Function

DateValue (expression as String, format as String) as Date

Category:	Date
Description:	Returns a date value from a string given in the following format: YYYY-MM-DD
Supported Context:	FormulaField And BusinessRules
Parameters:	
expression as String	Represents a text value as a string, or reference to a field that will return a string value given in the following format: YYYY-MM-DD
format as String	
Returned value as Date	Returns a date value using the text specified in the "expression" parameter
Example #1	Create a custom field that will return a set Date Value, or one based off of another custom or standard field DateValue(“2011-05-01”)

Day Function

Day (dateTime as DateTime) as Numeric

Category:	Date
Description:	Returns the day number of the month of a given date or date time value
Supported Context:	FormulaField And BusinessRules
Parameters:	
dateTime as DateTime	Represents a date value or a field that will return a date value
Returned value as Numeric	Returns a numeric value representing the day number in the month of the date value given in the "dateTime" parameter
Example #1	Define a validation rule that will prevent defining a due date for a work item on the 13th of every month :). Set the evaluation criteria to be:

	Day($DueDate) = 13
Tips	s function can be useful for Date() and DateTime() update standard date/date time fields, use workflow rules view other date and duration useful functions, such as teAdd(), ToDate(), etc
Related Functions	Date() DateTime()

Days Function

Days (number as Numeric, isWorking as Boolean) as Duration

Category:	Date
Description:	Returns duration value in days. If IsWorking (optional parameter, default is FALSE) set to TRUE returns only the working duration.
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Numeric value or reference to a numeric field
isWorking as Boolean	An optional parameter that allows you to return only work days or calendar days. Enter a value of "TRUE" for working days, or "FALSE" for total calendar days
Returned value as Duration	Returns a duration value in days based on the "number" parameter entered either as working hours or calendar hours as determined in the "isWorking" parameter
Example #1	Create a formula based custom field that will supply a rough extimation (in days) for the resolution of an issue, based on other fields that specify that complexity and priority of the issue. Set within the formula that days function, that will automatically set the due date to 7 working days. Days(7,TRUE)
Tips	update standard date/date time fields, use workflow rules view other date and duration useful functions, such as teAdd(), ToDate(), etc
Related Functions	DateAdd() ToDate()

GetAssignedWorkingTime Function

GetAssignedWorkingTime (user as ObjectIdentifier, dateTime1 as DateTime, dateTime2 as DateTime, loadType as String, state1 as ObjectIdentifier, state2 as ObjectIdentifier, ... as ObjectIdentifier) as Duration

Category:	Date
Description:	Returns a duration value indicating the working time for the specified User in the given time range for work items in the indicated states. Where the loadType indicates whether to analyze the load by either "PlannedWork" or "RemainingEffort". Up to five work item states can be specified, if not entered the query will run for all Active and Draft work items.
Supported Context:	BusinessRules
Parameters:	
user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object
dateTime1 as DateTime	Represents a reference to a from date or field that returns a date value
dateTime2 as DateTime	Represents a reference to a to date or field that returns a date value
loadType as String	loadType indicates whether to analyze the load by either 'PlannedWork' or 'RemainingEffort'
state1 as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state, or left as null for work items in state 'draft' and 'active' ctive ancelled ompleted raft n Hold
state2 as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state ctive ancelled ompleted raft n Hold
... as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state ctive ancelled ompleted raft n Hold

Returned value as Duration	Returns a duration value indicating the working time for the specified User in the given time range for work items in the indicated states
Example #1	GetAssignedWorkingTime('joe.user',today(),today()+days(14),'PlannedWork')
Tips	This function has a parameter from type pick list that may have being customized by your organization. Please refer to the pick list values in the formula helper editor or view the values within the relevant field.
Related Functions	Today()

GetEndWorkday Function

GetEndWorkday (dateTime as DateTime, user as ObjectIdentifier) as DateTime

Category:	Date
Description:	Returns an end time of working day on specified dateTime according the calendar settings of the specified user. If the user was not specified the returned value is based on organizational calendar.
Supported Context:	BusinessRules
Parameters:	
dateTime as DateTime	
user as ObjectIdentifier(User)	
Returned value as DateTime	

GetEstimatedDueDate Function

GetEstimatedDueDate (workItem as ObjectIdentifier, user as ObjectIdentifier) as DateTime

Category:	Date
Description:	Returns the estimated due date of a specified work item, based on the actual and estimated work item progress and duration. The "user" parameter is optional, and if not entered will return the estimated due date of the work item as a whole.
Supported Context:	BusinessRules
Parameters:	
workItem as ObjectIdentifier(Work Item)	Represents a specific work item or field that references a specific work item, for which you would like to get an estimated due date on
user as ObjectIdentifier(User)	This is an optional parameter that represents a specific user in your organization, if entered, the function will check the estimated due date based on the specified user's calendar
Returned value as DateTime	Returns a date value equal to the estimated due date of the work item specified in the "workItem" parameter for the

	specified user, if no user is entered in the "user" parameter will return the estimated due date of the work item as a whole

GetStartWorkday Function

GetStartWorkday (dateTime as DateTime, user as ObjectIdentifier) as DateTime

Category:	Date
Description:	Returns an start time of working day on specified dateTime according the calendar settings of the specified user. If user was not specified the returned value is based on organizational calendar.
Supported Context:	BusinessRules
Parameters:	
dateTime as DateTime	
user as ObjectIdentifier(User)	
Returned value as DateTime	

GetSumOfTimesheetReportHoursForFixedPeriod Function

GetSumOfTimesheetReportHoursForFixedPeriod (user as ObjectIdentifier, period as String, state1 as ObjectIdentifier, state2 as ObjectIdentifier, ... as ObjectIdentifier) as Duration

Category:	Date
Description:	Returns the the sum total duration of reported timesheets for the specified user. Where the "user" argument can be a specific user or a reference to user field, and the "period" is either "m" for current month, "w" for current week, or "d" for current day. The "state" argument is optional and by default will return reported hours for timesheets in all states.
Supported Context:	BusinessRules
Parameters:	
user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object
period as String	Represents the frame of time for which you would like to know the total reported hours. Value can be either "d", "w", "m" corresponding to day, week, month, quarter, or year
state1 as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state, or left as null for work items in state "draft" and "active" ctive

	ompleted raft ancelled
state2 as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state ctive ancelled ompleted raft n Hold
... as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state ctive ancelled ompleted raft n Hold
Returned value as Duration	Returns a duration value equal to the total number of reported hours for the user specified in the "user" parameter for the given "period" for the work items in the given states specified in the "statex" parameters
Example #1	Create a custom field on the User entity that will calculate the total timesheet hours reported for the current week. This will show both the user and the managers to view total reported hours. To implement this first create a custom field on a user of type 'duration', and set it to be updated by the API. Next create a workflow rule on the Timesheet entity taht will run every time a record is created or edited. In the Set Actions section, select the 'Update Field' action, adn then find the custom field you created by first clicking on the 'Reported By Fields' option. Now enter the following: `GetSumOfTimesheetReportHoursForFixedPeriod(currentuser(),"w")` This formula can also be changed to track the reported timesheet hours for a given month or day or for the timesheets that have been approved.
Tips	This function has a parameter from type pick list that may have being customized by your organization. Please refer to the pick list values in the formula helper editor or view the values within the relevant field.

GetSumOfTimesheetReportHoursForGivenPeriod Function

GetSumOfTimesheetReportHoursForGivenPeriod (user as ObjectIdentifier, from as DateTime, to as DateTime, state1 as ObjectIdentifier, state2 as ObjectIdentifier, ... as ObjectIdentifier) as Duration

Category:	Date
Description:	Returns the the sum total duration of reported timesheets for the specified user. Where the "user" argument can be a specific user or a reference to user field, and "dateTime1" and "dateTime2" arguments are used to determine the period. The "state" argument is optional and by default will return reported hours for timesheets in all states.
Supported Context:	BusinessRules
Parameters:	
user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object
from as DateTime	Represents a reference to a from date or field that returns a date value
to as DateTime	Represents a reference to a to date or field that returns a date value
state1 as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state, or left as null for work items in state "draft" and "active" ctive ancelled ompleted raft n Hold
state2 as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state ctive ancelled ompleted raft n Hold
... as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state ctive ancelled ompleted raft n Hold
Returned value as Duration	Returns a duration value equal to the total number of reported hours for the user specified in the "user" parameter for the date range specified in the "from" and "to" parameters for the work items in the given states specified in the "statex" parameters

Example #1	GetSumOfTimesheetReportHoursForGivenPeriod(currentuser(),$WorkItem.StartDate,$WorkItem.DueDate)
Tips	This function has a parameter from type pick list that may have being customized by your organization. Please refer to the pick list values in the formula helper editor or view the values within the relevant field.

GetTimeZone Function

GetTimeZone (obj as ObjectIdentifier) as ObjectIdentifier

Category:	Date
Description:	Returns the time zone of the organization, a user or a user group. Valid inputs for the obj parameter are a user entity and a user group entity. If no entity is defined, the time zone returned is that of the organization
Supported Context:	FormulaField And BusinessRules
Parameters:	
obj as ObjectIdentifier(User, UserGroup)	An optional field that represents a reference to either a user or a user group or a field that returns a user or a user group. If null this parameter will reference the organization
Returned value as ObjectIdentifier	Returns the time zone set on the object specified in the "obj" parameter
Example #1	To get the time zone of the current user GetTimeZone(CurrentUser())

GetWorkingTimeForFixedPeriod Function

GetWorkingTimeForFixedPeriod (user as ObjectIdentifier, period as String) as Duration

Category:	Date
Description:	Returns the Working Time for a user for the selected period. Where the "user" argument can be a specific user or a reference to user field, and the "period" is either "y" for current year, "q" for current quarter, "m" for current month, or "w" for current week.
Supported Context:	BusinessRules
Parameters:	
user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object
period as String	Represents the frame of time for which you would like to know the total working hours. Value can be either "d", "w", "m" corresponding to day, week, month

Returned value as Duration	Returns a duration value equal to the total number of working hours for the user specified in the "user" parameter for the given "period"
Example #1	Calculate the Bill to Burn KPI on the user entity. Within a workflow rule, select the "Update Field" action and select the custom field Bill to Burn KPI (needs to be created by your organization first). `$C_BilltoBurn/(GetWorkingTimeForFixedPeriod(CurrentUser(), 'w')/Hours(1))`

GetWorkingTimeForGivenPeriod Function

GetWorkingTimeForGivenPeriod (user as ObjectIdentifier, dateTime1 as DateTime, dateTime2 as DateTime) as Duration

Category:	Date
Description:	Returns the Working Time for a user for a specific period of time. Where the "user" argument can be a specific user or a reference to user field. "dateTime1" and "dateTime2" arguments are used to determine the period of interest.
Supported Context:	FormulaField And BusinessRules
Parameters:	
user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object
dateTime1 as DateTime	Represents a reference to a from date or field that returns a date value
dateTime2 as DateTime	Represents a reference to a to date or field that returns a date value
Returned value as Duration	Returns a duration value equal to the total number of working hours for the user specified in the "user" parameter for the date range specified in the "dateTime1" and "dateTime2" parameters
Example #1	Calculate the Bill to Burn KPI on the user entity. Within a workflow rule, select the "Update Field" action and select the custom field Bill to Burn KPI (needs to be created by your organization first). `$C_BilltoBurn/(GetWorkingTimeForGivenPeriod(CurrentUser(), 06/05/2011, 07/15/2011)/Hours(1))`

Hours Function

Hours (number as Numeric, isWorking as Boolean) as Duration

Category:	Date
Description:	Returns duration value in hours. If IsWorking (optional parameter, default is FALSE) set to TRUE returns only the working duration.
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Numeric value or reference to a numeric field
isWorking as Boolean	An optional parameter that indicates whether the return value will show calendar hours or working hours, where "TRUE" will return working hours and "FALSE" calendar hours. If null, value will default to "FALSE"
Returned value as Duration	Returns a duration value in hours equal to the number specified in the "number" parameter either as working hours or calendar hours as determined in the "isWorking" parameter
Example #1	Add a formula based custom field that will supply a rough estimation (in hours) for the resolution of an issue, based on other fields that specify that complexity and priority of the issue. Set within the formula the hours function to automatically set the duration to 7 hours. Hours(7,TRUE)
Tips	update standard date/date time fields, use workflow rules view other date and duration useful functions, such as teAdd(), ToDate(), etc
Related Functions	DateAdd() ToDate()

IsResourceAvailableForFixedPeriod Function

IsResourceAvailableForFixedPeriod (user as ObjectIdentifier, period as String, overload as Numeric, loadType as String, state1 as ObjectIdentifier, state2 as ObjectIdentifier, ... as ObjectIdentifier) as Boolean

Category:	Date
Description:	Returns "FALSE" in the case that the specified User has a load greater than the Overload percentage during the specified Period for work items in the given states. Period is an optional variable that can be set to either 'y', 'm', 'q', or 'w', where 'w' is the default value. Up to five work item states can be specified, if not entered the query will run for all Active and Draft work items.
Supported Context:	BusinessRules
Parameters:	

user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object
period as String	An optional variable that represents the frame of time for which you would like to know the resource availability. Value can be either "d", "w", "m" corresponding to day, week, month. If null then the parameter value defaults to "w"
overload as Numeric	Represents a numeric value that denotes the percent that is determined to be overloaded.
loadType as String	Indicates whether to analyze load by either "PlannedWork" or "Remaining Effort"
state1 as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state, or left as null for work items in state "draft" and "active" ctive ancelled ompleted raft n Hold
state2 as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state ctive ancelled ompleted raft n Hold
... as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state ctive ancelled ompleted raft n Hold
Returned value as Boolean	Returns a boolean value, where "TRUE" indicates that the user specified in the "user" parameter is available during the time frame specified in the "period" parameter
Example #1	Create a Scheduled Workflow Rule on the User that will run repeatedly every Monday morning, and send an email to a user's direct manager if the user is overloaded in the current week.

	This will only check for resource availability on tasks that are "Active", "Draft", or "On Hold" In the Evaluation Criteria enter the following: IsResourceAvailableForFixedPeriod(currentuser(),"w",100, "Active", "Draft", "On Hold")
Tips	This function has a parameter from type pick list that may have being customized by your organization. Please refer to the pick list values in the formula helper editor or view the values within the relevant field.

IsResourceAvailableForGivenPeriod Function

IsResourceAvailableForGivenPeriod (user as ObjectIdentifier, dateTime1 as DateTime, dateTime2 as DateTime, overload as Numeric, loadType as String, state1 as ObjectIdentifier, state2 as ObjectIdentifier, ... as ObjectIdentifier) as Boolean

Category:	Date
Description:	Returns "FALSE" in the case that the specified user has a load greater than the Overload percentage specified between the time period of dateTime1 and dateTime2 for work items in the given states. Overload is an optional parameter and is set to 100 by default. Up to five work item states can be specified, if not entered the query will run for all Active and Draft work items.
Supported Context:	BusinessRules
Parameters:	
user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object
dateTime1 as DateTime	Represents a reference to a from date or field that returns a date value
dateTime2 as DateTime	Represents a reference to a to date or field that returns a date value
overload as Numeric	Represents a numeric value that denotes the percent that is determined to be overloaded.
loadType as String	Indicates whether to analyze load by either "PlannedWork" or "Remaining Effort"
state1 as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state, or left as null for work items in state "draft" and "active" ctive ancelled ompleted raft n Hold
state2 as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state ctive

	ompleted raft ancelled n Hold
... as ObjectIdentifier(State)	An optional parameter that represents the state of work items for which you would like to get reported hours, this parameter can be repeated for each work item state ctive ancelled ompleted raft n Hold
Returned value as Boolean	Returns a boolean value, where "TRUE" indicates that the user specified in the "user" parameter is avaiable during the time frame specified in the "period" parameter
Example #1	IsResourceAvailableForGivenPeriod($Resource,$WorkItem.StartDate,$WorkItem.DueDate,100)
Tips	This function has a parameter from type pick list that may have being customized by your organization. Please refer to the pick list values in the formula helper editor or view the values within the relevant field.

Minutes Function

Minutes (number as Numeric) as Duration

Category:	Date
Description:	Returns duration value in minutes
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Numeric value or reference to a numeric field
Returned value as Duration	Returns a duration value in minutes equal to the number specified in the "number" parameter
Example #1	Set a workflow rule that will automatically update the duration of tasks that are marked to be of certain type to be Minutes(30)
Tips	update standard date/date time fields, use workflow rules view other date and duration useful functions, such as teAdd(), ToDate(), etc
Related Functions	DateAdd() ToDate()

Month Function

Month (dateTime as DateTime) as Numeric

Category:	Date
Description:	Returns the number of any given month, 1 (January) and 12 (December)
Supported Context:	FormulaField And BusinessRules
Parameters:	
dateTime as DateTime	Represents a date value or a field that will return a date value
Returned value as Numeric	Returns a numeric value representing the month number in the year of the date value given in the "dateTime" parameter
Example #1	Create a custom field that will return the month in which a project is due Month($DueDate)
Example #2	Create a custom picklist field that will define the quarters in which projects will be delivered If(In(Month($DueDate),1,2,3),"Q1",If(In(Month($DueDate),4,5,6),"Q2",If(In(Month($DueDate),7,8,9),"Q3","Q4")))
Tips	update standard date/date time fields, use workflow rules view other date and duration useful functions, such as DateAdd(), ToDate(), etc
Related Functions	DateAdd() ToDate()
Additional Links	custom picklist field

Months Function

Months (number as Numeric) as Duration

Category:	Date
Description:	Returns duration value in months
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Numeric value or reference to a numeric field
Returned value as Duration	Returns a duration value in months based on the "number" parameter entered
Example #1	Create a workflow rules that will automatically update the duration of tasks that are marked to be of a certain type Months(2)

Tips	update standard date/date time fields, use workflow rules view other date and duration useful functions, such as teAdd(), ToDate(), etc
Related Functions	DateAdd() ToDate()

Now Function

Now () as DateTime

Category:	Date
Description:	Returns the current date and time in the UTC timezone.
Supported Context:	BusinessRules
Returned value as DateTime	
Example #1	This function is very useful as parameters in other functions. In addition, it is used commonly when comparing the current date and time with another datetime field or capturing the current time when a specific workflow ran. For example, when creating a Custom Action for approval, use this function to log the time the approval was completed.

OrganizationNow Function

OrganizationNow () as DateTime

Category:	Date
Description:	Returns the current date and time in the organization's time zone
Supported Context:	BusinessRules
Returned value as DateTime	
Example #1	This function is very useful as parameters in other functions. In addition, it is used commonly when comparing the current date and time with another datetime field or capturing the current time when a specific workflow ran. For example, when creating a Custom Action for approval, use this function to log the time the approval was completed.

Seconds Function

Seconds (number as Numeric) as Duration

Category:	Date
Description:	Returns duration value in seconds
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Numeric value or reference to a numeric field
Returned value as Duration	Returns a duration value in seconds based on the "number" parameter entered
Example #1	Build a numeric custom field that will measure the response time interval of a certain task, based on its duration. $ActualDuration/Seconds(90)
Tips	update standard date/date time fields, use workflow rules iew other date and duration useful functions, such as teAdd(), ToDate(), etc
Related Functions	DateAdd() ToDate()
Additional Links	checkbox custom field

Today Function

Today () as Date

Category:	Date
Description:	Returns today's date at 00:00 converted into UTC. For example, if your Organization time zone is UTC +2, the Today() function will return yesterday's date (22:00 UTC the day before)
Supported Context:	BusinessRules
Returned value as Date	
Example #1	This function is very useful as parameters in other functions. In addition, it is used commonly when comparing the current date and time with another datetime field or capturing the current time when a specific workflow ran. For example, when creating a Custom Action for approval,use this function to log the time the approval was completed. In addition, this function can be used in report formula fields.

ToOrganizationalDateTime Function

ToOrganizationalDateTime (dateTime as DateTime) as DateTime

Category:	Date
Description:	Converts a DateTime argument to the timezone of the Organization
Supported Context:	FormulaField And BusinessRules
Parameters:	
dateTime as DateTime	Represents a date time value or reference to a field that will return a date time
Returned value as DateTime	Returns a date time value equal to the date time entered in the "dateTime" parameter converted to the organization time based on the organization time zone
Example #1	Return the organization time when using the Today() function Within a workflow rule, when trying to return a date time using the function Today(), use the ToOrganizationalDateTime function to ensure that it returns the current date time as per the organizations timezone. ToOrganizationalDateTime(Today())
Related Functions	Today() ToOrganizationalDateTime()

ToTimeZone Function

ToTimeZone (dateTime as DateTime, fromTimeZone as ObjectIdentifier, toTimeZone as ObjectIdentifier) as DateTime

Category:	Date
Description:	Converts the given date time parameter from the 'from' timezone to the 'to' time zone
Supported Context:	FormulaField And BusinessRules
Parameters:	
dateTime as DateTime	Represents a date time value or reference to a field that will return a date time
fromTimeZone as ObjectIdentifier(Time Zone)	Represents the current time zone of the value indicated in the "dateTime" parameter, or reference to a field that returns a time zone. Accepts a time zone code which can be accessed from within the "pick list" tab of the formula helper (i.e. 'Greenwich Standard Time') fghanistan Standard Time laskan Standard Time rab Standard Time rabian Standard Time rabic Standard Time rgentina Standard Time

	US Central Standard Time US Eastern Standard Time Alaskan Standard Time Atlantic Standard Time Azores Standard Time Canada Central Standard Time Cape Verde Standard Time Caucasus Standard Time Cen. Australia Standard Time Central America Standard Time Central Asia Standard Time Central Brazilian Standard Time Central Europe Standard Time Central European Standard Time Central Pacific Standard Time Central Standard Time Central Standard Time (Mexico) China Standard Time Dateline Standard Time E. Africa Standard Time E. Australia Standard Time E. Europe Standard Time E. South America Standard Time Eastern Standard Time Egypt Standard Time Ekaterinburg Standard Time Fiji Standard Time FLE Standard Time Georgian Standard Time GMT Standard Time Greenland Standard Time Greenwich Standard Time GTB Standard Time Hawaiian Standard Time India Standard Time Iran Standard Time Israel Standard Time Jordan Standard Time Kamchatka Standard Time Korea Standard Time Mauritius Standard Time Mid-Atlantic Standard Time Middle East Standard Time Montevideo Standard Time Morocco Standard Time Mountain Standard Time Mountain Standard Time (Mexico) Myanmar Standard Time N. Central Asia Standard Time Namibia Standard Time Nepal Standard Time

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toTimeZone as ObjectIdentifier(Time Zone)	Represents the time zone to which you would like to convert the value indicated in the "dateTime" parameter, or reference to a field that returns a time zone. Accepts a time zone code which can be accessed from within the "pick list" tab of the formula helper (i.e. 'Greenwich Standard Time') fghanistan Standard Time laskan Standard Time rab Standard Time rabian Standard Time rabic Standard Time rgentina Standard Time tlantic Standard Time US Central Standard Time US Eastern Standard Time

	zores Standard Time anada Central Standard Time ape Verde Standard Time aucasus Standard Time en. Australia Standard Time entral America Standard Time entral Asia Standard Time entral Brazilian Standard Time entral Europe Standard Time entral European Standard Time entral Pacific Standard Time entral Standard Time entral Standard Time (Mexico) hina Standard Time ateline Standard Time Africa Standard Time Australia Standard Time Europe Standard Time South America Standard Time astern Standard Time gypt Standard Time katerinburg Standard Time ji Standard Time LE Standard Time eorgian Standard Time MT Standard Time reenland Standard Time reenwich Standard Time TB Standard Time awaiian Standard Time dia Standard Time an Standard Time rael Standard Time rdan Standard Time amchatka Standard Time orea Standard Time auritius Standard Time id-Atlantic Standard Time iddle East Standard Time ontevideo Standard Time orocco Standard Time ountain Standard Time ountain Standard Time (Mexico) yanmar Standard Time Central Asia Standard Time amibia Standard Time epal Standard Time ew Zealand Standard Time ewfoundland Standard Time orth Asia East Standard Time

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Returned value as DateTime	Returns a date time value equal to the date time entered in the "dateTime" parameter converted to the time zone indicated in the "toTimeZone" parameter
Example #1	Convert current time to the current user's time zone ToTimeZone(Now(), 'UTC', GetTimeZone(CurrentUser()))
Tips	This function has a parameter from type pick list that may have being customized by your organization. Please refer to the pick list values in the formula helper editor or view the values within the relevant field.

Week Function

Week (date as DateTime) as Numeric

Category:	Date

Description:	Returns a numeric value that represents the week of the year
Supported Context:	FormulaField And BusinessRules
Parameters:	
date as DateTime	
Returned value as Numeric	

Weeks Function

Weeks (number as Numeric, isWorking as Boolean) as Duration

Category:	Date
Description:	Returns duration value in weeks. If IsWorking (optional parameter, default is FALSE) set to TRUE returns only the working duration.
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Numeric value or reference to a numeric field
isWorking as Boolean	An optional parameter that allows you to return only work days or calendar days. Enter a value of "TRUE" for working weeks, or "FALSE" for total calendar weeks
Returned value as Duration	Returns a duration value in weeks based on the "number" parameter entered either as working weeks or calendar weeks as determined in the "isWorking" parameter
Example #1	Build a date custom field for an issue that will define the maximum tolerated response date, which, in this case, is 2 working weeks for a critical bug and 4 working weeks for other other severity levels If($severity= "critical", $CreatedOn + weeks(2,TRUE), $CreatedOn+weeks(4,TRUE))
Example #2	DateAdd
Example #3	ToDate
Tips	update standard date/date time fields, use workflow rules view other date and duration useful functions, such as teAdd(), ToDate(), etc
Additional Links	checkbox custom field

Year Function

Year (dateTime as DateTime) as Numeric

Category:	Date
Description:	Returns the number of any given year
Supported Context:	FormulaField And BusinessRules
Parameters:	
dateTime as DateTime	Represents a date value or a field that will return a date value
Returned value as Numeric	Returns a numeric value representing the year number in the date value given in the "dateTime" parameter
Example #1	Create a numeric custom field for a project entity that will categorize the projects by the year they are scheduled to be delivered in Year($DueDate)
Tips	Review other date and duration useful functions, such as DateDiff(), DateAdd(), and DateSubtract()
Related Functions	DateDiff() DateAdd() DateSubtract()
Additional Links	checkbox custom field

Years Function

Years (number as Numeric) as Duration

Category:	Date
Description:	Returns duration value in years
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Numeric value or reference to a numeric field
Returned value as Duration	Returns a duration value in years based on the "number" parameter entered
Example #1	Build a workflow rule that automatically sets the due date of a Request (of type Idea) to be 1 business year from the creation date. Set the evaluation criteria to be $RequestType = "Idea"
Example #2	Use the "Update Field" action for the 'Due Date' field and set its formula to be $CreatedOn+ Years(1)

Tips	If you would like that field to be updated for 1 calendar year, use the formula $CreatedOn+ Days(365)
Related Functions	Days()

ToDate Function

ToDate (dateTime as DateTime) as DateTime

Category:	Convert
Description:	Converts a DateTime value to Date type value by removing time value in the argument provided
Supported Context:	FormulaField And BusinessRules
Parameters:	
dateTime as DateTime	Represents a date time value or reference to a field that will return a date time
Returned value as DateTime	Returns a date value equal to the date time value specified in the "dateTime" parameter
Example #1	Convert a Date and Time value into a date for a Custom Field within work items ToDate(DateTimeValue("2011-05-01 19:30:00"))
Tips	See also DateTimeValue(), DateValue() and DateTime()
Related Functions	DateTimeValue() DateValue() DateTime()

ToNumber Function

ToNumber (value as String) as Numeric

Category:	Convert
Description:	Converts a text value to a number. Returns a run-time exception if cannot convert
Supported Context:	FormulaField And BusinessRules
Parameters:	
value as String	Represents a text or string number value or reference to a field that returns a string number value
Returned value as Numeric	Returns a numeric value equal to the text or string number value entered in the "value" parameter. Returns a run-time exception if cannot convert (i.e. text/string entered in "value" contains characters that are not numeric)

Example #1	Convert a text field with string values to number values ToNumber("567")
Tips	prevent run time errors, use the Catch() exception convert picklist values of number types to numbers for mula calculations use the ToNumber(ToString($picklistfield))
Related Functions	Catch()

ToString Function

ToString (value as Object, format as String) as String

Category:	Convert
Description:	Converts any value to a string
Supported Context:	FormulaField And BusinessRules
Parameters:	
value as Object	Represents a numeric or pick list value, or reference to a field that will return a numeric or pick list value
format as String	
Returned value as String	Returns a text or string value equal to the value entered in the "value" parameter
Example #1	Create a formula field on work items that returns a string representing the Due Date in the format of YYYY-MM-DD HH:MM:SS ToString($DueDate)
Example #2	Create a formula field that is set on work items that will return the system ID of the 'Parent Project' (e.g."P-1") ToString($ParentProject)
Tips	prevent run time errors, use the Catch() exception convert picklist values to strings for formula calculations use String($PicklistField)
Related Functions	Catch()

Catch Function

Catch (expression as Object, errorValue as Object) as Object

Category:	Common

Description:	Returns a value of the expression or errorValue in case that expression throws a runtime error
Supported Context:	FormulaField And BusinessRules
Parameters:	
expression as Object	Field or reference to a field of an object
errorValue as Object	Resulting value if the expression throws a runtime error
Returned value as Object	Returns the desired error value if the expression throws a runtime error, else returns "null"
Example #1	Create a custom numeric field that automatically converts the last 5 characters of a work item name into a number value. In the case where the custom number field was manually inputted incorrectly (i.e. does not contain numeric characters), set the errorValue to "-999". Catch(ToNumber(Right($Name,5),-999)
Tips	sure to check off the "Field value is based on a formula" to ate Custom Fields set by formulas ng this function can help you in preventing run time errors in siness rules. This is especially important since run time error l cause any add, update or delete operations that triggers se business rule to fail
Additional Links	numeric field Custom Fields

GetCustomActionUrl Function

GetCustomActionUrl (customAction as ObjectIdentifier, targetObject as String, param2 as String, param3 as String, param4 as String, param5 as String, param6 as String, param7 as String, param8 as String, param9 as String, ... as String) as String

Category:	Common
Description:	Generates a URL string that represents a custom action with parameters
Supported Context:	FormulaField And BusinessRules
Parameters:	
customAction as ObjectIdentifier(Custom Operation)	
targetObject as String	
param2 as String	
param3 as String	
param4 as String	

param5 as String	
param6 as String	
param7 as String	
param8 as String	
param9 as String	
... as String	
Returned value as String	
Example #1	GetCustomActionUrl('Data Loader',GetRuntimeParameter(CurrentObject())) Use Formula Options > Objects tab > Custom Actions to select the Custom Action you want to call and then send paramaters to the custom action if it needs them. Very useful when building custom actions that 'call' a secondary custom action (dependant forms)

GetCustomPanelUrl Function

GetCustomPanelUrl (customAction as ObjectIdentifier, targetObject as String, param2 as String, param3 as String, param4 as String, param5 as String, param6 as String, param7 as String, param8 as String, param9 as String, ... as String) as String

Category:	Common
Description:	Generates a URL string that represents a custom panel with parameters
Supported Context:	FormulaField And BusinessRules
Parameters:	
customAction as ObjectIdentifier(Custom Operation)	
targetObject as String	
param2 as String	
param3 as String	
param4 as String	
param5 as String	
param6 as String	
param7 as String	
param8 as String	
param9 as String	

... as String	
Returned value as String	
Example 1	

GetDocumentFileName Function

GetDocumentFileName (document as ObjectIdentifier) as String

Category:	Common
Description:	Returns the name of the specified file
Supported Context:	BusinessRules
Parameters:	
document as ObjectIdentifier(Document)	
Returned value as String	

GetFileURL Function

GetFileURL

Category:	Common
Description:	Returns the URL of the specified file
Supported Context:	BusinessRules
Parameters:	file:ObjectIdentifier, expirationDate:DateTime
document as ObjectIdentifier(Document)	
Returned value as String	
Example #1	{GetFileUrl('D-5601',Date(3999,12,30))} The object ID of the file can be found using Formula Options > Objects tab > File. You may search by the name of the file.

GetHiddenRuntimeParameter Function

GetHiddenRuntimeParameter (paramValue0 as Object, paramValue1 as Object, paramValue2 as Object, paramValue3 as Object, paramValue4 as Object, ... as Object) as String

Category:	Common

Description:	Returns a string representing a runtime parameter of any type that will be hidden by a custom action.
Supported Context:	FormulaField And BusinessRules
Parameters:	
paramValue0 as Object	
paramValue1 as Object	
paramValue2 as Object	
paramValue3 as Object	
paramValue4 as Object	
... as Object	
Returned value as String	
Example #1	GetCustomActionURL('New Project',GetRunTimeParameter(CurrentObject()), GetHiddenRunTimeParameter('First Variable')) This is mainly used as a way to pass data to a custom action where, when passed, that field in no longer visible on the form. This is helpful when you want to pass data in the background.

GetHyperLink Function

GetHyperLink (referenceField/className as String, objectId as String) as String

Category:	Common
Description:	Creates and returns a hyperlink to an object.
Supported Context:	BusinessRules
Parameters:	
referenceField/className as String	An optional field that represents a reference to a class name (i.e.currentobject() or $Document)
objectId as String	An optional field that represents a specific object's system ID (i.e. P-101)
Returned value as String	Returns a URL to the specified object
Example #1	Create a workflow rule that automatically sends an email to the work item manager when the work items actual effort and remaining effort exceed the set work. The email will contain a hyperlink to that work item. Within the email body, insert a message that looks as follows: "items task1 updated efforts (14h) from the team exceed the original estimated effort (5h)", where task1 is a hyperlink to that task.

	Item {GetHyperLink(CurrentObject())}updated efforts({$ActualEffort+$RemainingEffort}) from the team exceed the original estimated efforts({$work})
Example #2	Create a workflow rule on the "Attachment" link class that will automatically send an email to the work item's manager whenever a document is added to a work item. Within the email body supply the hyperlink to both the document as well as the work item itself. Document: {GetHyperLink($Document)} was added to {GetHyperLink($Entity)}
Tips	ou would like to place hard coded values into the hyperlink ;. certain users, projects, etc) you can use the GetHyperlink() ction as follows: GetHyperlink('Project','P-001') create automatic emails within workflow rules, select the nd Email" option from within the Select Action List drop wn
Note	This function is only available for business rules

GetModuleViewUrl Function

GetModuleViewUrl (entityType as String, viewId as ObjectIdentifier, expirationDate as DateTime, register as Boolean) as String

Category:	Common
Description:	Returns a module view url for for a specific item type
Supported Context:	BusinessRules
Parameters:	
entityType as String	
viewId as ObjectIdentifier(SubsystemView)	
expirationDate as DateTime	
register as Boolean	
Returned value as String	

GetNextCounterValue Function

GetNextCounterValue (entityType as String) as String

Category:	Common
Description:	Increments the specified counter and returns the new value

Supported Context:	BusinessRules
Parameters:	
entityType as String	
Returned value as String	

GetObjectViewUrl Function

GetObjectViewUrl (objectId as ObjectIdentifier, viewId as ObjectIdentifier, expirationDate as DateTime, register as Boolean) as String

Category:	Common
Description:	Returns an object details view url for for a specific item
Supported Context:	BusinessRules
Parameters:	
objectId as ObjectIdentifier(Work Item, ResourceEntity, Organization, Document, Comment, Timesheet, Customer, ContactPerson, Expense Sheet, Expense Entry, Case, DiscussionMessage, Topic)	
viewId as ObjectIdentifier(ObjectDetailsView)	
expirationDate as DateTime	
register as Boolean	
Returned value as String	

GetPreviousValue Function

GetPreviousValue (field as Object) as Object

Category:	Common
Description:	Returns the pervious value of a given field prior to last change
Supported Context:	BusinessRules
Parameters:	
field as Object	Represents the field of a specific object for which you would like to see the previous value
Returned value as Object	Returns the previous value of the field given in the "field" parameter prior to the last change
Example #1	Set a workflow rule that sends an email automatically to the work item's manager whenever the work item's percent

	completion increases by more than 25% (for example: an update from 20% to 50% would trigger the workflow, while an increase from 20% to 25% will not). $PercentCompleted - GetPreviousValue($PercentCompleted) >= 25
Example #2	Define a validation rule for a bug that will prevent clearing the 'To be resolved' field (if it was previously defined) and the bug is marked as 'reported by customer'. The Evaluation Criteria of the validation rule to: isNull($PlannedFor) && Not(IsNull(GetPreviousValue($PlannedFor))) && $ReportedbyCustomer
Tips	The GetPreviousValue() function cannot be used within formulas for Rescheduling actions, since the rescheduling is a queued job that happens after the object is already updated
Note	This function is only available for business rules
Additional Links	Business Rules

GetObjectUrl Function

GetObjectUrl (report as ObjectIdentifier, param1 as String

Category:	Common
Description:	Returns a URL string for an an Object
Supported Context:	FormulaField And BusinessRules
Parameters:	
report as ObjectIdentifier(SystemQuery, UserDefinedQuery)	
param1 as String	
... as String	
Returned value as String	

GetReportUrl Function

GetReportUrl (report as ObjectIdentifier, param1 as String, param2 as String, param3 as String, param4 as String, param5 as String, param6 as String, param7 as String, param8 as String, param9 as String, ... as String) as String

Category:	Common

Description:	Generates a URL string that represents a report with parameters
Supported Context:	FormulaField And BusinessRules
Parameters:	
report as ObjectIdentifier(SystemQuery, UserDefinedQuery)	
param1 as String	
param2 as String	
param3 as String	
param4 as String	
param5 as String	
param6 as String	
param7 as String	
param8 as String	
param9 as String	
... as String	
Returned value as String	

GetRuntimeParameter Function

GetRuntimeParameter (paramValue0 as Object, paramValue1 as Object, paramValue2 as Object, paramValue3 as Object, paramValue4 as Object, ... as Object) as String

Category:	Common
Description:	Returns a string representing one runtime parameter of any field type and operator type.
Supported Context:	FormulaField And BusinessRules
Parameters:	
paramValue0 as Object	
paramValue1 as Object	
paramValue2 as Object	
paramValue3 as Object	
paramValue4 as Object	
... as Object	
Returned value as String	

GetSessionId Function

GetSessionId () as String

Category:	Common
Description:	Returns the current user's session ID to be used in outbound calls, API calls, and integrations with external systems
Supported Context:	BusinessRules
Returned value as String	Returns a current user's session ID
Example #1	Get a Clarizen URL with an embedded session ID to be used as a token in order to skip the login https://app.clarizen.com/Clarizen/Pages/MainPage/Project.aspx?po=6.25263536.21&id={GetSessionId()}

GetSystemSetting Function

GetSystemSetting (settingName as String) as Object

Category:	Common
Description:	Returns the value for the entered system setting, where the value type is determined by the selected system setting.
Supported Context:	BusinessRules
Parameters:	
settingName as String	Represents a reference to a system setting, to access the system settings names click on the "pick lists" tab in the formula function helper
Returned value as Object	Returns the value of the system setting specified in the "settingName" parameter
Example #1	Set a workflow rule that will send an email to the Organization support user when a new object is added to the system. The evaluation criteria of this rule should include the Get System Settings function to verify that the system is enabled to send alerts via email. GetSystemSettings('Send Alerts via Email')

GetWidgetHyperLink Function

GetWidgetHyperLink (objectId as ObjectIdentifier, format as String, expirationDate as DateTime, urlOnly as Boolean, register as Boolean) as String

Category:	Common
Description:	Returns a widget URL for a single project or report specified within the "objectID" variable, where the "format" variable

	determines whether a 'roadmap' or 'gantt' type widget URL is returned, the expiration date for the widget (can be set to NULL if not applicable), and the "urlOnly" parameter is set to TRUE for only the URL or FALSE for the full HTML hyperlink.
Supported Context:	BusinessRules
Parameters:	
objectId as ObjectIdentifier(Project, UserDefinedQuery, SystemQuery)	Represents a reference to a project or a field that returns a project object
format as String	Represents the type of Widget you would like to receive, where the value can either be "gantt" or "roadmap"
expirationDate as DateTime	Represents a date or a field that returns a date value for the expiration of the widget
urlOnly as Boolean	Represents the return data, enter "TRUE" if you would like to see only the widget URL or "FALSE" to receive the full widget HTML hyperlink
register as Boolean	An optional parameter that represents whether or not you would like the widget to be visible in the widget repository, enter "TRUE" to access from widget repository or "FALSE" if not accessible. If null this parameter will default to "TRUE"
Returned value as String	Returns the widget URL or HTML hyperlink for the desired object specified in the "objectID" parameter
Example #1	Create a workflow rule that will automatically send an email to project stakeholders with the a link to the project roadmap each time a new project is set to Active. In the email body of the Send Email action enter the following: GetWidgetHyperLink(currentobject(),"roadmap", NULL ,TRUE)

GetWidgetHyperLinkWithPassword Function

GetWidgetHyperLinkWithPassword(objectId as String,format as String,expirationDate as DateTime,urlOnly as Boolean,password as Boolean)

Category:	Common
Description:	Returns a widget URL for a single project or report specified within the "objectID" variable, where the "format" variable determines whether a 'roadmap' or 'gantt' type widget URL is returned, the expiration date for the widget (can be set to NULL if not applicable), and the "urlOnly" parameter is set to TRUE for only the URL or FALSE for the full HTML hyperlink./td>
Supported Context:	BusinessRules
Parameters:	
objectId as string	Represents a reference to a user object or a field that returns a user object. Normally this will be a resource on a project.
format as string	Gantt, Roadmap other
expirationDate as dateTime	Represents a reference to a from date as DateTime(year,month,day,hour,minute,second) e.g.

	DateTime(Year(Today()),1,1,08,00,00) or field that returns a date value e.g. Start Date
urlOnly as Boolean	Boolean (TRUE/ FALSE)
password as Boolean	Boolean (TRUE/ FALSE)
Example #1	Create a Workflow Rule that sends an email to the Project Sponsor with a link to the Project Gantt. GetWidgetHyperLinkWithPassword(CurrentObject,'Gantt',$DueDate,true,true)
Tips	Create workflow rules to set standard field values via formulas
Additional Links	

HyperLink Function

HyperLink (url as String, title as String) as String

Category:	Common
Description:	Returns a hyperlink based on the specified url and the title
Supported Context:	FormulaField And BusinessRules
Parameters:	
url as String	
title as String	
Returned value as String	
Example #1	Create a workflow rule that will automatically send an email to project stakeholders with the a link to the project roadmap each time a new project is set to Active. Use Cases: There is another system I use to track account details (CRMxyz) I want a URL that takes this account ID and creates dynamic URL on a Project record that points to my CRM record I've created a custom field $C_CRMxyz_Account_ID where a Project Manager can input the ID How to do it: Create a formula field with the following:

	If(IsNull($C_CRMxyz_Account_ID), "", HyperLink("https://www.CRMxyz.com/" + $C_CRMxyz_Account_ID, "Link to Account")) Very useful function for creating dynamic hyperlink(URLs) especially in formula fields. Important Note: GetHyperlink is a much better option for returning the URL to a specific Clarizen record.

IsCustomActionAvailable Function

IsCustomActionAvailable (customAction as ObjectIdentifier, targetObject as ObjectIdentifier, user as ObjectIdentifier) as Boolean

Category:	Common
Description:	Returns TRUE if the specified custom action is enabled and the specified user has permission to execute it
Supported Context:	BusinessRules
Parameters:	
customAction as ObjectIdentifier(Custom Operation)	
targetObject as ObjectIdentifier(Project, Work Item, GenericTask, User, ResourceEntity, Organization, Dependency, WorkItemHierarchyLink, Milestone, Regular Human Resource, Human Resource, Attachment, Discussion, JobTitle, Timesheet, Customer, ContactPerson, CustomerLink, Expense Sheet, Expense Entry, Case, Issue, Risk, Bug, EnhancementRequest, Related Work, Team Member, Skill, UserGroup, Group, GroupMemberLink, CaseCustomerLink, ShortcutLink, ProgressImpactLink, Reviewer, Rate Holder, SkillLink, GroupHierarchyLink, DiscussionGroup, GroupLink, GroupProjectLink, GroupTaskLink, GroupCustomerLink, GroupCaseLink, DiscussionMessage, DiscussionPost, DiscussionReply, Topic)	
user as ObjectIdentifier(User)	
Returned value as Boolean	

IsIPAddressInRange Function

IsIPAddressInRange (ipAddress as String, ipRange as String) as Boolean

Category:	Common
Description:	Returns TRUE if the ipAddress is within the ipRange. The ipAddress's format is 'x.x.x.x' and the ipRange's format is 'x.x.x.x-y.y.y.y,x.x.x.x-y.y.y.y'.
Supported Context:	FormulaField And BusinessRules
Parameters:	
ipAddress as String	
ipRange as String	
Returned value as Boolean	
Example #1	Check if a user's last login IP is within a specific network range: IsIPAddressInRange($LastLoginIPAddress,'12.250.199.12-12.250.199.30')

NumberOfAvailableLicenses Function

NumberOfAvailableLicenses (userType as ObjectIdentifier) as Numeric

Category:	Common
Description:	Returns number of available licenses specified by licenseType
Supported Context:	BusinessRules
Parameters:	
userType as ObjectIdentifier(LicenseType)	mail ull mited one ocial eamMember rial
Returned value as Numeric	
Example #1	Examples: NumberOfAvailableLicenses('Full') NumberOfAvailableLicenses('Social')

ParseHyperLink Function

ParseHyperLink (hyperlink as String) as String

Category:	Common
Description:	Parses a specified hyperlink and returns a url part of it.
Supported Context:	FormulaField And BusinessRules
Parameters:	
hyperlink as String	
Returned value as String	

PermissionsRole Function

PermissionsRole (role as String) as String

Category:	Common
Description:	Add or remove permission access levels for work items, cases and customers, to users, groups or profiles based on business rules. This is achieved using the Permissions Definition link when creating custom actions and workflows.
Supported Context:	FormulaField And BusinessRules
Parameters:	
role as String	
Returned value as String	'editor', 'viewer'
Example #1	Click here to see an example

Currency Function

Currency (number as Numeric, currency as String) as Currency

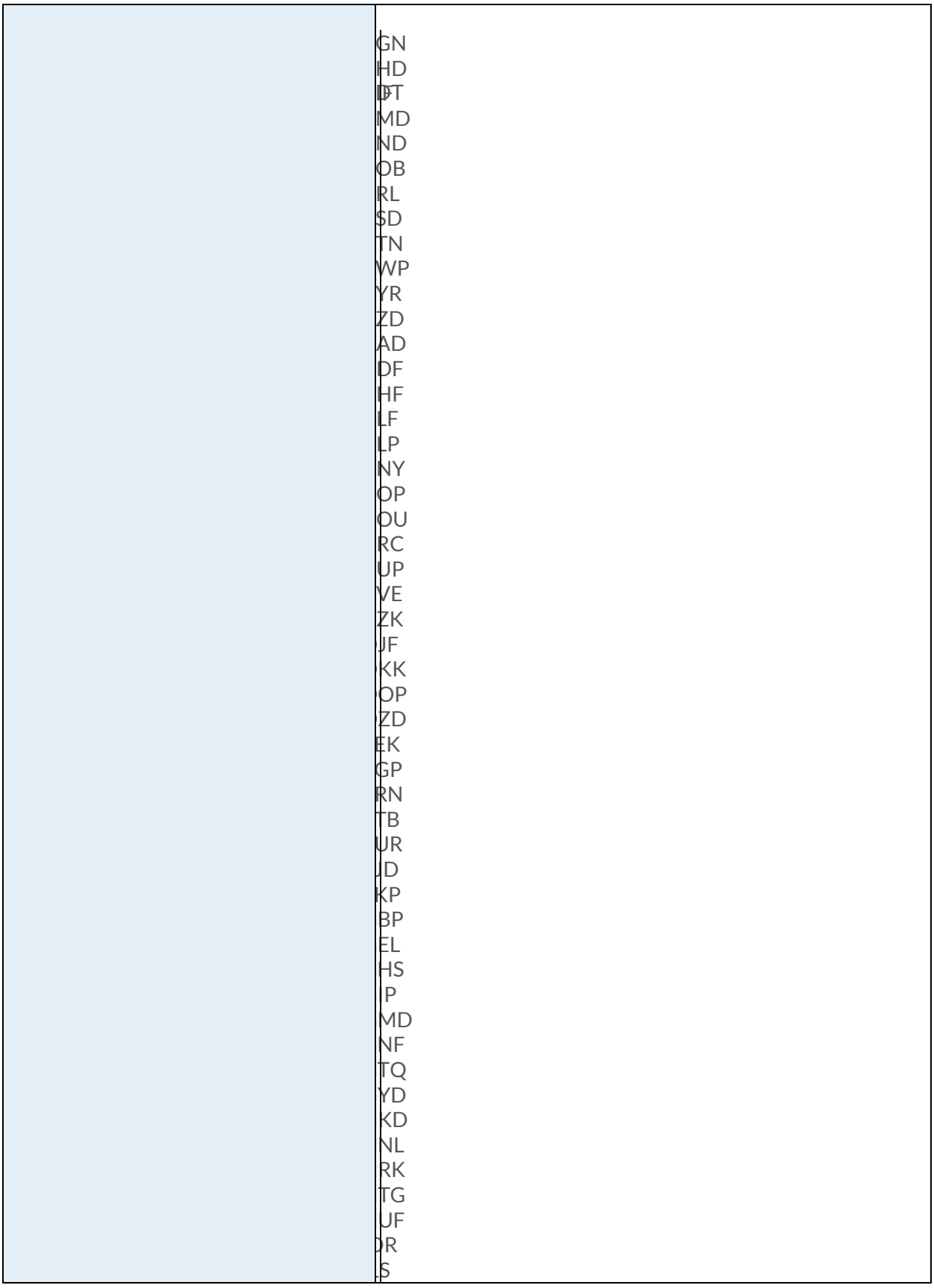
Category:	Currency
Description:	Creates a currency with the amount specified in the number value, where currencyName (optional parameter) specifies a text currency value (such as 'usd'). If not entered, the organization's default base currency will be taken. CurrencyName is only relevant when multi-currency support is enabled
Supported Context:	FormulaField And BusinessRules
Parameters:	
number as Numeric	Positive or negative numeric value

currency as String	An optional parameter that accepts the Currency type that you would like the "Number" parameter to be represented as. Accepts three letter currency code (such as "USD"). If not entered, the default organizational currency type will be used
Returned value as Currency	Returns a currency value equal to the "number" parameter using the currency type specified in the "currency" parameter
Example #1	Create a workflow rule that automatically updates the 'Expense Approver' field to be the corporate CPA in cases where the expense exceeds a certain fixed amount (e.g. $1600). $Total > Currency (1600,'usd')
Tips	update a field within a workflow select the "Update Field" m the Set Action List s recommended to use this function while comparing base rencies

CurrencyExchange Function

CurrencyExchange (currency as Currency, targetCurrency as ObjectIdentifier, date as DateTime, project as ObjectIdentifier) as Currency

Category:	Currency
Description:	Converts a currency amount to a specified currency, where the date parameter indicates the exchange rate date, if no specific date then a "Null" value can be entered. The project parameter indicates either a specific project exchange rate or the exchange rate date set on the specified project, if no specific project then a "Null" value can be entered.
Supported Context:	FormulaField And BusinessRules
Parameters:	
currency as Currency	A currency amount, or reference to a field that returns a currency value
targetCurrency as ObjectIdentifier(CurrencyType)	Represents the desired target currency type. Accepts three letter currency code (such as "USD") ED FN LL MD NG OA RS UD WG ZN AM BD



	QD RR NR MD OD PY ES GS HR MF PW RW WD YD ZT AK BP KR RD SL TL VL YD 1AD 1DL 1GA 1KD 1MK 1NT 1OP 1RO 1UR 1VR 1WK 1XN 1YR 1ZN AD GN IO OK PR ZD MR AB EN GK HP KR LN

	AR ON SD UB UR WF AR BD CR DG EK GD HP KK LL OS RD TD YP ZL HB JS MM ND OP RY TD WD ZS AH GX SD YU ZS EF ND UV ST AF CD OF PF ER AR MK WD
date as DateTime	Represents the value of the desired exchange rate date, value must be of type date or reference to a field of type date. If no specific exchange rate date then enter a value of "Null"

project as ObjectIdentifier(Project)	Represents the value of the desired exchange rate or exchange rate date as set in a specific project, value must be a relation to a specific project object. If no specific project exchange rate then enter a value of "Null"
Returned value as Currency	Returns the currency value equal to the amount inputted in the "Currency" parameter converted to the currency specified in the "Target Currency" parameter using the exchange rate defined in either the "Date" or "Project" parameters
Example #1	Create a workflow rule that will automatically convert the Actual Cost of a work item from 'USD' to 'EUR', based on the project exchange rate, and enter the 'EUR' value into a custom field for billing purposes. In the Workflow rule select the run time to be every time a record is created or edited and set the evaluation criteria to: IsChanged($ActualCost) Select the "Update Field" action and choose the custom field mentioned above. In the formula enter the following: CurrencyExchange($ActualCost,'EUR',null,$Project) In the example above the organization's base currency is in USD
Tips	use a specific date for the exchange rate in the above rkflow rule, enter the date or reference to a field in the date ameter, and keep the project parameter as "null". rencyExchange($ActualCost,'EUR',$Startdate, null) oth the date and project parameters are entered then the rkflow rule will result in a run-time error oth the date and project parameters are entered then the hange rate date will be the current date s function has a parameter from type pick list that may have ng customized by your organization. Please refer to the pick values in the formula helper editor or view the values within relevant field.
Note	This function is only available when the organization is set to use multi-currency
Additional Links	Multi-Currency

GetAssignedProjectCapacityForFixedPeriod Function

GetAssignedProjectCapacityForFixedPeriod(user as ObjectIdentifier, project as ObjectIdentifier, period as String)

Category:	Resource Utilization
Description:	Returns a duration value indicating the Assigned Project Capacity for the specified User in the given time range for a

	specified project. This should be the same number that is displayed in the Resource Planning.
Supported Context:	Business Rules
Parameters:	
user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object. Normally this will be a resource on a project.
project as ObjectIdentifier(project)	Represents a project object for which you would like to know the resource's assigned capacity.
period as String	An optional variable that represents the frame of time for which you would like to know the resource availability. Value can be either "d", "w", "m" corresponding to current day, week, month. If null then the parameter value defaults to "w"
Example #1	Create 3 Custom Fields on Resource Link: Create a Workflow Rule on Resource Link every time the link is Edited This will only check for Users that are "Active" In the Evaluation Criteria enter the following: In the Actions, select Update Field: GetAssignedProjectCapacityForFixedPeriod(Resource, WorkItem, period as String)
Tips	Use this value in conjunction with a user's rate to calculate projected cost or revenue from billing for a particular project.

GetAssignedProjectCapacityForGivenPeriod Function

GetAssignedProjectCapacityForGivenPeriod(user as ObjectIdentifier, project as ObjectIdentifier, dateTime1 as DateTime, dateTime2 as DateTime)

Category:	Resource Utilization
Description:	Returns a duration value indicating the Assigned Project Capacity for the specified User in the given time range for a specified project. This should be the same number that is displayed in the Resource Planning.
Supported Context:	Business Rules
Parameters:	
user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object. Normally this will be a resource on a project. project as ObjectIdentifier(project) Represents a project object for which you would like to know the resource's assigned capacity. dateTime1 Represents a reference to a from date as DateTime(year,month,day,hour,minute,second) e.g. DateTime(Year(Today()),1,1,08,00,00) or field that returns a date value e.g. Start Date dateTime2 Represents a reference to a to date as DateTime(year,month,day,hour,minute,second) e.g. DateTime(Year(Today()),12,31,08,00,00) or field that returns a date value e.g. Due Date Example #1

	Create a Custom Action “Quick Quote” on a new Project – In the Evaluation Criteria enter the following: IsResourceAvailableForFixedPeriod(currentuser(),"w",100, "Active", "Draft", "On Hold") Actions Create a Project with no tasks Set its Duration to 6 months Add Resources to the project and set their monthly % Assigned Project Capacity Run the Custom Action
Tips	Use this value in conjunction with a user’s rate to calculate projected cost or revenue from billing for a particular project.

GetAssignedProjectWorkForFixedPeriod Function

GetAssignedProjectCapacityForGivenPeriod(user as ObjectIdentifier, project as ObjectIdentifier, dateTime1 as DateTime, dateTime2 as DateTime)

Category:	Resource Utilization
Description:	Returns a duration value indicating the Assigned Project Work for the specified User in the current day, week or month time range for a specified project. This should correspond to the value that can be seen in the project’s Resource Planning panel and is a sum of all assigned work for a user on all tasks in the project for that time period.
Supported Context:	Business Rules
Parameters:	
user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object. Normally this will be a resource on a project.
project as ObjectIdentifier(project)	Represents a project object for which you would like to know the resource’s assigned capacity.
dateTime1	Represents a reference to a from date as DateTime(year,month,day,hour,minute,second) e.g. DateTime(Year(Today()),1,1,08,00,00) or field that returns a date value e.g. Start Date
dateTime2	Represents a reference to a to date as DateTime(year,month,day,hour,minute,second) e.g. DateTime(Year(Today()),12,31,08,00,00) or field that returns a date value e.g. Due Date
Example #1	Create a Scheduled Workflow Rule on the User that will run repeatedly every Monday morning, and send an email to a user's direct manager if the user is overloaded in the current week. This will only check for resource availability on tasks that are "Active", "Draft", or "On Hold" In the Evaluation Criteria enter the following: IsResourceAvailableForFixedPeriod(currentuser(),"w",100, "Active", "Draft", "On Hold")
Tips	Use this value in conjunction with a user’s rate to calculate projected cost or revenue from billing for a particular project.

GetAssignedProjectWorkForGivenPeriod Function

GetAssignedProjectCapacityForGivenPeriod(user as ObjectIdentifier, project as ObjectIdentifier, dateTime1 as DateTime, dateTime2 as DateTime)

Category:	Resource Utilization
Description:	Returns a duration value indicating the Assigned Project Capacity for the specified User in the given time range for a specified project. This should correspond to the value that can be seen in the project's Resource Planning panel.
Supported Context:	Business Rules
Parameters:	
user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object. Normally this will be a resource on a project.
project as ObjectIdentifier(project)	Represents a project object for which you would like to know the resource's assigned capacity.
dateTime1	Represents a reference to a from date as DateTime(year,month,day,hour,minute,second) e.g. DateTime(Year(Today()),1,1,08,00,00) or field that returns a date value e.g. Start Date
dateTime2	Represents a reference to a to date as DateTime(year,month,day,hour,minute,second) e.g. DateTime(Year(Today()),12,31,08,00,00) or field that returns a date value e.g. Due Date
Example #1	Create a Scheduled Workflow Rule on the User that will run repeatedly every Monday morning, and send an email to a user's direct manager if the user is overloaded in the current week. This will only check for resource availability on tasks that are "Active", "Draft", or "On Hold" In the Evaluation Criteria enter the following: IsResourceAvailableForFixedPeriod(currentuser(),"w",100, "Active", "Draft", "On Hold")
Tips	Use this value in conjunction with a user's rate to calculate projected cost or revenue from billing for a particular project.

GetTaskAssignmentForFixedPeriod Function

GetTaskAssignmentForFixedPeriod (user as ObjectIdentifier, task as ObjectIdentifier, period as String, loadType as String, state0 as String…)

Category:	Resource Utilization
Description:	Returns a duration value indicating the Assigned Task work for the specified User in the current day, week or month time range. This should correspond to the value that can be seen in the project's Resource Planning panel, or Resource Load screen.
Supported Context:	Business Rules
Parameters:	

user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object. Normally this will be the resource on a task.
task as ObjectIdentifier(Task)	Represents a task object for which you would like to know the resource's assigned work.
period	'd' for Current Day, 'w' for Current Week, 'm' for Current Month
loadType	'Planned Work' or 'Remaining Effort'
Example #1	Create a Scheduled Workflow Rule on the User that will run repeatedly every Monday morning, and send an email to a user's direct manager if the user is overloaded in the current week. This will only check for resource availability on tasks that are "Active", "Draft", or "On Hold" In the Evaluation Criteria enter the following: IsResourceAvailableForFixedPeriod(currentuser(),"w",100, "Active", "Draft", "On Hold")
Tips	Use this value in conjunction with a user's rate to calculate projected cost or revenue from billing for a particular task.

GetTaskAssignmentForGivenPeriod Function

GetTaskAssignmentForGivenPeriod (user as ObjectIdentifier, task as ObjectIdentifier, dateTime1 as DateTime, dateTime2 as DateTime, loadType as String, state0 as String…)

Category:	Resource Utilization
Description:	Returns a duration value indicating the Assigned Task work for the specified User in the specified time range. This should correspond to the value that can be seen in the project's Resource Planning panel, or Resource Load screen.
Supported Context:	Business Rules
Parameters:	
user as ObjectIdentifier(User)	Represents a reference to a user object or a field that returns a user object. Normally this will be the resource on a task.
task as ObjectIdentifier(Task)	Represents a task object for which you would like to know the resource's assigned work.
dateTime1	Represents a reference to a from date as DateTime(year,month,day,hour,minute,second) e.g. DateTime(Year(Today()),1,1,08,00,00) or field that returns a date value e.g. Start Date
dateTime2	Represents a reference to a to date as DateTime(year,month,day,hour,minute,second) e.g. DateTime(Year(Today()),12,31,08,00,00) or field that returns a date value e.g. Due Date
Example #1	Create a Scheduled Workflow Rule on the User that will run repeatedly every Monday morning, and send an email to a user's direct manager if the user is overloaded in the current week. This will only check for resource availability on tasks that are "Active", "Draft", or "On Hold" In the Evaluation Criteria enter the following:

	IsResourceAvailableForFixedPeriod(currentuser(),"w",100, "Active", "Draft", "On Hold")
Tips	Use this value in conjunction with a user's rate to calculate projected cost or revenue from billing for a particular project.

GetTotalFinancialSummaryForFixedPeriod Function

GetTotalFinancialSummaryForFixedPeriod (work item as ObjectIdentifier, field as String, period as String[,start year as Numeric, start month as Numeric, periods count as Numeric])

Category:	Financial Planning
Description:	Returns a Currency value indicating the aggregated financial value of a specific financial resource time-phase field, for the specified Non-Labor Resource in the fixed time range for a specified project. Example business questions: Calculate Budget Cost for current fiscal month Calculate Forecast Cost for next fiscal quarter Calculate Budget Revenue for next fiscal year
Supported Context:	Business Rules
Parameters:	
workitem as ObjectIdentifier(workitem)	Represents a reference to a work item. Normally this will be a project.
field as string	Note: because the currency fields you will be referencing may not be directly referenceable usir the Formula Options helper, you will need to manually input the field's API name in the formula. The field API name can be seen in the Configure screen. Examples: "PlannedBudget", "ForecastRevenue". Full example below.
period	Calendar Periods: 'd' for Current Day 'w' for Current Week 'm' for Current Month 'q' for Current Quarter 'y' for Current Year Fiscal Periods 'fm' for Fiscal Month 'fq' for Fiscal Quarter 'fy' for Fiscal Year
Optional Parameters	Note: Start year and month will be according to whether you defined calendar or fiscal period in the previous parameter
Start year as numeric	The calendar or fiscal year you want to start aggregating from. If not set, will use Current Year.
Start Month as Numeric	The calendar or fiscal month you want to start aggregating from. 1 to 12 If not set, will use Month 1 Only used if you have set a Start Year.
Periods count as Numeric	The amount of quantities to aggregated data from. The period used is the period (day, week, month, quarter, year) defined in the 3rd parameter.
Example #1	Calendar Period:

	Calculate Budget Revenue for current calendar month GetTotalFinancialSummaryForFixedPeriod(CurrentObject(),'PlannedRevenue','m') Calculate Budget Cost for a calendar year, starting in June 2019 (ending in June 2020) GetTotalFinancialSummaryForFixedPeriod(CurrentObject(),'PlannedBudget','y',Year(today()+ Calculate Budget Cost for a calendar year, starting in June 2019 (ending in June 2020) GetTotalFinancialSummaryForFixedPeriod(CurrentObject(),'PlannedBudget','y',2019,06) Calculate Forecast Revenue for 10 Years period, starting from Jan 2020 GetTotalFinancialSummaryForFixedPeriod(CurrentObject(),'ForecastRevenue,'y',2020,01,10) Fiscal Period: Calculate Budget Cost for Fiscal Year 2019 GetTotalFinancialSummaryForFixedPeriod(CurrentObject(),'PlannedBudget','fy',2019) Calculate Next 3 Fiscal Years Budget Cost for Starting in Fiscal Year 2019 GetTotalFinancialSummaryForFixedPeriod(CurrentObject(),'PlannedBudget','fy',2019,1,3)
Tips	The API name of the field you want to summarize should be in Quotes and without "$".

GetTotalFinancialSummaryForGivenPeriod Function

GetTotalFinancialSummaryForGivenPeriod(work item as ObjectIdentifier, field as String, from as DateTime, to as DateTime)

Category:	Financial Planning
Description:	Returns a Currency value indicating the aggregated financial value of a specific financial resource time-phase field, for the specified Non-Labor Resource in a date range between 2 specific dates for a specified project. Example business questions: 1. Calculate Budget Cost from today until the end of the current year 2. Calculate Forecast Cost from next month until the end of the project 3. Calculate Budget Revenue for next fiscal year
Supported Context:	Business Rules
Parameters:	
workitem as ObjectIdentifier(workitem)	Represents a reference to a work item. Normally this will be a project.

field as string	The API name of the field in 'quotes' that you want to summarize for the time period. Note: because the currency fields you will be referencing may not be directly referenceable using the Formula Options helper, you will need to manually input the field's API name in the formula. The field API name can be seen in the Configure screen Examples: "PlannedBudget", "ForecastRevenue". Full example below.
dateTime1	Represents a reference to a "from" date as DateTime(year,month,day,hour,minute,second) e.g. DateTime(Year(Today()),1,1,08,00,00) or field that returns a date value e.g. Start Date
dateTime2	Represents a reference to a "to" date as DateTime(year,month,day,hour,minute,second) e.g. DateTime(Year(Today()),12,31,08,00,00) or field that returns a date value e.g. Due Date
Example #1	isNew() || isChanged($PlannedBudget) ProjectGetTotalFinancialSummaryForGivenPeriod ($RelatedLink.WorkItem.Project, 'PlannedBudget', $RelatedLink.WorkItem.Project.StartDate, $RelatedLink.WorkItem.Project.DueDate) * 0.25
Tips	The API name of the field you want to summarize should be in Quotes and without "$".

GetFinancialDataForFixedPeriod Function

GetFinancialDataForFixedPeriod(work item as ObjectIdentifier, nlr as ObjectIdentifier, field as String, period as string [, start year as Numeric, start month as Numeric, periods count as Numeric])

Category:	Financial Planning
Description:	Returns a currency value for a specific currency field (Budget Cost, Budget Revenue etc.. for the specified Non-Labor Resource, for the a specified work item in the given time range. This should be the same amount that is displayed in Financial Planning view. {GetFinancialDataForFixedPeriod(work item,nlr,field,period,start year,start month,periods count)}
Supported Context:	Business Rules
Parameters:	work item as ObjectIdentifier(Object)
nlr as ObjectIdentifier(nlr)	Represents a non-labor resource object for which you would like to calculate financial timephase data.
field as string	The API name of the field in 'quotes' that you want to summarize for the time period. Note: Because the currency fields you will be referencing may not be directly referenceable using the Formula Options helper, you will need to manually input the field's API name in the formula. The field API name can be seen in the Configure screen. Examples: "PlannedBudget", "ForecastRevenue". Full example below.
period as string	Calendar Periods: 'd' for Current Day

	'w' for Current Week 'm' for Current Month 'q' for Current Quarter 'y' for Current Year Fiscal Periods 'fm' for Fiscal Month 'fq' for Fiscal Quarter 'fy' for Fiscal Year
Optional Parameters	Note: Start year and month will be according to whether you defined calendar or fiscal period in the previous parameter
Start year as numeric	The calendar or fiscal year you want to start aggregating from.
Start Month as Numeric	The calendar or fiscal month you want to start aggregating from. 1 to 12 If not set, will use Month 1 Only used if you have set a Start Year
Periods count as Numeric	The amount of quantities to aggregated data from. The period used is the period (day, week, month, quarter, year) defined in the 3rd parameter. If not set, will use 1 Period Only used if you have set a Start Year and Start Month
Example #1	Calendar Period: GetFinancialDataForFixedPeriod(CurrentObject(),'NLR-101','PlannedBudget','m') Fiscal Period: (CurrentObject(),'GetObjectByExternalID('NonLaborResource','Hotel'),'ForecastCost','fy',Year(today())+1,01)

GetFinancialDataForGivenPeriod Function

GetFinancialDataForGivenPeriod(work item as ObjectIdentifier, nlr as ObjectIdentifier, field as String, from as DateTime, to as DateTime)

Category:	Financial Planning
Description:	Returns a Currency value indicating the aggregated financial value of a specific financial resource time-phase field, for the specified Non-Labor Resource in the given time range for a specified project. This should be the same number that is displayed in the Financial Planning screen.
Supported Context:	Business Rules
Parameters:	
workitem as ObjectIdentifier(workitem)	Represents a reference to a work item object or a field that returns a work item object.
nlr as ObjectIdentifier(nlr)	Represents a non-labor resource object for which you would like to calculate financial timephase data
dateTime1	Represents a reference to a from date as DateTime(year,month,day,hour,minute,second) e.g. DateTime(Year(Today()),1,1,08,00,00) or field that returns a date value e.g. Start Date

field as string	The API name of the field in 'quotes' that you want to summarize for the time period. Note: Because the currency fields you will be referencing may not be directly referenceable using the Formula Options helper, you will need to manually input the field's API name in the formula. The field API name can be seen in the Configure screen. Examples: "PlannedBudget", "ForecastRevenue". Full example below.
dateTime2	Represents a reference to a to date as DateTime(year,month,day,hour,minute,second) e.g. DateTime(Year(Today()),12,31,08,00,00) or field that returns a date value e.g. Due Date
Example #1	GetFinancialDataForGivenPeriod(CurrentObject(),'NLR-101','PlannedBudget',DateTime(2018,01,01,08,00,00),DateTime(2018,12,31,20,00,00))