Digital filing: a new approach to standards

General Features | Management of taxes

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While HMRC has made major strides in digital tax filing, a unified framework of software standards is essential.

Key Points

What is the issue?

HMRC has transformed tax filing from paper to digital over 25 years, with nearly all tax returns now submitted digitally, primarily using third-party software. While Self Assessment still sees around 304,000 paper returns, HMRC is planning to digitise more processes, including inheritance tax returns from 2027.

What does it mean to me?

A discussion paper by the Tax Law Review Committee highlights four recommendations: HMRC should set unified standards; work more closely with developers and tax agents; clarify when taxpayers are protected from penalties due to software errors; and support inexperienced taxpayers.

What can I take away?

The paper also calls for HMRC to monitor software compliance, ensure data accessibility in cloud-based systems, and expand support for micro-businesses. Software is now integral to tax compliance, and a consistent standards framework is essential for future development.

This is a story of success – although one where investment is needed today to develop the future. HMRC regularly sets out its ambition to be a truly digital tax authority – and there's a lot of detail on its plans in the recently released Transformation Roadmap (covered in September 2025) (see tinyurl.com/5aa2e3e8). However, there's one area which is already almost entirely digital.

Up to the millennium, tax returns were on paper, sent by post, courier or even dropped off at an Inland Revenue office by tax agents desperate to hand in a return before the filing deadline. All that has changed over the last 25 years. Today, almost all tax returns across almost all taxes are submitted digitally, and 89% of returns are made with third party software.

Time for a new approach to standards?

HMRC has set standards for software products through contractual terms and, more recently, by setting product standards. However, there hasn't been a common unified approach.

The Tax Law Review Committee of the Institute for Fiscal Studies asked three colleagues and me to look at the whole question of standards for tax software: how HMRC and software developers could improve their management of the whole area; how software could reduce or prevent errors; and what happens where incorrect or late returns are filed, wholly or partly due to technology failures.

The resulting discussion paper isn’t about Making Tax Digital for Income Tax, although the imminent adoption of new software systems by some 2.7 million individuals is a good catalyst for a wider look at this area.

Shrinking numbers of paper returns

The biggest outlier in today’s digital environment, supported by commercial software, is Self Assessment, where there are about 304,000 paper returns (see tinyurl.com/mrs8z33k). The majority of individuals and some agents use the HMRC portal. However, some taxpayers file paper returns, either because HMRC hasn’t added the necessary functionality to the online portal, or because they are digitally excluded.

There is a plan to digitise inheritance tax returns from 2027, replacing about 300,000 paper returns. HMRC hasn’t released connections to enable third party software to file the 60-day UK Property return, so taxpayers must use HMRC’s online reporting. HMRC provides a Gift Aid portal for charities to upload spreadsheets, although larger ones use software to manage their claims, and very small charities may still submit paper-based claims.

Some 11,000 employers use Basic PAYE Tools, which is the only software actually supplied by HMRC. Until 2026 (when it will be withdrawn as Companies House changes its filing requirements), about 300,000 micro companies use the online CATO service to file company accounts and corporation tax returns.

Digital filing

The initial approach to filing returns digitally involved HMRC opening up an internet address to receive the stream of tagged and formatted data representing the return. HMRC required that software providers submitted test cases to demonstrate that their software worked effectively. A digital hash system (called the IRMark) was established to confirm that what the filer transmitted was exactly what was received by HMRC.

Data is sent in xml – a formatting standard that identifies individual data fields and the entry in that field. This basic system remains in use today for Self Assessment and corporation tax, as well as other returns.

However, HMRC took a major step forward in 2015 when it released its Application Programming Interface (API) strategy. APIs allow data to be exchanged between two parties, which means that HMRC can use APIs both to receive and send data in a more secure way.

APIs are the modern way to exchange data and are used very widely. Since that first announcement, HMRC has released approximately 106 APIs for online filing of tax information. Software developers have leapt at the opportunity put in front of them to develop software, initially for tax agents and larger companies, but now for individuals.

HMRC's APIs now integrate with over 2,500 products, approximately 1,100 of which are commercial products, listed on the GOV.UK pages as 'HMRC recognised'. It is understood that there are now over 4 billion API data transfers annually.

The discussion paper includes recommendations in four areas:

- HMRC setting and monitoring stronger, unified standards for all software products and their developers;
- HMRC supporting and working more closely with software developers and tax agents, for the benefit of HMRC, taxpayers and their agents;
- HMRC setting out when a taxpayer would be accepted as taking reasonable care (and therefore not face penalties) where reporting errors occur wholly or partly due to software; and
- ideas to support taxpayers to get their tax filings right, especially for those less experienced.

Software standards

The government has announced that tax agents in business (those dealing with HMRC on behalf of a taxpayer) must register with HMRC in 2026. Our discussion paper does not recommend that software developers should be part of this, as they are not tax agents (although some firms do act both as developers and as tax agents, in which case only the agent part of their business should be registered).

Instead, the authors recommend that HMRC should maintain and publish a list of recognised software developers and set overarching standards for their tax software, together with specific product-based requirements. Compliance with those

standards should be monitored by HMRC and action taken where there is evidence of failure to comply.

One of the most important areas for standards is data. This has increasing importance in the newish world of cloud-based software – which means that a taxpayer's data is not under their direct control. Access to data is essential, as without easy access a taxpayer might struggle to move to different software. The failure of a developer could mean that access could be lost, which would be costly both for the taxpayer and for HMRC.

Working with developers

HMRC supports software developers through a dedicated team: the Software Developers Support Team (SDS Team), part of the wider External Software Integration (ESI) team, which also includes Digital Relationship Management. HMRC does not test software (although at one time PAYE software was tested). HMRC does provide test cases and test data for some areas, although there is no 'sandbox' where a developer could test a new product or feature. Our report recommends adding to the team to support the additional activities of managing all the developers and standards.

The recently released Transformation Roadmap discusses the benefits of working together with developers (and tax professionals). Developers told us that they would welcome this and would be keen to help HMRC find solutions to new problems. One example where this could have helped was the 2024-25 change in capital gains tax rate. There would also be benefits in providing better routes for raising and managing problems, where it can be difficult for developers who are not tax agents to have discussions on specific taxpayer cases.

HMRC could also take some practical steps on making sure there is capacity to receive returns at key deadlines, and advertising when systems are down for maintenance – perhaps through software links which could be picked up by developers.

Help for less experienced taxpayers

One of the challenges of Making Tax Digital for Income Tax is that individuals who do not have any training in bookkeeping or accounting will start to use software for the first time. Accounting is a skill, which requires training, and is not simply managed by good software design. It is inevitable that inexperienced users will make errors. HMRC should give consideration to how best to understand the competence of individuals who maintain their own accounting records in software, as lower competence may give rise to inaccuracy and higher tax risks.

We also recommended that software developers consider how best to help less experienced individuals, including asking them to rate their own skills and adding prompts and other help appropriately. Bookkeepers told us about several categories of error which could have been prevented if software had better prompts, including double-counting purchases through downloading the data from a connected bank account and at the same time entering the invoices.

Business transactions and tax can be complicated, which suggests that HMRC should consider consulting on a range of easements to make it easier for micro-businesses to account for their transactions, reflecting the way in which digital accounting systems will receive data. For example, VAT receipts are not always provided as a matter of course and obtaining these adds to the administrative burden. HMRC should consider accepting a wider range of invoices for VAT purposes, such as itemised till receipts from retailers (with a monetary cap to minimise risks).

HMRC could also consider allowing the recording of net payments from known (and specified) platforms, where deductions simply reflect platform commission and are below a certain level. This would make it easier to record sales net of platform charges, potentially by taking the data from a business bank account.

What if it goes wrong?

HMRC has produced some helpful guidance on when reasonable excuse could apply to late filing and late payment. Computer or software failure is an example, including of course failure of HMRC’s own portals. However, nothing is said about possible errors where software is wholly or partly at fault. HMRC’s Compliance Handbook makes it clear that ‘reasonable care’ must be assessed individually. However, HMRC says nothing about when a taxpayer would be accepted as taking reasonable care where reporting errors occur wholly or partly due to software.

We recommended that HMRC should add commentary to the Compliance Handbook to help individuals. This should be kept under review to reflect technology developments, including AI.

In conclusion

Software is now a fundamental part of the tax compliance system. Building a new approach to standards will support its continued development.

‘Setting standards for tax software: Recommendations for HMRC and software developers to support taxpayers’ is a discussion paper produced for the Tax Law Review Committee by Bill Dodwell, Sally Campbell, Elizabeth Connolly and Patricia Mock. The paper is at: ifs.org.uk/tax-law-review-committee