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Microsoft® Class Server

Solution Review



Challenges and Opportunities in Education

Microsoft Class Server 4.0 is a learning management platform that provides a complete solution for harnessing the power of the Web in pursuit of individualised instruction and greater student achievement. It is an exciting new way to learn that engages students, involves parents, and ensures more time for teaching.

The education community works towards the common goal of raising standards. In the classroom, teachers are responsible for motivating and inspiring their students as well as for setting tests and reporting progress. Administrators are there to support them by creating a favourable infrastructure. Parents want to be involved with their child's education and help them realise their potential. Finally, governments set curricula and targets and are ultimately accountable for the results.

The challenge is to achieve better results without significantly increasing resources—the traditional productivity barrier. However, it has been broken in other fields, and widespread access to the Internet and innovative collaboration software is providing the opportunity for the education sector to do the same.

Microsoft has taken its expertise in world-class productivity tools and worked with education leaders to deliver Class Server, a solution just for schools. Using Class Server, it is now possible to automate many of the procedural and administrative tasks that teachers always used to do manually. This enables them to dedicate a greater proportion of their time to where it makes a real difference—the students.

Reclaiming time for teaching is just the beginning of the benefits. By making Class Server the hub of a well designed and thoughtfully implemented Learning Management System, schools can also create opportunities to motivate students, involve parents, monitor achievement, and raise standards.

Microsoft Class Server

Microsoft Class Server is a powerful educational tool that lets teachers plan, store and deliver curriculum-aligned learning resources over the Web.

With Class Server, students can use a Web browser to access everything they need to plan their day and complete their assignments. Class Server is not dependant on broad access to computers. It is equally effective at managing resources and fulfilling test and report requirements in environments with restricted PC access.

Parents can log in to their own page and be involved on a daily basis through secure access to their child's progress and schedule.

Curriculum Managers can use Class Server to strengthen standards through the centralised management of learning resources, which can be customised as necessary.

Class Server enables schools to:

- Create and deliver auto-gradable tests over the Web;
- Grade student work against local curriculum standards;
- Comply with IMS and SCORM open standards for content.

In addition to the many specific ways in which Class Server helps the education community, the most valuable is the teaching time returned to teachers and their students. When teachers have their administrative load lightened, they have more time to provide individualised instruction, more space to be creative, and more ideas to inspire students to achieve their goals. This affects standards in just one direction—upwards.

Promoting a Standards-Aligned Curriculum

Class Server gives schools and education authorities greater scope to manage curriculum resources. They can use it to centralise the purchase or creation of learning materials, and ensure that they are aligned to local or national standards. In addition to this, teachers can also create, edit, and share their own resources, enabling them to provide individualised instruction where necessary.

Assessing Student Achievement

Your Standards, Your Way

Tests are delivered online and then auto-graded according to the standards you define. The Class Server Curriculum Standards Editor allows you to import

national standards where available directly into Class Server, which you can modify to meet local requirements. Teachers can grade student results against these standards using a series of pull down menus. If required, teachers can only tag content with standards from an approved list, ensuring consistency in reporting and tracking. Automatic change tracking allows assignments to be automatically updated when details of your standards change.

Grade Against Standards

Teachers using Class Server can create assignments that are aligned to your school's standards. Using the grading tool, teachers can easily evaluate students' work against these, and provide individualised feedback, even if the work is submitted on paper. Once their assignments have been graded, students can immediately see how well they did and where they need to improve

Track Student Performance

After an assignment has been graded, teachers can use the reporting tool to get a high-level view of how their whole class or groups of students within the class did on that assignment. Clicking on a score allows the teacher to drill down to the actual graded assignment to see the underlying work that generated the score, or to adjust it if necessary. Teachers can also get a quick snapshot of how an individual student is performing in the class, showing longitudinal progress against standards. This allows the teacher to understand the causes of student problems and provide individualised attention to remedy the situation.

Export Data for Further Analysis

Teachers can print reports, or export the data to Microsoft Office Excel for distribution to school administrators, or for further analysis. In addition, a complete set of application program interfaces (APIs) enables other applications to retrieve performance data, allowing complete accountability solutions to be built on top of Class Server.

Improving Student Achievement

Class Server can help schools improve student achievement in three critical ways

Track Progress

With Class Server, teachers can deliver standards-aligned diagnostic assessments. They can then view reports on

student progress and be more responsive to student needs, providing extra attention where needed.

Distribute Best Practice

Class Server helps Curriculum Managers distribute best practice materials digitally across all of your schools, saving printing, distribution, and curriculum update costs.

Give Time Back for Teaching

Class Server saves teachers and IT Administrators time that otherwise might be spent manually grading student tests and collecting/analysing student results. The time they save can be spent on teaching instead of paperwork.

Engaging Students

Class Server brings teachers, resources, and students together in the same online learning space. This means that whether the students are working at home, in the library or in the classroom, they can interact with each other.

Unlike text books, interactive learning resources give a more appealing and personalised experience that are more conducive to learning.

This availability and interactivity engages and motivates students, ensuring that they benefit from an enjoyable learning experience.

As an online forum, it adds to existing communication channels rather than replaces them. Class Server allows for one-to-one communication, ensuring that quieter or less confident children have equal opportunity to ask for additional attention.

Finally, in addition to the learning and testing resources, Class Server also provides students with tools that help them organise and prioritise their time.

Interoperability

Although many schools already use Web-based learning applications, these are often islands of learning confined to a single computer or classroom. Often, the applications are incompatible or expensive to integrate with existing systems. In contrast, Class Server was built with interoperability in mind.

The ability to obtain, create, edit, and share standards-aligned learning resources is one of the most compelling features of Class Server. Class Server “plays” content and assessments from many different vendors and can be connected seamlessly with other open-standards-based systems in your school region.

Electronic resources can be purchased or created at the school or regional level, giving schools an unprecedented level of control and economies of scale. However, teachers retain the ability to offer individualised instruction because lessons can still be tailored to the requirements of their students. Finally, because the resources are electronic and not paper-based, there are always enough to go round. They won’t wear out or get damaged, and they can be amended over time.

Most Class Server solution providers offer data integration or data import services to ensure that your student, teacher, and class data is properly loaded into Class Server at the start of each new term, as well as ensuring that grades are imported or exported into or from the system. In technical terms, Class Server has a bulk import/export capabilities, a SIF* agent (for interoperability with other systems that also employ the Schools Interoperability Framework). It also allows Microsoft solution partners to populate or collect data in real time by directly accessing its APIs. See our Administrators Guide for more information.

Individualised Instruction

Class Server helps teachers create, edit, and manage curriculum resources so that they can provide targeted and individualised learning experiences for their students. These learning experiences encourage self-paced learning and the use of a range of media and resources.

The reporting capabilities of Class Server give teachers dynamic, real-time access to student achievement information, facilitating individualised and group-based feedback. This enables teachers to spot issues and address them before they become problems.

Finally, because teachers using Class Server can automate time-demanding administrative tasks, they can spend more time adding value to students’ learning experiences.

Return on Investment

If you standardise on Class Server as your learning management platform, content, assessments, and instructional resources can be integrated into one system. This will allow your schools to obtain scale efficiencies through:

- The central purchasing of content;
- Training teachers on only one platform;
- Support and management costs.

In addition to these benefits of scale, Class Server is built on open-standards with interfaces that aid integration with existing systems. This means that you can still get the most from existing investments.

Parental Involvement

For parents, Class Server lets them be more involved in their child’s education by providing secure access to their child’s assignments and completed work. They can do this at a time and place of their choosing, knowing that the information is current and comes direct from the teacher. Not only is this important to parents, but it gives greater value to the limited face-to-face time they have with their child’s teacher.

Improving Communication

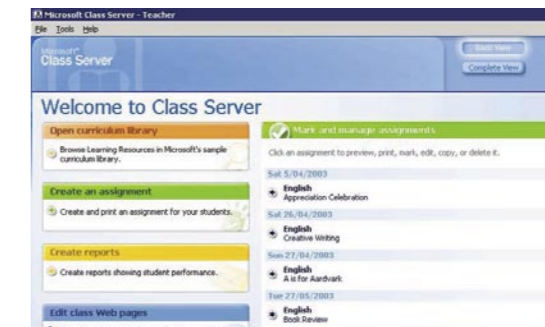
Class Server comes with its own basic portal—right out of the box (no Microsoft SharePoint® required). The portal is a straightforward and very easy-to-use feature to communicate news, events, and other information to the school community.

- The portal is fully Web-based, and can be used with or without the Teacher Client;
- There is a single School Page that an administrator edits and a Class Page for every Class that is modelled in Class Server. The teacher(s) of each class are responsible for publishing class news, events, and other information;
- The School Page is available without authentication; Class Pages are only available to authenticated teachers and students who are teaching or taking that class.

The Teacher Experience

The Basic View

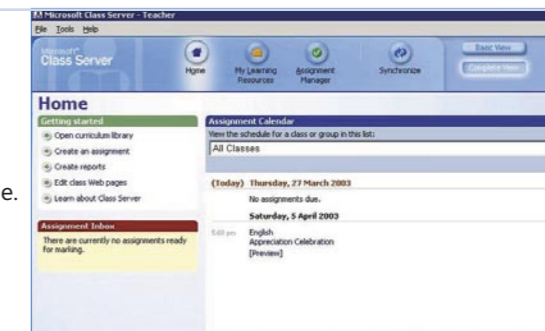
After the teacher has logged in, the Basic View main page appears as below. This mode is for when student access to PCs is scarce and assignments will be completed on paper. The Basic View can also be useful for teachers who are new to e-Learning and don’t want to be overwhelmed with features. In this view, teachers can create, print, grade, and report on assignments. Class Server will save summary scores and comments, which can be printed or included in reports.



The Basic View provides intuitive access to key information.

The Complete View

Access to the Complete View is obtained using the toggle in the top right of the screen. The complete view is shown in the next screenshot. As well as showing more information, this view assumes that the students will be completing assignments online.



The Complete View allows users to do more.

Learning resources & assignments

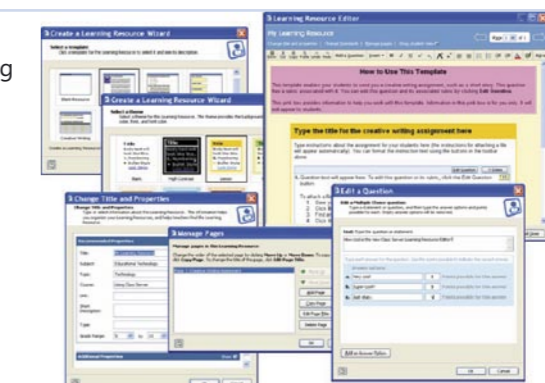
From the main page, the teacher can choose to create a new learning resource or select one from the library of existing resources, as shown here.

Learning resources and assignments can contain questions just like those on a traditional paper assignment. Many types of questions, such as multiple choice or fill-in-the-blank, can be automatically graded (auto graded) in Class Server. For assignments that contain writing elements, you can include rubrics to help you grade manually.



This screen shows the Assignment Wizard and learning resource library in the background.

These windows show how learning resources can be edited using an easy-to-use wizard.

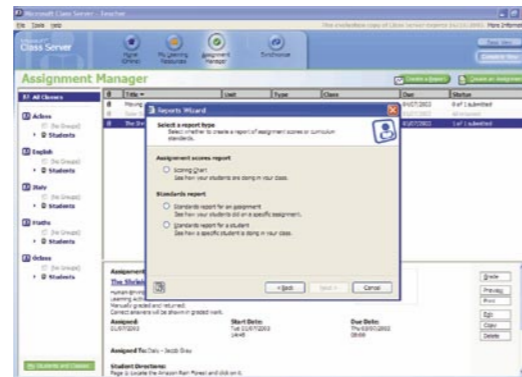


Assignment Manager & Reports Wizard

This screen shot shows the Assignment Manager with the Reports Wizard.

After an assignment has been graded, teachers can use the reporting feature to get a high-level view of how their whole class, or specific students within the class, did on that assignment. Within a report, you can click a score to view the actual assignment and the work that generated the score.

Class Server reports also enable teachers to capture grading and standards assessment data to help you identify student needs and prepare administrative reports.



The Assignment Manager lets teachers deliver assignments online.

The Student Experience

Students can access learning resources as well as complete and return assignments online. They can do so in the classroom, the library or at home from most PC or Mac computers with Internet access.

The school Web page

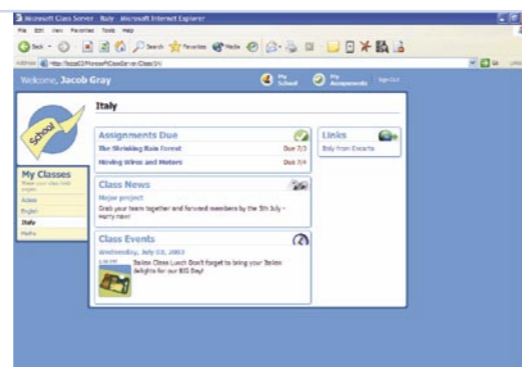
After they securely log in, they are taken to the school Web page, created by an administrator in Class Server. From there they can access individual class pages along with their assignments and daily planner.



The school homepage.

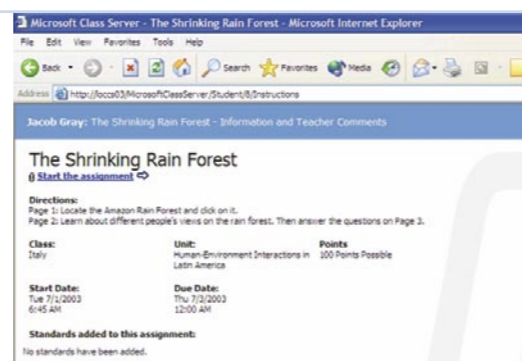
The class Web page

The class Web pages allow teachers to communicate news, announcements, and hyperlinks that are directly relevant to each class (if this feature is enabled by an administrator).



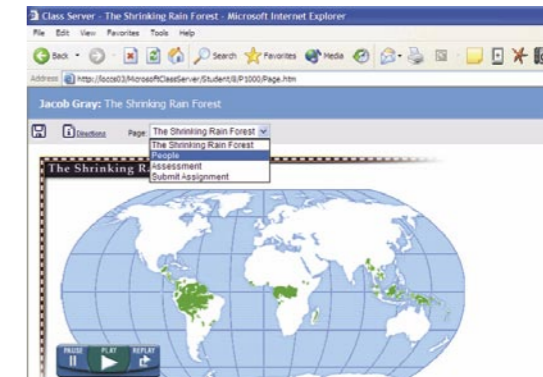
A class Web page is created automatically and it is easy for teachers to add content.

This screen shows the assignment instructions as the student or parent would see it.



A screen from a typical learning resource.

This screen shows the first page of the learning resource, as the student or parent would see it.

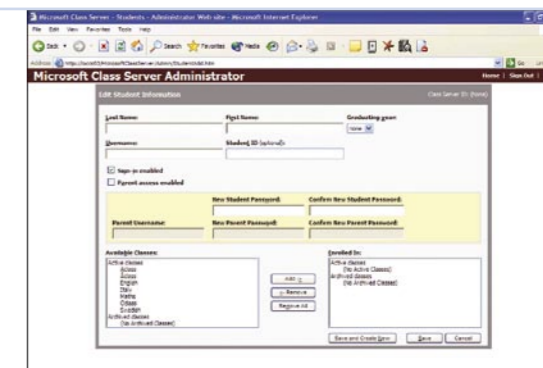


A screen from a typical learning resource.

The Administrator Experience

This screenshot shows the straightforward administrator interface for managing students.

Class Server provides administrators with a platform for collecting regular information on student achievement, helping the institution make more efficient use of their learning resources, and providing the raw material for deploying a system of data-driven decision making (performance management).



This screen shows the manual input form for administrators to add students to classes.

Content

Class Server is a Learning Management platform. Content is purchased separately from publishers, who predominantly deliver the content to schools on CD-ROM (which get loaded onto the Server where Class Server is located). There are more than 50 CD-ROMs of content available for purchase and use within Class Server from internationally respected publishers.

Microsoft itself does not publish learning resources for Class Server. However, it hosts an index that points to free resources that publishers have made available on the Internet. This Index is located at <http://classserver.msn.com/find>

Product Summary

Class Server is all about creating opportunities for members of the learning community. At its core, is the ability to give them the tools and resources to put more in, and get more out of, the learning process.

Portal

- School and class pages;
- News, announcements, assignments;
- SIF* Agent to automatically populate students, teachers, classes;
- Personalised portal for students.

Curriculum

- Easy load state or national standards;
- Re-use Microsoft Office Word curriculum documents; tag with your standards;
- Purchase IMS-compliant/Class Server content packages from publishers;
- Enhanced, easy-to-use teacher tools.

Accountability

- Deliver diagnostic assessments from leading providers;
- Deploy a repository of vetted, standards-tagged content;
- Track student progress against your standards;
- Export results to SIS, grade/mark book, or accountability applications

System Requirements

Server System Requirements

- PC with a 1.8 gigahertz or higher processor (Intel Xeon-compatible processor recommended);
- The following operating systems or later:
- Microsoft Windows® 2000 Server or Advanced Server
- Microsoft Windows Server™ 2003, part of the Microsoft Windows Server System™;
- 256 megabytes (MB) of RAM;
- 100 MB of free hard disk space;
- CD-ROM drive;
- Internet access.

System Requirements for Teachers

- Windows-compatible or Macintosh computer;
- Internet Explorer 5.0 or later or Netscape Navigator 7.1 or later;
- Internet or intranet access to Class Server.
- 600 megahertz (MHz) or higher processor (Pentium III® compatible processor recommended);

- The following operating systems or later:
- Microsoft Windows® 98
- Microsoft Windows® Millennium Edition
- Microsoft Windows 2000
- Microsoft Windows® XP;

- 128MB of RAM;
- Super VGA (800x600) monitor;
- 50MB of free hard disk space;
- Microsoft Internet Explorer 6.0 or later;
- Internet or intranet access to Class Server.

System Requirements for Students

- Windows-compatible or Macintosh computer;
- Internet Explorer 5.0 or later or Netscape Navigator 7.1 or later;
- Internet or intranet access to Class Server.

Additional memory, disk space, and Microsoft SQL Server™ 2000 are required for optimal performance in deployments that include more than 1,000 students.

* Class Server 4.0 is SIF compatible and comply with the conformance requirements for a SIF-enabled application.

Class Server and Microsoft .NET

Class Server is a member of the Microsoft .NET Connected logo programme, publishing a complete Software Development Kit (SDK) that enables partners, integrators, and school regions to use XML Web services to integrate Class Server with other applications in a scalable and secure manner. Microsoft .NET is software for connecting people, information, systems, and devices.

Further Information

- 1 Web – www.microsoft.com/education/classserver.aspx
- 2 MSN Groups – <http://groups.msn.com/classserverusers>
- 3 SDK – <http://classserver.msn.com/csdweb/sdk/install>
- 4 Case studies – www.microsoft.com/emea/education/casestudies